

# SR 50 CORRIDOR PLANNING STUDY

## PROJECT RELATED INFORMATION PACKAGE

Financial Project No. 435859-1-12-01  
July 14, 2014

Prepared by:

Justin Bansen

**Kittelson & Associates, Inc.**

225 East Robinson Street, Suite 450

Orlando, Florida 32801

407.540.0555



**KITTELSON & ASSOCIATES, INC.**  
TRANSPORTATION ENGINEERING/PLANNING



# ORGANIZATIONAL CHART



**KITTELSON & ASSOCIATES, INC.**  
TRANSPORTATION ENGINEERING/PLANNING



**FDOT DISTRICT 5 PROJECT MANAGER**  
John Moore, EI



**CORRIDOR PLANNING STUDY**  
KAI TEAM PROJECT MANAGER  
Justin Bansen, PE (KAI)

**QUALITY CONTROL**  
Karl Passetti, PE (KAI)

**PROJECT DEVELOPMENT & ENVIRONMENT STUDY (OPTIONAL)**  
KAI TEAM PROJECT MANAGER  
Jack Freeman, PE, PTOE (KAI)

**PROJECT TRAFFIC REPORT**

Justin Bansen, PE (KAI)  
Adam Burghdoff, PE (KAI)  
Li Jin, PhD, AICP (KAI)  
Michael Eagle, EI (KAI)

**TRAFFIC DATA COLLECTION**

Santiago Franceschini (ATC)

**ALTERNATIVES DEVELOPMENT & EVALUATION**

Justin Bansen, PE (KAI)  
Jack Freeman, PE, PTOE (KAI)  
Jane Lim-Yap, AICP, LEEP AP (KAI)  
Adam Burghdoff, PE (KAI)  
Radu Nan, PE (KAI)  
Travis Hills, EI (KAI)

**PUBLIC INVOLVEMENT**

Jack Freeman, PE, PTOE (KAI)  
Justin Bansen, PE (KAI)  
Jane Lim-Yap, AICP, LEEP AP (KAI)  
JP Weesner, PLA (KAI)  
Brett Boncore, EI (KAI)

**ENGINEERING**

**ALTERNATIVES DEVELOPMENT & EVALUATION**

Jack Freeman, PE, PTOE (KAI)  
Justin Bansen, PE (KAI)  
Radu Nan, PE (KAI)  
Travis Hills, EI (KAI)

**ENVIRONMENTAL**

**NATURAL RESOURCES EVALUATION**

Jason Houck, GISP, PWS (IN)  
Jada Barhorst (IN)

**PUBLIC INVOLVEMENT**

Justin Bansen, PE (KAI)  
Jane Lim-Yap, AICP, LEEP AP (KAI)  
JP Weesner, PLA (KAI)  
Brett Boncore, EI (KAI)

**CULTURAL, ARCHAEOLOGICAL, & HISTORICAL RESOURCES SCREENINGS**

Beth Chambless, MS (SR)

**STRUCTURES**

Kouros Sassani, PE (IDA)  
Kevin Fischer, PE (IDA)

**CULTURAL, ARCHAEOLOGICAL, & HISTORICAL RESOURCES EVALUATION**

Beth Chambless, MS (SR)  
Marie Pokrant, MA (SR)  
Ryan VanDyke, MA (SR)

**SAFETY & ACCESS MANAGEMENT**

Jack Freeman, PE, PTOE (KAI)  
Ryan Cunningham, PE (KAI)  
Travis Hills, EI (KAI)

**ENVIRONMENTAL, DRAINAGE & CONTAMINATION SCREENINGS**

Jason Houck, GISP, PWS (IN)  
Renato Chuw, PE (IN)  
Joe Governale, PG (GEC)

**GEOTECHNICAL**

Christopher Meyer, PE (GEC)  
Joe Governale, PG (GEC)

**SOCIAL RESOURCES EVALUATION**

Jane Lim-Yap, AICP, LEEP AP (KAI)  
Chris Romano, LEED AP ND (KAI)  
Laura Clark, AICP (IN)

- KAI KITTELSON & ASSOCIATES**
- IN INWOOD CONSULTING ENGINEERS**
- ATC ACCURATE TRAFFIC COUNTS (DBE)**
- SR SEARCH (DBE)**
- GEC GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS**
- IDA IDA CONSULTING ENGINEERS (DBE)**
- ACA AERIAL CARTOGRAPHICS OF AMERICA**
- SE SOUTHEASTERN SURVEYING & MAPPING CORPORATION**
- ETP ENVIRONMENTAL TRANSPORTATION PLANNING (DBE)**

**DRAINAGE**

Renato Chuw, PE (IN)

**AIR AND NOISE INVESTIGATIONS**

Robbin Ossi, AICP (ETP)

**LAND-USE, MULTIMODAL PLANNING, & SCENIC HIGHWAYS EVALUATIONS**

Jane Lim-Yap, AICP, LEEP AP (KAI)  
Mary Raulerson (KAI)  
JP Weesner, PLA (KAI)  
Patty Hurd (KAI)  
Chris Romano, LEED AP ND (KAI)

**AERIAL PHOTOGRAPHY**

Steve Kuda, PSM, PHO (ACA)  
Mitchell Jarrells, PSM (ACA)

**SEIR DOCUMENTATION**

Jack Freeman, PE, PTOE (KAI)  
Radu Nan, PE (KAI)  
Jason Houck, GISP, PWS (IN)

**RIGHT-OF-WAY MAPPING**

Jim Petersen, PSM (SE)  
Mike Dougherty, PSM (SE)  
Darryll DeMarsh, GPRT (SE)

**STRUCTURES SCREENING**

Kouros Sassani, PE (IDA)



# RESUMES



**KITTELSON & ASSOCIATES, INC.**  
TRANSPORTATION ENGINEERING/PLANNING



Justin Bansen is active in a variety of transportation and traffic engineering projects with an emphasis on transportation planning, traffic operations, safety, and roundabouts. Mr. Bansen previously served as PM for the Florida Department of Transportation (FDOT) District Five Growth Management contract where he provided extensive support in multimodal corridor planning evaluations such as recent projects on SR 44 in New Smyrna Beach, FL and along Orange Avenue (SR 527) in Orange County, FL. He currently serves as Project Manager (PM) for the FDOT District One Growth Management contract where he is leading roundabout feasibility studies and supporting corridor evaluations. Mr. Bansen regularly serves as an instructor of 3-day short courses covering the Highway Capacity Manual 2010 (HCM 2010) and roundabout design. He also served as a primary author for developing NCHRP Report 672, *Roundabouts: An Informational Guide-2nd Edition*.

## JUSTIN BANSEN, PE

Associate Engineer

### EDUCATION

MS Civil Engineering,  
Georgia Institute of Technology

BS Civil Engineering,  
University of Portland

### YEARS OF EXPERIENCE

12

### LICENSES

PE: FL

### AFFILIATIONS

Transportation Research Board,  
Operational Effects of Geometrics  
Committee, Member 2007-2013

Institute of Transportation Engineers,  
Member, Roundabouts Task Force

### PUBLICATIONS

Rodegerdts, L. A., J. Bansen, et al.  
NCHRP Report 672 - *Roundabouts: An  
Informational Guide, 2nd Edition*. National  
Cooperative Highway Research Program,  
Transportation Research Board, National  
Academy of Sciences, Washington D.C.,  
2010.

Freeman, J. R., J. Bansen, B. Wemple, and  
R Spinks. Innovative Operational Safety  
Improvements at Unsignalized  
Intersections. Florida Department of  
Transportation, August 2008.

Myers, E. J., J. Bansen, et al. Kansas  
Roundabout Guide: A Supplement to  
FHWA's Roundabouts: An Informational  
Guide, Kansas Department of  
Transportation, October, 2003.

### CORRIDOR STUDIES

Mr. Bansen regularly serves as PM for corridor-level evaluations. He led an evaluation of a portion of SR 44 in New Smyrna Beach between Airport Road and Myrtle Avenue. The SR 44 study was conducted to assist the City in planning for the future of the SR 44 corridor and to evaluate future development impacts. Work activities included modeling and volume forecasting, developing recommendations for future intersection control along the corridor, access management modification, and other turn lane improvements. The project included a multimodal component that evaluated pedestrian and bicycle connectivity through the study area. In Orange County, Mr. Bansen served as project manager for the evaluation of a 2-mile section of Orange Avenue (SR 527), on behalf of FDOT District Five, to evaluate multimodal connectivity and other roadway improvements around the new Sand Lake Road SunRail Station. He also previously evaluated operations along the SR 421 Corridor in Volusia County on behalf of FDOT District Five.

He has provided FDOT District One with ongoing support along US 41 in Sarasota, Florida to evaluate improvement alternatives at key intersections including the potential use of roundabouts within a coordinated signal system. For the US 41 study, Mr. Bansen served in both a review role as well as led an extensive VISSIM microsimulation assessment that included a variety of roundabout and signal improvement scenarios.

### PROJECT TRAFFIC

Mr. Bansen has led or provided significant contributions to the development of Project Traffic on several projects throughout Florida. For FDOT District One, he served as project manager in the development of the Project Traffic Report for the US 41 at 10th and 14th Street PD&E study in Sarasota, which includes a focus on multimodal improvements. The Project Traffic Report for the US 41 PD&E included development of future volume conditions, analysis of roundabout and traditional improvement alternatives, evaluation of off-peak conditions for the nearby performing arts center, and multimodal analysis using the procedures from NCHRP Report 3-70. He regularly leads project traffic development in support of corridor planning studies, including recent projects along SR 44 and Orange Avenue in FDOT District Five. He also regularly provides support to FDOT District One in reviewing project traffic and operational analysis associated with corridor studies and roundabout feasibility evaluations. Mr. Bansen previously led the development of project traffic for the new interchange at the intersection of John Young Parkway and Osceola Parkway in Osceola County. He also previously provided support in project traffic studies for FDOT District Four, including traffic projections and turning movements for 82nd Avenue in Indian River County. He is knowledgeable of FDOT Traffic Forecasting procedures, including the use of tools such as TURNS5 and TMTOLS.

## TRAFFIC OPERATIONS

Mr. Bansen is well versed in topics dealing with traffic operations, particularly with respect to the Highway Capacity Manual (HCM) procedures. He has co-instructed HCM training courses in FDOT District One, Five, and Central Office and has instructed ten similar three-day HCM courses over the past seven years for the Georgia Department of Transportation. Mr. Bansen is also experienced in applying the procedures from the HCM 2010 (which was prepared by Kittelson & Associates, Inc.). He delivered a short course in Orlando on the application of the Multimodal Level of Service procedures from the HCM 2010.

Mr. Bansen has expertise with roundabout analysis and design. He recently served as the primary author for the NCHRP Report 672 *Roundabouts: An Informational Guide, 2nd Edition* and supported the FDOT Central Office Roundabout Task Force with updates to FDOT manuals to reflect the new national guidance. He has conducted roundabout feasibility studies within FDOT District Five in the evaluation of roundabouts at US 27 at CR 326 and SR 434 at Hammock Lane. In District One he has provided similar support in the evaluation of roundabouts along US 41, the interchange of I-4 at SR 33, Airport Road at Old Tampa Highway, and US 27 at SR 80 and other locations. Mr. Bansen regularly conducts intersection feasibility studies throughout the country to evaluate roundabouts and other intersection control.

## TRAFFIC SAFETY

Mr. Bansen has conducted safety evaluations and is knowledgeable about the latest analysis tools, including the Highway Safety Manual procedures and FHWA's Interactive Highway Safety Design Model (IHSDM). He has presented on the use of IHSDM in safety evaluations at the Transportation Research Board (TRB) Annual Meeting and Geometric Design Symposium. Within Florida, he has applied the model for safety and operational evaluations along a 24-mile segment of Krome Avenue in south Florida. For this study, Mr. Bansen was responsible for conducting operational and safety analyses of the rural two-lane highway corridor. This included an analysis of the passing opportunities that exist on the corridor together with intersection operations. The IHSDM was also used to perform a detailed analysis of safety data and to study the impact various geometric alternatives (the addition of passing lanes, short four-lane sections, etc.) would have on corridor operations and safety.

## FDOT RESEARCH AND TRAINING ACTIVITIES

Through the FDOT Central Office (Traffic Engineering and Operations), Mr. Bansen served as a lead author in preparing Section 3.8 of the *FDOT Traffic Engineering Manual*, which provides guidance for the placement of mid-block pedestrian crossings. He also served a key role in researching best practices for traffic control devices within school reduced speed zones. In 2008, he completed research for the *Innovative Operational Safety Improvements at Unsignalized Intersections* project, which included development of a guidebook of innovative treatments aimed at improving safety and operations at unsignalized intersections. He has also co-instructed 13 three-day Highway Capacity Manual training courses since 2005 for the Florida and Georgia Departments of Transportation.

## TRANSPORTATION SYSTEMS MANAGEMENT AND OPERATIONS (TSM&O)

As a sub-consultant, Kittelson & Associates, Inc. (KAI) serves as an on-call consultant for FDOT District One through a Districtwide TSM&O contract. Mr. Bansen serves as the KAI project manager for the contract, where KAI is assisting FDOT District One with development of their TSM&O program. The program will include near-term and long-term implementation initiatives and stakeholder outreach. KAI has developed a TSM&O toolbox and performed arterial network screening to prioritize corridors for possible TSM&O project implementation.

## GROWTH MANAGEMENT

Mr. Bansen works as an extension of FDOT staff in reviewing development applications within FDOT District One and District Five through ongoing Growth Management Contracts. His primary responsibilities under these contracts have been the review of Developments of Regional Impact (DRIs), traffic impact studies for local concurrency determination, Monitoring and Modeling studies (M&M), and Notices of Proposed Change (NOPC). He has provided extensive reviews on a number of large DRIs, including preparation of supplemental analyses to verify information received from the applicant or support the position of FDOT staff on a particular issue. Mr. Bansen regularly represents the FDOT in meetings throughout the DRI process from methodology to mitigation negotiations and has provided support for other activities such as the preparation of development order language. As part of this process, Mr. Bansen works closely with local governments to coordinate comments, review concurrency implications, review traffic impact fee credits, determine mitigation needs, develop inter-local agreements for project funding, and coordinate with local agencies on rescissions of Development Orders.



John ("Jack") Freeman, Jr. has four decades of experience in transportation planning and traffic engineering. He serves as Senior Project Manager for a variety of transportation/traffic projects. Mr. Freeman has had extensive experience in conducting traffic engineering studies and in Project Development and Environment Studies (PD&E). Mr. Freeman's experience includes research for Federal Highway Administration (FHWA), Florida Department of Transportation (FDOT), and the National Cooperative Highway Research Program (NCHRP). He has led traffic operations and planning studies conducted throughout the United States, traffic design projects (including signing, pavement marking, and signal design), and functional design projects (including safety, environmental, and access management projects). He has served as the PD&E Project Manager for over a dozen projects in Florida and supported many others in a sub consultant role. Mr. Freeman has also led over 30 Road Safety Audits in Florida, Idaho and Oregon.

## **JOHN FREEMAN, JR., PE, PTOE**

*Senior Principal Engineer*

### EDUCATION

ME Civil Engineering,  
University of Virginia

BS Civil Engineering,  
Virginia Military Institute

### YEARS OF EXPERIENCE

40

### LICENSES

PE: FL, VA  
PTOE

### AFFILIATIONS

Institute of Transportation  
Engineers (ITE), Fellow

ITE, Immediate Past  
President (2004)

ITE, International President  
(2003)

ITE Task Force on Systems  
Management; Operations,  
Chair  
(2000-2001)

### AWARDS

Sherwood Hiller Distinguished  
Service Award: Awarded by  
the Florida Section of ITE  
(2000)

### I-95/PALM BAY PKWY SOUTHERN INTERCHANGE PD&E

Mr. Freeman is serving as the Project Manager for a PD&E Study to add a new interchange to I-95 south of Malabar Road in southern Brevard County. This new interchange will serve as a primary access to the proposed Palm Bay Parkway. The project also includes approximately four miles of new alignment for the Palm Bay Parkway between Micco Road and Babcock Street. Mr. Freeman is leading all aspects of the public involvement plan, the engineering analysis and the environmental evaluations. He also assisted FDOT in the refinement of the purpose and need statement, determination of logical termini and class of action which will be an EA/FONSI.

### SR 40 PD&E STUDY

Mr. Freeman is currently serving as the Project Manager for the PD&E Study for the four- to six-lane widening of SR 40 between Breakaway Trail and Williamson Boulevard in Volusia County. This two mile section is on the FDOT Strategic Intermodal System (SIS), a hurricane evacuation route, and important freight corridor. It also has a local function serving numerous businesses and residences. Enhanced pedestrian and bicycle facilities have been incorporated into the preliminary engineering.

### 436/RED BUG LAKE ROAD INTERCHANGE CONCEPTUAL FEASIBILITY STUDY

Mr. Freeman served as Project Manager of a Conceptual Feasibility Study to improve the high volume, high crash complex intersection at Highway 436 and Red Bug Lake Road in Winter Springs, FL. The study considered a range of improvement alternatives, including at-grade enhancements with the realignment of Winter Park Drive, a partial interchange, and a full interchange. Mr. Freeman conducted a complex traffic operations analysis using the microsimulation model PARAMICS to comparatively evaluate the improvement alternatives. Other components of the study included cost analysis, environmental impact analysis, and several public involvement workshops.

### I-75/SR 951 ULTIMATE INTERCHANGE PD&E STUDY

Mr. Freeman is serving as the Project Manager for the development of the ultimate interchange concept for the modification of the I-75 and SR 951 interchange for FDOT District One in Collier County. He is leading the preparation of the PD&E Study, the Interchange Modification Report (IMR), and the Project Traffic Report (PTR). The interchange modifications also include modifications to the existing SR 84 (Davis Blvd) intersection with SR 951. As part of the IMR/PTR preparations, we conducted existing conditions traffic analysis, future traffic projections and CORSIM analysis of future improvement alternatives.

### LPGA BOULEVARD PD&E STUDY

Mr. Freeman served as the Project Manager for the LPGA Boulevard Extension PD&E Study in Daytona Beach, FL. He conducted an initial feasibility study that focused upon the project costs and environmental impacts of the travel demand and engineering features of the new 3.2-mile roadway extension. The project required extensive coordination with local governments, a public meeting, and presentations to the Volusia County MPO.

---

## FDOT CENTRAL OFFICE ACCESS MANAGEMENT TRAINING

Mr. Freeman worked with the FDOT Systems Planning Office as Project Manager to update the 2006 Access Management Training course. The course incorporated the provision of the Bennett Bill (F.S. 335.199) as part of the access management process. It also included an advanced safety perspective using the tools of the Highway Safety Manual published in 2010. The training incorporates considerations for pedestrians, bicyclist, and transit patrons using the roadway. This course was presented in 2012 and 2013.

## SAFETY PROJECTS

Mr. Freeman served on the consulting team to prepare the Florida Strategic Highway Safety Plan (SHSP) approved in 2006. He worked the on development of action plans for the intersection and lane departure emphasis areas. The SHSP includes action plans in four emphasis areas and involved coordination with 13 state agencies and multiple local governments. Mr. Freeman also led other activities for FDOT's Central Office:

- He led the development of a new chapter for the FDOT Traffic Engineering Manual (TEM) providing guidelines for the location and installation of mid-block pedestrian crossings on the state highway system. This chapter does address the installation of pedestrian hybrid signals and rectangular rapid flash beacons, and other types of installations. This work resulted in a new chapter (Chapter 3.8) in the FDOT Traffic Engineering Manual to provide statewide guidance on this topic.
- Mr. Freeman assisted with a study of reduced speed school zones associated with signalized intersection crossings on the state highway system. This study helped to improve statewide uniformity in the application reduced speed school zones where there are signalized intersections.
- He led the development of a two-day FDOT training course on the Highway Safety Manual (HSM) and then served as one of the lead trainers for the course delivery in all districts. He served in a similar capacity in developing a two day FDOT Corridor Access Management training course and as the lead instructor in its delivery to all districts.
- He is currently leading the rewrite of the FDOT Manual of Uniform Traffic Studies (MUTS) to incorporate the HSM principles and changes in recent documents to include the 2009 Manual on Uniform Traffic Control Devices and the ITE Manual of Transportation Engineering Studies. The revised chapters are currently being reviewed by Central Office.
- He is currently developing Highway Safety Improvement Program (HSIP) guidelines for FDOT.

Mr. Freeman has conducted multiple Road Safety Audits (RSAs) within Florida, Idaho, Wyoming and Oregon. In Florida, he has conducted nearly 30 RSAs for FDOT District Seven in the Tampa Bay area plus mini-RSAs of multiple high risk rural road sites in three counties. Additionally, he conducted six road safety assessments for FDOT District Seven for upcoming 3R projects providing the safety evaluation for use in scope of services development. One of these RSAs was videotaped by FHWA for use in their RSA video. In June 2011, he served as team leader of the first RSA conducted by FDOT District Four in Ft. Lauderdale, FL. For FDOT District Five in the Orlando area, he was part of a team to prepare a methodology for conducting transit-pedestrian safety assessments for improvements to be incorporated into upcoming 3R projects. He has also led three pedestrian safety audits for high pedestrian crash locations in the Orlando urban area. Mr. Freeman participated in conducting the Volusia County Beach Safety Study to consider safety enhancements of vehicles driving on the beaches in the Daytona Beach area. This study looked closely at the interaction of pedestrian and vehicle interaction in this unique environment with little traffic control. 11 strategies to enhance safety were considered by local government for implementation.

## APOPKA BYPASS PD&E STUDY

As Project Manager, Mr. Freeman conducted a PD&E study of a new nine- to ten-mile bypass south and east of the City of Apopka, FL. The project was initiated as an Environmental Impact Statement (EIS), but as the alignment studies progressed areas of significant impact were avoided the FHWA downgraded the documents to an EA/FONSI. This \$140 million project included a major systems interchange with the Western Beltway. Mr. Freeman headed an extensive public involvement program for this project.

## I-95 BREVARD PD&E STUDY

Mr. Freeman served as Project Manager for a PD&E Study to widen 15 miles of I-95 from four lanes to six lanes in northern Indian River and southern Brevard Counties, FL. The project held a Type II Categorical Exclusion class of action. Mr. Freeman managed critical issues within the project area, including high crash locations with geometric issues and the addition of drainage retention ponds with some areas being state preserve lands and some threatened and endangered species. Mr. Freeman also managed in the final design stage for this project.







Karl Passetti is a Senior Principal Engineer in Kittelson & Associates, Inc. (KAI)'s Orlando, Florida office. He has over 16 years of experience in the development of transportation alternatives, corridor development review, traffic forecasting and analysis, interchange access support, capacity analysis, geometric design, and safety assessments. He has served as a project manager for several multi-year, multi-consultant on-call contracts with the Florida Department of Transportation (FDOT) throughout Florida. He has also served as a Quality Control leader on many Project Development & Environmental (PD&E) Studies throughout the state. This experience gives him first-hand knowledge of the various issues being faced throughout Florida and how different agencies approach those challenges.

## KARL PASSETTI, PE

*Senior Principal Engineer*

### EDUCATION

MS Civil Engineering,  
Texas A&M University

BS Civil Engineering,  
Pennsylvania State  
University

### YEARS OF EXPERIENCE

16

### LICENSES

PE: FL

### AFFILIATIONS

Transportation Research  
Board (TRB), Member

TRB Committee on  
Operational Effects of  
Geometric Design, Member  
(2001-2010)

### GENERAL PLANNING CONTRACTS

Mr. Passetti serves as a Program Manager for KAI's on-call planning contracts with FDOT District Five and provides senior oversight for individual task orders. In this role Mr. Passetti has managed a multi-disciplinary team on over 75 task orders in a five-year period. Many of these projects included the application of travel demand models, project traffic forecasting, integrating land use and multimodal considerations into corridor evaluations, and using advanced data collection and analysis techniques. The contract also included providing KAI staff to work as 'FDOT staff' resources in completing traffic study and comprehensive plan reviews, interpreting and implementing policy and statutes, and conducting presentations to local governments and MPOs.

### SR 50 MULTIMODAL CORRIDOR STUDY

Mr. Passetti served as a Project Principal for the SR 50 Multimodal Corridor Study that integrated transportation and land use planning to provide mobility options for the SR 50 corridor between US 27 and the Florida's Turnpike. The study was performed because both the FDOT and MPO recognized that the future congestion forecasted for the corridor could not be accommodated by additional widening of SR 50 past six-lanes or through the use of parallel facilities. Mr. Passetti led a study team that used innovative BlueTooth™ data collection to differentiate between regional and local trips, created a subarea model to study future travel characteristics and conditions, conducted a planning charrette to develop a working relationship with stakeholders, and developed concepts for future transportation and land use strategies.

### SPACE COAST TPO CONTINUING SERVICES

Mr. Passetti currently manages a continuing services contract for the Space Coast TPO that has included corridor feasibility studies, workshop facilitation, and various transportation planning tasks. Mr. Passetti is currently supporting the TPO with its goal of adopting and implementing a county-wide Complete Streets program and having each jurisdiction within the County adopt a Complete Street policy. Feasibility studies that Mr. Passetti has led have included:

- US 192: KAI is currently performing a roadway widening feasibility study for US 192 in Brevard County. Existing and future traffic demands, right-of-way impacts, and utility relocations are being analyzed to determine short term intersection improvement alternatives as well as long term corridor widening alternatives.
- SR 524: KAI performed a roadway widening feasibility study for SR 524 in Brevard County and the City of Cocoa that assisted the jurisdictions with planning future budget needs for this facility. The study covered existing and future traffic demands and operations along the 4-mile stretch between I-95 and Michigan Avenue, including intersections and segment level of service analysis. Fatal flaw analyses also screened environmental, social, and drainage needs. A conceptual widening plan and a long range construction estimate were prepared. Throughout the process, KAI met with the two major jurisdictions and the Space Coast Transportation Planning Organization to incorporate both vehicular, bicycle, and pedestrian elements into the ultimate roadway concepts.



---

## DESIGN TRAFFIC & TRAFFIC FORECASTING

Mr. Passetti is the Project Principal for a continuing services contract in FDOT District Five for Design Traffic and PD&E Support. Primary tasks for this contract include the preparation of Design Traffic Technical Memorandums (also referred to as Project Traffic Reports) and Equivalent Single-Axle Loading (ESAL) calculations. Typical components associated with each task include a field review of multimodal accommodations, a review of historical and field collected traffic data, use of a travel demand model (either the Central Florida Regional Planning Model (CFRPM) or the Orlando Urban Area Transportation Study (OUATS) model) for future forecasts, growth rate selection, and auto and multimodal level of service evaluation using a variety of techniques.

Mr. Passetti managed the development of traffic projections for the I-95/Viera Boulevard Interchange Justification Report (IJR). In this role, KAI validated a subarea model using the base year CFRPM model and created future traffic forecasts for the following scenarios: existing, opening, midyear, and design year. The IJR was accepted by the Federal Highway Administration.

---

## GROWTH MANAGEMENT

Mr. Passetti previously managed a District Five Growth Management contract for seven years. In this role, Mr. Passetti assisted the FDOT in reviewing activities associated with Development of Regional Impact (DRI) studies (development orders, notifications of proposed change, monitoring and modeling studies). Mr. Passetti also conducted presentations on transportation proportionate share issues and alternatives concurrency programs such as TCEAs, TCMAAs, and MMTDs. Mr. Passetti is regarded as a statewide expert in growth management and has assisted FDOT Central Office and the former Department of Community Affairs in resolving issues (such as backlog, phantom lanes, and cumulative traffic) and translating administrative codes and statutes. Mr. Passetti has also assisted FDOT District One in the review of several DRIs.

---

## FDOT CENTRAL OFFICE SYSTEM PLANNING

Mr. Passetti was the Project Manager for a statewide evaluation and comparison of FDOT designated Strategic Intermodal System (SIS) connectors and federally designated National Highway System (NHS) connector facilities. The evaluation identified SIS Hubs that shared the SIS and NHS designation and focused on facilities that have one designation but not the other (for example a facility that is designated SIS but not NHS). For facilities that have one designation but not the other an assessment was made as to whether a designation change (either SIS or NHS) should be proposed. As part of the project the SIS coordinators for each District were contacted and GIS maps were created to visually show designation differences. Recommendations were made to both the Districts and Central office for next steps.

Mr. Passetti was the Project Manager for a statewide study to establish a methodology to determine community capture values for large scale developments. The study was a result of a legislative directive and involved an extensive outreach effort to all FDOT Districts. The study resulted in revised guidance and clarification regarding the application of internal capture to large scale developments and was accepted by the FDOT and the working group.

Mr. Passetti assisted in a major revision to the Transportation Impact Handbook (formerly the Site Impact Handbook). Mr. Passetti led the development of chapters addressing Development of Regional Impacts (DRIs) and the Transportation Impact Process and assisted on a chapter addressing mitigation considerations.

---

## FDOT CENTRAL OFFICE STATISTICS

Mr. Passetti is playing a leadership role in assisting the Statistics Office in implementing MAP-21 requirements related to performance measures, incorporating reliability into statewide reporting, and testing the applicability of the Strategic Highway Research Program 2 (SHRP2) research results to FDOT procedures and guidelines. In this role Mr. Passetti has provided quality control to the Kittelson team associated with the FDOT Source Book, participated in task orders on how to apply draft chapter 35 of the Highway Capacity Manual to the FDOT PD&E process and how to incorporate SHRP2 projects L02 and L07 in Florida, and led an operational assessment of SIS and NHS connectors.

---

## PD&E STUDY FOR A LIMITED ACCESS CORRIDOR FROM US 98 TO DOTHAN, AL

Mr. Passetti served as the KAI Project Manager for this study. The project consisted of justifying the need for a 70-mile north-south limited access corridor in the 30-mile wide study area in Jackson, Holmes, Washington, and Bay County located in Northwest Florida. Mr. Passetti led the development of the Design Traffic Technical Memorandum that addressed potential land use changes in the study area (an airport relocation and potential large scale private development), hurricane evacuation needs, and capacity of the existing roadway network.



Jane Lim-Yap draws from her broad experience and training in architecture, urban design, traffic engineering, and transportation planning, in creating holistic solutions for a more livable and sustainable built environment. She has over fifteen years of experience in helping various communities, transit agencies, and state agencies develop successful plans for redeveloping urban and suburban corridors, town centers, and transit station areas. In addition, Ms. Lim-Yap is also involved in state-level policy initiatives to align transportation and land use planning and decisions. Her experience includes developing area and corridor plans, communication and presentation materials, training materials, and facilitating community outreach and design work sessions.

## JANE LIM-YAP, AICP, LEED AP

*Associate Planner*

### EDUCATION

Master of City and Regional Planning and MS (Civil) Transportation, Georgia Institute of Technology

BS, Architecture,  
University of the Philippines

### YEARS OF EXPERIENCE

15

### LICENSES

AICP, NJPP, LEED AP

### AFFILIATIONS

American Planning Association, Congress for New Urbanism,  
Florida American Planning Association

### AWARDS

Florida Planning and Zoning Planning Award 2013, for the SR 50 Multimodal Corridor Study

Lake-Sumter MPO 2012 Horizon's Awards for Exemplary Planning Project, for the SR 50 Multimodal Corridor Study

Florida Redevelopment Association, 2008 President's award, for the Downtown Orlando Community Venues Master Plan

1st Coast Chapter FPZA 2008 Best Planning Award, City of Jacksonville Beach Vision Plan

### PUBLICATIONS

USDOT Livability in Transportation Guidebook (lead contributor)

FDOT District Five Multimodal Corridor Planning Guidebook (lead author)

### MULTIMODAL CORRIDOR PLANNING & PROJECT DEVELOPMENT

Ms. Lim-Yap managed a number of integrated land use and transportation planning efforts for redeveloping urban and suburban corridors, downtowns, and neighborhoods throughout the country. She led an award-winning Florida Department of Transportation (FDOT) effort to develop a multi-modal corridor plan for State Road 50 in Clermont, Florida. The plan sets the stage for changing the development patterns of a rapidly suburbanizing corridor and outlines actionable land use and transportation strategies to support more multi-modal travel patterns. Ms. Lim-Yap also conducted a number of corridor studies for the New Jersey Department of Transportation; including an integrated transportation and land use plan for 30 miles of Route 9 in Ocean County, New Jersey. The study looked at how land use, transportation, and community design and planning can be better integrated and included the redevelopment of catalyst sites, an expanded roadway network, a model land development ordinance, and roadway redesign.

### CONTEXT SENSITIVE SOLUTIONS POLICY

Ms. Lim-Yap has played key roles in developing state and local policies that are guiding an on-going shift in the way communities and agencies think about transportation and land use decisions. Ms. Lim-Yap was a lead planner and coordinator for Pennsylvania Department of Transportation's (PennDOT) Smart Transportation initiative. Smart Transportation is a program calling for linking land use and transportation planning, a focus on system maintenance and preservation on, balancing priorities among all transportation modes, collaboration with planning partners, and true fiscal responsibility. Ms. Lim-Yap is also involved in research and policy development related to livability and transportation. She co-authored the US DOT Livability in Transportation Guidebook. The Guidebook showcases how various transportation projects applied livability principles through changes in design, process, partnership, organizational structure, and other livability "tools".

Ms. Lim-Yap worked with the Florida DOT District Five to develop a set of guidance that focuses on multi-modal corridor planning. The guidance is targeted for internal DOT staff use as well as to provide partner agencies (MPOs and municipalities) with a consistent approach for future multi-modal studies. She is currently facilitating a series of workshops to formally roll out the Guidebook to FDOT and its planning partners.

---

## MASTER PLANS & VISION PLANS

Ms. Lim-Yap managed a number of downtown plans, all focused on integrating land use, urban design, and transportation interventions with policy and market realities. Ms. Lim-Yap was the project manager for the Downtown Orlando Community Venues Master Plan, an effort that is guiding one of the largest redevelopment efforts reshaping the City's downtown. The plan established the land use, transportation, and urban design frameworks for the billion dollar initiative aimed at building a new Performing Arts Center, a new Events Center, and the renovation of the Florida Citrus Bowl. The plan called for laid out the necessary pedestrian improvements to successfully link the existing and proposed community venues to the Downtown's entertainment core.

Ms. Lim-Yap was lead designer or project manager for various other successful vision plans supporting activity centers throughout the Country; including Jacksonville Beach, North Miami Beach, and Winter Park in Florida; Charlotte and Mooresville in North Carolina; and Stockton and Ocean County in New Jersey. Strategies from the plans consider not just the physical needs of a downtown that incorporate transportation, urban design, and land use aspects, but also actionable policies, programs, and projects, many of which have been successfully implemented with built projects on the ground.

---

## TRANSIT PLANNING & TRANSIT-ORIENTED DESIGN

Ms. Lim-Yap has led and been involved in more than 30 transit corridor and station area planning initiatives throughout the US. She was the project manager for the Northeast Corridor Station Area Planning in Charlotte, NC. The project involves station location, station area planning, and land use evaluation for the LYNX Blue Line Extension, as well as understanding station potential, specific zoning and land use changes, infrastructure investments, and transit oriented development opportunities for all 13 stations along the corridor. As part of the project, Ms. Lim-Yap helped redirect a \$50 million planned interchange near two proposed stations. Ms. Lim-Yap worked with stakeholders, the City, and the transit agency to develop a solution that expanded the roadway network, providing access to some of the largest underutilized properties adjacent to the proposed stations. Other recent transit efforts Ms. Lim-Yap is involved in include the Hillsborough Area Rapid Transit (HART) East-West Corridor station area plans, Downtown Orlando LYMMO expansion concepts, the Sawgrass Mills Gateway Hub plan (Sunrise, Florida), Aberdeen Station Area Plan (MD). She is currently working on LYNX SR 50 Alternatives Analysis Study and the station area planning effort for the Glades Road corridor study (Boca Raton, FL). She is also helping the FDOT on an effort to identify and program immediate pedestrian and bicycling connectivity around all 12 Phase 1 SunRail stations in Orlando.

---

## CONTEXT SENSITIVE SOLUTIONS/ COMPLETE STREETS IMPLEMENTATION

Ms. Lim-Yap has been involved in a number of transportation projects that apply principles of context-sensitive solutions, including Complete Streets, area-wide mobility plans, and road diets. These projects result in approaches that support community goals, cater to the access and mobility needs of all users, and are financially and economically sound. Some examples include the Fells Parkway vision plan in Boston and Complete Streets strategies for various communities, such as Huntersville and Mooresville, North Carolina, Hampton, Virginia, the Inner Harbor district in Baltimore, Maryland, and the City of Jacksonville Beach in Florida. Ms. Lim-Yap has participated and led a number of planning efforts that incorporates performance measures related to multimodal mobility. She led the State of the System report for the Space Coast Transportation Planning Organization (TPO) in the last two years. Ms. Lim-Yap has worked with the TPO to further these performance measures and also help align the CMP with other TPO focus areas such as Multimodal Mobility/Complete Streets.

---

## PROJECT MANAGEMENT FOR ON-CALL SERVICES

Ms. Lim-Yap is frequently asked to lead on-call and strategic efforts for various public agency clients. Under the Space Coast TPO, Ms. Lim-Yap has conducted training for Complete Streets and development of model policy and training materials. She led several State of the System reports for the Space Coast TPO's congestion management process (CMP). Ms. Lim-Yap has worked with the TPO to further these performance measures and also help align the CMP with other TPO focus areas such as Multimodal Mobility/Complete Streets. More recently, she was asked to develop, within a short turn-around time-frame, a set of cost-estimates for FDOT District Five's next series of corridor studies. This effort involved understanding of the nature/scope of the corridor studies by interviewing the project sponsors and the development of associated cost estimates for the proposed studies. Ms. Lim-Yap is also involved in Volusia TPO's ongoing citizen survey as well as the review and refinement of the TPO's programmed projects as part of the regional travel demand model development.



Mr. Burghdoff has served as project engineer for numerous transportation-related projects throughout the State of Florida. Through his career he has provided public and private-sector clients with a wide variety of services including design-traffic evaluations, corridor travel-pattern identification, operational analyses, the preparation and/or review of dozens of transportation impact analyses for all phases of development including concurrency applications, developments of regional impact, sector plans, and comprehensive plan amendments. His diverse experience representing public and private clients has allowed him to develop expertise in understanding the big-picture issues affecting all stakeholders involved. It has also built a strong passion for identifying creative solutions to issues encountered such that all parties involved walk away with a level of satisfaction. Mr. Burghdoff has also been extensively involved with projects such as access management evaluations, site circulation evaluations, traffic signal warrant analyses, traffic signal designs, trip generation studies, bicycle/pedestrian feasibility studies, and parking studies. Mr. Burghdoff's professional experience is supported by his knowledge of various engineering software including AutoCAD, Florida Department of Transportation's (FDOT) LRE System, Synchro/SIMTraffic, Highway Capacity Software, LOSPLAN, and CUBE modeling software.

**ADAM  
BURGHDOFF, PE**  
*Senior Engineer*

**EDUCATION**

BS Civil Engineering,  
Western Michigan  
University

**YEARS OF EXPERIENCE**

7

**LICENSES**

PE: FL, LA

**AFFILIATIONS**

Urban Land Institute (ULI),  
Associate Member

Volusia County Association  
for Responsible  
Development (VCARD),  
Member

**AWARDS**

FDOT LAP Certification  
CBT: Completed FDOT's  
Computer-Based Training  
course for Local Agency  
Plan and Florida Highway  
Administration Certification  
and Recertification

FDOT LRE Certified:  
Certified to use the FDOT's  
Long Range Estimates  
(LRE) System

**SR 50 FROM SR 33/US 301 TO CR 33/BLUFF LAKE ROAD: ETDM TRAFFIC SCREENING**

Mr. Burghdoff served as project manager and project engineer for the District 5 ETDM traffic screening for SR 50 from US 301 in Hernando County to CR 33 in Lake County. This screening evaluation involved the collection and summarization of traffic, roadway, land use, safety, and planning data. Bridging two FDOT districts, the future traffic forecasting effort required the use of two different travel demand models. Mr. Burghdoff's planning-level study provided an innovative LOS evaluation that was based upon the sensitivity to the future traffic growth rates so District 5 could make an informed decision on the future project development for the corridor. This screening project also included a planning-level safety analysis utilizing methodologies from the latest Highway Safety Manual to evaluate the potential safety benefits associated with the hypothetical scenario of widening the corridor to four lanes. The hypothetical safety evaluation showed dramatic safety benefits associated with widening the roadway, but also suggested that there are areas where safety can be improved without widening the corridor.

**FDOT DISTRICT FIVE PROJECT TRAFFIC FOR PD&E AND DESIGN**

Mr. Burghdoff is currently providing continuing services as deputy project manager to FDOT District 5 under the Design Traffic for PD&E and Design contract. He has served as project engineer for numerous equivalent single-axle loading (ESAL) evaluation reports for 3R projects and design updates, and full design-traffic technical memoranda. Mr. Burghdoff has also been involved in several feasibility-level traffic evaluations which are conducted at the corridor level. Corridor level feasibility studies require an evaluation of model performance within a subarea to forecast future travel demand. Recently, Mr. Burghdoff led the preparation of the Ellis Road DTTM update which was completed in less than three months and resulted in zero comments from FHWA. Mr. Burghdoff was able to meet this highly aggressive schedule through fluid communication and regular progress meetings to inform/update FHWA staff each step of the way.

**I-75/SR 951 ULTIMATE INTERCHANGE PD&E**

It is proposed to modify the existing interchange at I-75 and SR 951. Mr. Burghdoff served as Project Engineer in the preparation of the Interchange Modification Report and Project Traffic Report which parallel the Project Development and Environment (PD&E) study efforts. The project involved the evaluation of traffic characteristics such as AADT, K, D, and T; the existing conditions analysis; and the future traffic volume projections. Future traffic projections required an in-depth look at the subarea model developed by FDOT District One to evaluate whether the recent decline in economic conditions could be reflected in the future traffic volume projections. This project involved an extensive evaluation of historical trends, future development projections, regional travel demand modeling, and existing travel patterns. Mr. Burghdoff was also extensively involved in the preliminary feasibility evaluations that considered the combination of 13 basic intersection types with seven interchange types.

---

## US 1 CORRIDOR IMPROVEMENT PLAN – PHASE 2

Mr. Burghdoff recently served as project engineer for Phase 2 of the US 1 Corridor Improvement Plan with FDOT District Five. Tasked with identifying travel patterns throughout the 30+ mile corridor and stakeholders who do not have faith in the current travel demand model, Mr. Burghdoff developed innovative methods to be used in conjunction with the model outputs to identify route-choice and the proportion of regional vs. local trip types. Bluetooth data collection was collected along US 1 and Nova Road, which are parallel corridors for a significant portion of the study area, for the purposes of determining route-choice and general trip length. Mr. Burghdoff also engaged in exhaustive discussions with Airsage with hopes of using the company's select-link evaluation tool. During these discussions, Mr. Burghdoff learned about all of Airsage's capabilities and recognized many of the strengths and weaknesses related to their technology. However, it was determined that Airsage's select-link tool development schedule did not coincide with the project schedule.

---

## I-95/S.R. 421 LONG-RANGE INTERCHANGE ANALYSIS

Mr. Burghdoff served as project analyst for the long-range assessment of the I-95/SR 421 interchange that was conducted for the purposes of identifying cost-effective improvements that could be implemented to accommodate future traffic demands resulting from new nearby development. The assessment involved evaluating various geometric improvements within the interchange area, the effects of a new interchange just south of the project site at Pioneer Trail, and a new overpass at Madeline Avenue. Mr. Burghdoff developed travel new demand model networks using the Central Florida Regional Planning Model for the purposes of estimating the travel pattern changes at the study interchange. Mr. Burghdoff also revised the socioeconomic data in the local area to more accurately reflect the recently approved developments within the City of Port Orange. Using the future traffic volumes that were ultimately developed for each scenario, Mr. Burghdoff conducted SimTraffic analyses to assist in the development of recommended geometrics at each of the signalized intersections in the interchange area. Mr. Burghdoff worked closely with roadway design professionals to identify strategies for fitting each intersection together with consideration for lane additions, lane drops, and weaving constraints.

---

## VOLUSIA TPO BICYCLE/PEDESTRIAN FEASIBILITY STUDIES

Mr. Burghdoff served as project analyst for a continuing services contract issued by the Volusia TPO (now known as the River to Sea TPO) which involved identifying the feasibility of constructing bicycle/pedestrian facilities at various locations in Volusia County. For several of these projects, Mr. Burghdoff performed field-data collection services, evaluated proposed pathway alignments, identified potential crosswalk locations, identified field constraints, and developed detailed cost estimates for the proposed improvements. The projects were required to secure XU funding, but also served as a starting point in the development of final design plans for the proposed improvements.

---

## ENVISION ALACHUA SECTOR PLAN APPLICATION

Mr. Burghdoff is currently serving as project manager and technical lead for the preparation of the transportation data & analysis in support of the proposed Long Term Master Plan (LTMP) Comprehensive Plan Amendment to the Alachua County Comprehensive Plan. The Envision Alachua Sector Plan includes over 60,000 acres of land within Alachua County owned by Plum Creek. The proposed Sector Plan Application will include 10,500 homes, 8,000,000 square feet of manufacturing/industrial uses, 6,000,000 square feet of office/institutional/research & development uses, and 1,500,000 square feet of commercial land uses. The transportation data & analysis effort underway includes detailed travel demand modeling, a comprehensive approach to internalization within the proposed community, and a 50+-year analysis of regional multi-modal transportation facilities needed to serve the land uses within the LTMP.

---

## DEVELOPMENTS OF REGIONAL IMPACT

Mr. Burghdoff has served as project analyst and engineer for several Developments of Regional Impact (DRI) across the state of Florida. Most of the DRIs involved long-term buildout periods. The larger DRIs that Mr. Burghdoff worked on, with long-range buildout periods, required extensive efforts to project the future traffic volumes and travel patterns. These efforts involved the analysis of historical traffic characteristics (AADT, K and D factors) and trends, projected development patterns, travel demand modeling, and extensive trip generation analyses. The larger DRIs that Mr. Burghdoff has worked on include the following: Restoration DRI (approximately 3,000,000 square feet of non-residential and more than 8,500 residential units), North Port Gardens DRI (Phase 1: 750,000 square feet of retail and 150 hotel rooms; Phase 2 cumulative: 2,000,000 square feet of retail, 450 hotel rooms, and 600 multi-family residential units), Pavilion at Port Orange (approximately 500,000 square feet of retail and 40,000 square feet of office).



Mr. Cunningham has served as a transportation engineer in a diversity of projects for public and private clients throughout Florida. He studied Civil Engineering and Transportation Systems at the University of Central Florida, where he worked in conjunction with the Florida Department of Transportation (FDOT) toward the development of Intelligent Transportation System strategies to manage congestion and improve safety on freeways. He has worked as a transportation consultant to both private and public industries with a primary focus in traffic operations and transportation planning. Mr. Cunningham's other areas of expertise include traffic simulation, travel demand forecasting, and traffic mitigation strategies.

**RYAN J.  
CUNNINGHAM, PE**  
*Senior Engineer*

**EDUCATION**

MS Civil Engineering  
(Transportation  
Systems), University of  
Central Florida

BS Civil Engineering,  
University of Central  
Florida

**YEARS OF  
EXPERIENCE**

7

**LICENSES**

PE: FL

**AFFILIATIONS**

Central Florida Institute  
of Transportation  
Engineers (ITE), Member

**CERTIFICATIONS**

FDOT LRE Certification

**PUBLICATIONS**

Dynamic Variable Speed  
Limit Strategies for Real-  
Time Crash Risk  
Reduction on Freeways.  
Transportation Research  
Record, No. 2078, 108-  
116, 2008.

Application of Variable  
Speed Limits and Ramp  
Metering to Improve  
Safety and Efficiency of  
Freeways.

**CORRIDOR SAFETY STUDIES**

Mr. Cunningham served as Project Manager of corridor safety studies done on a 7.4-mile section of State Road 46 and on a 2.6-mile section of County Road 419, both located in Seminole County, FL. These studies implemented the crash prediction methods of the Federal Highway Administration's (FHWA) Highway Safety Manual (HSM) and considered the utilization of crash countermeasures with known crash reduction factors to improve safety on the corridors. Each study involved the team's thorough review of the crash history and a field evaluation of the roadway segments and intersections that make up the corridor. Mr. Cunningham then identified and prioritized crash countermeasures based on the relative cost of the improvement and the known benefit to the expected number of crashes. The recommendations of these studies are being used by Seminole County and FDOT to prioritize and construct crash countermeasures on the study corridors.

**ROAD SAFETY AUDITS**

Mr. Cunningham served as Project Engineer on two pedestrian road safety audits (RSA), commissioned by FDOT District Five's Traffic Operations office. He helped to lead the RSA teams, comprised of FDOT District Five staff, local government representatives, a MetroPlan Orlando bicycle/pedestrian representative, and law enforcement, through field evaluations of State Road 527 (Orange Avenue) in the City of Orlando and State Road 436 (Semoran Boulevard) in Orange County. Mr. Cunningham and the RSA teams worked in the field to evaluate pedestrian signal functionality, the condition of sidewalks, crosswalks and detectable warning surfaces, available sight distance at intersections, ADA compliance issues (sidewalk cross-slopes, ramp slopes, etc.), and lighting, among many other considerations. In addition to the field evaluation, Mr. Cunningham's project tasks included analyzing the crash history on the corridor, suggesting improvements to address the identified issues, documenting findings, and coordinating with various stakeholder agencies and offices.

Mr. Cunningham assisted in the road safety audit of a 6.2-mile segment of US 27 in Marion County, which was conducted as part of the Design Traffic and Equivalent Single Axle Load (ESAL) analysis for the SR 500/US 27 Resurfacing Project. Mr. Cunningham's audit evaluated pedestrian signal functionality, the condition of pedestrian facilities, available sight distance at intersections, and the presence of ADA non-compliant features such as steep sidewalk cross-slopes or ramp slopes. His evaluation led to recommendations for additional maintenance or small scale projects to be combined with the Resurfacing project.

**MULTIMODAL CORRIDOR STUDIES**

Mr. Cunningham has played a support role in performing several corridor studies and was the Project Engineer for the SR 44 Corridor Management Plan that was prepared on behalf of FDOT District Five. The SR 44 study inventoried traffic operations, access management, and safety of the SR 44 corridor in the City of New Smyrna Beach in its existing condition. With a substantial level of development planned for the area, the corridor management study identified both short- and long-term needs and recommended strategies for addressing needs pertaining to traffic operations, safety considerations, multimodal options, and access management.

---

## TRAFFIC OPERATIONS & TRANSPORTATION PLANNING

Mr. Cunningham has extensive experience in traffic operations and has conducted hundreds of studies in the realm of traffic impact analyses, access management studies, comprehensive plan amendments and developments of regional impacts throughout the State of Florida. He is well-versed in the methodologies and procedures of the Highway Capacity Manual (HCM) and is experienced using Highway Capacity Software (HCS), Synchro, SIDRA, and LOSPLAN software for intersection and roadway segment analyses. Mr. Cunningham has provided extensive support to FDOT District Five in the review of comprehensive plan amendments and Development of Regional Impact (DRI). He also has extensive experience in preparing the transportation analyses for small and DRI-scale projects including the Kelly Park Crossings DRI, Osceola Corporate Center DRI, Landstone DRI, and Southern Oaks DRI.

---

## SEMINOLE COUNTY COST & BENEFIT ANALYSES

Mr. Cunningham has conducted multiple benefit-cost analyses under a continuing services contract with Seminole County. These projects include performing an operational and safety analysis of existing conditions at an intersection or multiple intersections, and conducting a field visit during peak hours to observe traffic and identify any underlying issues that contribute to the identified operational or safety concern. Mr. Cunningham then proposes operational and/or geometric improvements, in conjunction with the County, to address the identified deficiencies. Mr. Cunningham monetizes the benefits of the improvement(s) and compares them with the estimated cost so that the County may make more informed decisions in the selection of improvement alternatives.

---

## SUNRAIL PED/BIKE CONNECTIVITY PROJECTS

Mr. Cunningham served as Project Manager in FDOT's SunRail Pedestrian/Bicycle Connectivity Study. The study (2013-2014) involved the identification of maintenance and short-term projects to enhance bicycle and pedestrian connectivity to the Phase I SunRail stations. Mr. Cunningham led teams made up of representatives of FDOT, local government agencies, and other stakeholders on field evaluations (similar to pedestrian road safety assessments) at nine Phase I station areas. Through intergovernmental coordination and efforts to review ongoing or near-term development and capital improvement plans, Mr. Cunningham's team identified maintenance-level projects, short-term projects, and long-term projects to enhance bicycle/pedestrian connectivity to SunRail. The project team will also prioritize and advance projects to FDOT and local agency work programs through the project development process.

---

## HART EAST-WEST BRT PED/BIKE CONNECTIVITY STUDY

Mr. Cunningham served as Project Engineer in the Pedestrian/Bicycle Connectivity Study conducted for Hillsborough Area Regional Transit (HART) in support of the East-West Bus Rapid Transit (BRT) PD&E Study. The 2014 study involved the selection of demonstration transit station areas through an analysis of pedestrian/bicycle-related crash history, ridership population, and potential for transit-oriented development (TOD) along the corridor. After selecting 6 demonstration areas, Mr. Cunningham led teams made up of representatives from local government agencies on field evaluations (similar to pedestrian road safety assessments) at each station area. Through intergovernmental coordination and efforts to review relevant planning studies and capital improvement plans, Mr. Cunningham's team identified maintenance-level projects, short-term projects, and long-term projects to enhance bicycle/pedestrian connectivity, safety, and comfort within the demonstration transit station areas.

---

## US 441 SIGNAL RETIMING STUDY

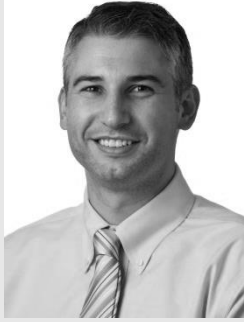
Mr. Cunningham was the Project Engineer and lead analyst for a signal re-timing and coordination project on the US 441 corridor in Alachua, FL. The corridor extends 2.1 miles from CR 235A to SR 235 and encompasses 7 signalized intersections, including the I-75 interchange. Mr. Cunningham developed several time-of-day and day-of-week timing and coordination plans using Synchro software. He also prepared separate timing and coordination plans for the Christmas shopping season, accounting for projected development traffic for a planned Super Walmart at a new signal on the corridor.

---

## SIMULATION MODELING

Mr. Cunningham has experience operating microsimulation software packages such as Paramics and Synchro. As part of a research project for the Florida Department of Transportation, he worked with a team to construct a model network of Interstate 4 from US 192 in Osceola County to Lake Mary Boulevard in Seminole County, which runs through the heart of downtown Orlando. Mr. Cunningham used microsimulation extensively to test 24 implementation scenarios of variable speed limits on the corridor in order to reduce system-wide crash risks. As a transportation consultant, Mr. Cunningham has also used Synchro extensively to analyze intersections and corridors under existing and projected traffic volume scenarios, and to test signal system and geometric improvements.





Mr. Radu Nan has completed a wide range of roadway engineering, transportation feasibility studies, and traffic engineering projects throughout his career at Kittelson & Associates, Inc. (KAI). His project work has been evenly distributed between Design Concept Reports; Project Development and Environmental (PD&E) studies; pedestrian and bicycle enhancement projects; roadway feasibility and functional design studies; and roadway Plans, Specifications and Estimates. Mr. Nan has a practical knowledge of software packages including Microstation V8i with InRoads and GeoPak roadway design applications, FlowMaster, StormCAD, AutoCAD 3D, AutoTURN, and GuideSIGN. He has also used geographic information systems tools such as ArcGIS in the preliminary stages of design projects and to conduct corridor level analyses for feasibility or environmental studies.

## **RADU NAN, PE**

*Senior Engineer*

### EDUCATION

BS Civil Engineering,  
Information Technology,  
Rensselaer Polytechnic Institute

### YEARS OF EXPERIENCE

8

### REGISTRATIONS

PE: FL, AZ

### AFFILIATIONS

Institute of Transportation  
Engineers

American Society of Civil  
Engineers

### PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDIES

Mr. Nan is the deputy project manager on the I-75 at SR 951 Ultimate Interchange PD&E Study in Collier County, Florida. He directly oversees the analysis and preparation of the Project Traffic Report (PTR). Mr. Nan applied his experience with regional travel demand models in the development and review of the future traffic volume forecasts, and used his Highway Capacity Manual (HCM) operational expertise to check the traffic analyses of the two ramp terminals and three other major arterial intersections within the study. He was also involved in the interchange concept development and evaluation. He led the development of the horizontal geometry for the viable alternatives.

Mr. Nan served as the lead engineer on the I-95 at Palm Bay Parkway Southern Interchange PD&E Study. The study includes development of alternatives for a new arterial road connecting existing facilities to the proposed interchange. Mr. Nan supervised junior staff and performed all PD&E tasks associated with the engineering analysis. He has reviewed the Florida Department of Transportation (FDOT) Design Traffic Technical Memorandum for consistency with local development patterns and future traffic demands and analyzed operational impacts of the proposed interchange to the I-95 mainline. Access management along the new arterial corridor was a challenging aspect of the job as local development plans were calling for short interval connections to the facility. Mr. Nan is very familiar with FAC 14-97 and used it in preparing and presenting the Palm Bay Parkway access management concept.

Mr. Nan has previously served as the lead analyst for the I-95 Widening PD&E Study in southern Brevard County to widen 12 miles of interstate from four- to six-lanes. He assisted with the development of the widening concepts and preparation of the Preliminary Engineering Report, during the PD&E study. One critical design recommendation in this study was the replacement of two canal overpasses to increase decision sight distance on I-95 mainline. Mr. Nan performed a detailed safety analysis and identified multiple severe crashes at the base of the canal overpasses which led to the conclusion that sight distances were less than desirable.

Mr. Nan assisted in the development of horizontal and vertical geometry for the LPGA Boulevard Extension PD&E Study in Volusia County, FL. This project prepared a three-mile extension of an existing roadway along new alignment that overpassed I-4. Mr. Nan developed preliminary cross sections in areas of superelevation to determine right-of-way requirements for this rural two lane roadway.

### LAMBERT LANE WIDENING

Mr. Nan contributed to the final roadway widening plans for a 1.4-mile stretch of Lambert Lane in the Town of Oro Valley, AZ. Mr. Nan used his InRoads skills to develop cross drain plan and profile sheets, as well as side streets profile details. He was also involved in developing demolition plans, striping plans, quantities, and cost estimates. Mr. Nan also prepared a pedestrian safety study at the CDO Riverfront Park entrance that resulted in the installation of a new HAWK signal.

---

## ETDM SUPPORT

Mr. Nan prepared traffic screening and safety screenings for the proposed Ellis Road and Southern Palm Bay Parkway I-95 interchanges in Brevard County. He helped FDOT District Five Intermodal Systems staff to draft up the Purpose and Need statements for both interchanges. Mr. Nan provided continued support through the FHWA review process and provided input and edits to get both interchange projects approved for the PD&E Study phase. Mr. Nan currently serves as the lead engineer on the I-95 at Southern Palm Bay Parkway Interchange PD&E Study.

---

## ROADWAY FEASIBILITY STUDY

Mr. Nan completed four roadway corridors feasibility studies within the FDOT District Five area. The most recent working included Bluetooth™ MAC Address Readers traffic data collection and traffic characteristics analysis on SR 50. This study looked at the commuter pattern between the Clermont area in Lake County and Orange County. Mr. Nan's skills were instrumental in all aspects of the project, from field and desktop data collection, to the traffic analysis and presentation of the results in technical reports.

Other feasibility work consisted of arterial widening concept development and construction cost estimates for SR 524 and Cox Road near the City of Cocoa. Project tasks included roadway segments and intersections existing and future traffic analyses, typical sections development, and corridor widening concepts. In addition to roadway traffic and geometrical analysis, Mr. Nan supervised the construction and right-of-way estimation phase for the SR 524 corridor. A previous corridor feasibility project for District Five includes suburban arterial widening of SR 535 in Orange and Osceola. This project posed both engineering and stakeholder management challenges given its location across county lines. Mr. Nan performed a detailed cost estimate of the proposed widening that satisfied all three project stakeholders, FDOT, Orange and Osceola Counties. The cost estimate and engineering solution took into account each county's Concurrency Management Plan. Other feasibility studies include freeway alignment and interchange configurations for the Orlando-Orange County Expressway Authority in 2007-2008. Mr. Nan used HCS+ analysis to determine future interchanges and mainline lane calls for toll facilities in Lake, Orange, and Seminole Counties. He served as the lead analyst for the SR 429 to US 27 Connector and SR 417 Northern Extension Concept Development and Evaluation Studies.

---

## FDOT DISTRICT ONE AND DISTRICT FIVE PLANNING SUPPORT

Mr. Nan currently provides support and reviews transportation related documents on behalf of both FDOT District One and District Five. Regular tasks include the review of Comprehensive Plan amendments and Development of Regional Impact. His analysis and expertise acquired through traffic impact work has allowed the department to effectively and efficiently review complex development scenarios. Mr. Nan is proficient at the use of traffic analysis tools, such as ArtPLAN, HighPLAN, and Synchro, as well as geographic information systems (GIS) data manipulation and graphics. Mr. Nan uses ArcGIS on a daily basis to create analysis area maps and enhance existing transportation data layers. In addition to traffic analysis, Mr. Nan is using his IT background to aid FDOT District Five in defining and developing an online DRI information management and analysis tool. Mr. Nan was active in the Central Florida regional visioning effort undertaken by myregion.org by participating in local workshops. Mr. Nan has presented to the Florida Chapter of the American Planning Association on modern technologies and methods for GIS data collection and management.

---

## SR 434 TRAFFIC SIGNAL, SIGNING, & PAVEMENT MARKING DESIGN

Mr. Nan began his final design experience by developing signing and pavement marking plans for a 1.25-mile long arterial widening along State Road 434. The project was completed in 2010 and included widening the roadway from four to six lanes, replacing four traffic signals, and installing new signing along the corridor.

---

## AVIATION PARKWAY SAFETY ENHANCEMENT

Mr. Nan engineered the extension of an existing traffic barrier along Aviation Parkway, near the Palo Verde Road overpass. The project included an initial safety evaluation and concluded with the construction of the barrier in 2011. The plans, specifications, and estimates package included experimental pavement markings to slow down and increase driver awareness of the approaching roadway curve, and new street lighting for improved visibility was installed.

---

## TRANSPORTATION IMPACT ANALYSES

Mr. Nan's portfolio of experience with conducting transportation impact analyses includes residential, commercial, and recreational developments in Florida, Idaho, Oregon, and Washington. He has been involved with all aspects of analyses, from field data collection and access evaluation, to traffic systems modeling using HCS+, Traffix, and Synchro software. Mr. Nan has a particular interest in the areas of safety and multimodal access.



Mr. Jin is a Senior Transportation Planner in Kittelson & Associates, Inc.'s (KAI) Orlando office. He has over eight years of work experience in travel demand modeling field using Cube Voyager Scripts, TRANPLAN, TP+, TransCAD, GIS, Python, C#, C++, Visual Basic, Access Database, SAS and R. In addition to a Ph.D. degree in Transportation Engineering and a M.S. degree in Urban Planning, he holds a M.S. degree in Statistics which gives him proficient knowledge with various types of fundamental and sophisticated statistical models. For the Florida Department of Transportation (FDOT), Mr. Jin used the Central Florida Regional Planning Model (CFRPM) to prepare many subarea validation models such as for the SR 50 Multimodal Corridor study, the US 192 Feasibility study, and the SR 44 Corridor study. He derived transit travel speeds and dwelling time information from LYNX's Automatic Passenger Counter (APC) data to support the transit model calibration. He developed the data reduction program to analyze the data collected by the Bluetooth readers and summarized the vehicle travel speed and trip ODs for CFRPM model calibration.

## LI JIN, PHD, AICP

Senior Planner

### EDUCATION

PhD Transportation Engineering, Purdue University

Master of Science Statistics, Purdue University

MS Urban Planning, Tsinghua University, China

BS Urban Planning, Southeast University, China

### YEARS OF EXPERIENCE

8

### LICENSES

AICP

### AFFILIATIONS

Douglas S. McLeod, Lily Elefteriadou, Mr. Mr. Jin, Travel Time Reliability as a Performance Measure: Applying Florida's Predictive Model on the State's Freeway System, Presented at TRB, National Research Council, Washington D. C., January, 2012.

### SR 50 CORRIDOR STUDY

KAI assisted FDOT in a study to address future capacity constraints along the SR 50 corridor. SR 50 is a key east-west regional arterial linking communities in Lake County and Orange County in Central Florida. The primary objective of the study was to create a vision for the future of the corridor as well as the necessary policy and legislative steps to achieving that vision. Mr. Jin evaluated travel demand with a focus on the different trip characteristics that occur in the corridor. Current land use patterns and underutilized parcels in the corridor were identified to ascertain potential redevelopment sites along the corridor. Mr. Jin used the adopted CFRPM v4.5 model and updated year 2005 and 2035 socioeconomic data. The subarea traffic distributions were validated by him using results of the 2008 modeling analysis and an innovative data collection method that applied Bluetooth technology for vehicle detection.

### CR 524 CORRIDOR STUDY

KAI conducted a forecast of future year 2025 traffic volumes on SR 524, SR 501, and Cox Road using an updated CFRPM version 4.5 traffic model. Mr. Jin performed a subarea traffic model validation using the year 2000 CFRPM base model and historical annual average daily counts (AADT) in the vicinity of the project area. He modified the CFRPM model by updating surrounding roadway facility types, area types, centroid placement and connections, adding transportation analysis zones (TAZs), and changing socio-economic input data. The traffic volumes resulting from this study will be utilized in the future roadway typical section selection.

### US 192 FEASIBILITY STUDY

KAI assisted the Space Coast Transportation Planning Organization (TPO) to develop and evaluate the recommended improvement concept for the US 192 Feasibility Study. To develop future volume forecasts to support future year (2035) analysis, Mr. Jin prepared a subarea of the adopted CFRPM v5.0 model and validated the subarea model to the base year of 2005 using traffic count information available from the FDOT and the TPO. The model is validated based on FDOT FSUTMS model calibration and validation standards. Mr. Jin used the subarea validated model for future traffic forecast and tested how widening alternatives on US 192 will impact forecast traffic on Ellis Road during the 2035 forecast year. The Ellis Road future forecasts from the subarea model were compared to the forecasts included in the Design Traffic Technical Memorandum for the Ellis Road PD&E Study.

### SR 44 CORRIDOR MANAGEMENT PLAN

KAI assisted the FDOT in the SR 44 Corridor Management Plan that identified both short and long-term needs and recommend strategies pertaining to operational needs, safety considerations, multimodal options, and access management for addressing those needs on the SR 44 corridor. For purposes of forecasting future traffic volumes within the study area, Mr. Jin developed a CFRPM v5.0 subarea model and validated the subarea model to the base year of 2005 using traffic count information available from the FDOT and the County.

---

## FDOT DISTRICT FIVE PROJECT TRAFFIC FOR PD&E AND DESIGN

Mr. Jin is currently working on this contract for supporting the preparation of project design traffic reports and equivalent single-axle loading calculation reports to FDOT District Five. Mr. Jin provided modeling and analysis support to several projects such as reviewing the SW 95th Street and I-75 Interchange Justification Report, analysis and report preparation for the SR 50 through Ocoee Design Traffic Update, and analysis and report preparation for the SR 600/US 92 ESAL Evaluation.

## CR 470 DESIGN TRAFFIC

Mr. Jin worked on forecasting 2035 traffic volumes for the CR 470 corridor as part of the CR 470 Project Development and Environmental (PD&E) Study. This work has involved the integration of the currently adopted year 2025 Central Florida Regional Planning Model (CFRPM) version 4.5 with newly developed year 2035 socioeconomic data for Lake and Sumter counties. Mr. Jin used his database and modeling skills for the integration process involved a thorough verification of network and socioeconomic data changes between the old and new models. The results of this study will be used to estimate future DDHVs, determine roadway cross section requirements, estimate future lane calls at intersections, and estimate projected operations.

## FDOT I-95/VIERA IJR STUDY

KAI conducted the interchange justification report between Interstate 95 (I-95) and Viera Boulevard located in Brevard County, Florida. Mr. Jin is the key team member for this study. The CFRPM 4.5 travel demand model is currently subject to an update process from version CFRPM 4.5 to CFRPM 5.0. The model Mr. Jin used in this study consisted of a hybrid of CFRPM 4.5's network structure/traffic analysis zone (TAZ) structure and CFRPM 5.0's socioeconomic data. The latest CFRPM 5.0 socioeconomic data for years 2005 and 2035 aggregated to CFRPM 4.5 TAZ structure was the base data used in the development of future models. The TAZ structure, socioeconomic data and roadway network were refined to more closely reflect existing and future development in the subarea analyzed. The calibration process was conducted to match model output values, multiplied by a model output conversion factor (MOCF), to year 2009 AADT counts. Future design traffic around I-95/Viera Interchange was projected by the calibrated model.

## DEVELOPMENT OF REGIONAL IMPACT MODELING REVIEWS

Mr. Jin has reviewed many Development of Regional Impact (DRI) modeling results for FDOT District Five such as the Lost Lake DRI, Moss Park DRI, Kelly Park DRI, etc. He is very knowledgeable of the preferred modeling processes and procedures to resolve issues. His technical reviews ensure that issues are identified and addressed, analysis and mitigation is performed in accordance with established standards, and improvements are linked to measurable thresholds so that proportionate share contributions can be collected and future commitments can be tracked. Mr. Jin plays an important role in the growth management modeling statewide and assisted Central Office in the preparation of the Transportation Impact Handbook. He created multiple scenarios of simulated DRI zonal and travel link developments in the travel demand models, and compared the results of internal capture rates obtained from the model with results obtained using the Institute of Transportation Engineers (ITE) internal capture methodology. The results are expected to guide future FDOT policies related to internal capture in traffic studies for Developments of Regional Impact.

## FDOT CENTRAL OFFICE TRAVEL TIME RELIABILITY DATABASE

FDOT Central Office is studying travel time reliability, which is widely recognized as one of the most important performance measure of highway traveler perceptions. This research aims to quantify the effects of conditions such as demand, incidents, work zones, and adverse weather conditions on travel time over a yearly basis along a specific section or facility. Mr. Jin assisted the FDOT Central Systems Planning Office and the Transportation Research Center at the University of Florida in developing reliability procedures for Freeways and Arterials. The reliability model he developed can be aggregated from roadway segments to facilities, corridors, by counties, by districts, or statewide. The model can be used as a measure to compare with more traditional level of service or person-hours of delay measures. It can also be used to measure mobility on the state's Strategic Highway System. For systemwide project planning or project development activities, the model can support project prioritization and evaluation activities. It can also determine the impacts of conditions such as work zones, incident clearing, or Road Rangers.

## FDOT CENTRAL OFFICE - FLORIDA MOBILITY PERFORMANCE MEASURES DATABASE

FDOT Central Office developed a mobility performance measures database based on the principles of the \*Highway Capacity Manual\* (HCM) and Level of Service. The mobility performance measures database are developed and updated annually for three systems: the State Highway System (SHS), Florida Intrastate Highway System (FIHS), and the Strategic Intermodal System (SIS). Mr. Jin supports the Department in conducting quality control and updating travel data contained in the Mobility Performance Database; revising, refining, and updating the Access database for the State Highway System; developing, analyzing, and evaluating current and new performance measures; updating, refining, and developing new versions of the Data Source Book. He also provides advice and support in the development of enhanced highway and transit performance measures for urban and rural areas.



Ms. Raulerson has over 24 years of experience in land use and transportation planning, policy planning, and multimodal project implementation with special expertise in developing livable transportation solutions for small- and large-scale communities. These programs and projects focus on developing context-based solutions that support community goals and aspirations, are affordable, and provide sound economic development opportunities. Ms. Raulerson has worked extensively throughout the country on a variety of transportation modes and projects, including rail systems, busways, highways, national parks, scenic highways, and bridges, and has a proven track record of working with multi-disciplinary teams to develop transportation and land use solutions that are community-driven, sustainable, affordable and meet agency needs. She has worked with state Departments of Transportation (DOTs) to develop integrated land use and transportation programs; most recently she led the Smart Transportation Initiative for the Pennsylvania DOT.

## MARY TAYLOR RAULERSON

*Principal Planner*

### EDUCATION

BS Biology, University of Central Florida

### YEARS OF EXPERIENCE

24

### AFFILIATIONS

Transportation Research Board's Management and Productivity Committee (ABC 20), Member

Women's Transportation Seminar, Member and past officer of Orlando and Philadelphia Chapters

New Starts Working Group, Washington, DC

### PUBLICATIONS

The Street Manual Hits the Street - Now What? Congress for New Urbanism, Denver, CO, 2009

Planning and Building Livable Communities with Complete Streets – Transportation Educational Seminar, Orlando, FL, Portland, OR, and Anchorage, AK 2010

FHWA Planning Excellence Award – Smart Transportation Guidebook to plan and design livable communities, 2008

Not Your Father's DOT – New Partners for Smart Growth, February 2012

Putting the Puzzle Pieces Together to Implement Smart Transportation – Transportation Research Board, 2012

### POLICY DEVELOPMENT AND IMPLEMENTATION

Ms. Raulerson has developed transportation policy for the Pennsylvania, New Jersey, and Florida Departments of Transportation, and several transit agencies. The focus of these policies is integrating land use and transportation decisions and investments. Mary's representative policy work includes the **Multimodal Planning Guidebook** for Florida DOT District Five, **The Innovative DOT: A Handbook of Policy and Practice** for the State Smart Transportation Initiative and Smart Growth America, the *Livability in Transportation Guidebook* for US Department of Transportation, the *Smart Transportation Guidebook* for the Pennsylvania and New Jersey DOTs, and companion document, *Linking Planning and NEPA/Streamlined Project Delivery Process* for the Pennsylvania DOT.

### LIVABLE TRANSPORTATION

Ms. Raulerson conducted livable transportation and integrated land use/transportation projects for the Florida, Pennsylvania and New Jersey Departments of Transportation, as well as for the Cities of Philadelphia and New Orleans. These projects focus on developing context-sensitive solutions that support community goals and future visions, are affordable, and provide sound economic development opportunities. Mary's notable experience includes the Livable Claiborne Communities project in New Orleans, implementation of an Urban Trails and Bikeways system in Philadelphia, Marshalls Creek Traffic Relief Project in the Poconos region; Route 202 Parkway in Philadelphia region, Route 9 in Ocean County, NJ, and preservation of more than 20 historic bridges in the Philadelphia area.

### MULTIMODAL CORRIDOR PLANNING & COMPLETE STREETS

Ms. Raulerson conducts Complete Streets projects for a variety of transportation agencies, including state transportation departments in Florida, Pennsylvania, Washington, DC and New Jersey. These projects focus on developing multimodal context-sensitive solutions to support community goals and future visions of both the community they serve and the transportation agency. She has developed state, regional and municipal Complete Streets policies and has advanced projects from concept through construction. Representative projects include Route 202 Parkway in Bucks and Montgomery Counties, Route 41 in Chester County, and Route 23 in Lancaster County, Route 9 in Ocean County, NJ, SR 50 in Lake County, FL; and numerous historic bridges and multi-use trails in the Philadelphia area. Ms. Raulerson is currently working with Florida DOT and the Volusia TPO in completing an integrated transportation and land use corridor plan for US 1 in Volusia County.

---

#### SR 50/UNIVERSITY OF CENTRAL FLORIDA ALTERNATIVES ANALYSIS

Ms. Raulerson is leading the development of transit and multi-modal transportation alternatives to serve a major east-west arterial, University of Central Florida and Valencia State College in Orlando, Florida. She is working with the local transit agency, LYNX, business and community leaders, and local governments to explore a wide range of premium transit, bicycle, and pedestrian solutions to better serve this corridor. Over 10% of the population of the Orlando Metropolitan Area works, lives, or attends school in this corridor.

---

#### PHILADELPHIA COMPLETE STREETS HANDBOOK (PHILADELPHIA, PENNSYLVANIA)

As project principal, Ms. Raulerson led the team for the Philadelphia Mayor's Office of Transportation and Utilities development of the Complete Streets Handbook to update the City's street design policies and standards to incorporate best practices for accommodating pedestrians, bicyclists, transit, and motor vehicles. The project included extensive research and stakeholder outreach to identify existing barriers to developing Complete Streets, local facility needs and preferences, as well as national and international best practices.

---

#### TRANSIT PLANNING

Ms. Raulerson completed transit corridor and station area plans for numerous transit agencies across the country. Representative projects include the Euclid Corridor Bus Rapid Transit Project in Cleveland, Second Avenue Subway in New York, North Shore Connector in Pittsburgh, Anacostia Waterfront Transit Demonstration project in Washington, Tampa Regional Rail Study, Grand Rapids Transit Systems Plan, Central Florida Commuter Rail, and Charlotte Northeast Corridor Station Area Plans. Ms. Raulerson worked closely with the Federal Transit Administration (FTA) to obtain NEPA, New Starts, and Small Starts approvals and funding on behalf of numerous transit agencies. She also worked as a contractor to the FTA and conducted New Starts reviews for a variety of transit projects.

---

#### ENVIRONMENTAL PLANNING AND NEPA

Ms. Raulerson prepared over 25 National Environmental Policy Act (NEPA) documents including Environmental Impact Statements (EIS), Environmental Assessments (EA) and Categorical Exclusions (CE) for more than \$8 billion dollars of public investment. Clients have included the Washington Metropolitan Area Transit Authority, New York City Transit, Port Authority of Allegheny County, Interurban Transit Partnership, the Greater Cleveland Regional Transit Authority, the Florida Department of Transportation, and the National Park Service.

---

#### SCENIC HIGHWAYS

Ms. Raulerson has prepared Corridor Management Plans for a variety of scenic highway projects that have received state and federal Scenic Highway and Scenic Byway designations. While at another firm, she developed the Corridor Management Plan and Implementation Plan for one of the first scenic highways in Florida, the Tamiami Trail Scenic Highway in Collier County. She also drafted the Corridor Management Plan for the SR 179 Scenic Highway in Sedona, Arizona. This highway, located in an area that is listed as one of the 10 Most Beautiful Places in America, received state and federal Scenic Byway designations.

---

#### COMMUNITY AND AGENCY ENGAGEMENT

Ms. Raulerson has developed interactive and effective community and agency engagement programs for a wide variety of projects, and understands that the successful completion of any project is efficient and effective engagement of key stakeholders. She developed award-winning engagement programs that led to the implementation of 95% of the projects for which she conducted planning and PD&E/NEPA activities.

---

#### INSTRUCTOR ENGAGEMENTS

Ms. Raulerson was the instructor responsible for co-developing and delivering the National Transit Institute course entitled Managing the Environmental Process for Federal Transit Projects. This course was offered to transportation agency managers and practitioners throughout the country.



Mr. Weesner is a practicing Urban Designer and Landscape Architect who provides urban design solutions for integrating the built environment with implementable projects that are walkable and livable, as well as financially and socially sustainable. Mr. Weesner has over 13 years of experience designing and planning the urban environment including transit-oriented developments, streetscapes, infill development, and downtown master plans. Mr. Weesner is a proponent and student of livable communities, walkable environments, and smart transportation initiatives. Currently, Mr. Weesner is in the process of completing his Doctorate of Philosophy at the University of Florida. His research is focused on the cultural landscape and its relationship to urban design and planning. Concentrating on qualitative aspects of the public mindset, he is investigating ways to integrate public engagement and the design and planning process through new innovated tools based in social media technology.

## JOHN PAUL WEESNER, PLA

*Urban Planner/Landscape  
Architect*

### EDUCATION

PhD (expected 2015) "Social Media, Public Engagement, and the Design Process," University of Florida

MS Landscape Architecture,  
Harvard University

BS Landscape Architecture,  
University of Florida

### YEARS OF EXPERIENCE

13

### LICENSES

Landscape Architect: FL

### AWARDS

Howard Sebold/Herrick Smith Fellowship in Landscape Architecture – University of Florida.

Award of Honor, "Connecticut River Water Treatment Facility," 2010 National ASLA.

### PUBLICATIONS

Author. "Rail System Should be a Republican's Dream," Letters to the Editor, Orlando Sentinel, November 2010.

Author. "Look to the Landscape," College Planning and Management, April 2008, pp 52-56.

### LAND USE AND PLANNING INTEGRATION DESIGN

Mr. Weesner has designed and implemented a number of integrated land use, transportation, and community engagement master plans for redeveloping urban and suburban corridors, downtowns, and neighborhoods. Mr. Weesner served as the senior urban designer for a city-wide redevelopment effort to reshape Downtown Orlando. The Community Venues Master Plan has led to the following built projects, all conceptualized and designed in the original master plan: Church Street Streetscape, Amway Events Center Landscape and Streetscape, Bob Snow Plaza (under Interstate 4), the Downtown Performing Arts Center, and the Creative Village master planning effort. Mr. Weesner also has extensive experience in working with TIF (tax-increment financing) districts and CRA's in developing actionable integrated land-use and transportation plans. CRA master plan projects that Weesner has led or served as senior designer include: East Eustis, FL; Orlando, FL; Maitland, FL; St. Pete Beach, FL; Tampa, FL, as well as non-Florida places such as Cape Girardeau, MO; and Detroit, MI.

### LIVABLE TRANSPORTATION & MULTIMODAL PLANNING

In many cases, the integration of land-use and transportation must be sensitive to the local context in the past, present and future and well as liability and walkability. The projects must also consider the multitudes of ways people move through an urban and suburban landscape. These projects result in approaches that support community goals, cater to the access and mobility needs of all users, and are financially and economically sound. Examples of integrating sustainability into infrastructure and transportation needs include the Magnolia Avenue & Eustis Street Streetscape in Eustis, FL where Mr. Weesner served as the project manager and senior landscape architect leading the conceptual design to convert these two main streets in downtown from one-way pairs into more sustainable two-way streets as well as using the streetscape project to leverage Public Works to improve the existing infrastructure to allow for denser development within the core downtown. Other project examples include: CMU's Walkable Campus and the Neighborhood Traffic Calming "Kit of Parts" for Upper Arlington, OH. Examples of past multimodal projects include Birmingham's (AL) I-280 Alternative Plan, Hilliard, OH Rails to Trails Master Plan; and Boston's Inner Belt Master Plan in Somerville, MA. *Current Kittelson projects include visioning US1 Corridor through Volusia County, FL; Glades Road in Boca Raton, FL; and Orange Ave in Orlando, FL.*

### MULTIMODAL TRANSPORTATION PLANNING

Mr. Weesner has led several multimodal transportation planning projects in urban environments. He is currently working with the Broward County MPO to develop a multimodal corridor plan for 21 miles of University Drive in multiple cities in South Florida. Mr. Weesner has also conducted a number of detailed corridor studies for the cities and towns around the US including Howell, MI; Orlando, FL; Boise, ID; and the Space Coast TPO in Brevard County, FL. These studies all examined how land use, transportation, and community design can be integrated with public needs and desires, and typically have included plans for redevelopment of catalyst sites, an expanded roadway network, and roadway redesign.

---

## POLICY DEVELOPMENT AND IMPLEMENTATION

As an urban designer and landscape architect, Mr. Weesner has played a key role in developing local policies that are guiding an ongoing shift in the way communities and agencies think about transportation and land use decisions. Mr. Weesner served as the senior designer and project manager for the City of St. Albert, Alberta “Smart Growth” campaign. By facilitating numerous intensive community and City-staff workshops, a new set of policy regulations and actionable planning items were developed for the remaining undeveloped land in St. Albert. Sustainable and smart growth based project specifics include: planning future transit stations, shifting densities from the core areas to the neighborhoods, and linking the transit hubs with green spaces to promote a fully walkable and livable community. Mr. Weesner has also helped to vision and facilitate sustainable policy development in Manatee County, FL; Martin County, FL; Sarasota County, FL; South Downtown Orlando, FL; as well as, help to develop Form Based Codes to replace traditional municipal codes for the City of Eustis and the City of Sanford.

---

## COMMUNITY ENGAGEMENT AND EDUCATION

Mr. Weesner is often asked to facilitate and develop programs for engaged the public as well as other community members, public officials and staff, and industry professionals for the purposes of reaching informed consensus on planning and designing activities. He has led community engagement efforts including in Eustis, FL where he helped conduct multiple public engagement meetings aiming towards a citizen-driven master planning study for the Cities downtown and surrounding areas. Other examples include: “Downtown by Design” in Downtown Bradenton; the Howell Complete Streets Master Plan where Mr. Weesner facilitated a series of public meetings, open houses, and nine “walkabouts” in the local neighborhoods and the downtown with residents and business owners that generated a series of typical sections and distinct solutions to unique engineering problems for over 11 miles of streets in each neighborhood. In addition to his professional practice, Mr. Weesner also teaches as part of his PhD at the University of Florida. Courses have included: Multi-Disciplinary Urban Design Studio’s, Intro to Landscape Architecture, Site Analysis & Design, and the Design Principles of Landscape Architecture Studio (the 1st landscape architecture studio for the undergraduate curriculum).





Patty Hurd has over 9 years of experience in community planning and design for public clients. Her areas of expertise include comprehensive planning, multimodal planning, urban design, visioning, and context sensitive solutions. She has extensive experience in scenic highways, having managed eligibility applications, corridor management plans, and corridor master plans along five scenic highways. Ms. Hurd has extensive experience facilitating public engagement, including designing and implementing public involvement plans; organizing public involvement web sites; and running charrettes, public workshops, and stakeholder interviews.

## **PATTY S. HURD**

*Senior Planner*

### **EDUCATION**

MS City and Regional Planning, University of California Berkeley

BS Civil Engineering, Georgia Institute of Technology

### **YEARS OF EXPERIENCE**

9

### **SCENIC HIGHWAY PLANNING**

Ms. Hurd implemented all aspects of scenic highway planning, including eligibility applications, corridor management plans, corridor master plans, and logo design Scenic highway projects that she has worked on include the Tamiami Trail Scenic Highway; Windows To Gulf Coast Waters – Manatee River to Myakka River Eligibility Application and Corridor Management Plan in Sarasota and Manatee counties, Florida; and Arroyo Seco Parkway Corridor Management Plan in Los Angeles, California.

### **SR 17 SCENIC HIGHWAY ELIGIBILITY APPLICATION AND CORRIDOR MANAGEMENT PLAN**

Ms. Hurd served a project manager for the application and the corridor management plan in Polk County, Florida. Beyond completing the requirements of these documents to allow SR 17 to be a designated Scenic Highway, these reports helped the Community Advisory Group develop a unifying identity by outlining projects and developing a design identity. Of unique significance, the roadway viewshed was mapped using GIS to identify areas where land development regulations could be implemented to maintain the character of the historic roadway and communities.

### **SCENIC AND HISTORIC A1A CORRIDOR MASTER PLAN**

Ms. Hurd served as the project manager for this Master Plan in St. Johns County, Florida, which addresses park improvements, pedestrian and bicycle enhancements, signage, wayfinding/interpretive improvements, and traffic calming techniques. It plays a role in the telling the "Scenic and Historic A1A" grand story by outlining various corridor improvements that inform the traveler and visually connect the resources along the corridor.

### **SPACE COAST TPO COMPLETE STREETS METHODOLOGY AND PROJECT SCREENING**

Ms. Hurd is currently serving as the project manager for the Space Coast Transportation Planning Organization (TPO) Complete Streets Evaluation Methodology Development and Project Screening Project. Kittelson & Associates will help program \$18 million of funding set aside for Complete Streets projects by identifying high priority complete streets projects that can be built within a short time frame. The evaluation is being conducted in three phases. Phase 1, Identify Locally Supported Priority Corridors, identifies suitable areas where walking/biking/transit would be most utilized and then identifies network deficiencies in those areas. Kittelson, the TPO and local government representative's work together to select projects from this long list of candidate corridors. Phase 2, the Feasibility Analysis, identifies which of the list of projects developed in Phase 1 Screening can be implemented in the near term. Phase 3, the Cost-Benefit Analysis prioritizes projects, evaluating projects based on the quality of the proposed Complete Streets improvements, uses served, benefit to the existing and programmed bicycle and pedestrian system, and local support.

### **ALACHUA COUNTY CORRIDOR DESIGN MANUAL**

Ms. Hurd was the principal writer for this manual, which serves as a guide for developers and public officials who design and build streets in Alachua County, Florida. The manual summarized principles associated with integrating land use and transportation planning. The design guidelines illustrate geometric characteristics and design elements associated with roads and pathways serving the range of transportation and land development context found in Alachua County. The manual concludes with a recommended process for developing corridor master plans that respect the local context.





Mr. Hills has participated in a variety of transportation and traffic engineering projects at Kittelson & Associates, Inc. (KAI). He offers diverse abilities and experience in operational analysis, safety analysis, and functional design. Mr. Hills has had the opportunity to work on corridor planning studies, including operational and needs assessments, safety studies, using the *Highway Safety Manual* (HSM) to recommend safety improvements, and functional design projects to include reviews of design standards to develop roadway design alternatives. Additionally, Mr. Hills has experience operating several traffic engineering and transportation planning software packages, including HCS, Synchro, AutoCAD, and Microstation.

## TRAVIS A. HILLS

*Engineering Associate*

### EDUCATION

BS Civil Engineering,  
Portland State University

### YEARS OF EXPERIENCE

3

### LICENSES

EIT: OR

### AWARDS

FDOT LRE Certified:  
Certified to use the  
FDOT's Long Range  
Estimates (LRE) System

### US 192 CORRIDOR FEASIBILITY STUDY

As part of the US 192 Corridor Feasibility Study in Brevard County, FL, Mr. Hills has collected and analyzed a variety of field data for traffic operations and safety features. He reviewed the existing signal timings of various intersections along US 192 and used SYNCHRO to identify the intersections and roadway segments not operating at the preferred level of service. Mr. Hills also performed a historical and model growth rate analysis for this segment of US 192. This feasibility study identified future capacity needs for the area and focused upon improvements to the intersections and roadway segments not operating to standard. Follow-up work for this project included an alternatives analysis on two intersections which were identified for turn lane improvements. Mr. Hills performed concept design work, operational analysis using Highway Capacity Manual methodologies, cost estimates utilizing the Long Range Estimates (LRE) system, and benefit/cost scenario analysis.

### ORANGE AVENUE CORRIDOR PLANNING STUDY

The Orange Avenue Corridor Planning Study in Orange County, FL, explored possible multimodal, pedestrian, safety, and operational improvements for the Orange Avenue corridor near the Sand Lake Road SunRail Station. Mr. Hills was involved in a range of activities for the project, including conducting existing and future conditions analysis, performing safety analysis, coordinating stakeholder interviews, and performing a needs analysis of the corridor. Mr. Hills helped generate typical sections incorporating Florida Department of Transportation (FDOT) design standards and provided support in recommending short term pedestrian improvements along the corridor.

### SR 50 TRAFFIC ANALYSIS

Mr. Hills collected and analyzed a variety of data for the SR 50 design traffic analysis in Ocoee, FL. Utilizing existing signal timings and count information, Mr. Hills used Synchro to analyze the existing network conditions of SR 50. As part of a Design Traffic Update, Mr. Hills also performed a historical and model growth rate analysis and projected volumes for every intersection within the SR 50 study area. These design traffic volumes will be used in the evaluation of design alternatives for SR 50 through Ocoee.

### SR 46 CORRIDOR SAFETY STUDY

Mr. Hills served as the project support for the SR 46 Corridor Safety Study in Seminole County, FL. The study implemented the crash prediction methods of the Federal Highway Administration (FHWA) Highway Safety Manual (HSM) and considered the utilization of crash countermeasures with known crash reduction factors to improve safety on the rural two-lane corridor in East Seminole County. Mr. Hills evaluated crash trends and contributing factors and identified effective safety countermeasures. A range of crash countermeasures were identified (low-to-high cost) and evaluated comparing their expected effectiveness to the estimated construction cost (dollars) in a benefit/cost analysis, informing the system-wide and location-specific recommendations for a series of preferred corridor safety improvements.

---

## ESAL & DESIGN TRAFFIC STUDIES

Mr. Hills has participated in design traffic studies for FDOT District Five. Mr. Hills' tasks include analyzing the existing and future network conditions and performing historical and model growth rate analysis for various state facilities throughout District Five. Mr. Hills has also calculated Equivalent Single Axle Load (ESAL) values for these roadways once future volumes were forecast.

---

## ACCESS MANAGEMENT TRAINING COURSE DEVELOPMENT

Mr. Hills assisted with the Access Management Training Course development presented by the FDOT. The training course is split into two sessions: a PowerPoint presentation for the entire class and four smaller workshop sessions based on actual access management projects. Mr. Hills wrote and created slides for the PowerPoint session. He also prepared various materials for the workshop sessions, including large scale aerials for the trainees to sketch their access management ideas and handouts with information regarding the project's background, crash and transit data, surrounding land uses, current access management, and objectives for the workshop. Mr. Hills also helped teach access management rules and objectives during the workshop sessions.

---

## I-75 & SR 951 PD&E

Mr. Hills participated in the preliminary design work for the I-75 at SR 951 Project Development and Environment Studies r (PD&E). Recent work on the I-75 & SR 951 PD&E includes roadway typical section analysis, preliminary corridor widening plans and interchange roadway design. Mr. Hills has performed computer aided design work for one of the alternative designs for the I-75 and SR 951 interchange. Mr. Hills has experience with the FDOT version of Microstation V8. Also as part of this project, Mr. Hills performed volume projections and operational analyses at both signalized and unsignalized intersections within the project area utilizing HCS.

---

## SPACE COAST TPO ITS MASTER PLAN

The Space Coast Transportation Planning Organization (SCTPO) is currently developing an Intelligent Transportation Systems (ITS) Master Plan. Mr. Hills has developed the Vision, Goals, and Objectives of the Master Plan. As part of the Goals and Objectives, performance measures have been established which will help guide the project team in development of the Master Plan. Mr. Hills will be actively involved in documenting existing ITS conditions, identifying transportation ITS needs and strategies, developing the concept of operations, and prioritizing the ITS Master Plan throughout the remainder of the project.

---

## FDOT DISTRICT SIX OPERATIONS AND SAFETY

For the FDOT District Six Operations and Safety contract, Mr. Hills has performed a wide variety of tasks including crash data analysis, creation of collision diagrams, field reviews to identify safety issues, fatal crash reviews, pedestrian safety studies, and corridor safety studies. Mr. Hills has FDOT Crash Analysis Reporting System (CARS) access and frequently obtains crash data and statistics for projects on the State Highway System. The fatal crash reviews consisted of analyzing historical crash data at specific sites to identify that which may have contributed to the fatal crash. Recommendations were then made to further study and/or implement safety countermeasures to reduce specific crash types at the intersection. Mr. Hills also led a project in which one signalized and one unsignalized intersection was evaluated for pedestrian safety improvements. These improvements ranged from restricting turning movements and implementing warning signage at the signalized intersection to installing rectangular rapid flashing beacons for a new pedestrian crosswalk at the unsignalized intersection.

---

## JACKSONVILLE TRANSPORTATION AUTHORITY TRANSIT SIGNAL PRIORITY

Mr. Hills participated in generating signal timings that incorporate Transit Signal Priority (TSP) for 20 intersections along US 1 in Jacksonville, FL. The signal timings maintain coordination for the system while providing extended green time for northbound and southbound buses along the corridor. Mr. Hills also considered and implemented TSP for side street buses where applicable. As part of this effort, Mr. Hills reviewed existing conditions and performed field reviews during peak hours to evaluate the applicability of TSP at key intersections along the corridor.





Mr. Boncore has contributed to a variety of transit planning, corridor improvement, geometric design, traffic operations, and site planning work. He offers a broad range of experience and unique abilities in transportation planning, functional design, operational analyses, and transportation design. He has had the opportunity to be involved in multiple corridor data collection efforts deploying and analyzing data from Bluetooth technology, Transit Automatic Passenger Count (APC), traffic counts, travel time runs, and spot speed studies. Mr. Boncore has experience using several transportation design and planning software packages in a variety of contexts, including GIS, MicroStation V8, AutoCAD, HCS, Synchro, and AutoTurn.

## BRETT D. BONCORE

*Transportation Analyst*

### EDUCATION

BS Civil Engineering,  
University of Florida

### YEARS OF EXPERIENCE

2

### AFFILIATIONS

American Society of Civil Engineers,  
University of Florida Chapter President

### LICENSES

EI: FL

### AWARDS

UF Department of Civil and Coastal Engineering Outstanding Leadership and Service Award: Given to one student in the CCE department each year who has exemplified excellent leadership and service within the Department during their time at UF.

### US 1 CORRIDOR IMPROVEMENT PROGRAM-PHASE 2

US 1 is a key north-south arterial which was first built to link northern and southern Volusia County, Florida. Since the addition of regional highways such as I-95 and Nova Road, Florida Department of Transportation (FDOT) and the Volusia County Transportation Planning Organization (TPO) have seen that local conditions are changing along this 45-mile corridor. In order to evaluate corridor travel patterns and help to identify multimodal improvements, Bluetooth MAC address readers were placed along the corridor. Mr. Boncore has deployed multiple successful data collection efforts in the strategic placement of these readers and traffic count tubes. Mr. Boncore analyzed, reduced, and summarized this data to determine travel speed and patterns on an along the US 1 Corridor. He was also a vital part of reviewing personal vehicle and freight traffic on US 1 to help identify multimodal improvements along the corridor. These improvements included Transit Signal Priority (TSP); changes in cross section to better accommodate bicycles, pedestrians, and transit users; and urban redevelopment opportunities in areas of low economic activity.

### I-75 AT SR 951 ULTIMATE INTERCHANGE IMPROVEMENTS PD&E

Mr. Boncore participated in the preliminary design work for a variety of Project Development and Environment (PD&E) studies for state arterials and freeways. Mr. Boncore supported traffic analysis work for the PD&E study for the I-75/SR 951 Interchange. Mr. Boncore's recent work on the PD&E includes traffic volume assignment for the noise analysis and traffic operations analysis according to *Project Traffic Forecasting Handbook* methodology for the build and no-build alternatives chosen for the I-75 and SR 951 interchange.

### HOMESTEAD EXTENSION OF THE FLORIDA TURNPIKE WIDENING PD&E & DESIGN BUILD

Kittelson & Associates performed the signing and pavement marking inventory and concept design for both the PD&E and the Design-Build portions of the Homestead Extension of the Florida Turnpike (HEFT) Widening. As part of his recent work on this project, Mr. Boncore conducted a field signage inventory of all guide signs, regulatory signs, warning signs, and informational signs along this corridor. His work also includes preparing a detailed GIS map of all existing corridor signs, preparing the Design-Build Signing Master Plan, and delivering notes and specification requirements pertaining to the consideration of the ultimate 8-lane improvements during final design.

---

## LYNX SR 50 ALTERNATIVES ANALYSIS

LYNX, the Central Florida Regional Transportation Authority, initiated a planning level strategic analysis to assess the development of premium transit services in 21 Primary corridors in the Central Florida region. SR 50, a major east-west arterial in Orlando, was one of the corridors identified for implementation of Premium Transit Service. This corridor experiences the existing highest ridership in the system and provides key connections to SunRail Commuter Rail, the University of Central Florida, several malls, hospitals, and major economic activity centers. The Alternatives Analysis will identify and evaluate all viable transit alternatives including Bus Rapid Transit (BRT), Light Rail Transit (LRT), Express Bus, and Commuter Rail in order to come up with a Locally Preferred Alternative (LPA). Mr. Boncore deduced and analyzed the safety, traffic, and existing transit conditions along the corridor, performing extensive GIS transit analysis utilizing Automatic Passenger Count (APC) transit data, and FDOT accident and traffic data. He also facilitated the public involvement portion of the study and has reached out to over 25 corridor agencies, municipalities, neighborhoods, and interest groups to obtain stakeholder input on the implementation of the future premium transit line. Throughout this study, Mr. Boncore has also been exposed to FTA grant application processes for the purposes of applying for implementation funds future the proposed transit service. Mr. Boncore's future project work includes performing impact analyses on each of the preliminary alternatives.

---

## CENTRAL FLORIDA COMMUTER RAIL (SUNRAIL) TOD MAPPING

The Central Florida Commuter Rail line, known as "SunRail", is Central Florida's first fixed urban transit rail line to be implemented. Mr. Boncore provided support to the SunRail Transit Oriented Development (TOD) marketing initiative through advanced GIS mapping. He analyzed and produced a variety of maps illustrating travel sheds around the SunRail Phase 1 stations (12 stations) which were shown to the public and major businesses in the areas of the stations in order generate potential ridership. These maps included transit network travel sheds and roadway network travel sheds and showed which areas of Central Florida would be served by SunRail through various modes of transportation.

---

## SEMINOLE COUNTY CONTINUING TRANSPORTATION SERVICES

As part of a Continuing Transportation Engineering Services contract, Mr. Boncore has worked on a wide variety of traffic operations and safety studies. These projects include developing cost metrics for the County in order to determine travel time impacts during construction projects and the engineering analysis of several intersection safety improvements throughout the County. These projects have served as a basis for learning how County and municipal review and design processes function and how to more effectively work with these entities to implement successful transportation improvement projects. Mr. Boncore conducted Bluetooth data collection before and during construction for assessing construction impacts on traffic flow, Benefit-Cost analysis of CR 427 at North St, safety improvements for CR 419 at Twin Rivers Blvd, and Sand Lake Road Benefit-Cost Study for improving school entrance operations.

---

## FDOT DISTRICT FIVE CPA & DRI REVIEWS

On behalf of the FDOT District Five, Mr. Boncore has assisted in the review of numerous Comprehensive Plan Amendments (CPA) and Developments of Regional Impact (DRI) throughout Central Florida. These reviews have required and provided Mr. Boncore with an understanding of different statewide planning and development approval processes and legislation. Mr. Boncore's work included conducting traffic analyses to determine the development and amendment potential level of impact on the surrounding transportation network.

---

## SR 92 CORRIDOR EVALUATION

Mr. Boncore supported the evaluation of the SR 92 Corridor in Paulding and Cobb Counties in Georgia. This evaluation included the production of a complete practical alternative report for the widening of the corridor to 4-lanes. Mr. Boncore completed the safety analysis portion of this evaluation, which included obtaining and reducing 5 years of corridor crash data, GIS analysis and advanced display of data, and preparation of the Safety Analysis report.



Chris Romano is a transportation analyst in Kittelson & Associates, Inc. (KAI)'s Orlando office. Mr. Romano has participated in a variety of transportation and land use projects throughout Florida. His experience includes GIS mapping support, existing conditions analyses, data collection, stakeholder involvement, bicycle and pedestrian planning, and background research. Mr. Romano has worked on a variety of transportation and land use planning and engineering projects including corridor improvement programs, multimodal mobility programs, and best practices research.

## **CHRIS R. ROMANO, LEED AP ND**

*Transportation Analyst*

### EDUCATION

Master of Urban and  
Regional Planning,  
Florida Atlantic University

Master of Business  
Administration,  
Florida International  
University

BS Public Administration,  
University of Central Florida

BS Criminal Justice,  
University of Central Florida

### YEARS OF EXPERIENCE

1

### LICENSES

LEED Green Associate: FL

### AFFILIATIONS

American Planning  
Association, Member

Urban Land Institute,  
Member

### US 1 CORRIDOR IMPROVEMENT PROGRAM - PHASE 2

Mr. Romano has experience in GIS mapping for background analysis including the interpretation of census data which includes demographics, commuting patterns and income levels. He also focused on interpretation of travel patterns based on Longitudinal Employer-Household Dynamics data, mapping and interpretation of Automatic Passenger Count (APC) transit data and existing and Future Land Use Conditions. Within this project Mr. Romano was also involved in stakeholder meetings and community workshops as well as developing potential cross sections and plans for future scenarios.

### SPACE COAST TPO STATE OF THE SYSTEM REPORT

Mr. Romano was involved in updating the Space Coast Transportation Planning Organization's (TPO) State of The System Report for fiscal years 2011 and 2012. This report update including evaluation performance metrics such as vehicular mobility (including indicators of congestion, vehicle miles of travel, AADT, and other trend identification on SIS, Regional, and Non-Regional roadways); transit mobility (including analysis of the modes of transit); ports and freight traffic (volumes and passenger counts); demographics (housing affordability and prevailing trends); and air quality, among others.

### ORANGE AVENUE CORRIDOR PLANNING STUDY

Mr. Romano has experience in GIS mapping for background analysis including the interpretation of census data which includes demographics, commuting patterns and income levels. He also focused on interpretation of travel patterns based on Longitudinal Employer-Household Dynamics data, mapping and interpretation of APC transit data, existing and future land use conditions, crash data, and traffic volumes. Mr. Romano also aided in the development of conceptual future cross sections with the goal of enhancing future multimodal mobility in the corridor.

### FDOT PLANNING CONTINUING SERVICES CONTRACTS

Mr. Romano provided comprehensive plan amendment and traffic impact analysis reviews in Florida Department of Transportation (FDOT) Districts Four, Five, and Six. His work also included travel demand forecasting and is familiar with development types including retail, industrial, office, and residential. He also was responsible for crash analysis and reviews.

### UNIVERSITY DRIVE MOBILITY IMPROVEMENTS PLANNING STUDY

Mr. Romano was involved in the public interaction, issue identification, and potential solution identification phases of this project. Regarding public involvement, he interviewed key corridor stakeholders and participated in several public workshops aimed at gaining a better understanding of the major issues in the corridor as experienced by those who use it as well as uncovering future development plans that may impact the corridor. Mr. Romano also interpreted a detailed audit of the corridor to uncover the bicycle and pedestrian issues present and to help uncover the underlying causes of said issues. Based on this interpretation, he identified trends aided in the development of potential solutions to be implemented along the corridor to improve the bicycle and pedestrian environment.



Mr. Eagle has participated in a variety of transportation and traffic engineering projects during his studies at the Oregon Institute of Technology, while interning at the Turner-Fairbank Highway Research Center, and at KAI. While at Oregon Tech, Michael worked with the Oregon Department of Transportation (ODOT) to analyze a dog-bone roundabout interchange and the surrounding network using VISSIM for his senior project. While at KAI, he has had the opportunity to be involved in roundabout feasibility studies, intersection analyses, traffic impact analyses, and a variety of Design Traffic Studies throughout Oregon, Florida, Virginia, and Pennsylvania. Mr. Eagle has practical knowledge in several transportation design and analysis software packages, including VISSIM, SIDRA, Synchro, SimTraffic, HCS, AutoCAD, and MicroStation.

## **MICHAEL P. EAGLE**

*Transportation Analyst*

### EDUCATION

Bachelor of Science  
Civil Engineering,  
Oregon Institute of  
Technology

### YEARS OF EXPERIENCE

1

### LICENSES

EIT: OR

### US 41 ROUNDABOUT EVALUATION

Mr. Eagle provided support to the FDOT District One in the review of operational analysis and VISSIM microsimulation along US 41 in Sarasota, Florida. Mr. Eagle performed analyses using VISSIM to evaluate the operational performance of the network with signalized and roundabout alternatives being evaluated at the intersections of US 41/Fruitville Road and US 41/Gulfstream Avenue. He modeled various roundabout scenarios including two-lane roundabouts, three-lane roundabouts, and metered roundabouts. He has also created models with various improved signalized configurations. He has calibrated these models and has knowledge of the data extraction methods used when collecting measures of effectiveness. Mr. Eagle prepared 3-D video clips of the various roundabouts scenarios to allow for presentation to stakeholders.

### FDOT DISTRICT FIVE DESIGN TRAFFIC STUDIES

Mr. Eagle has participated in design traffic studies for Florida Department of Transportation (FDOT) District Five. Mr. Eagle has participated in Efficient Transportation Decision Making (ETDM) Studies and Equivalent Single Axle Load (ESAL) Studies. He has collected field data for existing operations, signal timings, pedestrian accessibility, and existing transit stops. He has analyzed the existing and future network conditions and has performed historical and model growth rate analyses for a variety of facilities throughout District Five.

### SR 2005 AND SR 228 ROUNDABOUT FEASIBILITY STUDY

The intersection of SR 2005 and SR 228 in Butler County, Pennsylvania was analyzed in this study. Mr. Eagle performed the operational analysis using SIDRA 6 for a 3-leg and 4-leg alternative. Mr. Eagle provided guidance in regards to the vertical and horizontal alignment of the proposed roundabout based on guidance from the NCHRP Report 672.

### SR 33 AT SOCRUM LOOP ROAD ROUNDABOUT EVALUATION

Mr. Eagle performed the operational analysis for multiple roundabout alternatives at the intersection of SR 33 and Socrum Loop Road in Lakeland, FL using SIDRA 6. The alternatives consisted of various right-turn bypass lane configurations that would tie into a lane change area downstream of the roundabout.

### FDOT MANUAL ON UNIFORM TRAFFIC STUDIES (MUTS UPDATE)

Mr. Eagle has participated in the update of the Manual on Uniform Traffic Studies (MUTS) for FDOT. He updated a number of the chapters of the manual by automating the forms using Excel. He updated Chapter 3 of the MUTS, which include the signal warrant studies, to conform to the newest edition of the Manual on Uniform Traffic Control Devices (MUTCD).

### LAKE MANASSAS RIGHT-TURN LANE WARRANT ANALYSIS

Mr. Eagle participated in a right-turn lane warrant analysis for a development in Gainesville, VA. He performed the trip generation estimates, along with internal trips and pass by trips. Once trips were assigned to the network, Mr. Eagle evaluated the Virginia DOT right-turn lane warrants.



## Jason Houck, GISP, PWS | ECOLOGICAL SERVICES MANAGER

Jason Houck has served as an Environmental Scientist and GIS analyst on numerous transportation, Project Development and Environment (PD&E) Studies, and watershed projects throughout the state of Florida and Tennessee since 2001. His clients include FDOT as well as other government agencies and private industry. Mr. Houck's key expertise is in wetland delineation; local, state, and federal wetland and listed species permitting; regulatory agency and NGO coordination; NEPA document preparation; wildlife crossing and habitat connectivity studies and design; mitigation planning and design; gopher tortoise relocation; land use/land cover mapping and analysis; tree surveys; and Trimble GPS equipment in Florida and Tennessee.

### ► RELEVANT EXPERIENCE

**SR 40 PD&E Study – SR 326 to US 17, Marion County (FDOT District Five)** – Senior Scientist responsible for wildlife crossing design recommendations including coordination with regulatory agencies and citizens advisory groups; NEPA document preparation; and ecological assessments. This study recommended widening SR 40 from a two-lane roadway to a four-lane rural from Silver Springs to Levy Hammock Road, a distance of approximately 13 miles through portions of the Ocala National Forest. Numerous wildlife crossings were proposed through extensive coordination with the public land managers' permitting agencies and environmental organizations.

**SR 40 Widening Design from End of Four-Laning to East of CR 314, Marion County (FDOT District Five subconsultant)** – Senior Scientist responsible for wetland evaluation and assessments, wildlife habitat evaluation, wildlife crossings, regulatory agency and stakeholder coordination, environmental reports and permitting. The project includes the widening of approximately six miles of roadway from two lanes undivided to four lanes divided, a multi-use trail, a new stormwater management system, and 13 wildlife crossing and habitat connectivity enhancements.

**SR 40 from West of SR 11 to West of Cone Road, Volusia County (FDOT District Five)** – Senior Scientist responsible for wetland evaluation and assessments, wildlife habitat evaluation, wildlife crossing design, regulatory agency and stakeholder coordination and environmental permitting. This project included the design of two new travel lanes for approximately 7.6 miles of roadway, three bridges with wildlife crossing enhancements, and one dedicated wildlife crossing structure.

**SR 500 PD&E Study from US 192 (Vine Street) to Country Boulevard (south of Osceola Pkwy), Osceola County (FDOT District Five)** – Environmental Scientist responsible for wetland and protected species assessments and report preparation. Mr. Houck completed the field assessments used to compile the Wetland Evaluation Report and the Endangered Species Biological Assessment report. This study consists of valuating the widening of a five-lane urban roadway to a four-lane divided urban roadway and a six-lane divided urban roadway from US 192 to Osceola Parkway, a distance of approximately 2.3 miles.

**SR 33 PD&E Study, Old Combee Road to North of Tomkow Road, Polk County (FDOT District One)** – Senior Scientist responsible for wetland evaluation and assessments, mitigation planning, regulatory agency coordination, and wetland evaluation report. Mr. Houck was also responsible for QA/QC for environmental reports provided by in-house and subconsultant staff. The study examined the feasibility of widening SR 33 from a two-lane roadway to a four-lane divided roadway within the existing right-of-way. The project will also consider the reconstruction of the existing SR 33/I-4 interchange as a standard diamond interchange concept or a diverging diamond interchange concept.

**SR 710 PD&E Study – US 441 to Martin County Line, Okeechobee County (FDOT District One)** – Environmental Scientist responsible for QA/QC review of environmental documents and reports completed by sub-consultants. The existing two-lane roadway is proposed to be widened to a

### ROLE

Wetlands and Wildlife

### EDUCATION

Master of Science,  
Environmental Science  
University of Tennessee  
at Chattanooga, 2003

Bachelor of Science,  
Environmental Science,  
Biology Concentration  
University of Tennessee  
at Chattanooga, 2001

### CERTIFICATIONS

GIS Certification  
Institute, 2007  
No. 00044521

Professional Wetland  
Scientist (PWS), 2008  
No. 1876

Authorized Gopher  
Tortoise Agent, 2009  
No. GTA-09-00068B

FDEP Qualified Stormwater  
Management Inspector,  
2009, No. 22334

### TRAINING

PD&E Manual  
Webinar Training, 2010  
Course No. BT-19-0034

### YEARS OF EXPERIENCE




12

### YEARS WITH FIRM

5

### AFFILIATIONS

Central Florida Association  
of Environmental  
Professionals

[www.inwoodinc.com](http://www.inwoodinc.com)  
Look for us on   



*RELEVANT EXPERIENCE - CONTINUED*

four-lane rural roadway. The project also includes a four-lane urban roadway extension on new alignment from SR 70 to US 441. Inwood serves as the prime consultant and is responsible for alternative identification and development, public involvement interface, Pond Siting Report, drainage design and evaluation and intersection concept design.

**SR 31 PD&E Study for SR 31 from SR 80 to CR 78, Lee County (FDOT District One)** – Senior Scientist responsible for wetland assessments, mitigation planning, and wetland evaluation report. This project will consider widening of SR 31 from a two-lane rural roadway to a four-lane divided roadway. Alternatives to improving or replacing the Wilson Pigott Bridge over the Caloosahatchee River are also being evaluated.

**Districtwide ETDM – Clay Island Trailhead, Lake County (FDOT District Five)** – Senior Scientist responsible for conducting environmental assessment, list species surveys, tree survey, and GPS data collection. The project involves the preliminary planning and design for a scenic overlook associated with the Green Mountain Scenic Byway. The project includes an extensive public involvement plan including a design charrette and coordination with the Citizens Advisory Group for the scenic byway, GPS data collection, and field review for critical habitat. The preliminary design was needed to assist with the completion of the federal scenic byway grant.

**Martin Luther King Boulevard Phase 3 Gopher Tortoise Services, Osceola County (subconsultant)** – Senior Scientist responsible for tortoise relocation, surveying, and permitting. Project involved off-site relocation of gopher tortoises located on a 23.4-acre future roadway parcel in Osceola County, Florida. Six potentially-occupied burrows were identified and excavated using mechanical and hand excavation techniques. All occupying tortoises were relocated off-site to an FWC-approved long-term protected recipient site.

**Martin Luther King Boulevard/Kissimmee Airport Tortoise Relocation, Osceola County (subconsultant)** – Senior Scientist responsible for tortoise relocation, surveying, and permitting. Project involved off-site relocation of gopher tortoises located on a 18.1-acre commercial parcel adjacent to the Kissimmee Airport in Osceola County, Florida. Seven potentially-occupied burrows were identified and excavated using mechanical and hand excavation techniques. All occupying tortoises were moved off-site to an FWC-approved long-term protected recipient site.

**SR 19 Design from SR 19 from CR 48 to CR 561, Lake County (FDOT District Five subconsultant)** – Senior Scientist responsible for wetland and wildlife habitat evaluation including Florida scrub jay vocalization surveys, regulatory agency coordination, environmental reports and permitting, and mitigation planning. The project consisted of the widening of SR 19 from CR 48 to CR 561 (just outside of Howey-in-the-Hills, Florida) as well as the replacement of the existing SR 19 bridges over Lake Harris.

**SR 37 Design-Build (FDOT District One)** – Senior Scientist responsible for environmental documentation and permitting including wetland delineation and assessment, sovereign submerged lands coordination, regulatory agency coordination, cumulative impacts analysis, wildlife habitat surveys, and mitigation planning. The project included the roadway widening from two-lane rural to four-lane urban, and the replacement of an existing bridge.

**SR 80 from Dalton Lane to Indian Hills Drive, Hendry County (FDOT District One)** – Senior Scientist responsible for wetland evaluation, mitigation planning, and environmental permitting. This 5-mile roadway widening project will widen the existing two-lane roadway to a four-lane rural roadway with the capability of expansion to six lanes in the future. The project addresses intersection and drainage improvements, existing and future traffic volumes, and the addition of pedestrian features. As part of the project, three new bridges will be constructed at Goodno Canal, Canal 3, and Long Hammer Creek.

**CR 68/Orange Avenue from Graves Road to Kings Highway, St. Lucie County (FDOT District Four)** – Senior Scientist. Elements of the work include minor roadway improvements by widening the roadway with 8-foot shoulders (5 feet paved), signing and pavement marking, drainage improvements, utility relocation, environmental permits, and other incidental items for a complete project. The project will be implemented in two phases. Phase I includes survey, development of typical sections, cross section evaluation, R/W evaluation, determining drainage and permitting impacts, and preparing a findings/recommendation report. Phase II includes final design plans.



## Renato Chuw, PE | ASSOCIATE PRINCIPAL / SENIOR ENGINEER

Renato Chuw, PE, has provided water resources engineering and project management services since 1995. His key expertise includes stormwater management planning and drainage system design for all types of infrastructure improvements. Mr. Chuw's primary responsibilities include management and oversight of transportation drainage design and drainage design approach for transportation projects. In addition, he assists with the Quality Assurance/Quality Control process and is responsible for checking plans and ensuring accuracy.

### ► RELEVANT EXPERIENCE

**SR 40 PD&E Study – SR 326 to US 17, Marion County (FDOT District Five)** – Senior Drainage Engineer responsible for the drainage Pond Siting Report and Location Hydraulic Report. This study recommended widening SR 40 from a two-lane roadway to a four-lane roadway from Silver Springs to Levy Hammock Road, a distance of approximately 13 miles through portions of the Ocala National Forest. Numerous wildlife crossings were proposed through extensive coordination with the public land managers' permitting agencies and environmental organizations.

**SR 40 PD&E from Breakaway Trail to Williamson Boulevard, Volusia County (subconsultant)** – Senior Drainage Engineer responsible for the drainage Pond Siting Report and Location Hydraulic Report. This study consists of evaluating alternative roadway concepts for the four-lane to six-lane widening of SR 40 from Breakaway Trail to Williamson Boulevard, a distance of approximately two miles.

**SR 500 PD&E Study from US 192 (Vine Street) to Country Boulevard (south of Osceola Pkwy), Osceola County (FDOT District Five)** – Senior Drainage Engineer responsible for the drainage Pond Siting Report and Location Hydraulic Report. This study considered the widening of this five-lane urban roadway to a four-lane divided urban roadway and a six-lane divided urban roadway from US 192 to Osceola Parkway, a distance of approximately 2.3 miles.

**SR 414 (Maitland Boulevard) PD&E Study from Hope Road to Maitland Avenue, Orange County (FDOT District Five)** – Senior Drainage Engineer responsible for the drainage Pond Siting Report and Location Hydraulic Report. This study considered the feasibility of widening Maitland Boulevard from a four-lane roadway to a six-lane divided urban roadway and evaluated other improvements such as bicycle lanes and sidewalks.

**SR 50 PD&E Study, Lake County (subconsultant)** – Senior Drainage Engineer responsible for the drainage Pond Siting Report and Location Hydraulic Report. This study proposes the realignment of the existing two, two-lane, one-way pairs of SR 50 through the downtown Groveland area and improvements to the intersection of SR 50 and SR 19.

**SR 33 PD&E Study – Old Combee Road to North of Tomkow Road, Polk County (FDOT District One)** – Senior Drainage Engineer responsible for the drainage Pond Siting Report and Location Hydraulic Report. This study examines the widening of a 4.3-mile segment of SR 33 from a two-lane rural roadway to a four-lane divided roadway within the existing right-of-way. The study also evaluated interchange improvements for the SR 33/I-4 interchange as a standard diamond interchange concept or a diverging diamond interchange concept and the realignment of Tomkow Road. Public outreach activities included coordination with property owners, business owners, the Polk Transportation Planning Organization, and the City of Lakeland. Pedestrian features included a 12-foot-wide shared use path along the east side of SR 33.

**ROLE**  
Drainage

**EDUCATION**  
Bachelor of Science,  
Civil Engineering  
University of Central  
Florida, 1995

**REGISTRATION**  
Professional Engineer  
Florida, 2000  
No. 56050

**YEARS OF EXPERIENCE**  
19

**YEARS WITH FIRM**  
7

*RELEVANT EXPERIENCE - CONTINUED*

**SR 60 PD&E Study – Valrico Road to Polk County Line Road, Hillsborough County (subconsultant)** – Senior Drainage Engineer responsible for the drainage Pond Siting Report and Location Hydraulics Report. This study is evaluating the widening of SR 60 from a four-lane roadway to a six-lane roadway in Hillsborough County, Florida.

**US 98 PD&E Study from US 27 to East of Airport Road, Highlands County (subconsultant)** – Senior Drainage Engineer responsible for the drainage Pond Siting Report and Location Hydraulics Report. The US 98 PD&E Study evaluated improvements to US 98 in Highlands County. The existing two-lane rural roadway is proposed to be widened to a four-lane roadway.

**SR 776 PD&E Study from CR 775 (Placida Road) to Spinnaker Boulevard, Charlotte County (subconsultant)** – Senior Roadway Engineer responsible for the drainage Pond Siting Report and Location Hydraulics Report. This study is evaluated the feasibility of widening SR 776 from a four-lane roadway to a six-lane divided roadway in Charlotte County, Florida. Bicycle and pedestrian facilities, as well as transit amenities, are proposed along the corridor.

**SR 31 PD&E Study from SR 80 to CR 78, Lee County (FDOT District One)** – Senior Drainage Engineer responsible for the drainage Pond Siting Report and the Location Hydraulic Report. This project will consider widening of SR 31 from a two-lane rural roadway to a four-lane divided roadway. Alternatives to improving or replacing the Wilson Pigott Bridge over the Caloosahatchee River are also being evaluated.

**Zemel Road at Burnt Store Road (CR 765) Intersection PD&E Study, Charlotte County (subconsultant)** – Senior Drainage Engineer responsible for the drainage Pond Siting Report and Location Hydraulic Report. The Zemel Road at Burnt Store Road intersection PD&E Study evaluated the realignment of the existing two-lane rural road and widening to a four-lane divided rural roadway.

**Central Polk Parkway PD&E Study, Polk County (subconsultant)** – Senior Drainage Engineer responsible for location and sizes of stormwater management systems and determination of floodplain impacts. Central Polk Parkway is a proposed limited access facility, and two different legs are being considered. The western leg runs from SR 60 to the Polk Parkway near SR 540. The eastern leg runs from SR 60 to I-4. The PD&E Study also consisted of identifying wetlands and surface waters as well as ArchHydro-based sub-basin delineation within the corridor. Inwood provided initial alternatives alignment identification, drainage evaluations, and public involvement assistance.

**SR 710 PD&E Study – US 441 to Martin County Line, Okeechobee County (FDOT District One)** – Senior Drainage Engineer responsible for the drainage Pond Siting Report and Location Hydraulic Report. This project consisted of widening 9.2 miles of an existing two-lane roadway to a four-lane rural roadway. The project also includes a 3.4-mile, four-lane urban roadway extension on new alignment from SR 70 to US 441.

**SR 29 PD&E Study – SR 82 to South CR 80-A, Collier and Hendry Counties (subconsultant)** – Senior Drainage Engineer responsible for the drainage Pond Siting Report and Location Hydraulic Report. The SR 29 PD&E Study is evaluating improvements to SR 29 in Collier and Hendry Counties. The existing two-lane rural roadway is proposed to be widened to a four-lane divided rural roadway. In addition to the drainage analysis, Inwood served as the subconsultant for public involvement.



## Laura Clark, AICP | PROJECT MANAGER

Laura Clark, AICP, has successfully provided Transportation Planning services for the Florida Department of Transportation (FDOT), municipal government clients, as well as private sector clients in Florida since 2005. Laura's key areas of expertise include public and stakeholder involvement, Efficient Transportation Decision Making (ETDM), trails master planning, Long Range Transportation Plan (LRTP) updates, development and comprehensive plan review, Developments of Regional Impact (DRI), and Project Development and Environment (PD&E) studies. She is skilled in the utilization of ArcGIS, Highway Capacity Software (HCS+), Trip Generation, Internal Capture and Pass By Software (TIPS), the Environmental Screening Tool (EST), Florida Department of Transportation's District Five Project Diary, and Adobe Design software.

### ► RELEVANT EXPERIENCE

**Districtwide Community Awareness Contract, 2012-2014 (FDOT District Five)** – Project Manager responsible for scheduling, planning work activities, client and subconsultant coordination, QA/QC, and public involvement for numerous task work orders under this districtwide contract. Tasks involve providing public information and involvement support primarily for planning and design projects. Under this contract, Inwood develops Community Awareness Plans (CAP), coordinates the notification of stakeholders and government officials, coordinates and conducts public meetings and hearings, develops video and slide presentations, creates public meeting displays and exhibits, and provides transportation design technical expertise support, among other miscellaneous tasks.

**Districtwide Miscellaneous PD&E Services (FDOT District Five)** – Transportation Planner responsible for preparing summary reports for ETDM projects and providing support for PD&E studies and reevaluations. Inwood was selected for this Districtwide PD&E continuing services contract for FDOT District Five in 2002. Under this contract, 15 individual engineering projects were completed. Project tasks included preparing summary reports for ETDM projects; developing scopes of services and man-hour projections for upcoming PD&E projects; PD&E study reevaluations; engineering analyses in support of ongoing preliminary engineering studies; document reviews; and coordinating subconsultant services such as surveying, environmental, public involvement, and aerial mapping services. Inwood also assisted FDOT with the preparation of scopes of services, man-hour estimates, and report reviews.

**Maitland Boulevard (SR 414) PD&E Study, East of I-4 (Hope Road) to Maitland Boulevard (FDOT District Five)** – Transportation Planner responsible for coordination and logistics of meetings and public notification through newsletters, advertisements, press releases, and project website updates. This study considered the feasibility of widening Maitland Boulevard from a four-lane roadway to a six-lane divided urban roadway, as well as evaluated other improvements such as bicycle lanes and sidewalks.

**SR 40 PD&E Study, SR 326 to US 17, Marion County (FDOT District Five)** – Transportation Planner responsible for the coordination of Project Advisory Group meeting logistics and public notification. This study recommended widening SR 40 from a two-lane to a four-lane rural roadway from Silver Springs to Levy Hammock Road, a distance of approximately 13 miles through portions of the Ocala National forest. Numerous wildlife crossings were proposed through extensive coordination with the public land managers and permitting agencies.

**SR 33 PD&E Study, Old Combee Road to North of Tomkow Road, Polk County (FDOT District One)** – Deputy Project Manager responsible for coordination and logistics of public meetings and public notification, ETDM support, and the development of project documents and reports. This study examines the feasibility of widening SR 33 from a two-lane roadway to a four-lane divided roadway within the existing right-of-way. The project also considers the reconstruction of the existing SR 33/I-4 interchange as a standard diamond interchange concept or a diverging diamond interchange concept.

### ROLE

Transportation Planner/  
Public Involvement

### EDUCATION

Bachelor of Science,  
Community and  
Regional Planning,  
Iowa State University, 2003

### CERTIFICATION

American Institute of  
Certified Planners  
Florida, 2011  
No. 025014

### YEARS OF EXPERIENCE

9

### YEARS WITH FIRM

7

### AFFILIATIONS

American Planning  
Association

WTS - Central Florida  
Chapter

*RELEVANT EXPERIENCE - CONTINUED*

**SR 710 PD&E Study, US 441 to Martin County Line, Okeechobee County (FDOT District One)** – Transportation Planner responsible for coordination and logistics of meetings and public notification through newsletters, advertisements, press releases, and project website updates. The existing two-lane roadway is proposed to be widened to a four-lane rural roadway. The project also includes a four-lane urban roadway extension on new alignment from SR 70 to US 441. Inwood serves as the prime consultant and is responsible for alternative identification and development, public involvement interface, pond siting report, drainage design and evaluation and intersection concept design.

**SR 31 PD&E Study, SR 80 to CR 78 (FDOT District One)** – Transportation Planner responsible for coordination and logistics of public meetings and public notification through newsletters, advertisements, press releases, and project website updates. This study will consider the widening of SR 31 from a two-lane rural roadway to a four-lane divided roadway. Alternatives to improving or replacing the Wilson Pigott Bridge over the Caloosahatchee River are also being evaluated.

**SR 82 PD&E Study, from CR 884 to SR 29, Lee County (FDOT District One)** – Transportation Planner responsible for coordination and logistics of public meetings and public notification through newsletters, advertisements, press releases, and project website updates. This study involved preliminary design for the widening of SR 82 from a two-lane rural roadway to a six-lane divided suburban roadway. This project traverses Lee, Hendry, and Collier Counties and included an extensive public involvement program. Innovative solutions considered included linear stormwater retention ponds within the existing right-of-way, pavement savings options, and a “continuous flow intersection” at the Daniels Parkway intersection.

**CR 769 (Kings Highway) PD&E Study, Peace River Street, DeSoto County (FDOT District One)** – Transportation Planner responsible for coordination and logistics of public meetings and public notification through newsletters, advertisements, press releases, and project website updates. FDOT District One is considering widening CR 769 from two to four lanes from Sandhill Boulevard in Charlotte County to Peace River Street in DeSoto County, Florida. This project includes an initial feasibility study to evaluate future traffic volumes and to identify existing safety concerns along the corridor. The feasibility study will be used to support the purpose and need for the project and will serve as the basis for the alternatives that will be considered.

**SR 776 PD&E Study, CR 775 (Placida Road) to Spinnaker Boulevard (Subconsultant for FDOT District One)** – Transportation Planner responsible for coordination and logistics of public meetings and public notification through newsletters, advertisements, press releases, and project website updates. This study evaluated the feasibility of widening SR 776 from a four-lane roadway to a six-lane divided roadway in Charlotte County, Florida.

**US 98 from Edgewood Drive to Main Street, Polk County (FDOT District One)** – Transportation Planner responsible for coordination and logistics of public meetings and public notification through newsletters, advertisements, press releases, and project website updates. This 3-mile roadway widening project will reconstruct the existing four-lane roadway to a six-lane urban roadway. The project addresses intersection and drainage improvements, existing and future traffic volumes, railroad coordination, and the addition of pedestrian features including a multi-use trail.

**Central Polk Parkway Phase 4 Design Services, from Polk Parkway to US 27, Polk County (FDOT District One Subconsultant)** – Transportation Planner responsible for coordination and logistics of public meetings and public notification through newsletters, advertisements, press releases, and project website updates. The project will consist of a new six-lane divided limited access rural roadway with 12-foot travel lanes, 12-foot inside and outside shoulders, and a 44-foot multi-modal corridor in the median. The overall limited access right-of-way footprint will be a minimum of 354 feet. A 12-foot multi-use path will be located adjacent to the new facility located within 26 feet of right-of-way. A new bridge will be constructed over Thompson Nursery Road, and a new single point urban interchange will be constructed over US 27. Roadside swales will collect and convey stormwater runoff to retention ponds.



## Jada Barhorst | ENVIRONMENTAL TECHNICIAN

Jada Barhorst has 11 years of experience as a Biologist and Environmental Technician. She has served on numerous transportation projects throughout Florida. Her clients include cities, counties, private landowners, and developers. Ms. Barhorst's key expertise is in the identification of Florida plants and wildlife; and knowledge of federal, state, and local policies related to natural resource protection. She is skilled in the utilization of ArcGIS, Windows, and Microsoft Office Suite.

### ► RELEVANT EXPERIENCE

**SR 19 from CR 48 to CR 561, Lake County (FDOT District Five Subconsultant)** – Environmental Technician responsible for wetland and wildlife habitat evaluation including Florida scrub jay vocalization surveys, environmental reports and permitting. The project consists of the widening of SR 19 from two to four lanes from CR 48 to CR 561 just outside of Howey-in-the-Hills, Florida as well as the replacement of the existing SR 19 bridges over Lake Harris.

**SR 40 from West of SR 11 to West of Cone Road, Volusia County (FDOT District Five)** – Environmental Technician responsible for data collection and documentation pertaining to wetland and wildlife habitat within the corridor. The project consists of the design of two new travel lanes for approximately 7.6 miles of roadway and includes three bridges with wildlife crossing enhancements and one dedicated wildlife crossing structure.

**SR 507 (Babcock) from Malabar Road to Palm Bay Road, Brevard County (FDOT District Five)** – Environmental Technician responsible for wetland and wildlife habitat and assessments, GIS mapping and environmental documents. This project involved the widening on SR 507 from four- to six-lanes and the construction of five additional dry retention stormwater management systems.

**Lake Wekiva Trail PD&E, Lake County (Lake-Sumter MPO Subconsultant)** – Environmental Technician responsible for data collection and documentation pertaining to wetland and wildlife habitat within the corridor. The project study area included a 15-mile corridor that would be used to construct a paved, shared-use trail that will provide hikers, cyclists, and nature enthusiasts with a regional connection between Lake, Seminole, and Orange Counties.

**SR 426/CR 419 Widening Phase II, Seminole County (Seminole County Public Works)** – Environmental Technician responsible for data collection and documentation pertaining to wetland and wildlife habitat within the corridor. The project involves the widening of SR 426/CR 419 from Pine Avenue to Avenue B, an approximate length of 1.4 miles, to a four-lane divided highway with 12-foot lanes, 4-foot bike lanes, and sidewalks in both directions.

**Wakulla Way Subdivision Environmental Permitting, Orange County (Mathura Properties #10, LLC)** – Environmental Technician responsible for data collection and documentation pertaining to environmental reports and permitting for wetlands and wildlife habitat within the project. The project is a 5-acre residential development in Orange County. The project required a Conservation Area Determination and a Conservation Area Impact Permit from Orange County, as well as an ERP permit from SFWMD.

**SR 40 Widening Design from End of Four Laning to East of CR 314, Marion County (FDOT District Five Subconsultant)** – Environmental Technician responsible for data collection and documentation pertaining to wetland and wildlife habitat within the corridor. The project includes the widening of approximately six miles of roadway from two lanes undivided to four lanes divided, a multi-use trail, a new stormwater management system, and 13 wildlife crossing and habitat connectivity enhancements.

**ROLE**  
Environmental/Biology

**EDUCATION**  
Bachelor of Science,  
Biology, Purdue University,  
2003

**YEARS OF EXPERIENCE**  
11

**YEARS WITH FIRM**  
1

*RELEVANT EXPERIENCE - CONTINUED*

**SR 40 Improvements, I-75 Interchange and SW 27th Avenue Intersection, and SR 40 Milling and Resurfacing from 52nd Avenue to 500 Feet East of I-75, Marion County (FDOT District Five Subconsultant)** – Environmental Technician responsible for environmental services. These services include preliminary project research and early identification of and coordination with the appropriate regulatory agencies to assure that design efforts are properly directed toward permit requirements. Inwood is also performing Public Involvement services including communicating to all interested persons, groups, and government organizations information regarding the development of the project. Inwood will provide to FDOT drafts of all Public Involvement documents (i.e., newsletters, property owner letters, advertisements, etc.)

**Osceola County Parkway PD&E Study, Phase 2, Osceola County (Florida's Turnpike Enterprise Subconsultant)** – Environmental Technician. The purpose of this study was to evaluate alternatives for the extension of Osceola Parkway from west of Boggy Creek Road to the proposed Northeast Connector Parkway, and alternatives for a north-south system connection from the Osceola Parkway Extension to SR 417. Phase I included the EST/ETDM and public involvement. Phase II continued the PD&E process.

**Renaissance Charter School Gopher Tortoise Relocation, Osceola County (Subconsultant to Austin Environmental Consultants, Inc.)** – Environmental Technician responsible for assisting in off-site relocation for gopher tortoises located on a 12.5-acre future roadway parcel in Osceola County, Florida. Project involved off-site relocation for gopher tortoises located on a 12.5-acre future roadway parcel in Osceola County, Florida. Twenty-one potentially-occupied burrows were identified and excavated using mechanical and hand excavation techniques. All occupying tortoises were relocated off-site to an FWC-approved long-term protected recipient site.



**Accurate Traffic Counts, Inc.**  
920 Kerwood Circle, Oviedo, FL 32765  
Telephone: (407) 678-0605  
Fax: (407) 678-3299  
E-mail: info@accuratetraffic.com

**QUALIFIED PERSONNEL:**

**Santiago Franceschini – President**

**EDUCATION:**

Associated Degree in Civil Engineer  
Computer Aided Drafting (AutoCAD) I, II, III  
Microstation Intergraph course

**WORK EXPERIENCE:**

- \* Over twenty-five (25) years experience in traffic data collection and surveys throughout the State of Florida.
- \* Accurate Traffic Counts, Inc. Owner - 1993-Present  
Traffic Data Collection Studies services to Engineering Companies, Counties and Department of Transportation
- \* Vanasse Hangen Brustlin, Inc. - Traffic Technician (3 years)
- \* Hensley Schmidt, Inc. - Traffic Technician (3 years)

**Santiago Franceschini** is the president of Accurate Traffic Counts, Inc. He is responsible for insuring that your firm receives the staffing and equipment capabilities needed to provide excellent service for this contract. In addition, he will coordinate the traffic data collection services by making staff assignments, scheduling, and providing quality review. Mr. Franceschini has over twenty-five (25) years of extensive experience in all aspects of traffic data collection. Coordinating and completing multiple statewide large and small projects efficiently and effectively as President of ATC for the last nineteen years. He will coordinate the data collection efforts with the Sr. Field Technician. As soon as Work Orders are received, he reviews them to assure clear understanding of request for service and develop an effective schedule. He is responsible for contacting Sr. Field Technician to assign and explain specific task(s). He will process data once received from the field. He will serve as **Project Manager** insuring that all studies are performed on-time with top quality product results and that are meeting the departments expectations and timeframes.





**Elizabeth J. Chambless, M.S.**  
**Project Manager and Transportation Group Leader**  
**Pensacola, Florida Office**

**Elizabeth J. Chambless, M.S.**, leads the SEARCH Transportation Group and is responsible for program management, business development, research integrity, and quality control. Ms. Chambless joined SEARCH in 2005 and has over nine years of professional experience. She has advanced training and expertise with Section 106 of the NHPA, Section 4(f) of the DOT Act, and NEPA. Ms. Chambless has completed over 300 projects for FDOT Districts 1–5 and 7, CEMO, Florida’s Turnpike Enterprise, and municipal government transportation departments. She has supported DOT in consultations with SHPOs, the Federal Highway Administration, Native American tribes, and at public meetings. Ms. Chambless’ qualifications exceed those set forth by the Secretary of the Interior’s *Standards and Guidelines for Archeology and Historic Preservation* (48 FR 44716-42).

**EDUCATION**

M.S. 2005 Anthropology. Florida State University.  
B.A. 2002 Anthropology. Auburn University.

**RESEARCH SPECIALIZATIONS**

Cultural Resource Management for Transportation Projects

**PROFESSIONAL EXPERIENCE**

2005-present Principal Investigator, SEARCH  
2005 Historic Sites Specialist, Florida Division of Historical Resources.  
2004 Research Assistant, Florida State University.  
2003 Teaching Assistant, Florida State University.  
2002 Field Technician, Auburn University.

**PROFESSIONAL REGISTRATIONS AND ASSOCIATIONS**

Register of Professional Archaeologists  
Florida Anthropological Society  
Society for Historical Archaeology

**PROJECT MANAGEMENT EXPERIENCE**

**2006-2009; 2009-2014 (contract renewed)**

**Project Manager for FDOT District 2 District-wide Cultural Resource Services Contract.** Manages overall contract and oversees Principal Investigators working on individual task orders for transportation projects throughout 18 counties in Northeast Florida.

**2013-2018**

**Project Manager for FDOT District 5 District-wide Cultural Resource Services Contract.** Manages overall contract and oversees Principal Investigators working on individual task orders for transportation projects throughout Central Florida.

**2012-2014**

**Project Manager for FDOT District 3 District-wide Cultural Resource Services Contract.** Manages overall contract and oversees Principal Investigators working on individual task orders for transportation projects throughout 16 counties in Northwest Florida.

**2012-2017**

**Project Manager for Cultural Resource Services under FDOT District 2 District-wide General Engineering Consultant Services Contract.** Oversees Principal Investigators working on individual task orders for transportation projects throughout Northeast Florida.



**2011-2013**

**Project Manager for Cultural Resource Services under FDOT District 2 District-wide Community Impact Assessment/Environmental Stream-lining ETDM Contract.** Oversees Principal Investigators working on individual task orders for transportation projects throughout Northeast Florida.

**2009-2016**

**Project Manager for Cultural Resource Services under Two FDOT District 3 District-wide Environmental Assistance Consultant Contracts.** Oversees Principal Investigators working on individual task orders for transportation projects throughout Northwest Florida.

**2009-2016**

**Project Manager for Cultural Resource Services under Two FDOT District 5 District-wide Environmental Services Contract.** Oversees Principal Investigators working on individual task orders for transportation projects throughout Central Florida.

**2009-2014**

**Project Manager for Cultural Resource Services under Florida's Turnpike Enterprise General Engineering Consultant Services Contract.** Oversees Principal Investigators working on individual task orders for transportation projects throughout Central and South Florida.

**2006-2007**

**Project Manager for FDOT District 4 District-wide Cultural Resource Services Contract.** Managed overall contract and directed Principal Investigators working on individual task orders for transportation projects throughout southeast Florida.

**SELECT PROJECT EXPERIENCE: Principal Investigator for SEARCH**

**2013**

**Principal Investigator,** Cultural Resource Assessment Survey for the Ochlockonee Bay Trail along County Road 372/Surf Road, Wakulla County, Florida. Conducted for FDOT, District 3.

**2012**

**Principal Investigator,** Cultural Resources Assessment Survey for the US 98 Pensacola Bay Bridge Replacement, Escambia and Santa Rosa Counties, Florida. Conducted for FDOT, District 3.

**Principal Investigator,** Cultural Resource Assessment Survey of State Road 19 from CR 48 to CR 561, Lake County, Florida. Conducted for HDR, Inc. and FDOT, District 5.

**2011**

**Principal Investigator,** Cultural Resource Survey and Screening for the Interstate 95/Overland Bridge Project in Duval County, Florida. Conducted for FDOT, District 2.

**Principal Investigator,** Cultural Resource Assessment Survey of State Road 40 from US 17 to Cone Road, Volusia County, Florida. Conducted for E Sciences and FDOT, District 5.

**2010**

**Principal Investigator,** Cultural Resource Assessment Survey for the US 301/SR 200 (Baldwin Bypass) Project Development and Environment Study, Duval County, Florida. Conducted for FDOT, District 2.

**Principal Investigator,** Cultural Resource Assessment Survey of SR 200 from CR 227 to CR 233 (Starke Bypass) Project Development and Environment Study, Bradford County, Florida. Conducted for FDOT, District 2.

**Marie E. Pokrant, M.A.**  
**Project Archaeologist**  
**Pensacola, Florida Office**



**Marie Pokrant, M.A., RPA**, has over 10 years' experience with both prehistoric and historic archaeology in the Southeast and Midwest. After receiving her Master's degree in Historical Archaeology in 2001, she worked as a Staff Archaeologist at the University of West Florida (UWF) Archaeology Institute. After leaving UWF in 2003, she worked for two cultural resource management firms in New Orleans, Louisiana. In 2006 and 2007, while employed with Earth Search, Inc. she was contracted by the Federal Emergency Management Agency (FEMA) for recovery efforts for Hurricane Rita in southwest Louisiana, Hurricane Katrina in New Orleans, and flood damage in New York State. After joining GAI Consultants, Inc. in 2008, Ms. Pokrant field directed two Phase III data recovery excavations for the Rockies Express pipeline project. Her field work experiences include the relocation of a historic cemetery in Carroll County, Kentucky, and archaeological monitoring at Gettysburg National Military Park in Pennsylvania. Ms. Pokrant has received additional training in the Section 106 process. Her qualifications exceed those set forth by the Secretary of the Interior's *Standards and Guidelines for Archeology and Historic Preservation* (48 FR 44716).

#### **EDUCATION**

M.A. 2001 Historical Archaeology. University of West Florida.  
B.A. 1997 Anthropology. University of West Florida.

#### **RESEARCH SPECIALIZATIONS**

Spanish Colonial Archaeology

#### **PROFESSIONAL EXPERIENCE**

2012-present Project Archaeologist, SEARCH  
2008 Project Archaeologist, GAI Consultants, Inc.  
2004 Project Director, Earth Search, Inc.  
2003 Assistant Project Manager, R. Christopher Goodwin and Associates, Inc.  
2002 Staff Archaeologist, UWF Archaeology Institute

#### **PROFESSIONAL REGISTRATIONS AND ASSOCIATIONS**

Register of Professional Archaeologists

#### **SELECT PROJECT EXPERIENCE**

##### **2014**

**Principal Investigator**, Cultural Resource Assessment Survey of State Road 514/Malabar Road, Brevard County, Florida. Conducted for FDOT District 5.

**Principal Investigator**, Cultural Resource Assessment Survey for State Road 500, Osceola County, Florida. Conducted for FDOT, District 5.

##### **2013**

**Principal Investigator**, Cultural Resource Assessment Survey of Ochlocknee Bay Trail, Wakulla County, Florida. Conducted for FDOT District 3.

**Project Archaeologist**, Cultural Resource Assessment Survey for the Replacement of the Pensacola Bay Bridge (Bridge No. 480035), Escambia County, Florida. Conducted for FDOT, District 3.

**Project Archaeologist**, Cultural Resource Assessment Survey for the State Road 123 Project, Okaloosa County, Florida. Conducted for FDOT, District 3.

**Project Archaeologist**, Cultural Resource Assessment Survey for the Ochlockonee Bay Trail along County Road 372/Surf Road, Wakulla County, Florida. Conducted for FDOT, District 3.



**Project Archaeologist**, Cultural Resource Assessment Survey in Support of Drainage Improvements along Interstate 10 between US 41 and the CR 250 Overpass, Columbia and Baker Counties, Florida. Conducted for FDOT District 2.

**Project Archaeologist**, Technical Memorandum: Desktop Analysis and Phase I Survey within 8GU00002 (Gotier Hammock) in Support of Proposed Improvements to SR 30A from SR 30E to SR 30, Gulf County, Florida. Conducted for FDOT District 3.

**Project Archaeologist**, Cultural Resource Assessment Survey for the Replacement of the SR 373/Orange Avenue Bridge (Bridge No. 550052) over the St. Marks Trail in Leon County, Florida. Conducted for FDOT, District 3.

**Project Archaeologist**, Technical Memorandum: Cultural Resource Desktop Analysis in Support of Intersection Improvements at US 41 and Piney Point Road, Manatee County, Florida. Conducted for DRMP, Inc. and FDOT, District 1.

**Project Archaeologist**, Cultural Resource Assessment Survey of Five Ponds along US 98/State Road 30 from Bayshore Road to Portside Drive, Santa Rosa County, Florida. Conducted for FDOT, District 3.

**Project Archaeologist**, Technical Memorandum: Cultural Resources Assessment Survey of Eight Ponds and One Segment of Revised Right-of-Way in Support of the Baldwin Bypass, Duval County, Florida. Conducted for Parsons Transportation Group, Inc.

**Project Archaeologist**, Technical Memorandum: Cultural Resource Assessment Survey of One Pond Expansion and Drainage Easement along State Road 79 in Washington County, Florida. Conducted for FDOT, District 3.

**Project Archaeologist**, Cultural Resource Assessment Survey for the Jasper Rail Trail and Stormwater Improvements Hamilton County, Florida. Conducted for FDOT, District 2.

**Project Archaeologist**, Cultural Resource Assessment Survey for the Carrabelle Multi-Use Path along SR 30 (US 98) from Barbara Revell Lane to Beacon Street, Franklin County, Florida. Conducted for FDOT District 3.

## 2012

**Project Archaeologist**, Cultural Resources Assessment Survey for the US 98 Pensacola Bay Bridge Replacement, Escambia and Santa Rosa Counties, Florida. Conducted for FDOT, District 3.

**Ryan M. VanDyke, M.A.**  
**Architectural Historian**  
**Gainesville, Florida Office**



Ryan M. VanDyke, MA, has over ten years of experience in cultural resource management working in both field and laboratory settings. She has conducted archaeological and architectural history projects throughout Florida, the Southeast, the Mid-Atlantic, and the Great Basin. Her experience includes both prehistoric and historic archaeological sites across Florida, North Carolina, Virginia, and Utah. Her analysis of historic faunal remains from San Juan del Puerto, a colonial Spanish mission on Fort George Island, Florida, was presented at the Society of Historical Archaeology Annual Meeting on Amelia Island, Florida. Ms. VanDyke also performs historic research, as well as small and large-scale historic architecture surveys and assessments. Ms. VanDyke has extensive knowledge of current Local, State and Federal laws and regulations, including the National Historic Preservation Act (NHPA), particularly Section 106, and its implementing regulations 36 CFR Part 800, as amended; Section 110; and Section 4(f) of the Department of Transportation Act (DOT Act). She has been a contributing author on over 75 technical reports, and a contributing researcher on over 100 technical reports. Ms. VanDyke's qualifications exceed those set forth by the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation* (48 FR 44716-42).

### **EDUCATION**

M.A. 2011 Anthropology. University of Florida.  
B.A. 2003 Anthropology. Brigham Young University.

### **RESEARCH SPECIALIZATIONS**

|                                      |                                     |
|--------------------------------------|-------------------------------------|
| Cultural Resource Management         | Architectural History               |
| Historic Preservation                | Determinations of Eligibility (DOE) |
| Historic map and aerials             | History of Transportation           |
| Geographic Information Systems       | Zooarchaeology                      |
| Prehistoric and historic subsistence |                                     |

### **PROFESSIONAL EXPERIENCE**

2011-present Architectural Historian, SEARCH  
2008 Field School Supervisor, University of Florida Historical Archaeology Field School.  
2007-2011 South Florida Collections Assistant, Florida Museum of Natural History  
2006-2011 Historical Technician, Southeastern Archaeological Research, Inc.  
2005-2006 Archaeological Technician, Southeastern Archaeological Research, Inc.  
2004 Archaeological Technician, U.S. Forest Service, Hoosier National Forest  
2003 Field School Supervisor, Brigham Young University Archaeology Field School at the Grand Staircase-Escalante National Monument, Escalante, Utah  
2002-2003 Research Assistant, Brigham Young University (conducted zooarchaeological analysis under direction of Dr. Joel C. Janetski)  
2001-2002 Archaeological Field Technician, Office of Public Archaeology, Provo, Utah

### **OTHER PROFESSIONAL TRAINING**

Preservation Materials and Methods I, University of Florida, 2008  
Preservation Materials and Methods II, University of Florida, 2009  
Historic Preservation Practice, University of Florida 2009  
Geographic Information Systems Research, University of Florida, 2010



## PAPERS AND PRESENTATIONS

- 2011 Contextual Analysis of Two Articulated Pig Skeletons from Kingsley Plantation, Florida. Co-author with Clete Rooney. Presentation at the Annual Meeting of the Society of Historic Archaeology, Austin, Texas.
- 2010 Reconstructing Animal Use Patterns at the San Juan del Puerto Mission. Presentation at the Annual Meeting of the Society of Historic Archaeology, Amelia Island, Florida.
- 2010 Fort George has a Mission? Investigations at the San Juan del Puerto (1587-1702), Fort George Island. Co-author with Lindsey Laytner and Rebecca D. Gorman. Presentation at the Annual Meeting of the Society of Historic Archaeology, Amelia Island, Florida.
- 2009 Faunal Remains from the San Juan del Puerto Mission: A Preliminary Comparative Analysis 1961 and 2007. Presentation at the Annual Meeting of the Southeastern Archaeological Conference, Mobile, Alabama.
- 2009 Rehabilitation of the Florida Museum of Natural History's Pineland Collection: A National Endowment for the Humanities Project to Curate Collections from a Major Coastal Archaeological Site Complex in Southwest Florida. Poster presented at the Annual Meeting of the Southeastern Archaeological Conference, Mobile, Alabama.. With William Marquardt, Karen Walker, Melissa Ayzav, Austin Bell, Ann Cordell, Elise LeCompte, Gypsy Price, and Donnal Ruhl.
- 2009-2011 Zooarchaeology Exhibit at Calusa Heritage Day, Florida Museum of Natural History, Pineland, Florida.
- 2008 Climate and Archaeology at Pineland Complex Exhibit at Calusa Heritage Day, Florida Museum of Natural History, Pineland, Florida.

## SELECT PROJECT EXPERIENCE

### 2014

**Architectural Historian.** Cultural Resource Assessment Survey for Twenty-Nine Proposed Ponds and Proposed Realignment Along US 319, Wakulla County, Florida. Conducted for FDOT District 3.

**Architectural Historian.** Cultural Resource Assessment Survey for SR 500 from Aeronautical Drive to Budinger Road and from Eastern Avenue to Nova Road, Osceola County, Florida. Conducted for FDOT District 5.

**Architectural Historian.** Cultural Resource Assessment Survey for Phase 2 of the City of Orlando Sidewalks Project, Orange County, Florida. Conducted for FDOT District 5.

**Architectural Historian.** Cultural Resources Assessment Survey for SR 514 (Malabar Road) from Babcock Road to US 1, Brevard County, Florida. Conducted for the FDOT, District 5.

### 2013

**Architectural Historian.** Cultural Resources Assessment Survey for Jasper Rail Trail and Stormwater Improvements, Hamilton County, Florida. Conducted for the FDOT, District 2.

**Archaeologist.** Picayune Strand Restoration Project, Merritt and Faka Union Pump Stations and Levees, Canals, and Roads Construction Phase I Testing and Monitoring for Cultural Resources, Collier County, Florida. Conducted for USACE, Jacksonville District.

**Architectural Historian.** Cultural Resources Assessment Survey for the Construction of Sidewalks in Bonifay, Holmes County, Florida. Conducted for the FDOT, District 3.



## Christopher Meyer, P.E.

Senior Geotechnical Engineer



Mr. Meyer has 23 years of experience in geotechnical engineering in the Central Florida area. Mr. Meyer has performed extensive geotechnical engineering services for FDOT roadway and bridge projects as well as infrastructure-related public works projects for numerous counties and expressway authorities. He has also managed numerous geotechnical investigations for private commercial developments, stormwater drainage projects and distressed structures due to potential sinkhole activity.

### Expertise:

Geotechnical Engineering

### Years of Experience:

23 years of experience/11 years with GEC

### Education:

Master of  
Science/1994/Civil  
Engineering  
University of Florida

Bachelor of  
Science/1991/Civil  
Engineering  
University of Florida

### Licenses:

Licensed Professional  
Engineer FL No. 49328

### Professional Organizations:

American Society of Civil  
Engineering (ASCE)  
ASCE Education  
Committee  
ASCE Geo-Institute

Florida Engineering  
Society (FES)

Florida Institute of  
Consulting Engineers  
(FICE)  
Transportation Committee

American Society of  
Highway Engineers  
(ASHE)

**SR 514 (Malabar Road) PD&E Study from SR 507 (Babcock Street) to US 1**, Brevard County, Florida. Senior Geotechnical Engineer for the preliminary geotechnical investigation of the potential 20 stormwater pond alternative sites within this project. This information was used to aid in the initial planning and design for the widening of SR 514 from two-lanes to a four-lane facility, which included evaluation of a potential realignment of a section of SR 514.

### **S.R. 40 PD&E Re-evaluation from U.S. 17 to Cone Road**, Volusia County, Florida

Senior Geotechnical Engineer for the proposed improvements to an approximately 11 mile long section of SR 40 which included widening the existing two lane rural roadway to a four-lane divided rural roadway and 19 preferred stormwater pond sites and 3 preferred floodplain compensation pond sites.

**S.R. 528 PD&E Study from S.R. 520 to Terminal B Interchange**, Brevard/Orange Counties, Florida. Senior Project Engineer for geotechnical investigation to aid design and construction of roadway, bridges and ponds for proposed alternatives. The project length was 23 miles and included 15 bridge/box culvert structures, as well as numerous stormwater ponds.

**S.R. 482 PD&E Study**, Orlando, Orange County, Florida. Senior Geotechnical Engineer for the geotechnical investigation for this PD&E project which included the widening (4 to 6 lanes) for 4 miles of roadway alignment, 10 potential pond alternates and 5 bridge widenings (including Kirkman Road and Shingle Creek bridges.)

**I-4 PD&E Study**, Orange, Seminole and Volusia Counties, Florida. Senior Project Engineer for geotechnical investigation for 43 mile section of I-4. Project consisted of preliminary geotechnical investigation for over 100 potential retention pond areas and miscellaneous proposed roadway areas containing suspect deleterious soils.

**CR 314 Sharpes Ferry Bridge Replacement PD&E Study and Design**, Marion County, Florida. Senior Geotechnical Engineer for proposed 350-foot long replacement bridge. The project also includes 2,000 feet of roadway improvements, retaining walls at the bridge approaches and 2 stormwater ponds.

**City of Leesburg Wildwood Trails PD&E Studies**, Leesburg, Lake County, Florida. GEC performed preliminary geotechnical evaluations along the 7.3 mile Tav-Lee Trail, 4 mile Lee-Wild Trail and 2 mile Gardenia Trail. Portions of the trails are along US 441 through Leesburg and are along abandoned railroad beds.



## Joseph M. Governale, P.G.

Chief Geologist



*At the very foundation of our community*

### Expertise

- Ground Penetrating Radar Surveys
- Electromagnetic Surveys
- Contamination Screening Environmental Evaluations

### Years of Experience

16 years of experience with GEC

### Education

B.S./1997/Geology/  
Georgia Southern  
University

### Licenses:

Professional Geologist  
#2422

### Professional Certifications:

Unexploded Ordnance  
Technician Level I

40-Hour HAZWOPER

### Professional Organizations:

Environmental and  
Engineering Geophysical  
Society

American Society of Civil  
Engineers

American Institute of  
Professional Geologists

Mr. Governale has been a Chief Geologist and Project Manager on numerous geotechnical and environmental projects in Central Florida for over 16 years. He has performed and managed field exploration activities, analyzed the data obtained, and prepared geotechnical and environmental reports for public and private clients. He has also performed Phase I and Phase II Environmental Site Assessments for private clients and Level I Contamination Screening Evaluations and Level 2 Preliminary Contamination Assessments for public clients to evaluate the presence of hazardous or toxic substances and their potential impacts. Mr. Governale also has extensive experience performing Ground Penetrating Radar (GPR) and Electromagnetic (EM) investigations for environmental and geotechnical site evaluations.

**CR 314 Sharpes Ferry Bridge Replacement PD&E Study**, Marion County, Florida. Project Manager who performed a Level 1 Contamination Screening Evaluation and Preliminary Geotechnical Investigation for the proposed Sharpes Ferry Bridge Replacement.

**SR 514 (Malabar Road) PD&E Study from SR 507 (Babcock Street) to US 1**, Brevard County, Florida. Project Manager for the preliminary geotechnical investigation of the proposed stormwater pond alternatives and the Level 1 contamination screening evaluation.

**US 441 PD&E Study from SR 46 to SR 44**, Lake County, Florida. Project Manager for the Level 1 contamination screening evaluation of approximately 2.5 miles of US 441 and associated proposed stormwater pond alternative.

**CR 470 PD&E from I-75 to Lake County Line**, Sumter County, Florida. Project Manager for the preliminary geotechnical evaluation and Level 1 contamination screening evaluation of approximately 9 miles of alternative roadway alignments.

**I-95 St. Johns Heritage Parkway PD&E Study**, Brevard County, Florida. Project Manager for the Level 1 Contamination Screening Evaluation for the proposed roadway alignment, pond alternatives, and new I-95 interchange.

**Commerce Parkway Connector PD&E Study**, Flagler County, Florida. Project Manager for Level 1 Contamination Screening Evaluation for a new roadway alignment and associated stormwater pond sites. The new 1.5-mile alignment extends through undeveloped land to the east of the City of Bunnell between US 1 and SR 100.

**Wekiva Parkway PD&E Study**, Lake, Orange, and Seminole Counties. Project Manager who performed a Level 1 Contamination Screening Evaluation for the Wekiva Parkway corridor.

**SR 50 PD&E Study**, Orange & Lake Counties, Florida. Project Geologist for a Level 1 Contamination Screening Evaluation and Preliminary Geotechnical Investigation for the proposed six-laning of SR 50 from Pine Hills Road in Orange County to west of US 27 in Lake County, a distance of approximately 18 miles.





CONSULTING ENGINEERS, INC.

## KOUROS SASSANI, P.E. Senior Project Engineer, Structures

### EDUCATION

*Kansas State University  
M.S., Structural Engineering (1979) B.S.,  
Civil Engineering (1977)*

### PROFESSIONAL AFFILIATIONS

*American Society of Civil Engineers  
Florida Engineering Society*

### PROFESSIONAL REGISTRATIONS

*Professional Engineer (1983) - Florida, Missouri*

### EXPERIENCE

Mr. Sassani is a senior bridge engineer with over 30 years of experience in all aspects of bridge design, plans production and construction projects. Mr. Sassani has supervised teams of engineers and detailers. He has had overall responsibility for design and plans production for numerous bridge/roadway projects and has been responsible for all phases of production.

Mr. Sassani's project experience includes:

- ◆ **SR 46 over Wildlife Crossing, Lake County, FL** — Served as Design Manager responsible for this Design/Build project, which included a continuous cast-in-place concrete superstructure on deep abutments.
- ◆ **SR 35 (Baseline) and SR 464 over Wildlife Crossings, Marion County, FL** — Served as Bridge Project Engineer responsible for this Design/Build project, which included four AASHTO-type concrete wildlife crossings. Also included in this project were approximately 20,000 square feet of permanent and temporary MSE retaining wall and 23,000 square feet of sound wall.
- ◆ **SR 400 (I-4) Interchange at SR 46, Seminole County, FL** — Served as Bridge Project Manager for this Design/Build project which included two concrete beam bridge widening and one steel girder widening. Also included in this project were numerous MSE retaining walls, soldier pile and lagging walls and overhead sign structures.
- ◆ **SR 9 (I-95) Overland Bridge Replacement Project, Duval County, FL** — Served as Bridge Project Engineer for this Design/Build project which included widening of two concrete beam bridges. One of the bridge widening included twenty spans with complicated geometry and many load rating issues. This project included MSE retaining walls and sound barrier with soft soils.
- ◆ **SR 200 (US 301) in Duval and Nassau Counties FL** — Served as Bridge Project Manager which included replacement of existing Norfolk Southern Railroad bridge utilizing concrete beams and creek crossings with low profile flat slab.
- ◆ **SR 72 Myakka River Bridge Replacement, Sarasota County, FL** — Served as Project Manager responsible for this Cost Saving Initiative (CSI) project. The CSI redesigned the bridge so that it could be built in one phase rather than two phases as originally was designed by utilizing temporary bridge and eliminating complicated and hazardous Maintenance of Traffic and at the same time reducing construction duration.
- ◆ **SR 429 (Wekiva Parkway) At Yothers Road, Orange County, FL** — Served as Bridge Project Manager responsible for this two span connector beam bridge for Orlando Orange County Expressway Authority (OOCEA). This bridge included Haunched prestressed beams and center pier with many aesthetic elements.
- ◆ **Ft. Lauderdale-Hollywood International Airport Expansion, Broward County, FL** — Provided peer review for this \$190M D/B project which included extension of runway and taxiway over US 1 and FEC Railroad. The runway and taxiway extension bridges accommodated aircraft landing and taxiing directly on the bridges. Also include in the project were retaining walls with poor soils and high settlement.

## KOUROS SASSANI, P.E. (Continued)

- ◆ **SR 35 and SR 44 over CSX Railroad, Sumter County, FL**— Served as Bridge Project Manager responsible for production of these two Design/Build projects, which included long span AASHTO beams on a curve with severe skews. Also included in this project were approximately 120,000 square feet of retaining wall. This project received the 2011 Design/Build “Best in Construction” award from FTBA.
- ◆ **SR 528 and SR 436 Interchange, Orange County, FL** — Served as Design Manager responsible for this Design/Build project, which included two new, curved/skewed steel box girder bridges and three AASHTO-type concrete bridge widening.
- ◆ **SR44/I-4 Interchange, Volusia County, FL** — Responsible for the design of the two span continuous spliced-girders bridge which utilized post-tensioning.
- ◆ **SR 60A over CSX Railroad & Polk Street, Polk County, FL** — Served as Design Manager responsible for this VECP project which included long span AASHTO beams on severe skews. The VECP, which involved challenging MOT and construction sequencing, saved the department significant time and money. Also included in this project were approximately 53,000 square feet of retaining wall. This project received the 2003 “National Value Engineering Award” from AASHTO for most innovative proposal in construction.
- ◆ **SR 93 (I-275) Reconstruction from Roosevelt Blvd. To 4<sup>th</sup> St., Pinellas County, FL**— Served as Bridge Design Manager for this VECP project, which included the design of a two span, curved/skewed steel girder bridge and two prestressed concrete bridges. The VECP for this project saved the FDOT over \$2,000,000.
- ◆ **SR 93 (I-75) over Panasoffkee Creek, Sumter County, FL**— Served as Design Manager for the Design/Build widening of the 4484’ long concrete bridge carrying I-75 over Lake Panasoffkee. Innovative design solutions developed by Mr. Sassani helped the contractor bid this bridge approximately 30% less than the FDOT’s budget. This project received the 2003 Design/Build “Best in Construction” award from FTBA.
- ◆ **SR 400 (I-4) St. Johns River Bridge Replacement and Six Laning, Volusia and Seminole County, FL** — Served as Design Manager for a portion of this Design/Build project that included approximately 5,000 feet of retaining wall.
- ◆ **CR 419 and Snow Hill Road over the Econlockhatchee River, Seminole County, FL** — As Project Manager, responsible for plans production and permit coordination. These two projects included the replacement of existing bridges crossing the Econlockhatchee River with new AASHTO-type concrete bridges.
- ◆ **97<sup>th</sup> Avenue over SR 836, Miami, FL** — As Project Manager, responsible for the design and plans development of this 1,160-foot long prestressed concrete bridge and its roadway approaches.
- ◆ **Rosalind Avenue Bridge, Orlando, FL** — Project Engineer responsible for structural design of this flat slab bridge, recipient of the 1992 PCA Award of Excellence.
- ◆ **I-4/Conroy Road Interchange, Orlando, FL** — Bridge Engineer responsible for the design of this 324-foot, two span steel box girder bridge.
- ◆ **West Virginia Route 17 Connector, Logan County, WV** — Served as Design Engineer for curved steel girder bridge utilizing drilled shaft and spread footing foundations. The superstructure utilized “High Performance Steel” with spans up to 228 feet in length. For this project MDX software (grid analysis) was utilized due to curvature and skew of the bridge.
- ◆ **I-4/Conroy Road Interchange – Bridge Towers, Orange County, FL** — As Project Manager, responsible for this Design/Build project with Hubbard Construction Company. The aesthetic bridge towers adjacent to the I-4/Conroy Road Bridge will serve as the “Gateway to Orlando” for people entering Orlando via I-4 from the south.



**CONSULTING ENGINEERS, INC.**

## **KEVIN B. FISCHER, P.E.** **Senior Bridge Engineer, Structures**

### **EDUCATION**

*University of Florida  
M.E., Structural Engineering (1999) B.S., Civil  
Engineering (1997)*

### **PROFESSIONAL AFFILIATIONS**

*American Society of Civil Engineers*

### **PROFESSIONAL REGISTRATIONS**

*Professional Engineer (2003) - Florida*

### **EXPERIENCE**

Mr. Fischer has 15 years' experience in bridge design and plans production. Design assignments have included Florida-I Beams, AASHTO girders, steel plate girders, steel box girders, concrete segmental box girders, bridge widenings, shallow and deep end bents, cantilevered piers, multi-column piers, straddle bent piers, sheet pile wall design, retaining wall design, steel H-pile design, box culvert design, spread footings, span signs and cantilever signs. Mr. Fischer has been responsible for preparing Bridge Letter Reports and Bridge Development Reports. Construction assignments have included shop drawing review, and design support during construction of projects.

Mr. Fischer's project experience includes:

◆ **SR 429, Wekiva Parkway 1A, Orange County, FL** — Served as Bridge Project Engineer responsible for production of proposed Yothers Road over SR 429. The two-span structure included complex aesthetic enhancements such as haunched rectangular prestressed concrete beams, an arched pier cap and reveals cast into the pier columns.

◆ **Overland Bridge — I-95 (SR 9) Overland Bridge Replacement, Duval County, FL** — Served as Bridge Engineer responsible for substructure design and superstructure design and load rating for this design/build project. This project included the widening to both sides of a 20 span concrete bridge with Florida—I Beams on a curve with sever skewers.

◆ **SR 200 (US 301) from MP 11.245 to MP 14.978, Duval and Nassau County, FL** — Served as Bridge Project Engineer responsible for production of this design/build project, which included a Florida- beam twin replacement bridges over Norfolk Southern Railroad and phased construction of a flat slab bridge over Funks Creek Branch. Also responsible for the production of extension or new design of 13 one and three-celled concrete box culverts.

◆ **SR 400 (I-4) Interchange at SR 46, Seminole County, FL** — Served as Bridge Engineer responsible for substructure design and superstructure design and load rating for two AASHTO-type concrete bridge widenings of this design/build project. Also responsible for the design of 11 cantilever and span signs.

◆ **SR 72 over Myakka River, Sarasota County, FL** — Served as Design Engineer for this 14 span Cast-in-Place concrete bridge replacement. Project included the use of a temporary bridge structure during construction to provide safe and efficient MOT. Also included in this project were approximately 25,000 square feet of permanent steel sheet pile wall.

◆ **Reedy Creek Improvement District Water Control Structure Inspection, Walt Disney World Resort, FL** — Served as Structural Engineer responsible for annual surface visual inspection of 22 sluice gate, amil gate or weir water control structures.

## **KEVIN B. FISCHER, P.E. (Continued)**

◆ **SR 9B over Powers Bay Relief, Duval County, FL** — Served as Bridge Engineer responsible for all bridge design, checking bridge geometry calculations, and performing load ratings of this design/build project, which included twin Florida-I Beam bridges.

◆ **SR 35 (Baseline) and SR 464 over Wildlife Crossings, Marion County, FL** — Performed superstructure and substructure design calculations and load rating calculations, as well as checked bridge geometry for this design/build project, which included four AASHTO-type concrete wildlife crossings.

◆ **SR 35 and SR 44 over CSX Railroad, Sumter County, FL** — Served as Bridge Engineer responsible for superstructure and substructure design, checking bridge geometry calculations, and performing load rating of this design/build project which included long span AASHTO beams on a curve with severe skews. This project received the 2011 Design/Build “Best in Construction” award from FTBA.

◆ **Narcoossee Road over Canal 29B, Osceola County, FL** — Performed all superstructure and substructure design calculations for this project, which included a continuous cast-in-place concrete superstructure constructed in multiple phases.

◆ **SR 408 Widening over Cosmos Drive and Goldenrod Road, Orange County, FL** — Checked all bridge geometry and superstructure and substructure design calculations for this project which included four AASHTO-type concrete bridge widenings. Also included control drawings for the cladding and pylon aesthetic enhancements at both sites.

◆ **S.R. 836 Extension over Florida’s Turnpike, Miami-Dade Expressway Authority, and Miami, FL**— Designed curved steel box girders, field splices, reinforced concrete circular pier column at integral intermediate pier and spread footing, and checked design of integral post-tensioned pier diaphragm and checked plan sheets for Ramp F over H.E.F.T. Checked plan sheets and Florida U-beam design for Ramp F over NW 107<sup>th</sup> Avenue.

◆ **SR 408 Widening, Contract 253C, Orlando- Orange County Expressway Authority, Orlando, FL** — Served as Structural Project Engineer responsible for S.R. 408 Widening at Andes Avenue, the widening included two parallel 170 ft. long three span AASHTO beam bridges which were founded on a combination of prestressed concrete pile bents and piers founded on prestressed concrete piles. Both bridges were enhanced with a series of aesthetic cladding walls.

◆ **Hathaway Bridge Replacement Design-Build Project, FDOT, Panama City, FL** — Computed bridge geometry, future post-tensioning layout, oversaw production of corresponding plan sheets, performed transverse load rating, determined transverse post-tensioning elongations, investigated live load distribution to pier segment diaphragms, and checked the transverse analysis, modeling of the erection sequence and modeling of substructure for the ship impact study on an \$81 million design/build project. The twin bridges were approximately 3,800 feet long, each with a single segmental concrete box that is over 80- feet wide and has no internal supports.

◆ **I-4/S.R. 408 Interchange, FDOT, Orlando, FL** — Designed one span of curved and non-uniformly spaced box girders, straddle intermediate bents, cantilever intermediate bents, and hammerhead intermediate bents, and responsible for production of pier plan sheets for I-4/S.R. 408 Interchange Ramp D/D1, an intricate 2700 ft. long multi-span flyover ramp including Florida U-beams and steel box girders.

◆ **S.R. 408 Widening Contract 253B, Orlando- Orange County Expressway Authority, Orlando, FL** — Authored Bridge Letter Reports, delegated and managed all design tasks, coordinated all plans preparation, oversaw schedule and budget for S.R. 408 Widening over Crystal Lake Drive and S.R. 408 Widening over Lake Underhill Road. Both bridges are widenings of existing AASHTO girder bridges, including one with severely skewed geometry.



# Steve Kuda, PSM, PHO

## Sr. Vice President / Project Director

### Responsibility:

As Senior Vice President of Aerial Cartographics of America, Inc., Mr. Kuda is responsible for directing ACA's department managers with detailed project criteria, technical specifications, cost estimating, project planning, scheduling, quality control guidelines and serving as a client liaison. Mr. Kuda's 39 years of Photogrammetric and surveying experience have been essential to the growth and success of the company.

### Relevant Experience as Project Manager:

#### **SR 471 Resurfacing Project, Sumter County, Florida**

*Florida Department of Transportation – District 5*

Mr. Kuda was the project director for the collection of Mobile LiDAR for this pavement resurfacing project on SR 471 for 5.2 miles north from the Polk County Line using our Riegl VMX-450 Laser Scanning System. The project consisted of collection and processing of mobile LiDAR in accordance with the latest FDOT Terrestrial Mobile LiDAR Guidelines. Deliverables included calibrated LiDAR point cloud tiled in LAS format, DTM and planimetric topographic survey files in Civil 3D format, digital geo-referenced color imagery and field survey /trajectory accuracy report.

#### **SR 15 Resurfacing & Pavement Evaluation Project, Orange County, Florida**

*Florida Department of Transportation – District 5*

Mr. Kuda was the project director for the collection of Mobile LiDAR for this pavement resurfacing and evaluation project on SR 15 from Lee Road to south of East Lake Avenue using our Riegl VMX-450 Laser Scanning System. This 1.1 mile project consisted of collection and processing of mobile LiDAR in accordance with the latest FDOT Terrestrial Mobile LiDAR Guidelines. Deliverables included calibrated LiDAR point cloud tiled in LAS format, planimetric topographic survey files in Civil 3D format, digital geo-referenced color imagery and field survey /trajectory accuracy report.

#### **I-75 Widening from North of SR 52 to Pasco/Hernando Co. Line - Design Build, Pasco County, Florida**

*Florida Department of Transportation – District 7*

Mr. Kuda was the project director for the collection of Mobile LiDAR for this 7.7 mile design build project on I-75 using our Riegl VMX-450 Laser Scanning System. This project consisted of collection and processing of mobile LiDAR in accordance with the latest FDOT Terrestrial Mobile LiDAR Guidelines. Deliverables included calibrated LiDAR point cloud tiled in LAS format; DTM and planimetric topographic survey files in Microstation format; digital geo-referenced color imagery; and bridge clearance and field survey /trajectory accuracy reports.

#### **SR 417 Project Orlando, Florida**

*Florida Department of Transportation – Turnpike Authority*

Mr. Kuda was the project director for the collection of Mobile LiDAR for a pavement resurfacing project on the US 417 from Interstate 4 to approximately one mile south of John Young Parkway. The project consisted of collection and processing of mobile LiDAR data and collecting and processing Global Positioning System (GPS) surveying data along the project area for quality control.



### Licenses:

No.5419  
State of Florida Professional  
Surveyor & Mapper

No.24077  
State of South Carolina  
Licensed  
Photogrammetrist

### Professional Organizations:

American Society of  
Photogrammetry (ASPRS)

Mgmt. Assoc. for Private  
Photogrammetric  
Surveyors (MAPPS)

Florida Surveying and  
Mapping Society (FSMS)

### Hire Date

February 1981

### Years of Experience

39 years

# Steven Kuda, PSM, PHO

## Project Experience Continued

### **SR 400 (I-4) PD&E Study; SR 400 (I-4) from West of US 27 to West of Kirkman Rd. and from one mile East of SR 434 to one half mile East of SR 472**

*Florida Department of Transportation – District 5*

ACA was selected by HNTB for this FDOT District 5 PD&E study which encompassed 4 central Florida counties. The project included additional imagery coverage along all major intersections along the alignment. The aerial flight was accomplished shortly after notice to proceed. Analytical aerial triangulation was performed to create the additional tie points needed to mosaic and control the aerial imagery. The film was scanned to produce a six inch pixel image suitable for 1" = 100' scale color imagery. Photogrammetric software was used to geo-reference the raster imagery. This imagery will be supplied in HMR format on DVD-ROM disks.

### **Poinciana Parkway PD&E Study**

*Florida Department of Transportation – District 5*

ACA was selected by CH2M Hill to provide 1" = 200', 1" = 400' and 1" = 1000' scale color TIFF/TFW and HMR aerials for Poinciana Parkway PD&E Study. The Imagery was collected with one of our two Leica RC-30 large format film cameras. The imagery was processed in our INPHO/Ortho Vista workstation platform utilizing direct geo-referencing ABGPS/IMU data collected during the flight mission and provided ground control.

### **NE 25th and 36th Avenue PD&E Study**

*Florida Department of Transportation – District 5*

ACA was selected by Metric Engineering to provide 1"=100' and 1"=400' scale color imagery of NE 25<sup>th</sup> Ave. and NE 36<sup>th</sup> Ave. in Marion County Florida. The Imagery was collected with one of our two Leica RC-30 large format film cameras. The imagery was processed in our INPHO/Ortho Vista workstation platform utilizing direct geo-referencing ABGPS/IMU data collected during the flight mission and ground control. Aerial Triangulation was performed to expand the horizontal control to each corner of the image.



# Mitchell Jarrells, PSM

## Project Manager

### Responsibility:

Mr. Jarrells is a licensed Professional Surveyor and Mapper in Florida and Alabama and is in responsible charge of all ACA Mobile LiDAR projects. He has over 14 years of active surveying experience and is an early adopter of the LiDAR technology. He is an expert in Mobile and Airborne LiDAR processing and has extensive knowledge and experience in many aspects of surveying, including boundary, topographic, hydrographic and roadway surveys. Mitch has developed and implemented the operational procedures and QA/QC required for successful Mobile LiDAR missions. He manages a staff of skilled technicians all cross trained and knowledgeable of both traditional surveying and LiDAR processing software. These include the following: RiPrecision, ReAcquire, Survey GPS, Laser Scanner, AutoCAD, MicroStation, Carlson Survey Software, TDS Software, Trimble Controller, Grafnet GPS processing software, and basic Terra Mode.

### Relevant Experience:

#### **SR 471 Resurfacing Project, Sumter County, Florida**

*Florida Department of Transportation – District 5*

Mr. Jarrells was the project manager for the collection of Mobile LiDAR for this pavement resurfacing project on SR 471 for 5.2 miles north from the Polk County Line using our Riegl VMX-450 Laser Scanning System. The project consisted of collection and processing of mobile LiDAR in accordance with the latest FDOT Terrestrial Mobile LiDAR Guidelines. Deliverables included calibrated LiDAR point cloud tiled in LAS format, DTM and planimetric topographic survey files in Civil 3D format, digital geo-referenced color imagery and field survey /trajectory accuracy report.

#### **SR 15 Resurfacing & Pavement Evaluation Project, Orange County, Florida**

*Florida Department of Transportation – District 5*

Mr. Jarrells was the project manager for the collection of Mobile LiDAR for this pavement resurfacing and evaluation project on SR 15 from Lee Road to south of East Lake Avenue using our Riegl VMX-450 Laser Scanning System. This 1.1 mile project consisted of collection and processing of mobile LiDAR in accordance with the latest FDOT Terrestrial Mobile LiDAR Guidelines. Deliverables included calibrated LiDAR point cloud tiled in LAS format, planimetric topographic survey files in Civil 3D format, digital geo-referenced color imagery and field survey /trajectory accuracy report.

#### **I-75 Widening from North of SR 52 to Pasco/Hernando Co. Line - Design Build, Pasco County, Florida**

*Florida Department of Transportation – District 7*

Mr. Jarrells was the project manager for the collection of Mobile LiDAR for this 7.7 mile design build project on I-75 using our Riegl VMX-450 Laser Scanning System. The project consisted of collection and processing of mobile LiDAR in accordance with the latest FDOT Terrestrial Mobile LiDAR Guidelines. Deliverables included calibrated LiDAR point cloud tiled in LAS format; DTM and planimetric topographic survey files in Microstation format; digital geo-referenced color imagery; and bridge clearance and field survey /trajectory accuracy reports.

#### **SR 417 Project Orlando, Florida**

*Florida Department of Transportation – Turnpike Authority*

Mr. Jarrells was the project manager for the collection of Mobile LiDAR for a pavement resurfacing project on the US 417 from Interstate 4 to approximately one mile south of John Young Parkway. The project consisted of collection and processing of mobile LiDAR data and collecting and processing Global Positioning System (GPS) surveying data along the project area for quality control.



### Licenses:

No.6438  
State of Florida Professional  
Surveyor & Mapper

No. 26521  
State of Alabama  
Professional Surveyor &  
Mapper

### Education:

B.S. University of Florida,  
1997

A.A., A.S, Gadsden State  
Community College  
1994

### Hire Date

April, 2013

### Years of Experience

14 years

# Mitch Jarrells, PSM

## Project Manager

### **SR 400 (I-4) PD&E Study; SR 400 (I-4) from West of US 27 to West of Kirkman Rd. and from one mile East of SR 434 to one half mile East of SR 472**

*Florida Department of Transportation – District 5*

ACA was selected by HNTB for this FDOT District 5 PD&E study which encompassed 4 central Florida counties. The project included additional imagery coverage along all major intersections along the alignment. The aerial flight was accomplished shortly after notice to proceed. Analytical aerial triangulation was performed to create the additional tie points needed to mosaic and control the aerial imagery. The film was scanned to produce a six inch pixel image suitable for 1" = 100' scale color imagery. Photogrammetric software was used to geo-reference the raster imagery. This imagery will be supplied in HMR format on DVD-ROM disks.

### **Poinciana Parkway PD&E Study**

*Florida Department of Transportation – District 5*

ACA was selected by CH2M Hill to provide 1" = 200', 1" = 400' and 1" = 1000' scale color TIFF/TFW and HMR aerials for Poinciana Parkway PD&E Study. The Imagery was collected with one of our two Leica RC-30 large format film cameras. The imagery was processed in our INPHO/OrthoVista workstation platform utilizing direct geo-referencing ABGPS/IMU data collected during the flight mission and provided ground control.

### **NE 25th and 36th Avenue PD&E Study**

*Florida Department of Transportation – District 5*

ACA was selected by Metric Engineering to provide 1"=100' and 1"=400' scale color imagery of NE 25<sup>th</sup> Ave. and NE 36<sup>th</sup> Ave. in Marion County Florida. The Imagery was collected with one of our two Leica RC-30 large format film cameras. The imagery was processed in our INPHO/OrthoVista workstation platform utilizing direct geo-referencing ABGPS/IMU data collected during the flight mission and ground control. Aerial Triangulation was performed to expand the horizontal control to each corner of the image.



## Employment

**SOUTHEASTERN SURVEYING AND MAPPING CORPORATION**  
**Project Surveyor**

**Florida**  
**Years Employed (2012-Present)**

Mike has over **40 years** of Professional Surveying and Mapping experience. Michael's responsibilities include research, reconnaissance, coordination and scheduling for a variety of projects including all aspects of surveying and field application, to include Topographic, Boundary, As-Built, Control, Hydrographic, and Quantity Surveys, Construction Layout, Land Platting and Special Purpose or Miscellaneous Services, Easement Drawings, Survey Support for Aerial Photography and Mapping Projects, Right-of-Way Mapping, and Legal Description Preparation

**JONES, WOOD & GENTRY, INC. / Sr. Project Surveyor / Project Manager (1978-1990) / Orlando, FL** (1978-2012)

**VARIOUS OTHER FIRMS / Survey Manager / Orlando, Florida** (1974-1978)

## Relevant Project Experience:

### Lake County

- SR 25/US 27 from Boggy Marsh Rd. to Lake Louisa Rd., Topographic Survey, Utility Location, FDOT D-5, as Sub-Consultant 2013
- SR 429/Wekiva Pkwy. 4B Orange County Line to West of Old McDonald, Right-of-Way Survey & Mapping, FDOT D-5 2013
- Final Monumentation for SR 500, Set Right-of-Way & Reference Monumentation on the FDOT Right-of-Way Map for SR 500/US 441 (.80 mi.), FDOT D-5 2013

### Lake/Orange Counties

- SR 429/Wekiva Pkwy. US 441 to SR 46 (12 mi.), Design Survey, Utility Designation/ Location, FDOT D-5, as Sub-Consultant 2014

### Sumter County

- SR 93/I-75, From South of County Rd. 470 to South of Florida Turnpike Alignment Retracement, Right-of Way Surveys, Parcel Acquisition Descriptions & Right-of-Way Mapping, FDOT D-5 2014

### Bay County

- Jenks Ave. from 23<sup>rd</sup> St. to Baldwin, Design Topographic Survey, FDOT D-3, as Sub-Consultant 2014

### Brevard County

- SR 3/North Courtenay Pkwy. (.9 mi.), Topographic Survey, FDOT D-5 2013
- SR 507 from Malabar Rd. to Palm Bay Rd. (11,876 LF), Subsurface Utility Designation/Location with Drainage Survey, Quality Assurance/Quality Control (QA/QC) FDOT D-5, as Sub-Consultant 2013
- Nasa Blvd. Realignment at Wickham Rd. & Ellis Rd. (0.75 mi.), Right-of-Way Mapping, FDOT D-5 2013

### Citrus County

- Citrus County CR 491 Highway Improvements, Prepare Legal Descriptions 2014

### Flagler County

- SR 5/US 1 Design Survey at Stables & Church (1.2 mi.), Supplemental Design Survey w/Utility: Horizontal/Vertical Project Control; Topography/DTM (3D); Roadway Cross-Sections/Profiles; Subsurface Utility Designation/Location (Test Holes) w/Survey Collection; Work Zone Safety; Quality Control/Assurance; Supervision; Coordination, FDOT D-5 2014
- I-95/Matanzas Woods Pkwy. Interchange Design Hammock Bridge Park Improvements (7.5 ac), Right-of-Way Mapping to include: Design Survey, Horizontal & Vertical Control, Utility Designation/Location, Jurisdictional Line Survey, Subdivision Location, FDOT D-5, as Sub-Consultant 2014
- SR 5/US 1 Right-of-Way Staking at Aldenham Lane (1.2 mi), Rough Staking of US 1/SR 5 Right-of-Way at Aldenham Lane, includes: Subdivision corner location and Section work, FDOT D-5 2012

### Hillsborough County

- US 41/SR 585 (21<sup>st</sup> St. & 22<sup>nd</sup> St.) from SR 60 to SR 600 (3 mi.), Design Survey for Roadway Improvements: Horizontal/Vertical Project Control; Alignment & Existing Right-of-Way lines; Topography/DTM (3D); Roadway Cross Sections/Profiles; Drainage Survey; Work zone safety; Field reviews; Technical meetings; Quality Control/Assurance; Supervision; Coordination, FDOT D-7, as Sub-Consultant 2014

# Michael L. Dougherty, PSM

1990 Florida Registration LS4841

## Hillsborough County continued.

- SR 60/Adamo Dr., 22nd St. to West of 50th St. (2 mi.), Topographic Survey, Utility Location, FDOT D-7, as Sub-Consultant 2013

## Marion County

- SR 40 Widening & Rehabilitation (4.89 mi), Utility Designation/Location, Horizontal Control, Vertical PC/Bench Line, Topographic Survey/DTM (3D), Drainage Survey, Channel Survey, Pond Site Survey, Jurisdiction Line Survey, Geotechnical Support, Water Boundary Survey, Miscellaneous & Supplemental Surveys, FDOT D-5, as Sub-Consultant 2014
- Belleview Bypass (Southeast 92<sup>nd</sup> Loop), Design Survey, Right-of-Way Mapping, FDOT D-5, as Sub-Consultant 2014
- SR 35/Baseline Rd. Design Build (5.7 mi.), Design Survey, FDOT D-5, as Sub-Consultant 2013

## Orange County

- SR 50 Widening (5.1 mi.), Supplemental Design Survey, FDOT D-5, as Sub-Consultant 2014
- SR 429/Wekiva Pkwy. Sections 4A and 4B US 441 to SR 46 (9 mi out of 12 mi), Design Survey, Subsurface Utility Engineering, Control, Aerial Targets, Cross-Sections/Profiles, Side Street Surveys, Drainage and Pond Site Surveys, Jurisdiction Line Survey, Geotechnical Support, Supervision & Coordination, FDOT D-5, as Sub-Consultant 2014
- SR 530/US 192 from Lake County line to East of Secret Lake Dr., Design Build Survey, Utility Location, FDOT D-5, as Sub-Consultant 2014
- I-4 Slip Ramp & Buena Vista Blvd. Interchange (3,400 LF), Design Survey, Reedy Creek Improvement District (RCID), as Sub-Consultant 2014
- City of Altamonte Springs-Altamonte Springs to Apopka Reclaimed Water Transmission Main, Design Topographic Survey with Utility, as Sub-Consultant 2014
- RCID-Buena Vista Blvd. (2 mi), Design Survey, Utility Location, as Sub-Consultant 2014
- RCID-I-4 Slip Ramp & Buena Vista Blvd. Interchange (3,400 LF), Design Survey, as Sub-Consultant 2014
- Realigned Apopka Vineland to Palm Pkwy. Connector, Descriptions/Sketches, as Sub-Consultant 2014
- Aulin Ave. Improvements (1,400 LF), Topographic Survey, Utility Location, City of Orlando, as Sub-Consultant 2014
- SR 400/Lake Fair Lane, I-4 P3 Initiative, Boundary Survey, FDOT D-5, as Sub-Consultant 2014
- SR 429/Wekiva Pkwy. 4A CR 435 to Lake County Line, Right-of-Way Survey and Mapping, FDOT D-5 2013
- Heritage Park, ALTA/ACSM Survey, as Sub-Consultant 2013

## Seminole County

- CR 46A, Design Survey & Right-of-Way Mapping, as Sub-Consultant 2014
- CR 46A Sidewalk (0.75 mi.), Right-of-Way Mapping, Control Survey, Seminole County, as Sub-Consultant 2014
- Galloway Dr. Realignment, Design Survey, City of Altamonte, as Sub-Consultant 2014
- Wilbur Ave., Topographic Survey, Utility Location, City of Lake Mary, as Sub-Consultant 2014

## Volusia County

- SR 600 Pedestrian Safety Improvements, Control Survey Map, Right-of-Way Map & Legal Descriptions, FDOT D-5 2014
- Daytona Ave. Bridge Replacement-Holly Hill (300 LF), Design Survey, FDOT D-5, as Sub-Consultant 2014
- Turnball Bay Bridge Replacement (1 mi.), Topographic Survey, Right-of-Way Mapping, Utility Location, Volusia County, as Sub-Consultant 2014
- SR 421-From East of I-95/SR 9 to East of SR 5A/Nova Rd., Design Survey, Utility Location, FDOT D-5 2013

## Washington County

- SR 77-North Wausau to CR 276-Multi-lane, Design Survey, FDOT D-3, as Sub-Consultant 2014

## Education:

Valencia Community College, Surveying and Mapping Courses, Orlando, FL; Florida Technical University, Various Courses, Tampa, FL; and Continuing Education for Licensing Requirements

## Professional Organization Membership:

Central Florida Chapter of the Florida Surveying and Mapping Society; Florida Surveying and Mapping Society; Florida Society of Professional Land Surveyors; and Central Florida Chapter of the FSPLS

## Employment

**SOUTHEASTERN SURVEYING AND MAPPING CORPORATION**  
**Senior Vice President / Survey Project Manager**

**FLORIDA**  
**Years Employed (1981-Present)**

Jim has over **36 years** of Professional Surveying and Mapping Services experience. Jim's extensive experience has involved all aspects of Surveying and Mapping Services to include Design and Right-of-Way Mapping Surveys, Boundary and Topographic Surveys, Survey Support for Aerial Photography and Mapping Projects and Subsurface Utility Designation/Location using Conventional Methods and Ground Penetrating Radar (GPR) and serves on the management team for resource planning and business development.

**HARLING, LOCKLIN AND ASSOCIATES, INC. / Survey Technician / Orlando, Florida (1979-1981)**

**POST, BUCKLEY, SCHUH & JERNIGAN / Survey Draftsman / Orlando, Florida (1978-1979)**

## Sample Recent Project Experience:

### Lake County

- Wekiva Pkwy. Sections 4A & 4B, Topographic Survey, Utility Designation/Location, FDOT D-5, as Sub-Consultant 2014
- SR 25/US 27 from Boggy Marsh Rd. to Lake Louise Rd., Topographic Survey w/Utilities, FDOT D-5, as Sub-Consultant 2013
- SR 429/Wekiva PKWY. 4B-Orange County line to West of Old McDonald, Right-of-Way Surveying & Mapping, FDOT D-5 2013
- SR 500, Set Right-of-Way & Reference Monumentation, FDOT D-5 2013

### Lake/Orange Counties

- SR 429/Wekiva Parkway US 441 to SR 46 (12 mi.), Design Services, Utility Designation/Location, Horizontal & Vertical Control, Aerial Targets, Roadway Cross-Sections/Profiles, Side Streets Surveys, Drainage Survey, Pond Site Survey, Jurisdiction Line Survey, as Sub-Consultant 2014

### Brevard/ Volusia Counties

- SR 9/I-95 Widening, From SR 46 to Brevard County & Volusia County Line Design Build (8.8 mi.), Topographic Survey, Retention & Drainage As-Built Survey, Utility Designation/Location, as Sub-Consultant 2013
- I-95 Design Build (12.3 mi.), Topographic Survey, As-Built Survey, Utility Designation/Location, as Sub-Consultant 2012

### Flagler County

- I-95/Matanzas Woods Pkwy. Interchange Design Hammock Bridge Park Improvements (7.5 ac), Design Survey, Horizontal & Vertical Control, Utility Design./Location, Jurisdictional Line Survey, Subdivision Location, as Sub-Consultant 2013
- Hammock Bridge Park Improvements (7.5 ac)(DW-ETDM), Design Survey w/Utility: Horizontal/Vertical Control Topography/DTM (3D); Underground Utilities; Jurisdictional Line Survey; Subdivision Location; Work Zone Safety; Field Reviews; Quality Control/Assurance; Supervision; Coordination, FDOT D-5, as Sub-Consultant 2012

### Marion County

- SR 40 Widening & Rehabilitation (4.89 mi.), Utility Designation/Location, Horizontal Control, Vertical PC/Bench Line, Topographic Survey/DTM (3D), Drainage Survey, Channel Survey, Pond Site Survey, Jurisdiction Line Survey, Geotechnical Support, Water Boundary Survey, Miscellaneous & Supplemental Surveys, FDOT D-5, as Sub-Consultant 2014
- Belleview Bypass/Southeast 92<sup>nd</sup> Loop, Topographic Survey, Right-of-Way Surveying & Mapping, FDOT D-5, as Sub-Consultant 2014
- SR 35/Baseline Rd. Design Build (5.7 mi.), Design Survey Recover / Check Project Control, Topographic Survey, SUE from CR 464 to SR 40, SSMC performed Post Design Survey Services, as Sub-Consultant 2013

### Orange County

- SR 50 Widening (5.1 mi.), Design Survey, FDOT D-5, as Sub-Consultant 2014
- SR 530/US 192 from Lake County Line to East of Secret Lake Dr., Design Build Survey, Utility Location, FDOT D-5, as Sub-Consultant 2014
- I-4 Slip Ramp & Buena Vista Blvd. Interchange (3,400 LF), Design Survey, Reedy Creek Improvement District (RCID), as Sub-Consultant 2014

### Orange County Continued

- Aulin Ave. Improvements (1400 LF), Topographic Survey, Utility Location, City of Orlando, as Sub-Consultant 2014
- Lake Pickett Rd. to North Tanner Rd. Intersection Improvements, Design Survey, Utility Location, Orange County, as Sub-Consultant 2014
- RCID-Buena Vista Blvd. (2 mi), Design Survey, Utility Location, as Sub-Consultant 2014
- Realigned Apopka Vineland to Palm Pkwy. Connector, Descriptions/Sketches, Design Survey, as Sub-Consultant 2014

# James L. Petersen, PSM

1990 Florida Registration #4791

- Signal Design at Palm Pkwy. & Lake St., Design Survey, Utility Location, Orange County, as Sub-Consultant 2014
- Wekiva Pkwy. Section SR 429-205, Segment 2A, Design Survey, Utility Designation/Location, Orlando Orange County Expressway Authority (OOCEA), as Sub-Consultant 2014
- SR 400 at Conroy Rd., Topographic Survey, FDOT D-5, as Sub-Consultant 2013
- SR 429/Wekiva Pkwy. 4A CR 435 to Lake County Line, Right-of-Way Survey & Mapping, FDOT D-5 2013
- SR 429/Wekiva Pkwy, Segment 2A, Design Survey, Utility Designation/Location, FDOT D-5, as Sub-Consultant 2013

## **Seminole County**

- CR 46A, Design Survey, Right-of-Way Mapping, Seminole County, as Sub-Consultant 2014
- Alafaya Woods Blvd. Ditch Replacement (1500 LF), Topographic Survey, Utility Location, City of Oviedo, as Sub-Consultant 2014
- Alafaya Woods Blvd., Mitchell Hammock Rd. Turnlane Improvement, Topographic Survey, Utility Location, City of Oviedo, as Sub-Consultant 2014
- Galloway Dr. Realignment, Design Survey, Utility Location, City of Altamonte Springs, as Sub-Consultant 2014
- Wilbur Ave., Topographic Survey, Utility Designation/Location, City of Lake Mary, as Sub-Consultant 2014
- Wymore Rd. Improvements, Design Survey, Seminole County, as Sub-Consultant 2014
- SR 15/600/US 17-92 Widening-Shepard Rd. to Lake Mary Blvd., Design Survey, Utility Designation/Location, as Sub-Consultant 2013
- SR 400/I-4 at SR 46 Interchange Design Build, Design Survey, Utility Designation, as Sub-Consultant 2013

## **Volusia County**

- Daytona Ave. Bridge Replacement-Holly Hill (300 LF), Design Build Survey, Topographic Survey, FDOT D-5, as Sub-Consultant 2014
- Turnball Bay Bridge Replacement (1 mi.), Topographic Survey, Right-of-Way Mapping, Descriptions/Sketches, Utility Designation/Location, Volusia County, as Sub-Consultant 2014
- SR 421-From East of I-95/SR 9 to East of SR 5A/Nova Rd., Design Survey, Utility Location, FDOT D-5 2013
- SR 600/US 92 from Nova Rd. to Beach St., Design Topographic Survey, FDOT D-5 2013
- SR 5/US 1, North of Hernandez Ave. to pavement change North of SR 5A, Design Survey, Utility Location, FDOT D-5 2012
- SR 40 from SR 11 to Cone Rd. (11 mi.), Utility Designation/Location, Topographic Survey, FDOT D-5, as Sub-Consultant 2012

## **Education:**

SCC, Continuing Education for Licensing Requirements, Mean High Water Surveying Training FDEP Methodology

## **Professional Organization Membership:**

Central FL and FL Chapters of the FL Surveying and Mapping Society; FL Surveying and Mapping Society; National Society of Professional Surveyors; American Congress on Surveying and Mapping

# Darryll DeMarsh, GPRT

## Employment

**SOUTHEASTERN SURVEYING AND MAPPING CORPORATION**  
**Vice President / Utility Division Manager**

**Florida**  
**Years Employed (1999-Present)**

Darryll has over **21 years** of SUE experience, and is responsible for coordinating, estimating, managing and administrating utility projects for design and relocation and planning utility mapping projects for conflict verification.

**THE SPECTRA GROUP / Project Specialist / Virginia Beach, Virginia**

**(1993-1999)**

## Relevant Project Experience:

### Lake County

- SR 19 from CR 48 to CR 561, Utility Designation/Verification, FDOT D-5, as Sub-Consultant 2014
- Lake County Correctional Facility-Duke Primary Electric Mapping, Utility Designation/Location, Florida Department of Corrections 2014
- Lake County Fairgrounds-Sanitary Line, Utility Designation/Location/Exploration 2014
- MTDR-Country Club-MTDR, Utility Location, as Sub-Consultant 2014
- SR 25/US 27 from Boggy Marsh Rd. to Lake Louise Rd., Utility Location, as Sub-Consultant 2013

### Lake/Orange Counties

- SR 429/Wekiva Parkway-US 441 to SR 46 (12 mi.), Utility Designation/Location, as Sub-Consultant 2012

### Sumter County

- Sumter County Stormwater Program Support - The Villages, CCTV Inspection, Sumter County, as Sub-Consultant 2014
- Okahumpka Service Plaza Truck Stop, Utility Designation, as Sub-Consultant 2013
- The Villages, Subsurface Utility Televising (CCTV), Sumter County, as Sub-Consultant 2013
- Wildwood Substation-East Hwy. 44 (0.50 ac.), Utility Designation, PEF, as Sub-Consultant 2011
- SR 44 & SR 35 RR Bridge Design Build (0.5 miles), Utility Verification (Location), Cross Sections, as Sub. 2010
- SR 471, at CR 48 Intersection Improvement, Utility Location, GPR Scans, as Sub-Consultant 2010

### Brevard County

- SR 507 from Malabar Rd. to Palm Bay Rd. (11,875.92 LF), Utility Designation/Location, FDOT D-5, as Sub-Consultant
- SR 3/North Courtenay Pkwy., Topographic Survey with Utility Location, FDOT D-5 2013

### Brevard and Volusia Counties

- SR 9/I-95 Widening, From SR 46 to Brevard and Volusia County Line Design Build (8.8 mi.): to include Utility Designation/Location, FDOT D-5, as Sub-Consultant 2013
- SR 9/I-95 Widening-Design Build, From SR 406 to North of SR 44 (29.8 mi.), Utility Designation/Location, FDOT D-5 as Sub-Consultant 2013

### Flagler County

- I-95/Matanzas Woods Pkwy. Interchange Design Hammock Bridge Park Improvements (7.5 ac.), Utility Designation/Location/Coordination, FDOT D-5, as Sub-Consultant 2014
- SR 5/US1 Design Survey at Stables & Church, Design Survey, Utility Location, FDOT D-5, as Sub-Consultant 2013

### Marion County

- City of Ocala Energy Substation, Utility Designation, as Sub-Consultant 2014
- Fort Meade Substation, Utility Designation, as Sub-Consultant 2014
- Wildwood Fleet Repair Building-Proposed Bore Route, Utility Designation/Location, Duke Energy Florida (DEF), as Sub-Consultant 2014
- SR 40 Widening & Rehab. (4.89 mi.), Design Survey, Utility Designation/Location, FDOT D-5, as Sub-Consultant 2013
- SR 200 SW, Ocala (McDonalds), Utility Designation, as Sub-Consultant 2013
- Ocala West, Utility Designation, as Sub-Consultant 2013
- Reuse Transmission Main-SW 2nd St. (2250 LF), Utility Location, City of Ocala 2012
- Reuse Transmission Main-Various Streets (35, 474 LF), Utility Location, City of Ocala 2012

### Orange County

- SR 426 (1,600 LF), Design Survey, Utility Designation/Location/Coordination, Closed Circuit Television (CCTV) Inspection, LiDAR Scan, FDOT D-5, as Sub-Consultant 2014

### Orange County continued.

- SR 530/US 192 from Lake County line to East of Secret Lake Dr., Design Build, Utility Location, FDOT D-5, as Sub-Consultant 2014
- CR 535 & Chase Rd./Lake Sawyer Dr., Utility Designation/Location, as Sub-Consultant 2014

# Darryll DeMarsh, GPRT

- 6<sup>th</sup> St. (Alabama Ave. to US 441) (4,300 LF), Utility Location/Coordination 2014
- Fairbanks Ave. (6870 LF), Utility Location, DEF, as Sub-Consultant 2014
- Lake Picket Rd. at North Tanner Rd. Intersection Improvements, Utility Location, as Sub-Consultant 2014
- SR 50 at Mercy Dr. Traffic Op., Utility Location, as Sub-Consultant 2013
- SR 50 Resurfacing from East of Econ River Bridge to West of SR 520, Utility Designation (4,720 LF); (12) proposed boring locations & collection of ground shots at that time; Coordination, FDOT D-5, as Sub-Consultant 2013

## **Orange County Continued.**

- SR 408/SR 417 Ultimate Interchange Improvements, Utility Designation/Survey Collection, Orlando Orange County Expressway Authority (OOCEA), as Sub-Consultant 2013
- President Barack Obama Pkwy., Utility Designation/Location, City of Orlando, as Sub-Consultant 2013
- SR 436/Bent Pine Drive Int. Traffic Signalization, Utility Location, as Sub-Consultant 2012
- CFCRT Segment G Maitland Station, Utility Location, as Sub-Consultant 2012
- International Drive Congestion Management Design, Utility Location, as Sub-Consultant 2012

## **Orange/Seminole Counties**

- CFCRT SunRail Design Build (16 mi.), Subsurface Utility Location, as Sub-Consultant 2013

## **Orange/Seminole/Volusia Counties**

- CFCRT SunRail Design Build (32 mi.), Utility Designation/Location, as Sub-Consultant 2013

## **Osceola County**

- Proposed Kissimmee Trail Pedestrian Bridge, Utility Designation/Location with Survey Collection, as Sub-Consultant 2014

## **Osceola/Orange/Polk Counties**

- Passenger Rail Program Florida High Speed Rail, Obtain Data on Soil Borings and Pond Auger Borings (50 ac.), Utility Designation/Location/Coordination within the median along I-4 from US 98 to Orlando International Airport (51.5 mi.), as Sub-Consultant 2012

## **Seminole County**

- SR 15/600/US 17-92 Widening Shepard Rd. to Lake Mary Blvd., Utility Designation/Location, as Sub-Consultant 2014
- SR 434 & Tuskawilla Rd. Intersection Improvements, Design Survey with Utility Location, as Sub-Consultant 2014
- SR 400/I-4 at SR 46 Intersection Design Build, Utility Designation/Location, as Sub-Consultant 2013
- SR 417-Design of Efficiency Improvement at Aloma Ave. (50,000 LF), Subsurface Utility Designation/Location for Design Survey, FDOT D-5, as Sub-Consultant 2013
- SR 434, from SR 419 to Tuskawilla Rd., Utility Designation, FDOT D-5 2013
- SR 434 Median Improvements, Utility Verification, as Sub-Consultant 2013
- Red Bug Lake Rd. Flyover at SR 436 (3000 LF), Utility Designation and Verification, Progress Energy Florida 2013
- SR 436 & Palm Springs Dr. Intersection, Utility Location, as Sub-Consultant 2012
- SSNOCWTA-Lift Station Drawdowns, Monitoring meters for correct calibration and flow, SSOCOF Tickets, Utility Coordination, as Sub-Consultant 2012

## **Volusia County**

- SR 40, From SR 11 to Cone Rd. (11 mi.), Utility Designation/Location, FDOT D-5, as Sub-Consultant 2014
- SR 421, From East of I-95/SR 9 to East of SR 5A/Nova Rd., Utility Coordination, FDOT D-5 2014
- SR 5/US 1, From North of Hernandez Ave. to pavement change North of SR 5A, Utility Services, FDOT D-5 2013
- SR 44 & Business 44 at Gateway Feature, Utility Designation, as Sub-Consultant 2012
- SR 44 at Colony Park Road Mast Arm, Utility Location, as Sub-Consultant 2012
- SR 421, Dunlawton Avenue Mast Arm Traffic Signals, Utility Designation/Location, as Sub-Consultant 2012

## **Education**

Dutchess Community College 2 years Liberal Arts; Numerous FDOT and Equipment Training Seminars; Ground Penetrating Radar (GPR) Certified; Confined Space Safety Awareness Training; MOT Trained and Certified.

## **Professional Organization Membership**

Associate Member of: Sunshine State One Call; FL Utilities Coordinating Committee; Catholic Cemetery Conference; American Public Works Assoc.; and American Society of Civil Engineers, East Central Branch

## PROFESSIONAL EXPERIENCE

Robbin Ossi is a Senior Planner with 26 years planning experience in Florida. She has successfully completed FDOT training courses in Air Quality Analysis and Noise Assessment, is certified to use the FHWA Traffic Noise Model (TNM), and is a 16-year member of the FDOT Noise Task Team that helps to shape Florida's noise policy.

Since opening ETP in 1992, Ms. Ossi has concentrated the majority of her efforts on PD&E projects. Her role as project air and/or noise specialist involves comprehensive analysis of project impacts and potential abatement methods, preparing the corresponding reports, and helping both the client and the general public understand the nuances of traffic noise. Additionally, Ms. Ossi's familiarity with the FDOT PD&E Manual and NEPA requirements enables her to provide comprehensive analysis for social/economic impacts and Section 4(f) impacts, and to prepare all levels of environmental documentation. The following is a partial list of FDOT projects on which Ms. Ossi is currently involved, or has completed since opening ETP. More information on these and other projects completed for FDOT and independent transportation agencies is available upon request.

### FDOT District One

- US-41 at CR 865, Lee County (2014 – ongoing)
- I-75/SR-951 Interchange PD&E, Collier County (2012 – 2013)
- SR-70 Final Design/Build Noise Barrier, Manatee County (2003/2004)
- US-27 Final Design Noise Barriers, Polk County (2002/2005)
- Aqui Esta PD&E Study, Charlotte County (2000/2003)
- US-27 PD&E Study, Polk County (1998/1999)
- SR-84 PD&E Study, Collier County (1995/1996)
- US-41 PD&E Study (1992/1994)

### FDOT District Two

- Districtwide Environmental Consultant (ongoing 5-year contract) – Functions as FDOT in-house noise specialist on call for a variety of noise tasks. projects include but are not limited to:
  - I-295 Managed Lanes Final Design project from the St. Johns River to the I-95 interchange, Duval County (2013)
- District Two General Consultant (ongoing 5-year contract) – For the past (10 years) and under the current GEC contract (5 years), projects include but are not limited to:
  - I-295/I-95 North Interchange Final Design Reevaluation, Duval County (2013 – ongoing)
  - US-301 Starke Bypass Noise Analysis, Bradford County (2010/2012)
  - SR-9A PD&E Air and Noise Analyses, Duval County (2011)
  - I-95/Overland Bridge PD&E Air and Noise Analyses; Final Design Noise Barriers, Duval County (2009/2011)
  - I-295 Auxiliary Lanes Air & Noise Analyses, Duval County (2011)
  - I-95 Widening from IGP to I-295 Air & Noise Analyses, St. Johns and Duval County (2010/2011)
  - Branan Field-Chafee Expressway Noise Reevaluation, Duval/Clay Counties (2008)
  - Marietta/I-10 Interchange (PD&E and Final Barrier Design), Duval County (2005-2009)
- Districtwide General Engineering Consultant (HDR) – (2014 – *No assigned tasks*)
- US-17/US-301 PD&E Study, Duval County (2014 – *Not Yet Started*)
- SR-26 PD&E Study, Alachua County (2014 – *Not Yet Started*)
- I-95/SR 102 Interchange PD&E Study (2014 – *Not Yet Started*)
- First Coast Outer Beltway Owner's Representative Contract– Branan Field-Chafee Expressway Widening Air & Noise Analyses, Clay & Duval Counties (2009-2013).
- I-295 from Dames Point Bridge to J. Turner Butler Blvd PD&E – Air & Noise Analyses, Duval County (2013 – ongoing; *Not Yet Started*)
- I-295 from J. Turner Butler Blvd to I-95 PD&E – Air & Noise Analyses, Duval County (2013 - ongoing)



- Baldwin Bypass (SR 200/US 301) Final Design Reevaluation, Duval County (2013)
- I-95 at J. Turner Butler Blvd PD&E – Air & Noise Analysis, Duval County (2013)
- I-75 at SR-25(US 441) Interchange PD&E Study, Alachua County (2007-2008)
- St. Johns River Crossing PD&E Study, Clay & St. Johns Counties (2006-2009)
- I-95 Widening – Trout River, Duval County (2004)
- SR-9A/9B Noise Reevaluation, Duval County (2001/2002)

#### **FDOT District Three**

- West Bay Parkway PD&E Study, Bay County (2014 – *Not Yet Started*)
- SR 61 (US 319/98) PD&E Study, Wakulla and Leon Counties (2013 – ongoing)
- I-10/US-29 Interchange PD&E Study, Escambia County (2010/2011)
- SR-371/373 E.A. PD&E Study, Leon County (1995/1997)

#### **FDOT District Five**

- SR-46 at US 441 (Wekiva Section 3B) Final Design Noise Reevaluation and Analysis, Lake County (2013 - 2014)
- SR 429/46 (Wekiva Section 6) Final Design Noise Reevaluation and Analysis, Lake County (2013 – 90% complete)
- SR-40 Widening PD&E Study, Air & Noise Analyses, Orange County (2011-2013)
- SR-19 Widening PD&E Study, Air & Noise Analyses, Lake County (2011-2012)
- I-95/Palm Bay Parkway Interchange PD&E Study, Brevard County (2010)
- I-95 Widening, Brevard County (2005/2006)
- Palm Bay Beltway PD&E Study., Brevard County (2002/2003)
- SR-15 Noise Study, Orange County (2000)
- Apopka Bypass EIS/EA, Seminole County (1994/1998)
- SR-434 PD&E Study and Reevaluation, Orange County (1993/1995 – 1996/1997)

#### **EDUCATION**

- Master of Public Administration - University of North Florida (1987)
- Bachelor of Science - Jacksonville University (1984)

#### **PROFESSIONAL MEMBERSHIP**

- FDOT Noise Task Team (since 1996)
- American Institute of Certified Planners (Certification Number: 10233)
- American Planning Association





# REFERENCES



**KITTELSON & ASSOCIATES, INC.**  
TRANSPORTATION ENGINEERING/PLANNING

## References for Representative Projects

|                        |   |
|------------------------|---|
| <b>Reference No. 1</b> | <b>FDOT District Five Growth Management (5-year Continuing Services)</b>                                  |
| Contact Person         | Judy Pizzo, FDOT District Five  |
| Telephone & E-mail     | 386-943-5167; Judy.Pizzo@dot.state.fl.us  |
| Date(s) of Service     | 2008 – 2013   |
| Type of Service        | Multimodal Corridor Studies, Comprehensive Plan Amendment Reviews, Development of Regional Impact Reviews |

|                        |  |
|------------------------|--|
| <b>Reference No. 2</b> | <b>SR 50 Multi-Modal Corridor Study</b>  |
| Contact Person         | John Moore, FDOT District Five           |
| Telephone & E-mail     | 407-482-7882; John.Moore@dot.state.fl.us |
| Date(s) of Service     | 2010 – 2011                              |
| Type of Service        | Multimodal Corridor Study                |

|                        |  |
|------------------------|--|
| <b>Reference No. 3</b> | <b>US 1 Corridor Improvement Program (CIP) Phase 1</b> |
| Contact Person         | Jean Parlow, River to Sea TPO                          |
| Telephone & E-mail     | 386-226-0422; JParlow@r2ctpo.org                       |
| Date(s) of Service     | October 2011 – May 2012                                |
| Type of Service        | Multimodal Corridor Study                              |

|                        |  |
|------------------------|--|
| <b>Reference No. 4</b> | <b>Space Coast TPO – Complete Streets</b>                      |
| Contact Person         | Georganna Gillette, Space Coast TPO                            |
| Telephone & E-mail     | 321-690-6890; georganna.gillette@brevardcounty.us              |
| Date(s) of Service     | 2012 – Ongoing   |
| Type of Service        | Corridor Planning, Complete Streets, Safety, Conceptual Design |

|                        |  |
|------------------------|--|
| <b>Reference No. 5</b> | <b>Seminole County Continuing Services – SR 46 Corridor Safety Study</b> |
| Contact Person         | Shad Smith, Seminole County  |
| Telephone & E-mail     | 407-665-5707; ssmith@seminolecountyfl.gov                                |
| Date(s) of Service     | October 2012 – January 2014  |
| Type of Service        | Corridor Safety Study; Highway Safety Manual Evaluation                  |

|                        |   |
|------------------------|---|
| <b>Reference No. 6</b> | <b>SR 40 PD&amp;E;<br/>I-95 and St. Johns Heritage Interchange PD&amp;E</b> |
| Contact Person         | Mary McGehee, FDOT District Five  |
| Telephone & E-mail     | 386-943-5063; Mary.McGehee@dot.state.fl.us                                  |
| Date(s) of Service     | 2011 – 2014   |
| Type of Service        | PD&E Studies  |

|                        |   |
|------------------------|---|
| <b>Reference No. 7</b> | <b>I-75 and SR 951 Interchange PD&amp;E Study</b> |
| Contact Person         | Aaron Kaster, FDOT District One                   |
| Telephone & E-mail     | 863-519-2495; Aaron.Kaster@dot.state.fl.us        |
| Date(s) of Service     | 2011 – 2014                                       |
| Type of Service        | PD&E Study  |

|                        |  |
|------------------------|--|
| <b>Reference No. 8</b> | <b>FDOT District Five Design Traffic &amp; PD&amp;E Support (5-year Continuing Services)</b> |
| Contact Person         | Kacia Monts, FDOT District Five  |
| Telephone & E-mail     | 386-943-5118; Kacia.Monts@dot.state.fl.us  |
| Date(s) of Service     | 2011 – Ongoing   |
| Type of Service        | Design Traffic   |



# REQUIRED CERTIFICATIONS



**KITTELSON & ASSOCIATES, INC.**  
TRANSPORTATION ENGINEERING/PLANNING

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION  
**TRUTH IN NEGOTIATION CERTIFICATION**

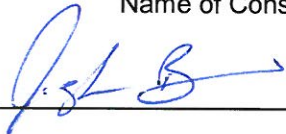
375-030-30  
PROCUREMENT  
05/14

Pursuant to Section 287.055(5)(a), Florida Statutes, for any lump-sum or cost-plus-a-fixed fee professional services contract over the threshold amount provided in Section 287.017, Florida Statutes for CATEGORY FOUR, the Department of Transportation (Department) requires the Consultant to execute this certificate and include it with the submittal of the Technical Proposal, or as prescribed in the contract advertisement.

The Consultant hereby certifies, covenants, and warrants that wage rates and other factual unit costs supporting the compensation for this project's agreement are accurate, complete, and current at the time of contracting.

The Consultant further agrees that the original agreement price and any additions thereto shall be adjusted to exclude any significant sums by which the Department determines the agreement price was increased due to inaccurate, incomplete, or noncurrent wage rates and other factual unit costs. All such agreement adjustments shall be made within (1) year following the end of the contract. For purposes of this certificate, the end of the agreement shall be deemed to be the date of final billing or acceptance of the work by the Department, whichever is later.

Kittelson & Associates, Inc.  
Name of Consultant

By: 

7-14-14  
Date

# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

7/09/2014

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 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 rights to the certificate holder in lieu of such endorsement(s).


| <b>PRODUCER</b><br>Kibble & Prentice, a USI Co PR<br>601 Union Street, Suite 1000<br>Seattle, WA 98101 | CONTACT NAME:<br>PHONE (A/C, No, Ext): <b>206 441-6300</b> FAX (A/C, No): <b>610-362-8528</b><br>E-MAIL ADDRESS: <b>pl.certrequest@kpc.com</b>   |                               |        |   |              |             |  |             |  |             |  |             |  |             |  |
|--|--|-------------------------------|--------|---|--------------|-------------|--|-------------|--|-------------|--|-------------|--|-------------|--|
| <b>INSURED</b><br>Kittelson & Associates, Inc.<br>610 SW Alder Street, Suite 700<br>Portland, OR 97205 | <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="text-align: center;">INSURER(S) AFFORDING COVERAGE</th> <th style="text-align: center;">NAIC #</th> </tr> <tr> <td>INSURER A : <b>XL Specialty Insurance Company</b></td> <td style="text-align: center;"><b>37885</b></td> </tr> <tr> <td>INSURER B :</td> <td></td> </tr> <tr> <td>INSURER C :</td> <td></td> </tr> <tr> <td>INSURER D :</td> <td></td> </tr> <tr> <td>INSURER E :</td> <td></td> </tr> <tr> <td>INSURER F :</td> <td></td> </tr> </table> | INSURER(S) AFFORDING COVERAGE | NAIC # | INSURER A : <b>XL Specialty Insurance Company</b> | <b>37885</b> | INSURER B : |  | INSURER C : |  | INSURER D : |  | INSURER E : |  | INSURER F : |  |
| INSURER(S) AFFORDING COVERAGE  | NAIC #   |                               |        |   |              |             |  |             |  |             |  |             |  |             |  |
| INSURER A : <b>XL Specialty Insurance Company</b>  | <b>37885</b>   |                               |        |   |              |             |  |             |  |             |  |             |  |             |  |
| INSURER B :  |  |                               |        |   |              |             |  |             |  |             |  |             |  |             |  |
| INSURER C :  |  |                               |        |   |              |             |  |             |  |             |  |             |  |             |  |
| INSURER D :  |  |                               |        |   |              |             |  |             |  |             |  |             |  |             |  |
| INSURER E :  |  |                               |        |   |              |             |  |             |  |             |  |             |  |             |  |
| INSURER F :  |  |                               |        |   |              |             |  |             |  |             |  |             |  |             |  |

**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  |                     |       |                    |    |                            |    |                             |    |
|-----------------------------|--|-----------|----------|-------------------|-------------------------|-------------------------|---|---------------------|-------|--------------------|----|----------------------------|----|-----------------------------|----|
|                             | <b>GENERAL LIABILITY</b><br><input type="checkbox"/> COMMERCIAL GENERAL LIABILITY<br><input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR<br><hr/> GEN'L AGGREGATE LIMIT APPLIES PER:<br><input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC |           |          |                   |                         |                         | EACH OCCURRENCE \$<br>DAMAGE TO RENTED PREMISES (Ea occurrence) \$<br>MED EXP (Any one person) \$<br>PERSONAL & ADV INJURY \$<br>GENERAL AGGREGATE \$<br>PRODUCTS - COMP/OP AGG \$<br>\$  |                     |       |                    |    |                            |    |                             |    |
|                             | <b>AUTOMOBILE LIABILITY</b><br><input type="checkbox"/> ANY AUTO<br><input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS<br><input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS   |           |          |                   |                         |                         | COMBINED SINGLE LIMIT (Ea accident) \$<br>BODILY INJURY (Per person) \$<br>BODILY INJURY (Per accident) \$<br>PROPERTY DAMAGE (Per accident) \$<br>\$   |                     |       |                    |    |                            |    |                             |    |
|                             | <b>UMBRELLA LIAB</b> <input type="checkbox"/> OCCUR<br><b>EXCESS LIAB</b> <input type="checkbox"/> CLAIMS-MADE<br>DED      RETENTION \$  |           |          |                   |                         |                         | EACH OCCURRENCE \$<br>AGGREGATE \$<br>\$  |                     |       |                    |    |                            |    |                             |    |
|                             | <b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b><br>ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED?    Y / N <input type="checkbox"/><br>(Mandatory in NH)<br>If yes, describe under DESCRIPTION OF OPERATIONS below   |           | N / A    |                   |                         |                         | <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:50%;">WC STATUTORY LIMITS</th> <th style="width:50%;">OTHER</th> </tr> <tr> <td>E.L. EACH ACCIDENT</td> <td>\$</td> </tr> <tr> <td>E.L. DISEASE - EA EMPLOYEE</td> <td>\$</td> </tr> <tr> <td>E.L. DISEASE - POLICY LIMIT</td> <td>\$</td> </tr> </table> | WC STATUTORY LIMITS | OTHER | E.L. EACH ACCIDENT | \$ | E.L. DISEASE - EA EMPLOYEE | \$ | E.L. DISEASE - POLICY LIMIT | \$ |
| WC STATUTORY LIMITS         | OTHER  |           |          |                   |                         |                         |   |                     |       |                    |    |                            |    |                             |    |
| E.L. EACH ACCIDENT          | \$   |           |          |                   |                         |                         |   |                     |       |                    |    |                            |    |                             |    |
| E.L. DISEASE - EA EMPLOYEE  | \$   |           |          |                   |                         |                         |   |                     |       |                    |    |                            |    |                             |    |
| E.L. DISEASE - POLICY LIMIT | \$   |           |          |                   |                         |                         |   |                     |       |                    |    |                            |    |                             |    |
| <b>A</b>                    | <b>Professional Liability</b>  |           |          | <b>DPR9713226</b> | <b>12/30/2013</b>       | <b>01/01/2015</b>       | <b>\$500,000 per claim<br/>\$500,000 annl aggr.</b>   |                     |       |                    |    |                            |    |                             |    |

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)  
**RE: KAI PN 17923 - SR 50 Corridor Planning Study (FDOT EPN# 43589-1-12-01).**  
**This Certificate is issued in respects to above referenced.**

|  |  |
|--|--|
| <b>CERTIFICATE HOLDER</b><br>Florida Dept. of Transp. District 5<br>719 South Woodland Blvd.<br>Deland, FL 32720 | <b>CANCELLATION</b><br>SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.<br>AUTHORIZED REPRESENTATIVE<br> |
|--|--|

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION  
**DBE PARTICIPATION STATEMENT**

375-030-21  
PROCUREMENT  
10/01

**Note:** The Consultant is required to complete the following information and submit this form with the technical proposal.

Project Description: West SR 50 Corridor Planning Study from US 301 to CR 33

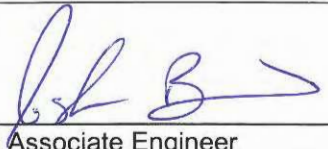
Consultant Name: Kittelson & Associates, Inc.

This consultant is not a Department of Transportation certified Disadvantaged Business Enterprise (DBE).

Expected percentage of contract fees to be subcontracted to DBE(s): 14 %

If the intention is to subcontract a portion of the contract fees to DBE(s), the proposed DBE sub-consultants are as follows:

| DBE Sub-Consultant                    | Type of Work/Commodity                       |
|---------------------------------------|--|
| Accurate Traffic Counts, Inc.         | Traffic Counts and Data Collection           |
| IDA Consulting Engineers, Inc.        | 4.1.1, 4.2.1                                 |
| SEARCH, Inc.                          | Cultural and Historical Resource Evaluations |
| Environmental Transportation Planning | Air Noise Studies                            |
|                                       |  |
|                                       |  |

By:  Justin Bansen, PE  
Title: Associate Engineer  
Date: July 1, 2014

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION  
**CERTIFICATION FOR DISCLOSURE OF LOBBYING ACTIVITIES  
ON FEDERAL-AID CONTRACTS**  
**(Compliance with 49CFR, Section 20.100 (b))**

375-030-33  
PROCUREMENT  
10/01

The prospective participant certifies, by signing this certification, that to the best of his or her knowledge and belief:

(1) No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities", in accordance with its instructions. (Standard Form-LLL can be obtained from the Florida Department of Transportation's Professional Services Administrator or Procurement Office.)

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The prospective participant also agrees by submitting his or her proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such subrecipients shall certify and disclose accordingly.

Name of Consultant: Kittelson & Associates, Inc.

By: Justin Bansen, PE Date: 7/1/2014

Authorized Signature:  \_\_\_\_\_

Title: Associate Engineer

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY  
AND VOLUNTARY EXCLUSION FOR FEDERAL AID CONTRACTS**  
(Compliance with 49CFR, Section 29.510)  
(Appendix B Certification]

It is certified that neither the below identified firm nor its principals are presently suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency.

Name of Consultant:

By:  Date: July 1, 2014  
Authorized Signature

Title: Associate Engineer

**Instructions for Certification**

1. By signing and submitting this certification with the proposal, the prospective lower tier participant is providing the certification set out below.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the Department may pursue available remedies, including suspension and/or debarment.
3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted. If at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms 'covered transaction', 'debarred', 'suspended', 'ineligible', 'lower tier covered transaction', 'participant', 'person', 'primary covered transaction', 'principal', 'proposal', and 'voluntarily excluded', as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the person to which this proposal is being submitted for assistance in obtaining a copy of those regulations.
5. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the Department or agency with which this transaction originated.
6. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Appendix B: Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction", without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant are not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the Department may pursue available remedies, including suspension and/or debarment.

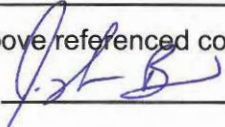


STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION  
**VENDOR CERTIFICATION REGARDING  
SCRUTINIZED COMPANIES LISTS**

Respondent Vendor Name: Kittelson & Associates, Inc.  
Vendor FEIN: 93-0964447  
Vendor's Authorized Representative Name and Title: Justin Bansen, PE Associate Engineer  
Address: 225 E. Robinson Street, Suite 450  
City: Orlando State: Florida Zip: 32801  
Phone Number: 407-540-0555  
Email Address: jbansen@kittelson.com

Section 287.135, Florida Statutes, prohibits agencies from contracting with companies for goods or services of \$1,000,000 or more, that are on either the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List. Both lists are created pursuant to section 215.473, Florida Statutes.

As the person authorized to sign on behalf of Respondent, I hereby certify that the company identified above in the section entitled "Respondent Vendor Name" is not listed on either the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List. I understand that pursuant to section 287.135, Florida Statutes, the submission of a false certification may subject company to civil penalties, attorney's fees, and/or costs.

Certified By: Kittelson & Associates, Inc.  
who is authorized to sign on behalf of the above referenced company.  
Authorized Signature Print Name and Title:  Justin Bansen, PE Associate Engineer  
Date: July 1, 2014



**Justin Bansen**  
**Kittel & Associates, Inc.**  
**225 East Robinson Street, Suite 450**  
**Orlando, Florida 32801**  
**407.540.0555**  
**kittel.com**