SECTION 2. TEAM COMPOSITION AND FORMS

TEDS has formed a team for this project with the resources and manpower to support varying and concurrent tasks as necessary and authorized by the Lake County Project Manager. The **TEDS** team will be led by one of our Senior Transportation Engineers, ***Chris J. Walsh, PE***. Chris has 27 years of diverse transportation planning and traffic engineering experience. Chris serves as the Sr. Vice President of Engineering for **TEDS** and oversees staff completing traffic engineering studies and design tasks along with various transportation planning activities. Along with overseeing the various work assignments, Chris routinely completes many of the studies independently utilizing his wealth of knowledge in transportation planning and traffic engineering.

While Chris oversees and leads the Engineering group at **TEDS**, he is supported by **TEDS'** Sr. Vice President / Chief Engineer, ***Fred D. Ferrell, PE*** who will serve as the Principal-in-Charge. Fred has over 30 years of experience, specifically in traffic engineering, and understands the various types of studies and designs typically completed and associated with traffic engineering. These studies include completion of traffic signal warrant studies, intersection and corridor analyses, access management analyses, safety analyses and various other types of studies in accordance with the FHWA *Manual on Uniform Traffic Control Devices* (MUTCD) and the FDOT *Manual on Uniform Traffic Studies* (MUTS). Additionally, Fred and **TEDS'** staff have completed countless traffic signal designs, both strain poles and mast arms, on and off the state highway system along with various types of intersection designs, street lighting designs and sidewalk / multi-use trail designs. To ensure that **TEDS** continues to serve Lake County at the highest level, ***Rick Morrow, PE***, will serve as the QA/QC Manager. Rick is a highly-regarded transportation engineer with more than 27 years of comprehensive and diverse experience, including 13 years in high-level management positions with FDOT, District 5.

The **TEDS** Team brings a unique mix of technical expertise and practical experience to the project. Additionally, our team has grown in depth, experience, and capability over the last few years. In addition to Chris Walsh, Fred Ferrell, and Rick Morrow, the **TEDS** Team is committing the following additional senior staff to Lake County:

- ***Colleen Jarrell, PE*** - (Studies Group leader-27 years experience)
- ***Susanne Williams, PE*** - (Traffic Design Group leader – 30 years experience)
- ***Mike Hale, PE -*** (Roadway Design Group leader – 24 years experience)
- ***Merlynn Anderson, PE*** - (Senior Roadway Engineer – 30+ years experience)

Our senior staff has more than 200 years of collective experience, bringing a wealth of expertise on a vast array of transportation-related projects. Committing senior staff to lead the **TEDS'** team allows the Lake County Project Manager the resources and confidence of having access to years of experience and knowledge not typically available. This experience eliminates all technical and institutional learning curves. **TEDS'** team structure proposed on this project is consistent with current professional services contracts with the Florida Department of Transportation (FDOT), Volusia County Traffic Engineering, River to Sea Transportation Planning Organization and other governmental agencies completing similar types of work. This overlap of similar type projects / contracts provides numerous efficiencies and advantages for Lake County.

We have also included four (4) other firms to provide support services required for these projects. **Tierra, Inc. (Tierra)** will provide geotechnical engineering support, **Florida Bridge and Transportation, Inc. (FBT)** will provide structural engineering support, and **Barnes Ferland and Associates, Inc. (BFA)** will provide subsurface utility engineering support. **Terracon Consultants Inc.** will provide environmental support. **TEDS** regularly partners with this group of highly qualified consultants…in fact, this group has assisted us on several recent signal designs for Lake County. Additional information on each firm is provided in section 4 of the proposal.

An organizational chart is provided on the next page.

Staff Availability

TEDS is committed to client service providing high quality services on a timely basis and within budget. Each project requires unique skills and capabilities, and for that reason, we always ensure that the appropriate staff is assigned to each task assignment. Upon evaluating our current commitments, **TEDS** commits to Lake County that our team possesses the availability necessary to promptly serve the County under this contract.

Traffic Engineering Data Solutions, Inc.

LAKE COUNTY, FL
REAL FLORIDA · REAL CLOSE

TEAM ORGANIZATIONAL CHART

PRINCIPAL-IN-CHARGE
Fred Ferrell, PE

PROJECT MANAGER
Chris Walsh, PE

QA/QC MANAGER
Rick Morrow, PE

TRAFFIC OPERATIONS/ SAFETY STUDIES
Colleen Crigger, PE
Bob Agrusa, PE, PTOE
Sergio Narea, PE
Chris Roberts
Tim Hill

TRAFFIC IMPACT STUDIES
Chris Walsh, PE
Bob Agrusa, PE, PTOE
Sergio Narea, PE
Basit Ali, EI
Tim Hill

TRAFFIC DESIGN*
Susanne Williams, PE
Chris Walsh, PE
Scott Hill
Don Macher
Travis Hill
Max Goodrich
Matt Latourelle
**Signals, Lighting, Signing, Pavement Marking*

ROADWAY DESIGN
Mikal Hale, PE
Merlynn Anderson, PE
Tristan Surratt, PE
Karen O'Neil, EI
Mike Thompson, EI
Shawn Polke, EI

ITS
Alex Mims, PE
Vischal Persaud, PE
Phillip Boykin, EI
AJ Cloin, EI

TRAFFIC DATA COLLECTION
Halley Ferrell
Cameron Legaspi
Dave Mancusi
Adam Koon

GEOTECHNICAL
TIERRA
Jeremy Sewell, PE
Kenneth Symonds, PE

TIERRA GEOTECHNICAL • MATERIALS ENVIRONMENTAL • ENGINEERING

ENVIRONMENTAL
TERRACON
Brent Handley
Brett Anderson

Terracon

STRUCTURES
Florida Bridge and Transportation
Bassel Kassem, PE
Juan Valenzeula, PE

FBT

SUE
BFA
Genel Sturgeon, PSM
David Ragland, CST III

BFA

CONSULTANT

ROLE	Name	City of Residence	Florida Active Registrations Number
Principal in Charge	Fred D. Ferrell, PE		41902
Project Manager	Chris Walsh, PE	DeBary, FL	57626
QA Manager	Rick Morrow, PE	Orange City, FL	54697
Senior Traffic Engineer	Colleen Crigger, PE	Sanford, FL	60128
Senior Traffic Engineer	Susanne Williams, PE	DeLand, FL	77095
ITS Engineer	Alex Mims, PE	DeBary, FL	83096
Senior Roadway Engineer	Mike Hale, PE	New Smyrna Beach, FL	58048
Senior Roadway Engineer	Merlynn Anderson, PE	Oviedo, FL	49486
Senior Traffic Engineer	Bob Agrusa, PE/PTOE	Tampa, FL	43846
Traffic Engineer	Sergio Narea, PE	DeLand, FL	88343
Traffic Engineer	Vischal Persaud, PE	Maitland, FL	87389
Roadway Engineer	Tristan Surratt, PE	Sanford, FL	90695
Data Collection Manager	Halley Ferrell	DeLand, FL	N/A

SUB CONSULTANTS

ROLE	Company Name	Address	Individual's Name Assigned	Projected % of Overall Work	Worked with Prime before (YES/NO)	Individual Worked with Prime before (YES/NO)
Structural Engineer	Florida Bridge and Transportation, Inc.	Orlando, Florida	Bassel Kassem	5%	YES	YES
Geotechnical Engineer	Tierra	Winter Garden, Florida	Jeremy Sewell	5%	YES	YES
Subsurface Utility Exploration	BFA Environmental	Orlando, Florida	Jay Sturgeon	3%	YES	YES
Environmental	Terracon	Jacksonville, Florida	Brent Handley	3%	YES	YES

ATTACHMENT 4 **LOCATION PERCENTAGE OF WORK TO BE COMPLETED** 20-0940

Address of Prime Consultant's designated office where the majority of work will be performed	
Street	80 Spring Vista Drive, Suite 200
Street 2	
City	DeBary
State	Florida

Percentage of total overall fees projected to be performed by the Prime Consultant's office above (Do not include percentage of fees anticipated to be performed on this project by sub-consultants)	98.00%

Address of Prime Consultant's other offices where work will be performed (if applicable)	
Street	3710 Corporex Park Drive, Suite 130
Street 2	
City	Tampa
State	Florida

Percentage of total overall fees projected to be performed by the Prime Consultant's office above (Do not include percentage of fees anticipated to be performed on this project by sub-consultants)	2.00%

Percentage of total overall fees projected to be performed by firms located within Lake County including the Prime Consultant and Subconsultants.	0.00%

CHRIS J. WALSH, PE
SENIOR VICE PRESIDENT OF ENGINEERING
TRAFFIC ENGINEERING DATA SOLUTIONS, INC.

EDUCATION
BSCE / 1994/ Vanderbilt University

REGISTRATION
Professional Engineer / Florida #57626

EXPERIENCE
27 years of experience
Traffic Engineering Data Solutions
2012 – Present

AREAS OF EXPERTISE
Traffic Safety/Operational Studies, Access Management, Signal/S&PM Design, Traffic Impact Studies

SUMMARY

Mr. Chris Walsh is the Senior Vice President of Engineering for TEDS, with over 27 years of diverse experience in both transportation planning and traffic engineering projects within Florida, including detailed operational assessments of roadways, intersections and interchanges, safety evaluations, and traffic operation design. He has served as project manager on a significant number of continuing contracts and has a proven ability to lead and integrate multiple disciplines, leading projects from the initial planning stages, developing real-world implementable solutions, and ultimately directing a team of design engineers during plans preparation. Chris provides public and private sector perspectives which have been beneficial to public clients when long range planning, operational needs and funding considerations are addressed.

TRAFFIC OPERATIONAL & SAFETY STUDIES

Prepared more than 400 studies including intersection/corridor safety studies, pedestrian safety studies, mid-block pedestrian crossing studies, signal warrant analyses/qualitative assessments, ICE analyses, etc., such agencies as FDOT-1, FDOT-5, FTE, Orange County, Seminole County, Volusia County, Lake County, along with numerous cities. Chris has been called to lead unique projects like the Volusia County Beach Safety Study, and was responsible for lane repurposing studies in Daytona Beach Shores and DeLand.

TRAFFIC ENGINEERING DESIGN

Prepared and reviewed a significant number of traffic signal and signing/pavement marking (S&PM) plans in the central Florida area. His experience includes the design of traditional signals, emergency signals, interchange signals, S&PM plans for interstate projects, plans for road-diets, parking plans, LAP-funded projects, and design-build projects. Clients have included FDOT, FTE, Eastern Federal Lands (FHWA), Volusia County, Lake County, Daytona Beach, Port Orange, and Melbourne, along with a number of private developers.

TRANSPORTATION PLANNING

From design traffic, to long-range evaluations, to interchange simulation, Chris has a demonstrated ability to effectively analyze future transportation needs on a wide-array of projects. Given his unique ability to quickly identify creative solutions that work, he is called upon for unique projects like the lane-reduction project in DeLand along with the roundabout evaluation for SR 31 at CR 78 in FDOT-1 to evaluate the benefits between roundabout and signalized control. With his common-sense approach, vast volume forecasting expertise, and utilization of various analytical tools, he has a proven ability to successfully take on highly-challenging transportation planning assignments.

GROWTH MANAGEMENT/LAND DEVELOPMENT

He has assisted numerous communities with their concurrency management systems, development of TIA guidelines, mitigation negotiations, and application of proportionate share. His traffic operations and design experience enable him to identify projects that address deficiencies created by development. Chris has also provided comprehensive transportation planning/ engineering services for more than 20 DRIs and provided expert witness services related to growth management.

SELECTED PROJECTS

FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT 1 DISTRICTWIDE TRAFFIC STUDIES

As the project manager for the safety studies, Chris is responsible for the preparation and submittal of multiple types of traffic operations and safety-related studies, including signal warrant analyses, intersection and corridor analyses, and composite studies that were comprised of different elements of the above studies. These studies included data collection, field reconnaissance, crash analysis,

qualitative assessment, and development of recommended improvement diagrams. Safety studies include detailed development of improvement concepts, a cost estimate, benefit-cost analysis and net present value assessment.

FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT 1 DISTRICTWIDE ACCESS MANAGEMENT

Chris currently serves as the primary engineer on this contract, leading the review of more than 200 driveway permit submittals with primary review emphasis on the traffic analysis, driveway connections and conformance to FAC 14-96/14-97 and FDOT's Access Management Guidebook. Additionally, Chris oversees the completion of all assigned studies under this contract including access management studies for multiple corridors. These studies include data collection, field reconnaissance, crash analysis, qualitative assessment, and development of recommended access management plans to accommodate all travel modes.

FLORIDA DEPARTMENT OF TRANSPORTATION – DISTRICT 5: DISTRICTWIDE COMMUNITY TRAFFIC SAFETY CONTRACT

With Chris serving as Project Manager on our 2nd consecutive contract, TEDS has been assigned more than 75 work orders pertaining to the study and design of safety-related improvements within District 5. Safety studies include detailed development of improvement concepts and a cost estimate. Additionally, through data provided from such sources as the Highway Safety Manual and FHWA's CMF Clearinghouse, a benefit-cost analysis is conducted to determine if the proposed improvements qualify for safety funds. Under this contract, TEDS prepared signing and pavement marking plans for the implementation of changes at interchanges throughout District 5 to deter Wrong Way driving per the Department's initiative. TEDS also prepared audible pavement marking plans for sections of US 1, SR 520, and SR 50 and the SunRail Rail Dynamic Envelope striping plans. TEDS prepared a wide array of studies including intersection safety studies, curve evaluation safety study on I-95, lighting justification report on US 17/92, lane departure studies on US 1 and US 192, access management studies for SR 436, SR 19, SR A1A, US 441, and SR 551, SR 482 Skid Hazard Safety study, Amelia Avenue Road Diet Safety study, and pedestrian safety studies for SR 438, SR 423, US 192, SR 518, SR A1A.

FLORIDA DEPARTMENT OF TRANSPORTATION – DISTRICT 5: TRAFFIC OPERATIONS CONTINUING SERVICES CONTRACT

On our 3rd consecutive contract, TEDS (with Chris as one of the lead engineers) has been assigned more than 500 work orders for providing various transportation engineering services including the preparation of signal plans for numerous mast-arm replacement projects (including Altamonte Springs, Daytona Beach, and Maitland) and span- wire rebuild projects. TEDS also prepared the engineering plans for the adaptive signal system (22 intersections) on US 92 within the City of Daytona Beach. Other projects have included the preparation of push-button plans for turn-lane improvements, median modifications, and modifications to school zones as well as the preparation of detailed concepts pertaining to the implementation of contra-flow lanes on SR 528, I-4, and I-75. Also included are more than 200 traffic operational studies including spot-speed studies, mid-block pedestrian crossing studies, signal warrant analyses, intersection analyses, corridor analyses, highway lighting justification analyses, left-turn phase warrant studies, ICE analyses, and safe-curve speed studies.

VOLUSIA COUNTY CONTINUING TRAFFIC ENGINEERING

As one of Volusia County's leading transportation engineering firms, TEDS (led by Chris as Project Manager) has been assigned more than 70 work orders (over the course of 3 consecutive contracts) for providing a wide array of transportation engineering services. Under this contract, TEDS has prepared signal designs for several intersections including Saxon Boulevard/Enterprise Road, Williamson Boulevard/Midway Avenue, Clyde Morris Boulevard/Strickland Road, and Taylor Road at Crane Lakes Boulevard. TEDS also prepared engineering plans for three (3) pedestrian signals on S. Atlantic Avenue in New Smyrna Beach. TEDS has also provided various transportation engineering services including the preparation of a Beach Parking Management Concept Report, development of County guidelines for parking restrictions at mid-block crosswalks, sight distance evaluation for Turnbull Bay Road curve improvement, left-turn phase and signal warrant analyses, residential traffic control plan, school zone analysis, and an assessment of department operations. TEDS also was called upon to conduct approximately 250, 48-hour bi-directional counts for the annual traffic count program.

LAKE COUNTY CONTINUING TRANSPORTATION ENGINEERING

Project Manager for this contract (our 3rd consecutive contract) for which TEDS provided a vast array of traffic operational studies including intersection analyses, ALL-WAY STOP analyses, signal warrant analyses, safe-curve evaluations, speed studies, truck studies, and a school zone evaluation. In addition, TEDS prepared signal plans for more than 10 intersections.

US 1 MAST ARM CONVERSION IN HOLLY HILL – DISTRICT 5 (438982-1)

As Project Manager, Chris led the design team for the conversion of the US 1 signals at 6th, 8th, Walker, and Flomich Streets from span wire to mast arm. With very restricted right of way, extensive utility conflicts, and an on-going City-led project of undergrounding the overhead utilities, extensive care was taken to develop improvements, including the separation of pedestrian ramps, that maximized available right-of-way and utilized creative construction methods to design cost-effective improvements. Right-of-way acquisition was minimized through detailed utility evaluation/coordination and through obtaining license agreements from adjacent businesses to modify driveways for purposes of providing locations for new pedestrian ramps and signal pole accommodation.

FRED D. FERRELL, PE
CHIEF ENGINEER
TRAFFIC ENGINEERING DATA SOLUTIONS, INC.

EDUCATION
BSCE /1985/ West Virginia Institute of Technology

REGISTRATION
Professional Engineer / Florida #41902

EXPERIENCE
30+ years of experience
Traffic Engineering Data Solutions / 2007 – Present

AREAS OF EXPERTISE
Project Management
Traffic Operational Studies
Traffic Safety Studies
Access Management
Traffic Engineering Design
ITS

SUMMARY

Mr. Fred D. Ferrell, PE is the Chief Engineer for Traffic Engineering Data Solutions, Inc. (TEDS) and has over 30 years of engineering experience developing and providing cost-effective solutions to client transportation needs. Fred's professional experience includes transportation engineering and management with the Florida Department of Transportation (FDOT) District 5 along with the private sector. Fred's transportation engineering experience includes expertise in access management, traffic operational studies, traffic safety studies, traffic engineering design and intelligent transportation system (ITS) development and operations. Fred's management experience includes oversight and direction of the Operations Department at FDOT District 5, including the offices of Traffic Operations, Construction, Maintenance, Materials and Research, Traffic Safety and Occupational Safety/Emergency Management. The following are a general overview of areas of expertise Fred has been involved with or responsible for their successful implementation:

TRAFFIC OPERATIONAL STUDIES

Prepared or been responsible for 5,000+ traffic operational studies including spot-speed studies, mid-block pedestrian crossings, signal warrant analyses, intersection analyses, corridor analyses, highway lighting justification analyses and various safety studies for FDOT, Volusia County, Lake County, River to Sea TPO, and numerous cities in Central Florida. Fred has been called to lead unique projects that are challenging from not only technical aspects, but also institutional aspects.

ACCESS MANAGEMENT

Fred was instrumental in implementation of the Access Management process within FDOT, participating in numerous statewide workshops and implementing / applying access management guidelines along the state highway system in FDOT District 5. Fred completed specific access management studies on state highways in Central Florida that compared before and after statistics of safety and traffic operations improvements. Additionally, Fred has completed access management studies of existing roadways and developed future plans for median access control on numerous state roadways in Central Florida.

TRAFFIC ENGINEERING DESIGN

Prepared and reviewed a significant number of traffic signal plans, lighting plans, and signing and pavement marking (S&PM) plans in the Central Florida area on State, County and City roadways. Fred's experience includes the design of span wire and mast arm signals, pedestrian signals, S&PM plans for interstate projects, plans for a road- diet, LAP-funded projects, roadway and pedestrian lighting plans and design-build projects. Clients include FDOT, Florida's Turnpike Enterprise (FTE), Central Florida Expressway Authority (CFX), Volusia County, Lake County, Brevard County, Holly Hill, Port Orange, Melbourne, South Daytona, DeBary, Cape Canaveral, Satellite Beach, Orange City, Ormond Beach, Daytona Beach Shores and Daytona Beach.

ITS

Fred has been involved in planning, design, operation and maintenance of ITS systems in Central Florida since conception. Fred's experience includes the original FDOT District 5 ITS Master plan, I-4 Surveillance design and construction of early phases, RTMC concept / design / implementation / operation, I-4 expansion into FDOT District 1 in Polk County, I-10 License Plate Reader design in Tallahassee, CFX ITS design on SR 408 at SR 50 and CFX ITS design on Wekiva Parkway Section 1A.

SELECT PROJECT EXPERIENCE:

FLORIDA DEPARTMENT OF TRANSPORTATION – DISTRICT 1: TRAFFIC OPERATIONS CONTINUING SERVICES CONTRACT
Project Manager overseeing traffic operations studies, designs and data collection along with coordination with various sub-consultants (200+ work orders). In addition to being Project Manager, also part of Quality Assurance process on studies. The following is a representative sample of the studies completed to date:

- Lake Alfred Corridor Study, US 17/92 from US 17 to Rochelle Avenue
- State Road 64 at 7th Street West Traffic Signal Warrant Study
- State Road 739 at Landing View Road and Idlewild Street Traffic Signal Warrant Study
- State Road 31 at Bermont Road Traffic Signal Warrant Study
- State Road 776 at Old Englewood Road Traffic Signal Warrant Study
- State Road 64 Speed Study near Manatee Elementary School
- State Road 572 (Airport Road) at Drane Field Road Delay Study
- State Road 33 Speed Study approaching Deen Still Road

FLORIDA DEPARTMENT OF TRANSPORTATION – DISTRICT 5: TRAFFIC OPERATIONS CONTINUING SERVICES CONTRACT
Project Manager overseeing traffic operations studies, designs and data collection along with coordination with various sub-consultants (300 work orders). In addition to being Project Manager, also part of Quality Assurance process on studies and designs along with being the Engineer of Record on the following studies and designs:

- Interstate 95 northbound and southbound off ramps at State Road 524 Traffic Signal Warrant studies
- Interstate 4 exits at Lake Ivanhoe and State Road 50 lane assignment qualitative assessment study
- US 17/92 Access Management study between Orange City and DeLand
- State Road 19 at Cassidy Street pushbutton turn lane design
- State Road 434 at State Road 436 qualitative assessment study
- US 441 at Bradshaw Road Left Turn Phase Warrant study
- State Road 514 at Corey Road and Weber Road Conceptual Design study for left turn lanes
- State Road 436 at University Boulevard qualitative assessment study
- State Road 50 Lighting Justification Report between Avalon Road and State Road 420
- State Road 50 at Vila City Road Traffic Signal design (strain pole)

FLORIDA'S TURNPIKE ENTERPRISE: TRAFFIC ENGINEERING CONTINUING SERVICES

Project Manager overseeing multiple task work orders for various assignments as follows:

- ESCAR: Guide Signing Evaluation(s) on various FTE corridors (Mainline, Polk Parkway and Suncoast Parkway)
- Guide Signing Upgrade Design Plans along the Polk Parkway, Suncoast Parkway, System-wide (Left Exits), Northern Coin
- Toll Signing and Wrong Way Signing at Interchanges
- Service Plaza Dynamic Message Signs (DMS) and CCTV Camera System (Mainline and Veterans Parkway)
- Advance Signal Control Technology Feasibility Study (Mainline)
- Lane Departure Crash Analysis and Feasibility Study (Systemwide)
- Limited Access Right of Way Relocation Evaluation (Suncoast Parkway)

CENTRAL FLORIDA EXPRESSWAY AUTHORITY: ITS AND LIGHTING DESIGN

Project Manager and / or Engineer of Record overseeing the design of the following component plan sets:

- State Road 429 (Wekiva Parkway): Roadway and underdeck lighting along with ITS for project 429-202
- State Road 408: Roadway lighting, ITS and traffic signals for the eastbound mainline realignment and eastbound off-ramp improvements on State Road 408 at State Road 50
- System-wide DCS Replacement Project: Provided fiber inventory and design along SR 408, SR 528 and SR 417

FLORIDA DEPARTMENT OF TRANSPORTATION – DISTRICT 5: INTERSTATE 4 ULTIMATE

Discipline lead for ITS and signals during RFP development process. Additionally, part of review team for all traffic component plan sets, including signing, lighting, ITS and traffic signalization. Currently serving as discipline lead for signals and part of review team for signing and pavement marking and temporary traffic control plans.

RICHARD B. MORROW, PE
SR. VICE PRESIDENT OF TRANSPORTATION ENGINEERING
TRAFFIC ENGINEERING DATA SOLUTIONS, INC.

EDUCATION
BSCE / 1995 / University of Central Florida

REGISTRATION
Professional Engineer / Florida #54697

EXPERIENCE
27 years of experience
Traffic Engineering Data Solutions / 2018-Present

AREAS OF EXPERTISE
Project Management
Work Program Funding
Traffic Operations Studies
Access Management
S&PM/Signal /ITS Design

SUMMARY

Mr. Rick Morrow is the Sr. Vice President of Transportation Engineering for TEDS. Rick has over 27 years of transportation engineering design and project management experience, the majority of which was with the Florida Department of Transportation (FDOT). For 12 years he served as the District Traffic Operations Engineer, and was responsible for all operational studies, traffic regulations, access management, and ITS for District Five. Rick represented the Department in public meetings/ hearings and in court proceedings. Most recently, Rick served as the District Director of Transportation Development, overseeing all aspects of Design, Work Program Management, PD&E, Modal Development, Local Agency Projects, and Right of Way. This included oversight of 100's of ongoing projects, with monthly performance reviews and strict accountability.

TRAFFIC OPERATIONAL STUDIES

Rick has prepared traffic operational studies including retiming studies, signal warrant analyses, and lighting justification reports. These also include spot-speed studies, mid-block pedestrian crossings, roundabout screening and layout, intersection analyses, corridor analyses, and many types of Safety studies.

WORK PROGRAM FUNDING

Rick participated in the development of the District Five Work Program as a Department Head and Director. Working with various fund types, legislative appropriations, and county specific qualifiers, Rick supported balancing strategies as both projected revenues and realized costs were adjusted through WP cycles. Performance measures, specific project commitments, MPO/TPO priorities, and finances require ongoing rebalancing and discussions that Rick regularly participated in at both district and statewide levels.

INTELLIGENT TRANSPORTATION SYSTEMS

Rick oversaw District Five's ITS section through their integration to Transportation Systems Management & Operations (TSM&O). This included construction, operations, and maintenance of the interstate system while also implementing significantly more complex arterial systems with performance metrics. The Integrated Corridor Management (ICM) strategy then ties these systems together, often across jurisdictional boundaries, to implement real-time traffic management. Rick was also instrumental in data management strategies, leading to new opportunities to partner with transportation providers and connected vehicles. Rick also led the team that developed the District Five Regional Transportation Management Center in Sanford, a state of the art facility designed for multi-modal and multi-agency management.

ACCESS MANAGEMENT

Rick oversaw the Access Management process for FDOT-5, participating in numerous public meetings and council meetings. Additionally, Rick has completed access management studies of existing roadways and developed future plans for median access control.

TRAFFIC ENGINEERING DESIGN

Rick has prepared and reviewed a significant number of traffic signal, roadway lighting, and signing and pavement marking (S&PM) plans for projects in Florida. His experience includes the design of traditional signals, pedestrian hybrid beacons, emergency signals, interchange signals, signing and pavement marking plans for interstate and arterial projects, and lighting plans.

PERMIT COORDINATION

Rick oversaw the operational reviews of driveway connection permits submitted by developers. In many cases there were significant challenges that Rick and his group were able to overcome through creative workshops with the developer's team.

SELECTED PROJECTS

FDOT DISTRICT 5 – I-4 ULTIMATE

This project includes reconstruction of I-4 for 21 miles through Orlando, adding express lanes, toll gantries, ramp metering, and alternative design interchanges. Rick served on the Technical Review Committee during the selection process and continued involvement in a review and approval role for operational issues during design.

FDOT DISTRICT 5: US 92 AT MAINLAND HIGH SCHOOL

This project included a Pedestrian Hybrid Beacon (PHB), also known as a HAWK pedestrian traffic signal. This project included acquiring right of way from the Volusia County School Board and Daytona State College to provide space for the mast arm equipment. Rick managed this project, which included presentations to the School Board for approval of a land donation request, coordination of work to be completed on school property in accordance with Florida laws to protect students from predators, as well as roadway and drainage modifications. This project became a fast-track project in order to be completed prior to the school year beginning, requiring expedited scheduling of right-of-way acquisition through donations.

FDOT DISTRICT 5: US 92 AT DAYTONA STATE COLLEGE / TARRAGONA PLAZA

This project involved the design of a signalized Restricted Crossing U-turn (RCUT) traffic signal with pedestrian features traversing the center median. Rick served as the project manager for this project, which was fast-tracked to be completed prior to the school year beginning in order to serve pedestrians crossing to Daytona State College. This project required coordinating with a private property owner to successfully obtain a right-of-way donation for the mast arm placement.

FDOT DISTRICT 5: SR 429 WEKIVA PARKWAY

These projects involved design of elevated limited access roadway with frontage roads traversing through sensitive environmental and residential areas. Rick participated in the development of design alternatives including frontage roads and roundabouts to meet the needs of the community with responsible and appropriate changes to the overall design of the Parkway.

FDOT DISTRICT 5: I-4 BEYOND THE ULTIMATE

This project includes the widening of I-4 in Polk, Osceola, Orange, Seminole and Volusia Counties to provide express lanes. Rick was heavily involved with sequencing, funding, Right of Way acquisition, and overall success for this complex project.

FDOT DISTRICT 5: SR 44 AT GRAND AVENUE ROUNDABOUT

This project included a streamlined schedule to reconstruct the intersection from a two-way stop control to a roundabout. Rick coordinated with multiple teams for quick implementation, going from preliminary design to completion of construction in less than 12 months. This roundabout is designed to handle the extra long loads from a nearby manufacturer as well as a future multi-modal trail that is in the planning stages and expected to utilize the intersection.

FDOT DISTRICT 5: I-95 AND VIERA BOULEVARD INTERCHANGE

Rick coordinated with the design team to explore operational alternatives to meet local needs and objectives. Ultimately a Diverging Diamond Interchange was selected. With pedestrian and multi-modal use expected to increase in the future, special consideration was given to safe pedestrian crossings, especially traversing the free-flow right turn ramps.

SR 821/HEFT EXPRESS LANES FROM NW 106TH ST. TO I-75

Rick served as the lead ITS reviewer for this project that will construct one express lane in each direction of travel along SR 821/HEFT. As an interface between the Turnpike and FDOT District 4 express lanes at the I-75 and SR 821/HEFT interchange is included in the project, ample consideration was given to the interplay between these two agencies, with the goal of providing a seamless transition from a driver's perspective between the two express lane systems that also meets the particular requirements and operational objectives of both the Florida's Turnpike Enterprise and FDOT District 4. ITS elements from Florida's Turnpike, FDOT District 4, and FDOT District 6 are all included in the project scope.

FLORIDA'S TURNPIKE ENTERPRISE - TRAFFIC ENGINEERING CONTINUING SERVICES

Task Work Order Manager and/or Engineer of Record on various assignments, including Advanced Signal Control Technology Assessment for evaluation of FTE interchanges and nearby corridors. Assessments included Florida's Turnpike Mainline, State Road429, and State Road 417. Additionally provided quality reviews for numerous assignments.

MIKAL R. HALE, PE
VICE PRESIDENT OF CIVIL ENGINEERING
TRAFFIC ENGINEERING DATA SOLUTIONS, INC.

EDUCATION
BSCE / 2017/ Florida State University

REGISTRATION
Professional Engineer / Florida #58048

EXPERIENCE
24 years of experience
Traffic Engineering Data Solutions / 2011 – Present

AREAS OF EXPERTISE
Project Management
Roadway Design
Drainage Design
Civil Land Development
Permitting

SUMMARY

Mr. Mikal R. Hale, PE is a Senior Project Manager and Vice President for Traffic Engineering Data Solutions, Inc. (TEDS). His experience includes design and permitting of roadways, sidewalks, trails, residential subdivisions, commercial development/redevelopment, utilities, and storm water management systems. Mike routinely serves as the Engineer of Record for FDOT minor roadway design projects, and he has also completed numerous federally funded Local Agency Program (LAP) projects for local agencies. Municipalities and governmental agencies served include the Florida Department of Transportation (FDOT), the City of Port Orange, the City of Daytona Beach Shores, the City of Orange City, the City of New Smyrna Beach, the River to Sea Transportation Planning Organization (TPO), the City of Holly Hill, the City of Edgewater, and the City of Daytona Beach. Additionally, Mike has the expertise required to complete all aspects of civil land development projects, ranging from initial due diligence through to final certification of construction completion.

ROADWAY DESIGN

Mike has managed over 50 minor roadway design projects, each with unique challenges to overcome and varying levels of complexity. Some of the more straightforward projects include turn lanes, intersection improvements, and other safety upgrades routinely implemented through FDOT's pushbutton process, as well as LAP sidewalk / trail designs for local agencies. Other projects completed are more complex, such as roadway reconstruction projects that involve extensive milling & resurfacing or complete pavement reconstruction for reconfiguration of lanes, cross- slope correction, extensive collection system modifications, and extensive utility adjustment or rehabilitation. In addition to roadway design and permitting, Mike is very familiar with preparing bid packages for municipal roadway projects with specifications and contract documents, and he has provided extensive construction administration.

DRAINAGE DESIGN

Mike has spent his entire career designing both linear roadway / sidewalk projects and land development projects in the Central Florida areas, each which involved a drainage design component. As a result, he is extremely familiar with the local drainage design criteria set forth by the agencies that have jurisdiction, including local agencies, the various Water Management Districts in Central Florida (SJRWMD, SFWMD, & SWFWMD), and FDOT. His expertise covers all aspects of drainage design and modeling, including basinology and drainage mapping, storm water management facility design, collection system design, cross-drain analysis, spread calculations, floodplain analysis and compensating storage, open channel design, etc.

CIVIL LAND DEVELOPMENT

Whether preparing site development plans for private sector clients, or completing development review for public sector clients, Mike's expertise also extends deep into the realms of land development, which fortifies his understanding of the civil engineering practices that underlie all projects, such as erosion control, horizontal control and layout, grading, drainage, earthworks, utility design, cost estimates, permitting, construction phase services, etc. He has successfully completed over 150 land development projects for both private sector and public sector clients, ranging from small self-contained projects to large master planned developments extending over thousands of acres.

PERMITTING

Essential for most land development projects, Mike has tremendous expertise in obtaining the various permits required for all types of civil engineering projects in Central Florida. He maintains excellent working relationships with the reviewing agencies built upon decades of continually submitting quality designs for their review, which lead to expeditious reviews and issuance of permits.

LAKE COUNTY: CR 473 FROM TREADWAY SCHOOL ROAD TO CR 44

Project Manager overseeing roadway design for this safety project to replace traffic signage and provide profiled thermoplastic & retroreflective pavement markers over 2.04 miles of CR 473, as well as widening through 2,310 feet of a horizontal curve to add paved shoulders, which included milling & resurfacing cross-slope correction to achieve the required super elevation rate. The project includes redesign of intersecting side streets and driveways for connection, and reconstruction of the roadside swale system to accommodate runoff from the additional impervious areas while maintaining existing drainage patterns.

FLORIDA DEPARTMENT OF TRANSPORTATION – DISTRICT 5: DISTRICTWIDE COMMUNITY TRAFFIC SAFETY PROGRAM (CTSP) CONTINUING SERVICES CONTRACT

- I-95 at SR 519 Ramps Resurfacing: Engineer of Record responsible for plans preparation for the milling and resurfacing of the northbound and southbound I-95 off-ramps to SR 519
- US 301 and NW 77th: Engineer of Record overseeing plans preparation for left turn lane on US 301 at NW 77th including cross sections and drainage analysis for reduction of median swale
- SR 436 Access Management Study: Assess drainage modifications and milling/resurfacing required for creation of a raised median along 0.49 miles of SR 436 with directional openings to provide access management for improved safety
- US-1 (Brevard County) Audible Pavement Marking: Engineer of Record for design of 1.3 miles of shoulder added to the median of the existing roadway with associated drainage improvements
- SR 551 Access Management Study: Assess drainage modifications, utility adjustments, and milling/resurfacing required for creation of a raised median with directional openings to provide access management for improved safety

CITY OF ORANGE CITY: W. FRENCH AVENUE TRAILS

Project Manager for the following LAP projects to implement missing components of bicycle / pedestrian improvements that provide connectivity between US 17-92 and the Volusia County Spring-to-Spring Trail system near Blue Springs State Park:

- W. French Ave. Sidewalks (aka Little French): 1.10 miles of sidewalk with construction of gravity walls, as well as reconstruction of the adjacent bike lane, roadside swales, and driveways to accommodate the sidewalk
- W. French Ave. Shared Use Path (aka Big French): 3,300 feet of shared use path, including a pedestrian bridge over the Central Florida Rail Corridor (CFRC) and custom retaining wall structures

CITY OF PORT ORANGE: CONTRACT FOR DESIGN OF SPECIFIC LAP SIDEWALK PROJECTS

Engineer of Record responsible for preparation of construction plans and bid documents meeting federal requirements for several projects completed under the contract, including the following:

- S. Spruce Creek Road Shared Use Path: 0.99 miles of shared use path along a minor arterial roadway for recreation
- Herbert Street Right Turn Lane Improvements at Clyde Morris Blvd.: 550 feet of right turn lane and sidewalk improvements, with modification of the traffic signal at Clyde Morris Blvd. (CR 483)
- McDonald Road Sidewalks from Sauls Street to 6th Street: 0.51 miles of sidewalk improvements, with gravity wall and reconstruction of a horizontal roadway curve to accommodate improvements within the existing right of way
- Victoria Gardens Blvd.: 0.35 miles of sidewalk for improved safety of school children at Sweetwater Elementary

CITY OF EDGEWATER: FLAGLER AVENUE SIDEWALKS FROM 12TH STREET TO PARK AVE.

Engineer of Record responsible for preparation of construction plans for 0.914 miles of sidewalk along this local road with LAP assistance and preparation of bid documents meeting federal requirements

FLORIDA DEPARTMENT OF TRANSPORTATION – DISTRICT 5: TRAFFIC OPERATIONS CONTINUING SERVICES CONTRACT

- US 27 / 441 at Spring Lake Road: Engineer of Record that provided oversight of plans preparation for left turn lane on US 27 / 441 at Spring Lake Road including cross sections and drainage analysis for addition of a directional median
- SR 421 at Yorktowne Blvd.: Engineer of Record that provided oversight of plans preparation for an additional left turn lane on US 421 at Yorktowne Blvd. with a directional median before the intersection to address heavy U-turn volumes, including cross sections and drainage analysis
- SR A1A at 3rd Street: Engineer of Record that provided oversight of plans preparation for installation of curb islands and adjustment of crosswalks and advance pedestrian warning signs

COLLEEN T. CRIGGER, PE
SENIOR TRANSPORTATION ENGINEER
TRAFFIC ENGINEERING DATA SOLUTIONS, INC.

EDUCATION
B.S. Environmental Engineering/ University of Central Florida/1995

REGISTRATION
Professional Engineer / Florida #60128

EXPERIENCE
27 years of experience
Traffic Engineering Data Solutions / 2017 – Present

AREAS OF EXPERTISE
Traffic Operations
Traffic Safety
PD&E
Public Involvement

SUMMARY

Ms. Colleen Crigger is a Senior Transportation Engineer with over 27 years of transportation engineering and planning experience. She has experience working on Florida Department of Transportation (FDOT) districtwide design traffic, districtwide traffic operations, districtwide community traffic safety program, districtwide access management, districtwide community awareness and corridor studies, as well as similar projects for county and municipal agencies. Colleen leads the Traffic Studies Group with multiple studies for FDOT D-5, Volusia County and Lake County. Colleen's major responsibilities have included traffic operations, safety, project development and environment (PD&E) studies, and public involvement.

TRAFFIC OPERATIONAL STUDIES

Colleen has prepared more than 300 traffic operational studies including spot- speed studies, mid-block pedestrian crossings, signal warrant analyses, access management evaluations, lighting justification reports and corridor analyses for such agencies as FDOT, Volusia County, Lake County, along with numerous cities within Central Florida.

TRANSPORTATION PLANNING

Colleen has prepared numerous planning studies including design traffic, traffic impact analyses and various airport multi-modal, way finding and signage and roadway opportunity and constraints projects. She also served as the Assistant Project Manager for the Statewide Access Management contract that included the development of an access management process to be used on all FDOT planning, PD&E and design projects. In addition to the manual, Colleen assisted with the preparation for the access management training seminars at each FDOT District Office.

PUBLIC INVOLVEMENT

Colleen has managed, coordinated and implemented over 50 successful public involvement campaigns for a wide range of projects, during various phases, including project planning (High Speed Rail), PD&E studies (interstate, state roadway and local roadway widening projects), design projects (resurfacing and widening projects), access management modifications, pedestrian bridges, noise barrier wall construction, and city park improvement projects.

SELECTED PROJECTS

FLORIDA DEPARTMENT OF TRANSPORTATION – DISTRICT 5: DISTRICTWIDE COMMUNITY TRAFFIC SAFETY CONTRACT

TEDS has been assigned more than 75 work orders pertaining to the study and design of safety-related improvements within District 5. Safety studies include detailed development of improvement concepts and a cost estimate. Additionally, through data provided from such sources as the Highway Safety Manual and FHWA's CMF Clearinghouse, a benefit-cost analysis is conducted to determine if the proposed improvements qualify for safety funds. Under this contract, TEDS prepared signing and pavement marking plans for the implementation of changes at interchanges throughout District 5 to deter Wrong Way driving per the Department's initiative. TEDS also prepared audible pavement marking plans for sections of US 1, SR 520, and SR 50 and the SunRail Rail Dynamic Envelope striping plans. TEDS prepared a wide array of studies including intersection safety studies, curve evaluation safety study on I-95, lighting justification report on US 17/92, lane departure studies on US 1 and US 192, access management studies for SR 436, SR 19, SR A1A, US 441, and SR 551, SR 482 Skid Hazard Safety study, Amelia Avenue Road Diet Safety study, and pedestrian safety studies for SR 438, SR 423, US 192, SR 518, SR A1A.

FLORIDA DEPARTMENT OF TRANSPORTATION – DISTRICT 5: TRAFFIC OPERATIONS CONTINUING SERVICES CONTRACT

Colleen previously served at the Project Manager of this contract for over 10 years and currently serves as the Studies Group Leader for the TEDS' team, overseeing the assignment and completion of all assigned studies. TEDS has been assigned more than 300 work orders for providing various transportation engineering services. Traffic operational studies have included spot-speed studies, mid-block pedestrian crossing studies, signal warrant analyses, intersection analyses, corridor analyses, highway lighting justification analyses, left-turn phase warrant studies, step 1 roundabout analyses, and safe-curve speed studies. The studies require documentation and preparation of figures pertaining to existing conditions, collection and assessment of traffic volumes and/or delay data, assessment of crash history, field observations/qualitative assessment, and identification of short-term and long- term recommendations.

VOLUSIA COUNTY CONTINUING TRAFFIC ENGINEERING

As one of Volusia County's leading transportation engineering firms, TEDS has been assigned more than 35 work orders for providing a wide array of transportation engineering services. Under this contract, TEDS has prepared signal designs for several intersections including Saxon Boulevard/Enterprise Road, Williamson Boulevard/Midway Avenue, Clyde Morris Boulevard/Strickland Road, and Taylor Road at Crane Lakes Boulevard. TEDS also prepared engineering plans for three (3) pedestrian signals on S. Atlantic Avenue in New Smyrna Beach. TEDS has also provided various transportation engineering services including the preparation of a Beach Parking Management Concept Report, development of County guidelines for parking restrictions at mid-block crosswalks, sight distance evaluation for Turnbull Bay Road curve improvement, Williamson Boulevard access management evaluation, left-turn phase and signal warrant analyses, residential traffic control plan, school zone analysis, and an assessment of department operations. TEDS was also called upon to conduct approximately 250 48-hour bi-directional counts for the annual traffic count program.

LAKE COUNTY CONTINUING TRANSPORTATION ENGINEERING

Having served the County for more than five (5) years, TEDS has provided a vast array of studies including intersection analyses, ALL-WAY STOP analyses, signal warrant analyses, safe-curve evaluations, speed studies, truck studies, and a school zone evaluation. TEDS also prepared crash analyses for CR 473, Lakeshore Drive, and Lake Louisa Road, studies that ultimately led to securing federal highway funds from FDOT for funding of safety-related improvements. In addition, TEDS prepared signal plans for three (3) intersections on Hancock Road as well as interconnect plans.

GENERAL ENGINEERING CONSULTANT (GEC) SERVICES CONTRACT, FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) DISTRICT 5

Provided project management services on the US 17/92 SEIR, Carroll Street PD&E (JPA with Osceola County) and US 17/92 Corridor Evaluation in Winter Park while serving as an in-house consultant in the Environmental Management group. Provided public involvement coordination for multiple roadway projects moving into the construction phase. Projects included the widening of SR 415, SR 434, I-95, SR 50, SR 507, as well as intersection improvement projects. Responsibilities included coordination with local agencies, business owners and interested citizens, developing project newsletters, advertisements, mailings, meeting display materials and all presentation materials for the public to understand and comment the study process and the project. Also responsible for receiving and responding to all correspondence from the public.

GENERAL ENGINEERING CONSULTANT (GEC) SERVICES CONTRACT, DISTRICTS 1 AND 5, DISTRICTWIDE

Responsible for coordinating public meeting efforts for a variety of projects that included adding pedestrian refuge islands to US 41 and SR 37, as well as PD&E phase public meeting for the US 41 pedestrian bridges over Myakkahatchee Creek. Responsibilities included coordination with local agencies, business owners and interested citizens, developing project newsletters and presentation materials for the public to understand and comment on the projects and the phases/processes of the projects. Also, responsible for advertisements, mailings, display materials.

AWARDS

Safe Kids Coalition of Seminole County 2008 Program of the Year Award for outstanding participation on the Roadway Safety Assessment team in Seminole County, Florida: The RSA is part of the County's Community Traffic Safety Team, a collaboration of local agencies and citizens working together to address traffic safety concerns. Colleen coordinates the RSA team which is comprised of law enforcement officers, county engineering staff, FDOT traffic operations staff and other municipal agencies.

ROBERT (BOB) AGRUSA, PE, PTOE
SR. TRANSPORTATION ENGINEER
TRAFFIC ENGINEERING DATA SOLUTIONS, INC.

EDUCATION
BSCE / 1984/ University of Miami

REGISTRATION
Professional Engineer/Florida License #43846

EXPERIENCE
35+ years of experience
Traffic Engineering Data Solutions / 2018 – Present

AREAS OF EXPERTISE
Traffic Operations/Safety
Transportation Planning
Complete Streets/Corridor Review
Traffic Signal Design
Freight Mobility

CERTIFICATIONS
Professional Traffic Operations Engineer (PTOE)
Advanced Maintenance of Traffic Certification

SUMMARY

Mr. Bob Agrusa is a Senior Transportation Engineer and Office Leader in the TEDS' Tampa office. Bob has over 35 years of experience in traffic engineering and transportation planning, including over 30 years of project management and business development/ client service management. Bob has worked in both the private and public sectors, including his roles as County Traffic Systems Engineer and Transportation Planning Manager in Manatee County. He has experience working on various Florida Department of Transportation (FDOT) and local municipal contracts involving a variety of tasks, including traffic operations/safety studies, complete streets/corridor reviews, traffic impact study reviews, traffic signal design, signing and pavement markings design, freight mobility, and bus transit reviews. Since joining the TEDS' team, Bob has been involved in multiple assignments with FDOT Districts 1, 5, and 7 along with local counties and cities.

TRAFFIC OPERATIONS/SAFETY STUDIES

Bob has prepared various traffic operational/ safety studies, including signal warrant and turn lane warrant analyses, speed studies, retiming studies, intersection evaluations for roundabouts, intersection and corridor analyses, and other related safety studies.

TRANSPORTATION PLANNING

Bob has been involved in a variety of planning-related studies, including design traffic estimates, traffic impact analyses for multi-modal projects, traffic studies and access management reviews for state and local facilities, and transit safety/security evaluations.

COMPLETE STREETS/CORRIDOR REVIEW

Bob was a member of the FDOT Complete Streets Panel involved in preparing and reviewing the implementation document used to initiate and implement the Complete Streets policy throughout the State of Florida. This experience helped Bob work with municipalities to review local roads to incorporate appropriate Complete Streets components into the long-range vision of their community.

TRAFFIC SIGNAL DESIGN

Bob has prepared and reviewed a significant number of traffic signal plans for projects within Florida. His experience includes the design of traditional signals for arterial projects, as well as those for local corridor projects which incorporated multi-modal users, such as pedestrians, bicyclists, and moped drivers.

FREIGHT MOBILITY

Bob has managed and overseen districtwide freight mobility contract tasks involving a multitude of freight-related issues, such as preparation of a freight mobility plan, truck parking and safety reviews, identification of pavement deterioration locations and intersection conflict hotspots, and the evaluation of future freight corridors/ expansion areas to allow state and local leaders to appropriately plan for future freight- related traffic growth in the area.

SELECTED PROJECTS

FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT 1 DISTRICTWIDE TRAFFIC OPERATIONS STUDIES

Senior Traffic Engineer responsible for the preparation and submittal of multiple types of traffic operations and safety-related studies, including signal warrant analyses, intersection and corridor analyses, and composite studies that were comprised of different elements of the above studies. These studies included data collection, field reconnaissance, and conceptual schematics of recommended improvements. In addition, all road users were considered in these studies, including the most vulnerable users such as pedestrians and bicyclists.

FLORIDA DEPARTMENT OF TRANSPORTATION – DISTRICT 5: DISTRICTWIDE COMMUNITY TRAFFIC SAFETY CONTRACT

Senior Traffic Engineer responsible for the preparation and submittal of studies associated with safety-related improvements within District 5. Safety studies include detailed development of improvement concepts and a cost estimate. As part of these studies, data provided from such sources as the Highway Safety Manual and FHWA's CMF Clearinghouse, were used to conduct a benefit-cost analysis to determine if the proposed improvements qualify for safety funds.

FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT 7 DISTRICTWIDE TRAFFIC OPERATIONS SUPPORT

Project Manager responsible for the preparation and submittal of multiple types of traffic data collection-driven traffic operations studies, including 24-hour counts, 8-hour turning movement counts, spot speed studies, and pedestrian/bicyclist crossing studies involving all road users. In addition to data collection, these studies included field reconnaissance, as well as schematics and aerial layouts of road user patterns for each study area.

FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT 1 DISTRICTWIDE ACCESS MANAGEMENT REVIEWS

Senior Traffic Engineer responsible for the review of traffic-related documents, including traffic studies, associated with new, planned development along state corridors. This review involves evaluation of project attributes, including trip generation and distribution, and potential access driveways, and its impact to current access points on the state roadway system, as well as needed access-related improvements such as deceleration turn lanes and improvements/modifications to off-site intersections.

8TH STREET COMPLETE STREETS STUDY / DESIGN, CITY OF JACKSONVILLE, FLORIDA

Senior Traffic Project Engineer responsible for developing improvement concepts associated with complete streets components along the corridor, including improved / new crosswalks at signalized intersections, signing enhancements, expansion of existing bicycle lane route, and transit bus stop improvements. In addition, Engineer of Record for signal design plans associated with those conceptual improvements.

MARINER BOULEVARD CORRIDOR STUDY, HERNANDO COUNTY, FLORIDA

Project Manager responsible for the development of future design traffic volume estimates and associated improvements as part of the evaluation of this roadway. This evaluation included the review of multiple cross-section alternatives for this corridor and potential geometric and/or traffic control improvements needed at critical intersections within the study area to accommodate all road users.

FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT 7 DISTRICTWIDE GENERAL ENGINEERING CONSULTANT (GEC)

Senior Traffic Engineer responsible for supporting District 7's GEC program through involvement in multiple task assignments, including the evaluation and analyses of interstate interchange areas. These tasks involved the development of a variety of improvements, including geometric and traffic signal-based modifications, as well as signing and pavement marking additions at affected locations. In addition, the improvements considered the effects on multiple road users in the area.

BEE RIDGE ROAD & CATTLEMEN ROAD, SARASOTA COUNTY, FLORIDA

Engineer of Record for traffic signalization plans for this major high-volume intersection. The design featured the first-ever approved truss-style support structure within Florida Department of Transportation District 1 jurisdiction, to accommodate traffic signal heads and signs.

FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT 1 DISTRICTWIDE FREIGHT MOBILITY & TRADE STUDY

Project Manager responsible for the planning/implementation of a districtwide freight plan in a 12-county area. This study included the research/analysis of existing freight assets, determination of potential freight improvement projects along appropriate state and major county corridors, prioritization of these projects, and preparation of an implementation plan consistent with current statewide freight plan.

SUSANNE S. WILLIAMS, PE
SENIOR TRANSPORTATION ENGINEER
TRAFFIC ENGINEERING DATA SOLUTIONS, INC.

EDUCATION
BSCE /1990/ University of Miami
MSCE/ 1997/ Florida International University

REGISTRATION
Professional Engineer / Florida #49486

EXPERIENCE
30 years of experience
Traffic Engineering Data Solutions / 2015 – Present

AREAS OF EXPERTISE
Project Management
Traffic Operational Studies
S&PM / Signal / Lighting Design

CERTIFICATIONS
FDOT Specifications Training

SUMMARY

Ms. Susanne Williams is a Senior Transportation Engineer for TEDS. Susanne has 30 years of transportation engineering design and project management experience, the majority of which was with the Florida Department of Transportation (FDOT). For 11 years she served as the District Traffic Design Engineer and was responsible for the production and review of signing and marking plans, as well as signalization and lighting plans. Susanne has served as the project manager and/or engineer of record on over 50 projects including 7 widening and more than 30 resurfacing projects. She has also been responsible for complex roadway design plans and milling and resurfacing projects.

Since joining the TEDS' team more than 5 years ago, Susanne has been leading the Traffic Design Unit with projects for FDOT D-5, Volusia County, Central Florida Expressway Authority (CFX), Reedy Creek Improvement District (RCID), and Florida's Turnpike Enterprise.

TRAFFIC ENGINEERING DESIGN

Susanne has prepared and reviewed a significant number of traffic signal, roadway lighting and signing and pavement marking (S&PM) plans for projects primarily on the State Highway System in the Central Florida area. Her experience includes the design of traditional signals, emergency signals, interchange signals, signing and pavement marking plans for interstate and arterial projects, roundabouts and DDIs, and high mast and conventional lighting plans.

TRAFFIC OPERATIONAL STUDIES

Susanne has prepared traffic operational studies including retiming studies, signal warrant analyses, and lighting justification reports. She recently completed a series of four ERCARs (Signing Evaluations primarily) for Florida's Turnpike Enterprise (FTE). As part of these studies, she evaluated over 1200 individual signs and made recommendations for their removal or replacement. Following the completion of these ERCARs, she led the design effort for the replacement of more than 750 signs on six Signing Replacement projects for FTE on Polk Parkway, Suncoast Parkway, SR 528, SR 429, SR 417 and Florida's Turnpike.

SELECTED PROJECTS

FDOT DISTRICT 5 – SR 429 WEKIVA PARKWAY SECTION 7A, SEMINOLE COUNTY, FL

This project involves design of 3.5 miles of elevated limited access roadway with frontage roads through western Seminole County. The project also involves the design of 1 signalized intersection and 5 roundabouts. Susanne was the EOR for the signing & pavement marking, signal and lighting designs.

FDOT DISTRICT 5 – I-95 AT PIONEER TRAIL, VOLUSIA COUNTY, FL

This roadway improvement project includes the design of a new interchange on I-95 along with roadway improvements on Pioneer Trail including roadway lighting and signalization. TEDS is responsible for lighting this new interchange and the design of 3 new signals.

FDOT DISTRICT 5 - I-4 BEYOND THE ULTIMATE

This project includes the widening of I-4 in Polk, Osceola and Orange Counties to provide express lanes. TEDS is providing signing and marking and signalization concept plans for the RFP development. Susanne has been heavily involved with coordination with both D5 and FTE for the signing needs for this complex project.

FLORIDA'S TURNPIKE ENTERPRISE - TRAFFIC ENGINEERING CONTINUING SERVICES

Task Work Order Manager and Engineer of Record on numerous signing design assignments, including ERCARs for guide signing evaluation(s) on various FTE corridors, plans for guide signing upgrades on Polk Parkway, Florida's Turnpike Mainline Left Exits, Suncoast Parkway, Northern Coin system, State Road 429, and State Road 417, evaluation of various interchanges for Wrong Way signing upgrades and development of a Master Signing Plan for Golden Glades Interchange in Miami-Dade Counties.

FLORIDA'S TURNPIKE ENTERPRISE - SR 821/HEFT EXPRESS LANES FROM NW 106TH ST. TO I-75, MIAMI-DADE COUNTIES, FL
This 4.8 mile long widening project, originally with express lanes, on SR 821/HEFT, included a DDI and other surface street improvements, new lighting and new mast arm signals. Susanne is the EOR for the signing and marking. lighting and signal designs.

FLORIDA'S TURNPIKE ENTERPRISE - SR 91/FLORIDA'S TURNPIKE WIDENING FROM WEST PALM BEACH SERVICE PLAZA TO SR 710, PALM BEACH COUNTY, FL

This project consists of the widening of approximately 11.5 miles of Florida's Turnpike to provide Express Lanes. Susanne is the EOR for the signing and marking, lighting and signal designs. TEDS was also asked to provide the Master Signing Plan for the widening project to the north that extends to SR 706 (Indiantown Rd).

FDOT DISTRICT 5 - SR 44 BRIDGE REPLACEMENT OVER THE ST. JOHNS RIVER, LAKE-VOLUSIA COUNTIES, FL

The project includes a new two-lane bridge over the St. Johns River and the realignment of several local access roadways to local facilities. Susanne is the EOR for the lighting, signing and pavement marking, and signal plans.

FDOT DISTRICT 5 - US 1, SR 5A, SR 423 & SR 50 PEDESTRIAN/INTERSECTION LIGHTING UPGRADES,
VOLUSIA & ORANGE COUNTIES, FL

As part of FDOT's effort to improve safety at signalized intersections, TEDS evaluated the existing lighting at 43 intersections on US 1 and SR 5A in Volusia, and 83 intersections on SR 423 and SR 50 in Orange and made recommendations for pedestrian lighting upgrades.

FDOT DISTRICT 4 – SR 80 AT FOREST HILL BOULEVARD, PALM BEACH COUNTY, FL

This project includes bridge widening to provide additional intersection capacity. Susanne was the EOR for signing and pavement marking, signalization and lighting plans.

FDOT DISTRICT 1 – SR 31 AT CR 74/ BERMONT ROAD, CHARLOTTE COUNTY, FL

This project will build a roundabout at this rural intersection of two roadways that carry a high volume of truck traffic. Susanne is the EOR for the signing and pavement marking and lighting plans.

CFX - SR 417 WIDENING INTERNATIONAL DRIVE TO JOHN YOUNG PARKWAY

This roadway improvement project for Central Florida Expressway Authority (CFX) in Orange County included widening, complete signing replacement, including the incorporation of Part Time Shoulder Usage signage, replacement of the roadway lighting system, with LEDs, and rebuilding two signals. Susanne was the EOR for the signing and pavement marking, signalization and lighting plans.

CFX - SR 417 WIDENING LANDSTAR BLVD. TO BOGGY CREEK ROAD

This roadway improvement project for Central Florida Expressway Authority (CFX) in Orange County included widening, complete signing replacement, including the incorporation of Part Time Shoulder Usage signage, replacement of the roadway lighting system, with LEDs, and rebuilding two signals. Susanne was the EOR for the signing and pavement marking, signalization and lighting plans.

WORLD DRIVE EXTENSION - RCID

This roadway improvement for RCID provides a grade separation of World Drive over the Magic Kingdom entrance road and connects to Vista Boulevard via grade separated ramps. Susanne was the EOR for the lighting plans.

MERLYNN O. ANDERSON, PE
SENIOR TRANSPORTATION ENGINEER
TRAFFIC ENGINEERING DATA SOLUTIONS, INC.

EDUCATION
BSCE / 1986/ Bringham Young University-Provo
AS/ 1982/Utah State University-Easter (College of Eastern Utah)

REGISTRATION
Professional Engineer/ Florida # 83096, Utah # 174674, Colorado # 44519

EXPERIENCE
30+ years of experience
Traffic Engineering Data Solutions/ 2017 – Present

AREAS OF EXPERTISE
Transportation Engineering
Project Management
Design-Build
Traffic Engineering Design
Transportation Planning

SUMMARY

Mr. Merlynn Anderson has worked in the area of Roadway Design and Transportation since 1989 and has worked with Traffic Engineering Data Solutions since June 2017. His technical experience has been obtained while working in several states, including Utah, Nevada, Colorado, Arizona, California, Texas, Idaho, Montana and also in Jamica. He is currently serving as a Senior Transportation Engineer with responsibilities in design and oversite of several other engineers and technicians in development of roadway plans, temporary traffic control plans, and assisting with other transportation studies and design analysis. Merlynn has maintained his skills and use of Microstation CADD and has experience in project management and delivery methods such as Traditional Design-Bid-Build, Design-Build, CM/GC and FDOT Push Button.

TRANSPORTATION ENGINEERING

Merlynn has prepared more than 150 roadway design projects during his career in several states including more than 30 projects in Florida. Merlynn has worked on eight Design- Build projects in Washington, California, and Utah and he has served as Deputy Roadway Manager, Project Manager, Roadway Design Engineer, MOT Manager, ITS Design Engineer, Retaining Wall Designer, and Highway Lighting Designer. He has also participated on several Independent Quality Review Teams related to the Design-Build Process. He is knowledgeable in AASHTO Geometric Design Standards and the Florida Design Manual (FDM) and Florida Standard Plans. His roadway design experience includes roundabout intersections, continuous flow intersections (CFI), Diverging Diamond Interchanges (DDI), Single Point Urban Interchanges (SPUI) and Tight Diamond Interchanges. He also has extensive design experience with local roadways and city street widening projects, including ADA pedestrian ramp designs, mid-block crosswalks, controlled access directional turn lanes, DOT push-button projects, sidewalks and multi-use trails. He has also completed the USDOT training for Designing Pedestrian Facilities for Accessibility (DPFA).

TRAFFIC ENGINEERING DESIGN

Merlynn has prepared and reviewed a significant number of maintenance of traffic (MOT) plans including temporary traffic signals and signing/pavement marking (S&PM) plans in coordination with construction phasing. His experience includes the design of traditional signals, S&PM plans for local and interstate projects, commercial parking lot and site plans, local government projects, and design-build projects. Florida clients have included FDOT, Orange County, Volusia County, Lake County, Daytona Beach, Port Orange, and Melbourne. He is certified for FDOT MOT design.

TRANSPORTATION PLANNING

From traffic impact studies, to long-range master transportation plans, Merlynn has developed the skills to effectively analyze future transportation needs on a wide- array of projects. Given his unique ability to quickly identify creative solutions that work, he is called upon for unique projects to evaluate the benefits between roundabout and signalized intersection control. He has assisted in the development of roadway improvement feasibility studies for the FDOT and has experience in evaluating data for traffic lane closures and pavement designs based on projected traffic volumes. In addition, he has developed skills in presentation of the data to the public and clients during open houses, workshops and Public Outreach efforts for public involvement. He was responsible in the development of a Master Transportation Plan involving analysis of over 50 signalized intersections, roadway realignment analysis and traffic calming alternatives in residential and commercial environments.

MINOR ROADWAY DESIGN PROJECTS:

- US 441, Blanton Lane to Hilltop Road, Taveras, FL. – Design of two-way directional median turn lanes at Hilltop Road and at Blanton Lane which included raised traffic separators, pavement markings and signing modifications.
- SR 44 at Samsula Drive, Samsula, Fl. – Widening the roadway to with a 450-foot right turn lane at the intersection and included obtaining a minor modification to the St. John River Water Management District permitted drainage ponds.
- SR 436 at ROSS – Signal improvements, directional left turn lanes, lengthening turn lane storage and construction of raised island crosswalk at the intersection, Orange County FL.
- SR A1A Mid-block pedestrian crossing and RRFB pedestrian signal improvements at Sun Splash Park, in Daytona Beach, Volusia County, FL.

MAJOR ROADWAY DESIGN PROJECTS:

- US 192 and Waverly Place – Roadway widening, signal replacement and ADA ramps. Melbourne, Brevard County, FL. Included design of traffic calming bulb-outs, stormwater drainage system improvements and waterline replacement.
- US 1 Signal upgrades at 4 intersections in Holly Hill, Volusia County FL. Project included redesign of pedestrian access ramps for the intersections at 6th Street, 8th Street, Walker Street and Flomich Street. Milling and resurfacing the existing roadway. Merlynn also was involved in Right-of-way acquisition coordination support.
- SR A1A Signal and Intersection Upgrade at Harvard Drive in Ormond Beach, Volusia County FL. - Design included redesign of all four corner stormwater drainage inlets to accommodate updating the curb ramps to ADA standards. The roadway also was milled and cross slope corrected in the intersection.
- CR 473 from Treadway School to CR 44, Lake County FL. – This quarter mile long roadway project included shoulder widening, milling, resurfacing and cross slope correction for superelevation.

SIDEWALK AND TRAIL PROJECTS:

- Suncoast Parkway Trail Limited Access and Right of Way Relocation Feasibility Study: Design and analysis of 3 alternatives for relocating 43 miles of the Suncoast Trail from Lutz Lake Fern Road to US 98, includes structures, drainage and wetland impact analysis.
- North Spruce Creek Sidewalk Project from Nova Road to Angelina Court in Port Orange City, FL. – Design of 2500 feet of 8-foot sidewalk along both sides of Spruce Creek Road. The design also included roadside drainage improvements with grass lined swales and drainage inlets. The signalized intersection at Nova Road and Spruce Creek road was updated with ADA compliant curb ramps.
- West French Avenue Share Use Path, Orange City, FL, - Design of a 12-foot-wide multi-use trail running adjacent to West French Avenue from Bishop Avenue to the Blue Springs State Park. The project included a 130-foot bridge over the railroad and extensive retaining walls.
- Sidewalk Continuity and access study in Port Orange City, FL. – This project included the design and analysis of 15 intersections for ADA sidewalk compliance, sidewalk gap design and signalization upgrades.

TRAFFIC STUDIES

- SR A1A Access Management Study in Cape Canaveral from SR 520 to George King Blvd., Brevard County FL. Included design and cost estimates for 3 miles of directional median turn lanes in Cape Canaveral.
- SR 19 Access Management Study from Burrell Road to Mebane Street in Lake County, FL. Designed directional median turn lanes for feasibility study and traffic analysis on 3.5 miles of rural and urban roadways.
- SR A1A Access Management Study from Milsap Drive to SR 40 in Ormond Beach, Volusia County, FL. The design and analysis of 1.5 miles of urban roadway improvements with median directional turn lanes in Ormond Beach.
- US 441 Access Management Study from Griffin Road to Martin Luther King Blvd in Leesburg, Lake County, FL. The study included design for widening 1.25 miles of US 441 to accommodate median directional turn lanes in an urban area of Leesburg.
- SR 72 at Bee Ridge Road, Sarasota County, FL. – Intersection design and analysis for signalized design and roundabout design, in a rural section of Sarasota County.
- Multiple Access Management Concept Studies – Developed access management concepts and cost estimates for 15 corridors throughout District 1.

SERGIO E. NAREA, PE
TRANSPORTATION ENGINEER
TRAFFIC ENGINEERING DATA SOLUTIONS, INC.

EDUCATION
MSCE University of Central Florida/ 2016
BSCE University of Central Florida/ 2008

EXPERIENCE
13 years of experience
Traffic Engineering Data Solutions / 2015 – Present

REGISTRATION
Professional Engineer
Florida #88343

AREAS OF EXPERTISE
Transportation Engineering
Environmental Consulting
AutoCAD
MicroStation

SUMMARY

Mr. Sergio Narea is a Professional Engineer / Transportation Engineer at Traffic Engineering Data Solutions, Inc. (TEDS). Sergio graduated from the University of Central Florida with a Bachelor of Science degree in Civil Engineering and a Master of Science degree in Transportation Systems Engineering. Sergio joined TEDS' staff of engineers and technicians specializing in Transportation Engineering in 2015.

Sergio has been involved in the production of Traffic Operational and Safety Studies, along with various CEI tasks. Following is an example of some of the projects Sergio has been involved with since joining TEDS:

- Intersection Safety Study on SR 50 at Fern Creek Avenue
- Intersection Safety Study on SR 436 at Pershing Avenue
- Intersection Safety Study on SR 50 at Highland Avenue
- Intersection Safety Study on US 17/92 at Enterprise Road
- Qualitative Assessment on SR 5A at Miles Drive
- Qualitative Assessment on SR 551 at Goldenrod Road
- Qualitative Assessment on SR 40 at Interstate 95 Ramps
- Qualitative Assessmnet on SR 50 at Cathedral Way
- Qualitative Assessment on US 1 at Magruder Avenue
- Qualitative Assessment of US 1 at Marion Avenue
- Qualitative Assessment on US 1 at Turgot Avenue
- Signal Warrant Analysis on US 17/92 at Colomba Road
- Signal Warrant Analysis on SR 40 at Shadow Crossing Boulevard
- Signal Warrant Analysis on SR 15 at Simmons Road
- Signal Warrant Analysis on US 1 at Cidco Road
- Left-Turn Phase Warrant Analysis on SR 44 at Eddie Road

SELECTED PROJECTS

FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT 1: DISTRICTWIDE TRAFFIC OPERATIONS STUDIES

Task Manager, responsible for the preparation and submittal of traffic operations and safety-related studies, including signal warrant analyses, intersection and corridor analyses, and composite studies that were comprised of different elements of the above studies. These studies included data collection, field reconnaissance, and conceptual schematics of recommended improvements. In addition, all road users were considered in these studies, including the most vulnerable users such as pedestrians and bicyclists.

FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT 1: DISTRICTWIDE SAFETY CONTRACT

Task Manager under this contract where TEDS has been assigned nearly 40 studies for the purposes of identifying safety-related improvements within District 1. Under this contract, TEDS prepared 15 access management studies, a US 301 corridor study in the City of Sarasota, along with numerous intersection safety studies (including US 41 at Immokalee Road in Naples and SR 758 (Bee Ridge Road) at Beneva Road in Sarasota County, Florida). Under this contract, districtwide infographics summarizing historical crash information and trends were prepared for each County. TEDS also prepared safety countermeasure matrices to address lane departure, bicycle/pedestrian, along with signalized/unsignalized intersections. Lastly, TEDS is currently preparing lane departure crash evaluations of Sarasota and Manatee Counties for purposes of identifying site-specific and systemic improvements

FLORIDA DEPARTMENT OF TRANSPORTATION – DISTRICT 5: DISTRICTWIDE COMMUNITY TRAFFIC SAFETY CONTRACT

Task Manager/Transportation Engineer for this contract where TEDS has been assigned more than 75 work orders pertaining to the study and design of safety-related improvements within District 5. Safety studies include detailed development of improvement concepts

and a cost estimate. Additionally, through data provided from such sources as the Highway Safety Manual and FHWA's CMF Clearinghouse, a benefit-cost and NPV analysis is conducted to determine if proposed improvements qualify for safety funds. TEDS prepared plans for Wrong Way detection at interchanges throughout District 5 to deter Wrong Way driving per the Department's initiative. TEDS also prepared audible pavement marking plans for sections of US 1, SR 520, and SR 50 and the SunRail Rail Dynamic Envelope striping plans. TEDS prepared a wide array of studies including intersection safety studies, curve evaluation studies, lane departure studies on US 1 and US 192, access management studies for SR 436, SR 19, SR A1A, US 441, and SR 551, SR 482 Skid Hazard Safety study, Amelia Avenue Road Diet Safety study, and pedestrian safety studies for SR 438, SR 423, US 192, SR 518, SR A1A.

- Lighting Justification Report SR 434 Highway
- Road Diet Safety Study on Amelia Avenue (from Voorhis Avenue to Ohio Avenue)
- Pedestrian Safety Study SR 426 at Howell Branch Road/Hall Road
- Safety Study SR 60 at US 441
- Pedestrian Safety Study SR A1A at Jessamine Boulevard
- Safety Study on Graves Avenue (between Veterans Memorial Parkway and Kentucky Avenue)

FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT 5: TRAFFIC OPERATIONS CONTINUING SERVICES CONTRACT

Task Manager/Transportation Engineer under this contract where TEDS has been assigned more than 300 work orders for providing various transportation engineering services. Traffic operational studies have included spot- speed studies, mid-block pedestrian crossing studies, signal warrant analyses, intersection analyses, corridor analyses, highway lighting justification analyses, left-turn phase warrant studies, ICE analyses for roundabouts, and safe-curve speed studies. The studies require documentation and preparation of figures pertaining to existing conditions, collection and assessment of traffic volumes and / or delay data, assessment of crash history, field observations/ qualitative assessment and identification of short-term and long-term recommendations.

VOLUSIA COUNTY CONTINUING TRAFFIC ENGINEERING

As one of Volusia County's leading transportation engineering firms, TEDS has been assigned more than 35 work orders for providing a wide array of transportation engineering services. Under this contract, TEDS has prepared signal designs for several intersections including Saxon Boulevard/Enterprise Road, Williamson Boulevard/Midway Avenue, Clyde Morris Boulevard/Strickland Road, and Taylor Road at Crane Lakes Boulevard. TEDS also prepared engineering plans for three (3) pedestrian signals on S. Atlantic Avenue in New Smyrna Beach. TEDS has also provided various transportation engineering services including the preparation of a Beach Parking Management Concept Report, development of County guidelines for parking restrictions at mid-block crosswalks, sight distance evaluation for Turnbull Bay Road curve improvement, left-turn phase and signal warrant analyses, residential traffic control plan, school zone analysis, and an assessment of department operations. TEDS also was called upon to conduct approximately 250, 48-hour bi-directional counts for the annual traffic count program.

- Taylor Branch Road Lane Evaluation
- County Road 92 at Shopping Center Driveway just West of U.S. 17/92 Signal Warrant Analysis
- Traffic Operations/Safety Study LPGA Boulevard at Tomoka Farms Road
- Traffic Operations/Safety Study Woodward Avenue Elementary School
- Intersection Evaluation Williamson Boulevard at Roscoe Turner Trail
- Qualitative Access Management Evaluation Williamson Boulevard

LAKE COUNTY CONTINUING TRANSPORTATION ENGINEERING

Having served the County for more than five (5) years, TEDS has provided a vast array of studies including intersection analyses, ALL-WAY STOP analyses, signal warrant analyses, safe-curve evaluations, speed studies, truck studies, and a school zone evaluation. TEDS also prepared crash analyses for CR 473, Lakeshore Drive, and Lake Louisa Road, studies that ultimately led to securing federal highway funds from FDOT for funding of safety-related improvements. In addition, TEDS prepared signal plans for three (3) intersections on Hancock Road as well as interconnect plans.

- Thrill Hill Speed Study (from SR 44 to Bill Collins Road)
- Crash Evaluation on Lakeshore Drive from Hull Road to Harder Road/Lake Susan Court
- Speed Zone Study Lake Louisa Road from Hammock Ridge Road to US 27

TRAFFIC IMPACT STUDIES

- Planned Community Westside Traffic Monitoring study – Port Orange, Volusia County
- Vineland Reserve development – City of Deltona, Volusia County
- Coquina Cove development – Port Orange, Volusia County
- Blue Origin development – Brevard County

CHRISTOPHER A. ROBERTS
TRANSPORTATION ANALYST
TRAFFIC ENGINEERING DATA SOLUTIONS, INC.

EDUCATION
BSCE / 2017/ University of Central Florida

EXPERIENCE
4 years of experience
Traffic Engineering Data Solutions / 2017 – Present

AREAS OF EXPERTISE
Transportation Engineering

SUMMARY

Mr. Christopher Roberts is a Transportation Analyst at Traffic Engineering Data Solutions, Inc. (TEDS). Christopher graduated from the University of Central Florida with a Bachelor of Science degree in Civil Engineering. Christopher joined TEDS' staff of engineers and technicians specializing in Transportation Engineering in 2017. Christopher has been involved in various Traffic Operations and Safety studies. Following is an example of some of the projects Christopher has been involved with since joining TEDS:

SELECTED PROJECTS

TRAFFIC OPERATIONAL STUDIES – FDOT1 & FDOT5

TEDS has been assigned more than 200 work orders for providing various transportation engineering services. Traffic operational studies have included spot- speed studies, mid-block pedestrian crossing studies, signal warrant analyses, intersection analyses, corridor analyses, highway lighting justification analyses, left-turn phase warrant studies, step 1 roundabout analyses, and safe-curve speed studies. The studies require documentation and preparation of figures pertaining to existing conditions, collection and assessment of traffic volumes and/or delay data, assessment of crash history, field observations/qualitative assessment, and identification of short-term and long-term recommendations. TEDS also prepared revised clearance timings (yellow change and red clearance) for more than 50 intersections within District 5.

- Signal Warrant Analysis for US 17-92 at Fort Florida Road
- SunRail Pathfinding Assessment
- Lighting Justification Report for I-95 from Indian River County Line to US 192
- Signal Warrant Analysis for SR 518 at Turtle Mound Road
- Qualitative Assessment for US 1 crosswalk at the Yellow Dog Café
- Qualitative Assessment for SR A1A at Atlantic Boulevard
- Qualitative Assessment for SR 15 at Mt. Vernon & Concord Streets
- Post Design Services for the Ross Entrance at SR 436
- Qualitative Assessment for US 1 at Warner Christian Academy Entrance
- Qualitative Assessment for SR 434 at University Boulevard
- Speed Zone Study for SR 44 from Kepler Road to Summit Avenue
- Qualitative Assessment for US 17-92 at Concord Street & Hillcrest Street
- Signal Warrant Reassessment for SR 72 at McIntosh East/West
- Roundabout Evaluation for SR 572 at Don Emerson Drive
- All-Way Stop Control Warrant Study for SR 559 at Camp Gilead Drive
- Signal Warrant Analysis for I-4 EB/WB Off Ramps at SR 33
- Speed Zone Study for SR 19 from CR 48 to Little Lake Harris Bridge
- Wrong Way Signing Assessment for I-4 between World Drive & Adventure Way
- Qualitative Assessment for SR 434 at SR 50

DISTRICTWIDE COMMUNITY TRAFFIC SAFETY CONTRACTS – FDOT1 & FDOT5

TEDS has been assigned more than 75 work orders pertaining to the study and design of safety-related improvements within District 5. Safety studies include detailed development of improvement concepts and a cost estimate. Additionally, through data provided from such sources as the Highway Safety Manual and FHWA's CMF Clearinghouse, a benefit-cost analysis is conducted to determine if the proposed improvements qualify for safety funds. Under this contract, TEDS prepared signing and pavement marking plans for the implementation of changes at interchanges throughout District 5 to deter Wrong Way driving per the Department's initiative. TEDS also

prepared audible pavement marking plans for sections of US 1, SR 520, and SR 50 and the SunRail Rail Dynamic Envelope striping plans. TEDS prepared a wide array of studies including intersection safety studies, curve evaluation safety study on I-95, lighting justification report on US 17/92, lane departure studies on US 1 and US 192, access management studies for SR 436, SR 19, SR A1A, US 441, and SR 551, SR 482 Skid Hazard Safety study, Amelia Avenue Road Diet Safety study, and pedestrian safety studies for SR 438, SR 423, US 192, SR 518, SR A1A.

- Pedestrian Safety Study for SR 40 between Lewis Street and South Beach Street
- Wrong Way Evaluation and Signing for FDOT D5
- Pedestrian Safety Study for SR A1A at Driftwood Avenue to Seaview Avenue
- Pedestrian Safety Study for SR A1A from Cocoa Isle Boulevard to St. Lucie Lane
- Pedestrian Safety Study for SR A1A NB/SB at North 1st Street
- Intersection Safety Study for SR 507 (Babcock Street) at Palm Bay Road
- Lighting Justification Report for US 17/92 from Rhode Island Avenue to Minnesota Avenue
- Access Management and Pedestrian Safety Study for SR A1A from SR 520 to George King Boulevard
- Pedestrian Safety Study for US 192 from New York Avenue to Michigan Avenue
- Intersection Safety Study for SR 600 at Osceola Parkway
- Intersection Safety Study for Buenaventura Boulevard from Florida Parkway to Osceola Parkway
- Pedestrian Safety Study for SR 438 from Lake Stanley Road to Hiawassee Road
- Pedestrian Safety Study for SR 423 from Wymore Road to US 17/92
- Pedestrian Safety Study for SR 518 from SR 513 to SR A1A
- Post Construction Safety Evaluation for Jacaranda Boulevard at Venice Avenue Roundabout
- Intersection Safety Study for SR 780 (Fruitville Road) at Cattleman Road
- Intersection Safety Study for SR 64 at 15th Street East
- Intersection Safety Study for US 41 at 7th Street West
- Access Management Studies across 15 corridors throughout FDOT D1
- Comprehensive Countermeasures Guidebook for FDOT D1

LAKE COUNTY TRANSPORTATION ENGINEERING

Having served the County for more than five (5) years, TEDS has provided a vast array of studies including intersection analyses, ALL-WAY STOP analyses, signal warrant analyses, safe-curve evaluations, speed studies, truck studies, and a school zone evaluation.

- Speed Study on Thrill Hill Road from SR 44 to Bill Collins Road
- Traffic Signal Warrant study on CR 44 at Bates Avenue
- Traffic Signal Warrant study on Orange Avenue at Estes Road
- Traffic Signal Warrant study on Hancock Road at Greater Pines Boulevard
- Traffic Signal Warrant Study on Wolf Branch Road at Britt Road
- Traffic Signal Warrant Study on CR 44 at Harbor Shores Road
- Speed Study on CR 561 from CR 455 to 561A & CR 561A from CR 561 to CR 455

FLORIDA'S TURNPIKE – MAINLINE LANE DEPARTURE STUDY

Engineering Technician for technical memo addressing lane departure crashes along the Florida's Turnpike mainline. Project involved determining locations experiencing a high concentration and frequency of lane departure crashes and providing a list of countermeasures for the locations. Assessment and recommendations included detailed collision analysis, field reviews of roadway conditions, benefit/ cost analysis and net present value analysis of recommended improvements. Developed workflow for assessing lane departure countermeasure needs based on geometric and operational factors.

FLORIDA'S TURNPIKE – ADVANCED SIGNAL CONTROL TECHNOLOGY PLANNING

Engineering Technician for technical memo addressing the need for advanced signal control technologies (ASCT). Project involved developing an initial ASCT planning screen for the purposes of identifying interchanges along the Florida's Turnpike mainline that should be further evaluated for consideration of new or additional ASCT solutions.

TIMOTHY HILL
TRANSPORTATION ANALYST
TRAFFIC ENGINEERING DATA SOLUTIONS, INC.

EDUCATION
Master's Degree in Security and Intelligence Studies
2014/ University of Pittsburgh
B.A. Political Science/ 2011/ University of Central Florida

EXPERIENCE
3 years of experience
Traffic Engineering Data Solutions / 2017 – Present

AREAS OF EXPERTISE
Traffic Operational Studies
Data Collection
MicroStation
GIS

SUMMARY

Mr. Tim Hill is a Transportation Analyst for Traffic Engineering Data Solutions, Inc. (TEDS). Tim is currently a student at Seminole State College with plans of completing a Bachelor of Science in Civil Engineering from the University of Central Florida at a future date.

Tim has been involved in various Traffic Operational Studies and as a previous Engineering Technician Aid, he has over two years of experience completing various data collection services in support of traffic engineering studies and designs. His experience includes completing data collection for projects with the Florida Department of Transportation (FDOT), numerous local municipalities and private sector clients. Following is an example of some of the projects Tim has been involved with since joining TEDS:

SELECTED PROJECTS

FLORIDA DEPARTMENT OF TRANSPORTATION – DISTRICT 5: DISTRICTWIDE COMMUNITY TRAFFIC SAFETY CONTRACT

TEDS has been assigned more than 75 work orders pertaining to the study and design of safety-related improvements within District 5. Safety studies include detailed development of improvement concepts and a cost estimate. Additionally, through data provided from such sources as the Highway Safety Manual and FHWA's CMF Clearinghouse, a benefit-cost analysis is conducted to determine if the proposed improvements qualify for safety funds. Under this contract, TEDS prepared signing and pavement marking plans for the implementation of changes at interchanges throughout District 5 to deter Wrong Way driving per the Department's initiative. TEDS also prepared audible pavement marking plans for sections of US 1, SR 520, and SR 50 and the SunRail Rail Dynamic Envelope striping plans. TEDS prepared a wide array of studies including intersection safety studies, curve evaluation safety study on I-95, lane departure studies on US 1 and US 192, access management studies for SR 436, SR 19, SR A1A, US 441, and SR 551, SR 482 Skid Hazard Safety study, Amelia Avenue Road Diet Safety study, and pedestrian safety studies for SR 438, SR 423, US 192, SR 518, SR A1A.

- Pedestrian Safety Study for SR 438 from Homestead Road to Princeton Road
- Pedestrian Safety Study for SR 438 at Powers Drive
- Pedestrian Safety Study for SR A1A from Crescent Beach Drive to Minutemen Causeway
- Safety Study for SR 50 at Mills Avenue and Thornton Avenue
- Pedestrian Safety Study for SR 423 from Kingswood Drive to Adanson Street
- Safety Study for SR 426 at Eastbrook Boulevard and Forsyth Road
- Access Management and Pedestrian Safety Study for SR 424 from SR 423 to SR 434
- Wrong Way Evaluation and Signing

FLORIDA DEPARTMENT OF TRANSPORTATION – DISTRICT 5: TRAFFIC OPERATIONS CONTINUING SERVICES CONTRACT

TEDS has been assigned more than 200 work orders for providing various transportation engineering services. Traffic operational studies have included spot- speed studies, mid-block pedestrian crossing studies, signal warrant analyses, intersection analyses, corridor analyses, highway lighting justification analyses, left-turn phase warrant studies, step 1 roundabout analyses, and safe-curve speed studies. The studies require documentation and preparation of figures pertaining to existing conditions, collection and assessment of traffic volumes and / or delay data, assessment of crash history, field observations/ qualitative assessment and identification of short-term and long-term recommendations. TEDS also has prepared revised clearance timings (yellow change and red clearance) for more than 50 intersections within District 5.

- Qualitative Assessment of SR 426 at Legacy Lane
- Qualitative Assessment of US 17 at Mills Road and Fairport Avenue
- Signal Warrant Analysis on SR 551 at Azalea Cove Circle
- Left-Turn Phase Warrant study on SR 35 at Fort King Street
- Signal Warrant Analysis on U.S. 17-92 at State Road 44
- Signal Warrant Analysis on SR 50 at Sherman Street
- Qualitative Assessment of SR 46 at Wekiva Park Drive and Wekiva River Road
- Signal Warrant Analysis on SR 5A at Sleepy Hollow Drive
- Qualitative Assessment of US 1 at Homeport Terrace
- Signal Warrant Analysis on SR 551/Palmetto Avenue at Goldenrod Road
- Qualitative Assessment of US 1 at Wilmette Avenue
- Qualitative Assessment of US 92 at Clark Bay Road

LAKE COUNTY CONTINUING TRANSPORTATION ENGINEERING

Having served the County for more than five (5) years, TEDS has provided a vast array of studies including intersection analyses, ALL-WAY STOP analyses, signal warrant analyses, safe-curve evaluations, speed studies, truck studies, and a school zone evaluation.

- Signal Warrant Analysis on Wolf Branch Road at Round Lake Road
- Signal Warrant Analysis on Treadway School Road at Radio Road

VOLUSIA COUNTY TRAFFIC ENGINEERING

TEDS has provided transportation engineering services to Volusia County under the Traffic Engineering and Transportation Planning Services Contract.

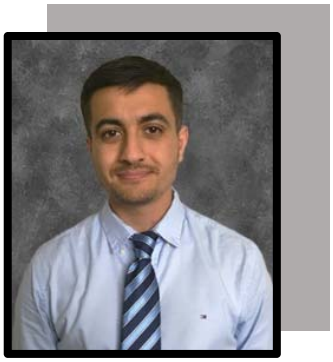
- Enterprise Elementary School Zone Circulation Evaluation study
- Veterans Memorial Parkway Corridor Evaluation

TRAFFIC DATA COLLECTION

Engineering Technician responsible for the following tasks:

- ADR 1000 loop counters, loop volume, and loop piezo counts for FDOT District Five as well as for local government agencies and municipalities
- ACE tube counters for volume and classification counts for FDOT District Five as well as for local government agencies and municipalities
- Data collection - laying field hoses and placing counters to collect data
- Travel time delay studies
- Turning movement counts utilizing Jamar Ultra TMC Boards
- Speed studies
- Draw intersection diagrams detailing all intersection features
- Photographs of all approaches as part of intersection inventory
- Interstate sign inventory including photos and geo-locating all guide signs
- Utilization of MicroStation in the drawing of condition diagrams and intersection diagrams

BASIT ALI, EI
TRANSPORTATION ANALYST
TRAFFIC ENGINEERING DATA SOLUTIONS, INC



EDUCATION
BSCE/ 2017/ USF

REGISTRATION
Engineering Intern/ Florida #1100022072

EXPERIENCE
2 years of experience
Traffic Engineering Data Solutions / 2019 – Present

AREAS OF EXPERTISE
Transportation Engineering
MicroStation
Synchro
SIDRA
Data Collection

SUMMARY

Mr. Basit Ali, EI is a Transportation Analyst at Traffic Engineering Data Solutions, Inc. (TEDS). Basit graduated from the University of South Florida with a Bachelor of Science degree in Civil Engineering. Basit joined TEDS' staff of engineers and technicians specializing in Transportation Engineering in 2019. Basit has an exceptional understanding of the roles and responsibilities of an engineer at TEDS by using the technical, computational and time-management skills obtained while attending college and working as an intern. These skills are complemented well with his communication and leadership skills that are displayed in his daily work activities

SELECTED PROJECTS

TRAFFIC OPERATIONAL STUDIES – FDOT-1, FDOT-2, FDOT-5, FDOT-7, & OSCEOLA COUNTY

TEDS has been assigned more than 200 work orders for providing various transportation engineering services. Traffic operational studies have included spot speed studies, mid-block pedestrian crossing studies, signal warrant analyses, intersection analyses, corridor analyses, highway lighting justification analyses, left-turn phase warrant studies, step 1 roundabout analyses, and safe- curve speed studies. The studies require documentation and preparation of figures pertaining to existing conditions, collection and assessment of traffic volumes and/or delay data, assessment of crash history, field observations/qualitative assessment, and identification of short-term and long- term recommendations.

- Qualitative Assessment of Intersection Operations on State Road 434 at Lake Front Lane
- Qualitative Assessment of Intersection Operations on U.S. 441 on Fort King Street
- Speed Zone Study for State Road 226 from SW 16th Avenue to SW 13th Street
- Speed Zone Study for State Road 66 from Hardee County Line to U.S. 27
- Speed Zone Study for State Road 84 from Airport-Pulling Road to Collier Boulevard
- Traffic Signal Warrant study on U.S. 27 at Bronson Road
- Traffic Signal Warrant study on U.S. 41 at Emerson Square Boulevard
- Traffic Signal Warrant study on U.S. 41 at San Carlos Boulevard
- Traffic Signal Warrant study on State Road 684 at Mount Vernon Drive/Catalina Drive
- Lighting Justification Report for South Poinciana Boulevard (M.P. 0.000 to M.P. 5.753)

DISTRICTWIDE COMMUNITY TRAFFIC SAFETY STUDIES – FDOT-1 & FDOT-5

TEDS has been assigned more than 50 work orders, most of which pertain to the preparation of safety-related studies within districts 1 & 5. These studies, which typically include an assessment of existing conditions, traffic volumes and/or delay data, crash history, and field observations/qualitative assessment, include the detailed development of improvement concepts to ensure feasibility as well as a cost estimate of each improvement. Additionally, through data provided from such sources as the Highway Safety Manual and FHWA's CMF Clearinghouse, a benefit-cost analysis is conducted to determine if the proposed improvements qualify for safety funds. Projects have included intersection safety studies, pedestrian safety studies, lane departure studies, Access Management studies, Skid Hazard

Safety studies, mid- block crossing evaluations, No Passing Zone studies, and safe curve studies. TEDS also prepared comprehensive improvement concepts for the purposes of implementing signing and pavement marking changes at 15 interchanges to deter Wrong Way driving per the Department's initiative.

- State Road 50 at Mills Avenue
- State Road 776 at Oceanspray Boulevard
- U.S. 41 at McGregor Boulevard
- U.S. 41 at Immokalee Road

TRAFFIC IMPACT STUDIES – FDOT-1

Collaborated in reviewing multiple Traffic Impact Studies on behalf of FDOT-1, primarily for access management adequacy purposes.

PROJECT TRAFFIC ANALYSIS REPORTS – FDOT-1 & OSCEOLA COUNTY

Undertook various tasks including traffic projection utilizing FDOT's TURNS5, intersection analysis utilizing Synchro, roundabout analysis utilizing SIDRA, crash analysis utilizing University of Florida's Signal Four Analytics, and preparing report.

- State Road 31 at County Road 74
- South Poinciana Boulevard (M.P. 0.000 to M.P. 5.753)

TRAFFIC CALMING HANDBOOK – CITY OF NEW SMYRNA BEACH

Collaborated in preparing the latest Traffic Calming Handbook for the City of New Smyrna Beach. Tasks included researching various different traffic calming methods, collecting pictures and researching costs for traffic calming devices, and preparing report.

TRAFFIC DATA COLLECTION

Engineering Technician responsible for the following tasks:

- Setting up cameras and laying field hoses for collecting turning movement count data
- Turning movement counts utilizing Jamar Ultra TMC Boards
- Spot speed data collection
- Sign inventory including photos on State Roads
- Photographs of all approaches as part of intersection inventory
- Utilization of MicroStation in the drawing of condition diagrams and intersection diagrams

R. SCOTT HILL
CHIEF DESIGNER/PROJECT MANAGER
TRAFFIC ENGINEERING DATA SOLUTIONS, INC.

EDUCATION
AA/1987/Seminole Community College

TRAINING
IMSA Work Zone Specialist
IMSA Roadway Lighting Specialist
IMSA Traffic Signal Inspection

EXPERIENCE
30+ years of experience
Traffic Engineering Data Solutions / 2014 – Present

AREAS OF EXPERTISE
Project Management
Traffic Design/Operation

SUMMARY

Mr. Scott Hill is a Chief Designer / Project Manager for TEDS. Scott has more than 30 years of experience in traffic engineering design. Scott has worked on numerous major and minor design projects during his career that include signalization, signing & pavement marking, roadway lighting, traffic control plans and construction inspection. He is proficient in the use of MicroStation, GEOPAK Road, AutoTURN, GuidSIGN, AutoCAD and AGi32 Lighting. The following is a representative listing of projects:

SELECTED PROJECTS

FDOT DISTRICT 5 – SR 93 (I-75) IMPROVEMENTS (HERNANDO COUNTY LINE TO CR 470), SUMTER COUNTY, FL

Mr. Hill was the Lead Lighting Designer on this project which involves the widening of I-75 from four to six lanes for the project limits and a complete interchange reconstruction at SR 48 and improvements at CR 476B/CR 673 interchange. Scott was responsible for the roadway lighting design which included both interchanges, a gap between the SR 48 interchange and the existing rest areas to the south and parts of the rest areas that were impacted by the construction utilizing Light Emitting Diode (LED) style fixtures.

FDOT DISTRICT 5 – SR 93 (I-75) IMPROVEMENTS (CR 470 TO SOUTH OF FLORIDA'S TURNPIKE), SUMTER COUNTY, FL

Mr. Hill was the Lead Lighting/Signing and Pavement Marking Designer on this project involving the widening of I-75 from four to six lanes for the project limits and a complete interchange reconstruction at CR 470, including improvements on CR 470 from CR

490 to CR 527, and improvements to CR 475 from south of the I-75 off-ramp to CR 470. Scott was responsible for the roadway lighting design which included both interchanges, High Mast Lighting as well as the signing and pavement marking design.

FDOT DISTRICT 5 – SR 429 WEKIVA PARKWAY SECTION 7A, SEMINOLE COUNTY, FL

Mr. Hill was the Lead Traffic Designer on this project involving the design of 3.5 miles of elevated limited access roadway with frontage roads through western Seminole County. The project also involves the design of 1 signalized intersection and 5 roundabouts. Scott was responsible for the roadway lighting and the under deck lighting design for the roundabouts as well as signing and pavement marking design.

FDOT DISTRICT 5, SR 44, LAKE COUNTY, FL

Mr. Hill was the Lead Traffic Designer on this project involving the resurfacing of 2.1 miles of SR 44. This section of SR 44 is a 2-lane rural road with numerous residential driveways and signals at the US 441 and SR 44 intersections. Scott was responsible for the signalization as well as the signing and pavement marking design.

FDOT DISTRICT 5, SR 19 BRIDGE REPLACEMENT OVER LITTLE LAKE HARRIS, LAKE COUNTY / LEESBURG, FL

Mr. Hill was the Lead Traffic Designer on this project that included a new two-lane bridge over Little Lake Harris and realignment of SR 19 in order to allow a future sister bridge to be constructed. The project design phase also included lighting, signing and pavement marking design.

FDOT DISTRICT 5, SR 44 BRIDGE REPLACEMENT OVER THE ST. JOHNS RIVER, LAKE-VOLUSIA COUNTIES, FL

Mr. Hill was the Lead Traffic Designer on this project which included a new two-lane bridge over the St. Johns River and realignment of several local access roadways to local facilities. The project design phase also included lighting, signing and pavement marking design, and signal design for one intersection.

FDOT DISTRICT 5 – SR 40 RECONSTRUCTION, MARION COUNTY / OCALA, FL

Mr. Hill was the Lead Traffic Designer on this project involving widening of the on/off ramps of Interstate 75 at SR 40 and SR 40 through the interchange, and the intersection of SR 40 at SW 27th Avenue in Ocala. The project involved the mast arm design of 2 signalized intersections and roadway lighting upgrades throughout the interchange and the intersection.

FDOT DISTRICT 5 – US 1 PEDESTRIAN/INTERSECTION LIGHTING UPGRADES, VOLUSIA COUNTY, FL

Mr. Hill was the Lead Traffic Designer on this project involving the investigation of existing field conditions, coordination of design requirements with several municipalities and the local power company, and the design and recommendations of the upgrades necessary to meet current FDOT lighting criteria for 22 intersections along US1.

FDOT DISTRICT 5 – SR 5A PEDESTRIAN/INTERSECTION LIGHTING UPGRADES, VOLUSIA COUNTY, FL

Mr. Hill was the Lead Traffic Designer on this project involving the investigation of existing field conditions, coordination of design requirements with several municipalities and the local power company, and the design and recommendations of the upgrades necessary to meet current FDOT lighting criteria for 21 intersections along SR 5A.

FDOT DISTRICT 5 – SR 423 & SR 50 PEDESTRIAN/INTERSECTION LIGHTING UPGRADES, ORANGE COUNTY, FL

Mr. Hill was the Lead Traffic Designer on this project involving the investigation of existing field conditions, coordination of design requirements with several municipalities and the local power companies, and the design and recommendations of the upgrades necessary to meet current FDOT lighting criteria for eight intersections along SR 423 and 75 intersections along SR 50.

FLORIDA'S TURNPIKE ENTERPRISE, HOMESTEAD EXTENSION FLORIDA'S TURNPIKE WIDENING & RECONSTRUCTION IMPROVEMENTS, MIAMI-DADE COUNTY

Mr. Hill was the Chief Lighting Designer on the widening and reconstruction of six miles of the Homestead Extension Florida's Turnpike

(HEFT) to ten lanes (including express lanes) from NW 106th Street to Interstate 75, including interchange ramps at NW 106th Street, US 27, and NW 170th Street. Other tasks included temporary lighting design for construction activities, and plans production.

FLORIDA'S TURNPIKE ENTERPRISE, MILLING & RESURFACING / SAFETY IMPROVEMENTS, MARTIN COUNTY, FL

Mr. Hill was the Lead Designer on this project involving the evaluation of two existing lighting systems at the interchanges of SR 91 at SR 714 Martin Hwy) and Becker Rd plus the addition of transitional lighting at both interchanges. Other tasks included the production of several modified special provisions (MSP) for compliance with current FTE criteria.

FDOT DISTRICT 4 – SR 80 AT FOREST HILL BOULEVARD, PALM BEACH COUNTY, FL

Mr. Hill was the Chief Designer on this project involving bridge widening to provide additional intersection capacity as well as lighting and signalization, and signing and pavement marking improvements.

CENTRAL FLORIDA EXPRESSWAY SR 408 WIDENING, ORANGE COUNTY, FL

This roadway improvement project for Central Florida Expressway Authority (CFX) in Orange County includes widening the WB lanes on SR 408 from Good Homes Road to North Hiawassee Road. Mr. Hill was the Chief Designer on this project involving modifications to the roadway lighting system, upgrading the existing underdeck lighting to LED and two mast arm rebuilds.

CENTRAL FLORIDA EXPRESSWAY SR 417 WIDENING, ORANGE COUNTY, FL

This roadway improvement project for Central Florida Expressway Authority (CFX) in Orange County includes widening from four to six lanes of SR 417 from International Drive to International Parkway. Mr. Hill was the Chief Lighting Designer on this project involving design of a new median mounted roadway lighting system.

DON MACHER, JR.
SENIOR DESIGNER
TRAFFIC ENGINEERING DATA SOLUTIONS, INC.

EDUCATION
1985 Associate of Science, Specialized Technology- Computer Graphics
Architectural CADD Pittsburgh Technical Institute

EXPERIENCE
30+ years of experience
Traffic Engineering Data Solutions / 2019 – Present

AREAS OF EXPERTISE
Traffic Signal Design
Scene Investigation Roadway
Geometry Design

CERTIFICATIONS
FDOT Temporary Traffic Control Advanced #63705
ACTAR Accredited Traffic Accident
Reconstructionist #2771
IMSA Certified Traffic Signal Field
Technician Level II, #BE21496
MSA Certified Traffic Signal Field
Technician Level I, #AA21496
IMSA Certified Work Zone Safety
Specialist, #ZZ27105
USCG Licensed Charter Captain

SUMMARY

Mr. Macher has over 30 years of experience within civil engineering disciplines. Mr. Macher's experience includes roadway geometry design, traffic signal design, signing and pavement marking, lighting plans. construction and engineering inspection, and structural design of bridge abutments and retaining walls. Mr. Macher is skilled in scene investigation, evidence collection, evidence preservation of vehicles and sites, computer photogrammetry, total station forensic mapping of vehicles and crash sites, and processing of 3-D digitally scanned images. He has investigated and assisted in the reconstruction of complex crashes involving multiple vehicles, heavy trucks, pedestrians, bicycles, and motorcycles.

SR 429 WIDENING FROM FLORIDA'S TURNPIKE TO WEST ROAD (CFX)

Lead traffic signal designer for the project. Project includes, 1 signal modification, 2 signal rebuilds and interconnect along the corridor of Plant Street for the signals.

SR 60 WIDENING FROM SR 15 (US 441) TO SR 91 (FLORIDA'S TURNPIKE)

Senior traffic signal designer for (2) signals on SR 60 at S Kenansville Road and at the turnpike entrance at Yeehaw Junction.

SR 519 RESURFACING FROM I-95 NB RAMPS TO SR 520 - BREVARD COUNTY

Senior designer for improvements to pedestrian features and (7) signal modifications along corridor from I-95 Ramps to SR 520.

SR 25 RESURFACING FROM SR 35 TO SR 200 (MARION COUNTY) (10.606 mi PROJECT)

Senior designer for roadway improvement project along SR 25 (US 301) that included resurfacing, new bike lanes, pedestrian improvements, and signal modification for (16) signalized intersections. Project also included relocation of PTMS along corridor.

SR 600 (US 92) PEDESTRIAN IMPROVEMENTS FOR DAYTONA STATE COLLEGE

Traffic signal designer for (2) new signals, a HAWK (Pedestrian Hybrid Beacon) at 92/and Highland/Mainland HS) and a Pedestrian signal at Falcon Way.

CFX - SR 417 WIDENING INTERNATIONAL DRIVE TO JOHN YOUNG PARKWAY

This roadway improvement project for Central Florida Expressway Authority (CFX) in Orange County included widening, complete signing replacement, including the incorporation of Part Time Shoulder Usage signage, replacement of the roadway lighting system, with LEDs, and rebuilding two signals. Don was a senior designer for signing and pavement marking, signalization and lighting plans.

WORLD DRIVE EXTENSION - RCID

This roadway improvement for RCID provides a grade separation of World Drive over the Magic Kingdom entrance road and connects to Vista Boulevard via grade separated ramps. Don was the traffic signal designer.

FDOT DISTRICT 5 – I-95 AT PIONEER TRAIL, VOLUSIA COUNTY, FL

Traffic signal designer for this roadway improvement project includes the design of a new interchange on I-95 along with roadway improvements on Pioneer Trail including roadway lighting and signalization.

THE MARKETPLACE AT SEMINOLE TOWNE CENTER, SANFORD, FL

Project designer for two signals (Rinehart Road/SR 417 off-ramp and Rinehart Road/W.P. Ball Boulevard) connecting the site, in addition to signing and pavement markings along the project.

SR 507 (BABCOCK STREET) DESIGN, MELBOURNE AVENUE TO FEE AVENUE, FDOT DISTRICT FIVE

Project designer for signalization design of three intersections, signing and pavement markings, and interconnect runs along corridor for this widening and reconstruction of SR 507 (Babcock Street) from Melbourne Avenue to Fee Avenue in Brevard County.

SR 91 (FLORIDA'S TURNPIKE), HEFT TO NORTH OF JOHNSON STREET, BROWARD COUNTY, FL

Project designer for 3.3 miles of Florida's Turnpike and one-half mile of SR 820

(Hollywood and Pines Boulevard). Duties included design and layout of all signing and pavement markings, as well as three signalized intersection designs. The project included design of 19 sign structures (cantilever and truss).

US 90 SIGNING, MARKING, AND MAINTENANCE OF TRAFFIC PLANS, FDOT DISTRICT THREE, TALLAHASSEE, FL

Served as designer for a 1.2-mile roadway widening project in Tallahassee. Duties include signal design and signing/pavement marking plan design.

US 301 (SR 35) IMPROVEMENTS, SUMTER AND MARION COUNTIES, FL

Project designer for widening and reconstruction of 1.7 miles of roadway. Duties included signing and pavement markings, design of one signal at CR 466, and construction and engineering inspection services for the intersection.

SR 50 / BUMBY AVENUE, ORLANDO, FL: TRAFFIC DESIGNER FOR THE INTERSECTION IMPROVEMENTS AT THE INTERSECTION OF COLONIAL DRIVE AND BUMBY AVENUE IN ORLANDO, FL

The objective of the project was to design and construct dual left turn lanes on SR 50, while minimizing right-of-way and existing utility impacts.

SR 207 DESIGN, FDOT DISTRICT TWO

Signal designer for signal modification and new signal on the reconstruction and widening of three miles of SR 207 from two lanes to four lanes through the Town of Hastings. Also prepared raster images and other graphics for the roadway design team.

CR 466 WIDENING, SUMTER AND LAKE COUNTIES, FL

Project designer on this project that involved preparing construction plans for nine miles of widening of CR 466 from two lanes to a four-lane divided/five lane urban section spanning two counties. Preparation of roadway construction plans for the entire corridor in five phases; drainage design and permitting; design of seven traffic signals; utility coordination; coordination with The Villages' General Consultant and several consultants working in the area; and coordination and approvals through Sumter County and Lake County.

I-295 WIDENING AND IMPROVEMENTS, FDOT DISTRICT TWO

Project designer for the upgrading of the off-ramps at the Blanding Boulevard and U.S. 17 interchanges along I-295 in Duval County. Vehicle lane configuration needs were determined for the ramps and ramp intersections with the crossroads, including triple left turns at one intersection and quadruple right turns at another. Interim overhead signing is being designed for immediate application on I-295, making use of existing sign structures to reduce costs. As part of the roadway design phase, plans were prepared for the eventual signing, pavement marking, and signalization improvements at both interchanges.

MAXWELL R. GOODRICH
TRANSPORTATION ANALYST
TRAFFIC ENGINEERING DATA SOLUTIONS, INC.

EDUCATION
BSCE / 2016/ Rose-Hulman Institute of Technology/ Terre Haule, IN

EXPERIENCE
6 years of experience
Traffic Engineering Data Solutions / 2016 – Present

AREAS OF EXPERTISE
Traffic Operational Studies
S&PM / Lighting Design
MicroStation

SUMMARY

Mr. Maxwell Goodrich joined Traffic Engineering Data Solutions, Inc. (TEDS) in 2016 as a Transportation Analyst. Max has worked on projects that include traffic signal design, signing & pavement marking, roadway lighting, and traffic control design.

SELECTED PROJECTS

FLORIDA'S TURNPIKE ENTERPRISE - TRAFFIC ENGINEERING CONTINUING SERVICES

Engineering Technician on numerous signing design assignments, including ERCARs for guide signing evaluation(s) on various FTE corridors, plans for guide signing upgrades on Polk Parkway, Florida's Turnpike Mainline Left Exits, Suncoast Parkway, Northern Coin system, State Road 429, and State Road 417, evaluation of various interchanges for Wrong Way signing upgrades and development of a Master Signing Plan for Golden Glades Interchange in Miami-Dade Counties. Also included under this contract are various lighting upgrades at FTE facilities.

I-4 BEYOND THE ULTIMATE – FDOT-5

Engineering Technician for the signing & pavement marking, and signal plans in conjunction with I-4 improvements spanning Orange, Osceola, and Polk counties. The project will include the master signing plan for all 3 counties and the signing & marking for I-4 and the interchanges along I-4 spanning these counties.

SR 80 AT FOREST HILL BLVD. INTERSECTION IMPROVEMENTS, PALM BEACH COUNTY, FLORIDA – FDOT-4

Engineering Technician for the design of the Signing and Pavement Marking and Signalization Plans of SR 80 at Forest Hill Blvd. Intersection in Palm Beach County. Project involved milling and resurfacing as well as widening of the Intersection. Project responsibilities included designing the Signing and Pavement Marking and the Signalization at the intersection in accordance with FDOT Design Standards to concur with the Roadway Improvements.

US 1 PEDESTRIAN/INTERSECTION LIGHTING UPGRADES – VOLUSIA COUNTY, FL – FDOT-5

This project involved the investigation of existing field conditions, coordination of design requirements with several municipalities and the local power company, and the design and recommendations of the upgrades necessary to meet current FDOT lighting criteria for 22 intersections along US 1.

SR 5A PEDESTRIAN/INTERSECTION LIGHTING UPGRADES, VOLUSIA COUNTY, FL – FDOT-5

This project involved the investigation of existing field conditions, coordination of design requirements with several municipalities and the local power company, and the design and recommendations of the upgrades necessary to meet current FDOT lighting criteria for 21 intersections along SR 5A.

FDOT DISTRICT 5 - SR 423 & SR 50 PEDESTRIAN/INTERSECTION LIGHTING UPGRADES, ORANGE COUNTY, FL

As part of FDOT's effort to improve safety at signalized intersections, TEDS was asked to evaluate the existing lighting at 8 intersections along US 1, 21 intersections along SR 5A, eight intersections along SR 423 and 75 intersections along SR 50 and to make recommendations for necessary upgrades to meet current FDOT lighting criteria.

FLORIDA'S TURNPIKE ENTERPRISE - SR 821/HEFT EXPRESS LANES FROM NW 106TH ST. TO I-75, MIAMI-DADE COUNTY, FL

Engineering Technician for the design of the Signing and Pavement Marking, Lighting, and Signalization Plans at SR 821 HEFT Junction of Florida's Turnpike. Project involved adding express lanes and redesigning SAPM, Lighting, and Signals at 3 existing interchanges along SR 821 in Miami, FL. Responsibilities included redesigning the striping and signing on SR 821 to include Express Lanes, redesigning the striping and signing of the 3 interchanges included in the project, and assisting with the design of the Lighting along the project.

FLORIDA'S TURNPIKE ENTERPRISE - SR 91/FLORIDA'S TURNPIKE WIDENING FROM WEST PALM BEACH SERVICE PLAZA TO SR 710, PALM BEACH COUNTY, FL

This project consists of the widening of approximately 11.5 miles of Florida's Turnpike to provide Express Lanes. Susanne is the EOR for the signing and marking, lighting and signal designs. TEDS was also asked to provide the Master Signing Plan for the widening project to the north that extends to SR 706 (Indiantown Rd).

SR 25 (US 27/301/441) RESURFACING - FDOT-5

As part of a milling and resurfacing contract in Marion County, TEDS evaluated the existing lighting at 16 intersections, a 1-mile-long corridor, and 2 midblock crossings along SR 25, to make the necessary upgrades to meet current FDOT lighting criteria. TEDS was also tasked with upgrading the detection and pedestrian features at 16 signalized intersections. Max was the lead designer for the lighting plans.

SR 417 WIDENING INTERNATIONAL DRIVE TO JOHN YOUNG PARKWAY - CFX

This roadway improvement project for Central Florida Expressway Authority (CFX) in Orange County includes widening, incorporating Part Time Shoulder Usage signage, requires modifications to the roadway lighting system, upgrading the existing underdeck lighting to LED, and rebuilding the signals at two intersections. Max was the lead designer for the signing and pavement marking and lighting plans.

SR 417 WIDENING LANDSTAR BLVD. TO BOGGY CREEK ROAD - CFX

This roadway improvement project for Central Florida Expressway Authority (CFX) in Orange County includes widening, incorporating Part Time Shoulder Usage signage, requires modifications to the roadway lighting system, upgrading the existing underdeck lighting to LED, and rebuilding the signals at two intersections. Max was the lead designer for the lighting plans.

SR 417 WIDENING BOGGY CREEK ROAD TO NACROOSSEE ROAD - CFX

This roadway improvement project for Central Florida Expressway Authority (CFX) in Orange County includes widening, requires modifications to the roadway lighting system, upgrading the existing underdeck lighting to LED, and rebuilding the signals at three intersections. Max is the lead designer for the lighting plans.

SR 429 WIDENING STONEYBROOK WEST PARKWAY (SOUTH) TO FLORIDA'S TURNPIKE - CFX

This roadway improvement project for Central Florida Expressway Authority (CFX) in Orange County includes widening, incorporating Part Time Shoulder Usage signage, requires modifications to the roadway lighting system, and upgrading the existing underdeck lighting to LED. Max is the lead designer for the signing and pavement marking and lighting plans.

SR 429 WIDENING FLORIDA'S TURNPIKE TO WEST ROAD - CFX

This project involves the new construction of the Suncoast Parkway from SR 44 to CR 486. TEDS is responsible for the lighting along this new corridor and the reconstruction of 2 existing signalized intersection, design of one signalized intersection, and modification of one existing signal. Max is the lead designer for the lighting plans.

SR 589 SUNCOAST PARKWAY EXTENSION – FTE

This project involves the new construction of the Suncoast Parkway from SR 44 to CR 486. TEDS is responsible for the lighting along this new corridor and the reconstruction of 2 existing signalized intersection, design of one signalized intersection, and modification of one existing signal. Max is the lead designer for the lighting plans.

SR 528 WIDENING SR 3 TO GEORGE KING BLVD - FDOT-5

This roadway improvement project for FDOT-5 includes the widening of SR 528, the modification of the existing roadway lighting, and addition of roadway lighting along the corridor. Max is the lead designer for the lighting plans.

MATTHEW P. LATOURELLE, EI
TRANSPORTATION ANALYST
TRAFFIC ENGINEERING DATA SOLUTIONS, INC.

EDUCATION
BSCE / 2020/ University of Central Florida

REGISTRATION
Engineering Intern/ Florida #1100024202

EXPERIENCE
Traffic Engineering Data Solutions / 2020– Present

AREAS OF EXPERTISE
AutoCAD
SAP2000
WaterCAD
GIS
Microstation/OpenRoads

SUMMARY

Mr. Matthew Latourelle is a Transportation Analyst at Traffic Engineering Data Solutions, Inc. (TEDS). Matthew graduated from the University of Central Florida in spring of 2020 with a Bachelor of Science degree in Civil Engineering. Matthew joined the TEDS' staff of engineers and technicians specializing in Transportation Engineering in November, 2020.

Matthew has an exceptional understanding of the roles and responsibilities of a Transportation Analyst at TEDS by using the technical, computational and time management skills obtained while attending college. These skills complement his communication and leadership skills that are displayed in his daily work activities.

SELECTED PROJECTS

PIONEER TRAIL-FDOT 5

This roadway improvement project includes the design of a new interchange on I-95 along with roadway improvements on Pioneer Trail including roadway lighting and signalization. TEDS is responsible for lighting this new interchange and the design of 2 new signals. Assisted in lighting design.

SR 589 SUNCOAST PARKWAY EXTENSION – FTE

This project involves the new construction of the Suncoast Parkway from SR 44 to CR 486. TEDS is responsible for the lighting along this new corridor and the reconstruction of 2 existing signalized intersection, design of one signalized intersection, and modification of one existing signal. Assisted in lighting and signal design.

SR 417 WIDENING BOGGY CREEK ROAD TO NACROOSSEE ROAD - CFX

This roadway improvement project for Central Florida Expressway Authority (CFX) in Orange County includes widening, requires modifications to the roadway lighting system, upgrading the existing underdeck lighting to LED, and rebuilding the signals at three intersections. Assisted with lighting design.

LAKE COUNTRY SR 91 WIDENING-FTE

This roadway improvement project includes widening SR 91 mainline. TEDS is responsible for the interchange lighting at the US 27 and Minneola exits on SR 91. Assisted with lighting design.

SR 429 WIDENING FLORIDA'S TURNPIKE TO WEST ROAD - CFX

This roadway improvement project for Central Florida Expressway Authority (CFX) in Orange County includes widening, requires modifications to the roadway lighting system, upgrading the existing underdeck lighting to LED, retrofitting existing light poles and rebuilding the signals at three intersections. Assisted with lighting design.

SR 429 WIDENING STONEYBROOK WEST PARKWAY (SOUTH) TO FLORIDA'S TURNPIKE - CFX

This roadway improvement project for Central Florida Expressway Authority (CFX) in Orange County includes widening, incorporating Part Time Shoulder Usage signage, requires modifications to the roadway lighting system, and upgrading the existing underdeck lighting to LED. Assisted with Lighting, signing, and pavement marking.

NON-ENGINEERING EXPERIENCE

UPS

- Managed 15-20 employees over 3 stations
- Logging building and equipment issues
- Bulky delivery logging
- Update, maintain, and administer training curriculum for new employees
- Identify opportunities for improvement of resource utilization
- Communicate post-day performance and analysis with leadership

Office Depot

- Technology Specialist
- Streamline processes to increase efficiency
- Manage live call queues

TRISTAN A. SURRATT, PE
ROADWAY DESIGN ENGINEER
TRAFFIC ENGINEERING DATA SOLUTIONS, INC.

EDUCATION
BSCE / 2011/ Florida Gulf Coast University

REGISTRATION
Professional Engineer / Florida #90695

EXPERIENCE
8 years of experience
Traffic Engineering Data Solutions / 2014 – Present

AREAS OF EXPERTISE
Intelligent Transportation (ITS) Transportation System Management and Operations (TSM&O)
Systems Engineering Analysis
Transportation Engineering

CERTIFICATIONS
FDEP Qualified Stormwater Management Inspector

SUMMARY

Mr. Tristan A. Surratt, P.E. is a lead design engineer with TEDS, with primary focus on linear roadway and sidewalk projects. His experience includes design and permitting of roadways, sidewalks, trails, residential and commercial subdivisions, and utility design. Municipalities and governmental agencies served include the Florida Department of Transportation (FDOT), the City of Port Orange, the City of Daytona Beach Shores, the City of Orange City, the City of New Smyrna Beach, the River to Sea Transportation Planning Organization (TPO), the City of Holly Hill, the City of Edgewater, and the City of Daytona Beach. He has completed designs using both Autodesk Civil 3d, as well as using Geopak and Open Roads Designer Connect Edition. Tristan has designed over 20 roadway design projects with varying levels of complexity and has completed FDOT Push Button designs, Local Agency Program designs, as well as roadway designs for FDOT.

SELECTED PROJECTS

VETERAN'S MEMORIAL PARKWAY – ORANGE CITY, FL

Completed design and modeling for 7,500 LF of roadway work to accommodate widening to expand Veteran's Memorial Parkway from a two lane undivided highway to a four lane divided highway. The design was completed in multiple phases with temporary transitions designed to bridge the gap between Phase 2 and Phase 3, as well as expanded stormwater detention pond and new ditch solution utilizing check dams.

TRAFFIC OPERATION IMPROVEMENTS IN DOWNTOWN BRADENTON–FDOT DISTRICT 1–BRADENTON, FL

Lead roadway design engineer for 5,800 LF of roadway redesign necessary to redirect northbound left turns from US 301 to SR 64 to a local road. Project responsibilities include coordination of design between disciplines, 2d and 3d roadway design and modeling, cost estimates, and design documentation.

AMELIA AVE IMPROVEMENTS FROM VOORHIS AVE TO OHIO AVENUE – DELAND, FL

Completed corridor model and design for 3,100 LF of improvements along Amelia Avenue to provide traffic calming solutions, as well as implement a roundabout design at Amelia Ave and Ohio Ave.

CR 473 FROM TREADWAY SCHOOL ROAD TO CR 44 – LAKE COUNTY, FL

Completed design for 11,000 LF of striping and signage replacement with the addition of profiled thermoplastic and retroreflective pavement markers. This safety project also consisted of 2,300 LF of new paved shoulders, milling and resurfacing and cross slope correction to bring the curve up to the desired super elevation rate, redesigned driveway connections and side street connections, and the redesign of the roadside swales system.

WEST FRENCH AVE SHARED USE PATH – PORT ORANGE, FL

Tasked with completing modeling, design, and permitting for 3,200 LF of new 12' wide shared use path along the West French Avenue corridor to connect Valentine Park to Blue Springs State Park. Design includes a pedestrian bridge to span the CFRC Railway Corridor and connect to the existing Spring to Spring Trail on Blue Springs State Park Property.

HERBERT STREET SIDEWALK AND RIGHT TURN LANE – PORT ORANGE, FL

Completed design and permitting for a right turn lane and sidewalk at Clyde Morris Blvd. and Herbert St. Project design was part of a Local Agency Program (LAP) with Port Orange.

MOUNT DORA WASTEWATER TREATMENT PLANT DRIVEWAY AND TURN LANE – MT. DORA, FL

Completed site layout, roadway typical section and profile design, grading, signing & pavement marking, and permitting for over 1,000 LF of new public road, as well as 500 LF of left turn lane on US 441.

FLAGLER AVE SIDEWALK IMPROVEMENT – EDGEWATER, FL

Completed the layout, permitting, plans production, and striping design for over 4,800 LF of sidewalk improvements and 1,000 LF of roadway reconstruction for Flagler Ave for the City of Edgewater, FL.

COOPER STREET TRAFFIC CALMING AND SIDEWALK – NEW SMYRNA BEACH, FL

Completed conceptual plans for traffic calming study along Cooper Street, a residential street used to serve a commercial node, as well as final design plans for calming devices and 1,600 LF of sidewalk for the City of New Smyrna Beach, FL.

SWEETHEART TRAIL GAP 5 - SHARED USE PATH - DAYTONA BEACH, FL

Completing the layout, permitting, design model, and Civil 3D corridor design for a 1,900 LF shared use path as part of the Sweetheart Trail for the City of Daytona Beach, FL.

SWEETHEART TRAIL GAPS 6 - SHARED USE PATH - DAYTONA BEACH, FL

Completing the layout, permitting, design model, and Civil 3D corridor design for a 2,300 LF of 12' wide shared use path. Road revisions including profile correction and milling and resurfacing, with the removal of asphalt and cross slope correction which was designed to ensure a positive drainage profile (where some substandard slopes previously existed). This project is part of the Sweetheart Trail for the City of Daytona Beach, FL.

MCDONALD ROAD SIDEWALKS – PORT ORANGE, FL

Completed the permitting, design model, and Civil 3D corridor design for a 2,700 LF 5' wide sidewalk to serve the local elementary school students. Design included 770 LF of roadway reconstruction to provide a solution which avoids costly right-of-way acquisition and provides ample protection for pedestrians traversing the area.

SPRUCE CREEK SIDEWALKS – PORT ORANGE, FL

Completed the permitting, design model, and Civil 3D corridor design for a 1,600 LF 8' wide sidewalk on the east side of Spruce Creek Road and 750 LF of 8' wide sidewalk on the west side of Spruce Creek Road to promote safer pedestrian movement. The design also included roadside swale alterations and alterations to the pedestrian signals.

VERANO AT VENETIAN BAY PLANNED UNIT DEVELOPMENT – NEW SMYRNA BEACH, FL

Completed site layout, roadway design, and plans production for this project, which is a 191 single-family unit subdivision located in New Smyrna Beach, FL. The project included the design of 9,800 LF of new roadways, 15,000 LF of new sidewalks, 4,600 LF of nature trail, and a public parking lot in New Smyrna Beach, FL.

CERTUS ASSISTED LIVING FACILITY – SEMINOLE COUNTY, FL

Completed site design and assisted in plans production to construct an assisted living facility on a 4.792 acre site in Seminole County, FL.

RACETRAC GAS STATION AT DEBARY AVE. – DELTONA, FL

Completed site design, grading, plans production, stormwater modeling, and permitting to construct a new RaceTrac gas station on a 1.98 acre site in Deltona, FL.

KAREN A. O'NEILL, EI
CIVIL ENGINEERING ANALYST
TRAFFIC ENGINEERING DATA SOLUTIONS, INC.

EDUCATION
BSCE / 2006/ Roger Williams University/Rhode Island

REGISTRATION
Engineering Intern Rhode Island

EXPERIENCE
10 years of experience
Traffic Engineering Data Solutions / 2015 – Present

AREAS OF EXPERTISE
Civil Engineering
Land Development
AutoCAD Civil 3D

SUMMARY

Ms. Karen O'Neill is a Civil Engineer / Land Development Designer at Traffic Engineering Data Solutions, Inc. (TEDS). Karen graduated from Roger Williams University in 2005 with a Bachelor of Science degree in Engineering. Prior to joining TEDS Karen worked for a consulting engineering firm focusing on a broad variety of civil engineering designs. Karen's experience includes various road improvement projects, shore stabilization projects, recreation facility projects and utility relocation coordination.

Below are some of the projects Karen has been involved with since joining TEDS:

SELECTED PROJECTS

PEDESTRIAN REFUGE ISLANDS – DAYTONA BEACH SHORES, FL

Assisted in the preparation of the site construction plans to construct pedestrian crossings along State Road A1A in Daytona Beach Shores, FL.

VICTORIA GARDENS SIDEWALK – PORT ORANGE, FL

Assisted in the roadway improvements, plan preparation and obtaining permits for the construction of 1,850 LF of sidewalk improvements on Victoria Gardens Boulevard, for the City of Port Orange, FL.

ADA IMPROVEMENTS – N. ORANGE AVE. AT GRAVES AVE. – ORANGE CITY, FL

Assisted in the preparation of the plans for 600 LF of sidewalk improvements on N. Orange Ave. for the City of Orange City, FL.

W. FRENCH AVE. SIDEWALK FROM CARPENTER AVE. TO VALENTINE PARK

– ORANGE CITY, FL

Assisted in the roadway improvements, plan preparation and obtaining permits for the construction of 6,750 LF of sidewalk improvements and 1,500 LF of bicycle lane construction on W. French Ave. for the City of Orange City, FL.

W. TURGOT RIGHT TURN LANE – EDGEWATER, FL

Designed the roadway improvements, prepared plans and obtained permits for the construction of a right turn lane on Turgot Ave. to US 1 for the City of Edgewater, FL.

I-95 AT SR 519 RAMPS RESURFACING (FDOT-5) – BREVARD COUNTY, FL

Assisted in the preparation of FDOT compliant construction drawings associated with the milling and resurfacing of the northbound and southbound I-95 off-ramps to SR 519.

RACETRAC GAS STATION AT DEBARY AVE. – DELTONA, FL

Assisted in the preparation of the site construction plans to construct a new RaceTrac gas station in Deltona, FL. The project included creative engineering solutions for fire protection and drainage which resulted in a shorter permitting timeline and significant client savings.

CERTUS ASSISTED LIVING FACILITY – ORANGE COUNTY, FL

Assisted in preparing the site construction plans, drainage calculations and reports, and obtaining permits to construct a 43,270 SF, 64

Bed Assisted Living Facility on a 5.41 acre site in Orange County, FL. This project included the design of a private lift station and the extension of over 1,300 LF of sewer force main to serve the proposed building.

OCEAN GATE COMMERCE CENTER – NEW SMYRNA BEACH, FL

Prepared the site construction plans, drainage calculations and reports, grading design and permitting for the construction of a 108- acre planned unit development.

CERTUS ASSISTED LIVING FACILITY – SEMINOLE COUNTY, FL

Assisted in preparing the site construction plans, drainage calculations and reports, and obtaining permits to construct a 45,763 SF, 64 Bed Assisted Living Facility on a 4.73 acre site in Seminole County, FL. This project included the design of a private lift station and the extension of over 3,800 LF of sewer force main to serve the proposed building.

RACETRAC GAS STATION AT SR44 AND I-95 – NEW SMYRNA BEACH, FL

Assisted in the preparation of the preliminary site construction plans to construct a new RaceTrac gas station in New Smyrna Beach, FL.

RACETRAC GAS STATION AT SR19 AND SR20 – PALATKA, FL

Prepared site construction plans, grading design and permitting for the construction of a new RaceTrac gas station at the corner of SR 19 and SR 20 in Palatka, FL. This project consisted of the design of two underground exfiltration systems.

SERVICE KING COLLISION REPAIR SHOP – OLDSMAR, FL

Assisted in preparing the site construction plans, to construct an 8,000 SF Service King Collision Repair Shop on a 0.55 acre site in Oldsmar, FL. The project included the design of an underground exfiltration system.

SECURE STORE SELF-STORAGE FACILITY – CLERMONT, FL

Assisted in preparing the site construction plans and obtaining permits to construct a 2-Story 101,500 SF Self-Storage Facility on a 6.88 acre site in Clermont, FL.

PAST PROJECT EXPERIENCE

IMPROVEMENTS TO MAPLETON ROAD, TOWNSHIP OF PLAINSBORO – PLAINSBORO, NJ

Prepared site construction plans, grading and drainage design and permitting for 1.7 miles of roadway located within the flood plain of the Millstone River. Project included extensive permitting and the design of submerged storm sewer outfalls with stone veneer headwalls.

HEAVENLY FARMS, EAST BRUNSWICK – EAST BRUNSWICK, NJ

Conceptual layout for a 75+ acre public park. Prepared site construction plans, grading and drainage design and permitting for two synthetic turf multi use fields, parking lot, retention pond, synthetic turf level playing baseball field and concession stand.

IMPROVEMENTS TO FORD AND MAIN, MIDDLESEX COUNTY – WOODBRIDGE, NJ

Prepared site construction plans, grading and drainage design and traffic signal plans for the intersection of Main Street and Ford Avenue.

MICHAEL A. THOMPSON
CIVIL ENGINEER ANALYST
TRAFFIC ENGINEERING DATA SOLUTIONS, INC.

EDUCATION
Bachelor's Degree in Environmental Engineering
University of Central Florida/ 2016

EXPERIENCE
5 years of experience
Traffic Engineering Data Solutions / 2017 – Present

AREAS OF EXPERTISE
AutoCAD Civil 3D
FDOT State Kit
EPANET
Plans Production
Land Development
Permitting
Utility coordination
Total Station and GPS Equipment

SUMMARY

Mr. Michael Thompson is a Land Development and Civil Engineering Analyst at Traffic Engineering Data Solutions, Inc. (TEDS). Michael graduated from the University of Central Florida with a Bachelor of Science degree in Environmental Engineering. Prior to joining TEDS, Michael's experience included working for a Civil and Surveying firm, focusing primarily on surveying. Michael has experience in both AutoCAD civil 3d and FDOT State Kit producing plan sets, exhibits, and modeling pipe and existing utility networks. Michael also has experience in developing cost estimates, surfaces and conducting utility coordination.

Below are some of the projects Michael has been involved with since joining TEDS:

SELECTED PROJECTS

OCEAN GATE COMMERCE CENTER – NEW SMYRNA BEACH, FL

Assisted in preparing site construction plans, exhibits, cost estimation and permitting for the construction of a 108-acre planned unit development. Designed and modeled the reclaimed water system using EPANET. Conducted utility coordination and assessed SUE data.

AMELIA AVENUE STREET IMPROVMENTS – DeLAND, FL

Assisted in plans production, cost estimation and permitting for the roadway improvements along Amelia avenue. Improvements consisted of reconstructing the existing 4-lane as a 3-lane roadway with one northbound lane one southbound lane and one two-way left turn lane in the middle. Conducted basinology, drainage analysis and modeling of the existing storm and sewer networks. Assisted in producing various typical sections along the corridor. Assisted in signing and striping design. Responsible for gathering and assessing GIS data, as-builts, record plans, utility maps and shapefiles. Responsible for producing an existing surface from LIDAR data. Pulled existing manholes to get pipe inverts. Responsible for producing right of way exhibits for city, county and property owner(s) to demonstrate potential easements and proposed rights-of-way.

LAKE ELLA ROAD – FRUITLAND PARK, FL

Assisted in plans production, cost estimation and permitting for roadway improvements for 3 segments along Lake Ella Road. Roadway improvements consisted of constructing paved shoulders. Conducted sign inventory, sign design and utility coordination.

VETERANS MEMORIAL PARKWAY – ORANGE CITY, FL

Assisted in plans production, cost estimation and permitting for two phases of roadway improvements along Veterans Memorial Parkway. Roadway improvements entailed widening Responsible for utility coordination, taking site photographs, modeling existing utility networks, creating existing surfaces from Lidar data, earthwork calculations, and basinology. Responsible for pulling permits and overlaying record plans and drawings. Conducted sign inventory and assisted in sign design and placement.

HANCOCK ROAD SAFETY STUDY – CLERMONT, FL

Assisted in plans production, cost estimation and permitting for roadway improvements along Hancock Road. Improvements consisted of expanding existing 2- lane road into a 4-lane road with a curbed median, bike lanes and sidewalk. Responsible for utility coordination, pulling record plans and permits in addition to conducting a sign inventory.

BRADENTON TRAF OPS – BRADENTON, FL

Assisted in developing pre-post basin maps. Responsible for overlaying RGBs and correcting existing utility locations.

BREVARD COUNTY SOLID WASTE – DEER PARK, FL

Assisted in plans production, cost estimation and permitting for roadway improvements along SR 500 / US 192. Improvements consisted of reconstructing the existing median nose to allow for a full access opening for both east bound and west bound travel movements into and out of the proposed solid waste management facility. Improvements also consisted of constructing a paved median ditch with new storm pipe and structures to aid in drainage in addition to constructing an acceleration lane, road shoulders, bike lane and a driveway into the proposed solid waste facility.

DeBARY SUNTRAIL SEGMENT 2 – DeBARY, FL

Assisted in plans production, cost estimation and permitting for Suntrail Segment 2. Project consisted of creating 400 linear feet of a 12-foot-wide asphalt pavement shared use path to be constructed on the Integra 289 Subdivision project. The purpose of this project is to connect the existing spring-to-spring trail to the Coast-to-coast trail system. Responsible for utility coordination, overlaying record plans and developing exhibits for presentation purposes.

PARKING LOT (WASHINGTON & FAULKNER) – NEW SMYRNA BEACH, FL

Assisted in developing two concept designs for a parking lot for city employees.

DUNLAWTON NOVA APS & SIDEWALK GAPS – PORT ORANGE, FL

Assisted in developing concept layouts that pertained to constructing sidewalk in different locations/ gaps as well as enhancing pedestrian safety at 8 intersections within the city of Port Orange. Enhancements included aps features, lighting, and sidewalk ramps where applicable. The Purpose of this was to provide a cost estimate feasibility report for River to Sea TPO. Responsible for gathering right-of-way maps to provide accurate right-of-way depictions. Conducting a sign inventory, developing existing conditions for plans production. Responsible for developing an EOPC as well as writing some of the report.

RACETRAC – ORMOND BEACH, FL

Assisted in plans production, cost estimation and permitting for a RaceTrac Gas station located in Ormond Beach. Responsible for utility coordination, sign inventory, and taking site photographs.

84 SPRING VISTA DRIVE – DeBARY, FL

Assisted in plans production for the development of a one-story office building for Traffic Engineering Data Soluitons, Inc. Responsible for conducting NPDES (National Pollution Discharge Elimination system) inspection reports for the city of Debary. Inspection reports entailed taking site photographs once per week or after a rainfall event and measuring the amount of precipitation per occurrence.

SIGNAL INVENTORY – DISTRICT 5

Assisted in conducting signal inventory for intersections within District 5. Responsible for reading a level to get rod readings for mast arm elevations in addition to using a telescoping rod to get span wire heights. Purpose was to get signal head heights and span wire heights of all existing span wires to determine whether or not mast arms will be needed. Also measured heights of signal heads on span wires to determine whether or not flexible back plates should be installed.

CONDITION DIAGRAMS – DISTRICT 5

Developed various condition diagrams for intersections within district 5. Condition diagrams entailed tracing out hard features such as edge o pavement, curb, medians etc. to develop existing conditions layout for the intersection.

W. FRENCH AVE SHARED USE PATH – ORANGE CITY, FLAssisted in plans production and cost estimation for a 12’ shared use path from Valentine Park to The Spring-to-Spring Trail located in Orange City, FL

P. HALLEY FERRELL
VICE PRESIDENT/DATA COLLECTIONS MANAGER
TRAFFIC ENGINEERING DATA SOLUTIONS, INC

EDUCATION
Bachelor of Arts-Business Administration/ Lindenwood University/2009

EXPERIENCE
13 years of experience
Traffic Engineering Data Solutions / 2008 – Present

AREAS OF EXPERTISE
Data Collection Manager
Automated Data Collection
Manual Data Collection
Report Preparation
QA /QC

SUMMARY

Mr. Halley Ferrell is the Vice President / Data Collection Manager for TEDS. Halley is a graduate of Lindenwood University and manages the day-to-day activities of TEDS' data collection program. Halley also assists the design and study groups with quality control along with various study activities. Halley brings great value to the TEDS' Team with his ability to work closely with the engineers and data collection technicians to ensure quality data is collected and provided as part of the various traffic operational study and design assignments.

SELECTED PROJECTS

FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT-5) – CONTINUING ENGINEERING CONSULTANT CONTRACTS FOR TRAFFIC SIGNAL RETIMING

Contract completed data collection for traffic signal retiming studies on the state highway system in FDOT District 5. Over 300 8-hour manual turning movement counts were completed at intersections along:

- SR 50 (Orange County)
- SR 436 (Orange County)
- SR 426 (Orange County)
- US 17/92 (Osceola County)
- SR 416 (Orange County)
- SR 438 (Orange County)
- SR 535 (Orange and Osceola County)
- SR 536 (Orange County)
- SR 40 (Marion and Volusia County)
- US 441 (Orange and Lake County)
- SR 44 (Volusia and Lake County)
- SR 423 (Orange County)
- SR 520 (Brevard County)
- SR 528 (Brevard County)
- US 27 (Lake and Marion County)
- SR 3 (Brevard County)
- SR A1A (Flagler, Volusia and Brevard County)
- US 98 (Polk County)
- US 192 (Osceola County)

7-day automated traffic volume counts were completed along SR 50 (Orange County), SR 436 (Orange County), SR 426 (Orange County), US 17/92 (Osceola County), US 192 (Osceola County), SR 416 (Orange County), SR 438 (Orange County), SR 535 (Orange and Osceola County), SR 536 (Orange County), SR 520 (Brevard County), SR 40 (Marion and Volusia County), SR 423 (Orange County), SR 3 (Brevard County), SR 44 (Lake and Volusia County), US 27 (Lake and Volusia County)

METROPLAN ORLANDO – ARTERIAL RETIMING DATA COLLECTION, SEPTEMBER 2016 – PRESENT (TWO TERMS)

Oversaw 150 8-hour manual turning movement counts at intersections along with more than forty 7-day bi-directional tube counts on various Central Florida roadways.

FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT-1) - DISTRICTWIDE TRAFFIC STUDIES AND ACCESS MANAGEMENT

On-going contract completing data collection for traffic operational studies on the state highway system in FDOT District 1. As part of this contract, Halley was / is responsible for the following:

- Directed and processed manual turning movement counts and automated traffic volume counts in support of 100+ traffic engineering studies along the state highway system (140+ task work orders).
- Directs, coordinates and processes automated traffic volume, classification and speed counts annually along state and local highways.

- Supports TEDS' staff of engineers and technicians in special data collection needs (speed data, GIS photography, etc.) for specialized traffic operational and safety studies along the state highway system.

FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT-5) - CONTINUING ENGINEERING CONSULTANT CONTRACTS FOR TRAFFIC OPERATIONS, NOVEMBER 2009 – PRESENT (RESELECTED FOR THIRD TERM)

On-going contract completing data collection for traffic operational studies on the state highway system in FDOT District 5. As part of this contract, Halley was / is responsible for the following:

Directed and processed manual turning movement counts and automated traffic volume counts in support of:

- 200+ traffic engineering studies (180+ task work orders)

Examples of data collection completed to support TEDS' engineering staff as part of this project (partial list) includes:

- Turning Movement Counts (manual)
    - 400+ counts (2-hour, 4-hour and 8-hour TMCs)
- Volume and Classification Counts (automated)
    - 2,000+ counts (volume – tube & cabinet, classification – tube & cabinet)
- 7-Day Volume Counts (automated)
    - 30+ counts (as part of retiming studies)
- Speed Studies
    - 50+ spot speed sites
- Signal Warrant Analysis Studies
    - 20+ delay studies (as part of signal warrant studies)

VOLUSIA COUNTY TRAFFIC ENGINEERING CONTRACT, FEBRUARY 2011 – PRESENT (RESELECTED FOR THIRD TERM)

On-going contract completing data collection for traffic operational studies on the county highway system in Volusia County. As part of this contract, Halley is also responsible for the following: Annual Concurrency Counts (48-hour automated counts) were completed along various arterials and local roadways in Volusia County.

FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT-5 & CENTRAL OFFICE) – INTERSTATE 4 ULTIMATE

On-going contract supporting FDOT District 5 and FDOT Central Office in the development and delivery of the I-4 Ultimate PPP project. As part of this contract, updated data was needed to support the traffic analysis to gain Federal Highway approval. Halley coordinated counts with TEDS' staff and an outside vendor and delivered the following:

- 24-hour continuous manual counts at rest areas on I-4 in Seminole County. Purpose of counts was to support analysis being completed to determine utilization of rest areas and potential alternatives for deployment as part of project.
- Completed and processed 90+ 8-hour turning movement counts at signalized intersections along the I-4 corridor. Counts were completed by TEDS' staff and an outside vendor and processed by Halley for delivery to RSH as part of updated traffic analysis.

FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT-7) - DISTRICTWIDE CONSULTANT CONTRACTS FOR TRAFFIC OPERATIONS

On-going contract completing data collection for traffic operational studies on the state highway system in FDOT District 7. As part of this contract, Halley was / is responsible for the following:

- Directs, coordinates and processes automated traffic volume, classification and speed counts annually along state and local highways.
- Supports TEDS' staff of engineers and technicians in special data collection needs (speed data, GIS photography, etc.) for specialized traffic operational and safety studies along the state highway system.

CAMERON LEGASPI
DATA COLLECTION TECHNICIAN
TRAFFIC ENGINEERING DATA SOLUTIONS, INC.

EDUCATION
AS/Music and Sound Technology
2012/Valencia College

EXPERIENCE
3 years of experience
Traffic Engineering Data Solutions / 2018 – Present

AREAS OF EXPERTISE
Data Collection
Automated Data Collection
Manual Data Collection
Report Preparation

QA /QC

SUMMARY

Mr. Cameron Legaspi is a Data Collection Technician for Traffic Engineering Data Solutions, Inc. (TEDS) with 3 years of experience completing various data collection services in support of traffic engineering studies and designs. His experience includes completing data collection for projects with the Florida Department of Transportation (FDOT), numerous local municipalities and private sector clients. Cameron brings great value to the TEDS' Team with his ability to work closely with the engineers and data collection technicians to ensure quality data is collected and provided as part of the various traffic operational study and design assignments.

SELECTED PROJECTS

FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT-5) – CONTINUING ENGINEERING CONSULTANT CONTRACTS FOR TRAFFIC SIGNAL RETIMING

Contract completing data collection for traffic signal retiming studies on the state highway system in FDOT District 5. Over 300 8-hour manual turning movement counts were completed at intersections along:

- SR 50 (Orange County)
- SR 436 (Orange County)
- SR 426 (Orange County)
- US 17/92 (Osceola County)
- SR 416 (Orange County)
- SR 438 (Orange County)
- SR 535 (Orange and Osceola County)
- SR 536 (Orange County)
- SR 40 (Marion and Volusia County)
- US 441 (Orange and Lake County)
- SR 44 (Volusia and Lake County)
- SR 423 (Orange County)
- SR 520 (Brevard County)
- SR 528 (Brevard County)
- US 27 (Lake and Marion County)
- SR 3 (Brevard County)
- SR A1A (Flagler, Volusia and Brevard County)
- US 192 (Osceola County)

7-day automated traffic volume counts were completed along SR 50 (Orange County), SR 436 (Orange County), SR 426 (Orange County), US 17/92 (Osceola County), US 192 (Osceola County), SR 416 (Orange County), SR 438 (Orange County), SR 535 (Orange and Osceola County), SR 536 (Orange County), SR 520 (Brevard County), SR 40 (Marion and Volusia County), SR 423 (Orange County), SR 3 (Brevard County), SR 44 (Lake and Volusia County), US 27 (Lake and Volusia County).

FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT-5) - CONTINUING ENGINEERING CONSULTANT CONTRACTS FOR TRAFFIC OPERATIONS, NOVEMBER 2009 – PRESENT (RESELECTED FOR THIRD TERM)

On-going contract completing data collection for traffic operational studies on the state highway system in FDOT District 5. As part of this contract, Cameron was / is responsible for the following: Processing manual turning movement counts and automated traffic volume counts in support of 200+ traffic engineering studies along the state highway system in FDOT District 5 (180+ task work orders). Supports TEDS' staff of engineers and technicians in special data collection needs (speed data, GIS photography, etc.) for specialized traffic operational and safety studies along the state highway system in FDOT District 5.

Examples of data collection completed to support TEDS' engineering staff as part of this project (partial list) includes:

- Turning Movement Counts (manual)
    - 400+ counts (2-hour, 4-hour and 8-hour TMCs)
- Volume and Classification Counts (automated)
    - 2,000+ counts (volume – tube & cabinet, classification – tube & cabinet)
- 7-Day Volume Counts (automated)
    - 30+ counts (as part of retiming studies)
- Speed Studies
    - 50+ spot speed sites
- Delay Studies
    - 40+ delay studies (as part of signal warrant studies)
- Approach Counts
    - 100+ intersection approach counts (as part of signal warrant studies)

METROPLAN ORLANDO – ARTERIAL RETIMING DATA COLLECTION, SEPTEMBER 2018 - PRESENT

Contract completing data collection for traffic signal retiming studies on the various roadways in the MetroPlan area of FDOT District 5.

Over seventy five 8-hour manual turning movement counts were completed at intersections along with more than twenty 7-day bidirectional tube counts along the following roadways:

- Central Florida Parkway (Orange County)
- John Young Parkway (Orange County)
- Winter Garden Vineland Road (Orange County)
- John Young Parkway (Osceola County)
- Pleasant Hill Road (Osceola County)
- Landstar Blvd. (Orange County)
- Orange Avenue (Orange County)
- Town Center Blvd. (Orange County)
- Wetherbee Road (Orange County)
- Osceola Parkway (Osceola County)
- Narcoosee Road (Osceola County)
- Oak Ridge Road (Orange County)
- Howell Branch Road (Seminole County)
- Lake Mary Blvd. (Seminole County)
- Tradeport Drive (Orange County)
- Maguire Blvd. (Orange County)
- Rock Springs Road (Orange County)
- S. Apopka Blvd. (Orange County)

ADAM KOON
DATA COLLECTION TECHNICIAN
TRAFFIC ENGINEERING DATA SOLUTIONS, INC.

EDUCATION
Daytona Community College Associate of Arts / 2008

EXPERIENCE
10 years of experience
Traffic Engineering Data Solutions / 2011 – Present

AREAS OF EXPERTISE
Data Collection Drafting (MicroStation) QA / QC

SUMMARY

Mr. Adam Koon is an Engineering Technician for Traffic Engineering Data Solutions, Inc. (TEDS) with 9 years of experience completing various data collection services in support of traffic engineering studies and designs. His experience includes completing data collection for projects with the Florida Department of Transportation (FDOT), numerous local municipalities and private sector clients. Mr. Koon has personally completed hundreds of traffic counts within the Central Florida area along with additional traffic counts throughout the State of Florida. The following is a brief summary of Adam's traffic engineering data collection experience along with his drafting and design experience.

TRAFFIC DATA COLLECTION

Automated Traffic Counts

- ACE and ADR 1000 loop counters, loop volume, and loop piezo counts for FDOT District Five as well as for local government agencies

Manual Traffic Counts

- Turning movement counts using Jamar Ultra TMC boards
- Turning movement counts using Miovision Scout cameras

Studies / Reports

- Left turn phase warrant studies
- Intersection delay studies
- Speed Studies

MicroStation

- Draw intersection diagrams detailing all intersection features
- Photographs of all approaches as part of intersection inventory
- Interstate sign inventory including photos and geo-locating all signs

SELECTED PROJECTS

Florida Department of Transportation District 1

- Traffic Operations
  - 8-hour and 12-hour TMCs
- Access Management
  - US 41 8-hour TMCs

Florida Department of Transportation District 5

- Traffic Operations
  - 8-hour TMCs
  - Annual Count Program
- Safety
  - 8-hour TMCs
- TSM&O
  - 8-hour TMCs
- Design Traffic

    - Babcock Road TMCs
- Freight and Logistics
    - Rest Area Study

Metro Plan Orlando

- 8-hour TMCs as part of retiming effort(s)

Volusia County

- Concurrency Management 48-hour automated counts

City of Ocala

- 8-hour TMCs

DAVID J. MANCUSI
SENIOR DATA COLLECTION TECHNICIAN
TRAFFIC ENGINEERING DATA SOLUTIONS, INC.

EDUCATION
1978/Colonial High School/Orlando, Florida

EXPERIENCE
11 years of experience
Traffic Engineering Data Solutions / 2009 – Present

AREAS OF EXPERTISE
Data Collection
Construction Inspection (CEI)

SUMMARY

Mr. David Mancusi is a Senior Engineering Technician for Traffic Engineering Data Solutions, Inc. (TEDS) with over 20 years of experience completing various data collection services in support of traffic engineering studies and designs along with construction engineering inspection (CEI). Dave's experience includes completing data collection for projects with the Florida Department of Transportation (FDOT), numerous local municipalities and private sector clients. Dave has personally completed thousands of traffic counts within the Central Florida Area along with additional traffic counts throughout the State of Florida. The following is a brief summary of Dave's traffic engineering data collection experience, along with his Construction Engineering Inspection (CEI) experience:

TRAFFIC DATA COLLECTION

TRAFFIC ENGINEERING DATA SOLUTIONS, INC.

- ADR 1000 loop counters, loop volume, and loop piezo counts for FDOT District Five as well as for local government agencies and municipalities
- ACE tube counters for volume and classification counts for FDOT District Five as well as for local government agencies and municipalities
- Troubleshooting PTMS cabinets (minor repairs and testing)
- Data collection - laying field hoses and placing counters out to collect data
- Travel time delay studies
- Turning movement counts utilizing Jamar Ultra TMC Boards
- Speed studies
- Draw intersection diagrams detailing all intersection features
- Photographs of all approaches as part of intersection inventory
- Interstate sign inventory including photos and geo-locating all guide signs

HNTB CORP. 1999 - 2009

- PTMS Cabinet Inspections working directly with contractors and interacting with FDOT personnel
- ADR 1,000 loop counters, loop volume, and loop piezo (classification counts) for the Florida Department of Transportation Districtwide Data Collection contracts for Districts One, Four, Five, and Seven, as well as for local government agencies and municipalities
- Troubleshooting (minor repairs and testing)
- Data collection - laying field hoses and placing counters out to collect data
- Travel time delay studies
- Turn signal movement counts
- Speed studies and draw intersection diagrams
- Draw intersection diagrams detailing all intersection features

CONSTRUCTION ENGINEERING INSPECTION (CEI) FDOT DISTRICT 5

Construction inspection for over 20 projects developed through the pushbutton design contract in Traffic Operations. Inspections cover both roadway and signal construction along with coordination with the contractor(s) and FDOT District 5 Traffic

Operations staff.

ALEXANDER T. MIMS, PE
ITS DESIGN MANAGER
TRAFFIC ENGINEERING DATA SOLUTIONS, INC.

EDUCATION
BSCE / 2009/ University of Central Florida

REGISTRATION
Professional Engineer / Florida #77095

EXPERIENCE
13 years of experience
Traffic Engineering Data Solutions / 2008 – Present

AREAS OF EXPERTISE
Intelligent Transportation (ITS) Transportation System Management and Operations (TSM&O)
Systems Engineering Analysis
Transportation Engineering

SUMMARY

Mr. Alexander T. Mims is the Intelligent Transportation Systems (ITS) Design Manager for TEDS. Alex has been involved in various engineering designs, from the ground up for the last twelve (12) years. Alex brings great ability to TEDS with his subject knowledge and design experience. His diverse background brings abilities for leading efforts completing ITS designs, ITS studies, civil site designs, traffic signal designs, systems engineering analysis, and specifications development. The following is a representative listing of Alex's diverse experience over the past twelve years:

SELECTED PROJECTS

CFX 417-141, 417-142, AND 417-149 (CENTRAL FLORIDA EXPRESSWAY AUTHORITY)

This series of three consecutive projects span approximately 11 miles on SR 417 and will widen SR 417, implement part time shoulder use, and implement variable speed limit signage. Alex is the ITS Engineer of Record for these three projects, which cumulatively include over 100 miles of fiber optic and electrical cabling, dozens of CCTV cameras and vehicle detectors, over 150 dynamic message signs, and numerous power services. As part time shoulder use and variable speed limits signs are new to Central Florida Expressway Authority (CFX), Alex worked closely with CFX's representatives and developed custom installation details for part time shoulder use and variable speed limit implementation. The power system design included sizing of uninterruptible power supplies, voltage drop calculations, conductor sizing calculations, load flow assessments, fault current calculations, selective protection device coordination, and arc flash hazard assessments at all new or modified power services.

INTERSTATE 75 ITS IN SUMTER AND MARION COUNTIES (FDOT-5)

Alex was the ITS Engineer of Record completing design plans for design-build projects along Interstate 75 from the Hernando County line to north of US 27. Collectively these designs included approximately 45 miles of freeway ITS design and deployment, including CCTV, MVDS, DMS, fiber optic communications, power services, and underground conduit infrastructure. Coordination and / or permitting with water management districts (SJRWMD and SWFWMD), Marion County, Sumter County, multiple power service providers, and the City of Ocala was completed as part of design. This project also required coordination with FDOT Central Office, for the installation of ITS Master Hubs within FDOT's Wildwood and St. Catherine's Telecommunication Tower sites.

WEKIVA PARKWAY SECTION 7A (FDOT-5)

Alex was the Engineer of Record completing design plans and specifications for ITS elements, for the project along the Wekiva Parkway (State Road 429) from the Wekiva River east to Orange Boulevard. Design included approximately 3 ½ miles of freeway ITS design and deployment, including CCTV, MVDS, DMS, fiber optic communications, power services and underground conduit infrastructure. Fiber optic connections for two toll buildings were included and the ITS design was performed in conformance with the FTE General Tolling Requirements (GTR). In addition, a number of project-specific specifications for ITS equipment, testing, and integration were developed.

FDOT DISTRICT 5 TSM&O DISTRICTWIDE CONTINUING SERVICES CONTRACT

TEDS was selected as the prime engineer for this five-year contract with a budget of $1.5 million, and Alex serves as the PM. Under the auspices of this contract, Alex has managed, from scoping to completion of design, a wide assortment of ITS and TSM&O projects; ranging from adaptive ramp metering assessments to bridge security and surveillance systems. Alex has acted as both the Engineer of Record and Project Manager for numerous tasks issued under this continuing services contract.

US 27 ADAPTIVE TRAFFIC SIGNAL CONTROL IN POLK COUNTY

Alex was the Engineer of Record and Design Project Manager for this Design-Build project that deployed an adaptive traffic signal system on US 27 for 22 intersections spanning approximately 23 miles in FDOT District 1. Installation of fiber optic cable for the full length of the project, upgrading the existing traffic signal controllers, and improvements to the existing vehicle detection systems at each intersection were performed. Furthermore, the project required a directional bore crossing of a CSX railroad, for which special permits were obtained. Two environmental resource general permits were secured through SWFWMD.

I-95 AT VIERA BLVD. DIVERGING DIAMOND INTERCHANGE

This project will be one of the first Diverging Diamond Interchanges completed in FDOT District 5, and required adjustment to the existing ITS along I-95. Alex lead TEDS involvement in the design effort, as Engineer of Record for the ITS Plans. Relocation and addition of ITS devices, such as CCTV cameras, MVDS, and DMS, were required as part of the improvements, as was the related design of ITS power distribution and communication systems to support the ITS devices in the interchange area.

SR 821/HEFT MANAGED LANES FROM NW 106TH ST. TO I-75

Alex is the ITS Engineer of Record, and leads the Systems Engineering Analysis for this project that will construct one managed lane in each direction of travel along SR 821/HEFT. The ITS efforts began with creation of a Concept of Operations and ITS Concept Plan, that brought the various stakeholders to a common vision for the corridor's operations. As an interface between Turnpike and FDOT District 4 express lanes at the I-75 and SR 821/HEFT interchange is included in the project, ample consideration was given to the interplay between these two agencies, with the goal of providing a seamless transition from a driver's perspective between to two systems that also meets the particular requirements and operational objectives of both the Florida's Turnpike Enterprise and FDOT District 4. ITS elements from Florida's Turnpike, FDOT District 4, and FDOT District 6 are all included in the project scope.

US 17/92 ADAPTIVE TRAFFIC SIGNAL CONTROL IN DISTRICT 5

This adaptive traffic signal system covered 15 intersections along US 17/92 in Volusia County and Seminole County and significantly expanded an existing adaptive traffic signal system. Alex, serving as Engineer of Record and Project Manager, lead design, which included replacement of all traffic signal controllers, enhanced vehicle detection at all signalized intersections, design of a fiber optic network, and solar power design for mid-block Bluetooth and Microwave Vehicle Detection sites. As Volusia County and Seminole County traffic signals were involved, and FDOT was slated to operate the adaptive system, significant multi-agency coordination was required. To ensure all of the various stakeholders understood and agreed upon the system's operations and objectives, Alex lead development of a Systems Engineering Analysis prior to the design phase.

FDOT DISTRICT 5 BRIDGE WEATHER CONDITION SENSOR SYSTEM

TEDS was tasked with developing a Request for Proposal for development and installation of a Bridge Weather Condition Sensor System to improve FDOT's response leading up to and following extreme weather events such as hurricanes—Alex served as the project manager and lead systems engineer. The system was to include deployment of numerous wind, water level, and road condition sensors on 17 bridges throughout FDOT District 5 on both inland and costal bridges. As a precursor to Request for Proposal development, Alex lead development of a Project Systems Engineering Management Plan, a Concept of Operations, a System Verification Plan, and a System Validation Plan following FDOT and FHWA requirements for Systems Engineering Analysis on an ITS project. During development and refinement of these documents, Alex worked closely with FDOT District 5 staff to gather consensus on system requirements and operational policies; furthermore, Alex coordinated with FDOT Telecommunication staff on operation of their existing satellite communication system as it would be used to relay weather data from remote sensor stations to a central database.

I-4 (SR 400) WRONG WAY DETECTION SYSTEM (FDOT-5)

Alex was Engineer of Record, project manager, and lead systems engineer for three Design-Bid-Build projects that collectively will deploy Wrong Way Detection Systems on 25 ramps along I-4 in Orange County, Seminole County, and Volusia County. This important safety project was truly first of its kind in the District and required development of numerous Technical Special Provisions, Modified Special Provisions, and proprietary product approvals to deploy. Prior to the design phase, Alex led a Systems Engineering Analysis to address all FDOT and FHWA requirements for ITS projects and to systematically approach development of the system. Through the design, Alex worked closely with FDOT and developed solutions to new challenges such as system testing, network integration, third-party software connectivity, power reliability, and camera coverage of wrong way driving events.

PHILLIP M. BOYKIN, EI
DESIGNER
TRAFFIC ENGINEERING DATA SOLUTIONS, INC.

EDUCATION
BS / 2013/ Electrical and Computer Engineering Technology
Valencia College

EXPERIENCE
12 years of experience
Traffic Engineering Data Solutions / 2015 – Present

REGISTRATION
Engineering Intern
Florida License# 1100024656

AREAS OF EXPERTISE
Transportation Engineering Intelligent Transportation (ITS)

SUMMARY

Mr. Phillip Boykin is a Senior Designer at Traffic Engineering Data Solutions, Inc., (TEDS) with twelve (12) years of experience. Phillip has extensive experience in the Intelligent Transportation System (ITS) field with a penchant for aberrant projects that require unique solutions. He has been involved in various design projects from the ground up as Senior Designer and client intermediary. Phillip is responsible for performing and managing production of Intelligent Transportation System (ITS) and traffic signal designs. The projects below are archetypal of his experience.

SELECTED PROJECTS

CFX 417-141, 417-142, AND 417-149 (CENTRAL FLORIDA EXPRESSWAY AUTHORITY)

The series of three consecutive projects span approximately 11 miles widening SR 417, implement part time shoulder use, and implement variable speed limit signage. Phillip functioned as Senior Designer for these three projects, which cumulatively include over 100 miles of fiber optic and electrical cabling, dozens of CCTV cameras and vehicle detectors, over 150 dynamic message signs, and numerous power services. As part time shoulder use and variable speed limits signs are new to Central Florida Expressway Authority (CFX), Custom installation details for part time shoulder use and variable speed limit implementation were developed. The power system design included sizing of uninterruptible power supplies, voltage drop calculations, conductor sizing calculations, load flow assessments, fault current calculations, selective protection device coordination, and arc flash hazard assessments at all new or modified power services.

FDOT DISTRICT 5 TSM&O DISTRICTWIDE CONTINUING SERVICES CONTRACT

TEDS was selected as the prime engineer for this five-year contract with a budget of $1.5 million. Under the auspices of this contract, designs for a wide assortment of ITS and TSM&O projects were required; ranging from adaptive ramp metering assessments to bridge security and surveillance systems. Phillip worked as Senior Designer working closely with the Engineer of Record to design and develop plans of these wide-ranging projects.

I-95 AT VIERA BLVD. DIVERGING DIAMOND INTERCHANGE

This project will be one of the first Diverging Diamond Interchanges completed in FDOT District 5, and required adjustment to the existing ITS along I-95. Phillip facilitated the plans production and design in the implementation of the project requirements which included; Relocation and addition of ITS devices, such as CCTV cameras, MVDS, and DMS, related design of ITS power distribution and communication systems to support the ITS devices in the interchange area.

SR 821/HEFT EXPRESS LANES FROM NW 106TH ST. TO I-75

The HEFT project will construct one express lane in each direction of travel along SR 821/HEFT. The ITS efforts began with creation of a Concept of Operations and ITS Concept Plan that brought the various stakeholders to a common vision for the express lane operations for the project. As an interface between Turnpike and FDOT District 4 express lanes at the I-75 and SR 821/HEFT interchange is included in the project, the goal of providing a seamless transition from a driver's perspective between to two express lane systems that also meets the particular requirements and operational objectives of both the Florida's Turnpike Enterprise and FDOT District 4 was paramount. ITS elements from Florida's Turnpike, FDOT District 4, and FDOT District 6 are all included in the project scope. Phillip assisted the Engineer of Record in leading the team to design and develop plans consistent with the complexities of this express lanes project.

US 17/92 ADAPTIVE TRAFFIC SIGNAL CONTROL IN DISTRICT 5

This adaptive traffic signal system covered 15 intersections along US 17/92 in Volusia County and Seminole County and significantly expanded an existing adaptive traffic signal system which included replacement of all traffic signal controllers, enhanced vehicle detection at all signalized intersections, design of a fiber optic network, and solar power design for mid-block Bluetooth and Microwave Vehicle Detection sites. As Volusia County and Seminole County traffic signals were involved, and FDOT was slated to operate the adaptive system, significant multi-agency coordination was required. To ensure all of the various stakeholders understood and agreed upon the system's operations and objectives. Phillip carried out design for the project including network topography crossing several agencies.

GPS EMERGENCY VEHICLE PRE-EMPTION SYSTEM – NEW SMYRNA BEACH, FL

Phillip was the Senior ITS Designer for the development of the GPS Vehicle Pre-emption system at 19 existing signalized intersections within the city of New Smyrna as part of this LAP project—including development of emergency pre-emption phasing and timing parameters at intersections with and without existing train and marine (draw bridge) pre-emption.

VISCHAL PERSAUD, PE
TRANSPORTATION ENGINEER
TRAFFIC ENGINEERING DATA SOLUTIONS, INC.

EDUCATION
BSCE /2013/ University of Florida
MSCE/ 2019/University of Central Florida

REGISTRATION
Professional Engineer / Florida #87389

EXPERIENCE
7 years of experience
Traffic Engineering Data Solutions / 2014 – Present

AREAS OF EXPERTISE
Intelligent Transportation Systems
Traffic Operational Studies
Traffic Safety Studies

SUMMARY

Mr. Vischal Persaud is a Professional Engineer / Transportation Engineer at Traffic Engineering Data Solutions, Inc. (TEDS). Vischal graduated from the University of Florida with a Bachelor of Science degree in Civil Engineering and from the University of Central Florida with a Master of Science degree in Civil Engineering. Vischal joined TEDS' staff of engineers and technicians specializing in Transportation Engineering in 2014.

SELECTED PROJECTS

INTELLIGENT TRANSPORTATION SYSTEMS

I-4 (SR 400) Florida's Regional Advanced Mobility Elements (FRAME)

Vischal was an assistant Engineer for four projects that will deploy Roadside Units (RSUs) elements that will improve traffic conditions on various major corridors (I-4, I-275, I-75, SR 589, SR 60, SR 429, SR 417) in the Tampa, Lakeland, Kissimmee and Orlando areas with enhanced safety, mobility, and reliability. This project will add components to an existing Freeway Management System (FMS) and arterial roadway routes to support traffic data collection, traffic monitoring, and disseminating traveler information. Vischal also served as the Maintenance of Traffic (MOT) Engineer of Record for Traffic Control Plans for all four projects.

I-4 (SR 400) WRONG WAY DETECTION SYSTEM (FDOT-5)

Vischal was an assistant Engineer for three Design-Bid-Build projects that collectively will deploy Wrong Way Detection Systems on 25 ramps along I-4 in Orange County, Seminole County, and Volusia County. This important safety project was truly first of its kind in the District and required development of numerous Technical Special Provisions, Modified Special Provisions, and proprietary product approvals to deploy.

TRAFFIC OPERATIONAL STUDIES

TEDS has been assigned more than 200 work orders for providing various transportation engineering services. Traffic operational studies have included spot-speed studies, mid-block pedestrian crossing studies, signal warrant analyses, intersection analyses, corridor analyses, highway lighting justification analyses, left-turn phase warrant studies, step 1 roundabout analyses, and safe-curve speed studies. The studies require documentation and preparation of figures pertaining to existing conditions, collection and assessment of traffic volumes and/or delay data, assessment of crash history, field observations/qualitative assessment, and identification of short-term and long-term recommendations. TEDS also prepared revised clearance timings (yellow change and red clearance) for more than 50 intersections within District 5.

- State Road 464 at Southeast 49th Terrace: Intersection Operations Study
- State Road 44 at Ingham Road: Intersection Operations Study
- State Road 518 at State Road 513: Intersection Operations Study
- State Road 434 at Central Winds Drive: Intersection Operations Study
- US 92 at Nova Road: Intersection Operations Study
- State Road 100 at Chapel Street: Intersection Operations Study
- State Road 518 at John Rodes Blvd.: Intersection Operations Study
- State Road A1A Pedestrian Crossing(s) Evaluation: Satellite Beach

- State Road A1A Pedestrian Crossing(s) Evaluation: Daytona Beach Shores
- State Road 471 at Webster Elementary School: School Operations Study
- State Road 3 at Merritt Avenue: Intersection Operations Study
- State Road 50 Lighting Justification Report – Orange County
- State Road 100, State Road 44, State Road A1A Speed Studies
- State Road 514 at Medplex Parkway: Traffic Signal Warrant Study
- US 27 at CR 25A: Traffic Signal Warrant Study
- US 1 at State Road 40: Intersection Operations Study
- US 1 at Silver Oak Boulevard: Traffic Signal Warrant Study
- US 1 in Palm Shores: Roadway Study

DEBARY TRANSPORTATION NEEDS ASSESSMENT

Provided technical support for traffic impact analysis for multiple developments planned throughout the City of Debary

DISTRICTWIDE COMMUNITY TRAFFIC SAFETY STUDIES – FDOT-5

TEDS has been assigned more than 50 work orders, most of which pertain to the preparation of safety-related studies within District 5.

These studies, which typically include an assessment of existing conditions, traffic volumes and/or delay data, crash history, and field observations/qualitative assessment, include the detailed development of improvement concepts to ensure feasibility as well as a cost estimate of each improvement. Additionally, through data provided from such sources as the Highway Safety Manual and FHWA's CMF Clearinghouse, a benefit-cost analysis is conducted to determine if the proposed improvements qualify for safety funds. TEDS also prepared comprehensive improvement concepts for the purposes of implementing signing and pavement marking changes at 50 interchanges to deter Wrong Way driving per the Department's initiative.

RIVER TO SEA TRANSPORTATION PLANNING ORGANIZATION TRAFFIC OPERATIONS

After being re-selected by the TPO, TEDS has provided transportation-engineering services including unique projects such as the preparation of a TPO-wide emergency pre-emption study and the SR 421 pedestrian lighting feasibility study in Port Orange. TEDS has also prepared multiple intersection improvement feasibility studies which included comprehensive improvement concepts and cost estimates with the intent of securing federal funds through the TPO's priority projects process.

- State Road A1A in Daytona Beach Shores: Pedestrian Safety Study
- US 1 at Turgot Avenue: Intersection Analysis
- State Road 421 (Dunlawton Avenue) and Clyde Morris Boulevard Right-Turn Lane Analysis

LAKE COUNTY CONTINUING TRANSPORTATION ENGINEERING

Assisted in the preparation of a signal warrant analysis/safety study at Hancock Road and North Ridge Boulevard, Citrus Tower Boulevard and Mohawk Road, 5th Avenue from Baker Street to Clayton Street and the County Road 437 Realignment Traffic Operations Report.

VOLUSIA COUNTY TRANSIT STUDY – FDOT-5

Assisted in the preparation of traffic operations analyses and map production for several areas in Volusia County:

- Unincorporated Volusia County Crash Analysis Report (Fatal/Incapacitating Crashes)
- Traffic operations analyses were conducted for US 17/92, from State Road 472 to State Road 15A/Taylor Road, and for US 92
- (International Speedway Boulevard), from I-95 to Nova Road, to understand how the signalized intersections along the corridor are projected to operate upon converting the outside travel lanes to Business Access Transit (BAT) lanes
- Provided GIS maps displaying Volusia County

RIVER TO SEA TRANSPORTATION PLANNING ORGANIZATION ITS MASTER PLAN

Provided maps displaying the TPO with characteristics such as interstates and major roads, CCTV locations, traffic management centers and key facilities, traffic signal locations and city boundaries. Maps were produced utilizing Geographic Information Systems (GIS).

SHAWN C. POLKE, EI, MBA
ENGINEERING INTERN
TRAFFIC ENGINEERING DATA SOLUTIONS, INC.

EDUCATION

Master of Business Administration/ Embry-Riddle Aeronautical University
Daytona Beach, FL
Concentration in Airport Strategic Management
Relevant Coursework: *Advanced Airport Modeling*
Strategic Business Management, Operations Research, Finance

Bachelor of Science in Civil Engineering (ABET accredited)
Minor in Mathematics
Relevant Coursework: *Airport Design I & II, Pavement Design*
Reinforced Concrete, Naval Engineering & Nuclear Power

REGISTRATION

Engineering Intern / Florida #1100019778

EXPERIENCE

7 years of experience
Traffic Engineering Data Solutions/ 2021-Present

SELECTED PROJECTS

SR 500 AT ORANGE BLOSSOM TRAIL AND MILLS

- Intersection and pedestrian safety improvements including bulb outs
- FDOT Open Roads Design 3-D modeling and Next-Gen plan development

EXPERIENCE PREVIOUS TO TEDS

GALE ASSOCIATES INC.
SENIOR STAFF ENGINEER

- Worked on project teams & independently following work plan staff hours completing tasks on or ahead of deadlines, on or under budget & maintaining a high percentage of charge-ability
- Ansin Sports Complex
    - Designed International Association of Athletics Federations(IAAF) Class II Track
    - Designed access drive including pavement design, drainage, plan set & quantities
- High Schools: Volusia County five(5), Brevard County four(4)
    - Designed track & fields including track mill & resurfacing, grading, drainage & geometry corrections & bid documents

KIMLEY-HORN
ANALYST III

- CR219A
    - Designed guardrail & stormwater conveyance ditches
    - Prepared Opinion of Probable Cost (OPC) & Application for Permit Exemption with both SRWMD & SJRWMD
- CR229
    - Prepared the design criteria & *pavement design* reports
    - Designed guardrail & roadside safety improvements & assisted with super elevation design
- University of Florida Continuing Services including SR24 & Archer Rd Intersection & other roundabouts
    - Prepared the *pavement design* report
    - Designed curb & gutter, spread calculations, pipe clearances, skew & structure bottoms
    - Assisted with TCP phasing & quantities
- NW 23rd Ave
    - Prepared the *pavement design* report & assisted with intersection & median opening geometry design

STANTEC
ENGINEER IN TRAINING

- SR91

- Prepared the design criteria & *pavement design*, typical section package & construction plan set typical sections
- Assisted with the realignment avoiding substandard existing soil removal & stabilization saving millions in construction costs while also insuring the new design ties back into AET tolling station already beginning construction

- SR500
  - Assisted with the *pavement design* for widening & milling & resurfacing
- SR400 Beyond the Ultimate Segment 4, SR472, SR15
  - Designed stormwater ponds, conveyance ditches & drainage structures
  - Prepared mainline & side road plan & profile, drainage structure sheets & linear, area & volumetric quantities
  - Prepared wetland impact & dredge & fill sketches for environmental permit

METRO CONSULTING GROUP, LLC
ORLANDO, FL

EXPERTISE

Software	Proficient with: AutoCAD, Power GeoPak, Microsoft Office, Arena, LINDO, MatLab, Total Airspace and Airport Modeler (TAAM)
	Knowledgeable of: Civil 3D, MicroStation Connect Edition, Open Roads, ProjectWise
Academic	Advanced Airport Modeling: Presented multiple design alternatives for location & target year completion for Hartsfield-Jackson
Project	Atlanta International Airport's 6th runway utilizing TAAM simulations comparing current & forecasted traffic demand & capacity
Experience	Airport Design I & II: Designed parallel terminal ramp areas, runway lengths, runway & taxiway configuration & spacing given wind rose & aircraft group type requirements
	Aviation Marketing: Prepared reports on LED airfield operational lighting & retention pond alternatives reducing bird strike risks
Extracurricular	United States Equestrian Federation International Competing Member & Official
Activities	Embry-Riddle Reserve Officer Training Corps (ROTC): Platoon Commander, *Secret Level Security Clearance*

ALEXANDER J. (A.J.) CLOIN, EI
TRANSPORTATION ANALYST
TRAFFIC ENGINEERING DATA SOLUTIONS, INC.

EDUCATION
BSCE / 2018 / University of Central Florida
REGISTRATION
Engineering Intern / Florida #1100022217

EXPERIENCE
4 years of experience
Traffic Engineering Data Solutions / 2016 – Present

AREAS OF EXPERTISE
Intelligent Transportation (ITS) Transportation System

SUMMARY
Mr. Alexander Cloin (A.J.) is an Engineering Intern for Traffic Engineering Data Solutions, Inc. (TEDS) and has over 4 years of engineering experience analyzing and designing cost-effective solutions to client transportation needs. His transportation engineering experience includes planning and design of Intelligent Transportation Systems (ITS) in Central Florida. The following is an overview of ITS projects which A.J. has contributed to their successful designs:

SELECTED PROJECTS

FLORIDA DEPARTMENT OF TRANSPORTATION – DISTRICT 2: I-10 WIDENING FROM I-295 TO I-95

Engineering Intern for the installation of upgraded ITS facilities along I-10. The purpose of the proposed ITS infrastructure was to upgrade FDOT's existing ITS fiber optic network, support future project communication requirements, improve network redundancy and availability and provide the corridor with Automated Vehicle Identification, CCTV Cameras, Microwave Vehicle Detection Systems, and Wrong Way Vehicle Detection Systems.

FLORIDA DEPARTMENT OF TRANSPORTATION – DISTRICT 5: SR 500 M&R (LAKE COUNTY)

Engineering Intern for the installation of upgraded ITS facilities from SR 44 to Lincoln Avenue. The purpose of the proposed ITS infrastructure was to upgrade FDOT's existing ITS fiber optic network, support future project communication requirements, improve network redundancy and availability and provide the corridor with interconnect to signals at Lincoln Avenue, Wolf Branch Rd, Country Club Blvd, and SR 44.

FLORIDA'S TURNPIKE ENTERPRISE RESURFACING AND SAFETY UPGRADES OF TURNPIKE MAINLINE MP 265.3-269.4

Engineering Intern for the relocation and installation of CFX and FTE fiber optic cables near the SR 91 and SR 429 interchange. The purpose of the proposed ITS infrastructure was to upgrade FTE and CFX's existing ITS fiber optic network, support future project communication requirements, improve network redundancy and availability, and provide Wrong Way Vehicle Detection Systems on SR 408 for the SR 91 off-ramp to SR 408. The intent of the proposed WWVDS was to provide SR 91 off-ramp with flashing beacons to detect and alert wrong way drivers, the RTMC, and law enforcement of an attempted wrong way driving maneuver.

FLORIDA DEPARTMENT OF TRANSPORTATION – DISTRICT 5: SR 44 AT KEPLER RD ROUNDABOUT

Engineering Intern for the installation of upgraded ITS facilities near the proposed roundabout at SR 44 and Kepler Rd. The purpose of the proposed ITS infrastructure was to upgrade FDOT's existing ITS fiber optic network, support future project communication requirements, improve network redundancy and availability and provide the corridor with CCTV camera coverage and internally illuminated message signs directing drivers to I-4 in the event of a detour.

FLORIDA DEPARTMENT OF TRANSPORTATION – DISTRICT 5: SAFETY ENHANCEMENTS

Engineering Intern for the installation of Wrong Way Vehicle Detection Systems along I-4 in Seminole and Volusia counties. The intent of the proposed WWVDS was to provide I-4 off-ramps with flashing beacons to detect and alert wrong way drivers, the RTMC, and law enforcement of an attempted wrong way driving maneuver.

FLORIDA'S TURNPIKE ENTERPRISE SYSTEM WIDE SERVICE PLAZA DMS AND CCTV CAMERA DESIGN

Engineering Intern for the installation of upgraded ITS facilities along SR 91. The purpose of the proposed ITS infrastructure was to install Dynamic Message Sign panels at Service Plazas for displaying messages to travelers entering service plaza facilities. CCTV Cameras were installed along SR 91 to provide camera coverage of blind spots of mainline roadway and ramps.

FLORIDA'S TURNPIKE ENTERPRISE HEFT WIDENING THE PROJECT CORRIDOR FROM NW 106TH ST TO I-75

Engineering Intern for the installation of upgraded ITS facilities along HEFT. The purpose of the proposed ITS infrastructure was to upgrade FTE and FDOT's existing ITS fiber optic network, support future project communication requirements, improve network redundancy and availability and provide the corridor with Dynamic Message Signs (DMS) for general use and tolling facilities.

FLORIDA DEPARTMENT OF TRANSPORTATION – DISTRICT 5: DISTRICTWIDE TRANSPORTATION SYSTEMS MANAGEMENT AND OPERATIONS STUDIES AND DESIGN

Engineering Technician for the Bridge Security Surveillance System for the I-4 Bridge over the St. Johns River. The intent of the project was to replace the existing, non- functioning surveillance system with a security system that could detect, track and record potential threats to the aforementioned bridge.

Engineering Technician for the installation of four (4) Dynamic Message Signs (DMS) along I-75 within District 5 north of US 27. The intent of the project was to provide four (4) new DMS to provide real time travel information to the traveling public using I-75.

Engineering Technician for the installation of a Traffic Adaptive Signal Control Technology (ASCT) system along US 17/92 from Monroe Road to Minnesota Ave. The intent of the proposed ASCT system was to extend the existing ASCT system installed along US 17/92 and improve traffic signal performance along the corridor and to install Microwave Vehicle Detectors (MVDS) and Bluetooth Travel Time Sensors (BTTS) to facilitate traffic monitoring and to review the ASCT system performance.

Engineering Intern for the installation of a Traffic Adaptive Signal Control Technology (ASCT) system along SR 40 from Tymber Creek Rd to SR A1A. The intent of the proposed ASCT system was to upgrade the existing Signal Control Technologies and improve traffic signal performance along the corridor.

US 27 ADAPTIVE SIGNAL CONTROL TECHNOLOGY IN POLK COUNTY

Engineering Technician for the design of the proposed Traffic Adaptive Signal Control Technology (ASCT) system for 22 intersections along US 27 spanning approximately 23 miles in Polk County (FDOT District 1). The purpose of this project was to design ASCT detection and control equipment, connect the traffic signal controllers through the installation of a new fiber optic trunk cable and install a lease line connection for communications with the Polk County Traffic Management Center for remote control and operation of the system.

CENTRAL FLORIDA EXPRESSWAY AUTHORITY (CFX): SR 408 AT SR 417 INTERCHANGE - DESIGN-BUILD

Engineering Technician for the ITS plans and production of the proposed changes to the interchange of SR 408 and SR 417. Design services included: review of existing ITS documentation and modifications of these documentations to accommodate: existing ITS plans, adjacent SR 408 ITS plans, Phase I ITS plans and CFX ITS infrastructure; determined suitable power service locations with complete design of an ITS power distribution system including: Voltage Drop Calculations, Load Analysis and Short Circuit Current Calculations.

US 1 UTILITY UNDERGROUNDING ITS RELOCATION – CITY OF HOLLY HILL; MEAD & HUNT

Engineering Technician for the undergrounding of FDOT's existing aerial fiber optic cable located along the east side of Ridgewood Ave. (US 1) in the City of Holly Hill. The intent of this project is to coordinate with Volusia County and the FDOT to determine the needs and requirements of the overhead-to-underground ITS system conversion. ITS design includes: removal of overhead fiber optic cables and removal of existing ITS pull boxes not built to standard; installation of a 72 SM fiber optic cable in an existing conduit and ITS pull boxes built to standard; upgrades to the existing Traffic Signal Control Cabinets to accommodate the new ITS fiber optic connection network.

Brent Handley, MA, RPA

CHIEF ARCHAEOLOGIST

PROFESSIONAL EXPERIENCE

Brent is a registered professional archaeologist (RPA) with nearly 28 years of experience in academic research and cultural resource management projects. He is a senior associate and senior archaeologist at Terracon Consultants, Inc. Brent supervises all phases of cultural resource assessment, including logistical organization, daily field operations, primary and background research, artifact analysis, and the writing of final reports, as well as business development, people development and all financial performances of the Florida Cultural Resource Management department. Previous cultural resource management projects have included cultural resource assessment surveys (CRAS), monitoring, test excavations, block excavations, and remote sensing surveys in Alabama, Arizona, Connecticut, Florida, Georgia, Maine, Massachusetts, Mississippi, New Hampshire, New Jersey, New York, Rhode Island, and South Carolina. These projects have been successfully completed for clients such as the United States Coast Guard, the Army Corps of Engineers, United States Navy, Army National Guard, National Park Service, United States Department of Agriculture, and the Department of Transportation, local, county and state agencies, as well as private companies, telecommunication companies, and public utility companies.

SELECTED PROJECT EXPERIENCE

Old Haw Road - Flagler County, FL
Phase I CRAS

Baldwin Compressor - Nassau County, FL
Phase I CRAS

39-mile Plant Crist Pipeline - Escambia County, FL
Phase I CRAS

380-Mile FPL Pipeline, Various Counties in Florida
Due diligence Study

Santa Fe Solar Energy Center - Columbia County, FL
Phase I CRAS

Alliance Solar Energy Center - Hamilton County, FL
Phase I CRAS

Loncala Solar Energy Center - Gilchrist County, FL
Phase I CRAS

DEF Trenton Solar Farm Tract - Gilchrist County, FL
Phase I CRAS

EDUCATION

Master of Arts, Anthropology, University of Connecticut, 2000

Bachelor of Arts, Geography-Anthropology, University of Southern Maine, 1993

AFFILIATIONS

Registered Professional Archaeologist
Florida Archaeological Council, Inc.
St. Augustine Archaeological Association
Southeastern Archaeological Conference
Society of American Military Engineers

Brent Handley, MA, RPA (continued)

CHIEF ARCHAEOLOGIST

RMS Solar Farm Tract - Escambia County, FL
Phase I CRAS

Mason-Jackson Solar Farm Tract - Jackson County, FL
Phase I CRAS

CR 473 Road Widening Project - Lake County, FL
Phase I CRAS

Derbyshire Neighborhood Sidewalk and Park Project - Volusia County, FL
Phase I CRAS

White Oak - Nassau County, FL
Phase III data recovery

Site 8SJ53 of Twenty-Mile House - St. Johns County, FL
Data recovery

Sites 8SJ53, 8SJ3705, 8SJ3708, 8SJ3722, and 8SJ3717 - St. Johns County, FL
Phase II site evaluations

27,000 acres at Camp Blanding Training Facility - Clay County, FL
Phase I/II Investigation

11 Armories/Readiness Centers for the Florida Army National Guard
Historic structure analysis

Natural Bridge Battlefield Historical Site - Leon County, FL
Historical and archaeological investigation

Second Seminole War Battlefield Sites at Riverbend Park - Palm Beach, FL
Cultural and historical survey

3,384-acres in the Avon Park Air Force Range - Highlands and Polk Counties, FL
Archaeological site identification survey

Majestic Oaks Tract - Hernando County, FL
Intensive cultural resource survey

Three sites within the Tired Creek Fishing Lake Tract - Grady County, GA
Data recovery

City of Albany and FEMA - Dougherty County, GA
Stumps removal

Brian P. Brandon

SENIOR STAFF SCIENTIST

PROFESSIONAL EXPERIENCE

Mr. Brandon has 8 years of experience as an environmental professional, specializing in the investigation and management of environmental due diligence pursuant to Environmental Protection Agency (EPA), All Appropriate Inquiries (AAI) and the American Society of Testing and Materials (ASTM). Experience with the investigation and management of regulatory compliance projects pursuant to the National Environmental Policy Act (NEPA). Experience also includes coordination with the United States Fish and Wildlife Service (USFWS), Florida Fish and Wildlife Conservation Commission (FWC), Federal Communications Commission (FCC), various state and tribal historic preservation offices (HPOs), the United States Army Corps of Engineers (USACE), and all Florida Water Management Districts for various permitting projects, primarily for the telecommunications industry.

PROJECT EXPERIENCE

Orange County Public Schools – Continuing Contract, Orange County, Florida
Senior Staff Scientist for this continuing environmental consulting services contact with Orange County Public Schools. The scope of services include sand skink surveys, consultation with USFWS, gopher tortoise burrow surveys and permitting, wetland delineations and permitting, and consultation with the Orange County Environmental Protection Division, FWC, and USFWS.

OCPS Site 43-E-SE-2, Orlando, Orange County, Florida
Senior Staff Scientist to provide wetland and gopher tortoise permitting services.

OCPS Site 204-E-N-7 / South Apopka Adult Center, Apopka, Orange County, Florida
Senior Staff Scientist to conduct Threatened and Endangered Species Survey and Wetland Assessment.

OTC Mid Florida Campus, Orlando, Orange County, Florida
Senior Staff Scientist to conduct Environmental Planning. The scope of this assessment included delineating the landward extent of wetlands and surface waters on the site and a listed species evaluation.

Seminole County Public Schools (SCPS) Bus Depot, Winter Springs, Florida
Senior Biologist to conduct a migratory bird survey of a suspected nest site. A migratory bird nest was observed on a telecommunications tower located on the site, and ground-based work and potentially on-tower work are proposed.

SCPS Sterling Park Elementary School, Casselberry, Seminole County, Florida
Senior Staff Staff to provide 100% gopher tortoise survey.

SCPS Pinecrest Elementary, Sanford, Seminole County, Florida
Senior Staff Scientist to conduct a 100% Gopher Tortoise Burrow Survey of the site. One (1) potentially occupied Gopher Tortoise burrow was identified within the project footprint. Therefore, the burrow must be addressed prior to the commencement of any construction/maintenance activities.

StarChild Apopka, Apopka, Orange County, Florida
Senior Staff Scientist to conduct Phase I Environmental Site Assessment for the site that consists of three contiguous parcels totaling approximately 4.77 acres of land. The site currently consists of a vacant residential lot, a StarChild Academy facility, and associated improvements.

Renaissance Charter School, Port St. Lucie, Florida
Senior Staff Scientist to conduct an environmental site assessment on the subject site totaling 10.42 acres± proposed for development.. Pursuant to Port St. Lucie City Code Chapter 157.06 (a-d) – Natural Resource Protection, an Environmental Site Assessment (ESA) is required for development applications to account for potential impacts to natural resources such as listed threatened or endangered species and wetlands.

EDUCATION
Bachelor of Science, Biology
University of Central Florida, 2012

YEARS WITH TERRACON: 2
YEARS WITH OTHER FIRMS: 6

CERTIFICATIONS
FWC Authorized Gopher Tortoise Agent

Certified Florida Master Naturalist

PADI Certified Open Water Diver

CPR, AED, and Basic First Aid

ADDITIONAL TRAINING
38-Hour Army Corps of Engineers Wetland Delineation Training Program

AFFILIATIONS
Florida Native Plant Society – Tarflower Chapter

National Association of Environmental Professionals

Ecological Society of America

National Audubon Society

Florida Fish and Wildlife Conservation Commission – Volunteer

Florida Forest Service - Volunteer

* *Work performed prior to joining Terracon.*

GENEL J. STURGEON, PSM
SURVEY DEPARTMENT MANAGER

AREAS OF SPECIALIZATION

Project Manager and Surveyor in Responsible Charge for all work on this contract and will be the point of contact regarding all task assignments and work orders. He will work directly with the City of Orange City personnel in the development and ongoing stages of all projects. Mr. Sturgeon has 35 years of surveying and mapping experience specializing in ALTA/ACSM surveys, boundary, topographic with contours and volumes, as-built, construction, design surveys, route surveys, GIS, control surveys vertical and horizontal, sections and township surveys and platting, as well as Subsurface Utility Engineering. 25 years of Autocad / Carson Software experience.

EXPERIENCE

Barnes, Ferland and Associates, Inc.	2018 – Present
Henrich, Luke, Swaggerty & Menard (HLSM)	2017 – 2018
Leading Edge Land Services	2016 – 2017
American Surveying & Mapping, Inc.	2008 - 2016
Prior Firms	1985 - 2008

EDUCATION

Numerous Continuing Education Seminars
Certified Survey Technician Instructor
CRFC 2021 Roadway Worker Protection Certification
Maintenance of Traffic – Advanced Level

PROFESSIONAL AFFILIATIONS

Florida Surveying & Mapping Society
Central Florida Chapter, FSMS
American Congress Surveying & Mapping, ACSM

PROFESSIONAL REGISTRATION

Florida Professional Surveyor & Mapper No. 5866

REPRESENTATIVE EXPERIENCE

Lake County Public Works Engineering Division On-Call Transportation and Traffic Engineering Services - Provided topographic survey, utility designation, location and excavation services.

Volusia County Traffic Engineering and Transportation Planning Services - Provided topographic survey, utility designation, location and excavation services.

City of Orlando Continuing Surveying Services - Orlando, FL - As a subconsultant on the 4 continuing Survey and Mappings contracts, BFA provides subsurface utility engineering exploration (SUE) to mark utilities for inclusion as part of Topographic Surveys at numerous sites within the city. Excavation underground utilities for positive identification and precise location for design purposes.

City of Orlando LS 139 Force Main Replacement – Orlando, FL - Boundary and topographic survey prepared to aid in the design of a force main replacement project along an Orlando Utilities Commission easement. Utility designation, utility excavations and Title Work.

Orange County Utilities John Young Parkway – Orange County, FL - Designated and marked all utilities within the right-of-way of John Young Parkway for over 4 miles. Responsible for reading and interpreting as-builts and plans provided by the utility companies. Excavated 40 utilities for positive location and identification.

DAVID RAGLAND, CST III
SURVEY CREW CHIEF / SUE SUPERVISOR

AREAS OF SPECIALIZATION

Mr. Ragland is responsible for the performance of field operations on Boundary Surveys, Topographic Surveys and Control Surveys as well as Subsurface Utility Exploration including the marking and designating underground utilities and excavation for positive location and identification to aid the engineering design of new facilities

EXPERIENCE

Barnes, Ferland and Associates, Inc.	2014 - Present
Dyer Riddle Mills and Precourt	2009 - 2014
Miller Legg and Associates	2003 – 2009
Hartman and Associates (Tetra Tech)	1994 - 2003

EDUCATION

Certified Survey Technician III
Maintenance of Traffic – Intermediate Level
CRFC 2021 Roadway Worker Protection Certification
Certified Damage Prevention Specialist

REPRESENTATIVE EXPERIENCE

Lake County Public Works Engineering Division On-Call Transportation and Traffic Engineering Services - Provided topographic survey, utility designation, location and excavation services.

Volusia County Traffic Engineering and Transportation Planning Services - Provided topographic survey, utility designation, location and excavation services.

City of Ocoee Continuing Survey Services - Performs field reviews of newly platted subdivisions for compliance to Chapter 177, Florida Statutes; location of property and Boundary corners in preparation of legal descriptions and Boundary Surveys.

Ocoee West Sanitary Transmission Main – Survey and mapping services for a Topographic Survey to aid in the design of new sanitary system along approximately 4.5 miles within the city. Located all improvements within the right of way and a minimum of 25 feet beyond the right of way and intersecting streets. Establish apparent right of way and property lines. Horizontal Control Survey in Florida State Plane Coordinates and elevations were NAVD 88.

City of Orlando Continuing Surveying Services - Lead field surveyor and utility locator as subconsultant on all 4 continuing survey and mapping contracts with the City of Orlando.

Orange County Utilities Storey Park Pipeline - Topographic survey for the design of over 4 miles of large pipeline design within several corridors of the Storey Park development area. Established control survey with horizontal and vertical points for construction.

Orlando Eastern Force Main System – OUC Watermain – Orlando, FL
Designate and locate utilities along multiple streets and intersections in downtown Orlando, SUE services, project length 11,000 feet.

FDOT – SR 500 from Lake Ella Road to Avenida Central, Lake County, FL - Excavated clearance holes for 25 signal pole installations. Performed utility designation and excavation on underground utilities at various location along the project corridor.

BFA

FLORIDA BRIDGE AND TRANSPORTATION, INC.

BASSEL KASSEM, P.E.

Bridge Engineer – Responsible Professional Engineer

EXPERIENCE PROFILE

Mr. Kassem has 24 years of extensive structural engineering and has worked on several types of bridges, miscellaneous structures, inspection, and underwater inspection projects throughout the nation. Mr. Kassem has extensive experience in design and management of engineering projects. His duties include preparing and maintaining project schedules and budgets, serving as the point-of-contact for the client, supervision and direction of project team(s), and coordination of efforts and issues with agencies, and facility owners. Mr. Kassem has extensive knowledge in the requirements of the Florida Department of Transportation. Mr. Kassem worked in Florida and as a project manager and project engineer on numerous projects for FDOT, counties and other Department of Transportation projects nationwide.

REPRESENTATIVE PROJECTS

SR 200 (US 301) over Alligator Creek Florida Department of Transportation, District Two – Mr. Kassem managed both PD&E and design phase of this contract and prepared the structural design plans and reports of the PD&E phase and design phase of the project. The project consisted of the reconstruction of SR 200 over Alligator Creek. This project is located in a commercial area with limited right-of-way, utilities and properties at each side of the project.

FH 356 (Lawhon Mill Road) over Unsigned Stream Florida Department of Transportation, District Three – Mr. Kassem managed all the design effort for this project. The project consisted of the reconstruction of FH 356 box culvert over Unsigned Stream and replacing the box culvert with a bridge. This project is located along Forest Highway with limited right-of-way, and utilities.

Daytona Avenue Bridge Replacement - Design/Build, Florida Department of Transportation, District Five – Mr. Kassem worked with Gregori Construction as the project manager for the final replacement design of a 44' simple-span prestressed slab unit beam bridge with roadway reconstruction to tie into the bridge approaches. The project had utilities adjacent to the bridge, limited right-of-way and a tidally influenced canal ($1.0M).

Shingle Creek Trail Bridges, City of Kissimmee, Florida – Mr. Kassem was responsible for the design of all structural elements including prefabricated bridges, Boardwalks, and modifications to the existing trail path at the Vine Street over Shingle Creek Bridge. The overall project includes the construction of approximately 4 miles of paved trail-way and amenities along the eastern boundary of Shingle Creek and along the western boundary of Lake Tohopekaliga.

Continuing Engineering Services, Osceola County, Florida – Mr. Kassem inspected and provided safety upgrades to Osceola County Bridges. In addition, Mr. Kassem provided repair design to some of the structural deficiencies for Osceola County Bridges.

Bridge Replacement/Bridge Widening, I-95 from SR 528 to SR 50, Florida Department of Transportation, District Five – Project Manager responsible for the twin bridges over SR 50 will be widened to the median side, adding one 12-foot lane to each bridge. The existing 6-foot inside shoulders will be widened to 10-feet. The project includes replacing the twin hollow core slab bridges over Addison Canal with a single flat slab bridge.

Bridge Widening, I-95 over SR 520 and SR 524, Florida Department of Transportation, District Five – Project Manager responsible for the widening of twin bridges over SR 524 and SR 520. Both bridges will be widened to the inside of I-95. The new design includes three 12-foot travel lanes, 10-foot inside and outside shoulders, and F-shape bridge barriers.

Bridge Design, 25th Street over Ten Mile Creek, St. Lucie County – Project Manager responsible for completing structural design utilizing Florida Inverted T-beams supported by prestressed concrete pile bents. Responsibilities also included post-design services.

EDUCATION

BSCE, University of Central Florida, 1996 / M.S., Structural and Foundation University of Central Florida, 1998

PROFESSIONAL REGISTRATION

Registered Professional Engineer - Florida # 57947 / Professional Engineer, NCESS #25433

FLORIDA BRIDGE AND TRANSPORTATION, INC.

JUAN VALENZUELA, PE

Senior Structures & Bridge Project Engineer

EXPERIENCE PROFILE

Mr. Valenzuela has over 20 years of experience as a Structures Project Engineer which is exclusive to the state of Florida. He has experience with design-build and traditional projects. Juan currently serves as the Director of Engineering for Florida Bridge and Transportation, Inc. and is responsible for the design, analysis and checking of a wide variety of transportation structures. Mr. Valenzuela has extensive involvement in the design, development, load rating and detailing of a wide variety of major and minor FIB bridges and steel plate and box girder bridges along with various value engineering change proposal (now CSIP) tasks and Specialty Engineering for contractors on a wide variety of designs. Mr. Valenzuela possesses strong design knowledge of foundation, substructure and superstructure components for new bridges, bridge widenings and bridge replacements. He has designed other structural elements including steel sheet pile walls, concrete retaining walls, mast arm and strain pole signal structures, sign structures, ITS structures and box culverts.

REPRESENTATIVE PROJECTS

Juanita Avenue Over Taylor Creek, FDOT District Four, St. Lucie County, Florida – On this design build project with Lucas Marine Construction, Mr. Valenzuela served as project engineer for the design of the bridge replacement. Mr. Valenzuela was responsible for design of each substructure and superstructure component as well as load rating. The bridge is a 130'-0" long, 5-span prestressed flat slab panels on pile bent supports over Taylor Creek. He was also in charge of plans production and post design coordination.

Wekiva Parkway Section 3B (SR 46 at US 441), Lake County, Florida – As Senior Bridge Engineer, Mr. Valenzuela is currently serving as the Lead Bridge Engineer (and EOR of the steel option) for the design for this project. The bridge is on a 500' radius with span lengths of 120'-231'-120'=471' and includes curved steel girder and concrete girder options. The pier caps must be integral with the girders due to vertical clearance and profile considerations. FBT designed the structural steel alternative and designed the piers for the concrete bridge option.

PGA Blvd. Over Florida's Turnpike Enterprise, Palm Beach County, Florida – Mr. Valenzuela served as the design project engineer for this ramp bridge replacement project. The project consists of dual unsymmetrical spans over the Turnpike and two large gas mains. His responsibilities included design of FIB-78 girders, geometry, slabs, pier and end bent designs along with the design of temporary critical sheet pile wall systems using a Combi-Wall designed in accordance with the LRFD method, quality assurance checks and plans preparation. The bridge is a 90 degree 245 foot long structure (103'-142') with FIB-78 girders founded on an intermediate pier and two end bents.

Hoagland Blvd. Over Shingle Creek, Osceola County, Florida – Mr. Valenzuela was the design engineer responsible for design of each substructure and superstructure component as well as load rating of this bridge replacement. The bridge is a 126'-0" long, 6-span cast-in-place flat slab on pile bent supports over Shingle Creek. He was also in charge of plans production for each phase of design.

Lakeland In Town Bypass over CSXT Railroad Tracks Redesign, FDOT District One, Polk County, Florida – Mr. Valenzuela was the design engineer responsible for design checking of each substructure and superstructure component of the highly skewed (54 degree) Lakeland In-Town Bypass Bridge. The bridge is a 154'-0" simple span FL Bulb-T 78" girder bridge on pile bent supports over CSXT railroad tracks. He was in charge of quality assurance checking for each phase of design. This bridge was the concrete redesign of the original steel girder bridge. Deck reinforcing and substructure loads were designed as influenced by the skew.

EDUCATION BS, Civil Engineering, West Virginia University, 2001
MS, Structural Engineering, Virginia Polytechnic Institute and State University, 2003

PROFESSIONAL REGISTRATION

Registered Professional Engineer - Florida #68208

JEREMY A. SEWELL, P.E.

Senior Geotechnical Engineer

TIERRA
GEOTECHNICAL • MATERIALS
ENVIRONMENTAL • ENGINEERING

Summary of Capabilities
Roadway, Corridor and Bridge Studies
Geotechnical Engineering
Project Management
Deep Foundation Evaluation
Embankment Design
Land Subsidence Investigations

Years of Experience
With Tierra: 8 Years
With other Firms: 14 Years

Education
BS, Civil Engineering, University of Central Florida, 1999

Professional Organizations/Registrations
Florida Professional Engineer, No. 62951 – July 2005
American Society of Civil Engineers

Mr. Sewell has over 22 years of experience in geotechnical engineering for projects throughout Florida, Texas and Georgia. The projects that Mr. Sewell has been involved with have ranged from roadway and bridge design and construction to embankment design and subsidence investigation.

He has a wide variety of experience on highway and bridge studies, shallow foundation design, settlement evaluations, retaining wall design, sinkhole remedial repair, and ground subsidence evaluations throughout Florida. Mr. Sewell's experience also includes the design of deep foundation systems, cross-hole sonic logging (CSL) and compaction grouting requirements for deep subsoil improvement.

Mr. Sewell has been the Project Manager for numerous roadway soil surveys and bridge foundation designs and construction projects.

COUNTY/CITY PROJECT EXPERIENCE

CR 452 Safety Improvements from CR 44 to the Lake/Marion County Line – Lake County
CR 437 Realignment from Existing CR 437 to Hunter Avenue – Lake County
Wolf Branch Road and Round Lake Road Intersection Improvements – Lake County
Estes Road and Orange Avenue Intersection Improvements – Lake County
Orlando Urban Trail overpass over Colonial Drive (SR 50) and Railroad – City of Orlando
Sligh Boulevard and Columbia Street Improvements – City of Orlando
Reclaimed Water Main, Montgomery Avenue and White Road – City of Ocoee
Plant Street Segment 2 Roadway Improvements – City of Winter Garden
Avalon Road Improvements from Tilden Road to Marsh Road – Orange County
Hooks Street Phase IV-B Retaining Wall Design – Lake County
Ronald Reagan Boulevard and North Street Turn Lane Addition – Seminole County
SR 426/CR 419 from West of SR 434 to West of Oviedo Boulevard – Seminole County
Chapman Road from SR 426 to SR 434 – Seminole County
Cross Seminole Trail from Layer Elementary School to Old Sanford Oviedo Road – Seminole County

TRANSPORTATION PROJECT EXPERIENCE

Districtwide Geotechnical Contracts – FDOT Districts I, V and VII
I-4 Ultimate Widening of Interstate 4 from Kirkman Road to east of SR 434, Orange and Seminole Counties – FDOT District V
Minneola Interchange (TPK MP 279), Lake County – Florida's Turnpike Enterprise
Turnpike Mainline Widening from SR 50 to Minneola Interchange, Orange & Lake Counties – Florida's Turnpike Enterprise
SR 19 Bridge Replacement over Little Lake Harris, Lake County – FDOT District V
SR 500, from Lake Ella Road to Avenida Central, Lake County – FDOT District V
Lake/Orange County Connector Feasibility/PD&E Study, Lake & Orange Counties – Central Florida Expressway Authority
SR 46 Safety Improvements from SR 415 to East of Lake Proctor Court, Seminole County – FDOT District V

KENNETH L. SYMONDS, JR., P.E.

Senior Geotechnical Engineer

TIERRA
GEOTECHNICAL • MATERIALS
ENVIRONMENTAL • ENGINEERING

Summary of Capabilities
Roadway, Corridor and Bridge Studies
Geotechnical Engineering
Project Management
Deep Foundations
Embankment Design
Construction Monitoring
Ground Subsidence Investigations

Years of Experience
With Tierra: 9 Years
With Other Firms: 14 Years

Education
BS, Env. Engineering, University of Central Florida, 1998

Professional Organizations/Registrations
Florida Professional Engineer, No. 59518 – January 2003
American Society of Civil Engineers
Florida Engineering Society

Mr. Symonds has over 23 years of experience in geotechnical engineering for projects throughout Florida, Texas, Georgia and Utah. He has a wide variety of experience on FDOT highway and bridge studies, shallow foundation design, settlement evaluations, retaining wall design, sinkhole remedial repair, and ground subsidence evaluations throughout all of Florida. Mr. Symonds' experience also includes the design of deep foundation systems, cross-hole sonic logging (CSL), drilled shaft installation and compaction grouting requirements for deep subsoil improvement.

Mr. Symonds has been the Senior Project Engineer for numerous roadway soil surveys and bridge foundation designs and construction projects.

PROJECT EXPERIENCE

Ground Subsidence Evaluations & Remediation

Mr. Symonds has been involved with many residential and commercial sinkhole investigations throughout various regions of Florida. His responsibilities have varied from task oriented type work to senior project management. The types of services typically performed during theses types of studies generally include coordinating with the homeowner, site reconnaissance/assessment, development and implementation of a subsurface exploration plan, evaluation of the results of the field exploration and formulation of recommendations based on the results of the field study. Mr. Symonds has performed these services for clients including insurance companies, homeowners, municipalities and the Florida Department of Transportation. Mr. Symonds has experience with geotechnical explorations throughout the State of Florida and is experienced with the requirements for evaluating sinkhole claims both pre and post SB408.

Transportation Project Experience

CR 452 Safety Improvements from CR 44 to the Lake/Marion County Line – Lake County
CR 48 Guardrail Failure Evaluatiuon – Lake County
SR 417 Widening From Boggy Creek Road to Narcoossee Road, Orange County, Florida
SR 417 Widening from Landstar Boulevard to Boggy Creek Road, Orange County, Florida
SR 408/SR 417 Interchange Improvements – Phase 2, Orange County, Florida
Collier Parkway from Hale Road to Pines Parkway, Pasco County, FL
S.R. 530 (U.S. Hwy 192) from Lake C/L to Secret Lake Drive, Orange County, Florida
S.R. 400 I-4 Ultimate Project, Orange & Seminole Counties, Florida
SunRail Phase 2 South, Orange & Osceola Counties, Florida
New Interchange, Florida's Turnpike (S.R. 91) at Sand Lake Road, Orange County, Florida
PD&E Study Babcock Street from South of Micco Road to Malabar Road, Brevard County, Florida
All Electronic Tolling (AET) Northern Coin Conversion, Osceola County, Florida

Major Structure Project Experience:

Eight-Story Timeshare Buildings, Orange Lake Country Club, Kissimmee, FL
Florida Technical College, Orlando, FL
Lake Nona South Greeneway CDD, Orlando, FL
Turnpike Headquarters Facility, Turkey Lake Plaza, Orlando, FL

The undersigned hereby declares that: Traffic Engineering Data Solutions, Inc. has examined and accepts the specifications, terms, and conditions presented in this Solicitation, satisfies all legal requirements to do business with the County, and to furnish **On-Call, Transportation and Traffic Engineering Services** for which Submittals were advertised to be received no later than 3:00 P.M. Eastern time on the date stated in the solicitation or as noted in an addenda. Furthermore, the undersigned is duly authorized to execute this document and any contracts or other transactions required by award of this Solicitation.

All pricing will be FOB Destination unless otherwise specified in this solicitation document. Pricing submitted will remain valid for a ninety (90) day period.

Vendor will accept payment through the County Credit Card-based payment system: YES

1.0 TERM OF CONTRACT

The Contract will be awarded for an initial one (1) year term with the option for two (2) subsequent two (2) year renewals. Renewals are contingent upon mutual written agreement.

The Contract will commence upon the first day of the next calendar month after Board approval. The Contract remains in effect until completion of the expressed and implied warranty periods. The County reserves the right to negotiate for additional services/items similar in nature not known at time of solicitation.

2.0 METHOD OF PAYMENT

The Contractor must submit an accurate invoice to the County's using department's email. The date of the invoice must be after delivery but no more than 30 calendar days after delivery. Invoices must reference the: purchase or task order; delivery date, delivery location, and corresponding packing slip or delivery ticket signed by a County representative at the time of acceptance. Failure to submit invoices in the prescribed manner will delay payment.

Payments will be tendered in accordance with the Florida Prompt Payment Act, Part VII, Chapter 218, Florida Statutes. The County will remit full payment on all undisputed invoices within 45 days from receipt by the appropriate County using department. The County will pay interest not to exceed 1% per month on all undisputed invoices not paid within 30 days after the due date.

3.0 CERTIFICATION REGARDING LAKE COUNTY TERMS AND CONDITIONS:

I certify that I have reviewed the General Terms and Conditions for Lake County Florida and accept the Lake County General Terms and Conditions dated 5/6/21 as written including the Proprietary/Confidential Information section. YES Failure to acknowledge may result in Submittal being deemed non-responsive.

4.0 CERTIFICATION REGARDING FELONY CONVICTION:

Has any officer, director, or an executive performing equivalent duties, of the bidding entity been convicted of a felony during the past ten (10) years? NO

5.0 CONFLICT OF INTEREST DISCLOSURE CERTIFICATION:

Except as listed below, no employee, officer, or agent of the firm has any conflicts of interest, real or apparent, due to ownership, other clients, contracts, or interests associated with this project; and, this Submittal is made without prior understanding, agreement, or connection with any

corporation, firm, or person submitting a proposal for the same services, and is in all respects fair and without collusion or fraud. N/A

6.0 CERTIFICATION REGARDING BACKGROUND CHECKS:

Under any County Contract that involves Contractor or subcontractor personnel working in proximity to minors, the Vendor hereby confirms that any personnel so employed will have successfully completed an initial, and subsequent annual, Certified Background Check, completed by the Contractor at no additional cost to the County. The County retains the right to request and review any associated records with or without cause, and to require replacement of any Contractor employee found in violation of this requirement. Contractor shall indemnify the County in full for any adverse act of any such personnel in this regard. Additional requirements may apply in this regard as included within any specific contract award. YES

7.0 DISADVANTAGED BUSINESS ENTERPRISE PROGRAM

The County does not establish specific goals for minority set-asides however, participation by minority and non-minority qualified firms is strongly encouraged. If the firm is a minority firm or has obtained certification by the State of Florida, Office of Supplier Diversity, (OSD) (CMBE), please indicate the appropriate classification(s) not applicable not applicable
and enter OSD Certification Number N/A
and enter effective date Click or tap to enter a date. to date Click or tap to enter a date.

8.0 RECIPROCAL VENDOR PREFERENCE:

Vendors are advised the County has established, under Lake County Code, Chapter 2, Article VII, Sections 2-221 and 2-222; a process under which a local vendor preference program applied by another county may be applied in a reciprocal manner within Lake County. The following information is needed to support application of the Code:

A. Primary business location of the responding Vendor: DeBary, FL.
B. Does the responding vendor maintain a significant physical location in Lake County at which employees are located and business is regularly transacted: NO If "yes" is checked, provide supporting detail: NO

9.0 GENERAL VENDOR INFORMATION:

Firm Name: Traffic Engineering Data Solutions, Inc.

Street Address: 80 Spring Vista Drive

City: DeBary State and ZIP Code: FL 32713

Mailing Address (if different): Click or tap here to enter text.

Telephone: 386-753-0558 Fax: 386-753-0778

Federal Identification Number / TIN: 20-8375642

DUNS Number: 020037661

10.0 SUBMITTAL SIGNATURE:

I hereby certify the information indicated for this Submittal is true and accurate and that my electronic signature shall have the same legal effect as if made under oath; that I am an authorized representative of this Vendor and/or empowered to execute this Submittal on behalf of the Vendor.

I, individually and on behalf of the Vendor, acknowledge and agree to abide by all terms and conditions contained in this solicitation as well as any attachments, exhibits, or addenda.

Name of Legal Representative Submitting this Proposal: *Chris J. Walsh*

Date: 8/23/2021

Print Name: Chris J. Walsh

Title: Sr. Vice President of Engineering

Primary E-mail Address: cwalsh@teds-fl.com

Secondary E-mail Address: contact@teds-fl.com

The individual signing this Submittal affirms that the facts stated herein are true and that the response to this Solicitation has been submitted on behalf of the aforementioned Vendor.

[The remainder of this page is intentionally blank]

Detail by Entity Name

Florida Profit Corporation
TRAFFIC ENGINEERING DATA SOLUTIONS, INC.

Filing Information

Document Number	P07000015750
FEI/EIN Number	20-8375642
Date Filed	02/02/2007
State	FL
Status	ACTIVE
Last Event	AMENDMENT
Event Date Filed	01/04/2021
Event Effective Date	NONE

Principal Address

80 Spring Vista Drive
Debary, FL 32713-1821

Changed: 01/09/2013

Mailing Address

80 Spring Vista Drive
Debary, FL 32713-1821

Changed: 01/09/2013

Registered Agent Name & Address

FERRELL, DEANNA F
32523 HAWKS LAKE LANE
SORRENTO, FL 32776

Address Changed: 01/12/2012

Officer/Director Detail

Name & Address

Title PD

FERRELL, DEANNA F
32523 HAWKS LAKE LANE
SORRENTO, FL 32776

Annual Reports

Report Year	Filed Date
2019	01/21/2019
2020	01/16/2020
2021	01/27/2021

Document Images

01/27/2021 -- ANNUAL REPORT	View image in PDF format
01/04/2021 -- Amendment	View image in PDF format
01/16/2020 -- ANNUAL REPORT	View image in PDF format
01/21/2019 -- ANNUAL REPORT	View image in PDF format
01/15/2018 -- ANNUAL REPORT	View image in PDF format
01/05/2017 -- ANNUAL REPORT	View image in PDF format
01/20/2016 -- ANNUAL REPORT	View image in PDF format
01/12/2015 -- ANNUAL REPORT	View image in PDF format
01/13/2014 -- ANNUAL REPORT	View image in PDF format
01/09/2013 -- ANNUAL REPORT	View image in PDF format
01/12/2012 -- ANNUAL REPORT	View image in PDF format
01/05/2011 -- ANNUAL REPORT	View image in PDF format
02/17/2010 -- ANNUAL REPORT	View image in PDF format
05/26/2009 -- Amendment	View image in PDF format
04/27/2009 -- Off/Dir Resignation	View image in PDF format
01/20/2009 -- ANNUAL REPORT	View image in PDF format
02/21/2008 -- ANNUAL REPORT	View image in PDF format
03/22/2007 -- Amendment	View image in PDF format
02/02/2007 -- Domestic Profit	View image in PDF format

MEMORANDUM

DATE: January 4, 2021

SUBJECT: Signature Authority
Traffic Engineering Data Solutions, Inc.

I, Deanna F. Ferrell, as the President of Traffic Engineering Data Solutions, Inc., am the only person in the firm authorized to sign contracts. However, the following Sr. Vice Presidents, Chris J. Walsh, PE; Richard B. Morrow, PE; and P. Halley Ferrell may sign the following documents for the firm:

- Sub-consultant agreements;
- Invoices;
- Proposal forms;
- Local government contracts; and
- Private development contracts.

This authorization is effective immediately and remains in place until modified at a future date by similar memorandum signed by me, Deanna F. Ferrell.

TRAFFIC ENGINEERING DATA SOLUTIONS, INC.

Deanna F. Ferrell, MBA
President

Form **W-9**
(Rev. October 2018)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

▶ **Go to *www.irs.gov/FormW9* for instructions and the latest information.**

Give Form to the requester. Do not send to the IRS.

Print or type. See **Specific Instructions** on page 3.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.

Traffic Engineering Data Solutions, Inc.

2 Business name/disregarded entity name, if different from above

3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only **one** of the following seven boxes.

☐ Individual/sole proprietor or single-member LLC ☐ C Corporation ☑ S Corporation ☐ Partnership ☐ Trust/estate

☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ▶ _____

Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is **not** disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.

☐ Other (see instructions) ▶

4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):

Exempt payee code (if any) 5

Exemption from FATCA reporting code (if any) N/A

(Applies to accounts maintained outside the U.S.)

5 Address (number, street, and apt. or suite no.) See instructions.

80 Spring Vista Drive

Requester's name and address (optional)

6 City, state, and ZIP code

DeBary, Florida 32713

7 List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN,* later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number

			–			–				

or

Employer identification number

2	0	–	8	3	7	5	6	4	2

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here Signature of U.S. person ▶ [signature] Date ▶ 3/15/2021

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to *www.irs.gov/FormW9.*

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, *later.*

ADDENDUM NO. 1 **21-0940**

Office of Procurement Services
P.O. Box 7800 • 315 W. Main St., Suite 441 • Tavares, FL 32778

SOLICTATION: On-Call, Transportation and Traffic Engineering Services 08/30/2021

Vendors are responsible for the receipt and acknowledgement of all addenda to a solicitation. Confirm acknowledgement by including an electronically completed copy of this addendum with submittal. Failure to acknowledge each addendum may prevent the submittal from being considered for award.

THIS ADDENDUM DOES NOT CHANGE THE DATE FOR RECEIPT OF PROPOSALS.

QUESTIONS/RESPONSES

Question 1. Will the County be providing topographic survey for task work orders or will the consultant need to provide survey?

Response 1. Survey is typically provided by the County for design projects under this contract as these are much smaller projects.

Question 2. Section 5.0.B. 2. Past Performance requires references / relevant projects completed within the last three (3) years, but the instructions on the Reference Form (Attachment 2) state that references must be less than five years old. Are we allowed to use projects less than five years old, or must they be within three years?

Response 2. The projects must be from within the past five years

Question 3. Section 6.0. E.4. Subcontractors/Joint Ventures section states, "Provide a list of proposed subcontractors or joint venture arrangements that may be used on the project. Provide the same information required in the Pricing Proposal for each sub-vendor or joint venture participant." Since there is no 'Pricing Proposal' to be submitted, can you please specify what information is required for our subconsultants?

Response 3. The information is noted in the REVISED Attachment 3 – Team Composition Form.

ADDITIONAL INFORMATION

Remove and replace Attachment 3 – Team Composition Form with the REVISED Attachment 3 – Team Composition Form.

ACKNOWLEDGEMENT

Firm Name: Traffic Engineering Data Solutions, Inc.

I hereby certify that my electronic signature has the same legal effect as if made under oath; that I am an authorized representative of this vendor and/or empowered to execute this submittal on behalf of the vendor.

Signature of Legal Representative Submitting this Bid: *Chris J. Walsh*
Date: 19/15/2021
Print Name: Chris J. Walsh
Title: Sr. Vice President of Engineering
Primary E-mail Address: cwalsh@teds-fl.com
Secondary E-mail Address: kmccambridge@teds-fl.com

ADDENDUM NO. 2 **21-0940**

Office of Procurement Services
P.O. Box 7800 • 315 W. Main St., Suite 441 • Tavares, FL 32778

SOLICTATION: On-Call Transportation and Traffic Engineering Services 09/14/2021

Vendors are responsible for the receipt and acknowledgement of all addenda to a solicitation. Confirm acknowledgement by including an electronically completed copy of this addendum with submittal. Failure to acknowledge each addendum may prevent the submittal from being considered for award.

THIS ADDENDUM DOES NOT CHANGE THE DATE FOR RECEIPT OF PROPOSALS.

QUESTIONS/RESPONSES

Q1. In reference to PDF page 5 (in the Solicitation) under item #4 Subcontractors/joint ventures - Could you clarify what is meant by the sentence? "Provide the same information in the pricing proposal for each sub-vendor or joint vendor participant."

R1. There is no pricing component for this solicitation at this time. Please list any and subcontractors on Attachment 3 – Team Composition Form

Q2. Under the Lake County General Terms and Conditions for the On-Call Transportation and Traffic Engineering Services RSQ No. 21-0940, it appears the "Warranty" terms do not apply to engineering type services and the "Indemnification" provision does not comply with Florida Statutes 725.08. Would the County be open to discussion of modifications to these provisions? At the County's convenience, and if necessary, we would be available to discuss these sections in more depth.

R2. **The County will ensure that all indemnification language requirements are in accordance with Florida Statutes upon award of a contract.**

ACKNOWLEDGEMENT

Firm Name: Traffic Engineering Data Solutions, Inc.

I hereby certify that my electronic signature has the same legal effect as if made under oath; that I am an authorized representative of this vendor and/or empowered to execute this submittal on behalf of the vendor.

Signature of Legal Representative Submitting this Bid: *Chris J. Walsh*

Date: 9/15/2021

Print Name: Chris J. Walsh

Title: Sr. Vice President of Engineering

Primary E-mail Address: cwalsh@teds-fl.com

Secondary E-mail Address: kmccambridge@teds-fl.com

Client#: 1055074 TRAFFENG1

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 8/24/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer any rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
USI Insurance Services, LLC 2502 N Rocky Point Drive Suite 400 Tampa, FL 33607	PHONE (A/C, No, Ext): 813 321-7500	FAX (A/C, No):
	E-MAIL ADDRESS:	

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Travelers Property Cas. Co. of America	25674
INSURER B : Phoenix Insurance Company	25623
INSURER C : Travelers Casualty & Surety Co. of Amer	31194
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
Traffic Engineering Data Solutions, Inc
80 Spring Vista Drive
Debary, FL 32713

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY [ ] CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [ ] POLICY [X] PRO-JECT [ ] LOC OTHER:	X	X	6801H70658A	01/31/2021	01/31/2022	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG $	$1,000,000 $1,000,000 $10,000 $1,000,000 $2,000,000 $2,000,000 $
A	AUTOMOBILE LIABILITY X ANY AUTO [ ] OWNED AUTOS ONLY [ ] SCHEDULED AUTOS X HIRED AUTOS ONLY [X] NON-OWNED AUTOS ONLY	X	X	BA3R944058	01/31/2021	01/31/2022	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) $	$1,000,000 $ $ $ $
A	X UMBRELLA LIAB [X] OCCUR EXCESS LIAB [ ] CLAIMS-MADE DED X RETENTION $10,000	X		CUP3C418899	01/31/2021	01/31/2022	EACH OCCURRENCE AGGREGATE $	$3,000,000 $3,000,000 $
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y / N: Y (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N / A	X	UB9J775967	01/31/2021	01/31/2022	X PER STATUTE [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $1,000,000 $1,000,000 $1,000,000
C	Professional Liability			106883019	01/31/2021	01/31/2022	$2,000,000 per claim $4,000,000 annl aggr.	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Professional Liability coverage is written on a claims-made basis.

RE: TEDS Project #11568, On-Call, Transportation and Traffic Engineering Services.
The General Liability and Automobile Liability policies include an automatic Additional Insured endorsement that provides Additional Insured status to the Certificate Holder, only when there is a written contract
(See Attached Descriptions)

CERTIFICATE HOLDER

Lake County, A Political Subdivision
of the State of Florida, and
the Board of the County Commissioners
P.O. Box 7800
Tavares, FL 32778-7800

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

DESCRIPTIONS (Continued from Page 1)

that requires such status, and only with regard to work performed by or on behalf of the named insured. The General Liability policy contains a special endorsement with Primary and Noncontributory wording, when required by written contract. The General Liability, Automobile Liability, Worker's Compensation and Professional Liability policies provide a Blanket Waiver of Subrogation when required by written contract, except as prohibited by law.