

# EXHIBIT “A”

## SCOPE OF SERVICES

### PLANNING AND ENVIRONMENTAL MANAGEMENT OFFICE (PLEMO) PLANNING UNIT

### DISTRICTWIDE EFFICIENT TRANSPORTATION DECISION MAKING (ETDM) CONSULTANT

Financial Project # 416487-3-22-01

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DECISION MAKING (ETDM)  
CONSULTANT**

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**1.0 PURPOSE**

The Planning and Environmental Management Office, Planning Unit (FDOT) of District Six of the Florida Department of Transportation (FDOT) requires the professional services of a CONSULTANT to assist in the implementation of the FDOT'S Efficient Transportation Decision Making (ETDM) process and the Sociocultural Effects Assessment (SCE) process. This includes the Miami-Dade County Transportation Planning Organization (TPO), Monroe County Board of County Commissioners (BOCC), Regional Planning Council (RPC), local government and public involvement interface and assistance. The CONSULTANT is expected to maintain a team with a thorough understanding of the ETDM process and possess a wide array of transportation planning technical skills and expertise and provide innovative public and agency involvement techniques. The CONSULTANT must have a thorough knowledge of the FDOT's transportation partners' abilities, data and involvement as it relates to the ETDM process.

The FDOT also requires the professional services of a CONSULTANT for the evaluation of alternate corridor locations and/or other engineering studies for specific transportation improvements and for Public Involvement tasking. The work involves evaluating traffic capacity, engineering feasibility and the social, economic and environmental impacts of alternate transportation improvements or systems to the extent necessary to select the best improvement or system and presentation of transportation concepts to the public. The CONSULTANT shall minimize the FDOT's need to apply its own resources to assignments authorized by the FDOT.

The FDOT requires the professional service of a CONSULTANT to develop detailed proposals, including a description of the work and a staff hour estimate for each assigned task for approval by the FDOT. The FDOT will provide the CONSULTANT with individual Task Work Orders as part of this Districtwide Contract.

## 2.0 OBJECTIVES

The FDOT will require the CONSULTANT to provide technical services, analysis, coordination and support in implementing the ETDM and SCE programs within District Six; including interaction with transportation partners, units of local government and the public, as applied to the District Six planning, project development and environmental permitting processes. All work will be done in accordance with the FDOT's Project Development and Environment (PD&E) Manual, ETDM Manual, Sociocultural Effects Evaluation Handbook, the Public Involvement Handbook, environmental permitting requirements and all applicable federal, state and local regulations and procedures and all subsequent revisions.

Additional objectives include:

The CONSULTANT shall minimize the FDOT's need to apply its own limited resources to assignments authorized by the FDOT.

The CONSULTANT shall assist the FDOT in performing ETDM, SCE and associated Geographic Information Systems (GIS) analysis, studies, coordination, report writing and other technical support services.

The CONSULTANT shall assist the FDOT in conducting agency specific and/or public involvement coordination activities of ETDM, SCE and other aspects of the FDOT's planning and project development processes; to include the TPO, RPC, units of local government, state and federal agencies and applicable environmental organizations.

The CONSULTANT shall assist the FDOT in the evaluation, development and completion of engineering and environmental studies for transportation improvements. The CONSULTANT shall assist the FDOT in fulfilling public involvement requirements, as needed for the various tasks assigned.

## 3.0 CONSULTANT SERVICES

### 3.1 ETDM

The CONSULTANT will provide technical services, analysis, coordination and support in implementing the ETDM and SCE programs with District Six. The following types of work elements may be assigned under the terms of this Contract; but are not limited to:

- A. Supporting the FDOT, the TPO, the BOCC, RPC and the Florida Intrastate Highway System (FIHS) staff in the preparation, entry and review of project information, purpose and need statements and project mapping.
- B. Coordinating with and assisting the TPO and FDOT to digitize projects into the Environmental Screening Tool (EST) and the State Wide Environmental Project Tracker (SWEPT).
- C. Providing hands on or online training of the EST Project Input Utility to TPO and FDOT planners.

- D. Coordinating with FDOT Central Office, the Florida Turnpike Enterprise and the Miami-Dade Expressway Authority (MDX) when needed in preparation for ETDM screening events.
- E. Reviewing Environmental Technical Advisory Team (ETAT) commentary and assisting the District ETDM Coordinator with assignment of degree effect and assisting with the review and finalization of Planning and Programming Summary Reports.
- F. Support with other ETDM activities as determined by the District ETDM Coordinator.

### 3.2 Sociocultural Effects (SCE) Evaluations and Data Collection Services

- A. Identifying and working with the TPO, neighborhood groups and community leaders to develop a Community Contact List.
- B. Developing and analyzing demographic and other data to establish community boundaries, developing community profiles, reviewing existing SCE data for currency and accuracy and defining data priorities.
- C. Conducting Sociocultural Effects (SCE) evaluations for candidate projects and uploading the results into the EST.
- D. Establishing and implementing outreach activities to gain public input about the potential SCE for proposed projects.

### 3.3 Environmental Review Services

- A. Coordinating with the ETAT during the ETDM Screening events.
- B. Reviewing ETAT commentary and identifying difficult issues or fatal flaws associated with a particular project or alternative.
- C. Conducting indirect and cumulative effects evaluations.
- D. Facilitating informal consultation and mediation of potential disputes.
- E. Evaluating mitigation and conservation measures to off-set project specific impacts.
- F. Providing hands-on or online training of the EST ETAT Review module to both ETAT agencies and FDOT.
- G. Compiling lists and tracking projects resulting from ETDM and/or SCE evaluations.
- H. Utilizing the ETDM Project Input Utility, the ETDM EST and the ETDM Manual for the screening and/or advancing of projects, as necessary.

- I. Providing (on a case-by-case basis) presentations, coordination and set up of ETDM and SCE related meetings and workshops, meeting support materials and equipment, handouts, meeting summaries and short video or slide presentations.

#### 3.4 Programming Screen and Project Development Support Services

- A. Reviewing scoping recommendations provided by the ETAT.
- B. Participating in and facilitating agency scoping meetings.
- C. Assisting with the development of scopes for focused technical studies.
- D. Assisting with Class of Action (COA) Determinations.

#### 3.5 Geographic Information Systems (GIS) Database Development and Analysis

All GIS data shall be collected and organized in accordance with the FDOT Geographic Information Systems Policy (Topic No 000-010-002-a). Prior to creating georeference data, the CONSULTANT shall evaluate the database available through the FDOT's GIS Enterprise and/or the Florida Geographic Data Library (FGDL) and use them if the level of detail and accuracy is sufficient for the analytical needs of the project.

The CONSULTANT must be able to provide GIS services and assist the FDOT in the maintenance, operation and updating of the District's Geographic Information System (GIS) in support of the District's Enterprise GIS initiatives, whereby information of multiple origins and types is integrated and distributed for multiple purposes. The CONSULTANT must be able to operate computers and peripherals (including digitizers, scanners and plotters), mobile hardware (including GPS and PDAs) and related geospatial software. The CONSULTANT may be required to provide the following products.

- A. Software Development & Programming Support  
The CONSULTANT may be required to provide customized software programs for ETDM, ArcGIS Desktop (10.x or higher) and ArcPad using Visual Basic, C, C++, Java, .NET SDK, Flex, Silverlight and Python.
- B. Relational Databases  
The CONSULTANT must have knowledge in creating and designing relational databases and their deployment, extracting and manipulating data, using Microsoft Access, SQL server and Oracle.
- C. Development, implementation, maintenance and operation of GIS –Web based products.  
The CONSULTANT may be required to develop, implement and maintain GIS web pages and online applications in support of streamlining business processes, workflow automation and data analysis in FDOT, as necessary. The CONSULTANT should have a working knowledge of following programming languages: HTML, Java, Silverlight, Flash and Java Script to create web-based GIS products with ArcGIS. The CONSULTANT should have a working knowledge of cloud service models.

### 3.6 Project Development

The CONSULTANT may be required to assist the FDOT in the development and evaluation of engineering and environmental studies for transportation improvements. Tasks associated with the required engineering analysis may include evaluation of social, economic and environmental impacts of alternative transportation improvements or systems to the extent necessary to select the best improvement or system. These evaluations are described in the PD&E Manual and the ETDM Manual and all subsequent revisions. Some reports are required to be signed, dated and sealed by the CONSULTANT in accordance with Chapter 471, Florida Statutes.

The following types of work elements may be assigned under the terms of this Contract.

#### A. Development and Evaluation of Engineering Studies

- a. The CONSULTANT may be required to prepare, evaluate and/or review alternative design concepts for constructability.
- b. The CONSULTANT shall prepare and analyze design concepts to minimize environmental impacts, balanced against project costs and public necessity. Estimated costs shall include, but not be limited to right-of-way, mitigation, construction and long-term maintenance to ensure selection of the optimum transportation improvement or system.
- c. The CONSULTANT may be required to develop, review and/or critique conceptual Maintenance of Traffic plans as necessary in the PD&E process for:
  - i. Constructability
  - ii. Ease of implementation and safety
  - iii. Analysis of existing traffic data
  - iv. Evaluation of existing movements and access requirements
  - v. Advise and consult the FDOT on questions of engineering with respect to project design intent.
- d. The CONSULTANT may be required to provide the following professional services for engineering review and evaluation:
  - i. Engineering Data Collection
  - ii. Corridor Analysis
  - iii. Conceptual Design Analysis
  - iv. Comparative Analysis of Design Alternatives
  - v. Traffic Counts and Analysis
  - vi. Pedestrian and Bicycle Counts
  - vii. Crash Data Analysis
  - viii. Design Concept Plans
  - ix. Traffic for Air & Noise Analysis
  - x. Air Analysis Reports
  - xi. Noise Analysis Reports
  - xii. Aerial Photography

- xiii. Digitized or Raster Files from Photography
- xiv. Preliminary Right-of-Way Maps
- xv. Right-of-Way Maintenance Maps
- xvi. Cost Estimates
- xvii. Base Conceptual Plans by plotting existing right-of-way, street names, cultural and natural resources, land uses and property lines.
- xviii. Location Hydraulic Studies and Reports
- xix. Conceptual Drainage Designs
- xx. Final/Draft Preliminary Engineering Reports
- xxi. Conceptual Design Plans
- xxii. Final/Preliminary Engineering Reports
- xxiii. Project Concept Summary
- xxiv. Interchange Modification Reports (IMR's) and Interchange Justification Reports (IJR's)
- xxv. Landscape Design/Planning and/or Relocation Plans

#### B. Development and Evaluation of Environmental Studies

- a. The CONSULTANT may assist in the development, preparation and review of tasks required in the PD&E Manual, to include but not be limited to:

- i. Advance Notification Packages
- ii. Biological Sampling and Surveying
- iii. Air Quality Reports
- iv. Noise Reports
- v. Cultural Resource Surveys
- vi. Programmatic and Individual Section 4(f) Statements
- vii. Categorical Exclusions
- viii. Environmental Assessments
- ix. Environmental Impact Statements
- x. Reevaluations

which serve to document the engineering alternatives evaluation. In addition to tasks described in the PD&E Manual, the CONSULTANT may be expected to perform wetlands assessments. The CONSULTANT may be required to assist the FDOT with any state or federal permits required for the construction of a project (including, but not limited to, stormwater, surface water, Florida Department of Environmental Protection (FDEP) and U.S. Coast Guard).

- b. The CONSULTANT may be required to provide all necessary coordination and obtain necessary permits associated with floral, faunal and surface water impacts. This may include identifying suitable sites for relocation of species (possibly including, but not limited to, gopher tortoise relocation) and perform all necessary work to relocate species, perform necessary monitoring activities and prepare monitoring reports as required by environmental agencies.



- c. If Hazardous Waste and Petroleum Contamination Evaluation is required, the CONSULTANT shall identify, evaluate and make recommendations to the FDOT concerning potentially hazardous waste and petroleum contamination problems associated with each proposed alignment. At a minimum, these tasks shall comply with Part 2, Chapter 20 of the PD&E Manual.

### 3.7 Project Management and Administration

The CONSULTANT will participate in Project Management and Strategy Meetings and provide administrative support to the FDOT ETDM Coordinator.

- A. The development or modification of Scopes of Services, Task Work Orders and Agency Operating Agreements (AOA).
- B. The preparation of cost estimates and staff-hour estimates for proposed services, materials, mileage requirements and indirect cost allocation for overhead and other expenses.
- C. The development of milestone schedules, Gantt charts, Critical Path Method (CPM) flowcharts and/or other scheduling methods.
- D. Requirement to have capabilities and maintain communication with the FDOT through electronic mail (e-mail).
- E. Preparation of the quarterly report to track ETDM activities and benefits.
- F. Assist with the preparation of District Benefits/Issues Spreadsheets and Surveys as requested.

### 3.8 General Public Involvement / District Staff Support

The CONSULTANT will be required (on a case-by-case basis) to assist and support the FDOT in public or local government involvement activities associated with ETDM, SCE and Project Development work activities; including, but not limited to:

- A. District ETDM, SCE, ETAT, Context Sensitive Solution (CSS), and Complete Streets related workshops, hearings, meetings and other venues. ETDM, SCE, ETAT, CSS, and Complete Streets related Public Involvement must be integrated, not set apart from the Project Development processes, including ETDM Planning, Programming and Project Development Screens.
- B. Internal and external District workshops, hearings, meetings, task forces and training sessions, and other possible venues.
- C. Provide support for meeting set up, notifications, presentations, graphics, handouts and other meeting support and materials, as needed.
- D. Collection and summarization of public comments from Public Outreach events and subsequent entry into EST.

### 3.9 Quality Assurance/Quality Control (QA/QC)

The CONSULTANT will be responsible for ensuring that all work products conform to the FDOT's standards and criteria. This must be accomplished through an internal QA/QC process performed by the CONSULTANT. The QA/QC process should ensure that objective and qualified individuals who were not directly responsible for performing the initial work achieve quality through checking, reviewing and monitoring work activities.

## 4.0 **MISCELLANEOUS SERVICES**

### 4.1 Contract and Project Files

The CONSULTANT will be responsible for the set up and maintenance of files, development of progress reports, schedule updates and proper accounting of tasks and hours billed for invoicing. The CONSULTANT shall deliver to the FDOT all reports in the format prescribed by the FDOT.

### 4.2 Project Management Meetings and Coordination

The CONSULTANT shall meet with the FDOT as needed throughout the life of the Contract and as indicated by the FDOT's Project Manager. These meetings will include progress, production, miscellaneous review and other coordination activities as designated by the FDOT.

## 5.0 **FDOT RESPONSIBILITIES**

The FDOT will provide the CONSULTANT with the services, materials and data necessary for the CONSULTANT to complete all required tasks.

The FDOT will provide access to all reasonably available and relevant data, studies, publications, policies, standards, flowcharts, work programs, maps, ETDM and SCE materials, the DOTNET and other computer programs and databases as authorized by District Six.

The FDOT also will furnish:

- A. Criteria and available information on the FDOT's requirements for consultant and contractor services; including objectives, constraints, budgetary limitations and time restraints.
- B. FDOT procedures, standards and policies applicable to the services.
- C. Drawings, specifications, schedules, reports and other information prepared by and/or for the FDOT by others which are available and considered pertinent to the CONSULTANT's responsibilities.
- D. The FDOT will permit the CONSULTANT access to the applicable computer programs upon proper authorization as outlined in the FDOT's Procedures.

- E. Structural Plans.
- F. Traffic and planning data.
- G. Survey/Location necessary for completion of the required services.
- H. Evaluation and mitigation of environmental effects of transportation improvement on the human environment.

## **6.0 SUBCONTRACTING**

Services assigned to subconsultants by the CONSULTANT must be approved by the FDOT in advance and shall conform to FDOT rules, procedures and requirements, as well as applicable state and federal statutes. The CONSULTANT shall provide a QA/QC Plan for each approved subconsultant.

## **7.0 PERSONNEL STANDARDS**

Resumes of the CONSULTANT's proposed Principal in Charge, Project Manager, other Supervisory Personnel and Key Staff, documenting their qualifications to conduct work in their stated area of expertise, must accompany the contract proposal. If other consultants or specialists are to be hired on an as-needed basis during the course of a project, then documentation concerning these professionals should be provided at the appropriate time for review and approval by the FDOT.

The proposed participation of the above individuals in FDOT projects is subject to approval by the FDOT's Project Manager, based on their meeting the minimum qualifications for the proposed work based on a review of their work history.

Any change in Key Staff during the course of the Contract must be requested by the CONSULTANT in writing and must have the written prior approval of the FDOT's Project Manager.

## **8.0 COMPUTER SERVICES**

The CONSULTANT shall be authorized to use the FDOT's computer programs. Computations based on other computer programs must be approved in advance and conform to the FDOT's general format. (See the or the FDOT Design Manual, whichever is in effect.)

The CONSULTANT will comply with the District Six Office of Information Technology (OIT) requirements for software, protocols, training and access.

## **9.0 SPECIFICATIONS FOR WORK**

The CONSULTANT shall obtain and maintain current necessary publications to ensure that all preliminary engineering plans and documents are prepared in accordance with the latest standards adopted by the FDOT.

Deliverables shall be accurate, legible, complete and furnished in reproducible form as accepted by the FDOT.

#### 10.0 **METHOD OF COMPENSATION**

Payment for the work accomplished will be in accordance with Exhibit B of this Contract. The FDOT's Project Manager and the CONSULTANT shall monitor the cumulative invoice billings to ensure that the work accomplished is indicative of the hours billed and accepted by the FDOT.