

Exhibit "A"
SCOPE OF SERVICES

INDEX

***Turnpike Enterprise Engineering Management Consultant for
Traffic Operations and Intelligent Transportation Systems***

FPN: 192892-4, 190766-4

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Exhibit "A"
SCOPE OF SERVICES
TURNPIKE ENTERPRISE ENGINEERING MANAGEMENT CONSULTANT
FOR TRAFFIC OPERATIONS/ITS
FPN: 192892-4, 190766-4

I. Purpose

The Department requires professional services of a Consultant for a wide range of engineering, operations, management and administrative services for Turnpike's Program area of Traffic Operations/Intelligent Transportation Systems (ITS), also referred to by the Department as Transportation Systems Management and Operations (TSM&O).

The Consultant shall provide qualified technical and professional personnel to perform to Department Rules, Standards, Specifications, Policies, and Procedures the duties and responsibilities assigned under the terms of this Agreement. The Consultant shall minimize to the maximum extent possible the Department's need to apply its own resources to assignments authorized by the Department. The Department, at its option, may elect to expand, reduce, or delete the extent of each work element described in this Scope of Services document, provided such action does not alter the intent of this Agreement.

The Department shall request Consultant services on an as-needed basis. There is no guarantee that any or all of the services described in this Agreement will be assigned during the term of this Agreement. Further, the Consultant is providing these services on a nonexclusive basis. The Department, at its option, may elect to have any of the services set forth herein performed by other consultants or Department staff without Consultant recourse.

As provided in Section 287.042(16), F.S., other state agencies may utilize the services of the Consultant under this contract as an alternate contract source, subject to any applicable requirements of the Department of Management Services. The Consultant may, at its discretion and consent, provide these services to additional agencies, upon the same terms and conditions contained herein.

II. Location and Equipment

The Consultant shall establish a primary field office at the Turnpike Operations Center located at the Pompano Beach Service Plaza, Mile Post 65, of Florida's Turnpike in Pompano Beach, Florida. This office shall be staffed with a part-time Program Director and core staff. The Consultant shall establish additional field offices at locations approved by the Turnpike's Traffic Operations Engineer. The Consultant is also required to staff and equip an additional field office at the Turkey Lake Operations Center located at the Turkey Lake Service Plaza, Mile Post 263, of Florida's Turnpike in Ocoee, Florida and other

satellite offices. The field office(s) shall be of sufficient size and equipped to effectively carry out their responsibilities under this Agreement.

The Consultant shall furnish field offices with all necessary furniture and equipment, including but not necessarily limited to, desks, chairs, tables, bookcases, file cabinets, calculators, copy and, electronic equipment, and other essential items necessary to carry out the responsibilities of this Agreement. The Consultant shall furnish vehicles, field-engineering equipment for its personnel, all the tools, and equipment necessary to provide an engineering inspection staff that is adequately equipped to carry out the assigned responsibilities. The Department reserves the right to provide some or all of these furnishings to the Consultant for the Consultant's use during the term of this Agreement. All office furnishings and equipment purchased by the Consultant shall be for use by the Consultant and may or may not become the property of the Department after reimbursement is made to the Consultant. All furnishings and equipment are for use by the Consultant during the term of this Agreement and the Consultant shall retain responsibility for loss or damage to furnishings and equipment until it is returned to the Department. However, the Consultant shall not be responsible for loss of or damage to such property which is not the fault of the Consultant when such property is physically located inside a Department-owned or Department-leased facility provided that reasonable care is utilized in securing the property.

The Consultant shall provide administrative and technical support to each field office as requested by the Department.

III. Term and Commencement of Work

A. Term

This Agreement is subject to Department periodic review, approval and satisfaction with the Consultant's performance and may be terminated by the Department at any time in accordance with Section 6 (Termination and Default) of the Standard Professional Services Agreement Terms. This Agreement shall have an initial term commencing on the date specified in the written notice to proceed from the Department's Executive Director and the notice to proceed will become part of this Agreement. All services performed under this contract will be completed within 60 months from the commencement date specified in the notice to proceed or as modified by subsequent Amendment or Supplemental Agreement

B. Beginning and Length of Services

Services to be provided by the Consultant will be initiated and completed as directed by the Executive Director, Florida's Turnpike Enterprise, or designee, for each assignment authorized under this Agreement. The Executive Director or designee shall furnish the Consultant a "Task Work Order" outlining the services to be performed. Each Task Work Order shall enumerate the compensation to be paid for services, which have been authorized in accordance with the Scope of

Services of this Agreement. No payment for work performed shall be made to the Consultant unless a “Task Work Order” has been issued (refer to Exhibit “B”, Method of Compensation).

IV. Services

The Consultant may be authorized to perform the following services:

A. General Operations Support Responsibilities

1. Program Management:

- a) Assist the Florida’s Turnpike Traffic Operations Engineer with the overall planning and management of the Traffic Operations department.
- b) Lead, organize and manage staff, including engineers, technical specialists, contract managers and administrative support staff.
- c) Proactively coordinate and allocate resources.
- d) Implement project objectives and controls.
- e) Analyze data, deliver reports, and prepare presentations for senior management of Florida’s Turnpike Enterprise.
- f) Ensure and promote cross-function collaboration in the delivery of Transportation Operations projects.
- g) Ensure financial management.
- h) Ensure task authorizations are scoped and managed.
- i) Propose and implement innovative ideas to improve the Program
- j) Implement a plan to attract, retain and train staff

2. Program Administration:

- a) Financial Management for the Traffic Operations unit.
- b) Support and manage the day to day operations of consultant activities.
- c) Responsible for all invoice processing, travel reimbursements, and purchasing for the consultant.
- d) Scope and manage all contract work authorizations.
- e) Property Manager for the Traffic Operations unit.
- f) Manage and oversee purchase/lease of the Consultant’s fleet.
- g) Monitor work program activities and develop periodic system and performance reports.
- h) Coordinate the development of the project scopes, preliminary cost estimates and project justifications for future work program project request items (tour book).
- i) Prepare all budget reports and accounting procedures.
- j) Prepare presentations, reports and briefings.

- k) Contract manager for the Traffic Operations elements associated with the Emergency Operations Center (EOC). Coordinate and track emergency expenditures and manage expenditure reimbursement documentation for ITS elements.
- l) Provide input for Traffic Operations into updating of the Turnpike's Continuity of Operations Plan (COOP) for ITS and traffic systems and the Traffic Operations Emergency Response Plans.
- m) Maintain the Traffic Operations webpages, including public site and Sharepoint sites with accurate and current information.

3. Program Safety:

- a) Support the Turnpike Safety Program in the Traffic Safety area. Maintain process for data collection and dashboards for TSM&O including providing input into various safety reports.
- b) Coordinate periodic safety training for Traffic Operations and emergency/incident responders.
- c) Perform field review and analysis of traffic crashes for the purpose of developing crash and incident trends.
- d) Perform field inspections of work sites to review contractor compliance with Department and Turnpike standards and contract specifications.

4. Contract Management:

- a) Assist in the preparation of ITS maintenance contract packages by providing field measurements, estimated quantities and other necessary data.
- b) Prepare, review and issue contract maintenance work documents.
- c) Plan and schedule contractor maintenance activities
- d) Prepare contract progress reports.
- e) Perform semi-final and final inspections of construction projects.
- f) Provide on-call response for emergency calls from the Turnpike Operations Center.
- g) Responsible for the overall maintenance and condition of the system.
- h) Identify essential staff for hurricane preparation, response and recovery.
- i) Project Management of routine and periodic contracts for the ITS and TSM&O functional areas.
- j) Responsible for the oversight and administration of planning, development, installation and maintenance contracts in the ITS and TSM&O areas.
- k) Provide periodic field reviews of MOT setups.
- l) Process contractor's invoices, Supplemental Agreements, and contract renewals in a timely manner.

- m) Obtain complete Contract Close out documents.

5. Consultant Administrative Services

- a) Typing, filing, data collection and data entry, scanning, email, travel arrangements, and meeting coordination. Will provide general office support on a wide variety of duties.
- b) Property Inventory and management
- c) Order and maintain office supplies and equipment
- d) Consultant fleet vehicle administration

6. Training and Staff Development

- a) Ensure project staff is properly certified/licensed in all functional areas
- b) Provide staff to the project trained in traffic operations and ITS technical support.
- c) Provide basic training to all staff in safety, contract administration, basic maintenance operations, maintenance of traffic, Americans with Disabilities Act (ADA) requirements, etc., prior to introduction to the project.

7. Equipment

- a) Provide vehicles, tools and equipment necessary to perform all job requirements including the appropriate personal protective equipment.
- b) Provide the necessary safety equipment on each vehicle as directed. Equipment may include strobe lights, arrow boards, traffic cones, etc.

8. Quality Control (QC) / Quality Assurance (QA)

- a) Modify, streamline and develop standard operating procedures to ensure an efficient maintenance operation. Attend all meetings related to plans review.
- b) Ensure personnel adhere to the existing State, Turnpike Enterprise and Department policies and procedures.
- c) Ensure personnel adhere to the Department's performance measures.

9. Hurricane, Emergency or Special Event Preparation, Response and Recovery

- a) All staff provided under this contract are considered essential staff for hurricane, emergency or special event preparation, response and recovery.

B. Traffic Operations

Provide a functional manager who is a registered professional engineer in the State of Florida to perform the duties of the Traffic Engineering/ITS Program Manager. Provide a functional manager to perform the duties of the Traffic Incident Management Program Manager, responsible for the Operations/Traffic Incident Management portions of the contract. The Traffic Incident Management Program Manager is not required to be a professional engineer.

1. Traffic Operations Services

a) Traffic Engineering/Safety Services:

- 1) Conduct detailed traffic operations studies and capacity analyses to identify and correct capacity deficiencies on the Turnpike System using industry standard traffic engineering methods and software.
- 2) Conduct Turnpike System reviews to prepare traffic engineering reports to be used as justification reports for work program funding for transportation system improvements.
- 3) Prepare incidental in-house design plans for traffic operations/safety improvements, if requested.
- 4) Perform periodic Turnpike System reviews to evaluate safety and mobility area Measures of Effectiveness of existing traffic conditions.
- 5) Conduct a traffic engineering review of every fatal crash occurring on the Turnpike System, including recommendation of any needed remedial measures.
- 6) Review crash report compilations on a continual basis and issue an annual Fatal and Serious Injury Crash Report documenting trends, problems, and possible countermeasures.
- 7) Review High Crash Lists to identify and investigate specific locations for engineering or enforcement issues. Conduct parking and traffic circulation studies for facilities within the Turnpike including service plazas, toll plazas, office buildings, etc.
- 8) Prepare before- and after- studies to evaluate the effectiveness of implemented improvement projects.

- 9) Prepare benefit/cost analyses for proposed improvement plans.
- 10) If necessary, administer Traffic Counts, including data collection, compilation, and evaluation. Traffic counts used for traffic analysis will, for the most part, be provided by the Traffic Management Center (TMC)'s infrastructure data collection and Toll Operations traffic data.
- 11) Review, coordinate, and monitor planned lane closure requests to ensure they satisfy the Turnpike's Lane Closure Policy. Work with the Turnpike's Lane Closure Approval application to transmit concurrence or denial.
- 12) Provide lane closure analyses on an as-needed basis.
- 13) Conduct investigations for all public complaints related to Traffic Operations and maintain a Public Complaint Log, including timely customer response on behalf of the Traffic Operations unit.
- 14) Furnish testimony in administrative hearings or other litigation and/or prepare trial exhibits.

b) Plans Review:

- 1) Review and comment on all phases of design and operations improvement projects.
- 2) Review and comment on plans prepared by non-Turnpike entities with careful attention to access management, Traffic Control, signing/pavement markings and safety issues.
- 3) Attend all meetings related to plans review traffic operational items.

c) Maintenance of Traffic (MOT) / Traffic Control Plans:

- 1) Review and comment on all MOT plans to ensure they conform to Florida Department of Transportation and Manual on Uniform Traffic Control Devices (MUTCD) standards.
- 2) Make recommendations regarding issuance of Maintenance of Traffic certification (MOTC) for all design projects to the District Traffic Operations Engineer.
- 3) Review and recommend action on alternative MOT plans submitted during the design and construction phases.
- 4) Provide periodic field reviews of MOT setup for active construction or maintenance activities.

d) Technical Support:

- 1) Provide traffic engineering support for Turnpike offices as requested.
- 2) Participate in Traffic Incident Management, Emergency Operations and special event planning, quality improvement/enhancement, value engineering, and traffic safety teams throughout the state.
- 3) Provide computer aided design and drafting (CADD) support to Turnpike Operations offices.

e) Traffic Control Device Management:

- 1) Provide traffic signage and pavement marking design details and fieldwork for Traffic Operations and Maintenance signing projects.
- 2) Manage Traffic Service Request (TSR) process to address routine maintenance items. Provide CADD support to Turnpike Operations offices.

f) Design Support (Traffic, Safety and ITS improvements):

- 1) Review design development compliance with approved project design criteria.
- 2) Review and provide written responses on the adequacy of all Consultants' design submittals within the Electronic Review Comment system.
- 3) Review, validate and provide a written response as to the state of design completion (physical progress) as reported by the Consultant in its requests for progress payments.
- 4) Monitor the Consultant's performance of services to determine adequacy of work performed relative to contract intent.
- 5) Advise and consult on questions of engineering with respect to the installation of ITS and Traffic Operations projects.
- 6) Accomplish incidental design activities, as required and authorized.
- 7) Provide quality assurance reviews of the Consultant's implementation of its quality control plan.
- 8) As needed and directed by the Turnpike, review shop drawings submitted by consultants and contractors to assure timely processing.

2. ITS Operations and Traffic Incident Management

a) TMC Systems and Maintenance Procedures:

- 1) Review existing TMC procedures and functional requirements in order to provide input to the Department on the effectiveness of TMC role supporting the Turnpike's Emergency Response Plans and Continuity of Operations Plan.
- 2) Review and monitor needed changes to TMC procedures to conform to the next generation of ITS infrastructure and software systems available. The consultant shall have a support role in implementation of ITS systems which are recommended and approved by the Department for greater levels of efficiency and safety. There will be times when this requires work sharing with duties supported by another consultant contract.
- 3) Responsible for proactively monitoring the ITS system and field equipment. Must review legitimacy of equipment failures reported by others and track trends of device level failures in order to maintain high system availability. Develop and adhere to a Systems Monitoring and Reporting Procedure, which includes the reports made by other contractors and documentation to assist in the management of other contracts.
- 4) Develop and oversee any ITS Maintenance contracts, which perform routine and periodic ITS maintenance or enhancement functions.
- 5) Develop and oversee ITS Operations contracts (such as Road Ranger/Safety Patrol, Rapid Incident Scene Clearance (RISC) and Specialty Towing/Roadside Repair (STARR)), which provide customer service through TMC and/or FHP dispatching. Track performance of the RISC contracts, including communication with stakeholders and leading the post-incident debriefing process.
- 6) Provide qualified personnel to manage contractors in the performance of maintenance services for the Turnpike's advanced traveler information and traffic management systems, and fiber optic communications network.

b) TMC and Traffic Incident Management (TIM) Quality Assurance:

- 1) Assist the Department by providing quality assurance of traffic management center functions, including advanced traveler information system and other related incident management or communicates duties.
- 2) Provide off duty, on-call support to oversee Incident Management program contract response and the coordination

of those contractor responsibilities with TMC staff supplied by other consultants or contractors. Be responsible for quality checks that involve TMC functions being performed to the requirements of separate contracts. Summarize these performance metrics for the Department's review and approval.

- 3) Provide training to various Turnpike, FHP, and other personnel on TIM standards, best practices and Turnpike operational procedures. Responsible for conducting TIM team meetings and program materials for outreach to stakeholders and for traffic safety campaigns.
- 4) Responsible for summarizing opportunities for improvement towards both TIM and Transportation Systems Management and Operations (TSM&O) performance measures relating to the performance of other departments within the Turnpike or its contractors' efforts.
- 5) Evaluate TMC training materials to ensure maximum effectiveness in the training of new TMC staff. Responsible for administering independent review on the Department's behalf of the TMC Operator Certification program.
- 6) Update existing training materials to conform to updates in Department standard operating procedures, changes in ITS technology, systems and performance expectations.

c) Transportation Systems Management and Operations (TSM&O) Systems Performance:

- 1) Develop improved maintenance and operations (M&O) strategies for enhancing Turnpike system safety and mobility from a traffic operations perspective using current research and best industry practices and document such priorities in a Traffic Operations' Strategic Plan. This includes developing traffic safety campaign materials for workforce and the general public.
- 2) Define appropriate M&O performance measures and develop methods for tracking and monitoring the performance and benefits of all Traffic Operations programs to the traveling public in terms of customer satisfaction, enhanced safety, improved mobility, and improved incident clearance.
- 3) Determine appropriate measures of effectiveness (MOEs) for the TMC and Incident Management Program in terms of efficiency and effectiveness in providing traffic management, advanced traveler information, and incident management, and develop means of capturing and monitoring data for these performance measures by automated reporting opportunities when possible.

- 4) Develop, implement, and maintain new tools, or identify existing tools, to capture, monitor, and report on Systems performance of the ITS network and device inventory, for the purpose of accurately calculating system availability. These tools will be used to develop performance tracking methods for ITS maintenance support contracts.
- 5) Administer tasks on Department's behalf for other contracts that are associated with planning, study, development, and implementation of TSM&O solutions.
- 6) Prepare quarterly and annual progress reports on TSM&O system performance based upon these MOEs, which are recommended and approved by the Department's staff

3. ITS Engineering

a) ITS Systems Administration:

- 1) Initiate, develop, and oversee approved task work orders and contracts for ITS Systems and Maintenance activities using field or home office staff for purposes of planning, scheduling, and directing project activities.
- 2) Coordinate ITS and TSM&O needs with the Turnpike's Work Program for identifying funding needs and availability, including capital improvements, routine maintenance and renewal/replacement of existing devices and systems.
- 3) Develop progress reports and action lists for ongoing ITS improvement projects.
- 4) Maintain an ITS document control and filing system which governs distribution and file copies of all program-related correspondence, reports, plans, technical data, etc., subject to Turnpike Enterprise approval. Program and project files shall be transferred to the Turnpike Enterprise upon completion of the work or as otherwise directed by the Turnpike Enterprise.
- 5) Prepare, review, and comment upon ITS documents and preliminary/final installation cost estimates at normal phase submittals as required by Department procedure or for special submittals.

b) ITS/TSM&O Business and Operations Plans:

- 1) Assist the Turnpike in maintaining an effective ITS Business Plan and towards programming future ITS/TSM&O deployments under the vision, guiding principles, goals, and objectives of Turnpike Traffic Operations and its Traffic Management Center.

- 2) Study and propose new ITS concepts prior to the initiation of full-scale projects, including new operational elements to support widening/reconstruction, managed lanes, tolling conversions and other projects.
- 3) Develop or modify Technical Special Provisions (TSP) for ITS device and system deployment/procurements.
- 4) Plan, design, operate, and maintain ITS system elements on the Turnpike System per the adopted ITS Architecture, and adjust plans when necessary to meet changes in regional, state or national ITS architectures.
- 5) Provide systems engineering services as the responsible party for upkeep of the ITS System Engineering Management and ITS Communications Masters Plans.
- 6) Prepare and upkeep of the ITS system device inventory in an electronic database format currently used by Turnpike Operations. This inventory must be translated into reasonable plans for renewal and replacement of the ITS inventory and coordinated with the Turnpike's Work Program processes.

c) ITS System Integration:

- 1) Achieve seamless integration of all ITS field devices with Traffic Management Center (TMC) and TMC Central Software, and work with others contracted to replace or repair such field devices.
- 2) Provide systems integration services, if requested, for Turnpike ITS deployment projects to ensure intra- and inter-Turnpike Enterprise continuity and maximum performance.

d) TMC Central Software Support and Maintenance:

- 1) Demonstrate and use working knowledge of operational, developmental, and integration features of the Turnpike's TMC primary software platform (SunGuide) in oversight of the software's routine configuration upkeep provided by other consultants and contractors.
- 2) Manage the ongoing relational and system databases associated with the TMC software devices/features with other ITS systems, such as Solarwinds and Operations Management System (OMS).
- 3) Responsible for TMC software configuration management, providing a network administration team responsible for efficient software delivery, and producing a standard operating procedure document for standardizing the local software maintenance.

- 4) Work with others, if requested, to establish device drivers and software enhancements for application programs to integrate various ITS elements, as required through ongoing and future ITS deployments.
- 5) Coordinate TMC software enhancement requirements with FDOT Central Office on the Turnpike's behalf, including making presentations of operational concepts, requirements, and benefit/cost to the Change Management Board.
- 6) Produce TMC software Operational Concepts documents, requirement documents, and provide review of software development scopes, submitted by others.
- 7) Perform system testing of the TMC software upgrades to ensure the installation meets the needs of the Turnpike's TMC.
- 8) Participate in the Statewide TMC Software Change Management Board (CMB) meetings in support of the Department and its efforts.

e) Research and Development:

- 1) Conduct research of domestically and internationally deployed state-of-the-art intelligent transportation system, TSM&O, Connected Vehicle (CV) and related Automated Vehicle (AV) technology advancements.
- 2) Prepare formal concept studies in support of Turnpike's ITS and CV program enhancement elements.

f) ITS Engineering Analysis and Support:

- 1) Prepare cost effectiveness and life cycle cost analyses of existing or proposed ITS infrastructure/components, including CV safety projects.
- 2) Provide value-engineering analyses for proposed ITS initiatives, including the renewal/replacement program.
- 3) Prepare comparative engineering cost estimates.
- 4) Provide special engineering services including special studies and analytical services.

V. Responsibilities of the Department

The Department will, without cost to the Consultant, provide the following:

- Provide all criteria and information as to the Department's requirements for consultants and contractor services, including objectives, constraints, budgetary limitations, and time restraints.

- Copies or access to all Department procedures, standards, forms, and policies applicable to the services to be provided under this Agreement.
- Copies of drawings, specifications, schedules, reports and other information prepared by and/or for the Department by others which are available to the Department and which the Department considers pertinent to Consultant's responsibilities.
- Existing structural, roadway, and other plans, as available.
- Available traffic, safety (accident), and planning data.
- All necessary utility relocation form letters, agreements, relocation schedules and any other document form needed by the Consultant to clear the project utilities.
- Advise the Consultant in all utility negotiation matters.
- Provide project utility certification to the Department's Central Office.

VI. Subcontracting

Services assigned to subconsultants must be approved in advance by the Department in accordance with Section 7 (Assignment and Subcontractors) of the Standard Professional Services Agreement Terms. All the subconsultants must be qualified by the Department to perform all work assigned to them.

In the event services of a subconsultant are to be authorized, the Consultant shall obtain a schedule of rates, and the Department shall review and must approve any rates, including salary rates, operating margin and audited salary multipliers (overhead, direct expense percentage, and facility capital cost of money-FCCM) to be paid to the subconsultant. The Consultant shall not have a subconsultant render services until such time as the Department establishes the subconsultant as an authorized subconsultant in the Agreement with the rates to be paid.

A. Professional Engineers, Architects, Landscape Architects, Registered Surveyors and Mappers, Transportation Planners, and consultants providing Right of Way services.

1. Field Office Services

If the Consultant plans to use the services of architects, professional engineers, landscape architects, registered surveyors and mappers, transportation planners, and consultants providing right of way services, as subconsultants, performing services in a field office, the subconsultant must submit and maintain on file with the Department each year, an audit report, found acceptable to the Department and prepared by an independent certified public accountant or governmental agency, which meet the requirements of Rule 14-75.0022, Florida Administrative Code. Subconsultants will not be permitted to provide services from field office locations established as a requirement of this contract or from office space

provided by the Department unless the audit report establishes both a home office and field office overhead rate.

2. Home/Branch Office Services

Except as otherwise provided by this paragraph, if the Consultant plans to use the services of architects, professional engineers, landscape architects, registered surveyors and mappers, transportation planners and consultants providing right of way services, as subconsultants, performing services from the subconsultant's branch or home office, the subconsultant must submit and maintain on file with the Department each year, an audit report, prepared by an independent certified public accountant or governmental agency, which meets the requirements of Rule 14-75.0022, Florida Administrative Code, if anticipated contract fees are expected to exceed \$500,000. When anticipated contract fees are expected to be less than \$500,000, a self-certified overhead audit report and statement describing the accounting system certified by a firm's principal may be submitted to the Department for approval in lieu of an audit report and accounting certification prepared by an independent certified public accountant or governmental agency provided such audit report is in the format specified in the Department's Reimbursement Rate Audit Guidelines in effect at the time of the audit. Projected overhead rates and other projected reimbursement rates will be permitted when the firm has operated as a business less than one complete fiscal year or the firm has reorganized to the extent that the most recent audit does not reflect currently valid reimbursement rates, provided the firm has established and operated an accounting system in accordance with the minimum standards provided in the Department's Reimbursement Rate Audit Guidelines in effect at the time of the audit. Subconsultants who bill exclusively all clients on a unit-rate basis or published price lists are not required to have a formal job-cost accounting system but still must maintain an accounting system acceptable to the Department which segregates direct and indirect costs, can trace and support services provided to individual contracts, and meet the requirements set forth in the Department's Reimbursement Rate Audit Guidelines in effect at the time of the audit.

B. Other Subcontractual Services

Subconsultants who are not architects, professional engineers, landscape architects, registered surveyors and mappers, transportation planners or consultants providing right of way acquisition services are not required to have audit reports prepared by independent certified public accountants or governmental agencies. Such subconsultants are required to support all costs for services to the extent required by the Department for the Department to make a determination that such costs are fair, reasonable and competitive.

C. Project Cost Accounting

All subconsultants must comply with the Project Cost Accounting requirements of Section XI of this Scope of Services.

VII. Computer Services

The Department will allow the Consultant to utilize the Department's data processing and computer resources for programs requested by the Consultant and approved by the Department in accordance with Department procedures for access to the Department's local area networks and the Department's procedure for access to the Department's mainframe computer network and data (presently found in procedures Nos. 325-060-555).

Computations based on computer programs other than the Department's must conform to the Department's general format.

The Consultant may be required to provide and maintain an Information Technologies staff with sufficient expertise to primarily perform any and all IT support and initiatives associated with performance by the Consultant's staff for the professional services set forth herein. IT staff capabilities should include, but are not necessarily limited to, network file server installation, configuration, and maintenance; end-user software support and training; end-user hardware configuration, troubleshooting and maintenance; and web-based programming and database support.

In performance of IT support and initiatives associated with the performance of the Consultant's staff for the professional services set forth herein, the Consultant shall comply with the following requirements:

- When supporting the Consultant's professional staff, the Consultant shall adhere to the Department's policies and procedures, which govern the use of technology, computers, infrastructure, acquiring of resources, and the Internet/Intranet.
- The Consultant is to coordinate with the Turnpike's Information Systems Office their technology requirements for the Consultant's staff and process an Information Resources Request (IRR) or seek a statement from the Turnpike Information Systems Office stating that an IRR is not required for such technology needs.
- The Consultant shall promote efficient and effective use of technology staff and resources when supporting the Consultant's staff. The Consultant is to coordinate with the Turnpike's Information Systems Office for network infrastructure improvements, equipment relocations, travel, staffing, and hours worked to prevent absence or duplicate Information Systems Office support.

VIII. Specifications for Work

The Consultant shall ensure that all services and work product, including but is not limited to, work activities, documents, engineering studies, and construction plans are performed or prepared in accordance with the latest standards, procedures and policies utilized by the Department. Information regarding the Department's standards, procedures and policies can be found on the Department's website (www.dot.state.fl.us). It is the Consultant's responsibility to keep up with the latest documents. The Consultant shall perform an annual quality assurance review to verify compliance. The Consultant shall comply with all applicable federal, state, and local regulations in performance of services.

IX. Conflict of Interest

The Consultant and its subconsultants shall not enter into or participate in any other contract with the Department's Florida's Turnpike Enterprise during the term of this agreement which would create or involve a conflict of interest with the services provided herein (please refer to the Department's Procedure No. 373-030-006, Restriction on Consultant's Eligibility to Compete for Department Contracts, for additional guidance). Existing contracts of the Consultant and its subconsultants are exempt from this Conflict of Interest provision. Questions regarding potential conflicts of interest shall be addressed to the Executive Director, Florida's Turnpike Enterprise for resolution.

- A. The Consultant is not eligible to pursue any advertised roadway and bridge maintenance projects, traffic operations projects, or ITS projects of Florida's Turnpike Enterprise as either a Prime or subconsultant.
- B. The Consultant or any affiliate is not eligible to pursue advertised work in the Consultant's area of oversight or for any project which the Consultant developed the solicitation documents or Scope of Services. Subconsultants are also ineligible to pursue projects where they participated in the development of the Scope of Services or have an oversight responsibility. The term "affiliate" shall mean business concerns, organizations, or individuals where, directly or indirectly, either one controls or has the power to control the other, or a third party controls or has the power to control both, regardless of whether the entities have separate vendor IDs. Indicia of control include interlocking management or ownership, identity of interests among family members, shared facilities and equipment, and common use of employees.

X. Personnel Qualifications and Training

The Consultant shall assign only competent technical and professional personnel qualified by the necessary experience and education to perform assigned work. The Consultant is responsible for ensuring that staff assigned to work under this Agreement has the training established by the Department as a prerequisite for Consultant staff to perform work. If the required training is such that it can be applied by the trainee to work the Consultant performs on other contracts of the Consultant, regardless of whether or not the trainee

would work on other agreements of the Consultant, the cost of the trainee's time and expenses associated with the training is not billable to the Department and shall be a Consultant cost. If the training is associated with training requirements unique to this Agreement and not a requirement for Consultant staff assigned to work under other agreements of the Consultant, the cost of such training for time and expenses is reimbursable to the Consultant by the Department. The aforementioned also applies to new training requirements established by the Department for any work assigned during the term of this Agreement.

In summary, training requirements established by the Department during the term of this Agreement as a prerequisite for Consultant staff to perform work on this Agreement at either a field, branch or home office of the Consultant, is an indirect cost of the Consultant unless the requirement for training is unique to this Agreement and not required for work on any other contract of the Consultant.

The Consultant shall ensure that field office personnel assigned to work under this Agreement have the same opportunities for training as those the Consultant provides for home and branch office personnel. For work assigned by the Consultant to authorized subconsultants, the requirements set forth herein for staff qualifications and training shall also apply to subconsultant staff performing work under this Agreement.

Personnel requirements are more particularly set forth in ATTACHMENT "A" (page B-1) and ATTACHMENT "B" (pages B-2 to B-10), attached hereto and made a part hereof.

XI. Responsibility Clarifications

The Consultant shall not be responsible for the means, methods, techniques, sequences or procedures utilized by Department contractors or other service providers who have contracts with the Department. The Consultant shall have no responsibility for any deficiencies in work or services of contractors or for any failure of contractors to carry out such work or services in accordance with the applicable contract documents; provided however, the Consultant is responsible for notifying the Department upon discovery of any deficiency in work or failure to perform on the part of the contractors.

XII. Third Party Beneficiaries

This Agreement shall apply solely for the benefit of the Department and the Consultant. No person or entity may claim as a third-party beneficiary under this Agreement.

ATTACHMENT “A”

PERSONNEL

General Requirements

The Consultant shall provide qualified personnel to carry out responsibilities under this Agreement. Any Consultant personnel providing professional services to the Department shall be licensed by the State of Florida in the applicable discipline.

Personnel Qualifications

The Consultant shall utilize only competent personnel who are qualified by experience, education and training. The Consultant shall submit in writing to the Department the names of all personnel to be considered for assignment to the project(s), their proposed role(s), together with a detailed resume with respect to education and experience qualification of each individual. Minimum qualifications for personnel are set forth in Attachment “B” of this Exhibit “A”.

Staffing

The Consultant shall maintain an appropriate staff. No personnel shall be assigned to or removed from the project by the Consultant until authorized by the Department. The qualifications of each person proposed for assignment must be reviewed and approved in writing by the Department. The Consultant shall replace an individual previously approved by the Department whose performance is later determined to be unsatisfactory.

Personnel identified in the Consultant's technical proposal will be assigned to the project as proposed by the Consultant and are considered by the Department to be committed to performing services under this Agreement.

Licensing for Equipment Operation

The Consultant will be responsible for obtaining proper licenses for any personnel operating equipment requiring licensed operators.

Training

The Consultant shall provide training of its personnel to the extent necessary to assure a level of performance satisfactory to the Department.

ATTACHMENT “B”

MINIMUM TRAINING AND EXPERIENCE STANDARDS FOR TRAFFIC OPERATIONS PERSONNEL

Minimum qualifications for the Consultant personnel are set forth as follows. Exceptions to these minimum qualifications will be considered on an individual basis.

Program Director - A Civil Engineering degree and registration in the State of Florida as a Professional Engineer (or if registered in another state, the ability to obtain registration in the State of Florida within six months) is required. Ten (10) years of engineering experience as well as experience in program management. Qualifications include the ability to communicate effectively in English (verbally and in writing) and to large groups of people; ability to lead and manage a large staff; and ability to develop and review policies, methods, practices and procedures; knowledge of FDOT policies, procedures, and standards.

Traffic Incident Management Program Manager – A Bachelor’s degree in a Transportation related field is required. Ten (10) years of experience with at least five (5) of these years in positions with supervisory responsibilities. Qualifications include the ability to communicate effectively in English (verbally and in writing); ability to provide leadership and vision for the Turnpike’s Incident Management Program, which is inclusive of the ITS Operations/TSM&O and contractual programs managed by the Traffic Operations unit, such as Safety Patrol/Road Ranger, Specialty Towing and Roadside Repair (STARR), and Rapid Incident Scene Clearance (RISC); requires strong leadership, organizational and communications skills, and be responsible for the public outreach and collaboration with all partners, internal and external, within the Incident Management arena; experience with management and oversight of Incident Management and Traffic Management performance goals; ability to give oversight of the quality control and quality assurance programs within Traffic Operations to ensure proper procedures are in place to continuously improve the accuracy and efficiency of ITS Operations and Traffic Incident Management program areas.

ITS Operations/TMC Incident Manager – A Bachelor’s degree in a Transportation related field is required. Eight (8) years of experience with at least four (4) of these years in positions with supervisory responsibilities in Transportation programs. Qualifications include the ability to communicate effectively in English (verbally and in writing); ability to provide leadership and oversee quality assessment of the Traffic Management Center (TMC) functions and output, including the public program resources such as traffic information website, public safety campaigns, special event impacts and 511 information delivery; requires strong leadership, organizational and communications skills, and responsible for the quality assurance programs for the TMC; knowledge and experience with developing operational procedures for the TMC effectiveness and a monitoring program for compliance; ability to act as the primary person responsible for interfacing with other Turnpike departments and outside agencies for the TSM&O functions of information dissemination, special event operations and incident-related responsibilities.

Traffic Engineering and ITS Program Manager - A Civil Engineering degree and registration in the State of Florida as a Professional Engineer (or if registered in another state, the ability to obtain registration in the State of Florida within six months) is required. Minimum of ten (10) years engineering experience in traffic engineering and ITS, and at least five of these years in positions with project management and supervisory responsibilities. Qualifications include the ability to communicate effectively in English (verbally and in writing); ability to manage the Turnpike's Traffic Operations/Engineering programs related to Traffic Safety, Signing, ITS Engineering (planning and systems engineering); ability to provide leadership, direction and technical guidance to ensure that quality technical services are provided to internal and external clients; ensure that the Traffic Engineering and ITS program meets operating performance measures.

TSM&O/Traffic Safety Engineering Manager – A Civil Engineering degree is required. Minimum of four (4) years of experience in Traffic Engineering. Professional Engineering License (PE) is preferred, but not required. Qualifications include the ability to communicate effectively in English (verbally and in writing); knowledge and experience in a range of duties carried out by Traffic Operations related to Traffic Safety and other Transportation Systems Management & Operations (TSM&O) elements; ability to oversee the preparation of traffic studies such as fatal crash reviews, crash analysis and benefit/cost analysis to support safety improvements; ability to conduct investigations into all public complaints related to Traffic Operations and respond in writing or verbal methods to customers; ability to supervise and provide mentoring to other staff responsible for performing tasks related to the above areas.

Traffic Services Manager – A Civil Engineering degree is required. Minimum of four (4) years of experience in Traffic Engineering. Professional Engineering License (PE) is preferred, but not required. Qualifications include the ability to communicate effectively in English (verbally and in writing); knowledge and experience in a range of duties carried out by Traffic Operations related to Work Zone Traffic Control and Signing/Pavement Markings design; ability to oversee the preparation of traffic studies such as signage reviews, speed studies, signal warrant analyses, gap studies and lane closure analyses; ability to conduct investigations into all public complaints related to Traffic Operations and respond in writing or verbal methods to customers; ability to supervise and provide mentoring to other staff responsible for performing tasks related to the above areas.

Traffic Services Specialist - A Civil Engineering degree is required. At least two (2) years of experience in Traffic Engineering. Registration as an Engineer Intern in Florida is preferred, but not required. Qualifications include the ability to communicate effectively in English (verbally and in writing); knowledge of a range of duties carried out by Traffic Operations related to Traffic Safety, Work Zone Traffic Control and Signing/Pavement Markings design; ability to conduct fatal crash reviews, signage design, speed studies, signal warrant analyses, gap studies and lane closure analyses; ability to review, coordinate, and monitor lane closure requests to ensure they satisfy the Turnpike's Lane Closure Policy, as well as minimizing delays to Turnpike customers.

ITS Technology Business Manager – A Bachelor’s degree in a related information technology or electronics field is required. Minimum of five (5) years of experience in Intelligent Transportation Systems (ITS) development and operations. Qualifications include the ability to communicate effectively in English (verbally and in writing); ability and experience in preparation and review of ITS system documents, including Request for Proposal (RFP) documents for routine maintenance or renewal and replacement contracts; knowledge and experience with the Department’s procedures for contract development and contract management; ability to develop RFP documents that include, but are not limited to, technical specifications, special conditions, special provisions and scopes of work.

ITS Server and Operations Manager – A Bachelor’s degree in Computer Information Systems or related information technology field is required. Minimum of five (5) years of experience in ITS systems, applications and/or operations. Qualifications include the ability to communicate effectively in English (verbally and in writing); ability to oversee the operations and maintenance of a large ITS system data center, including ITS applications, and hardware; experience and certifications in VMware, Oracle, Windows Operating Systems and other common technologies; experience in supervising staff responsible for achieving performance goals towards ITS system availability; requires strong organizational skills, and will be responsible for the quality control and quality assurance programs for the ITS system.

ITS Network Infrastructure Manager – A Bachelor's degree in Computer Information Systems or related field is required. Minimum of five (5) years of experience in ITS network engineering and management. Qualifications include the ability to communicate effectively in English (verbally and in writing); in-depth knowledge of networking, relational database management and MS Windows; experience with ITS network protocols and best practices in maintaining an IT wide area network; experience and certifications in Cisco, Microsoft, Oracle, Windows Operating Systems and other common technologies.

ITS Performance Monitoring & Applications Manager – A Bachelor’s degree in a related information technology or related field is required. Minimum of five (5) years of experience in database management, Intelligent Transportation Systems (ITS) operations, or related field. Qualifications include the ability to communicate effectively in English (verbally and in writing); Skilled in tools to create dashboard style reports, methods for data presentation of key performance indicators in a real-time operational environment, and customized reporting tools for ITS device reliability, congestion/mobility statistics and incident management targets; in-depth knowledge of Connected Vehicle data collection and exchange applications.

ITS Maintenance Contracts Manager – A Bachelor’s degree in area of responsibility is preferred. Five (5) years of experience working with the contractual aspects of information technology and/or ITS projects is required. Qualifications include in-depth knowledge of ITS maintenance issues, such as typical ITS field devices, best practices for maintaining and troubleshooting equipment failures; ability to communicate effectively in English (verbally and in writing); Skilled in the oversight and administration methods for DOT maintenance-style contracts; ability to manage routine and periodic ITS maintenance projects and on-site staff responsible for completing tasks.