

ON CALL TRANSPORTATION AND TRAFFIC ENGINEERING SERVICES

#21-0940 Request For Statement of Qualifications (RSQ)



3. PROPOSED SOLUTION





A Successful Project Approach

S&ME's approach to providing on-call contract services is to:

- » **Listen first** to what the project team has to tell us
- » **Develop a scope of work** incorporating our team's expertise based on the project goals and needs outlined by the client
- » Write a **proposal** detailing the scope of work, cost, and schedule
- » **Deliver** on our proposal by executing the tasks as outlined in the project scope
- » **Communicate** and report findings to our client

Collaboration

Collaboration is a key component of this approach and is implemented throughout the entire process as we partner with the client in identifying projects, defining scope, and refining solutions. S&ME has partnered with Inwood, Protean, and WRA so that we can leverage our strengths to work across disciplines and incorporate knowledge from a variety of experts and perspectives as we execute tasks. Our team values the public's input and understands the important role public involvement plays in defining the goals and desires of the community. Ultimately, we view ourselves as part of a larger team made up of Lake County staff, Lake County citizens, and professional consultants.

Responsive Project Management

S&ME knows that communication is critical to developing a successful partnership built on trust. Our team understands the needs of on-call contracts. As project manager, Kelly Farabee will be responsible for leading the consultant team to provide Lake County with high quality projects in terms of detailed reviews, innovative solutions, schedule, and budget. Kelly is committed to engaging the client and the consultant team in meaningful collaborative efforts with a strong foundation in communication. As part of this process, S&ME is committed to the following:

Project Schedules

- » Developing preliminary project schedules at the beginning of each project
- » Regularly updating our client PM with specific dates for next steps and any adjustments to the schedule
- » Building review periods into project schedules
- » Conducting meetings as appropriate and in conjunction with major project milestones
- » Providing, at a minimum, bi-weekly project status updates

Cost/Project Budgets

- » Developing appropriate project budgets
- » Developing cost estimates during construction document phase for design projects
- » Developing options for value engineering as needed

Commitment to Quality

- » Working closely with subconsultants to coordinate work between disciplines
- » Scheduling internal/consultant team review periods as needed
- » Inviting subconsultants to review meetings to assist with project coordination
- » Utilizing the S&ME Senior Review process to ensure high quality deliverables



Planning

S&ME and our partner consultants are recognized around the state for the quality and creativity of our work, which is represented by the depth and breadth of our client contracts. As a whole, our consultant team has both unique and overlapping strengths in the field of planning, as outlined below. We not only have the technical skills needed to address Lake County's upcoming planning projects, but our work on projects in Lake County and its neighboring communities gives us a deep understanding of the local planning challenges and solutions that have potential for success within the local context.

The **S&ME** Planning team has historically been focused in Florida, where we have developed deep experience in local government planning, land development code writing, and working with rapidly growing municipalities and counties. S&ME intends to support the following planning tasks anticipated by the county:

Review of traffic impact studies

Kelly Farabee and **Terry McKloski** will take the lead in performing traffic impact study reviews. They have completed numerous traffic impact studies for a wide range of land use types (including residential, commercial, fueling station, industrial, and educational institutions to name a few) at locations throughout the southeastern United States. They understand the nuances of trip generation and distribution analyses and have experience with performing operational analyses with multiple software platforms and for intersection types ranging from simple side street stop-controlled to complex alternative intersection designs. Kelly and Terry will be supported by S&ME planning staff who have additional experience performing traffic impact analysis reviews for the Cities of Kissimmee and Daytona Beach and even provided a Traffic Impact Analysis Guide as a framework for developers working with the City of Kissimmee.

Conduct and review the adopted Lake County Transportation Models and related transportation studies

Terry McKloski has over 22 years of professional experience in transportation planning and urban design with extensive knowledge of several travel demand modeling software platforms. In addition to developing transportation models and performing traffic forecasting, he has experience providing training and providing help-desk type support for the FDOT state modeling division.

Interregional transportation study or investigation, neighborhood studies

With over 30 years of experience in a variety of planning elements, **Pat Tyjeski** leads the S&ME planning group. She has led efforts on a variety of transportation and neighborhood studies, ranging from complete street designs to small area plans. Recently, she served as project manager for a study that focused on land use and transportation issues in the Curry Ford neighborhood in Orlando. Pat directed efforts on a corridor vision plan for the City of Clewiston to help FDOT District 1 and the City envision the future of US 27, a major highway that bisects the City's downtown. Previously she participated in the development of the Wellness Way Sector Plan for 16,000 acres in south Lake County. She is supported by **Chris Dougherty** who offers both planning and GIS analysis expertise. He is currently working on the comprehensive plan for Sumter County, which makes him remarkably familiar with the challenges of addressing population growth in the local region. He performed GIS analysis and mapping as well as transportation analysis as part of the Comprehensive Plan update for the city of Wildwood, Florida.

Concurrency reviews

Pat Tyjeski, **Chris Dougherty**, and **Terry McKloski** all have extensive experience reviewing development proposals for compliance with comprehensive plans and land development regulations. They have performed reviews for large and small scale land use proposals, traffic impact assessments, Developments of Regional Impact and sector plans. The S&ME planning team authored the Development Review Procedures Manual for Manatee County and have performed development review services for Manatee County, Kissimmee, Oviedo, and Gulf Breeze, Florida. Pat is currently leading efforts to review plan amendments proposed within all jurisdictions in Volusia County as part of a continuing services contract

3. PROPOSED SOLUTION / Approach & Process



with the Volusia Growth Management Commission. Terry McKloski has 12 years of experience performing growth management reviews for the FDOT, District 2, including traffic impact assessment, land use utilization analysis, proposed transportation improvements analysis and final proportionate share calculations. Pat Tyjeski and Chris Dougherty authored the Development Review Procedures Manual for Manatee County and performed ongoing development reviews for Volusia County and Gulf Breeze Florida.

Other tasks:

S&ME is also able to assist Lake County with the following tasks:

- » Public & Stakeholder engagement
- » GIS Analysis & Mapping
- » Development of Traffic Impact Study guidelines

In 2007, **Inwood Consulting Engineers** incorporated Transportation Planning services into their core services. They offer a wide range of transportation and community planning services, including PD&E studies, to both public and private entities across the state of Florida. Inwood will lead the effort in the following areas:

Review of traffic impact studies related to Lake County Impact Fee

Christy Lofye brings over a decade of experience with reviewing studies related to impact fees. From 2007 to 2019 she served as a voting member of Orange County's Impact Fee Committee which reviewed alternative impact fee studies and arrangements related to impact fees, as well as hearing impact fee appeals of staff determination and other related issues. In addition to performing reviews, she also prepared the Impact Fee Committee Annual Report summarizing all the committee activity. Her own public sector experience gives her valuable insight into understanding the needs of Lake County.

PD&E Studies

David Dangel serves as the Director of PD&E and Ecological Services for Inwood and will lead the team effort in providing these services for Lake County. David's work on the Continuing Services Contract for PD&E Studies in FDOT District 5 has allowed him to build relationships with the same FDOT representatives that work with Lake County. Inwood is able to provide a comprehensive approach to PD&E studies thanks to a strong team of professionals including engineers, transportation planners, wetland scientists, and noise analysts.

Concurrency reviews

The Inwood team, led by **Christy Lofye**, will take the lead in providing concurrency reviews for Lake County. Christy has extensive experience reviewing and negotiating agreements for public-private partnership projects involving transportation impact fee credits. During her tenures on the Orange County Concurrency Review Committee (2007-2009) and Road Agreements Committee (2017-2019) she worked on concurrency studies that included development impacts within a 2-mile radius, trip generation, trip distribution, traffic assignment, significance analysis, traffic impact analysis, determination of available capacity and deficient segments, and mitigation for project impacts including proportionate share calculations. Christy reviewed and approved a multitude of Proportionate Share Agreements with Transportation Concurrency analysis, including 19 that were approved by the BCC in 2018 alone.

Other tasks:

Inwood is also able to provide support in the following tasks:

- » Public & Stakeholder engagement
- » Efficient Transportation Decision Making (ETDM) projects
- » GIS Mapping
- » Environmental Studies Permitting

3. PROPOSED SOLUTION / Approach & Process



Protean Design Group has been providing traffic engineering services since 2007. They have a full understanding of roadway networks, roadway users, and the intended uses of specific facilities both today and in the future.

Review of development of regional impact studies (DRI)

Todd Davis will spearhead the team efforts in reviewing Development of Regional Impact (DRI) studies. He has a wealth of expertise in traffic operations as well as transportation planning studies. He is currently providing support to FDOT District 5 on updates to the DRI Financial Tracker for the district's PLEMO staff.

Interregional transportation study or investigation, neighborhood studies

Todd Davis will apply his experience working on corridor and area-wide planning studies to support transportation study efforts. His work on districtwide MPO Plan Reviews for FDOT District 5 gives him a unique understanding on transportation issues faced by Central Florida communities such as Lake County. As well he has coordinated with District 5 Model staff to strengthen the updated 2045 Central Florida Regional Planning Model (CFRPM).

Whitman, Requardt and Associates (WRA) has a nationally recognized transportation division that provides comprehensive and innovative multimodal transportation solutions. They have extensive experience working with state and local agencies across the state of Florida.

Review of traffic impact study

Corey Bevis and **Randy Spradling** will assist in reviewing traffic impact studies. Together they bring a wealth of experience evaluating traffic operations. In particular, Randy served as a senior traffic engineer on the Lake County On-Call Transportation & Traffic Engineering contract. As part of his work with Lake County, he performed a variety of traffic operational studies.

Conduct and review the adopted Lake County Transportation Models and related transportation studies

Richard Butala brings over 30 years of experience in transportation planning including serving as the contract manager for the Lake County Traffic and Transportation General Planning and Engineering contract. He is supported by **Roberto Miquel** who is a seasoned travel demand modeler. He has prepared both statewide travel demand models and small urban area models. In addition, he has provided training on travel demand modeling including serving as a lead instructor for the FDOT Florida Standard Urban Transportation Modeling Structure (FSUTMS) Comprehensive Modeling Workshop.

WRA has extensive experience developing transportation models for projects across the state of Florida. Currently, they are assisting the FDOT District 5 Planning & Environmental Management Office in general transportation planning analysis and activities as part of a five-year Continuing Services Contract. The primary focus of the contract is to manage the **Central Florida Regional Planning Model (CFRPM)** for use by agencies including FDOT, Lake-Sumter MPO, and Lake County. WRA has provided support on this contract by performing a peer review of the CFRPM7, by testing the model, and by evaluating model applications. In addition, WRA has participated in the Steering Committee for the Model Development Team. Their work on this contract provides them unique insight into the local region including and surrounding Lake County. Additionally, WRA is working on statewide contracts for transportation modeling and hurricane evacuation modeling.

Transit Development Plan Update

WRA offers a full range of transit modes in their wheel of expertise, enabling them to help clients with bus, bus rapid transit, light rail, commuter rail, and para-transit needs. **Tim Preece** will lead the team effort in providing transit development plan updates. He has successfully managed numerous multimodal, inter-agency projects through planning, concept development and environmental planning. He brings with him decades of experience developing transit plans, and transit feasibility studies for clients throughout the eastern United States. James Ritchey will provide additional support, drawing on his past experience

3. PROPOSED SOLUTION / Approach & Process



working with Union County, one of North Carolina's fastest growing counties. James evaluated the need for transit service as well as available funding sources and long term service investments.

Traffic Engineering

S&ME boasts a talented team of traffic engineering professionals with decades of experience in both the public and private sectors. At its core, our team has a focus on safety and achieving Vision Zero goals. We balance safety concerns with competing operational and accessible needs to create efficient traffic solutions that meet our client's project goals.

Arterial Analysis

Kelly Farabee is a registered Professional Traffic Operations Engineer (PTOE) and has worked on several corridor studies involving operational analysis, crash history analysis, Intersection Control Evaluations, and stakeholder coordination. Projects have included rural and urban locations alike.

Angelo Rao brings further experience with his work on a lane repurposing project for SR 37 in Lakeland, Florida. He served as a project manager over the traffic analysis for the project, which involved significant data analysis efforts. Additional support will be provided by Terry McKloski who is a seasoned transportation planner with traffic forecasting, traffic operational analysis, traffic simulation, and corridor planning experience. The S&ME team is well versed with Synchro, HCS, SimTraffic, Vissim, and Sidra software platforms.

Traffic signal warrant analysis

With her extensive background in traffic analysis, **Kelly Farabee** will support traffic signal warrant analysis needs for Lake County. In addition, she can evaluate pedestrian signal warrants and all way stop warrants.

Traffic safety studies and design

Kelly Farabee has a wealth of experience in performing safety analysis. She has sorted and analyzed crash data for rural and urban intersections, urban interchanges, rural corridors, and urban corridors. She evaluated several intersections and developed safety improvements as part of a Georgia Department of Transportation Safety Contract. In addition, **Angelo Rao** brings valuable safety experience from his time managing the City of Lakeland Vision Zero and Near-Miss program. As well, he implemented a number of safety projects in the City of Lakeland including the installation of HAWK signals along US 92 and Lead Pedestrian Intervals (LPIs) at signalized intersections in the central business district of Lakeland, Florida. Angelo also spearheaded efforts to develop the Intersection Collision Avoidance Safety Program (iCASP), which is a system that predicts when a driver is going to run a red light and then extends the all-red phase accordingly.

Currently, Kelly, Angelo, and Terry are working with the City of Melbourne to implement speed management strategies along a segment of the US 1 corridor. We have incorporated early and open dialogues with FDOT District staff, including the FDOT District 5 Complete Streets Coordinator, to ensure that we comply with FDOT standards during the design process and with a goal of delivering a successful outcome for the city.

Intersection design, sidewalk, streetlight studies and design

Terry McKloski has provided roadway design services for a number of projects involving pedestrian and bicycle facilities, such as the North Boulevard Concept Design and the Himes Avenue Resurfacing project, both located in Tampa, Florida.

3. PROPOSED SOLUTION / Approach & Process



Other Tasks

S&ME has a variety of experts in additional disciplines that will be readily available to assist on additional tasks that could come up, such as:

- » Complete Streets evaluations and design
- » Speed Management analysis and design
- » Utility Coordination
- » Stormwater Modeling & Design
- » Drainage Studies
- » Permitting and Construction oversight

Since 1995, **Inwood Consulting Engineers** has been providing engineering consulting services across the state of Florida. Their transportation engineers pride themselves on providing creative design solutions to meet client needs and enhance mobility. Their experience ranges from designing roadways to performing traffic operations analysis and designing traffic signals. Inwood will lead the effort in the following areas:

Traffic signal warrant analysis

Christy Lofye will support efforts to perform traffic signal warrant analysis. She previously performed the traffic signal warrant analysis for the intersection of Oak Ridge Road & Chancellor Drive in Oak Ridge Florida. Chancellor Drive serves as a major access point for the Orante Technical College Mid Florida campus.

Traffic signal design

Katie Spiess is a detail-oriented project manager who will assist with traffic signal design projects. She is well versed in developing plans for both FDOT and local projects across central Florida.

Traffic safety studies and design

Christy Lofye is a Registered Safety Professional and her career reflects her passion for enhancing safety within transportation networks. She served as the Project Manager for the Orange County Top 100 Intersections project which identified the county's top 100 intersections by crash rate. The project included field intersection inventories and in-depth analysis to determine appropriate mitigation strategies that could be implemented systemically. Ultimately, the project generated action items for immediate implementation as well as recommendations for further analysis. Christy is supported by **Co-Co Wu** who brings over three decades of experience with both traffic studies and design. He serves as Project Manager for the Volusia and Brevard Counties Community Traffic Safety Program which is a work order-based contract that includes performing safety studies at intersections and along corridors.

Intersection design, sidewalk, streetlight studies and design

Katie Spiess will lead the intersection design efforts. She has over 20 years experience delivering a variety of projects within FDOT District 5. She takes a hands-on approach to projects and is intimately aware of design details making her a responsive partner for clients like Lake County. She is supported by Jessica Ballock who brings experience with intersection design including both traffic signals and roundabouts, as well as roadway and sidewalk design. She has provided design services for projects throughout the FDOT District 5 region including work on the SR 44 bridge over the St. Johns River at the Lake/Volusia county line.

3. PROPOSED SOLUTION / Approach & Process



Other Tasks

In addition to the tasks referenced in the RFQ scope, Inwood can provide expertise in additional transportation elements including:

- » Maintenance of traffic design
- » Pavement design
- » Utility coordination
- » Quantity and Cost Estimates
- » Drainage design
- » Environmental Services

Protean Design Group has been providing traffic engineering services since 2007. They have a full understanding of roadway networks, roadway users, and the intended uses of specific facilities both today and in the future. Their extensive knowledge of transportation networks makes them highly qualified to deliver top notch designs for their clients.

Arterial Analysis

Todd Davis can support other members of the consultant team in efforts to provide arterial analysis. He is well versed in performing traffic engineering analysis and is proficient in Synchro, HCS, LOSPlan, TravTime, and Jamar software platforms. **Laura Rossi** brings a design perspective to arterial analysis projects with her extensive experience in roadway, stormwater, and stormsewer design.

Preliminary Engineering Plans

Alexander Hinkle will apply his experience in transportation design to provide preliminary engineering plans for Lake County projects. He has spent over a decade developing design plans for projects throughout central Florida, including SR 50 from SR 33 to 12th Street in Lake County and SR 500 from Griffin Road to Martin Luther King Boulevard in Lake County.

Intersection design, sidewalk, streetlight studies and design

Elizabeth Wilson will support intersection design efforts for Lake County. She has developed signing and pavement parking plans, signal plans, and lighting plans for projects throughout Florida. She is experienced in coordinating with utilities as well as maintaining agencies.

Karen Van den Avont brings over 30 years of design experience to the team and will support sidewalk design efforts. She has designed projects across the state of Florida, including a major sidewalk project in the Cities of Homes Beach and Anna Maria in Manatee County. As part of the project, she evaluated 3,000 feet of existing sidewalk and designed sidewalk replacements and ADA improvements/upgrades for six locations within the two cities.

Alexander Hinkle is an IMSA certified Fiber Optics Technician and can provide a variety of design services including intersection improvements and lighting plans. **Leonard Barden** will provide additional support for streetlight studies and design projects.

Other Tasks

In addition to the tasks referenced in the RFQ scope, Protean can support the following tasks as requested:

- » Temporary Traffic Control Plan design
- » Signing and Pavement Marking design
- » ITS design

3. PROPOSED SOLUTION / **Approach & Process**



- » Roadway drainage modeling
- » Bridge hydraulics reports
- » Bridge scour analysis

Whitman, Requardt and Associates (WRA) has in-depth knowledge of traffic operations, helping them envision the patterns and needs of existing transportation systems. They research and investigate the connection between travelers and the transportation system and design strategies to enhance the experience of local and regional operations throughout the US. WRA is known for their ability to understand local standards and to integrate local preferences into each design.

Arterial Analysis

Randy Spradling is a registered Professional Traffic Operations Engineer (PTOE) with a comprehensive understanding of traffic analysis. He served as the Senior Traffic Engineer for a continuing services contract for the City of Winter Haven where he prepared traffic operational studies for several corridors.

Preliminary Engineering Plans

Randy Spradling will provide assistance on projects requiring preliminary engineering plans. His experience includes serving as the District Traffic Design Engineer for FDOT District 1 where he managed a team of designers as they prepared component plan sets for roadway projects.

Traffic signal warrant analysis

Randy Spradling will support efforts to provide traffic signal warrant analysis, as previously provided for the intersection of Old Hwy 50 & Blackstill Lake Road in Lake County.

Traffic signal design

Randy Spradling is an IMSA certified Traffic Signal Design/Engineering Technician and Traffic Signal Inspector. He has served as project manager, analyst, and lead designer for over 200 intersections and signal systems in multiple states including Florida. He is supported by **Corey Bevis** who is proficient in signal design as well as ITS design. Corey also has experience designing installations of fiber optic cabling, CCTV cameras, and ethernet networking equipment, including a project on Orange Blossom Trail in Orange County, Florida.

Traffic safety studies and design / Intersection design, sidewalk, streetlight studies and design

Randy Spradling is an IMSA certified Roadway Lighting Technician and has completed over 20 roadway and intersection lighting projects in Florida and Ohio. He completed intersection lighting designs for Treadway School Road & Camp Road as well as Treadway School Road & Radio Road, both in Lake County. **Corey Bevis** will assist on intersection and streetlighting design projects.

Other Tasks

WRA can provide additional support for projects requiring ITS design.

3. PROPOSED SOLUTION / **Approach & Process**



Since 1993, **Accurate Traffic Counts (ATC)** has been providing data collection services to the transportation community of Florida in a timely and cost-effective manner. Accurate Counts will provide the following services upon request:

Turning Movement Counts

Accurate Traffic Counts currently has 35 High Resolution Video Cameras and 4 TDC-8 Jamar Count Boards for the processing of the Turning Movement Counts. Traffic count summaries include separated tabulation for General Traffic, Truck Traffic, U-Turns, Directional Pedestrians and Bicycles (summarized in one hour format).

Machine Traffic Counts

Accurate Traffic Counts currently has 138 Jamar Traffic Counters, all the supporting hardware and software for data processing. Data can be collected for a range of time periods. The traffic counters can provide multiple types of data, including:

- » Volume Only Counts
- » Vehicle Classification Counts, which include the breakdown of number and percentage of vehicles by FHWA Class and calculation for the peak hour and 24-hour truck factors for FHWA Classes 5 through 13. If multiple days are requested, the report will also include an average by direction and total of both directions
- » Speed Studies which include, at a minimum, the 85th Percentile speed, median speed, 10 mph pace speed, 15th percentile speed, average speed, and vehicles at posted speed

Pedestrian and Bicycle Screenline or Mid-block Counts

The screenline count will list the number of pedestrians and/or bicyclists at several locations along imaginary lines (screenlines) which divide the study area into parts. These may occur at mid-block locations.

ATC utilizes high-definition video cameras to collect pedestrian and bicycle count under all types of weather and night conditions. ATC has performed multiple pedestrian/bicycle projects (mid-block & at intersections) for FDOT D5 and local government. The equipment is inspected in the office before departure to the sites.

S&ME is excited to be partnering with Inwood, Protean, WRA, and Accurate Traffic Counts to deliver solutions for Lake County's transportation infrastructure. We have a remarkably talented team of professionals that share a passion for developing innovative projects that enhance safety, accessibility, and mobility.