



SCOPE OF SERVICES
FOR
PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
State Road (S.R.) 85 (S Ferdon Blvd)
FDOT District 3
Okaloosa County

This Scope of Services is an attachment which is incorporated into the agreement between the State of Florida Department of Transportation (hereinafter referred to as the DEPARTMENT or FDOT) and **leave blank until CONSULTANT is selected** (hereinafter referred to as the CONSULTANT) relative to the transportation facility described as follows:

Financial Project ID: 220171-2-22-01

Federal Aid Project No.: N/A

ETDM No.: 14367

County Section No.: 57050000

Project Description: S.R. 85 (S Ferdon Blvd) from S.R. 123 (Roger J Clary Hwy) to S.R. 8 (I-10)

Bridge No.: 570175, 570044, 570071, 570045, 570073, 570052, 570008

Railroad Crossing No.: N/A

Project Type: PD&E

Lead Agency: FDOT

Federal Funding: No

Anticipated Class of Action: TBD

Table of Contents

1.0 SCOPE OF SERVICES PURPOSE..... 6

2.0 PROJECT DESCRIPTION AND OBJECTIVES..... 7

 2.1 PROJECT DESCRIPTION..... 7

 2.2 PROJECT REQUIREMENTS AND PROVISIONS FOR WORK..... 7

 2.2.1 Governing Regulations 8

 2.2.2 Liaison Office 9

 2.2.3 Personnel..... 9

 2.2.4 Sub-Consultants 10

 2.2.5 Lead Agency, Cooperating Agencies and Participating Agencies 10

 2.2.6 Meetings and Presentations..... 10

 2.2.7 Communication..... 11

 2.2.8 Quality Control 11

 2.2.9 Schedule..... 12

 2.2.10 Submittals 12

 General:..... 13

 Public Involvement: 13

 Engineering: 13

 Environment:..... 13

 2.2.11 Project White Paper 14

 2.2.12 Computer Automation 14

 2.2.13 Conflict of Interest 15

 2.3 COORDINATION WITH OTHER CONSULTANTS AND ENTITIES 15

 2.4 CONTRACT MANAGEMENT 15

 2.5 SERVICES TO BE PERFORMED BY THE DEPARTMENT 16

 2.6 OPTIONAL SERVICES..... 16

3.0 PUBLIC INVOLVEMENT 16

 3.1 PUBLIC INVOLVEMENT 17

 3.1.1 Public Involvement Plan 17

 3.1.2 Public Involvement Data Collection 17

 3.2 SCHEDULED PUBLIC MEETINGS 18

 3.3 PUBLIC HEARING 19

 3.4 COMMENTS AND COORDINATION REPORT 20

 3.5 NOTIFICATION OF APPROVED ENVIRONMENTAL DOCUMENT 20

3.6 ADDITIONAL PUBLIC INVOLVEMENT REQUIREMENTS	20
3.6.1 Identify and Inspect Public Meeting Sites	20
3.6.2 Correspondence.....	21
3.6.3 Website	21
4.0 FEASIBILITY STUDY	21
5.0 ENGINEERING ANALYSES AND CONSIDERATIONS	21
5.1 EXISTING CONDITIONS ANALYSIS	22
5.2 SURVEY AND PHOTOGRAMMETRY.....	22
5.2.1 Survey	22
5.2.2 Photogrammetry.....	22
5.3 GEOTECHNICAL INVESTIGATION.....	23
5.4 TRAFFIC ANALYSIS	23
5.5 SAFETY	23
5.6 UTILITIES AND RAILROAD	23
5.6.1 Utilities.....	23
5.6.2 Railroads – N/A	24
5.7 ROADWAY ANALYSIS.....	24
5.7.1 Design Controls and Criteria	24
5.7.2 Typical Section Analysis	24
5.7.3 Geometric Design	24
5.7.4 Intersections and Interchange Evaluation	25
5.7.5 Access Management	25
5.7.6 Multimodal Accommodations	25
5.7.7 Maintenance of Traffic	26
5.7.8 Lighting.....	26
5.8 STRUCTURES.....	26
5.8.1 Existing Structures	26
5.8.2 Structure Typical Sections	26
5.9 DRAINAGE.....	26
5.9.1 Floodplain and Environmental Permit Data Collection.....	26
5.9.2 Drainage Analysis	27
5.9.3 Floodplain Compensation Analysis	27
5.9.4 Stormwater Management Analysis	27
5.9.5 Drainage Design.....	27

5.9.6 Location Hydraulics Report.....	28
5.10 LANDSCAPING ANALYSIS.....	28
5.11 IDENTIFY CONSTRUCTION SEGMENTS	28
5.12 CONSTRUCTION AND RIGHT OF WAY COST ESTIMATES	28
5.12.1 Construction Cost Estimates	28
5.12.2 Right of Way Cost Estimates	29
5.13 ALTERNATIVES EVALUATION.....	29
5.13.1 Comparative Alternatives Evaluation	29
5.13.2 Selection of Recommended Alternative	29
5.13.3 Value Engineering – N/A.....	29
5.14 CONCEPT PLANS.....	29
5.14.1 Base Map	30
5.14.2 Alternatives Concept Plans	30
5.14.3 Preferred Alternative.....	30
5.14.4 Typical Section Package	30
5.15 TRANSPORTATION SYSTEMS MANAGEMENT AND OPERATIONS	30
5.16 ENGINEERING ANALYSIS DOCUMENTATION.....	31
5.17 PLANNING CONSISTENCY.....	32
5.17.1 Transportation Plans	32
5.17.2 Planning Consistency Form	32
6.0 ENVIRONMENTAL ANALYSIS AND REPORTS	32
6.1 SOCIOCULTURAL EFFECTS.....	32
6.1.1 Social.....	33
6.1.2 Economic	33
6.1.3 Land Use Changes	33
6.1.4 Mobility.....	33
6.1.5 Aesthetics	33
6.1.6 Relocation Potential	34
6.2 CULTURAL RESOURCES	34
6.2.1 Archaeological and Historic Resources	34
6.2.2 Recreational, Section 4(f)	35
6.3 NATURAL RESOURCES	35
6.3.1 Wetlands	35
6.3.2 Essential Fish Habitat	35

6.3.3 Wildlife and Habitat.....	35
6.3.4 Natural Resource Evaluation Report	36
6.3.5 Water Quality.....	36
6.3.6 Special Designations	36
6.3.7 Identify Permit Needs	36
6.3.8 Farmland	36
6.4 PHYSICAL EFFECTS	37
6.4.1 Noise	37
6.4.2 Transit Noise and Vibration Analysis.....	37
6.4.3 Air Quality	37
6.4.4 Construction Impact Analysis.....	37
6.4.5 Contamination.....	37
6.5 CUMULATIVE EFFECTS EVALUATION	38
6.6 PROJECT COMMITMENTS RECORD	38
7.0 ENVIRONMENTAL DOCUMENT	38
8.0 METHOD OF COMPENSATION	38

1.0 SCOPE OF SERVICES PURPOSE

The Scope of Services describes the responsibilities of the CONSULTANT and the Florida Department of Transportation (FDOT or DEPARTMENT) when conducting Project Development and Environment (PD&E) Studies necessary to comply with DEPARTMENT procedures and underlying laws and regulations and to obtain FL Department of Transportation approval of the Environmental Document.

All activities encompassed by this Scope of Services include:

- Major work groups include: **2.0, 3.2, 4.1.2**
- Minor work groups include: **8.2, 8.3, 9.1**

The Project development process and all tasks identified in this Scope of Services must follow the guidance provided in the DEPARTMENT's current version of the **PD&E Manual** and **FDOT Design Manual (FDM)**. As discussed in **Part 1, Chapter 1**, of the **PD&E Manual**, the **PD&E Manual** satisfies state and federal processes and incorporates the requirements of the National Environmental Policy Act (NEPA); federal law, regulations, and Executive Orders included in the FHWA Federal-Aid Policy Guide; and applicable state laws and regulations including Section 339.155 of the Florida Statutes and Rule Chapter 14 of the Florida Administrative Code. As such, Project documents prepared by the CONSULTANT must comply with all applicable state and federal laws, regulations, and Executive Orders.

The Scope of Services defines the Project tasks to be performed consistent with the **PD&E Manual** and other pertinent manuals as specifically prescribed in Section 2. The Scope of Services also outlines work activities that will be the responsibility of the CONSULTANT and / or the DEPARTMENT.

The CONSULTANT must demonstrate good project management practices while working on this Project, including effective communication with the DEPARTMENT and others as necessary, effective management of time and resources, and quality of documentation. Throughout the PD&E Study, the CONSULTANT shall set up and maintain a contract file in accordance with DEPARTMENT procedures. The CONSULTANT and any sub-CONSULTANTS are expected to know the laws and rules governing their profession and are expected to provide professional services in accordance with current and applicable regulations, codes, ordinances, and standards.

The DEPARTMENT will provide contract administration and management, as well as technical reviews of all work associated with the development of this Project and performed under this Scope of Services. The DEPARTMENT's technical reviews will focus on high-level conformance and are not meant to substitute CONSULTANT quality reviews of deliverables. The CONSULTANT is fully responsible for all work performed and work products developed under this Scope of Services. The DEPARTMENT may provide task-specific information as outlined in this Scope of Services.

2.0 PROJECT DESCRIPTION AND OBJECTIVES

2.1 PROJECT DESCRIPTION

The CONSULTANT is to conduct a PD&E Study for State Road (S.R.) 85 (S Ferdon Blvd.) in Okaloosa County, to consider widening from a four-lane to a six-lane typical section. The current project limits are from S.R. 123 (Roger J Clary Hwy.) (MP 4.071) to S.R. 8 (I-10) (MP 15.794); however, based on the Phase I Feasibility Report, these limits may be adjusted.

This project will be studied with deliverables produced over three phases (Phases II, III and IV), incorporating the Phase I Feasibility Report and associated documents and analyses developed under the Phase I Feasibility Study (220171-3-12-01).

The CONSULTANT will analyze and assess the Project's impact on the social, economic, cultural, natural, and physical environment, in order to develop the Location and Design Concept of the Project in accordance with FDOT policy, procedures, and requirements.

The CONSULTANT shall review and become familiar with Project documents and materials that have been prepared prior to the PD&E phase. The CONSULTANT will review the Efficient Transportation Decision Making Process (ETDM) Programming Screen Summary Report, including comments received from the Environmental Technical Advisory Team (ETAT), Lead Agency, and / or any responses from the DEPARTMENT pertaining to this Project. The CONSULTANT shall also review concepts and reports (e.g., typical sections, alignments, planning reports) developed from prior planning studies. The CONSULTANT shall use resource agencies' comments to assess the level of effort for work activities required to adequately address potential resources of concern to this Project.

2.2 PROJECT REQUIREMENTS AND PROVISIONS FOR WORK

The CONSULTANT will conduct the appropriate level of engineering and environmental analyses related to the anticipated Class of Action for this Project, as outlined in the **PD&E Manual**, the **FDM**, and directed by the Project objectives. The level of analysis depends on complexity of the Project, level of controversy, potential for significant impacts, and degree and quality of information / data available. If the Class of Action for the Project was not determined during ETDM screening, the Lead Agency will determine it after completion of the environmental analyses.

The CONSULTANT, upon direction from DEPARTMENT, will assist with updating data, technical studies, or the Environmental Document to ensure compliance with NEPA, other federal laws, regulations and Executive Orders.

The CONSULTANT will maximize the use of existing information available from State, regional, local agencies, private sources, and its own files. Examples include the Programming Screen Summary Report, Concept Reports, previously completed planning products, listed species reports, Florida Department of Environmental Protection OCLUS Electronic Document Management System, and other sources as appropriate.

The DEPARTMENT will allow the CONSULTANT to use the DEPARTMENT's computer facilities upon proper authorization as described in DEPARTMENT **Procedure No. 325-060-401**; Planning studies relevant to this project with the CONSULTANT is required to review include:

- *220171-3, Feasibility Study of S.R. 85 (S Ferdon Blvd) from S.R. 123 (Roger J Clary Hwy) to S.R. 8 (I-10)*

2.2.1 Governing Regulations

Services performed by the CONSULTANT must comply with all applicable DEPARTMENT Manuals and Guidelines. The CONSULTANT will use the latest editions of the following Manuals and Guidelines to perform work for this Project.

- Florida Statutes
- Florida Administrative Codes
- Applicable Federal Regulations, U.S. Codes, and Technical Advisories
- PD&E Manual
- ETDM Manual
- SocioCultural Effects Evaluation Handbook
- Public Involvement Handbook
- FDOT Design Manual
- Interchange Handbook (525-030-160)
- Design Standards (625-010-003)
- Highway Capacity Manual (Transportation Research Board (TRB))
- Manual on Uniform Traffic Studies (MUTS)
- Manual of Uniform Traffic Control Devices (MUTCD)
- Minimum Standards for Design, Construction, and Maintenance Streets and Highways (Florida Greenbook) (625-000-015)
- A Policy on Geometric Design of Highways and Streets (AASHTO)
- Guide for the Development of Bicycle Facilities (AASHTO)
- Guide for the Development of Pedestrian Facilities (AASHTO)
- Florida Pedestrian Facilities Planning & Design Handbook
- Location Survey Manual (550-030-101)
- Highway Safety Manual (AASHTO)
- Right of way Mapping Handbook (550-030-015)
- Right of way Procedures Manual (575-000-000)
- Survey and Mapping Handbook
- Soils and Foundation Handbook
- Electronic Field Book (EFB) User Handbook
- Outline Specifications - Aerial Surveys/Photogrammetry
- Drainage Manual
- Stormwater Management Facility Handbook
- Exfiltration Handbook
- Hydrology Handbook
- Structures Design Guidelines (625-020-154)
- CADD Manual (625-050-001)
- CADD Production Criteria Handbook
- FDOT Quality / Level of Service Standards Handbook Software and Tables
- K-Factor Estimation Process
- Project Traffic Forecasting Handbook & Project Traffic Forecasting Procedure 525-030-120

- Traffic Analysis Handbook
- Florida Highway Landscape Guide
- Basis of Estimates Manual
- Federal Transit Administration (FTA) and Federal Rail Administration (FRA) Program Guidance
- Project Management Handbook
- FDOT Traffic Engineering Manual
- FDOT Intersection Design Guide
- Statewide TSM&O Strategic Plan
- FDOT Context Classification Document

2.2.2 Liaison Office

The DEPARTMENT and the CONSULTANT will designate their respective Liaison Offices for this Project.

2.2.3 Personnel

The DEPARTMENT will designate a Project Manager to represent the DEPARTMENT for this Project. The DEPARTMENT Project Manager shall be responsible for coordination with the CONSULTANT pertaining to all contractual matters, invoicing and reporting. The DEPARTMENT Project Manager shall also be responsible for approval of any additional staffing to be provided including additional consultant staff (approval must be coordinated with the Procurement Office) and shall give approval of all products and services. The CONSULTANT will assign a Project Manager who will communicate regularly with the DEPARTMENT Project Manager regarding development of this Project. Final direction on all matters of this Project remains with the DEPARTMENT Project Manager.

The CONSULTANT must maintain staffing levels and personnel qualifications necessary to complete the required activities for this Scope of Services. The CONSULTANT's work must be performed to DEPARTMENT standards and procedures by personnel identified in the contract. Any changes in the identified personnel will be subject to review and approval by the DEPARTMENT. To the extent possible, the CONSULTANT must minimize the DEPARTMENT's need to apply its own resources to the Scope of Services activities unless otherwise identified.

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 on other contracts, (regardless of whether or not the trainee would work on other agreements), the cost of the trainee's time and expenses associated with the training is not directly billable to the DEPARTMENT on this contract, and shall only be recoverable through overhead for the CONSULTANT firm.

The CONSULTANT must request approval from the DEPARTMENT's Project Manager and Procurement for any modifications or additions to the list of available staff prior to the initiation of any work by that individual. If applicable, new job classifications may be added to the contract via contract amendment. The CONSULTANT shall submit a copy of the resume and payroll register before new staff can be added.

The CONSULTANT must have a Licensed Professional Engineer in the State of Florida to sign and seal all engineering reports, documents, technical special provisions, and plans as required by DEPARTMENT standards.

The CONSULTANT and its employees, agents, representatives, or sub-CONSULTANTS are not employees of the DEPARTMENT and are not entitled to the benefits of State of Florida employees. Except to the extent expressly authorized herein, CONSULTANT and its employees, agents, representatives, or sub-CONSULTANTS are not agents of the DEPARTMENT or the State for any purpose or authority such as to bind or represent the interests thereof and shall not represent that it is an agent or that it is acting on the behalf of the DEPARTMENT or the State. The DEPARTMENT shall not be bound by any unauthorized acts or conduct of CONSULTANT.

2.2.4 Sub-Consultants

Services assigned to any sub-CONSULTANTS must be approved in writing and in advance by the DEPARTMENT Project Manager, Procurement Office, and the CONSULTANT Project Manager in accordance with this Scope of Services. All sub-CONSULTANTS must be technically qualified by the DEPARTMENT to perform all work assigned to them. Additional sub-CONSULTANTS with specialized areas of expertise may be required to complete specific assignments. Any sub-CONSULTANTS to be hired and all work assignments to be performed, and all rates of compensation shall be agreed to by the DEPARTMENT Project Manager, Procurement Office and the CONSULTANT Project Manager and documented in the contract file prior to any work being performed by the sub-CONSULTANTS.

2.2.5 Lead Agency, Cooperating Agencies and Participating Agencies

The CONSULTANT Project Manager will support the DEPARTMENT Project Manager in coordination with the Lead Agency, Cooperating Agencies and Participating Agencies.

The Lead Agency for this Project is FDOT.

The following will be engaged as a Participating Agency(s): *TBD*

2.2.6 Meetings and Presentations

Led by the DEPARTMENT Project Manager, the CONSULTANT will attend the Notice to Proceed Meeting, where DEPARTMENT representatives will outline relevant contract and Project information provided by the DEPARTMENT Project Manager.

The CONSULTANT shall attend meetings necessary to undertake the activities of this Scope of Services. This includes meetings with DEPARTMENT staff and /or resources agency staff, other consultants, or other miscellaneous meetings. Frequency of regular progress meetings will be determined by the DEPARTMENT Project Manager. Meetings with internal District Three FDOT Staff will occur during the study to provide project related information and receive DEPARTMENT input. Meeting will occur during the following phases: Phase I, Phase II and Phase III. The DEPARTMENT Project Manager will provide list of District attendees and meeting objectives.

The CONSULTANT will attend meetings or make presentations at the request of the DEPARTMENT with at least five (5) business days' notice. The CONSULTANT will prepare meeting notes for all

meetings identified in this Exhibit and submit within five (5) working days to the DEPARTMENT's Project Manager for review.

Deliverables: Meeting Minutes

2.2.7 Communication

The DEPARTMENT Project Manager will be the representative of the DEPARTMENT for the Project. The CONSULTANT must regularly communicate with the DEPARTMENT Project Manager to discuss and resolve issues or solicit opinions regarding this Project. The CONSULTANT must include the DEPARTMENT when seeking and receiving advice from various State, regional, local agencies, and citizen groups. The final direction on all matters for this Project remains with the DEPARTMENT Project Manager.

All written correspondence between the CONSULTANT and any party pertaining specifically to this Project must be reviewed and approved by the DEPARTMENT. The CONSULTANT must respond to information requests relative to the Feasibility and PD&E Study from third parties at the direction, and with the approval, of the DEPARTMENT. The CONSULTANT will assist the DEPARTMENT in preparing the content of the letters from DEPARTMENT personnel to other agencies, public officials, and others as needed or requested.

Deliverables: Public response letters

2.2.8 Quality Control

The DEPARTMENT requires that all Project documents, technical studies, calculations, maps, reports, conceptual plans, design, and the Environmental Document are correct and complete, appropriate for the intended purposes, and conform to requirements of this Scope of Services. The CONSULTANT, is responsible for the quality of all (including the sub-CONSULTANTS) deliverables. The CONSULTANT will independently and continually review deliverables for accuracy and completeness. The CONSULTANT must develop and follow an internal Quality Control (QC) process. The QC process is intended to ensure that quality is achieved through checking, reviewing, and verifying work activities and deliverables by qualified individuals who were not directly responsible for performing the initial work.

Within twenty (20) business days from the Notice to Proceed, the CONSULTANT must submit its QC Plan to the DEPARTMENT Project Manager for approval. The QC Plan will identify the deliverables, the personnel to perform the reviews, and the method of documentation. The QC Plan will be signed by the CONSULTANT Project Manager and the CONSULTANT QC Manager.

The CONSULTANT must include document reviews and written resolution of comments with each submittal or deliverable to show the QC process was followed. At a minimum, a quality review checklist must be provided and should include letters, exhibits, technical studies, reports, design calculations, Environmental Document or any documents used or referenced in the QC Plan. The CONSULTANT must maintain documentation which show the QC Plan process was followed. The DEPARTMENT Project Manager may request from the CONSULTANT document reviews and written resolution of comments at any time during the PD&E Study.

Deliverables: Quality Control Plan

2.2.9 Schedule

Within ten (10) business days after the Notice to Proceed, and prior to the CONSULTANT beginning work, the DEPARTMENT shall provide a detailed Project activity / event schedule to the CONSULTANT. The CONSULTANT will review and update activities, original duration, start date, finish date and total float as necessary to meet project specific criteria. The schedule must be based on the DEPARTMENT's expected production date and must be approved by the DEPARTMENT. The schedule must be based upon consideration of the Project's environmental issues (social, cultural, natural and physical resources) and regulatory requirements, and in coordination with the DEPARTMENT's District Environmental Management Office (DEMO). In developing the schedule for this Project, the CONSULTANT, in coordination with the DEPARTMENT, must include adequate time to meet regulatory reviews and formal consultations timeframes.

The schedule must be accompanied by an anticipated payout and fiscal progress curve. For the purpose of scheduling, the CONSULTANT shall allow for a review period of at least 20 business days for each INITIAL technical report or memorandum submitted for review and 20 business days for each FINAL document review.

Periodically, throughout the life of the contract, the project schedule and payout and fiscal progress curves shall be reviewed and, with the approval of the DEPARTMENT, adjusted as necessary to incorporate changes in the Scope of Services and progress to date.

The approved monthly updated project schedule and schedule status report, along with progress and payout curves, shall be submitted with the monthly progress report to the DEPARTMENT's Design Project Manager. The CONSULTANT will be required to submit monthly schedule updates for tasks assigned to the CONSULTANT in FDOT Project Suite Enterprise Edition (PSEE). Schedule updates are due the last Friday of each month.

The Initial and revised schedules shall be submitted electronically in *.pdf, Word, or Excel format.

Additional information, the PSEE link, and schedule update training can be found at <http://www.fdot.gov/designsupport/Districts/D3/default.shtm>.

Deliverables: Project Schedule, Project Payout Curve, Monthly PSEE Schedule Update

2.2.10 Submittals

The CONSULTANT will compile and transmit the documents identified in this Scope of Services to the DEPARTMENT for review. Detailed phase submittal requirements are outlined in the Summary of Phase Submittal Matrix which will be made available by the DEPARTMENT's Project Manager. The CONSULTANT shall coordinate with the DEPARTMENT's Project Manager to determine delivery method. The CONSULTANT shall provide a *.kmz file of the project with each submittal. The *.kmz file must include the layers necessary to compare proposed alternatives and review concept plan features. For any Phase Submittal, the CONSULTANT must have the QC marked-up documents available for the DEPARTMENT's review upon request.

The DEPARTMENT's Electronic Review and Comment (ERC) system will be used for project reviews. Upon Notice to Proceed, the DEPARTMENT's Project Manager will coordinate with the CONSULTANT to provide the required access into the ERC system.

General:

- Quality Control Plan
- Project Schedule, Project Payout Curve, Monthly PSEE Schedule Update
- Meeting Minutes
- Public Response Letters
- SWEPT Documentation
- Project White Paper
- Invoices and Progress Reports
- FDOT-approved website with monthly updates.
- Project Commitments Record (PCR)
- Planning Consistency form

Public Involvement:

- Public Involvement Plan (PIP)
- Public Involvement Comment Database
- Public Meeting Materials
- Public Hearing Transcript
- Comments and Coordination Report
- Environmental Document Approval Advertisement

Engineering:

- Traffic Analysis Methodology Memorandum
- Project Traffic Analysis Report (PTAR)
- Preliminary Engineering Report (PER)
- Location Hydraulics Report (LHR)
- Construction Cost Estimate
- Right of Way Cost Estimate
- Conceptual Drainage Design Report /Pond Siting
- Conceptual Design Plan Set
- Geotechnical Technical Memorandum
- Typical Section Package
- Utilities Assessment Package
- Utility Request Package
- Transportation System Management and Operation (TSM&O) Concept of Operations (ConOps) (if applicable)
- TSM&O Preliminary Systems Engineering Management Plan (PSEMP) (if applicable)

Environment:

- Environmental Determination Form/Categorical Exclusion (if applicable)
- Environmental Look Around (ELA) Report
- SocioCultural Effects Evaluation (SCE) Technical Memorandum
- Water Quality Impact Evaluation (WQIE) Checklist
- Noise Study Report (NSR)
- Air Quality Technical Memorandum

- Contamination Screening Evaluation Report (CSER) (or Level I Contamination Assessment Report)
- Conceptual Stage Relocation Plan (CSRP)
- Natural Resource Evaluation (NRE) (Wetlands, Species and Essential Fish Habitats (EFH))
- Cultural Resource Assessment Survey (CRAS)
- Section 106 Evaluation Report (if applicable)
- Programmatic Section 106 Evaluations (if applicable)
- Section 4 (f) Evaluation Report
- Section 4(f) Determination of Applicability (DOA) (if applicable)
- Section 4 (f) de minimus Documentation (if applicable)

Upon completion of the Project, the CONSULTANT will transfer to the DEPARTMENT, in an organized manner, all project electronic files, data, maps, sketches, worksheets, and other materials used or generated during the Feasibility and PD&E Study in an acceptable portable storage drive.

Additionally, the CONSULTANT will upload all final submittals and appropriate supporting project files to the Statewide Environmental Project Tracker (SWEPT) upon completion of technical studies and Environmental Document and as directed by the DEPARTMENT. The CONSULTANT will send an email to the DEPARTMENT Project Manager when all documents have been uploaded to SWEPT.

2.2.11 Project White Paper

The CONSULTANT will be required to submit project white paper to the DEPARTMENT utilizing DEPARTMENT template. The White paper shall be updated quarterly to incorporate status updates.

Deliverables: Project White Paper with quarterly updates

2.2.12 Computer Automation

The CONSULTANT shall develop concept plans and alternative designs utilizing Computer Aided Drafting and Design (CADD) systems. The DEPARTMENT makes software available to help assure quality and conformance with the policy and procedures regarding CADD. It is the responsibility of the CONSULTANT to meet the CADD production requirements in the **FDOT CADD Manual**. The CONSULTANT must submit final documents and files as described in the **FDOT CADD Manual**. Additional related information is found in the **FDM**. Concept plans and alternatives designs shall also be displayed using Google Earth-ready KMZ files. The concept plans must have both existing and proposed engineering and environmental features.

Upon DEPARTMENT approval, the CONSULTANT may also use computer tools and software to conduct some of the engineering and environmental analyses. Prior to using these tools, the CONSULTANT must agree to provide original electronic files in a format and standard consistent with the DEPARTMENT's policies and procedures.

All electronic files must be scanned for viruses prior to submitting to the DEPARTMENT. Failure to scan for viruses may result in a lower CONSULTANT work performance evaluation.

2.2.13 Conflict of Interest

The CONSULTANT or any affiliate is not eligible to pursue advertised work in the CONSULTANT's area of oversight or any project for which the CONSULTANT developed the Scope of Services. Sub-CONSULTANTS 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" is defined in **FDOT Procedure No. 375-030-006, Conflict of Interest Procedure for Department Contracts**.

The CONSULTANT and its Sub-CONSULTANTS will not enter into another contract during the term of the Contract for this Project which would create or involve a conflict of interest with the services herein. The CONSULTANT and its Sub-CONSULTANTS must comply with **FDOT Procedure No. 375-030-006, Conflict of Interest Procedure for Department Contracts**.

2.3 COORDINATION WITH OTHER CONSULTANTS AND ENTITIES

The CONSULTANT will coordinate work activities with any ongoing and / or planned DEPARTMENT projects that may affect this Project. The DEPARTMENT and CONSULTANT shall coordinate with local governmental entities to ensure Project concepts are compatible with local improvements and right of way activities. The CONSULTANT will inform the DEPARTMENT Project Manager of all coordination activities with other agencies or entities prior to holding such activities. The DEPARTMENT Project Manager shall be included in all such coordination activities.

The CONSULTANT shall coordinate with the following pertinent projects and studies:

- *411102-1-22-01 S.R. 123 from S.R. 85 to S.R. 85 North – Noelle Warren (Atkins)*
- *439965-1-32-01 S.R. 85 (S Ferdon Blvd) at John Kind Road Intersection – Jessica Golema (Atkins)*
- *441548-1-32-01 S.R. 85 (S Ferdon Blvd) from N of S.R. 123 (Roger J Clary) to N of S.R. 8 (I-10) – Jordan Burnett (Alday-Howell)*
- *443672-1-32-01 S.R. 85 (S Ferdon Blvd) from Southcrest Dr. to Hospital Dr. – Jordan Burnett (Alday-Howell)*
- *441038-1-22-01 S.R. 8 (I-10) from Santa Rosa Co. Line to SR 85 (Ferdon Blvd.) - TBD*

2.4 CONTRACT MANAGEMENT

The CONSULTANT is responsible for maintaining Project files, including copies of submittals and underlying data, calculations, information and supporting project documentation. The CONSULTANT is responsible for preparing monthly progress reports and schedule updates. Progress reports will be delivered to the DEPARTMENT in a format prescribed by the DEPARTMENT Project Manager with the corresponding invoice.

The CONSULTANT will regularly communicate the status of the project with the DEPARTMENT while managing sub-CONSULTANT efforts and executing sub-CONSULTANT agreements.

2.5 SERVICES TO BE PERFORMED BY THE DEPARTMENT

The DEPARTMENT will provide the following services and materials:

- Lead and participate in coordination efforts with the Public Transit Office, Office of Environmental Management, Federal Transit Administration, environmental resource and regulatory agencies, the public, and other stakeholders, as appropriate.
- Provide project data currently on file and available from study partners, such as:
 - Efficient Transportation Decision Making (ETDM) Planning Summary Report;
 - Recently completed roadway studies for the study area including PD&E studies, access management, intersection plans, design files, and capacity improvements;
 - All available information in the possession of the DEPARTMENT pertaining to utility companies whose facilities may be affected by the proposed construction;
 - All future information that is in possession or may become available to the DEPARTMENT pertaining to subdivision plans, so that the CONSULTANT may take advantage of additional areas that can be utilized as part of the existing right of way;
 - Existing FDOT right of way maps and information on existing surplus right of way under ownership by the DEPARTMENT or participating local agency (counties and cities partnering with FDOT for the PD&E Study);
 - FDOT crash data;
 - Available traffic and planning data;
 - All applicable DEPARTMENT agreements with Utility Agency Owners;
 - Letters of authorization designating the CONSULTANT as an agent of the DEPARTMENT to enter lands, waters, and premises of another in the performance of duties in accordance with Section 337.274, F.S.;
 - Reviews of technical reports and Environmental Documents;

2.6 OPTIONAL SERVICES

At the DEPARTMENT'S option, the CONSULTANT may be requested to provide professional services not explicitly outlined in this Exhibit. These services may include but are not limited to re-evaluation of previous PD&E Studies, environmental analysis not specifically listed in this Scope of Services, design services, survey services, expert witness services for right of way acquisition, additional design analysis, and design plan preparation for utilities review. The CONSULTANT may also be requested to provide services for Request for Proposal (RFP) development for Design-Build Procurement and / or support the DEPARTMENT in the acquisition of a Design-Build contract. The fee for such services shall be negotiated in accordance with the terms detailed in **Exhibit B**, method of compensation, for a fair, competitive and reasonable cost, considering the scope and complexity of the project. A supplemental agreement for the optional services shall be executed in accordance with Section 2 of the Standard Professional Services Agreement Terms.

3.0 PUBLIC INVOLVEMENT

Public involvement includes communicating to and receiving input from all interested and affected persons, groups, business owners, and government organizations regarding the development of the project. The CONSULTANT will coordinate and perform the appropriate level of public involvement for this Project as outlined in **Part 1, Chapter 11** of the **PD&E Manual**, and the **FDOT Public Involvement Handbook**.

The CONSULTANT will provide the DEPARTMENT drafts of all public involvement materials (e.g., newsletters, property owner letters, advertisements, handouts, exhibits) associated with the following tasks for review and approval prior to printing and / or distribution. The CONSULTANT shall provide the DEPARTMENT with a draft of proposed notification letters at least 60 calendar days prior to the meeting. The CONSULTANT shall provide the DEPARTMENT with a draft of any remaining proposed materials at least 45 calendar days prior to the meeting. Mandatory meeting with District Public Information Office (PIO) to review and approve all meeting material 14 calendars prior to meeting.

3.1 PUBLIC INVOLVEMENT

3.1.1 Public Involvement Plan

The CONSULTANT is responsible for creating the Public Involvement Plan (PIP) using existing work developed by the DEPARTMENT as a starting reference. The PIP must include a public involvement schedule and identify potentially affected stakeholders and communities in the vicinity of the project to establish the appropriate outreach methods. This includes consideration of the demographics of the Study Area and any reasonable accommodations including, but not limited to, disabled, transit-dependent, limited English proficient (LEP), elderly, low income, or minority. The CONSULTANT will review and attach the Sociocultural Data Report (SDR) to the PIP. A District 3 sample template for the PIP can be provided by the FDOT Project Manager that is in accordance with **Part 1, Chapter 11** of the **PD&E Manual** example.

The PIP will be reviewed and updated by the CONSULTANT after any major election.

Deliverables: Public Involvement Plan (PIP)

3.1.2 Public Involvement Data Collection

The CONSULTANT will assist the DEPARTMENT with collecting data specific to the public involvement process and preparing responses to any public inquiries received throughout the Project. The CONSULTANT will maintain and regularly update both an electronic and paper public involvement project file, which will document a record of all public involvement activities for this project.

The CONSULTANT is responsible for identifying and maintaining the Project mailing list that may include officials and interested parties (any person or institution expressing an interest in the project), affected parties, and potential permit and review agencies.

The CONSULTANT will work with the DEPARTMENT to generate or obtain mailing labels of property owners using the ETDM Environmental Screening Tool (EST) or the County Property Appraisers' Offices.

The CONSULTANT will investigate potential meeting locations to advise the DEPARTMENT of their suitability. The DEPARTMENT will ultimately approve the meeting location. The CONSULTANT will pay all costs for meeting location rental and insurance (if required). The CONSULTANT will be responsible for logistics associated with setting up the meeting.

3.2 SCHEDULED PUBLIC MEETINGS

The CONSULTANT shall assist the DEPARTMENT in scheduling and conducting various public meetings. Tuesday and Thursday evenings are preferred. The CONSULTANT shall be aware of and avoid other scheduled FDOT Public Meetings or Hearings. The CONSULTANT shall assist the DEPARTMENT in determining when local government meetings are scheduled (MPO/TPO, County Commission, and/or City Council Meetings) and shall avoid scheduling the FDOT meeting to conflict with the local government meetings. The CONSULTANT will support the DEPARTMENT in preparation, scheduling, attendance, note taking, documentation, and follow-up services for each meeting, which may include:

- *Project Kick-off Meeting*
- *Stakeholder Forum*
- *Presentation to TPO /County Commission*
- *Public Alternative Meeting*

For any of the listed meetings, the CONSULTANT will prepare and/or be responsible for the following:

- Agenda
- Presentation scripts and PowerPoint Presentation
- Handouts
- Graphics for display
- Meeting equipment set-up and tear-down
- Display advertisements (The CONSULTANT will pay the cost of publishing)
- Letters for notification of elected and appointed officials, property owners, and other interested parties (the CONSULTANT will pay the cost of first class postage)
- News releases or project fact sheets. The DEPARTMENT must review news releases and fact sheets at least two weeks before the meeting or mail out
- Meeting summaries provided to the DEPARTMENT no later than five (5) business days after the meeting
- Preparation of response letters for DEPARTMENT signature on public comments

The CONSULTANT will assist the DEPARTMENT when facilitating the public information meeting / workshop to present Project results and obtain comments related to the Project and / or Project alternatives.

The meeting format will be developed by the CONSULTANT and approved by the DEPARTMENT upon review. The CONSULTANT will participate in briefing and debriefing meetings with the DEPARTMENT staff related to the public meeting.

The CONSULTANT will attend the meetings with a suitable number of personnel with appropriate technical expertise (based on project issues), as authorized by the DEPARTMENT Project Manager, to assist the DEPARTMENT in such meetings.

The DEPARTMENT may request the CONSULTANT to identify the effect of the Project to individual properties on aerial maps or plans in response to requests from property owners. The DEPARTMENT may also request the CONSULTANT to meet with individual property owners.

The CONSULTANT is responsible for developing and maintaining a Public Involvement Comment Database. This database will be included in the Final Public Comments and Coordination Report.

Deliverables: Public Meeting Materials, Public Involvement Comment Database

3.3 PUBLIC HEARING

The CONSULTANT will send notifications to the Lead Agency, local governments, and regulatory agencies at least 25 but no more than 30 calendar days prior to the Public Hearing date. The CONSULTANT will prepare the Public Hearing notifications on the DEPARTMENT's letterhead for DEPARTMENT review and signature two weeks prior to mailing or as directed by the DEPARTMENT. The CONSULTANT will first prepare an initial sample notification for review and approval by the DEPARTMENT prior to submitting all notifications for review.

Notifications to elected officials will be signed by the Project Development Manager. All other notifications may be signed by the DEPARTMENT Project Manager. The notification letters must have the DEPARTMENT's return address. After the DEPARTMENT signs the notifications, the CONSULTANT will send them by First Class US Mail. The DEPARTMENT Project Manager will also send the notification letters by email.

The CONSULTANT will prepare the Public Hearing notifications to property owners on the DEPARTMENT's letterhead for DEPARTMENT review and signature 15 days prior to mailing or as directed by the DEPARTMENT. After the DEPARTMENT Project Manager signs the letters, the CONSULTANT will send them by First Class US Mail. The CONSULTANT will obtain a list of names and addresses of property owners from the Environmental Screening Tool (EST) and/or Property Appraisers' Offices. The letters must have the DEPARTMENT's return address. The CONSULTANT will send notification letters to property owners at least 21 calendar days prior to the Public Hearing.

The CONSULTANT will provide the following:

1. Public Hearing Notice and publication in the Florida Administrative Register (FAR)
2. Notification on the Department's Public Notices webpages through the District Public Information Officer (PIO)
3. Presentation with script
4. Identification of the website(s) and/or locations where the technical reports and Environmental Documents will be available for public view
5. Proposed typical sections and aerials depicting alternative corridors and alternative alignments, as specified by the DEPARTMENT
6. Meeting location signs
7. Brochures or handouts
8. Title VI compliance signs
9. NEPA Assignment compliance signs
10. Security (off-duty law enforcement), if needed
11. Display advertisements; any press releases and / or advertisements will indicate that the meeting is a DEPARTMENT activity; the CONSULTANT will pay the cost of publishing
12. Expenses associated with arranging for a court reporter to be present and obtaining transcripts of comments made during the Public Hearing
13. Response to public comments

The CONSULTANT will participate in briefing and debriefing meetings with the DEPARTMENT related to the Public Hearing. The CONSULTANT will prepare response letters for DEPARTMENT signature for all public comments. Any such response letters would need to be reviewed and approved by the DEPARTMENT Project Manager.

Deliverables: Public Hearing Materials and Public Hearing Transcript

3.4 COMMENTS AND COORDINATION REPORT

The CONSULTANT will prepare Comments and Coordination Report containing transcript, errata, and signed certification, as well as documentation for all public involvement activities conducted throughout the project in accordance with **Part 1, Chapter 11** of the **PD&E Manual**.

Deliverables: Comments and Coordination Report

3.5 NOTIFICATION OF APPROVED ENVIRONMENTAL DOCUMENT

The CONSULTANT shall prepare a display advertisement for the notification of the Approved Environmental Document. The CONSULTANT will pay for the cost of publishing. The DEPARTMENT must review and approve the notice prior to publication.

Deliverables: Environmental Document Approval Advertisement

3.6 ADDITIONAL PUBLIC INVOLVEMENT REQUIREMENTS

In addition to the Section 3.3, the CONSULTANT shall collect the following data for public involvement:

- Media in the project area should be identified and placed on the mailing list to be used for news, advertisements, etc.
- The mailing list of officials and interested parties shall also include any person or institution expressing an interest in the project
- Mailing list preparation. This process involves the identification of any affected, possible affected and interested parties early in the study process
- Elected and appointed officials in the area (city, state, county) and community leaders should be identified and placed on the mailing list of officials and interested parties Include emails for all elected and appointed officials along with interested parties and project stakeholders.
- Possible permit and review agencies should be identified and placed on the mailing list of official and interested parties along with email lists for each agency.

3.6.1 Identify and Inspect Public Meeting Sites

Prospective sites for any public meetings shall be inspected for suitability. Consideration shall be given to location, seating capacity, sound system, lighting, display space and any other physical characteristics that would influence the viability of this space, including compatibility with the terms of the Americans with Disabilities Act of 1990. Possible Public Information Workshop sites should be catalogued. The

CONSULTANT shall make all arrangements for use of the meeting facility for the Public Workshop including payment of any rental fees, if applicable. The CONSULTANT shall be responsible for determining the appropriate meeting site. Elementary, Middle and High Schools, and Colleges are not appropriate sites for meeting locations. In accordance with Section 4 of Executive Order 07-126, any hotel or conference center used for hosting an FDOT Public Information Meeting must be designated under the FDEP's Green Lodging Program. Prospective sites for the workshop shall be convenient to residents along the project area and shall be inspected for suitability. Consideration shall be given to capacity, lighting, and other physical characteristics that may influence the selection of the site. The site shall meet ADA standards. Room size will be based on the number of mail-outs. The proposed meeting site shall be presented to the DEPARTMENT for approval prior to the CONSULTANT negotiating use of the site.

3.6.2 Correspondence

Within five days of the receipt or mailing of all written correspondence between the CONSULTANT and any party pertaining to this study, copies shall be provided to the DEPARTMENT for their records.

3.6.3 Website

As part of the Project's PIP the CONSULTANT will develop public involvement materials using the DEPARTMENT's approved template and submit the information to be uploaded to the DEPARTMENT's project website. The website will be created by the DEPARTMENT with project information provided by the CONSULTANT. The CONSULTANT will provide the following project information:

- Details/Description
- Map
- Photos
- Schedule
- Documents from Public Meetings
 - Handout
 - Meeting Materials
 - Frequently Asked Questions

The CONSULTANT will coordinate with the FDOT on updating the webpage. The website will be updated every month.

Deliverables: FDOT-approved website with monthly updates

4.0 FEASIBILITY STUDY

The Phase I Feasibility Study has been performed under FPID 220171-3-12-01. The CONSULTANT is to review and incorporate the Feasibility Report and associated documents and analyses into the PD&E as described in **Part 1, Chapter 4** of the **PD&E Manual**.

5.0 ENGINEERING ANALYSES AND CONSIDERATIONS

The CONSULTANT activities to conduct and prepare engineering analyses and reports shall be done under the direction of the DEPARTMENT Project Manager. All deliverables shall be submitted in

accordance with the Summary of Phase Submittals provided by the DEPARTMENT Project Manager. The CONSULTANT shall perform engineering activities essential to developing and evaluating Project alternatives as outlined in **Part 2, Chapter 3** of the **PD&E Manual** and as specified in this section.

The CONSULTANT shall develop and analyze conceptual design alternatives to address the Project needs and objectives. Development of the conceptual design alternatives will follow Context Sensitive Solution and Complete Streets approaches. Based on engineering analysis, the public involvement process, and environmental analysis, the DEPARTMENT will recommend a proposed design concept to advance to the Design Phase.

5.1 EXISTING CONDITIONS ANALYSIS

The CONSULTANT will conduct a field observation to review how the alternatives that were recommended in the Feasibility Phase (Phase I) potentially impact existing field conditions, verify desktop data, and obtain additional data required to understand the Project area, assess Project needs, identify physical and environmental constraints, refine Project alternatives, and assess constructability issues.

The CONSULTANT will collect data describing existing conditions and characteristics of the Project including roadway geometrics, typical section elements, signalization and other operational features, access features, right of way requirements, and other data applicable to modes and sub-modes of transportation, including walking/pedestrians, bicyclists, public transit users (including transit vehicles and riders), paratransit users (carpools, vanpools, taxis, shuttles, jitneys, school buses, coach buses), and freight (including loading/unloading and parking, emergency response vehicles, service vehicles, and freight handler vehicles).

The CONSULTANT will analyze existing conditions to identify and verify current transportation deficiencies as they relate to the needs and objectives of this Project.

The Consultant will furnish necessary exhibits for use in this Project, such as a Project Location Map, Corridor Maps, and Concept Plans.

5.2 SURVEY AND PHOTOGRAMMETRY

5.2.1 Survey

The CONSULTANT will coordinate with the DEPARTMENT Project Manager and Surveying and Mapping Office staff regarding Project survey requirements, review of existing survey data, and scheduling of additional survey efforts. The CONSULTANT will request existing project control, benchmarks and reference points for the Project baseline from the DEPARTMENT's Surveying and Mapping Office. The CONSULTANT will also collect elevation data required to perform the noise study for this Project.

5.2.2 Photogrammetry

The CONSULTANT will coordinate with the DEPARTMENT Project Manager and Surveying and Mapping Office staff regarding photogrammetric services requirements for this project, review of existing photogrammetric services, and scheduling of additional photogrammetric services efforts. The

CONSULTANT will review the existing photogrammetric services for completeness and coordinate with the DEPARTMENT Project Manager if additional photogrammetric services is needed.

All surveying and mapping activities will be done in accordance with the **Surveying and Mapping Procedure 550-030-101** and the **Surveying and Mapping Handbook**

5.3 GEOTECHNICAL INVESTIGATION

The CONSULTANT shall coordinate with the DEPARTMENT's geotechnical staff regarding Project requirements, review of existing geotechnical data, and need for additional data. The CONSULTANT will review the US Department of Agriculture soil data, Geological Survey, and Natural Resource Conservation Service (NCRS) maps, U.S. Geodetic Survey (USGS) maps, and summarize the findings.

The CONSULTANT will perform a review of previously completed geotechnical surveys and compile available boring data from previous projects within the project limits. The CONSULTANT will perform field reconnaissance of the Project area to determine conditions that may affect development of Project alternatives. Geotechnical Investigation data should be summarized in the Geotechnical Technical Memorandum.

Deliverables: Geotechnical Technical Memorandum

5.4 TRAFFIC ANALYSIS

The Traffic Analysis was completed during the Feasibility Phase (Phase I). The CONSULTANT will update the Project Traffic Analysis Report, if necessary.

5.5 SAFETY

The Safety Analysis was completed during the Feasibility Phase (Phase I). The CONSULTANT will update the Project Traffic Analysis Report, if necessary.

5.6 UTILITIES AND RAILROAD

The CONSULTANT will obtain information regarding utilities and railroad in accordance with **Part 2, Chapter 21** of the **PD&E Manual**.

5.6.1 Utilities

Prior to starting utility coordination, the CONSULTANT and the DEPARTMENT Project Manager shall meet with the District Utility Office (DUO) for guidance to ensure that all necessary utility coordination will be accomplished in accordance with DEPARTMENT procedures.

It is the responsibility of the CONSULTANT to determine the final list of UAOs within the project area.

The CONSULTANT will prepare a Utility Request Package and Utility Assessment Package. The Utility Assessment Package must contain items specified in **Part 2, Chapter 21** of the **PD&E Manual**. The CONSULTANT will provide a PD&E Request Package to the District Utility Office.

The DEPARTMENT will notify the UAOs within the Project and request existing and planned utility information for major above ground and subsurface facilities within the Project.

The CONSULTANT, DEPARTMENT Project Manager and DUO will meet with each UAO as necessary, separately or together, to understand utility conflicts and project potential impacts on utilities. The CONSULTANT will evaluate and consider potentially significant utility conflicts as they may affect the chosen corridor and/or alignment. While evaluating potential impacts and recommending mitigation strategies, the CONSULTANT should refrain from making any compensability determinations in any of the documentation/assessments that they create.

Deliverable: Utility Assessment Report (including Request Package and Assessment Package)

5.6.2 Railroads – N/A

5.7 ROADWAY ANALYSIS

The CONSULTANT will document roadway analysis results in the Preliminary Engineering Report (PER) and Conceptual Design Plan Set.

5.7.1 Design Controls and Criteria

The CONSULTANT will use Design Controls and Criteria established in the Feasibility Phase (Phase I) contained under Section 3.1.6 Roadway Analysis of the scope of services for FPID 220171-3-12-01.

The CONSULTANT will prepare design controls and criteria for developing Project alternatives and designing initial geometrics and other roadway elements according to the DEPARTMENT standards.

5.7.2 Typical Section Analysis

The CONSULTANT will develop conceptual typical sections for the Project alternatives which address transportation needs and context. Development of typical sections must consider Context Sensitive Solutions and Complete Streets approaches and the needs of all Project users.

5.7.3 Geometric Design

The CONSULTANT will perform geometric design using the established Project design controls and criteria. The CONSULTANT will also use Project traffic data and results of traffic analysis to design appropriate roadway elements. The CONSULTANT will establish both preliminary vertical profile and horizontal alignments of the mainline. The design of Project alternatives must consider environmental constraints, physical constraints, Context Sensitive Solutions, Complete Streets, and any additional information, as required. See Part 2, Chapter 3 of the PD&E Manual for more engineering and design considerations.

For each alternative evaluated in detail, the CONSULTANT shall prepare sketches of plan, profile, and typical sections as appropriate to show existing features, proposed geometry, and location of any environmental and geometric design constraints.

5.7.4 Intersections and Interchange Evaluation

The CONSULTANT will propose appropriate intersection control based on the results of project traffic analysis to establish an overall intersection/interchange footprint at the following intersections:

- *S.R. 85 at Live Oak Church Rd/Antioch Rd (M.P. 13.971)*
- *S.R. 85 at Southview Dr (M.P. 14.212)*
- *S.R. 85 at PJ Adams Pkwy (M.P. 14.740)*
- *S.R. 85 at Riverwood Dr (M.P. 14.977)*
- *S.R. 85 at John King Rd (M.P. 15.377)*
- *S.R. 85 at Southcrest Dr/Cracker Barrel Rd (M.P. 15.551)*
- *S.R. 85 and S.R. 8 (I-10) Eastbound Ramps (M.P. 15.684)*
- *S.R. 85 and S.R. 8 (I-10) Westbound Ramps (M.P. 15.780)*

The CONSULTANT will develop intersection and interchange concepts/layouts based on the results of traffic operational analysis. The layouts will include turn lanes, ramp, auxiliary lanes, storage lengths, ramp terminals, ramp junctions, and other geometric details.

5.7.5 Access Management

The CONSULTANT will review the DEPARTMENT'S State Highway System Access Management Classification System and Standards and evaluate their application to the project. The CONSULTANT will recommend the proper access classification and standard to be applied to the Project.

The proposed access management plan will be presented as part of the public involvement process. If an Access Management Classification / Reclassification Public Hearing is required, it will be combined with the PD&E Study Public Hearing.

5.7.6 Multimodal Accommodations

The CONSULTANT will review, evaluate, and document the location and condition of existing pedestrian, bicycle, and public transit accommodations and freight services in the study area. This activity includes reviewing existing plans, reports, and studies that outline strategies or define projects associated with alternative modes of travel.

The CONSULTANT will consider freight, pedestrian, bicycle, and transit in the development and evaluation of Project alternatives commensurate with the context with a goal of improving overall mobility, access, connectivity, safety and efficiency. Multimodal accommodation may include analysis of on-street parking and loading zone modifications and/or removal, park and ride needs, as necessary. The CONSULTANT will consider and evaluate the existing and anticipated future use of the Project by bicyclists and pedestrians, the potential impacts of the Project alternatives on bicycle and pedestrian travel and propose measures to avoid or reduce adverse impacts to bicyclists and pedestrians that would use the Project.

The CONSULTANT will also consider supportive Transportation Demand Management and parking management strategies consistent with the transportation context and the needs of all users of the project. The CONSULTANT will assist the DEPARTMENT with coordination with local agencies, transit operators and Transportation Planning Organizations (TPOs) as appropriate.

5.7.7 Maintenance of Traffic

The CONSULTANT will evaluate alternatives for constructability and the ability to maintain traffic during construction according to **Part 2, Chapter 3** of the **PD&E Manual**. The CONSULTANT will include the LRE estimated cost to maintain traffic in the construction cost estimate for the Project alternative.

5.7.8 Lighting

The CONSULTANT will evaluate the need for lighting in accordance with applicable manuals, guidelines, standards and current design memorandums. The CONSULTANT will include the estimated cost for lighting in the construction cost estimate for the Project alternative.

5.8 STRUCTURES

5.8.1 Existing Structures

The CONSULTANT will collect the existing structures data as identified in **Part 2, Chapter 3 of the PD&E Manual**. The following existing structures have been identified for evaluation:

- *S.R. 210 (McWhorter Ave) over S.R. 85 (#570175) (M.P. 9.521 to 9.530)*
- *S.R. 85 over Shoal River Relief (# 570044 & #570071) (M.P. 13.363 to M.P. 13.435)*
- *S.R. 85 over Shoal River (# 570045 & #570073) (M.P. 13.622 to M.P. 13.754)*
- *S.R. 8 (I-10) eastbound over S.R. 85 (#570052) (M.P. 15.716 to M.P. 15.724)*
- *S.R. 8 (I-10) westbound over S.R. 85 (#570008) (M.P. 15.733 to M.P. 15.742)*

5.8.2 Structure Typical Sections

The CONSULTANT will develop typical sections options for the bridges. These will include the DEPARTMENT's standard typical sections, and any typical sections that may result in minimizing right of way and environmental impacts. Coordination with the District's Structures Design Engineer is required.

5.9 DRAINAGE

The CONSULTANT will perform Drainage analysis in accordance with the **Part 2, Chapter 3** of the **PD&E Manual** and **Drainage Manual**. The CONSULTANT shall incorporate/consider the Contamination Screening, Geotechnical Report and any other related findings into the Drainage Reports.

5.9.1 Floodplain and Environmental Permit Data Collection

The CONSULTANT will gather floodplain data from FEMA Flood Insurance Rate Maps, and other drainage related data needed to obtain permits from relevant sources including local government, local agencies, and regulatory agencies.

5.9.2 Drainage Analysis

The CONSULTANT will perform drainage analysis by delineating the basin boundaries from existing survey data, available data and field observations. The CONSULTANT will analyze and determine high water elevations in each basin and use the information to establish the preliminary roadway profile. Drainage analysis will also include checking the capacity and structural adequacy of existing cross drains, preliminary design of potential cross drain and outfall structures and identifying the recommended conceptual drainage design for the Project.

5.9.3 Floodplain Compensation Analysis

For each roadway alternative, the CONSULTANT will determine base floodplain elevations and estimate encroachments and appropriate compensation provisions, including incorporating floodplain compensation site requirements into the Pond Siting Report or Conceptual Drainage Design.

5.9.4 Stormwater Management Analysis

The CONSULTANT will calculate the stormwater quality and attenuation requirements and estimate the stormwater management facility needs for each roadway alternative.

The CONSULTANT will schedule an Environmental Look-Around (ELA) meeting (See **Part 2, Chapter 3 and 11 of the PD&E Manual**) with DEPARTMENT staff, regulatory agencies, local governments, and other stakeholders to discuss regional stormwater needs and design and permitting approaches that benefit the watershed as a whole. During the meeting, the CONSULTANT will document the meeting notes in the project file.

If the ELA reveals no regional pond sites within the Study Area, the CONSULTANT will identify practical pond sites in each basin for each project alternative, estimate construction cost and compare the sites. Additionally, the CONSULTANT will identify inflow or outfall easement requirements for each pond site. If additional pond sites are revealed, they will be used as a potential option.

The CONSULTANT will prepare a Pond Siting Report or Conceptual Drainage Design report in accordance with the **Drainage Manual** and the **Stormwater Management Facility Handbook**.

Deliverables: Environmental Look Around (ELA) Report, Conceptual Drainage Design Report/Pond Siting Report (PSR)

5.9.5 Drainage Design

As directed by the DEPARTMENT, the CONSULTANT will conduct preliminary drainage design in order to determine potential impacts for ponds based on preliminary sizes (volume and area) of required detention facilities for stormwater treatment or attenuation.

5.9.6 Location Hydraulics Report

The CONSULTANT will prepare a Location Hydraulics Report for the project in accordance with **Part 2, Chapter 13** of the **PD&E Manual**.

Deliverables: Location Hydraulics Report (LHR)

5.10 LANDSCAPING ANALYSIS

The CONSULTANT will identify opportunities to incorporate landscape considerations as appropriate. The research and data collection must include identification of opportunities and constraints of the proposed Project based on existing site conditions. Landscape considerations are to be based on FDOT Highway Landscape Guide and Complete Street Requirements.

5.11 IDENTIFY CONSTRUCTION SEGMENTS

The CONSULTANT will identify project segments and/or construction segments along with a definition of implementation phasing. This will include reviewing financing, staging, and sequencing plans that were created by others. If required, the CONSULTANT will identify shorter (i.e., minimum operable segment) intermediate-cost alternatives in the segment determination.

The CONSULTANT will evaluate the need for improvements, preservations, or modifications to the existing Transportation System Management and Operations (TSM&O) system in relation to the alternatives being considered. This includes reviewing the existing as-built information provided by the DEPARTMENT, identifying impacts to the existing TSM&O infrastructure due to the other project work, identifying opportunities to preserve or enhance TSM&O infrastructure, and developing a high-level cost estimate for the changes necessary to the infrastructure in order to meet project TSM&O needs and goals. The CONSULTANT will coordinate with both the District TSM&O Engineer and the County Traffic Engineer concerning existing and proposed Intelligent Transportation Systems (ITS) and Advanced Traffic Management System (ATMS) infrastructure. The CONSULTANT will consider the presence of the ITS infrastructure when analyzing the traffic for the corridor, as well as any proposed improvements that may impact the underground fiber optic cable infrastructure and associated roadside devices.

5.12 CONSTRUCTION AND RIGHT OF WAY COST ESTIMATES

5.12.1 Construction Cost Estimates

The CONSULTANT will develop construction cost estimates using the Department's Long-Range Estimate (LRE) program. The CONSULTANT will be responsible for reviewing and updating the cost estimate when scope changes occur, at phase submittals, and during the DEPARTMENT's annual Work Program update cycle. Construction costs estimates should follow guidelines provided by the DEPARTMENT Project Manager. The CONSULTANT must update the construction cost estimate in LRE at Phase II, III and IV submittals. Construction cost estimates will be reviewed by the District Preliminary Estimates office within the LRE system.

Deliverables: Construction Cost Estimate

5.12.2 Right of Way Cost Estimates

Based on typical section analysis and DEPARTMENT design standards, the CONSULTANT will establish construction limits and determine the minimum (proposed) right of way requirements throughout the limits of the Project. Establishment of construction limits will consider location drainage features, the transportation management plan, utility relocations, stormwater pond requirements, and identified environmental issues, among other factors.

The CONSULTANT will compare the existing right of way width with the proposed right of way requirements to estimate the amount of right of way that the DEPARTMENT must acquire.

The DEPARTMENT will estimate the cost for right of way acquisition, and cost estimates for relocations and business damages, if any. The CONSULTANT will submit concept plans for the Build Alternative that include the parcel identification number, existing right of way lines, proposed right of way lines and acreage of property required. Additionally, the CONSULTANT will provide a spreadsheet with the following parcel information: Parcel number, owners name, street address, tax ID number and required amount of property in square feet. The CONSULTANT will update the right of way estimate concept plans and spreadsheet at all phase submittals (II, III, and IV).

Deliverables: Right of Way Cost Estimate

5.13 ALTERNATIVES EVALUATION

5.13.1 Comparative Alternatives Evaluation

The CONSULTANT will establish evaluation criteria at the beginning of the Project, which must be agreed upon with the DEPARTMENT before use in the comparative evaluation of alternatives. After developing the viable alternatives, analyzing alternatives and estimating costs, the CONSULTANT will prepare a matrix which compares the impacts, performance, and costs of the alternatives evaluated in detail in the PD&E Study. The matrix will include the performance of the No Build Alternative as the baseline for comparison.

5.13.2 Selection of Recommended Alternative

The DEPARTMENT will select a recommended alternative based on review and analysis of engineering, environmental, and public involvement issues related to this Project.

5.13.3 Value Engineering – N/A

5.14 CONCEPT PLANS

The CONSULTANT will prepare concept plans for all viable Project alternatives in appropriate scales overlaid on the base map.

Deliverables: Conceptual Design Plan Set

5.14.1 Base Map

The CONSULTANT will produce a base map of the project area using DEPARTMENT's CADD standards. The base map will contain an aerial photo and existing characteristics for the project. The base map must show environmental issues that are specific to the Study Area such as cemeteries, wetlands, historic properties, high-risk contamination sites, public parks, and property lines.

The CONSULTANT will prepare base maps for the following uses (at noted scales):

- Overall Project Location Map 1" = 2,500'
- Overall Drainage Map Urban 1" = 200'; Rural 1" = 400'
- Corridor Location Maps (Roll Plots) 1" = 500'
- Public Workshop Concept Plans Urban 1" = 50'; Rural 1" = 100'

5.14.2 Alternatives Concept Plans

The CONSULTANT will prepare and overlay alternative concept plans on the base map. The concept plan must show potential location for bridges, culverts, retaining walls, right of way lines (existing and proposed), major utility facilities, intersections, critical driveways, and median openings, among other roadway elements, at appropriate scale according to the DEPARTMENT CADD Manual.

5.14.3 Preferred Alternative

The CONSULTANT will finalize the preferred alternative concept plans by incorporating comments received from the Public Alternatives Meeting as directed by the DEPARTMENT.

5.14.4 Typical Section Package

The CONSULTANT will prepare the Typical Section Package (excluding pavement design) in accordance with the FDM.

Deliverables: Typical Section Package

5.15 TRANSPORTATION SYSTEMS MANAGEMENT AND OPERATIONS

The CONSULTANT will prepare a conceptual Transportation Management Plan in accordance with as per **Part 2, Chapter 3** of the **PD&E Manual**.

The CONSULTANT will study or investigate a broader range of systems as it relates to the PD&E study such as traffic signal system, communication system, travel time systems, Transit Signal Priority (TSP), Adaptive Traffic Control System (ATCS) and other systems referenced in the ITS Architecture. The CONSULTANT will use a Systems Engineering approach for determining the Transportation System Management and Operations (TSM&O) Systems and required systems engineering documents for the Project.

The CONSULTANT will develop a Preliminary Systems Engineering Management Plan (PSEMP) and a high-level Project Concept of Operations (ConOps) according to **Part 2, Chapter 3** of the **PD&E Manual**. The ConOps must be reviewed by the District TSM&O engineer. The ConOps document template can be found at the following location:

http://www.dot.state.fl.us/trafficoperations/its/projects_deploy/sempt.shtm

The CONSULTANT will evaluate the need for improvements, preservations, or modifications to the existing TSM&O system in relation to the alternatives being considered. This includes reviewing the existing as-built information provided by the DEPARTMENT, identifying impacts to the existing TSM&O infrastructure due to the other project work, identifying opportunities to preserve or enhance TSM&O infrastructure, and developing a high-level cost estimate for the changes necessary to the infrastructure in order to meet project TSM&O needs and goals. These items will be documented in the ConOps.

The CONSULTANT will identify the delivery method for both equipment and technology and prepare implementation schedule that includes engineering, design, construction, and Project activation (testing and start-up).

The CONSULTANT will coordinate with both the District TSM&O Engineer and the County Traffic Engineer concerning existing and proposed Intelligent Transportation Systems (ITS) and Advanced Traffic Management System (ATMS) infrastructure. The CONSULTANT will consider the presence of the ITS infrastructure when analyzing the traffic for the corridor, as well as any proposed improvements that may impact the underground fiber optic cable infrastructure and associated roadside devices.

The CONSULTANT will analyze and document the service life of the proposed TSM&O alternatives. The documentation should be presented in a way so that the DEPARTMENT and stakeholders understand the duration and effectiveness in addressing the project's purpose and need that the proposed TSM&O improvements will have on the corridor before additional improvements, such as additional capacity needs, are required. In consultation with the DEPARTMENT, the CONSULTANT will also develop a recommended implementation plan for inclusion within the Preliminary Engineering Report that is consistent with planning requirements.

Deliverables: TSM&O Concept of Operations (ConOps), Preliminary Systems Engineering Management Plan (PSEMP)

5.16 ENGINEERING ANALYSIS DOCUMENTATION

The CONSULTANT will prepare a Preliminary Engineering Report (PER) as per **Part 2, Chapter 3** of the **PD&E Manual**.

The CONSULTANT shall include sufficient back up information related to all computer programs and parameters used in the analyses to facilitate the review of the engineering documentation. The engineering documentation shall be neatly and logically presented. The final engineering analysis documentation prepared by the CONSULTANT shall be signed and sealed by a Florida-licensed professional engineer.

Deliverables: Preliminary Engineering Report

5.17 PLANNING CONSISTENCY

5.17.1 Transportation Plans

The CONSULTANT will coordinate with the DEPARTMENT to obtain and review transportation plans throughout the life of the Project for all modes of transportation including freight, transit, and non-motorized. The following plans or studies should be reviewed as appropriate:

- MPO's adopted Long Range Transportation Plan (LRTP) Cost Feasible and Needs Plans
- Local Government Transportation Improvement Plan (TIP)
- State Transportation Improvement Program (STIP)

5.17.2 Planning Consistency Form

The CONSULTANT will assist the DEPARTMENT's finalization of Planning Requirements for Environmental Document approval in the appropriate form.

Deliverables: Planning Consistency Form

6.0 ENVIRONMENTAL ANALYSIS AND REPORTS

Tasks described within this section direct work efforts applicable to the environmental analysis and documentation for this Project. Prior to beginning environmental work, the CONSULTANT must review the ETDM Programming Screen Summary Report, summary degree of effect, resource agencies' comments, permits that may be required, and GIS information from the Environmental Screening Tool (EST). This review will support the CONSULTANT's ability to adequately assess the potential for Project alternatives to affect known environmental resource issues.

CONSULTANT activities to conduct and prepare environmental analysis and reports shall be done under the direction of the DEPARTMENT Project Manager. The CONSULTANT will collect pertinent environmental data, conduct analyses, and document the results of this analysis within technical reports or memoranda. The analyses and reporting will be performed and presented in accordance with the procedures in the **PD&E Manual**. The CONSULTANT will analyze all Build Alternatives and the No Build Alternative with respect to impacts to natural, cultural, social and physical resources and document all analyses in the reports. Wherever appropriate the CONSULTANT will describe proposed measures to avoid, minimize, or mitigate project impacts on the environmental issues. Additionally, the CONSULTANT will summarize results of the environmental analysis in the Environmental Document. The CONSULTANT must verify and record in the Environmental Document any environmental resource that is identified as "No Involvement". The consultant will summarize in the Environmental Document the results of analysis of environmental resources that were completed as part of another study or performed by others concurrent with this project.

6.1 SOCIOCULTURAL EFFECTS

The CONSULTANT will conduct a Sociocultural Effects (SCE) evaluation in accordance with **Part 2, Chapter 4** of the **PD&E Manual**. The CONSULTANT will document the results of the SCE Evaluation in the Environmental Document and in the Project file and / or complete a stand-alone SCE report if

required. If no involvement for a particular issue is indicated, then standard statements to that effect from **Part 2, Chapter 4** of the **PD&E Manual** will be included in the Environmental Document.

6.1.1 Social

- **Community Cohesion:** The CONSULTANT will identify and assess potential Project impacts on physical barriers, traffic pattern changes, social pattern changes, and loss of connectivity to community features and facilities.
- **Special Community Designation:** The CONSULTANT will identify and assess potential Project impacts on schools, churches, parks, emergency facilities, social services, daycare facilities, retirement centers, community centers, and retail locations.
- **Safety / Emergency Response:** The CONSULTANT will identify and assess potential Project impacts on the creation of isolated areas; emergency response time changes; and location of police, fire, emergency medical services, healthcare facilities, and government offices.
- **Demographics:** The CONSULTANT will identify and assess potential Project impacts on minority, LEP persons, disabled persons, low-income populations, and/or special populations within the Project area.
- **Community Goals and Quality of Life:** The CONSULTANT will identify and assess potential Project impacts on social value changes and compatibility with community goals and vision.

6.1.2 Economic

- **Business and Employment:** The CONSULTANT will assess potential Project impacts to business and employment activity in the project area, including industries with special needs (e.g., freight distributor) or significance (e.g., regional employer), economic oriented land use, economic development plans, special designations, and community development priorities. Assessment will also include identification of changes to routes, access, parking, or visibility that could benefit or impair businesses, employment centers, community facilities, or population.
- **Property Values and Tax Base:** The CONSULTANT will assess potential Project impacts on the tax base, employment opportunities, and property values.

6.1.3 Land Use Changes

The CONSULTANT will evaluate the Project's consistency with the physical character of the area and applicable community plans.

6.1.4 Mobility

The CONSULTANT will evaluate potential Project impact on mobility and accessibility with regard to all transportation modes (i.e., pedestrian, bicycle, transit and vehicle) in the Study Area.

6.1.5 Aesthetics

The CONSULTANT will evaluate and summarize the Project's effect on viewshed and vista, community focal points, historic structures, landmarks, and community character in accordance with the **PD&E Manual**.

6.1.6 Relocation Potential

The CONSULTANT will identify residences, businesses, and institutional or community facilities that may require relocation to accommodate the Project. The CONSULTANT will obtain additional site-specific information needed to evaluate the effect of each Project alternative on the displacement of residences and businesses.

The CONSULTANT will collect the data and perform the analysis necessary to complete a Conceptual Stage Relocation Plan (CSRP) for the proposed alternatives according to **Chapter 5** of the **Right of Way Procedures Manual**.

Deliverables: SocioCultural Effects Evaluation (SCE) Technical Memorandum, Conceptual Stage Relocation Plan (CSRP) (if applicable)

6.2 CULTURAL RESOURCES

The CONSULTANT will prepare a Research Design and Survey Methodology for the project, to be submitted to the DEPARTMENT for approval prior to the initiation of field work. The CONSULTANT shall identify and map out the zones of probability for the Project Study Area and identify any previously recorded resources. The Area of Potential Effect (APE) will be determined (including pond sites). The CONSULTANT will summarize each of the cultural resource issues in the Environmental Document. If noninvolvement for a particular issue is indicated, then a statement to that effect will be included. The CONSULTANT will use a professional qualified under the provisions of **36 CFR 61** in compliance with the **National Historic Preservation Act of 1966 (Public Law 89-665, as amended)** and the implementing regulations (**36 CFR 800**), as well as with the provisions contained in **Chapter 267, Florida Statutes**, to perform all work in this task.

The CONSULTANT will assess the direct and indirect effects and will document the severity of the following items in the Environmental Document and Project file:

6.2.1 Archaeological and Historic Resources

The CONSULTANT will identify and analyze impacts to archaeological sites and historic resources within the Project's Area of Potential Effects (APE). The APE must include potential pond sites. The CONSULTANT will prepare a research design methodology and perform a Cultural Resources Assessment Survey in accordance with **Part 2, Chapter 8** of the **PD&E Manual**. All work will be documented and coordinated with appropriate agencies as per **Part 2, Chapter 8** of the **PD&E Manual**, and the DEPARTMENT's **Cultural Resource Management Handbook**. In addition, attendance at public meetings may be required. The CONSULTANT will review and address any resources issues or comments by the State Historic Preservation Office (SHPO) listed in the Programming Screen Summary Report.

The CONSULTANT will assist the DEPARTMENT in meetings by providing technical support in Section 106 Meetings, such as Cultural Resource Committee Meeting.

The CONSULTANT will prepare Cultural Resources Assessment Survey (CRAS) documentation detailing the results of the survey and assessments of resource significance, including a Florida Master Site File (FMSF) form. The Research Design and Survey Methodology and the Pond Site Technical Memo will be included in the CRAS appendix.

6.2.2 Recreational, Section 4(f)

- **Section 4(f) Determination of Applicability:** The CONSULTANT will complete the documentation and coordination required for a Section 4(f) Determination of Applicability in accordance with **Part 2, Chapter 7** of the **PD&E Manual**.
- **Section 4(f) "de minimus" Documentation:** The CONSULTANT will prepare Section 4(f) "de minimus" documentation in accordance with **Part 2, Chapter 7** of the **PD&E Manual**.
- **Section 4(f) Evaluation:** The CONSULTANT will complete the documentation for Section 4(f) requirements in accordance with **Part 2, Chapter 7** of the **PD&E Manual**.

Deliverables: Cultural Resources Assessment Survey (CRAS), Section 106 Evaluation Report (if applicable), Programmatic Section 106 Evaluations (if applicable), Section 4(f) Evaluation Report, Section 4(f) Determination of Applicability (DOA) (if applicable)

6.3 NATURAL RESOURCES

The CONSULTANT will assess and summarize each of the natural resource issues in the Environmental Document. If no involvement for a particular issue is indicated, then a statement to that effect will be included. The CONSULTANT will identify the natural resource evaluation area. The CONSULTANT will assess the direct and indirect effects and will document the severity of the following items in the Environmental Document and project file.

6.3.1 Wetlands

Wetlands and Surface Waters: The CONSULTANT will identify the type, quality, and function of wetlands, or reference previously completed documentation relevant to the Project. The CONSULTANT will establish Uniform Mitigation Assessment Method (UMAM) Forms for representative wetlands in accordance with **Part 2, Chapter 9** of the **PD&E Manual**. The CONSULTANT will evaluate alternatives that avoid wetland impacts and, where unavoidable, identify practicable measures to minimize impacts. Any impact to wetlands requires development of a Conceptual Mitigation Plan. The CONSULTANT will document the results of a Wetlands Evaluation in the Natural Resources Evaluation (NRE) Report to document all coordination activities with resource agencies, wetland impact assessment, and mitigation analysis.

6.3.2 Essential Fish Habitat

The CONSULTANT will conduct field review, survey, and appropriate coordination with resource agencies to assess impacts to essential fish habitat (EFH) in accordance with **Part 2, Chapter 17** of the **PD&E Manual**. The CONSULTANT will prepare the EFH Assessment as a component of the NRE to document potential adverse effects to EFH and measures to address those effects.

6.3.3 Wildlife and Habitat

Analysis and Report: The CONSULTANT will perform research, field reviews, survey, and coordination necessary to determine Project involvement with and any potential impacts to federal and state protected, threatened or endangered species and their habitats. Additionally, the CONSULTANT will develop a study design (which will be approved by the DEPARTMENT) to evaluate the magnitude

of Project involvement with wildlife and their habitat. If required, the CONSULTANT will prepare the Biological Assessment as a part of the NRE.

The CONSULTANT will assess project's potential impacts to wildlife and habitat in accordance with **Part 2, Chapter 16** of the **PD&E Manual**. The CONSULTANT will assist the DEPARTMENT in consultations, if required.

Conservation Measures and Mitigation Plan: The DEPARTMENT Project Manager will provide a description of the habitat conservation measures to be considered. The CONSULTANT will provide an analysis of wildlife and habitat conservation measures.

6.3.4 Natural Resource Evaluation Report

The CONSULTANT will document the results of the Wetlands and EFH, Wildlife and Habitat, evaluations in a Natural Resources Evaluation (NRE) report in accordance with **Part 2, Chapter 9 and 16** of the **PD&E Manual**.

Deliverables: Natural Resources Evaluation (NRE) Report

6.3.5 Water Quality

The CONSULTANT will evaluate the data for and document water quality in the Water Quality Impact Evaluation (WQIE) Checklist in accordance with **Part 2, Chapter 11** of the **PD&E Manual**.

Deliverables: Water Quality Impact Evaluation (WQIE) Checklist

6.3.6 Special Designations

The CONSULTANT will evaluate the data for and document the following special designations if applicable: Outstanding Florida Waters, Wild and Scenic Rivers, Aquatic Preserves, Coastal Barrier Resource, and Scenic Highways, in accordance with **Part 2, Chapters 5, 10, 12, 15 and 19** of the **PD&E Manual**, respectively.

6.3.7 Identify Permit Needs

The CONSULTANT will review the Programming Screen Summary Report and identify permits required for the project.

The CONSULTANT will perform activities that will inform and accelerate the permitting process, including activities to acquire permits during PD&E (as required by the DEPARTMENT).

Expected agencies requiring permits include: United States Coast Guard (USCG), Corps of Engineers (COE) and Water Management District (WMD).

6.3.8 Farmland

If applicable, the CONSULTANT will evaluate the data and document potential farmland impacts in accordance with **Part 2, Chapter 6** of the **PD&E Manual**.

6.4 PHYSICAL EFFECTS

The CONSULTANT will summarize each of the physical effect issues in the Environmental Document. If no involvement for a particular issue is indicated, then a statement to that effect will be included. The CONSULTANT will identify the physical effect evaluation area. The CONSULTANT will assess the direct and indirect effects and will document the severity of the following:

6.4.1 Noise

The CONSULTANT will perform the noise analysis, noise abatement evaluation, and assessment of construction noise and vibration in accordance with the **Part 1, Chapter 14 and Part 2, Chapter 18** of the **PD&E Manual** and the current version of FDOT's Traffic Noise Modeling and Analysis Practitioner's Handbook. The CONSULTANT will attend a noise study methodology meeting with the DEPARTMENT prior to beginning analysis.

The CONSULTANT will document methodology and results of noise analysis and noise abatement evaluation in the Noise Study Report (NSR). The CONSULTANT will provide an electronic copy of the NSR, in PDF format, as well as all Traffic Noise Model (TNM) input/output files, and "readme" file that support the information documented in the report. If the Project is determined to be a Type III project, the CONSULTANT will document that in the Project File.

6.4.2 Transit Noise and Vibration Analysis

The CONSULTANT will conduct a transit noise and vibration analysis as guided by **Part 1, Chapter 14 and Part 2, Chapter 18** of the **PD&E Manual** and **Chapter 8** of the **FTA Transit Noise and Vibration Impact Assessment Handbook**.

Deliverables: Noise Study Report (NSR)

6.4.3 Air Quality

The CONSULTANT will gather data, perform the air quality screening analysis, and prepare the Air Quality Technical Memorandum to document the results of the screening analysis in accordance with **Part 2, Chapter 19** of the **PD&E Manual**. Traffic data shall be prepared by the projects Traffic Engineer. The CONSULTANT will coordinate air quality monitoring if the project fails the Screening Analysis.

Deliverables: Air Quality Technical Memorandum

6.4.4 Construction Impact Analysis

The CONSULTANT will evaluate and document the potential impacts of construction of the Project alternatives in accordance with **Part 2, Chapter 3** of the **PD&E Manual**.

6.4.5 Contamination

The CONSULTANT will gather data, review data, and investigate contamination issues within the limits of the project and identify potentially contaminated sites in accordance with **Part 2, Chapter 20** of the

PD&E Manual. The CONSULTANT will prepare a Contamination Screening Evaluation Report based on the results of the analysis.

Deliverables: Contamination Screening Evaluation Report (CSER)

6.5 CUMULATIVE EFFECTS EVALUATION

The CONSULTANT will perform and document cumulative effects evaluation of each resource of concern identified based on context and in consultation with the DEPARTMENT as per the process outlined in the **Cumulative Effects Evaluation Handbook**. The cumulative effects evaluation should build upon information derived from the direct and indirect effects analyses.

6.6 PROJECT COMMITMENTS RECORD

The CONSULTANT will assist the DEPARTMENT in filling out **Form No. 700-011-35 Project Commitments Record (PCR)** to document project commitments in the Commitments section of the Environmental Document. DEPARTMENT **Procedure 700-011-035** will be used by the CONSULTANT for recording the project commitments. The CONSULTANT will forward the completed PCR form to the DEPARTMENT Project Manager.

Deliverables: Project Commitments Record

7.0 ENVIRONMENTAL DOCUMENT

The CONSULTANT will assist the DEPARTMENT in completing the appropriate Environmental Documentation based on Class of Action and all attachments in accordance with **Part 1** of the **PD&E Manual**. The CONSULTANT will also be required to enter in all information as required into SWEPT.

Deliverables: Environmental Determination Form / Categorical Exclusion environmental document

8.0 METHOD OF COMPENSATION

Payment for the work accomplished will be in accordance with **Exhibit B** of this contract. The DEPARTMENT's Project Manager and the CONSULTANT will monitor the cumulative invoiced billings to ensure the reasonableness of the billings compared to the study schedule and the work accomplished and accepted by the DEPARTMENT. The DEPARTMENT Project Manager will decide whether work of sufficient quality and quantity has been accomplished by comparing the reported Scope of Services percent complete against actual work accomplished.

Payments will not be made that exceed the percentage of work identified in the approved payout curve and schedule provided. The CONSULTANT shall provide a list of key events and the associated total percentage of work considered to be complete at each event. This list shall be used to control invoicing. Payments will not be made that exceed the percentage of work for any event until those events have actually occurred and the results are acceptable to the DEPARTMENT.