

James P. Reynold, P.E., Vice President, Southeast Regional Manager

Years of Experience

32 years

Summary of Qualifications

Jim Reynold provides oversight of the southeastern U.S. region's intelligent transportation system practice. He has served as Principal in Charge or Project Manager for planning, design, implementation and O&M projects involving traffic control and freeway management systems. Jim is currently serving as the principal-in-charge for projects including the Florida DOT's Palm Beach County Interim Traffic Management System, Daytona Area Smart highway System Design-build, Southwest Florida ITS Operations, and as statewide Telecommunications General Consultant.

Education

B.S. Civil Engineering, 1975, University of Florida

Certifications and Affiliations

Professional Registration: Professional Engineer, Florida, (22401)

Professional Affiliations: ITS America; ITS Florida, Institute of Transportation Engineers

Technical Experience

Daytona Area Smart Highway, Daytona FL: Principal in Charge for design-build of a new ITS for I-95 in Flagler County. Performing as prime design-builder, responsible for the design, procurement, installation and integration of fiber optic communications, closed circuit television (CCTV), dynamic message signs (DMS) and vehicle detection (VDS) for the 23-mile project for the Florida DOT.

Maintenance Program Management, Georgia: Principal in Charge for management of Georgia DOT's statewide ITS. Responsible for identifying needs, developing a maintenance program, monitoring and troubleshooting equipment, coordinating with operations and construction, issuing and overseeing repair work orders, and self performance of preventive and routine maintenance. Self performance of equipment upgrades is also underway.

Freeway Management System Design, South Florida: Engineer of Record (EOR) for plans specification and estimate (PS&E) for CCTV, VDS and a SunPass-based travel time system, DMS and highway advisory radio (HAR). Fiber optic communications to the Florida's Turnpike Enterprises' Traffic Management Center. Post design services include shop drawing review and construction engineering (CEI) support.

Interim Traffic Management System, Palm Beach County, Florida: Principal in Charge for fast-track design, installation, operation and maintenance of a complete ITS for 45-miles of I-95. The system manages I-95 travel between Boca Raton and Jupiter within multiple reconstruction work zones. The ITS operates 24/7/365 in coordination with the Construction Manager, Florida Highway Patrol and FDOT Road Ranger service patrols. The 9-year project integrates portable CCTV, DMS and VDS and includes a new Transportation Management Center (TMC) and a real-time public website.

Districtwide ITS Operations, Fort Myers, Florida: Principal in Charge for 24/7/365 operation and management of Florida DOT's Regional Transportation Management Center. Work includes preparation and maintenance of standard operating guidelines and procedures, information technology management and public relations.

Statewide Telecommunications General Consultant, Florida: Principal in Charge for FDOT's statewide program. Provides oversight of the Florida DOT's communications programs, including a statewide fiber optic and microwave system, a tower development shared resource project and the state's radio system. A statewide ITS wide area network (WAN) was designed and is being implemented that links the state's Regional Traffic Management Centers utilizing a hybrid network of fiber optic cable and FDOT's statewide microwave system. Task orders include preparation of an NTCIP migration plan, development of a statewide spatial database of all ITS and communications inventory and development of an internet based traffic video system for emergency management.

First Coast ITS Master Plan, Jacksonville, Florida: Principal in Charge for an ITS Master Plan and regional architecture for the First Coast Metropolitan Planning Organization. The project included canvassing stakeholder requirements and inventory of existing and planned ITS deployments. The work also involved adapting the Florida DOT district ITS architecture to the First Coast region, and developing an ITS Master Plan including alternatives analysis, and straw man 5 and 10 Year ITS Plans. Public outreach was also a major component of this landmark study for the Jacksonville area.

I-95 ITS Post Construction Evaluation, Miami, Florida: Principal in Charge for an evaluation of the initial and future ITS deployment on I-95 for FDOT. The evaluations included system functionality, regional integration, user benefits, public opinion and agency processes. The system included a new TMC, central hardware and application software, CCTV, DMS, VDS, ramp metering and web interface.

ITS Master Plan, Miami, Florida: Task Manager for the development of functional specifications and preliminary design of a temporary ITS for SR-836 reconstruction including CCTV, VDS and HAR. A master plan was prepared for all ITS requirements on the Miami Dade Expressway Authority facilities throughout Miami-Dade County.

I-75 Incident Management and ITS Master Plans, Southwest Florida: Project Manager for the preparation of incident management and ITS master plans for I-75 including conducting a survey of incident response agencies for FDOT, identification of problem areas and development of recommendations. An ITS operational concept, infrastructure requirements, alternatives analysis, cost estimates and implementation strategy were developed for the 5-county region.

Interstate ITS Master Plan, Tampa, Florida: Project Manager for a master plan for FDOT. Responsible for preparation of an ITS architecture, implementation strategy and investigation of funding alternatives. The project resulted in a master plan and five detailed project concepts for near-term deployment in conjunction with a major interstate reconstruction program.

CCTV System Expansion, Miami, Florida: Project Manager as part of a design-build team for the expansion of a CCTV system at the golden glades interchange for FDOT. Work included design, integration and CEI. The system includes seven CCTVs, leased communications, and integration with an existing system.

ITS Strategic Plan, Florida Statewide: Deputy Project Manager for preparation of a statewide strategic plan for FDOT that provided a vision, guiding principles, goals and objectives and a business plan for future ITS deployment and operation. A survey of ITS development in other states and critical issue papers were also developed.

Freeway Incident Management Team Support, Dade, Broward, Palm Beach Co, Florida: Project Manager for support of freeway incident management teams consisting of police, fire/rescue, hazardous material, towing and recovery and media. This FDOT project facilitated

improved incident management through use of multi-agency coordination and technology. A regional planning team was developed for the three-county area.

Traffic Control System, Charlotte Co., Florida: Project Manager for CEI of a traffic control system for FDOT. The project included 53 intersections, fiber-optic communications and control center.

Freeway Incident Management Handbook Update, Washington DC: Task Manager for the Federal Highway Administration (FHWA) handbook. Work included an update of the ITS technology for incident management and innovative, progressive procedures. Responsible for conducting surveys to determine the operating agency's experiences, techniques and procedures and their success. Oversaw coordination with a national technical working group of incident management practitioners.

The National Automated Highway System (AHS) Program, Troy, Michigan: Task Manager for technical development of the system architecture. Work included user needs assessment, deployment plan, assessment of dedicated lanes/mixed traffic performance and stakeholder consensus. Developed an evaluatory deployment and traffic management center for the AHS demonstration. Responsible for stakeholder consensus.

Previous Experience

System Architecture Development, Intelligent Vehicle Highway System, Washington, DC: Project Manager for the development and evaluation of a national architecture involving surveillance, communications, and control software to reduce congestion, and enhance safety and productivity associated with surface transportation. Served as technical lead for value analysis, life-cycle costing, feasibility and risk analysis. Technical lead to provide a performance and benefits summary, an evolutionary deployment strategy for traffic management centers, and analysis of highway infrastructure, institutional and privacy issues. The project resulted in a national standard for future ITS systems deployment including functions, information flows, interfaces, and standards.

Traffic Control System, New Orleans, Louisiana: Principal Engineer for design including fiber-optic ring and twisted-pair wire communications to 433 existing intersections and new control center for LA DOTD. The system included CCTV monitoring, traffic responsive control, emergency vehicle preemption and permanent count stations.

Lakeland Traffic Control System, Florida: Project Manager for CEI of two traffic signal system packages for FDOT. The work included 110 intersections, 45 miles of dedicated communications cable and integration of new timing plans and display graphics on a hybrid traffic control system. Responsible for submittal reviews, testing and acceptance.

I-4 Surveillance and Motorist Information System, Orlando, Florida: Principal Engineer of design and CEI for FDOT. The project featured a control center, VDS, CCTV and DMS. The system utilized twisted-pair and fiber-optic communications to control the 11.5-mile system. Served as EOR.

I-95 Freeway Capacity Analysis, Broward County, Florida: Project Engineer responsible for analyzing the impact of I-95 reconstruction to freeway capacity on I-95 for FDOT. Analyzed alternative freeway interchange configurations for SE 10th Street.

Operational and Safety Studies, Broward County, Florida: Project Engineer for traffic signalization, signing, and pavement marking studies for the Sawgrass Expressway Authority.

Traffic Control Systems, Sarasota and Manatee Counties, Florida: Project Manager of systems development and CEI for FDOT. Projects featured closed loop systems with communications including a fiber-optic trunk. Work included field hardware, control center hardware/software,

system testing, integration, training, timing plan development and fine tuning. Project Manager to determine requirements, develop control sections, communications alternatives and costs.

Traffic Signal System, Naples, Florida: Project Manager and designer for PS&E of a closed-loop system for FDOT. Prepared timing plans and conducted intersection studies.

Quality Improvement Program, South Florida: Program Manager responsible for involving personnel in team activities to enhance the quality of all FDOT products and services.

Value Engineering, South Florida: Program Manager responsible for evaluation of the functional worth of the major projects in the FDOT work program. Focus was on innovative ways to meet desired functional requirements more efficiently, resulting in saving of public funds.

Traffic Operations, South Florida: Assistant District Traffic Engineer for FDOT District 4 directing traffic impact, traffic signal warrant, pedestrian, speed, travel-time and delay and other traffic studies in a seven-county area. Actively communicated with public officials, civic groups, and citizens on transportation issues. Performed signal timing and capacity analysis.

Highway Safety Programs, South Florida: District Safety Engineer for FDOT highway safety programs. Included high-hazard elimination, roadside obstacles, rail-highway grade crossing improvements and pavement marking demonstrations. Investigated accidents and high-accident locations to identify problems and recommend improvements. Responded to public and agency requests for safety-related improvements.

Signalization, Signing and Pavement Marking, South Florida: Supervisor for the preparation of contract plans for FDOT. Projects included isolated intersections and interconnected systems throughout southern Florida. Coordinated projects with roadway design, utilities, right-of-way, railroads, local agencies and the FHWA.

Professional Engineer Training Program, Fort Lauderdale FL: Hands-on training in all aspects of the FDOT's operations. Specialization in traffic Operations.

Honors and Awards

- President's Award, ITS Florida, 2005
- President and Chairman of the Board, ITS Florida, 1999
- Traffic Engineer of the Year, Florida Section ITE, 1997
- Bill Dean Award for Distinguished Service and Technical Contribution, Florida DOT, 1984

Publications and Presentations

- "ITS in Workzones" Florida Transportation Builders/Florida DOT, 2005
- "Designing ITS for the Construction Workzone", ITS America, 2004
- "Transportation Management Center (TMC) Planning Considerations for Southwest Florida", ITS America 2002
- "Getting Results from Freeway Incident Management Teams", Transpo 2000, April 2000