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> July 12, 2021 ADVERTISED

EXHIBIT A



SCOPE OF SERVICES

#### FOR

# **DESIGN GROUP 22-06**

# **RESURFACING, REHABILITATION, & RESTORATION**

Financial Project ID: 426937-3-32-01

State Road (SR) 10 (US 90/Tennessee Street) from County Road (CR) 1581 (Aenon Church Road) to Ocala Road

AND

Financial Project ID: 426961-2-32-01

SR 10 (US 90/Mahan Drive) from SR 263 (US 319/Capital Circle) to East of CR 1568

FDOT District 3

LEON COUNTY

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#### SCOPE OF SERVICES FOR CONSULTING ENGINEERING SERVICES

#### HIGHWAY AND BRIDGE/STRUCTURAL DESIGN

This Exhibit forms an integral part of the agreement between the State of Florida Department of Transportation (hereinafter referred to as the DEPARTMENT or FDOT) and [Consultant Name or leave blank until CONSULTANT is selected] (hereinafter referred to as the CONSULTANT) relative to the transportation facility described as follows:

Financial Project ID: 426937-3-32-01 Federal Aid Project No.: Roadway:

RoadwayId: 55060000 Begin milepost: 2.200 End milepost: 6.151 Project Description: SR 10 (US 90) W TENNESSEE ST FROM CR 1581 AENON CHURCH RD TO OCALA RD Bridge No(s).: 550079, 550036, 550118 Railroad Crossing No.: *N/A* Context Classification:

• C3C-Suburban Commercial Mostly non-residential uses with large building footprints and large parking lots within large blocks and a disconnected or sparse roadway network.

Financial Project ID: 426961-2-32-01 Federal Aid Project No.: Roadway:

RoadwayId: 55020000 Begin milepost: 3.416 End milepost: 4.356

Project Description: SR 10 (US 90) MAHAN DR FR SR 263 (US 319) CAPITAL CIR TO E OF CR 1568 Bridge No(s).: *N/A* Railroad Crossing No.: *N/A* Context Classification:

• C3C-Suburban Commercial Mostly non-residential uses with large building footprints and large parking lots within large blocks and a disconnected or sparse roadway network.

# **1 PURPOSE**

The purpose of this Exhibit is to describe the scope of work and the responsibilities of the CONSULTANT and the DEPARTMENT in connection with the design and preparation of a complete set of construction contract documents and incidental engineering services, as necessary, for improvements to the transportation facility described herein.

- Major work mix includes:
  - o 0012 RESURFACING
- Major work groups include:
  - 3.1 Minor Highway Design
- Minor work groups include:
  - 4.1.2 Minor Bridge Design
  - 5.4 Load Rating
  - 0 7.1 Signing, Pavement Marking and Channelization
  - 7.2 Lighting
  - 7.3 Signalization
  - 8.1 Control Surveying
  - 0 8.2 Design, Right of Way & Construction Surveying
  - 0 9.1 Soil Exploration
  - 0 9.2 Geotechnical Classification Laboratory Testing
  - 0 9.3 Highway Materials Testing

# *Alternative construction contracting methods have <u>NOT</u> been identified for this project at this time.*

The general objective is for the CONSULTANT to prepare a set of contract documents including plans, specifications, supporting engineering analysis, calculations and other technical documents in accordance with FDOT policy, procedures and requirements. These Contract documents will be used by the contractor to build the project and test the project components. These Contract documents will be used by the DEPARTMENT or its Construction Engineering Inspection (CEI) representatives for inspection and final acceptance of the project. The CONSULTANT shall follow a systems engineering process to ensure that all required project components are included in the development of the Contract documents and the project can be built as designed and to specifications.

The Scope of Services establishes which items of work in the FDOT Design Manual and other pertinent manuals are specifically prescribed to accomplish the work included in this contract, and also indicate which items of work will be the responsibility of the CONSULTANT and/or the DEPARTMENT.

The CONSULTANT shall be aware that as a project is developed, certain modifications and/or improvements to the original concepts may be required. The CONSULTANT shall incorporate these refinements into the design and consider such refinements to be an anticipated and integral part of the work. This shall not be a basis for any supplemental fee request(s).

The CONSULTANT shall demonstrate good project management practices while working on this project. These include communication with the DEPARTMENT and others as necessary, management of time and resources, and documentation. The CONSULTANT shall set up and maintain throughout the design of the project a contract file in accordance with DEPARTMENT procedures. CONSULTANTs are expected to know the laws and rules governing their

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FPIDs: 426937-3-32-01 426961-2-32-01 professions and are expected to provide services in accordance with current regulations, codes and ordinances and recognized standards applicable to such professional services. The CONSULTANT shall provide qualified technical and professional personnel to perform to Department standards and procedures, the duties and responsibilities assigned under the terms of this agreement. The CONSULTANT shall minimize to the maximum extent possible the DEPARTMENT's need to apply its own resources to assignments authorized by the Department.

The DEPARTMENT will provide contract administration, management services, and technical reviews of all work associated with the development and preparation of contract documents, including Construction documents. The DEPARTMENT's technical reviews are for high-level conformance and are not meant to be comprehensive reviews. The CONSULTANT shall be fully responsible for all work performed and work products developed under this Scope of Services. The DEPARTMENT may provide job-specific information and/or functions as outlined in this contract, if favorable.

# **2 PROJECT DESCRIPTION**

The CONSULTANT shall investigate the status of the project and become familiar with concepts and commitments (typical sections, alignments, etc.) developed from prior studies and/or activities. If a Preliminary Engineering Report is available from a prior or current Project Development and Environment (PD&E) study, the CONSULTANT shall use the approved concepts as a basis for the design unless otherwise directed by the DEPARTMENT.

## Financial Project ID: 426937-3-32-01

This 3R project primarily consists of resurfacing SR 10 (US 90/West Tennessee Street) from CR 1581 (Aenon Church Road) to Ocala Road. Existing travel lanes, auxiliary lanes, median crossovers, and paved shoulders will be resurfaced. The typical section consists of four 12' travel lanes with varying width median and shoulders. The right-of-way varies throughout the project limits. No additional right-of-way will be required.

The CONSULTANT shall take a practical approach to all projects by identifying cost savings on any/all phases of a project (design, right-of-way acquisition, and construction).

SR 10 (US 90) has been designated as a "Hurricane Evacuation Route".

*Eight (8) signalized intersections exist within the project limits at the following locations:* 

- 1) Aenon Church Road (CMP 2.484) Mast Arms
- 2) SR 263 (Capital Circle) (CMP 3.294) Mast Arms
- 3) Walmart (CMP 3.547) Mast Arms
- 4) Blountstown Highway (CMP 4.300) Mast Arms
- 5) Pat Thomas Boulevard (CMP 4.519) Mast Arms
- 6) Appleyard Drive (CMP 4.775) Mast Arms
- 7) The Forum (CMP 5.162) Mast Arms
- 8) White Drive (CMP 5.584) Mast Arms

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The traffic detector loops that are impacted by the resurfacing operation will be replaced. The CONSULTANT shall review and coordinate with the DEPARTMENT (and the local maintaining agency as necessary) to determine whether video detection should be implemented at any of the signalized intersections. Other anticipated signal work throughout the project includes reconstructing pedestrian detectors and signal heads to meet Americans with Disabilities Act (ADA) access requirements.

The CONSULTANT shall analyze and design pedestrian lighting at the signalized intersections throughout the project where pedestrian features exist or are proposed. The lighting component of this project may be prepared as a separate deliverable and executed as a JPA with the power provider. See Section 2.8.

The CONSULTANT shall identify and protect existing ITS infrastructure. Coordination with the DEPARTMENT's Traffic Operations office and Leon County ITS office may be required to determine any impacts to the ITS system.

New sidewalk will be constructed throughout the project limits along both sides of SR 10 (where none presently exists) as an Optional Service.

Numerous ADA improvements to existing pedestrian features will be included in this project. These improvements will consist of repairing deficient sidewalk, replacing/retrofitting noncompliant curb ramps, meeting clear space requirements, and upgrading pedestrian signal features. There are numerous locations where curb inlet tops are creating tripping hazards. Bus Stop locations shall be assessed for access needs and landings constructed where appropriate. The need to install, upgrade, or remove pedestrian handrail shall be considered throughout. The CONSULTANT shall assess every signalized intersection and provide a revised design, where necessary to provide pedestrian crossing on all legs. An ADA Survey Report will be required. See Section 4.15.

Three (3) bridges exist within the project limits (BC550079 – over Unnamed Stream, BR550036 – CSX over SR 10, and BC550118 - ditch). BR550036 is over SR 10 and will require no work. BR 550079 and BR550036 are bridge culverts and a load rating analysis will be required if the pavement design results in a change in the dead load on the structures. See Sections 2.5, 9, 12, and 18. The guardrail end anchorages and connections to the bridge rail will be upgraded.

Per the FDOT Traffic Operations Office and the Roadway Characteristics Inventory (RCI) Database, the posted (justified) speed limit on SR 10 (US 90) is 45 mph from the beginning of the project to CMP 5.502 where it decreases to 35 mph. This posted speed (35 mph) is maintained through to the end of the project limits. Initial field observations of the posted speed limits agree with the RCI Database. Any contradictions to the posted (justified) speeds described above (found posted in the field or proposed by CONSULTANT) will require close coordination with the DEPARTMENT's Design Project Manager and approval from the FDOT Traffic Operations Office on the project's Typical Section Package.

All guardrail shall be evaluated for conformance to FDOT Standards for type, height, and offset to the travel lanes and hazards. Existing guardrail shall be evaluated to determine if the length of advancement meets FDOT Standards. The guardrail should be extended if required.

Any sideroad turnouts identified as having substandard radii or showing signs of off-tracking shall be reviewed by the CONSULTANT to determine if improvements are feasible. Recommendations for radius reconstruction should be discussed with the DEPARMENT's Design Project Manager.

It is the DEPARTMENT's desire to make every effort to avoid impacts to trees within the project limits. The CONSULTANT shall be cognizant of the limits of construction and any work activities that may pose a threat to existing trees or their root systems. Any tree impacts perceived to be unavoidable shall be closely reviewed with the DEPARTMENT's Design Project Manager who will in turn review with other DEPARTMENT staff as appropriate. When there is the potential to impact trees, the CONSULTANT shall be prepared to provide and present alternate design scenarios with corresponding cost estimates and implications (drainage, utilities, etc.) when requested.

<u>COORDINATION REQUIREMENTS:</u> This project should be coordinated with all adjacent County, State or private projects. There have been NO adjacent projects identified at this time.

#### Financial Project ID: 426961-2-32-01

This 3R project primarily consists of resurfacing SR 10 (US 90/Mahan Drive) from SR 263 (US 319/Capital Circle) to east of CR 1568. Existing travel lanes, auxiliary lanes, median crossovers, and paved shoulders will be resurfaced. The typical section consists of six 12' travel lanes and 3' paved shoulders. The right-of-way varies throughout the project limits. No additional right-of-way will be required.

The CONSULTANT shall take a practical approach to all projects by identifying cost savings on any/all phases of a project (design, right-of-way acquisition, and construction).

SR 10 (US 90) has been designated as a "Hurricane Evacuation Route".

*Five (5) signalized intersections exist within the project limits at the following locations:* 

- 1) SR 261 (US 319/Capital Circle) (CMP 3.356) Mast Arms
- 2) Publix (CMP 3.550) Mast Arms
- 3) Weems Road (CMP 3.714) Mast Arms
- 4) Lagniappe Way (CMP 3.985) Mast Arms
- 5) CR 1568 (Buck Lake Road) (CMP 4.206) Mast Arms

The traffic detector loops that are impacted by the resurfacing operation will be replaced. The CONSULTANT shall review and coordinate with the DEPARTMENT (and the local maintaining agency as necessary) to determine whether video detection should be

implemented at any of the signalized intersections. Other anticipated signal work throughout the project includes reconstructing pedestrian detectors and signal heads to meet Americans with Disabilities Act (ADA) access requirements.

The CONSULTANT shall analyze and design pedestrian lighting at the signalized intersections throughout the project where pedestrian features exist or are proposed. The lighting component of this project may be prepared as a separate deliverable and executed as a JPA with the power provider. See Section 2.8.

The CONSULTANT shall identify and protect existing ITS infrastructure. Coordination with the DEPARTMENT's Traffic Operations office and Leon County ITS office may be required to determine any impacts to the ITS system.

Numerous ADA improvements to existing pedestrian features will be included in this project. These improvements will consist of repairing deficient sidewalk, replacing/retrofitting noncompliant curb ramps, meeting clear space requirements, and upgrading pedestrian signal features. There are numerous locations where curb inlet tops are creating tripping hazards. Bus Stop locations shall be assessed for access needs and landings constructed where appropriate. The need to install, upgrade, or remove pedestrian handrail shall be considered throughout. The CONSULTANT shall assess every signalized intersection and provide a revised design, where necessary to provide pedestrian crossing on all legs. An ADA Survey Report will be required. See Section 4.15.

Per the FDOT Traffic Operations Office and the Roadway Characteristics Inventory (RCI) Database, the posted (justified) speed limit on SR 10 (US 90) is 45 mph. Initial field observations of the posted speed limits agree with the RCI Database. Any contradictions to the posted (justified) speeds described above (found posted in the field or proposed by CONSULTANT) will require close coordination with the DEPARTMENT's Design Project Manager and approval from the FDOT Traffic Operations Office on the project's Typical Section Package.

All guardrail (including guardrail end anchorage assemblies and connections to bridge rail) shall be evaluated for conformance to FDOT Standards for type, height, and offset to the travel lanes and hazards. Existing guardrail shall be evaluated to determine if the length of advancement meets FDOT Standards. The guardrail should be extended if required.

Any sideroad turnouts identified as having substandard radii or showing signs of off-tracking shall be reviewed by the CONSULTANT to determine if improvements are feasible. Recommendations for radius reconstruction should be discussed with the DEPARMENT's Design Project Manager.

It is the DEPARTMENT's desire to make every effort to avoid impacts to trees within the project limits. The CONSULTANT shall be cognizant of the limits of construction and any work activities that may pose a threat to existing trees or their root systems. Any tree impacts

perceived to be unavoidable shall be closely reviewed with the DEPARTMENT's Design Project Manager who will in turn review with other DEPARTMENT staff as appropriate. When there is the potential to impact trees, the CONSULTANT shall be prepared to provide and present alternate design scenarios with corresponding cost estimates and implications (drainage, utilities, etc.) when requested.

<u>COORDINATION REQUIREMENTS:</u> This project should be coordinated with all adjacent County, State or private projects. There have been NO adjacent projects identified at this time.

BELOW ITEMS APPLY TO BOTH PROJECTS

<u>SPECIFIC EXCLUSIONS:</u> These projects have been discussed with District Three Management and no project specific exclusions have been identified at this time.

Features installed on FDOT R/W by non-FDOT, private entities should be considered by the CONSULTANT as they relate to potential impacts. No specific features have been identified within these project limits at this time; however, the construction plans must address the course of action for coordination should features be identified.

All necessary Geotechnical efforts will be provided by the CONSULTANT.

These projects will be let to construction as a Conventional Bid Item projects.

The CONSULTANT shall incorporate the following into the design of this facility:

2.1 Project General and Roadway (Activities 3, 4, and 5)

Public Involvement: FPID 426937-3 will have a Community Awareness Plan (CAP) Level 2 with a Hybrid Meeting. FPID 426961-2 will have a Community Awareness Plan (CAP) Level 2 with a Virtual Project Update (VPU). See Section 3.1 for specific requirements.

Other Agency Presentations/Meetings: N/A

Joint Project Agreements: There have been NO JPAs identified at this time.

JPAs with power providers may be required where pedestrian lighting installations are proposed at signalized intersection. The DEPARTMENT will prepare and execute these agreements. The CONSULTANT will be expected to provide input and plan sheets as necessary for the JPAs.

Specifications Package Preparation: To be negotiated and completed during the Plans Update phase. See the requirements described in Sections 3.3 & 3.7.

Value Engineering: N/A

Risk Assessment Workshop: N/A

<u>Plan Type:</u> The CONSULTANT shall provide only the roadway and/or structures plans and miscellaneous details necessary to construct this project. The DEPARTMENT's intent is to minimize the design and survey effort where possible. The CONSULTANT shall develop and sign and seal the plans electronically in accordance with Sections 3.9 & 37.5.

#### **Typical Sections:**

#### FPID 426937-3-32-01 has four typical sections:

- four 12' travel lanes, vegetated median and 4' paved shoulders
- four 12' travel lanes, traffic separated median and 4' paved shoulders
- four 12' travel lanes, traffic separated median and curb and gutter shoulders
- four 12' travel lanes, vegetated median and curb and gutter shoulders

#### FPID 426961-2-32-01 has three typical sections:

- six 12' travel lanes, traffic separated median and 3' paved shoulders
- six 12' travel lanes, vegetated median and 3' paved shoulders
- four 12' travel lanes, traffic separated median and 3' paved shoulders

<u>Resurfacing Limits</u>: FPID 426937-3 will be resurfaced from the visible pavement change west of CR 1581 (Aenon Church Road) (CMP 2.200) to the pavement change west of Ocala Road (CMP 6.151). FPID 426961-2 will be resurfaced from the visible pavement change east of SR 263 (US 319/Capital Circle) (CMP 3.416) to the pavement change east of CR 1568 (CMP 4.356). Special care should be given at the end of the projects to prevent a "dip" in the roadway. Transition details should be provided in the plans as necessary and may require the resurfacing operation to cross the county/state line to prevent a dip.

<u>*Right-of-Way:*</u> Right-of-way (R/W) acquisition will not/ may be required for this project. Existing R/W lines, including stations and offset distances at breaks, will be shown on all plan sheets.

License Agreements may be appropriate and used for the purpose of harmonizing driveways and slopes where new sidewalk is to be constructed. The CONSULTANT will be required to assist in defining and presenting the requirements at each location.

<u>Pavement Designs:</u> The DEPARTMENT will provide the Pavement Designs for these projects.

#### Pavement Type Selection Report(s): N/A

<u>Cross-Slope Correction</u>: There have been no cross-slope deficiencies identified in this project at this time.

<u>As early as possible</u>, the collected survey data along this project shall be analyzed by the CONSULTANT to determine if minimum and maximum cross slope requirements are met throughout the project limits. Once the determination is made that cross-slope correction will be implemented, the CONSULTANT must determine if any additional survey is required to provide an adequate design and accurate quantities. The CONSULTANT will hold a coordination meeting with the DEPARTMENT's Design Project Manager, the District Design Office, the District Materials Office, and the District Survey Office to determine how much additional survey is required and what is the most economical method of obtaining the additional data. The CONSULTANT shall then review the cross sections with the District Construction Office and the District Bituminous Engineer to determine the method of correction (variable depth milling or overbuild) and the details/tables required. A proposed design for cross slope correction must be included in the Phase II Plans.

#### Access Management Classification:

FPID 426937-3 has an access management classification of 3 from the beginning of the project to CMP 3.294 and an access management classification of 5 from CMP 3.294 to the end of the project. FPID 426961-2 has an access management classification of 5.

The only Access Management improvements identified at this time consist of potential driveway closures or modifications to improve pedestrian or vehicular access and safety based on crash history. Abandoned driveway closures and modifications should be considered if the closure will improve pedestrian access and ADA compliancy. No specific locations have been identified to focus this effort; however, the CONSULTANT will be responsible for reviewing the available crash history and coordinating with the DEPARTMENT and local government contacts to identify any locations that may warrant further study or improvements. The CONSULTANT is to be aware that only a minimal amount of access management work (<u>if any</u>) will be considered for this 3R project.

All recommendations for access management improvements are to be closely coordinated with the DEPARTMENT's Design Project Manager. The CONSULTANT shall be aware that certain proposed deviations from access management and median opening spacing standards must be presented to the District Access Management Review Committee (AMRC)(see also Sections 3.1.4 and 4.6). At a minimum, non-typical access management, driveway, and median opening issues that cannot be resolved by standard review processes at the District Design Office level, as well as proposed full movement median openings not meeting the spacing standards in Rule Chapter 14-97, F.A.C by a threshold of 10% or more shall be taken to the AMRC for review.

**Transit Route Features:** StarMetro routes exists within the project limits for both projects.

**Major Intersections and Interchanges:** 

*Eight (8) signalized intersections exist within the project limits for FPID 426937-3 at the following locations:* 

- 1) Aenon Church Road (CMP 2.484) Mast Arms
- 2) SR 263 (Capital Circle) (CMP 3.294) Mast Arms
- 3) Walmart (CMP 3.547) Mast Arms
- 4) Blountstown Highway (CMP 4.300) Mast Arms
- 5) Pat Thomas Boulevard (CMP 4.519) Mast Arms
- 6) Appleyard Drive (CMP 4.775) Mast Arms
- 7) The Forum (CMP 5.162) Mast Arms
- 8) White Drive (CMP 5.584) Mast Arms

*Five (5) signalized intersections exist within the project limits for FPID 426961-2 at the following locations:* 

- 1) SR 261 (US 319/Capital Circle) (CMP 3.356) Mast Arms
- 2) Publix (CMP 3.550) Mast Arms
- 3) Weems Road (CMP 3.714) Mast Arms
- 4) Lagniappe Way (CMP 3.985) Mast Arms
- 5) CR 1568 (Buck Lake Road) (CMP 4.206) Mast Arms

Roadway Alternative Analysis: N/A

Level of Temporary Traffic Control Plan (TTCP):

The CONSULTANT shall provide a TTCP Level 1 for both projects.

Temporary Traffic Control Plans (TTCP) will be required for this project. The FDOT Standard Plans, 102 series, should be utilized for all work being performed on or adjacent to existing roadways. A reduction in the number of lanes will require that a lane closure analysis be performed by the CONSULTANT. See Section 4.10 for further guidance. SR 10 (US 90) has been designated as a "Hurricane Evacuation Route". All lanes must be open for traffic within 12 hours of a hurricane evacuation notice and shall remain open for the duration of the event as directed by the Project Administrator.

#### Temporary Lighting: N/A

Temporary Signals: N/A

Temporary Drainage: N/A

**Design Variations/Exceptions:** 

The CONSULTANT should review all existing features within the project limits for a functional design that will meet FDOT design standards and make a determination whether a Design Variation or Exception is appropriate.

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FPIDs: 426937-3-32-01 426961-2-32-01 Conditions may be identified during design that may warrant design variations or exceptions. The CONSULTANT is to submit the requests for Variations and Exceptions to the DEPARTMENT as early as possible for approval in order to minimize potential schedule delays. The CONSULTANT is to be aware that omitting certain work items may require approval at the District Director level (see FDM 114.1.1). The CONSULTANT will coordinate with the DEPARTMENT's Project Manager to obtain this approval.

<u>Back of Sidewalk Profiles:</u> The CONSULTANT shall provide back of sidewalk profiles for any new sidewalk being constructed for FPID 426937-3.

Selective Clearing and Grubbing: N/A

2.2 Drainage (Activities 6a and 6b)

<u>Drainage System Type:</u> FPID 426937-3 has a mixture of open and closed/urban drainage system throughout the project limits. FPID 426961-2 has a closed/urban drainage system throughout the project limits.

A number of side drains have broken mitered end section. Every location should be reviewed and any broken mitered end that is creating a safety hazard should be reconstructed.

The CONSULTANT should review all locations for a functional design that will meet FDOT clear zone criteria. A Design Exception will be required if any drainage structure creates a hazard in the clear zone and is to remain.

All existing drainage structures within the limits of construction shall be shown on the construction plans. The CONSULTANT shall inspect all drainage structures for function, scour, erosion, structural integrity, accumulation of sediments, and design as it pertains to pedestrian and vehicular safety. Prior to submitting staff hours, the CONSULTANT shall clearly communicate the drainage survey needs to the SURVEYOR and shall minimize the survey effort where possible. Drainage design treatments should be discussed with the DEPARTMENT's Design Project Manager and the District Drainage Office before being added to the construction plans.

2.3 Utilities Coordination (Activity 7)

The DEPARTMENT will be responsible for utility coordination associated with this project.

The Surveyor of Record (SOR) shall communicate with the Engineer of Record (EOR) early/prior to staff hour negotiations to determine the specific survey needs required for locating utilities based on the anticipated limits of construction and the proposed scope of work.

The CONSULTANT will identify which utilities exist within the corridor during the survey phase by calling Sunshine 811. A copy of the Sunshine 811 "<u>design</u>" ticket listing all utility owners within the project limits shall be provided within 10 business days of the Notice to Proceed (NTP).

Once the draft design is apparent, the CONSULTANT shall coordinate with the Department's Area Utility Manager to determine if any additional survey is required regarding utility designations in order to provide an adequate design and accurate quantities. The CONSULTANT will coordinate with the DEPARTMENT's Design Project Manager and the District Survey Office to determine how much additional survey is required and what is the most economical method of obtaining the additional data.

The CONSULTANT will be responsible for identifying areas that may be affected by construction. The CONSULTANT will evaluate utilities for potential impacts and prepare a Utility Conflict Matrix as directed by Section 7.7 of this document. An example Utility Conflict Matrix can be provided by the DEPARTMENT's Design Project Manager if necessary. The matrix will be required with the Phase II submittal and will be updated and submitted with every phase thereafter.

Above-ground utility installations that have been struck three times within the latest 5-year period shall be assessed for relocation options. For installations with a crash history WITHOUT viable options for relocation within the R/W, the CONSULTANT will be responsible for pursuing and obtaining Design Alternatives. Above-ground utility installations with a crash history WITH available R/W for relocation shall be relocated or the Utility Agency Owner (UAO) will be responsible for pursuing and obtaining a Design Alternative. The CONSULTANT is to review the UAO marked up plans and the Utility Work Schedules as they are received and assure that they are compatible with the proposed design features in the plans. The CONSULTANT shall review the specific details of the markups and schedules with the Area Utility Manager as required to finalize the status of each potential conflict. The CONSULTANT shall also verify that the schedules conform to the construction phasing and TTCP sequences.

#### 2.4 Environmental Permits and Environmental Clearances (Activity 8)

The DEPARTMENT will provide compensatory wetland mitigation in accordance with Section 373.4137, Florida Statutes.

The CONSULTANT shall coordinate with <u>appropriate</u> agencies for all necessary permits. Potential agencies requiring coordination include but are not limited to: Northwest Florida Water Management District, Florida Department of Environmental Protection, and US Army Corps of Engineers.

The CONSULTANT shall be responsible for the identification, coordination and applications for all permits necessary to construct this project. All application and

processing fees, including fees for any public notice required by the permit, shall be paid for by the CONSULTANT.

The DEPARTMENT will provide compensatory wetland mitigation in accordance with Section 373.4137, Florida Statutes if required. The CONSULTANT shall coordinate with the District Permit Coordinator if wetland mitigation is anticipated.

#### 2.5 Structures (Activities 9 - 18)

BR 550079 and BR550036 are bridge culverts and a load rating analysis will be required if the pavement design results in a change in the dead load on the structures.

The CONSULTANT shall evaluate the structural design of all existing multi-post signs and overhead cantilever signs and supports based on current FDOT Design Standards and the FDOT Multi-Post Sign Program. Any multi-post or overhead sign replacement recommendations will be discussed with the DEPARTMENT's Project Manager and the District Design Engineer prior to being implemented in the design plans.

#### 2.6 Signing and Pavement Markings (Activities 19 & 20)

The CONSULTANT shall be responsible for the design, details, and quantities associated with signing and pavement markings for this project. The CONSULTANT shall coordinate with the DEPARTMENT's Design Project Manager and the District Roadway Design Engineer to determine the most appropriate type of edge line for this application. If consideration of audible and vibratory pavement marking treatment is required by the FDOT Design Manual, provide the DEPARTMENT's Design Project Manager with an explanation of crash history, treatment recommendations, and a \*.kmz graphically representing proposed audible and vibratory treatment to pursue approval from the District Design Office. The CONSULTANT shall evaluate the existing signage to determine the need for additional signs, correcting redundant or conflicting signage, and the replacement of damaged signs.

The CONSULTANT shall evaluate and design all signs to meet current Design Standards and the FDOT Multi-Post Sign Program.

Regarding pavement markings, the SOR shall communicate with the EOR early/prior to staffhour negotiations to determine the specific survey needs required for locating pavement markings based on the anticipated needs of the project and the proposed scope of work.

A No Passing Zone Study will not be required for these projects.

2.7 Signalization (Activities 21 & 22)

Intersections:

*Eight (8) signalized intersections exist within the project limits for FPID 426937-3 at the following locations:* 

9) Aenon Church Road (CMP 2.484) – Mast Arms
10) SR 263 (Capital Circle) (CMP 3.294) – Mast Arms
11) Walmart (CMP 3.547) – Mast Arms
12) Blountstown Highway (CMP 4.300) – Mast Arms
13) Pat Thomas Boulevard (CMP 4.519) – Mast Arms
14) Appleyard Drive (CMP 4.775) – Mast Arms
15) The Forum (CMP 5.162) – Mast Arms
16) White Drive (CMP 5.584) - Mast Arms

*Five (5) signalized intersections exist within the project limits for FPID 426961-2 at the following locations:* 

- 6) SR 261 (US 319/Capital Circle) (CMP 3.356) Mast Arms
- 7) Publix (CMP 3.550) Mast Arms
- 8) Weems Road (CMP 3.714) Mast Arms
- 9) Lagniappe Way (CMP 3.985) Mast Arms
- 10) CR 1568 (Buck Lake Road) (CMP 4.206) Mast Arms

The CONSULTANT shall review and coordinate with the DEPARTMENT (and the local maintaining agency as necessary) whether to install video detection at the signalized intersections where traffic detector loops are impacted by the milling operation.

Other anticipated signal work throughout the project includes reconstructing pedestrian detectors and signal heads to meet Americans with Disabilities Act (ADA) access requirements. Potentially, some of the signal heads will have LED indications and some will have incandescent heads. At this time, upgrades to LED indications is NOT included in this project.

Traffic Monitoring Sites:

The Consultant shall be responsible for loading all quantities for the installation or removal of traffic monitoring site(s) and showing the location of the site(s) on the Key Sheet and Plan Sheets. The Department shall be responsible for providing the location and quantities to the Consultant.

2.8 Lighting (Activities 23 & 24)

The CONSULTANT will be required to assess the need for lighting at all pedestrian crossing locations.

The criteria used for the lighting analysis includes horizontal lighting illuminance standards for roadway and sidewalk lighting and enhanced horizontal and vertical lighting illuminance standards for signalized intersections as found in the FDOT Design Manual. Existing utility poles will be utilized to mount luminaires to the extent possible. A Lighting Design Analysis Report will be produced documenting all lighting design decisions and calculations.

The CONSULTANT is expected to coordinate closely with the DEPARTMENT's Area Utility Manager and the area power provider (City of Tallahassee Power) in order to maximize the use of the UAO's poles and service. The DEPARTMENT's preference is for the UAO to install and maintain the necessary lights as specified by the CONSULTANT.

If a determination is made that the UAO is unable to provide the needed lighting services, a Supplemental Amendment will be processed with the CONSULTANT to finalize the lighting design and plans, including the service design/voltage drop calculations.

2.9 Landscape (Activities 25 & 26) (Not applicable to these projects)

2.10 Survey (Activity 27)

<u>Design Survey:</u> The Primary and Secondary Horizontal and Vertical control will be provided by the DEPARTMENT. Other design survey requirements will be conducted by the CONSULTANT in accordance with Section 27.0 of this document.

<u>Production Survey Meeting</u>: The CONSULTANT and SURVEYOR shall communicate with the District Surveyor and DEPARTMENT's Design Project Manager prior to staff hour negotiations to determine the appropriate survey requirements for this project based on the anticipated limits of construction and the proposed scope of work. The CONSULTANT shall provide a basic graphic depiction and/or description of areas needed for topographical survey, DTM, cross sections, utilities, drainage structures, pavement markings, and wetland lines. Aerial imagery is recommended. The effort for the survey work defined in this meeting will be reflected in the staff hours and included in the Basic Services of work.

Subsurface Utility Exploration: The CONSULTANT will provide any subsurface utility excavations (SUE) that are required for the projects. SUE may be required where drainage structure construction or modification is expected to be in conflict with buried utilities.

2.11 Photogrammetry (Activity 28) (Not applicable to these projects)

2.12 Mapping (Activity 29) (Not applicable to these projects)

2.13 Terrestrial Mobile LiDAR (Activity 30) (Not applicable to these projects)

2.14 Architecture (Activity 31) (Not applicable to these projects)

2.15 Noise Barriers (Activity 32) (Not applicable to these projects)

2.16 Intelligent Transportation Systems (Activities 33 & 34) (Not applicable to these projects)

The CONSULTANT shall identify and protect existing ITS infrastructure. Coordination with the DEPARTMENT's Traffic Operations office and to determine any enhancements or impacts to the ITS system.

#### 2.17 Geotechnical (Activity 35)

The Pavement Condition Survey (including coring, testing, and preparing the report) will be provided by the CONSULTANT. The DEPARTMENT will be responsible for the Pavement Design.

The CONSULTANT shall be responsible for any/all necessary geotechnical activities associated with these projects

The CONSULTANT shall coordinate with the DEPARTMENT's Design Project Manager and the DEPARTMENT's Geotechnical Project Manager regarding information needed.

#### 2.18 3D Modeling (Activity 36)

The CONSULTANT shall prepare a 3D model limited only to the locations requiring new sidewalk. The model(s) shall be prepared using the latest FDOT software in accordance with the FDOT CADD Manual.

#### 2.19 Project Schedule

Within ten (10) days after the Notice-To-Proceed, and prior to the CONSULTANT beginning work, the CONSULTANT shall provide a detailed project activity/event schedule for DEPARTMENT and CONSULTANT scheduled activities required to meet the current DEPARTMENT Production Dates. The schedule shall be based upon the *Critical Path Method (CPM)*. The current production date is *October 6, 2023 for FPID 426937-3* and *July 7, 2023 for FPID 426961-2*. The schedule shall be accompanied by an anticipated payout and fiscal progress curve. For the purpose of scheduling, the CONSULTANT shall allow for a *three (3)* week review time for each phase submittal and any other submittals as appropriate.

The schedule shall indicate all required submittals.

All fees and price proposals are to be based on the negotiated schedule of [<u>Number</u>] months for final construction contract documents. However, the contract deadline is [<u>Number</u>] months from the Notice to Proceed.

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 schedule and schedule status report, along with progress and payout curves, shall be submitted with the monthly progress report.

The schedule shall be submitted in an FDOT system-compatible format.

The DEPARTMENT and CONSULTANT scheduled activities are required to meet the current DEPARTMENT Production Date. The project schedule shall include the following: project FPID and project description, FDOT PSM standard activity codes and description for all activities, original duration, activity start date, activity finish date, activity percent complete, activity predecessor(s) and successor(s). The schedule shall be based upon the durations and schedule negotiated during the project staff hour negotiations process.

The schedule shall indicate, at a minimum, proposed dates for Phase I, II, III, and IV plans and all other appropriate milestones and required submittals.

The approved monthly updated project schedule and schedule status report shall be submitted with the monthly progress report to the DEPARTMENT's Design Project Manager. The CONSULTANT will also be required to make 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.

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 <a href="http://www.fdot.gov/designsupport/Districts/D3/default.shtm">http://www.fdot.gov/designsupport/Districts/D3/default.shtm</a>.

#### 2.20 Submittals

The CONSULTANT shall furnish construction contract documents as required by the DEPARTMENT to adequately control, coordinate, and approve the work concepts. The CONSULTANT shall distribute submittals as directed by the DEPARTMENT. The DEPARTMENT will determine the specific number of copies required prior to each submittal.

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

Phase Submittal Delivery: The delivery will include ONLY the submittal components (not the entire project directory and files). The delivery will be transmitted to the DEPARTMENT's Design Project Manager via ftp site, FTA, or other electronic file storage media and will include all construction plans components (roadway, signing & pavement marking, signalization, etc.) in \*.pdf format, as well as the other submittal

components described below for each submittal. The CONSULTANT shall coordinate with the DEPARTMENT's Design Project Manager to determine whether hard copy sets of plans or CDs/DVDs are required at any or all phase submittals. The CONSULTANT shall provide a \*.kmz file of the project with each submittal. The \*.kmz file needs to include the layers necessary to compare proposed construction features with the existing utilities as well as the limits of construction (LOC) and right-of-way (R/W).

PRIOR TO PHASE I SUBMITTAL:

<u>Quality Assurance/ Quality Control (QA/QC) Plan</u>: The CONSULTANT shall submit their QA/QC Plan that will be used during the design of this project to the DEPARTMENT's Design Project Manager for reference within 20 (twenty) calendar days of the written Notice to Proceed. As a minimum, the QA/QC Plan shall include the details of all plan review processes to be utilized and sufficient file documentation to show that the QA/QC plan has been followed. See Section 3.0 (Project Common Tasks).

<u>Alignment Submittals:</u> Centerline/Baseline of Survey alignment submittals shall be submitted to the District Survey Office for approval and copies shall be submitted to the DEPARTMENT's Design Project Manager, D3 R/W Mapping Office, and the Prime CONSULTANT.

The Prime CONSULTANT shall wait for approval from the District Survey Office before utilizing the alignment for design purposes.

<u>UAO Identification / Sunshine 811 "Design" Ticket</u>: A copy of the Sunshine 811 "<u>design</u>" ticket listing all utility owners within the project limits shall be transmitted to the Design Project Manager and the Area Utility Manager at the onset of the design survey effort. The ticket shall be included with all phase submittals. See Section 7.2 for additional information regarding this requirement.

<u>Miscellaneous Design/ Production Document Submittals</u>: The CONSULTANT shall submit to the DEPARTMENT for review, and receive concurrence for, the Initial Project Schedule, the Community Awareness Plan, the Typical Section Package, Design Variations and/or Exceptions (if applicable), and other documents as required by the FDOT Design Manual (FDM) and the Scope of Services.

#### PHASE I:

The CONSULTANT shall submit to the DEPARTMENT's Design Project Manager for distribution:

- one (1) electronic copy of the Plans
- one (1) electronic copy of the QC Marked-up Plans

The submittal shall, at a minimum, include \*.pdf files of the components listed above, as well as the Project-DOCUMENTATION.zip folder (see FDM 111.7), \*.kmz file of the project, ADA Survey Report and Sunshine 811 "design" ticket.

Along with the Phase I plans submittal, the CONSULTANT shall submit the construction cost estimate using the DEPARTMENT's Long Range Estimating System (L.R.E.). The District Preliminary Estimates Office will provide the CONSULTANT with a version of the L.R.E. in the system for their use.

Following the PHASE I review and prior to the PHASE II submittal, the District Survey Office requests that the prime CONSULTANTS provide the Survey Sub-Consultants with the plans and allow time for a review to check the survey/ construction layout, alignments, control information (including R/W control if applicable), curve data, layout information, etc.

Survey Submittals: The Survey Subconsultant shall transmit their submittals to the District 3 Survey Office as well as the Prime CONSULTANT. The Survey Subconsultant shall copy the DEPARTMENT's Design Project Manager on all submittal correspondence. These survey submittals are to be made prior to the phase I, II, III, and IV plans submittals.

#### PHASE II:

The CONSULTANT shall submit to the DEPARTMENT's Design Project Manager for distribution:

- one (1) electronic copy of the Plans
- one (1) electronic copy of the QC Marked-up Plans
- one (1) electronic copy of any Technical Special Provision (if applicable)
- one (1) electronic copy of the Preliminary Lighting Design Analysis Report
- one (1) audible and vibratory markings recommendation (see Section 19.10)

The submittal shall, at a minimum, include \*.pdf files of the components listed above, as well as the Project-DOCUMENTATION.zip folder (see FDM 111.7), \*.kmz file of the project, Sunshine 811 "design" ticket, Utility Conflict Matrix, ADA Survey Report, and a scanned copy of the Constructability Phase Review Checklist (per the Construction Project Administration Manual (CPAM)).

Along with the Phase II plans submittal, the CONSULTANT shall submit the construction cost estimate using the DEPARTMENT's Long Range Estimating System (L.R.E.). The District Preliminary Estimates Office will provide the CONSULTANT with a version of the L.R.E. in the system for their use.

The CONSULTANT shall submit plans to each of the affected local government(s) designated contact for a three-week review. See Section 3.1.2 of this document for details regarding Local Government Involvement.

#### PHASE III:

The CONSULTANT shall submit to the DEPARTMENT's Design Project Manager for distribution:

- one (1) electronic copy of the Plans
- one (1) electronic copy of the QC Marked-up Plans
- one (1) electronic copy of any Technical Special Provision (if applicable)
- one (1) electronic copy of the Revised Lighting Design Analysis Report
- one (1) electronic copy of the CONSULTANT's Construction Cost Estimate
- one (1) electronic copy of the CONSULTANT's Contract Time Estimate
- one (1) electronic copy of the Geotechnical Report

The submittal shall, at a minimum, include \*.pdf files of the components listed above, as well as the Project-DOCUMENTATION.zip folder (see FDM 111.7), \*.kmz file of the project, Sunshine 811 "design" ticket, Utility Conflict Matrix, ADA Survey Report and a scanned copy of the Constructability Phase Review Checklist (per the Construction Project Administration Manual (CPAM)).

The CONSULTANT shall submit plans to each of the affected local government(s) designated contact for a three-week review. See Section 3.1.2 of this document for details regarding Local Government Involvement.

#### PHASE IV:

The CONSULTANT shall submit to the DEPARTMENT's Design Project Manager for distribution:

- one (1) electronic copy of the Plans
- one (1) electronic copy of the QC Marked-up Plans
- one (1) electronic copy of the CONSULTANT's Construction Cost Estimate
- one (1) electronic copy of the CONSULTANT's Contract Time Estimate
- one (1) electronic copy of the CONSULTANT's Utility Schedule Report (see Section 7.10)
- one (1) electronic copy of the Geotechnical Report

The submittal shall, at a minimum, include \*.pdf files of the components listed above, as well as the Project-DOCUMENTATION.zip folder (see FDM 111.7), \*.kmz file of the project, Sunshine 811 "design" ticket, Utility Conflict Matrix, ADA Survey Report and a scanned copy of the Constructability Phase Review Checklist (per the Construction Project Administration Manual (CPAM)).

#### SUBMITTAL FOR "THE SHELF":

The CONSULTANT must submit a District 3 Change Memo to the District Preliminary<br/>Estimates Office to have Project Preconstruction (PrP) unlocked if changes are made<br/>Page A-23ADVERTISEDPage A-23Page A-23FPIDs: 426937-3-32-01<br/>426961-2-32-01

following the PHASE IV submittal that affect the pay-items or quantities in PrP. A copy of the District 3 Change Memo can be obtained from the DEPARTMENT's Design Project Manager or the District Preliminary Estimates Office.

Upon addressing the PHASE IV review comments, the CONSULTANT shall submit to the DEPARTMENT's Design Project Manager the following in an electronic format via ftp site, FTA, or other electronic file storage media:

- PHASE IV Plans
- PHASE IV QC Marked-up Plans
- *Project-DOCUMENTATION.zip folder*
- Engineer's Construction Cost Estimate
- CONSULTANT's Contract Time Estimate
- \*.kmz file of the project
- Sunshine 811 "<u>design</u>" ticket
- Utility Conflict Matrix
- Utility Schedule Report
- Geotechnical Reports
- Constructability Phase Review Checklist

The CONSULTANT shall transmit the applicable electronic project files to the DEPARTMENT's Area Utility Manager.

#### PHASE IV RE-SUBMITTAL:

If the project spends one (1) year or more "on the shelf" and/or substantial changes have been made during Plans Update to the plans, pay items, or quantities after the Phase IV review, the CONSULTANT shall prepare a second Phase IV submittal. This submittal will include the requirements listed for Phase IV. This submittal will be made well in advance of the Final Submittal to the DEPARTMENT's Plans Processing Group. This will allow time to address comments in advance of the Final Submittal.

The DEPARTMENT's Design Project Manager will determine whether the Phase IV resubmittal will include a distribution to the local governments. See Section 3.1.2 of this document for details regarding Local Government Involvement.

The CONSULTANT must submit a District 3 Change Memo to the District Preliminary Estimates Office to have PrP unlocked if changes are made during Plans Update that affect the pay-items or quantities in PrP. A copy of the District 3 Change Memo can be obtained from the DEPARTMENT's Design Project Manager or the District Preliminary Estimates Office.

The CONSULTANT must submit an electronic copy of the Plans Update Memo to describe in general terms the changes made to each sheet since the project was "shelved". A copy

of the Plans Update Memo can be obtained from the DEPARTMENT's Design Project Manager.

Any design changes affecting utilities that occur after the PHASE IV or PHASE IV Resubmittal must be coordinated with the DEPARTMENT's Design Project Manager and submitted to the DEPARTMENT's Area Utility Manager so that Utility Work Schedules can be updated.

The effort for preparing a PHASE IV Re-Submittal will be negotiated as a part of the Plans Update Services. See Section 3.7 for more information regarding Plans Update.

FINAL PLANS SUBMITTAL TO PLANS PROCESSING:

This submittal will occur upon addressing PHASE IV (or PHASE IV RE-SUBMITTAL) comments or following the Plans Update phase and less than one (1) year spent "on the shelf".

If changes are made to the plans after the PHASE IV review that affect the pay-items or quantities in PrP, the CONSULTANT must submit a District 3 Change Memo to the District Preliminary Estimates Office to have PrP unlocked. A copy of the District 3 Change Memo can be obtained from the DEPARTMENT's Design Project Manager or the District Preliminary Estimates Office.

The CONSULTANT must submit an electronic copy of the Plans Update Memo to describe in general terms the changes made to each sheet since the project was "shelved". A copy of the Plans Update Memo can be obtained from the DEPARTMENT's Design Project Manager.

<u>Final Project Submittal to ERC</u>: The CONSULTANT shall submit the following to the DEPARTMENT's Design Project Manager via ftp site, FTA, or other electronic file storage media to post to ERC for the District's Plans Processing Group's review:

- electronic \*.pdf copy of each component of the final plans. The plans must be electronically sealed using the Digital Delivery method for the second and subsequent submittals. Not the first.
- a complete Specifications Package including any Technical Special Provisions and/or incentive/disincentive cost analyses and backup documentation (when necessary)
- the Project-DOCUMENTATION.zip folder
- the Project-CADD.zip folder with all project design files
- the Compliance Certification Checklist Report. This report shall be signed by the Engineer of Record to certify that all electronic deliverables are complete, in the proper format, and all plans and specifications are signed and sealed with the same program.

Any design changes since the previous submittal affecting utilities must be coordinated with the DEPARTMENT's Design Project Manager and submitted to the DEPARTMENT's Area Utility Manager so that Utility Work Schedules can be updated.

The CONSULTANT will expeditiously address the comments received in ERC and be prepared to resubmit the final plans package once the review period in ERC is complete. A minimum of two (2) complete reviews using the ERC system will occur at this juncture, followed by subsequent Final Project CD/DVD submittals as necessary.

<u>Final Project Submittal</u>: The CONSULTANT shall submit the following to the DEPARTMENT's Design Project Manager via ftp site, FTA, or other electronic file storage media for the District's Plans Processing Group's review once the ERC reviews are complete:

- final plans electronically sealed using the Digital Delivery method
- a complete Specifications Package including any Technical Special Provisions and/or incentive/disincentive cost analyses and backup documentation (when necessary)
- the Project-DOCUMENTATION.zip folder
- the Project-CADD.zip folder with all project design files
- the Compliance Certification Checklist Report. This report shall be signed by the Engineer of Record to certify that all electronic deliverables are complete, in the proper format, and all plans and specifications are signed and sealed with the same program.
- all project data and its location noted in the project journal.
- electronic copy of any modeling software utilized for drainage design

Upon addressing all comments received during the Final Plans Processing review, the CONSULTANT shall transmit electronic project files to the DEPARTMENT's Area Utility Manager as described in the requirements above.

Once all electronic project files have been finalized, the DEPARTMENT's Design Project Manager shall upload the Project-DOCUMENTATION.zip folder to Electronic Document Management System (EDMS) or Project Suite Enterprise Edition (PSEE). See FDM 111.7 for guidance on the organization and delivery of Project Documentation.

Original survey field books will be submitted to the District Survey Office as well as all other applicable deliverables required by the District's Survey CONSULTANT Checklist.

#### **2.21 Provisions for Work**

All work shall be prepared with English units in accordance with the latest editions of standards and requirements utilized by the DEPARTMENT which include, but are not limited to, publications such as:

**General:** ADVERTISED

- FDOT Materials Manual
- Chapter 469, Florida Statutes (F.S.) Asbestos Abatement
- Florida's Level of Service Standards and Guidelines Manual for Planning
- Federal Highway Administration (FHWA) Manual on Uniform Traffic Control Devices (MUTCD)
- 40 C.F.R. 61, Subpart M National Emission Standard for Hazardous Air Pollutants (NESHAP), Environmental Protection Agency (EPA)
- Rule Chapter 62-257, F.A.C., Asbestos Program
- FDOT Procurement Procedure 001-375-030, Compensation for Consultant Travel Time on Professional Services Agreements
- FDOT Procedures and Policies
- 40 C.F.R. 763, Subpart G Asbestos Worker Protection, EPA
- Rule Chapter 5J-17, Florida Administrative Code (F.A.C.), Standards of Practice for Professional Surveyors and Mappers
- FDOT Utility Accommodation Manual
- Any special instructions from the DEPARTMENT
- Safety Standards
- Title 29, Part 1910, Standard 1910.1001, Code of Federal Regulations (29 C.F.R. 1910.1001) Asbestos Standard for Industry, U.S. Occupational Safety and Health Administration (OSHA)
- FDOT Rigid Pavement Design Manual
- FDOT Computer Aided Design and Drafting (CADD) Manual
- FDOT Project Development and Environment Manual
- Florida Department of Environmental Protection Rules
- FDOT Standard Plans Instructions
- AASHTO A Policy for Geometric Design of Highways and Streets
- FDOT Handbook for Preparation of Specifications Package
- AASHTO Highway Safety Manual
- FHWA National Cooperative Highway Research Program (NCHRP) Report 672, Roundabouts: An Informational Guide
- AASHTO Roadside Design Guide
- FDOT Flexible Pavement Design Manual
- Code of Federal Regulations (C.F.R.)
- Model Guide Specifications Asbestos Abatement and Management in Buildings, National Institute for Building Sciences (NIBS)
- Florida Fish and Wildlife Conservation Commission Standard Manatee Construction Conditions 2005
- FDOT Pavement Type Selection Manual
- Quality Assurance Guidelines
- FDOT Project Traffic Forecasting Handbook
- Florida Administrative Codes (F.A.C.)

- FDOT Public Involvement Handbook
- FDOT Design Manual
- 29 C.F.R. 1926.1101 Asbestos Standard for Construction, OSHA
- Manual on Speed Zoning for Highways, Roads, and Streets in Florida
- Americans with Disabilities Act (ADA) Standards for Accessible Design
- FHWA Roadway Construction Noise Model (RCNM) and Guideline Handbook
- FDOT Florida Roundabout Guide
- FDOT Standard Specifications for Road and Bridge Construction
- 40 C.F.R. 763, Subpart E Asbestos-Containing Materials in Schools, EPA
- FDOT Basis of Estimates Manual
- AASHTO A Policy on Design Standards Interstate System
- FDOT Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways ("Florida Greenbook")
- Chapters 20, 120, 215, 455, Florida Statutes (F.S.) Florida Department of Business & Professional Regulations Rules
- AASHTO Roadway Lighting Design Guide
- Rule Chapter 62-302, F.A.C., Surface Water Quality Standards
- Florida Statutes (F.S.)
- FDOT Standard Plans

#### Roadway:

- Transportation Research Board (TRB) Highway Capacity Manual
- FDOT Quality/Level of Service Handbook
- Florida's Level of Service Standards and Highway Capacity Analysis for the SHS
- FDOT Florida Intersection Design Guide
- FDOT Project Traffic Forecasting Handbook

#### Permits:

- Bridge Permit Application Guide, COMDTPUB P16591.3C
- Building Permit
- US Fish and Wildlife Service Endangered Species Programs
- Florida Fish and Wildlife Conservation Commission Protected Wildlife Permits
- Chapter 373, F.S. Water Resources

#### Drainage:

- FDOT Drainage Design Guide
- FDOT Drainage Manual
- Florida Erosion and Sediment Control Manual
- FDOT Drainage Connection Permit Handbook
- FDOT Bridge Scour Manual

**Survey and Mapping:** 

- Florida Department of Transportation Surveying Handbook
- FDOT Right of Way Mapping Handbook
- Applicable Rules, Guidelines Codes and authorities of other Municipal, County, State and Federal Agencies.
- Right of Way Mapping Procedure 550-030-015
- Florida Department of Transportation Right of Way Procedures Manual
- FDOT Surveying Procedure Topic 550-030-101
- FDOT Aerial Surveying Standards for Transportation Projects Topic 550-020-002
- All applicable Florida Statutes and Administrative Codes

Traffic Engineering and Operations and ITS:

- National Electric Safety Code
- FDOT Traffic Engineering Manual
- National Electrical Code
- FHWA Standard Highway Signs Manual
- AASHTO An Information Guide for Highway Lighting
- FDOT Median Handbook
- AASHTO Guide for Development of Bicycle Facilities
- FDOT Manual on Uniform Traffic Studies (MUTS)

Florida's Turnpike Enterprise:

- Florida's Turnpike Design Handbook (TDH)
- Florida's Turnpike Lane Closure Policy
- Florida's Turnpike Drainage Manual Supplement
- Rigid Pavement Design Guide for Toll Locations with Electronic Toll Collection
- Flexible Pavement Design Guide for Toll Locations with Electronic Toll Collection
- Florida's Turnpike General Tolling Requirements (GTR)
- Additional Florida's Turnpike Enterprise standards, guides, and policies for design and construction can be found on the FTE Design Website: https://floridasturnpike.com/business-opportunities/design/

# **Traffic Monitoring:**

- AASHTO AWS D1.1/ANSI Structural Welding Code Steel
- FDOT General Interest Roadway Data Procedure
- FDOT's Traffic/Polling Equipment Procedures
- American Institute of Steel Construction (AISC) Manual of Steel Construction, referred to as "AISC Specifications"
- American National Standards Institute (ANSI) RP-8-00 Recommended Practice for Roadway Lighting

- FHWA Traffic Detector Handbook
- AASHTO D1.5/AWS D1.5 Bridge Welding Code
- FHWA Traffic Monitoring Guide

Structures:

- AASHTO Load and Resistance Factor Design (LRFD) Bridge Design Specifications and Interims
- Geotechnical
- AASHTO LRFD Movable Highway Bridge Design Specifications and Interims
- FDOT Structures Manual
- AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, and Interims
- FDOT Structures Design Bulletins (available on FDOT Structures web site only)
- FDOT Bridge Load Rating Manual
- AASHTO Guide Specifications for Structural Design of Sound Barriers
- AASHTO/-AWS-D1. 5M/D1.5: An American National Standard Bridge Welding Code
- AASHTO Manual for Condition Evaluation and Load and Resistance Factor Rating (LRFR) of Highway Bridges
- Soils and Foundation Handbook
- Manual of Florida Sampling and Testing Methods
- FHWA Checklist and Guidelines for Review of Geotechnical Reports and Preliminary Specifications

#### Landscape Architecture:

• Florida Department of Agriculture and Consumer Services Grades and Standards for Nursery Plants

Architectural:

- Building Codes
- ANSI A117.1 2003 Accessible and Usable Building and Facilities
- Florida Accessibility Code for Building Construction
- Titles II and III, Americans With Disabilities Act (ADA), Public Law 101-336; and the ADA Accessibility Guidelines (ADAAG)
- Rule Chapter 60D, F.A.C., Division of Building Construction
- Florida Building Code:
- Chapter 553, F.S. Building Construction Standards
  - Existing Building
  - Mechanical
  - Building
  - Plumbing

Architectural - Fire Codes and Rules:

- National Fire Protection Association (NFPA) Life Safety Code
- NFPA 12 Standard for Carbon Dioxide Extinguishing Systems
- NFPA 30 Flammable and Combustible Liquids Code
- NFPA 101 Life Safety Code
- NFPA 11 Standard for Low-Expansion Foam Systems
- NFPA 10 Standard for Portable Fire Extinguishers
- NFPA 58 LP-Gas Code
- NFPA 13 Installation of Sprinkler Systems
- Florida Fire Prevention Code as adopted by the State Fire Marshal Consult with the Florida State Fire Marshal's office for other frequently used codes
- NFPA 11A Standard for High- and Medium-Expansion Foam Systems
- NFPA 54 National Gas Fuel Code
- NFPA 70 National Electrical Code

#### Architectural - Extinguishing Systems:

- NFPA 24 Private Fire Service Mains
- NFPA 20 Centrifugal Fire Pump
- NFPA 17 Dry Chemical
- NFPA 14 Standpipe and Hose System
- NFPA 200 Standard on Clean Agent Fire Extinguishing Systems
- NFPA 10 Fire Extinguishers
- NFPA 13 Sprinkler

#### Architectural - Detection and Fire Alarm Systems:

- NFPA 72G Installation, Maintenance, and Use of Notification Appliances
- NFPA 72 Standard for the Installation, Maintenance and Use of Local Protective Signaling Systems
- NFPA 70 Electrical Code
- NFPA 72H Testing Procedures for Remote Station and Proprietary Systems
- NFPA 75 Protection of Electronic Computer Equipment
- NFPA 72E Automatic Fire Detectors
- NFPA 74 Household Fire Warning Equipment

#### Architectural - Mechanical Systems:

- NFPA 90A Air Conditioning and Ventilating Systems
- NFPA 204M Smoke and Heating Venting

- NFPA 96 Removal of Smoke and Grease-Laden Vapors from Commercial Cooking Equipment
- NFPA 92A Smoke Control Systems

### Architectural - Miscellaneous Systems:

- Rule Chapter 69A-47, F.A.C., Uniform Fire Safety For Elevators
- NFPA 88A Parking Structures
- NFPA 220 Types of Building Construction
- Rule Chapter 69A-51, F.A.C., Boiler Safety
- NFPA 241 Safeguard Construction, Alteration, and Operations
- NFPA 45 Laboratories Using Chemicals
- NFPA 105- Smoke and Draft-control Door Assemblies
- NFPA 110 Emergency and Standby Power Systems
- NFPA 80 Fire Doors and Windows

#### Architectural - Energy Conservation:

- Section 255.255, F.S., Life-Cycle Costs
- Rule Chapter 60D-4, F.A.C., Rules For Construction and Leasing of State Buildings To Insure Energy Conservation

#### Architectural - Elevators:

- Architectural Floodplain Management Criteria
- ASME A-17.1, Safety Code for Elevators and Escalators
- Section 255.25, F.S., Approval Required Prior to Construction or Lease of Buildings
- Rule Chapter 61C-5, F.A.C., Florida Elevator Safety Code
- Rules of the Federal Emergency Management Agency (FEMA)

#### Architectural - Other:

- FDOT Design Build Procurement and Administration
- Brick Institute of America
- United State Green Building Council (USGBC)
- American Institute of Architects Architect's Handbook of Professional Practice
- FDOT ADA/Accessibility Procedure
- American Concrete Institute
- FDOT Building Code Compliance Procedure
- Rule Chapter 64E-6, F.A.C., Standards for On Site Sewage Disposal Systems (Septic Tanks)
- Rule Chapter 62-761, F.A.C., Underground Storage Tank Systems
- Florida Concrete Products Association
- National Electrical Code

- LEED (Leadership in Energy and Environmental Design) Green Building Rating System
- Rule Chapter 62-600, F.A.C., Domestic Wastewater Facilities
- American Society for Testing and Materials ASTM Standards
- DMS Standards for Design of State Facilities
- Portland Cement Association Concrete Masonry Handbook
- National Concrete Masonry Association

#### 2.22 Services to be Performed by the DEPARTMENT

When appropriate or available, the DEPARTMENT will provide project data including:

- Numbers for field books
- Preliminary Horizontal Network Control
- Access for the CONSULTANT to utilize the DEPARTMENT's Information Technology Resources
- All Department agreements with Utility Agency Owner (UAO)
- All certifications necessary for project letting
- Building Construction Permit Coordination (Turnpike)
- All information that may come to the DEPARTMENT pertaining to future improvements
- All future information that may come to the DEPARTMENT during the term of the CONSULTANT's Agreement, which in the opinion of the DEPARTMENT is necessary for the prosecution of the work
- Available traffic and planning data
- All approved utility relocations
- Project utility certification to the DEPARTMENT's Central Office
- Any necessary title searches
- Engineering standards review services
- 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 may come 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
- Systems traffic for Projected Design Year, with K, D, and T factors
- Previously constructed Highway Beautification or Landscape Construction Plans
- Landscape Opportunity Plan(s)
- Existing right of way maps
- Existing pavement evaluation report for all RRR projects
- PD&E Documents
- Design Reports

- Letters of authorization designating the CONSULTANT as an agent of the DEPARTMENT in accordance with F.S. 337.274
- Phase reviews of plans and engineering documents
- Regarding Environmental Permitting Services:
  - General philosophies and guidelines of the DEPARTMENT to be used in the fulfillment of this contract. Objectives, constraints, budgetary limitations, and time constraints will be completely defined by the Project Manager.
  - Approved Permit Document when available
  - Appropriate signatures on application forms
  - Approval of all contacts with environmental agencies

#### **3 PROJECT COMMON AND PROJECT GENERAL TASKS**

#### Project Common Tasks

Project Common Tasks, as listed below, are work efforts that are applicable to many project activities, 4 (Roadway Analysis) through 36 (3D Modeling). These tasks are to be included in the project scope in each applicable activity when the described work is to be performed by the CONSULTANT.

<u>Cost Estimates</u>: The CONSULTANT is responsible for producing a construction cost estimate and reviewing and updating the cost estimate when scope changes occur and/or at milestones of the project. Prior to 60% plans or completion of quantities, the DEPARTMENT's Long-Range Estimate (LRE) system will be used to produce a conceptual estimate, according to District policy. Once the quantities have been developed (beginning at 60% plans and no later than 90% plans) the CONSULTANT shall be responsible for inputting the pay items and quantities into AASHTOWare Project Preconstruction through the use of the DEPARTMENT's Designer Interface.

Phase I - The project shall be established in PrP by Phase I (30%). The District Preliminary Estimates Office will create the project(s) in the system upon receiving a copy of the Notice to Proceed for the design contract. The District Preliminary Estimates Office will also create a version in the L.R.E. System for the CONSULTANT's use at Phase I. The CONSULTANT can request access to the assigned L.R.E. through the DEPARTMENT's Design Project Manager. For the Phase I (30%) submittal, the CONSULTANT shall submit the cost estimate using the DEPARTMENT's Long Range Estimating (L.R.E.) system. This estimate will be reviewed by the District Preliminary Estimates Office within the L.R.E. System. The Phase I (30%) L.R.E. shall be complete and ready for review at the time of the plans submittal.

Phase II - A Project Summary of Pay Items sheet shall be prepared with Phase II and subsequent plans submittals. The Phase II (60%) submittal shall have all pay items identified with or without quantities. If quantities have not been determined at this

point, the CONSULTANT shall load a quantity of "1.0". For the Phase II (60%) submittal, the CONSULTANT shall submit the cost estimate using the DEPARTMENT's Long Range Estimating (L.R.E.) system. This estimate will be reviewed by the District Preliminary Estimates Office within the L.R.E. System. The Phase II (60%) L.R.E. shall be complete and ready for review at the time of the plans submittal. Phases III & IV - At Phase III (90%) the CONSULTANT shall have all quantities loaded into PrP, with only minor changes anticipated at subsequent Within PrP, the CONSULTANT shall run a Project Edit Report for the submittals. project at Phases III and IV just prior to submitting the plans to the DEPARTMENT for review. The "Project Edit Report" lists all pay items loaded in the project (by category) and identifies obsolete pay items in PrP. The complete submittal package, including the CONSULTANT's construction cost estimate, will be provided to the District Preliminary Estimates Office at phases III (90%) and IV (100%). If the project includes a Special Detour, the CONSULTANT shall prepare and submit a Special Detour Quantity Worksheet for submittals beginning at Phase III (90%). The Special Detour Worksheet should be submitted at every subsequent phase submittal and updated if necessary. The above shall be provided for each component set of plans (i.e., Roadway, Bridge, Signing and Marking, etc.).

**Technical Special Provisions:** The CONSULTANT shall provide Technical Special Provisions for all items of work not covered by the Standard Specifications for Road and Bridge Construction and the workbook of implemented modifications.

A Technical Special Provision shall not modify the Standard Specifications and implemented modifications in any way.

The Technical Special Provisions shall provide a description of work, materials, equipment and specific requirements, method of measurement and basis of payment. Proposed Technical Special Provisions will be submitted to the District Specifications Office for initial review at the time of the Phase III plans review submission to the DEPARTMENT's Project Manager. This timing will allow for adequate processing time prior to final submittal. The Technical Special Provisions will be reviewed for suitability in accordance with the Handbook for Preparation of Specification Packages. The District Specifications Office for their review and comment. All comments will be returned to the CONSULTANT for correction and resolution. Final Technical Special Provisions shall be digitally signed and sealed in accordance with applicable Florida Statutes.

The CONSULTANT shall contact the appropriate District Specifications Office for details of the current format to be used before starting preparations of Technical Special Provisions.

<u>Modified Special Provisions:</u> The CONSULTANT shall provide Modified Special Provisions as required by the project. Modified Special Provisions are defined in the Specifications Handbook.

A Modified Special Provision shall not modify the first nine sections of the Standard Specifications and implemented modifications in any way. All modifications to other sections must be justified to the appropriate District and Central Specifications Offices to be included in the project's specifications package.

<u>Field Reviews:</u> The CONSULTANT shall make as many trips to the project site as required to obtain necessary data for all elements of the project.

**Technical Meetings:** The CONSULTANT shall attend all technical meetings necessary to execute the Scope of Services of this contract. This includes meetings with DEPARTMENT and/or Agency staff, between disciplines and subconsultants, such as access management meetings, pavement design meetings, local governments, railroads, airports, progress review meetings (phase review), and miscellaneous meetings. The CONSULTANT shall prepare, and submit to the DEPARTMENT's Project Manager for review, the meeting minutes for all meetings attended by them. The meeting minutes are due within five (5) working days of attending the meeting.

<u>**Ouality Assurance/Quality Control:</u>** It is the intention of the DEPARTMENT that design CONSULTANTS, including their subconsultant(s), are held responsible for their work, including plans review. The purpose of CONSULTANT plan reviews is to ensure that CONSULTANT plans follow the plan preparation procedures outlined in the FDOT Design Manual, that state and federal design criteria are followed with the DEPARTMENT concept, and that the CONSULTANT submittals are complete. All subconsultant document submittals shall be submitted by the subconsultant directly to the CONSULTANT for their independent Quality Assurance/Quality Control review and subsequent submittal to the DEPARTMENT.</u>

It is the CONSULTANT'S responsibility to independently and continually QC their plans and other deliverables. The CONSULTANT should regularly communicate with the DEPARTMENT's Design Project Manager to discuss and resolve issues or solicit opinions from those within designated areas of expertise.

The CONSULTANT shall be responsible for the professional quality, technical accuracy and coordination of all surveys, designs, drawings, specifications and other services furnished by the CONSULTANT and their subconsultant(s) under this contract.

The CONSULTANT shall provide a Quality Control Plan that describes the procedures to be utilized to verify, independently check, and review all maps, design drawings, specifications, and other documentation prepared as a part of the contract. The CONSULTANT shall describe how the checking and review processes are to be documented to verify that the required procedures were followed. The Quality Control Plan shall be one specifically designed for this project. The CONSULTANT shall submit a Quality Control Plan for approval within twenty (20) business days of the written Notice to Proceed and it shall be signed by the CONSULTANT's Project Manager and the CONSULTANT QC Manager. The Quality Control Plan shall include the names of
the CONSULTANT's staff that will perform the quality control reviews. The Quality Control reviewer shall be a Florida Licensed Professional Engineer fully prequalified under F.A.C. 14-75 in the work type being reviewed. A marked up set of prints from a Quality Control Review indicating the reviewers for each component (structures, roadway, drainage, signals, geotechnical, signing and marking, lighting, landscape, surveys, etc.) and a written resolution of comments on a point-by-point basis will be required, if requested by the DEPARTMENT, with each phase submittal. The responsible Professional Engineer, Landscape Architect, or Professional Surveyor & Mapper that performed the Quality Control review will sign a statement certifying that the review was conducted and found to meet required specifications.

The CONSULTANT shall, without additional compensation, correct all errors or deficiencies in the designs, maps, drawings, specifications and/or other products and services.

*Independent Peer Review:* When directed by the DEPARTMENT, a subconsultant may perform Independent Peer Reviews.

Independent Peer Review and a Constructability/Bidability Review for design Phase Plans document submittals are required on this project. These separate reviews shall be completed by someone who has not worked on the plan component that is being reviewed. These could include, but are not limited to a separate office under the Prime's umbrella, a subconsultant that is qualified in the work group being reviewed, or a CEI. It does not include persons who have knowledge of the day to day design efforts. The Constructability/Bidability Review shall be performed by a person with experience working on Department construction projects (CEI, Contractor, etc.).

The Independent Peer Review for design Phase Plans submittals shall ensure the plans the Standard Plans FDOT CADD meet FDM. and Manual. The Constructability/Bidability Review shall ensure the project can be constructed and paid for as designed. Constructability/Bidability Reviews should be conducted prior to the Phase III and Phase IV submittals, using the Phase Review Checklist (Guidance Document 1-1-A) from the Construction Project Administration Manual (CPAM) as a minimum guideline. The CONSULTANT shall submit this checklist, as well as the "marked-up" set of plans during this review, and review comments and comment responses from any previous Constructability/Bidability reviews. These items will be reviewed by District Design and District Construction.

*Supervision:* The CONSULTANT shall supervise all technical design activities.

*Coordination:* The CONSULTANT shall coordinate with all disciplines of the project to produce a final set of construction documents.

#### <u>Project General Tasks</u>

Project General Tasks, described in Sections 3.1 through 3.13 below, represent work efforts that are applicable to the project as a whole and not to any one or more specific project activity. The work described in these tasks shall be performed by the CONSULTANT when included in the project scope.

#### 3.1 Public Involvement

Public involvement includes communicating to all interested persons, groups, and government organizations information regarding the development of the project. The CONSULTANT shall provide to the DEPARTMENT drafts of all Public Involvement documents (e.g., newsletters, property owner letters, advertisements, etc.) associated with the following tasks for review and approval at least *ten (10)* business days prior to printing and / or distribution.

FPID 426937-3-1-32-01 has been determined to be a Community Awareness Plan (CAP) Level 2 project with a Hybrid Public Meeting. This type of project has general public acceptance, moderate impacts to access and a noticeable degree of traffic disruption. Examples are urban resurfacing, residential resurfacing, enhancement projects, bridge replacements, minor roadway widening, permanent access management changes, and other construction activities that require road closures and offsite detours.

FPID 426961-2-32-01 has been determined to be a Community Awareness Plan (CAP) Level 2 project with a Virtual Project Update (VPU). This type of project has general public acceptance, little impact on access and moderate degree of traffic disruption. Examples are short resurfacing projects, bridge repairs, small intersection improvement projects, and other construction activities that require lane closures.

Prior to negotiations, the CONSULTANT shall coordinate with the DEPARTMENT's Design Project Manager and Public Information Director to discuss the specific public involvement activities anticipated for this project.

3.1.1 Community Awareness Plan

All projects require the development of a Community Awareness Plan (CAP) utilizing the District Three Community Awareness Plan Template. A copy of the Template can be obtained from the DEPARTMENT's Design Project Manager.

Prepare a Community Awareness Plan (CAP) for review and approval by the DEPARTMENT within 20 business days after receiving Notice to Proceed. The objective of the plan is to notify local governments, affected property owners, tenants, and the public of the DEPARTMENT'S proposed construction and the anticipated impact of that construction. The CAP shall address timeframes for each review and shall include tentative dates for each public involvement requirement for the project. The CAP will also document all public involvement activities conducted throughout the project's duration. In addition to the benefits of advance notification, the process should allow the DEPARTMENT to resolve controversial issues during the design

phase. Four areas of specific concern are: (1) Influences on access to businesses and residences, (2) Drainage, (3) Temporary Traffic Control Plans during construction, and (4) right-of-way acquisition.

#### 3.1.2 Notifications

In addition to public involvement data collection, the CONSULTANT shall assist the DEPARTMENT or prepare notifications, flyers, and/or letters to elected officials and other public officials, private property owners, and tenants at intervals during plans production as identified by the DEPARTMENT. All letters and notices shall be reviewed by the **CONSULTANT** to ensure that they are addressed to the correct and current public officials.

The CONSULTANT shall prepare an email notification and a distribution list for plans at Phase II, Phase III, and any subsequent Phase IV re-submittal to the office(s) designated by the local government(s) and applicable regional authorities for a threeweek review. The email notifications and plans will be distributed by the DEPARTMENT. The need to re-submit Phase IV Plans will depend on the duration of time spent "on the shelf" and the amount of changes that have occurred since the last submittal to the Local Governments at Phase III. See Section 2.20 regarding Phase IV re-submittals. The Phase IV re-submittal to the Local Governments should take place well in advance of the Final Submittal to the District for Plans Processing to allow time to address comments received from the Local Governments.

Each comment or request provided by the local government shall be evaluated by the CONSULTANT and discussed with the DEPARTMENT's Design Project Manager. Responses will be prepared by the CONSULTANT for the District Consultant Project Management Engineer's signature. All comments or requests shall be responded to in writing within thirty (30) calendar days of receipt of comments.

#### **PROJECT NOTIFICATIONS:**

*Project Notifications shall be prepared by the CONSULTANT for all parties affected within the subject project's limits.* 

Email Notifications and Mass Mail-outs shall provide:

- FPID Number
- State Road Number and Local Road Name
- Project Limits
- A Project Map
- Type of Work
- Construction Letting Timeframe (ie, Spring 20XX, Winter 20XX)
- DEPARTMENT contact persons

Email Notifications to Public Officials:ADVERTISEDPage A-39

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- Email Notifications shall be prepared as an email by the CONSULTANT for all pertinent public officials as described in Section 3.1.3. The email notification to the public officials shall be emailed by the DEPARTMENT following the Phase II distribution.
- In addition to the email notification, a flier or tri-fold will be required as an attachment to relay all of the pertinent information described above.
- The CONSULTANT shall submit the draft email notification along with the attachment(s) and distribution list at the designated time in the project schedule. The distribution list shall be an MS Excel file and shall include the name, title, and email address of each intended recipient.

Mail-out to Targeted Property Owners:

- A notification letter and/or a project information flier/ tri-fold will be prepared and sent to all property owners, tenants, and business operators adjacent to the specified work activities and as defined in Section 3.1.3. This notification shall be mailed by the CONSULTANT following the Phase II distribution.
- Property owners and tenants within the "targeted limits" can be contacted through mass mailings and/or hand delivered flyers. Letters shall be prepared for the District Consultant Project Management Engineer's signature and shall be on DEPARTMENT letterhead.
- A notification letter will be prepared and sent to property owners, tenants, and business operators where existing, privately owned landscaping/hardscaping/ signs/brick pavers/mailboxes/etc. are expected to be impacted by construction activities. This notification shall be mailed by the CONSULTANT following the Phase II distribution.

The CONSULTANT <u>must</u> review all notices, letters, and attachments for accuracy and spelling and ensure that notices are sent to the person currently holding the public official positions. The CONSULTANT must attempt to affirm the validity of all email addresses submitted for each notification.

Examples of any of this correspondence can be made available upon request to the DEPARTMENT's Design Project Manager.

#### **3.1.3 Preparing Mailing Lists**

At the beginning of the project, The CONSULTANT shall identify all impacted property owners and tenants (within a minimum of 300 feet of the project corridor) The CONSULTANT shall prepare a mailing list of all such entities and shall update the mailing list as needed during the life of the project.

#### PHASE SUBMITTAL NOTIFICATIONS:

The distribution list for the phase submittal notifications described in Section 3.1.2 will be submitted to the DEPARTMENT's Design Project Manager at Phase II, Phase III, and any subsequent Phase IV re-submittal. The distribution list shall be an MS Excel file and shall include the name, title, and email address of each intended recipient.

#### Mail-out to Public Officials:

• Public Officials who are to receive notification of projects shall include, (but not be limited to):

#### County

- County Manager
- County Public Information Director
- County Commissioners
- County Public Works Director
- County Engineer

#### City

- City Commission
- Mayor
- City Manager
- Engineer / Public Work Director

#### Regional

- Regional Planning Council/ MPO/ TPO/ TPA
- College Campus Facilities Department

#### PROJECT NOTIFICATIONS FOR VPU AND HYBRID PUBLIC MEETING:

*Project Notifications shall be prepared by the CONSULTANT for all parties affected by the projects.* 

The mailing list shall be prepared by the CONSULTANT to include all affected parties. The mailing list will be submitted along with the notifications to the DEPARTMENT's Design Project Manager for review and approval.

**Email Notifications to Public Officials:** 

• Public Officials who are to receive notification of projects and shall include, (but not be limited to):

Federal/State

- Legislative Delegation/Congress (Federal & State)
- Water Management Districts
- US Post Master
- Florida Highway Patrol (Major & Commander)
- \*especially if Troop Headquarters is located in municipality
- Military Installations (if within project's proximity)

#### County

- County Manager
- County Public Information Director
- County Commissioners
- County Public Works Director
- County Engineer
- County Emergency Management Director
- Sheriff's Department
- Sheriff's Department Public Information / Public Affairs
- County Airport Director
- County Seaport Director
- County Public Transit System
- County Schools Superintendent
- Transportation Director
- Fire & Rescue Departments

#### City

- City Commission
- Mayor
- City Manager
- Engineer / Public Work Director
- City Police Chief

#### Regional

- Merchants Association
- Chamber of Commerce
- Convention & Visitors Bureau
- Tourist Development Regional Planning Council/ MPO/ TPO/ TPA
- Local Americans with Disabilities Act (ADA)/ Pedestrian Advocacy Groups
- Local Hospitals
- Seaport Authority
- Airport Authority
- Local Colleges/Universities (if within project's proximity)

Mail-out to Property Owners:

- A notification will be written and sent to all property owners, tenants, and business operators whose property, home, or business lies in whole or in part within a minimum of 300 feet of the projects. In addition, the CONSULTANT must include any businesses or neighborhoods located down side roads that may be impacted by the project. The CONSULTANT shall utilize Direct Mail Services, Tax Collector Office and/or any other source to identify and obtain the address of property owners and business operators along the project.
- A notification letter will be prepared and sent to property owners, tenants, and business operators where existing, privately owned landscaping/ hardscaping/ signs/ brick pavers/ mailboxes/ etc. are expected to be impacted by construction activities. This notification shall be mailed by the CONSULTANT following the Phase II distribution.

Mail-out to Media Outlets: To be conducted by the DEPARTMENT

**3.1.4 Median Modification Letters (Not applicable to these projects)** 

3.1.5 Driveway Modification Letters (Not applicable to these projects)

**3.1.6** Newsletters (Not applicable to these projects)

3.1.7 Renderings and Fly-Throughs (Not applicable to these projects)

**3.1.8** PowerPoint Presentations

The CONSULTANT shall prepare PowerPoint presentations (with voiceover if requested by the DEPARTMENT's Public Information Office) for use for the Virtual Project Update (VPU).

**3.1.9 Public Meeting Preparations** 

Following the Phase II plans submittal, and typically in advance of the Phase III submittal, the CONSULTANT shall assist the DEPARTMENT in scheduling the Hybrid Meeting for FPID 426937-3 and the FDOT Virtual Project Update (VPU) for FPID 426961-2.

In preparation for the FDOT Hybrid Meeting and Virtual Project Update (VPU), the CONSULTANT shall provide:

- Project Information/Fact Sheets
- Script or Agenda for any planned presentation (if applicable)
- All necessary graphics and displays (see requirements below)

The CONSULTANT shall prepare all materials, displays, and/or graphics for use. These include but are not limited to the following:

• Self-addressed comment forms to allow attendees to provide written comments. ADVERTISED Page A-43 FPIDs: 426937-3-32-01 426961-2-32-01 The DEPARTMENT's Design Project Manager shall be listed as the contact for all comments.

- A display of the typical section(s). The drawing shall be in color with computer images of automobiles, bicycles, and pedestrians occupying the designated travel areas.
- A display of a computer enhance photograph utilizing an existing conditions photo to reflect proposed conditions. For intersection projects, 2 computerenhanced photographs showing the existing conditions and proposed improvements will be required. "Before and After" depictions of select work elements are encouraged for 3R projects as well to help demonstrate proposed changes to the public.
- A display of the project in plan view. The display shall be 1"=50', 1"=100' (or a legible scale) raster drawing, to scale aerial photos, or colored CADD drawings with the following information:
  - existing right-of-way lines
  - o proposed right-of-way lines
  - proposed pavement markings (pavement should be black or gray with the correct color of pavement markings (white or yellow)
  - existing structures adjacent to the roadway (homes, businesses, etc.)
  - proposed driveway and median openings
  - proposed ponds designated as wet or dry
  - designation of proposed signalized intersections.

Displays and other materials prepared for the Hybrid Meeting and VPU shall NOT depict the CONSULTANT's logo. Displays and materials shall only depict the DEPARTMENT's logo/seal.

Mail-out Materials: The CONSULTANT shall be aware that along with the mail-outs described in Section 3.1.3, all the above deliverables intended for mail-out must be submitted to the DEPARTMENT's Design Project Manager well in advance of the mail-out and Hybrid Meeting/VPU to allow time for review, approval, and signatures if necessary.

<u>Display Materials</u>: The CONSULTANT shall be aware that all the above deliverables and materials proposed to be online for the Hybrid Meeting/Virtual Project Update (VPU) must be presented to DEPARTMENT staff at a pre-meeting workshop for review and approval in advance of the Hybrid Meeting/VPU.

3.1.10 Public Meeting Attendance and Follow-up

The purpose of the FDOT Public Information Meeting/Workshop is to present to the public the results of the detailed design for the project and receive comments on the proposed design.

The CONSULTANT shall provide all support necessary for the DEPARTMENT to

hold a Public Information Meeting/Workshop. The CONSULTANT is expected to actively participate in all portions of the meeting. Conducting the meeting will take knowledgeable CONSULTANT staff and will require enough staff members to handle the crowd anticipated for the meeting.

The CONSULTANT shall also provide office support personnel to ensure attendees register (CONSULTANT must provide a sign-in sheet with space available for the person's name, address, and telephone number).

Briefing of the DEPARTMENT Design staff by the CONSULTANT (who will be on hand during the meeting) will be done twice. The first time is to be at least seven days prior to the meeting and the second time will be just before the meeting to make sure the staff is up to date on the project and understands the project well enough to discuss it with the public and to answer questions. The CONSULTANT shall assist the DEPARTMENT's Design Project Manager with ensuring that the appropriate DEPARTMENT staff are invited and included in the pre-Public Information Meeting/Workshop briefings. This will include (at a minimum) representatives from the Public Information Office and the Design Office. In addition, the DEPARTMENT's Transportation Planning Area's Urban Liaisons shall be notified of any briefings and public meetings. If the project includes a right-of-way acquisition phase, the Right-of-way Acquisition Administrator shall also be notified of the briefing.

FDOT Public Information Meetings/Workshops are held between the 60% - 90% plans stage. For CAP Level 3 and 4 projects, a second meeting will be required closer to the Final Plans stage. Depending on the amount of time spent "on-the-shelf", an additional meeting may be required six (6) months prior to letting, however, staff hours for this effort will be negotiated at the appropriate time.

The meeting format will be informal allowing the public to come and go. The meeting will be scheduled for one (1) hour in length. Although the meeting is scheduled for a one (1) hour period, the CONSULTANT staff will be available for some time before and/or after those set hours in order to maintain public contact, etc.

Proper signage using display boards no smaller than 2'X2' will be displayed near and on the site directing participants to the meeting place. In addition, the site must meet ADA standards and the CONSULTANT shall provide signs to indicate the location of the available handicapped accesses. A "Title VI" board will be required at the meeting site. The CONSULTANT shall coordinate with the DEPARTMENT to attain "Title VI" board requirements.

If issues are identified by participants at the meeting, their significance will be determined by the CONSULTANT and the DEPARTMENT; i.e., are the issues valid enough for further consideration or do they have elements which may require further consideration.

Addressing the issues and responding to them is also an integral part of the meeting process. This is to be accomplished by the CONSULTANT. The CONSULTANT shall prepare responses to the issues on DEPARTMENT letterhead to be signed by the District Consultant Project Management Engineer. The CONSULTANT shall pay for the postage. The DEPARTMENT shall review and approve all response letters prior to mailing. Elected Public Officials require a 48 hour response time and will require signature by the District Secretary.

#### **3.1.11 Other Agency Meetings**

In addition to scheduled public meetings the CONSULTANT may be required to participate in meetings with the local governing authorities and/or Metropolitan Planning Organization (MPO). It is estimated for this project there will be *at least one (1)* [CRTPA] meeting with local governing authorities and/or MPOs during the design. DEPARTMENT staff will conduct all meetings and presentations made for Local Governments and MPOs/TPOs. The CONSULTANT shall prepare the needed presentation materials as directed by the DEPARTMENT's Design Project Manager. The CONSULTANT shall be responsible for participating in the meetings, as well as note taking and the preparation of meeting summaries/minutes.

#### **3.1.12** Web Site (Not applicable to these projects)

#### **3.2 Joint Project Agreements**

There have been no Joint Project Agreements (JPAs) identified at this time.

Should the need for a JPA become a requirement, a supplemental amendment will be negotiated for these services. The CONSULTANT services may include all coordination, meetings, etc., required to include JPA plans (prepared by others) in contract plans package including all necessary revisions/modifications to contract documents to ensure plans compatibility.

#### **3.3 Specifications & Estimates**

#### **3.3.1 Specifications Package Preparation**

The CONSULTANT shall prepare and provide a specifications package in accordance with the DEPARTMENT'S Procedure Topic No. 630-010-005 Specifications Package Preparation and the Specifications Handbook. The CONSULTANT shall provide the DEPARTMENT names of at least two team members who have successfully completed the Specifications Package Preparation Training and will be responsible for preparing the Specifications Package for the project. The Specifications Package shall be prepared using the DEPARTMENT's Specs on the Web application. The CONSULTANT shall be able to document that the procedure defined in the Handbook for the Preparation of Specifications Packages is followed, which includes the quality assurance/quality control procedures. The specifications package shall address all items and areas of work and

include any Mandatory Specifications, Modified Special Provisions, and Technical Special Provisions. *The District Specifications Office can be contacted for more information.* 

The specifications package must be submitted for review to the District Specifications Office at least 30 days prior to the contract package to Tallahassee or District due date, or sooner if required by the District Specifications Office. This submittal does not require signing and sealing and shall be coordinated through the District's Project Manager. The CONSULTANT shall coordinate with the DEPARTMENT on the submittal requirements, but at a minimum shall consist of (1) the complete specifications package, (2) a copy of the marked-up workbook used to prepare the package, and (3) a copy of the final project plans.

Final submittal of the specifications package must occur at least 10 working days prior to the contract package to Tallahassee due date. This submittal shall be digitally signed, dated, and sealed in accordance with applicable Florida Statutes.

All current special provisions and supplemental specifications can be found on the DEPARTMENT'S Internet web site at the State Program Management Office Web Page (http://www.dot.state.fl.us/programmanagement/specs.shtm) under the Standard Specifications for Road and Bridge Construction and Implemented Modifications. The DEPARTMENT will post permits/utility schedules obtained by the DEPARTMENT to their Specifications Web site for informational purposes. The actual work effort will entail utilization of the Specs on the Web electronic files, including updates of new files that may be issued from time to time as mandatory revisions, and assembling the package in accordance with the DEPARTMENT's Specification of special provisions necessary to convey particular DEPARTMENT needs.

The Standard Specifications, for Road and Bridge Construction and, Special Provisions or Supplemental Specifications from the applicable workbook of implemented modifications may not be modified unless absolutely necessary to control project-specific requirements. Provide justification of the project specific need, and coordinate with the District Specifications Office.

Developmental Specifications are developed around a new process, procedure, or material approved for limited use by the State Program Management Office. These specifications are signed and sealed by the professional engineer responsible for authorizing use and monitoring performance in the field. Developmental Specifications are requested from the District Specifications Office on a project by project basis.

Contact the District Specifications Office for formatting requirements and the availability of a Technical Special Provision for the anticipated work on the project. The DEPARTMENT has a database of previously approved Technical Special

Provisions that may be used as a basis of formulation of any proposed Technical Special Provisions. Each modification must be justified to the DEPARTMENT's Specifications Office to be included in the project's Specifications Package as Technical Special Provisions. Technical Special Provisions shall be submitted in conformity with FDOT Handbook for Preparation of Specifications Packages and FDOT Procedure No. 630-010-005-f. If any portion of the project is federally funded, all Technical Special Provisions must also conform to Chapter 23, Part 635 of the Code of Federal Regulations for these projects.

Prepare a complete Specifications Package as described in Section 115.3 of the FDOT Design Manual. Submit the Specifications Package and the Workbook generated via Specs on the Web that was used to compile the Specifications Package within the electronic final plans package. Submittal requirements are further detailed in Chapter 131 of the FDOT Design Manual and Section 2.20 of this Scope of Services.

Any Plan Revision, Mandatory Specification Revision or any other change occurring after the "Transmit Package for Letting" Date that requires a Supplemental Specifications Package, will be the responsibility of the CONSULTANT.

For "goes-with" projects, the CONSULTANT for the lead project will be responsible for compiling the Specifications Package and any required Supplemental Specifications Packages. Technical Special Provisions will be the responsibility of the CONSULTANT for that project which requires the TSP.

It is the intent of the DEPARTMENT that the Specifications Package and any Supplements be prepared by & signed and sealed by the Engineer of Record preparing the project plans, except as noted above for projects being let together. In this case, the Engineer of Record for the lead project will be required to sign and seal the Specification Package and any required Supplements.

#### **3.3.2 Estimated Quantities Report Preparation**

The CONSULTANT shall develop accurate quantities and the supporting documentation, including construction days when required.

Quantities shall be included in an Estimated Quantities Report per FDM 902.

The CONSULTANT shall be responsible for inputting pay items and quantities into the DEPARTMENT's Project Preconstruction (PrP) System through the use of the DEPARTMENT's Designer Interface.

Phase I - The project shall be established in PrP by Phase I (30%). The District Preliminary Estimates Office will create the project(s) in the system upon receiving a copy of the Notice to Proceed for the design contract.

Phase II - A Summary of Pay Items sheet shall be prepared with Phase II and

subsequent plans submittals. The Phase II (60%) submittal shall have all pay items identified with or without quantities. If quantities have not been determined at this point, the CONSULTANT shall load a quantity of "1.0".

Phases III & IV - At Phase III (90%) the CONSULTANT shall have all quantities loaded into PrP, with only minor change anticipated at subsequent submittals. Within PrP, the CONSULTANT shall run a Project Edit Report for the project at Phases III and IV just prior to submitting the plans to the DEPARTMENT for review. This program outputs invalid pay items that may be erroneously loaded for a project. The above shall be provided for each component set of plans (i.e., Roadway, Bridge, Signing and Marking, etc.).

#### **3.4 Contract Maintenance and Project Documentation**

Contract maintenance includes project management effort for complete setup and maintenance of files, electronic folders and documents, developing technical monthly progress reports and schedule updates. Project documentation includes the compilation and delivery of final documents, reports or calculations that support the development of the contract plans; includes uploading files to Electronic Document Management System (EDMS) or Project Suite Enterprise Edition (PSEE). *See FDM 111.7 for guidance on the organization and delivery of Project Documentation*.

The CONSULTANT will be required to provide written monthly progress reports (preferably electronic via email) documenting actions taken, actions to be taken, status of project schedule, and contacts with the DEPARTMENT (the DEPARTMENT employee contacted, the issue, and the resolution), and the status of the plans.

The CONSULTANT will also be required to make 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.

**3.5** Value Engineering (Multi-Discipline Team) Review (Not applicable to these projects)

#### 3.6 Prime Consultant Project Manager Meetings

Includes only the Prime Consultant Project Manager's time for travel and attendance at Activity Technical Meetings and other meetings listed in the meeting summary for Task 3.6 on tab 3 Project General Task of the staff hour forms. Staff hours for other personnel attending Activity Technical Meetings are included in the meeting task for that specific Activity.

#### 3.7 Plans Update

The effort needed for Plans Update services will vary from project to project, depending on size and complexity of the project, as well as the duration of time spent "on the shelf".

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Specific services will be negotiated as necessary as a contract amendment.

Staffhours negotiated for this task during the initial staffhour and fee submittal will include efforts necessary to kick-off Plans Update Services due to an accelerated schedule. It is recommended that the CONSULTANT coordinate with the DEPARTMENT's Contract Manager to differentiate the staffhours for the Plans Update effort in the Automated Fee Proposal (AFP) from the Basic Services effort. Staffhours for the remainder of the anticipated Plans Update Services will be negotiated following Basic Services and at the time that the plans come "off the shelf".

The CONSULTANT shall perform engineering analyses and/or make revisions to original plans and documents, as requested by the DEPARTMENT, to reflect additions, deletions and/or modifications prior to and subsequent to letting. The CONSULTANT shall be aware that minor modifications and/or updates to the original plans are to be expected. These minor refinements shall not be a basis for any payment under the Plans Update supplemental amendment.

#### **3.8 Post-Design Services**

Post-Design Services may include, but not limited to, meetings, construction assistance, plans revisions, shop drawing review, survey services, as-built drawings, and load ratings. Specific services will be negotiated as necessary as a contract amendment.

Post-Design Services are not intended for instances of CONSULTANT errors or omissions.

Staffhours and fees for Post Design Services will be submitted and negotiated post-letting and in advance of the Pre-Construction Conference. All Phase 32 funds (Basic Services and Plans Update Services) shall be expended or released prior to initiating Post Design Services (Phase 62).

Identifying the effort needed for Post Design Services will vary significantly from project to project depending on size and complexity of the project. The approach described herein assists the DEPARTMENT in determining an initial estimate of the work effort needed for the Engineer of Record (EOR) to support the DEPARTMENT in the construction of a project.

Post Design Services include Construction Assistance and Review of Shop Drawings as noted below. In addition, these services are included for the CONSULTANT to attend and provide information at the Pre-Construction Conference. Subsequent construction field meetings are to be attended as required. The frequency of meetings shall be based on the complexity of the project and as directed by the DEPARTMENT's Design Project Manager.

The EOR will be required to respond to any request from the CONTRACTOR within 24 hours. This does not mean that the issue will be resolved; it simply means that the EOR

has received the request, states an immediate course of action, and begins the communication process.

The activities associated with Post Design Services can be characterized as the following:

<u>Meetings</u>: The EOR is expected to attend all pre-construction meetings as well as those regularly scheduled meetings throughout the construction phase when deemed necessary by the DEPARTMENT's Construction Project Manager.

<u>Construction Assistance</u>: This includes responses to Requests for Information (RFI), interpretation of construction plans and documents, and engineering solutions to changed conditions encountered in the field. Site visits shall be made by the EOR consultant when agreed upon with the DEPARTMENT's Construction Project Manager. The CONSULTANT shall provide to the DEPARTMENT qualified representation during the construction phase to address issues concerning the intent and interpretation of the during construction the CONSULTANT may be requested by the DEPARTMENT or its designated representative to review CONTRACTOR proposed field changes or to respond with a recommended solution to remedy particular field situations not covered by the plans and specifications

<u>Plan Revisions</u>: This includes effort required to provide revised plan sheets reflecting any changes made during the Right-of-Way Acquisition or Construction phases of a project. During Right-of-Way or Construction phases, the CONSULTANT may be requested by the DEPARTMENT to review proposed field changes or to respond with a recommended solution to remedy particular field situations not covered by the plans and specifications.

<u>Shop Drawing Review</u>: This includes review of shop drawings and erection plans for all components supplied by the CONTRACTOR and required by the bid documents. For all independently supported sign structures of which the CONTRACTOR is responsible, the CONSULTANT will review and check all the foundation, sign structure design, and shop drawings submitted by the CONTRACTOR. Shop drawing reviews shall be performed by the CONSULTANT in accordance with the Standard Specifications for Road and Bridge Construction.

<u>Load Ratings</u>: Projects involving bridges typically have the load rating done during the design phase work. If the as-built bridge complies with the bid documents, the EOR should be willing to certify the load rating performed during design is adequate for the as-built condition of the bridge. However, if the as-built bridge was built in a modified or altered condition from the bid documents, an updated load rating may be required. Therefore, during construction, the EOR may be asked to perform an updated load rating based on the as-built condition of the bridge. As an aid in the negotiations the Structures Design Office has established guidelines for the development of staff-hours for load rating various bridge types.

Post design services may also include:

- Reestablishment of the original survey control just prior to construction (Refer to Section 5-7.1 of the Standard Specifications for Road and Bridge Construction).
- Flagging R/W for acquisition
- Monumentation of the R/W after construction is complete for projects with rightof-way acquisition
- Comprehensive utility coordination and conflict resolution during construction.

Note: All services will be agreed upon by the DEPARTMENT's Construction Project Manager and approved by the DEPARTMENT's Design Project Manager.

The CONSULTANT shall submit a "Post Design Services Status Report" in \*.xlsx format with every invoice during this phase. A blank example of this report can be provided by the DEPARTMENT's Design Project Manager.Post Design Services are not intended for instances of CONSULTANT errors and/or omissions

#### 3.9 Digital Delivery

The CONSULTANT shall deliver final contract plans and documents in digital format. The final contract plans and documents shall be digitally signed and sealed files delivered to the DEPARTMENT on acceptable electronic media, as determined by the DEPARTMENT.

#### 3.10 Risk Assessment Workshop (Not applicable to these projects)

3.11 Railroad, Transit and/or Airport Coordination (Not applicable to these projects)

#### **3.11.1** Aeronautical Evaluation (Not applicable to these projects)

#### **3.12** Landscape and Existing Vegetation Coordination (Not applicable to these projects)

#### **3.13 Other Project General Tasks (Not applicable to these projects)**

#### 4 ROADWAY ANALYSIS

The CONSULTANT shall analyze and document Roadway Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

#### 4.1 Typical Section Package

The CONSULTANT shall provide an approved Typical Section Package prior to the first plans submittal.

This package shall include the following:

• Transmittal Letter, Location Map(s), Typical Section(s) (including bridge sections and Project Control Sheet(s)

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#### 4.2 Pavement Type Selection Report (Not applicable to these projects)

#### 4.3 Pavement Design Package (Not applicable to these projects)

#### The DEPARTMENT will be responsible for the Pavement Designs.

#### 4.4 Cross-Slope Correction

The CONSULTANT shall coordinate with the DEPARTMENT to obtain existing cross slope data, determine roadway limits where cross slope is potentially out of tolerance and determine a resolution.

# Includes the effort necessary to review the existing cross-slopes and the need for overbuild with the District Construction Office and the District Bituminous Engineer and to prepare needed overbuild details, notes, and tables.

<u>As early as possible</u>, the collected survey data along this project shall be analyzed by the CONSULTANT to determine if minimum and maximum cross-slope requirements are met throughout the project limits. Once the determination is made that cross slope correction will be implemented, the CONSULTANT must determine if any additional survey is required to provide an adequate design and accurate quantities. The CONSULTANT will hold a coordination meeting with the DEPARTMENT's Design Project Manager, the District Design Office, the District Materials Office, and the District Survey Office to determine how much additional survey is required and what is the most economical method of obtaining the additional data. The CONSULTANT shall then review the cross sections with the District Construction Office and the District Bituminous Engineer to determine the method of correction (variable depth milling or overbuild) and the details/tables required. A proposed design for cross slope correction must be included in the Phase II Plans.

#### 4.5 Horizontal/Vertical Master Design Files

The CONSULTANT shall design the geometrics using the Standard Plans that are most appropriate with proper consideration given to the design traffic volumes, design speed, capacity and levels of service, functional classification, adjacent land use, design consistency and driver expectancy, aesthetics, existing vegetation to be preserved, pedestrian and bicycle concerns, ADA requirements, Safe Mobility For Life Program, access management, PD&E documents and scope of work. The CONSULTANT shall also develop utility conflict information to be provided to project Utility Coordinator in the format requested by the DEPARTMENT.

Note: When the project includes a 3D Model deliverable, also include Activity 36 3D Modeling.

4.6 Access Management (Not applicable to these projects)

4.7 Roundabout Evaluation (Not applicable to these projects)

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#### 4.8 Roundabout Final Design Analysis (Not applicable to these projects)

#### 4.9 Cross Section Design Files

The CONSULTANT shall establish and develop cross section design files in accordance with the FDOT CADD Manual *and plot existing utilities for utility conflict identification and adjustment.* 

If the Cross Sections are prepared using a 3D model, use Task 36.5 instead of Task 4.9 for the Cross Section Design Files.

#### 4.10 Temporary Traffic Control Plan (TTCP) Analysis

The CONSULTANT shall design a safe and effective TTCP to move vehicular and pedestrian traffic during all phases of construction. The design shall include construction phasing of roadways ingress and egress to existing property owners and businesses, routing, signing and pavement markings, and detour quantity tabulations, roadway pavement, drainage structures, ditches, front slopes, back slopes, drop offs within clear zone, transit stops, and traffic monitoring sites. Special consideration shall be given to the construction of the drainage system when developing the construction phases. Positive drainage must be maintained at all times. The design shall include construction phasing of roadways to accommodate the construction or relocation of utilities when the contract includes Joint Project Agreements (JPAs).

The CONSULTANT shall investigate the need for temporary traffic signals, temporary highway lighting, detours, diversions, lane shifts, and the use of materials such as sheet piling in the analysis. The Traffic Control Plan shall be prepared by a certified designer who has completed training as required by the DEPARTMENT. Before proceeding with the TTCP, the CONSULTANT shall meet with the appropriate DEPARTMENT personnel. The purpose of this meeting is to provide information to the CONSULTANT that will better coordinate the Preliminary and Final TTCP efforts.

The CONSULTANT shall consider the local impact of any lane closures or alternate routes. When the need to close a road is identified during this analysis, the CONSULTANT shall notify the DEPARTMENT's Project Manager as soon as possible. Proposed road closings must be reviewed and approved by the DEPARTMENT. Diligence shall be used to minimize negative impacts by appropriate specifications, recommendations or plans development. Local impacts to consider will be local events, holidays, peak seasons, detour route deterioration and other eventualities. CONSULTANT shall be responsible to obtain local authorities permission for use of detour routes not on state highways.

The Temporary Traffic Control Plan shall be prepared by a certified designer who has completed training as required by the DEPARTMENT. Before proceeding with the TTCP, the CONSULTANT shall meet with the appropriate DEPARTMENT personnel. The purpose of this meeting is to provide information to the CONSULTANT that will better coordinate the Preliminary and Final TTCP efforts.

The CONSULTANT shall consider the local impact of any lane closures or alternate routes. When the need to close a road is identified during this analysis, the CONSULTANT shall notify the DEPARTMENT's Project Manager as soon as possible. Proposed road closings must be reviewed and approved by the DEPARTMENT. Diligence shall be used to minimize negative impacts by appropriate specifications, recommendations or plans development. Local impacts to consider will be local events, holidays, peak seasons, detour route deterioration and other eventualities. The CONSULTANT shall be responsible for obtaining local authorities' permission for use of detour routes not on state highways.

The CONSULTANT shall conduct a Lane Closure Analysis to determine work conditions when no lane closures will be allowed.

#### 4.11 Master TTCP Design Files

The CONSULTANT shall develop master TTCP files showing each phase of the TTCP. This includes all work necessary for designing lane configurations, diversions, lane shifts, signing and pavement markings, temporary traffic control devices, and temporary pedestrian ways.

#### 4.12 Selective Clearing and Grubbing (Not applicable to these projects)

#### 4.13 Tree Disposition Plans (Not applicable to these projects)

#### 4.14 Design Variations and Exceptions

If available, the DEPARTMENT shall furnish the Variation/Exception Report. The CONSULTANT shall prepare the documentation necessary to gain DEPARTMENT approval of all appropriate Design Variations and/or Design Exceptions before the first submittal.

#### 4.15 Design Report

The CONSULTANT shall prepare all applicable report(s) as listed in the Project Description section of this scope, including the ADA Survey Report. Reports are to be delivered as a signed and sealed pdf file.

ADA Survey Report: This task shall include the effort to prepare the ADA Survey Report for FPID 443673-2. This report will provide photographic and tabular documentation of the existing pedestrian features (sidewalk, curb ramps, bus stops, pedestrian signal/detectors, etc.). In addition, the CONSULTANT shall review all legs of all sideroad intersections (signalized and unsignalized) to determine if pedestrian signals and/or crosswalks are needed. The report shall identify the deficiencies and make recommendations for improvement. The CONSULTANT will be responsible for contacting the District Bike/Ped Coordinator, ADA Coordinator, Area Maintenance Office, and the District Traffic Operations Office to determine if any project specific pedestrian access or safety related complaints have been received. The ADA Survey Report will be required with the PHASE I submittal.

#### 4.16 Quantities for EQ Report

The CONSULTANT shall determine pay items and quantities and the supporting documentation, including construction days when required.

Quantities shall be included in an Estimated Quantities Report per FDM 902.

The CONSULTANT shall be responsible for inputting pay items and quantities into the DEPARTMENT's Project Preconstruction (PrP) System through the use of the DEPARTMENT's Designer Interface.

Phase I - The project shall be established in PrP by Phase I (30%). The District Preliminary Estimates Office will create the project(s) in the system upon receiving a copy of the Notice to Proceed for the design contract.

Phase II - A Summary of Pay Items sheet shall be prepared with Phase II and subsequent plans submittals. The Phase II (60%) submittal shall have all pay items identified with or without quantities. If quantities have not been determined at this point, the CONSULTANT shall load a quantity of "1.0".

Phases III & IV - At Phase III (90%) the CONSULTANT shall have all quantities loaded into PrP, with only minor change anticipated at subsequent submittals. Within PrP, the CONSULTANT shall run a Project Edit Report for the project at Phases III and IV just prior to submitting the plans to the DEPARTMENT for review. This program outputs invalid pay items that may be erroneously loaded for a project. The above shall be provided for each component set of plans (i.e., Roadway, Bridge, Signing and Marking, etc.).

4.17 Cost Estimate

The CONSULTANT shall be responsible for producing a construction cost estimate and reviewing and updating the cost estimate when scope changes occur and/or at milestones of the project.

Phase I - For the Phase I (30%) submittal, the CONSULTANT shall submit the cost estimate using the DEPARTMENT's Long-Range Estimating (L.R.E.) system.

Phase II - For the Phase II (60%) submittal, the CONSULTANT shall submit the cost estimate using the DEPARTMENT's Long-Range Estimating (L.R.E.) System.

Phases III & IV - The complete submittal package, including the CONSULTANT's construction cost estimate, will be provided to the District Preliminary Estimates Office at phases III (90%) and IV (100%). The above shall be provided for each component set of plans (i.e., Roadway, Bridge, Signing and Marking, etc.).

4.18 Technical Special Provisions and Modified Special Provisions

4.19 Other Roadway Analyses (Not applicable to these projects)ADVERTISEDPage A-56FPIDs: 426937-3-32-01

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#### 4.20 Field Reviews

4.21 Monitor Existing Structures (Not applicable to these projects)

4.22 Technical Meetings

This task includes effort for (but is not limited to) the following meetings:

<u>Production Survey Meeting</u>: This task includes the effort for the CONSULTANT to attend the Production Survey Meeting as described in Section 2.10

<u>Cross Slope Correction Meeting</u>: This task includes efforts associated with the Cross Slope Correction Meeting referenced in Section 2.1 and Section 4.4. The CONSULTANT will coordinate the scheduling, format and materials necessary with the DEPARTMENT's Design Project Manager.

<u>Pre Phase I (30%) Review Workshop</u>: This workshop will be held with DEPARTMENT personnel for presenting the CONSULTANT's intended approach to the project. The CONSULTANT will be expected to document names/titles of those in attendance as well as all pertinent discussions and decisions from the meeting. Upon DEPARTMENT approval of the recommendations, the project will progress to the Design Phase.

<u>Phase I (30%) Estimate Review Workshop</u>: This workshop will be held with DEPARTMENT personnel to discuss the Phase I construction estimate and plans. The CONSULTANT should be prepared to discuss items of work that could significantly impact the construction estimate and answer questions related to the Phase I construction estimate. The CONSULTANT will coordinate the scheduling, format, and materials necessary with the DEPARTMENT's District Estimates Manager.

- 4.23 Quality Assurance/Quality Control
- 4.24 Independent Peer Review (Not applicable to these projects)
- 4.25 Supervision
- 4.26 Coordination

#### **5 ROADWAY PLANS**

The CONSULTANT shall prepare Roadway, TTCP, Utility Adjustment Sheets, plan sheets, notes, and details. The plans shall include the following sheets necessary to convey the intent and scope of the project for the purposes of construction.

On some projects, traffic monitoring sites may have to be included. The CONSULTANT shall be responsible for loading all quantities for the installation and/or removal of a traffic monitoring site(s) and showing the location of the site(s) on the Key Sheet and plan sheets (as

applicable). The DEPARTMENT shall be responsible for providing the location to the CONSULTANT.

Contamination - All underground fuel tanks and monitoring wells within the proposed rightof-way are to be located and shown/tabulated in the plans. All piping and pumps in association with the tanks shall also be located and identified by the survey. The CONSULTANT shall relay to the DEPARTMENT any findings of contaminated soil, monitoring wells, or any features (particularly springs or sinks) relating to contamination or hazardous material.

- 5.1 Key Sheet
- **5.2** Typical Section Sheets
  - 5.2.1 Typical Sections
  - **5.2.2 Typical Section Details**
- 5.3 General Notes/Pay Item Notes
- 5.4 Project Layout
- 5.5 Plan/Profile Sheet (Not applicable to these projects)
- 5.6 Profile Sheet (Not applicable to these projects)
- 5.7 Plan Sheet
- **5.8 Special Profile**
- 5.9 Back-of-Sidewalk Profile Sheet
- 5.10 Interchange Layout Sheet (Not applicable to these projects)
- 5.11 Ramp Terminal Details (Plan View) (Not applicable to these projects)
- 5.12 Intersection Layout Details
- 5.13 Special Details
- 5.14 Cross-Section Pattern Sheets (Not applicable to these projects)
- 5.15 Roadway Soil Survey Sheets
- 5.16 Cross Sections
- 5.17 Temporary Traffic Control Plan Sheets
- 5.18 Temporary Traffic Control Cross Section Sheets (Not applicable to these projects)
- 5.19 Temporary Traffic Control Detail Sheets
- 5.20 Utility Adjustment Sheets

5.21 Selective Clearing and Grubbing Sheets (Not applicable to these projects)

5.22 Tree Disposition Plan Sheets (Not applicable to these projects)

**5.23 Project Control Sheets** 

The Engineer of Record will create the Project Control sheet from data extracted from the project survey and sign and seal the Project Control sheet.

5.24 Environmental Detail Sheets (Not applicable to these projects)

5.25 Utility Verification Sheets (SUE Data)

5.26 Quality Assurance/Quality Control

5.27 Supervision

#### 6a DRAINAGE ANALYSIS

The CONSULTANT shall analyze and document Drainage Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

The CONSULTANT shall be responsible for designing a drainage and stormwater management system. All design work shall comply with the requirements of the appropriate regulatory agencies and the DEPARTMENT's Drainage Manual.

The CONSULTANT shall coordinate fully with the appropriate permitting agencies and the DEPARTMENT's staff. All activities and submittals should be coordinated through the DEPARTMENT's Project Manager. The work will include the engineering analyses for any or all of the following:

The CONSULTANT shall be responsible for designing a drainage and stormwater management system. All design work shall comply with the requirements of the appropriate regulatory agencies and the DEPARTMENT's Drainage Manual. Electronic copies of any modeling software utilized for design shall be submitted to the DEPARTMENT during Final Plans Processing.

The CONSULTANT shall field inspect the project for the structural condition of all side drains, cross drains, and drainage under the roadway area and make recommendations concerning repairs, extensions, replacement/upgrade, or removal of such facilities. Drainage structures shall be assessed and designed to meet clear zone requirements within existing right of way or a Design Variation or Exception must be obtained. Culverts that warrant replacement shall be itemized and detailed as appropriate in the construction plans. The CONSULTANT shall review and evaluate the height of all curb and gutter sections to endure positive drainage. The CONSULTANT shall contact and document discussions with the DEPARTMENT's local Maintenance Office (or the local maintaining agency for off-system projects) regarding historical drainage problems in the project areas.

The CONSULTANT will consider alternate culvert materials in accordance with the DEPARTMENT's Drainage Manual.

Prior to Phase II (60%) plans submittal, the CONSULTANT shall meet with the District Drainage Engineer. The purpose of this meeting is to provide information to the CONSULTANT that will better coordinate the Preliminary and Final Drainage Design efforts.

The CONSULTANT must coordinate fully with the appropriate permitting agencies and the DEPARTMENT's staff. All activities and submittals should be coordinated through the DEPARTMENT's Project Manager. The work will include the engineering analyses for any or all of the following:

6a.1 Drainage Map Hydrology (Not applicable to these projects)

6a.2 Base Clearance Calculations (Not applicable to these projects)

6a.3 Pond Siting Analysis and Report (Not applicable to these projects)

6a.4 Design of Cross Drains (Not applicable to these projects)

6a.5 Design of Ditches (Not applicable to these projects)

6a.6 Design of Stormwater Management Facility (Offsite or Infield Pond) (Not applicable to these projects)

6a.7 Design of Stormwater Management Facility (Roadside Treatment Swales and Linear Ponds) (Not applicable to these projects)

6a.8 Design of Floodplain Compensation (Not applicable to these projects)

#### 6a.9 Design of Storm Drains

Delineate contributing drainage areas, determine runoff, inlet locations, and spread. Calculate hydraulic losses (friction, utility conflict and, if necessary, minor losses). Determine design tailwater and, if necessary, outlet scour protection.

#### 6a.10 Optional Culvert Material

Determine acceptable options for pipe materials using the Culvert Service Life Estimator.

#### 6a.11 French Drain Systems (Not applicable to these projects)

6a.12 Drainage Wells (Not applicable to these projects)

#### 6a.13 Drainage Design Documentation Report

Compile drainage design documentation into report format. Include documentation for all the drainage design tasks and associated meetings and decisions, except for stand-alone reports, such as the Pond Siting Analysis Report and Bridge Hydraulics Report.

#### 6a.14 Bridge Hydraulic Report (Not applicable to these projects)

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#### 6a.15 Temporary Drainage Analysis (Not applicable to these projects)

#### 6a.16 Quantities for EQ Report

The CONSULTANT shall determine pay items and quantities and the supporting documentation.

Quantities shall be included in an Estimated Quantities Report per FDM 902.

The CONSULTANT shall be responsible for inputting pay items and quantities into the DEPARTMENT's Project Preconstruction (PrP) System through the use of the DEPARTMENT's Designer Interface.

Phase I - The project shall be established in PrP by Phase I (30%). The District Preliminary Estimates Office will create the project(s) in the system upon receiving a copy of the Notice to Proceed for the design contract.

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Phases III & IV - At Phase III (90%) the CONSULTANT shall have all quantities loaded into PrP, with only minor change anticipated at subsequent submittals. Within PrP, the CONSULTANT shall run a Project Edit Report for the project at Phases III and IV just prior to submitting the plans to the DEPARTMENT for review. This program outputs invalid pay items that may be erroneously loaded for a project. The above shall be provided for each component set of plans (i.e., Roadway, Bridge, Signing and Marking, etc.).

#### 6a.17 Cost Estimate

Prepare cost estimates for the drainage components, except bridges and earthwork for stormwater management and flood compensation sites.

6a.18 Technical Special Provisions / Modified Special Provisions (Not applicable to these projects)

6a.19 Hydroplaning Analysis (Not applicable to these projects)

6a.20 Existing Permit Analysis (Not applicable to these projects)

6a.21 Other Drainage Analysis (Not applicable to these projects)

6a.22 Noise Barrier Evaluation (Not applicable to these projects)

6a.23 Field Reviews

6a.24 Technical Meetings

Meetings with Department staff, regulatory agencies, local governments such as meetings with District Drainage Engineer, the Water Management District, FDEP, etc.

#### 6a.25 Environmental Look-Around Meetings (Not applicable to these projects)

#### 6a.26 Quality Assurance/Quality Control

6a.27 Independent Peer Review (Not applicable to these projects)

6a.28 Supervision

6a.29 Coordination

#### **6b DRAINAGE PLANS**

The CONSULTANT shall prepare Drainage plan sheets, notes, and details. The plans shall include the following sheets necessary to convey the intent and scope of the project for the purposes of construction.

6b.1 Drainage Map (Including Interchanges) (Not applicable to these projects)

6b.2 Bridge Hydraulics Recommendation Sheets (Not applicable to these projects)

6b.3 Drainage Structures

6b.4 Lateral Ditch Plan/Profile (Not applicable to these projects)

6b.5 Lateral Ditch Cross Sections (Not applicable to these projects)

6b.6 Retention/Detention Pond Detail Sheets (Not applicable to these projects)

6b.7 Retention Pond Cross Sections (Not applicable to these projects)

6b.8 Erosion Control Plan Sheets (Not applicable to these projects)

6b.9 SWPPP Sheets

6b.10 Quality Assurance/Quality Control

6b.11 Supervision

#### 7 UTILITIES

All Utility Coordination activities will be performed by the DEPARTMENT. The CONSULTANT will coordinate with FDOT Area Utility Manager regarding information needed.

7.1 Utility Kickoff Meeting

Before any contact with the UAO(s), the CONSULTANT shall meet or teleconference with the DEPARTMENT's Area Utility Manager to receive guidance, as may be required, to assure that all necessary coordination will be accomplished in accordance with

**DEPARTMENT** procedures. CONSULTANT shall bring a copy of the design project work schedule reflecting utility activities.

#### 7.2 Identify Existing Utility Agency Owner(s)

The CONSULTANT will identify all utilities in the corridor during the survey phase by calling Sunshine 811. As-built documentation shall be requested from each UAO for verification of complete designation, and a review will be made to ensure that field designated data is included on the Phase I plans. Proper identification of design coordination contact information shall be made during this activity. A copy of the Sunshine 811 "design" ticket listing all utility owners within the project limits shall be provided within 10 business days of the Notice to Proceed (NTP) as part of all subsequent phase submittals.

The DEPARTMENT will assist in identifying all utilities in the corridor.

#### 7.3 Make Utility Contacts

The DEPARTMENT's Area Utility Manager will make contact and distribute plans to the applicable UAO's. A memo requesting that the UAO's verify/mark all existing facilities will be sent along with the plans.

#### 7.4 Design Alternative Processing

For above-ground utility installations that are to remain within the horizontal clearance area WITHOUT viable options for relocation within the R/W, the CONSULTANT shall refer to Section 3.14.5 of the UAM regarding practical considerations and Section 6 of the UAM for Design Alternative processing. For above-ground utility installations that are to remain within the horizontal clearance area WITH available R/W and options for relocation, the UAO will be responsible for submitting a Design Alternative approval request as described in Section 6 of the UAM. The DEPARTMENT will coordinate all necessary Design Alternatives.

#### 7.5 Preliminary Utility Meeting

The CONSULTANT shall schedule (time and place), notify participants, and conduct a preliminary utility meeting with all UAO(s) having facilities located within the project limits for the purpose of presenting the project, review the current design schedule, evaluate the utility information collected, provide follow-up information on compensable property rights from the FDOT Legal Office, discuss the utility work by highway contractor option with each utility, and discuss any future design issues that may impact utilities. *This is also an opportunity for the UAO(s) to present proposed facility relocations with the CONSULTANT and other UAOs. The CONSULTANT shall keep accurate minutes and distribute a copy to all attendees.* 

#### 7.6 Individual/Field Meetings

The CONSULTANT shall meet with each UAO as necessary, separately or together, throughout the project design duration to provide guidance in the interpretation of plans, review changes to the plans and schedules, standard or selective clearing and grubbing work, and assist in the development of the UAO(s) plans and work schedules. The CONSULTANT is responsible for motivating the UAO to complete and return the necessary documents after each Utility Contact or Meeting. *Field reviews shall be coordinated with the DEPARTMENT's Area Utility Manager.* 

#### 7.7 Collect and Review Plans and Data from UAO(s)

The CONSULTANT shall review utility marked plans and data individually as they are received for content. Ensure information from the UAO (utility type, material and size) is sent to the designer for inclusion in the plans. Forward all requests for utility reimbursement and supporting documentation to the DUO.

The CONSULTANT will be responsible for reviewing and implementing identified utility locations into the plans as well as producing a Potential Utility Conflict Matrix. The Matrix will include location (station, offset, depth) of existing facilities in relation to proposed construction features, and will be submitted with the Phase II submittal. Subsequent phase submittals will require that the Utility Conflict Matrix be updated and submitted reflecting any design changes or new information. Marked plans provided from UAOs may need to be acquired through the Department's Project Suite Enterprise Edition (PSEE) system.

#### 7.8 Subordination of Easements Coordination

The CONSULTANT, if requested by the DEPARTMENT, shall transmit to and secure from the UAO the executed subordination agreements prepared by the appropriate DEPARTMENT office. The CONSULTANT shall obtain information as required from the UAO(s) for the programming of the necessary work program funds to compensate the UAO for reimbursable expenses.

#### 7.9 Utility Design Meeting

The DEPARTMENT's Area Utility Manager shall coordinate with the DEPARTMENT's Design Project Manager and schedule (time and place), notify participants, and conduct a Utility Design Meeting with all affected UAO(s). This meeting may be held in conjunction with the Post 60% Workshop described in Section 4.22. The CONSULTANT shall schedule (time and place), notify participants, and conduct a Utility meeting with all affected UAO(s). The CONSULTANT shall be prepared to discuss impacts to existing trees/vegetation and proposed landscape, drainage, traffic signalization, temporary traffic control plan (TTCP) (construction phasing), review the current design schedule and letting date, evaluate the utility information collected, provide follow-up information on compensable property rights from FDOT Legal Office, discuss with each UAO the utility work by highway contractor option, discuss any future design issues that may impact utilities, etc., to the extent that they may have an effect on existing or proposed utility **ADVERTISED** Page A-64 FPIDs: 426937-3-32-01 426961-2-32-01

facilities with particular emphasis on drainage and TTCP with each UAO. The intent of this meeting shall be to assist the UAOs in identifying and resolving conflicts between utilities and proposed construction before completion of the plans, including utility adjustment details. Also, to work with the UAOs to recommend potential resolution between known utility conflicts with proposed construction plans as may be deemed practical by the UAO. The CONSULTANT shall keep accurate minutes of all meetings and distribute a copy to all attendees within 3 days. See Task 4.5 (Horizontal/Vertical Master Design File) and Task 4.8 (Cross Section Design Files) for utility conflict location identification and adjustments.

### 7.10 Review Utility Markups & Work Schedules and Processing of Schedules & Agreements

The CONSULTANT shall review utility marked up plans and work schedules as they are received for content and coordinate review with the designer. Send color markups and schedules to the appropriate DEPARTMENT office(s) such as survey, geotechnical, drainage, structures, lighting, roadway, signals, utilities, landscape architecture, municipalities, maintaining agency, and District Traffic Operations for review and comment if required by the District. Coordinate with the District for execution. Distribute Executed Final Documents. Prepare Work Order for UAO(s). The CONSULTANT shall coordinate with the DUO the programming of necessary Work Program funds.

Any design changes affecting utilities that occur after the Phase IV Resubmittal must be submitted to the DEPARTMENT's Area Utility Manager so that Utility Work Schedules can be updated.

#### 7.11 Utility Coordination/Follow-up

Utility Coordination and Follow-up activities will be performed by the DEPARTMENT and the CONSULTANT if requested by the DEPARTMENT.

This includes follow-up, interpreting plans, and assisting with coordination of the completion of the UAO(s) work schedule and agreements. Includes phone calls, face-to-face meetings, etc., to motivate and ensure the UAO(s) complete and return the required documents in accordance with the project schedule. Ensure the resolution of all known conflicts. This task can be applied to all phases of the project.

#### 7.12 Utility Constructability Review

Utility Constructability Review activities will be performed by the CONSULTANT. The CONSULTANT shall review utility schedules against construction contract time, and phasing for compatibility. Coordinate with and obtain concurrence from the construction office. See Task 4.5 (Horizontal/Vertical Master Design File) and Task 4.9 (Cross Section Design Files) for utility conflict identification and adjustments.

7.13 Additional Utility Services

The CONSULTANT will provide any subsurface utility excavations (SUE) that are required for the projects. This effort will be negotiated in Section 27.10.

The CONSULTANT may be required to provide additional utility services. Additional services will be determined when the services are required and requested. This item is not usually included in the scope at the time of negotiation. It is normally added as a supplemental amendment when the need is identified.

7.14 Processing Utility Work by Highway Contractor (UWHC)

Processing of any Utility Work by the Highway Contractor will be performed by the DEPARTMENT.

As directed by the DEPARTMENT, the CONSULTANT shall assist with the determination of the DEPARTMENT's cost participation, attend additional coordination meetings, prepare and process UWHC agreements, review tabulation of quantities prepared by the UAO(s), perform UWHC constructability and biddability reviews, review pay items and cost estimates, and review and incorporate Technical Special Provisions (TSPs) or Modified Special Provisions (MSP) prepared by the UAO. This item is not usually included in the scope at the time of negotiation. It is normally added as a supplemental amendment when the need is identified. Effort for the EOR is not included in this task, see Roadway Analysis Task Group 4.

#### 7.15 Contract Plans to UAO(s)

The CONSULTANT will be responsible for providing the necessary electronic files to the DEPARTMENT's Design Project Manager for submittal to the Area Utility Manager at each Phase Submittal.

#### 7.16 Certification/Close-Out

Utility Certification will be performed after all Utility Work Schedules have been executed and the coordination of construction related issues has been completed by the DEPARTMENT.

Utility Coordination Close-Out will include archiving all project documents and files in an orderly fashion consistent with the DEPARTMENT's EDMS archiving process.

#### 7.17 Other Utilities

The CONSULTANT shall provide other utility services. This includes all efforts for a utility task not covered by an existing defined task. Required work will be defined in the scope and negotiated on a case-by-case basis.

#### **8 ENVIRONMENTAL PERMITS and ENVIRONMENTAL CLEARANCES**

The CONSULTANT shall notify the DEPARTMENT Project Manager, Environmental Permit

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FPIDs: 426937-3-32-01 426961-2-32-01 Coordinator, and other appropriate DEPARTMENT personnel in advance of all scheduled meetings with the regulatory agencies to allow a DEPARTMENT representative to attend. The CONSULTANT shall copy in the Project Manager and the Environmental Permit Coordinator on all permit related correspondence and meetings. The Consultant shall use current regulatory guidelines and policies for all permits required as identified in Section 2.4.

#### 8.1 Preliminary Project Research

The CONSULTANT shall perform preliminary project research and shall be responsible for regulatory agency coordination to assure that design efforts are properly directed toward permit requirements. The research shall include but should not be limited to a review of the project's PD&E documents including the Environmental Document, Natural Resources Evaluation Report, and Cultural Resources Assessment Survey Report.

The CONSULTANT shall research any existing easements or other restrictions that may exist both within or adjacent to the proposed project boundary. Project research may include but should not be limited to review of available: federal, state, and local permit files and databases; and local government information including county and property appraiser data.

#### 8.2 Field Work

#### 8.2.1 Pond Site Alternatives (Not applicable to these projects)

#### 8.2.2 Establish Wetland Jurisdictional Lines and Assessments:

The CONSULTANT shall be responsible for, but not limited to, the following activities:

- Determine landward extent of wetlands and other surface waters as detailed in Rule Chapter 62-340, F.A.C., as ratified in Section 373.4211, F.S..; United States Army Corps of Engineers (USACE) Wetland Delineation Manual (Technical Report Y-87-1); Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (ERD/EL TR-10-20).
- Collect all data and information necessary to determine the jurisdictional boundaries of wetlands and other surface waters as defined by the rules or regulations of each permitting agency processing a DEPARTMENT permit application for the project.
- Set seasonal high-water levels in adjacent wetlands with biological indicators
- Obtain a jurisdictional determination as defined by the rules or regulations of each permitting agency processing a DEPARTMENT permit application for the project.
- Prepare aerial maps showing the jurisdictional boundaries of wetlands and other surface waters. Aerial maps shall be reproducible, of a scale of 1"=400'or more detailed and be recent photography. The maps shall show the jurisdictional boundaries of each agency. Photocopies of aerials are not acceptable. When necessary, a wetland specific survey will be prepared by a registered surveyor and mapper. All surveyed jurisdictional boundaries are to be tied to the project's baseline of survey.

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- Prepare a written assessment of the current condition and functional value of the wetlands and other surface waters. Prepare data in tabular form which includes the ID number for each wetland (and other surface water, if necessary) impacted, size of wetland to be impacted, type of impact, and identify any wetland (by ID number and size) within the project limits that will not be impacted by the project.
- Prepare appropriate agency forms to obtain required permits. Forms may include but are not limited to the USACE "Wetland Determination Data Form Atlantic and Gulf Coastal Plain Region"; the USACE "Approved Jurisdictional Determination Form"; Uniform Mitigation Assessment Method forms and/or project specific data forms.

#### **8.2.3** Species Surveys (Not applicable to these projects)

#### 8.3 Agency Verification of Wetland Data

The CONSULTANT shall be responsible for verification of wetland data identified in Section 8.2 and coordinating regulatory agency field reviews, including finalization of wetland assessments and jurisdictional determinations with applicable agencies.

The jurisdictional lines will be verified during the permit submittal and review by the State or Federal agency. A formal jurisdictional determination will not be obtained prior to permit submittal except for new roadway alignments, or if a questionable determination is anticipated.

#### 8.4 Complete and Submit All Required Permit Applications

The CONSULTANT shall collect the data and information necessary to prepare the permit applications and obtain the environmental permits required to construct the project as identified in the Project Description and as described in 8.4.1, 8.4.2, and 8.12 (Other Permits). The CONSULTANT shall prepare each permit application in accordance with the rules and/or regulations of the regulatory agency responsible for issuing a specific permit and/or authorization to perform work. The permit application packages must be approved by the DEPARTMENT prior to submittal to regulatory agencies.

The CONSULTANT will submit all permit applications, as directed by the DEPARTMENT, and be responsible for payment of all permit and public noticing fees.

A Pre-Application meeting with the permitting agencies can be anticipated for projects that require an Individual ERP from the State of Florida or an Individual Permit from the Army Corps of Engineers. As a project develops, other project specific conditions may be identified that will warrant a Pre-Application meeting to clarify the permitting requirements. The DEPARTMENT's Design Project Manager, District Drainage Engineer, and District Permit Coordinator will be invited to the Pre-Application meeting (when required) and will be forwarded all correspondence and meeting minutes.

The CONSULTANT will file any public notices required by the permits, in a publication selected by the DEPARTMENT, and will be responsible for payment of all fees associated with the filing the public notice.

### The CONSULTANT shall be responsible for responding to Requests for Additional Information by the reviewing agency.

#### 8.4.1 Complete and Submit all Required Wetland Permit Applications:

The CONSULTANT shall prepare, complete, and submit required wetland permit (i.e. ERP, Section 404) application packages to the appropriate regulatory agencies. This includes, but is not limited to, applications submitted to WMDs and/or DEP, and USACE. The application package may include but is not limited to attachments (e.g. project location map, aerials, affidavit of ownership, pictures, additional technical analysis, etc.), a cover letter with project description as well as completion of applicable agency forms. The CONSULTANT shall prepare and respond to agency Requests for Additional Information (RAIs), including necessary revisions to the application package. All responses and completed application packages must be approved by the District Permit Coordinator prior to submittal to the regulatory agencies. Geotechnical permitting should also be prepared, submitted, and obtained.

For projects that do not have a wetland assessment (Unified Mitigation Assessment Method, or UMAM), and the permit requires this information to be issued, the CONSULTANT will prepare a UMAM to be submitted with the permit application.

**8.4.2** Complete and Submit all Required Species Permit Applications (Not applicable to these projects)

#### 8.5 Coordinate and Review Dredge and Fill Sketches

The CONSULTANT shall review Dredge and Fill Detail sheets to ensure information on the sketch(es) meet the requirements of the regulatory agencies and are appropriate for environmental permit application submittal and acquisition. The CONSULTANT will also provide environmental data/information as needed to support the preparation of the Dredge and Fill sketches. (Not applicable to these projects)

8.6 Prepare USCG Permit Application (Not applicable to these projects)

**8.7** Prepare Water Management District or Local Water Control District Right of Way Occupancy Permit Application (Not applicable to these projects)

**8.8** Prepare Coastal Construction Control Line (CCCL) Permit Application (Not applicable to these projects)

**8.9 Prepare USACE Section 408 Application to Alter a Civil Works Project (Not applicable to these projects)** 

8.10 Compensatory Mitigation Plan (Not applicable to these projects)

8.11 Mitigation Coordination and Meetings (Not applicable to these projects)

8.12 Other Environmental Permits (Not applicable to these projects)

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**8.13** Technical Support to the DEPARTMENT for Environmental Clearances and Reevaluations (use when CONSULTANT provides technical support only)

The CONSULTANT shall provide engineering and environmental support for the DEPARTMENT to obtain environmental clearances resulting from any changes to the project after the initial environmental phase has been completed.

**8.14** Preparation of Environmental Clearances and Re-evaluations (*TO BE PROVIDED BY THE DEPARTMENT*)

8.15 Contamination Impact Analysis (Not applicable to these projects)

**8.16** Asbestos Survey (Not applicable to these projects)

8.17 Technical Meetings

8.18 Quality Assurance/Quality Control

- 8.19 Supervision
- 8.20 Coordination

### 9 STRUCTURES - SUMMARY AND MISCELLANEOUS TASKS AND DRAWINGS

The CONSULTANT shall analyze, design, and develop contract documents for all structures in accordance with applicable provisions as defined in Section 2.19, Provisions for Work. Individual tasks identified in Sections 9 through 18 are defined in the Staff Hour Estimation Handbook and within the provision defined in Section 2. 20, Provisions for Work. Contract documents shall display economical solutions for the given conditions.

The CONSULTANT shall provide Design Documentation to the DEPARTMENT with each submittal consisting of structural design calculations and other supporting documentation developed during the development of the plans. The design calculations submitted shall adequately address the complete design of all structural elements. These calculations shall be neatly and logically presented on digital media or, at the DEPARTMENT's request, on 8 ½"x11" paper and all sheets shall be numbered. The final design calculations shall be signed and sealed by a Florida-licensed professional engineer. A cover sheet indexing the contents of the calculations shall be included and the engineer shall sign and seal that sheet. All computer programs and parameters used in the design calculations shall include sufficient backup information to facilitate the review task.

#### 9.1 Key Sheet and Index of Drawings (Not applicable to these projects)

#### 9.2 Project Layout (Not applicable to these projects)

#### 9.3 General Notes and Bid Item Notes

BR 550079 and BR550036 are bridge culverts and a load rating analysis will be required if the pavement design results in a change in the dead load on the structures.

9.4 Miscellaneous Common Details

BR 550079 and BR550036 are bridge culverts and a load rating analysis will be required if the pavement design results in a change in the dead load on the structures.

9.5 Incorporate Report of Core Borings (Not applicable to these projects)

9.6 Standard Plans- Bridges (Not applicable to these projects)

9.7 Existing Bridge Plans (Not applicable to these projects)

9.8 Quantities for EQ Report (Not applicable to these projects)

9.9 Cost Estimate (Not applicable to these projects)

9.10 Technical Special Provisions and Modified Special Provisions (Not applicable to these projects)

9.11 Field Reviews

9.12 Technical Meetings

9.13 Quality Assurance/Quality Control

9.14 Independent Peer Review (Not applicable to these projects)

9.15 Supervision

9.16 Coordination

## **10 STRUCTURES - BRIDGE DEVELOPMENT REPORT (Not applicable to these projects)**

#### **11 STRUCTURES - TEMPORARY BRIDGE(Not applicable to these projects)**

#### **12 STRUCTURES - SHORT SPAN CONCRETE BRIDGE**

The CONSULTANT shall prepare plans for Short Span Concrete Bridge(s) at the location(s) specified in Section 2.5.

#### **General Layout Design and Plans**

- **12.1** Overall Bridge Final Geometry (Not applicable to these projects)
- 12.2 Expansion/Contraction Analysis (Not applicable to these projects)
- **12.3** General Plan and Elevation (Not applicable to these projects)
- **12.4** Construction Staging (Not applicable to these projects)

### **12.5** Approach Slab Plan and Details (Not applicable to these projects)

ADVERTISED Page A-71 FPIDs: 426937-3-32-01 426961-2-32-01 **12.6** Miscellaneous Details (Not applicable to these projects)

End Bent Design and Plans

- **12.7** End Bent Geometry (Not applicable to these projects)
- **12.8** End Bent Structural Design (Not applicable to these projects)
- **12.9** End Bent Plan and Elevation (Not applicable to these projects)
- 12.10 End Bent Details (Not applicable to these projects)

**Intermediate Bent Design and Plans** 

- **12.11** Bent Geometry (Not applicable to these projects)
- **12.12** Bent Stability Analysis (Not applicable to these projects)
- **12.13** Bent Structural Design (Not applicable to these projects)
- **12.14** Bent Plan and Elevation (Not applicable to these projects)
- **12.15** Bent Details (Not applicable to these projects)

**Miscellaneous Substructure Design and Plans** 

**12.16** Foundation Layout (Not applicable to these projects)

Superstructure Design and Plans

- **12.17** Finish Grade Elevation Calculation (Not applicable to these projects)
- 12.18 Finish Grade Elevations (Not applicable to these projects)

**Cast-In-Place Slab Bridges (Not applicable to these projects)** 

- **12.19** Bridge Deck Design (Not applicable to these projects)
- **12.20** Superstructure Plan (Not applicable to these projects)
- **12.21** Superstructure Sections and Details (Not applicable to these projects)

#### Prestressed Slab Unit Bridges

- 12.22 Prestressed Slab Unit Design (Not applicable to these projects)
- 12.23 Prestressed Slab Unit Layout (Not applicable to these projects)
- 12.24 Prestressed Slab Unit Details and Schedule (Not applicable to these projects)
- **12.25** Deck Topping Reinforcing Layout (Not applicable to these projects)
- **12.26** Superstructure Sections and Details (Not applicable to these projects)

#### **Reinforcing Bar Lists**
**12.27** Preparation of Reinforcing Bar List (Not applicable to these projects)

Load Rating

12.28 Load Rating

A load rating analysis will be required if the pavement design results in a change in the dead load on the box culvert at Unnamed Branch (CB550079) or the ditch box culvert (BR5500118).

Assuming that the proposed pavement design will increase the profile grade, the intent for this project will be to feather/taper the pavement to the bridge deck to prevent an increase in the dead load. If this isn't possible, then staffhours will be negotiated at a later date for a Supplemental Amendment to perform Load Ratings.

**13 STRUCTURES - MEDIUM SPAN CONCRETE BRIDGE (Not applicable to these projects)** 

14 STRUCTURES - STRUCTURAL STEEL BRIDGE (Not applicable to these projects)

**15 STRUCTURES - SEGMENTAL CONCRETE BRIDGE (Not applicable to these projects)** 

16 STRUCTURES - MOVABLE SPAN (Not applicable to these projects)

17 STRUCTURES - RETAINING WALLS (Not applicable to these projects)

#### **18 STRUCTURES - MISCELLANEOUS**

The CONSULTANT shall prepare plans for Miscellaneous Structure(s) as specified in Section 2.5.

Concrete Box Culverts

#### **18.1 Concrete Box Culverts**

*BR* 550079 and *BR*550036 are bridge culverts and a load rating analysis will be required if the pavement design results in a change in the dead load on the structures.

**18.2** Concrete Box Culverts Extensions

**18.3 Concrete Box Culvert Data Table Plan Sheets** 

#### 18.4 Concrete Box Culvert Special Details Plan Sheets

Strain Poles (Not applicable to these projects)

Mast Arms (Not applicable to these projects)

Overhead/Cantilever Sign Structure (Not applicable to these projects)

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FPIDs: 426937-3-32-01 426961-2-32-01 High Mast Lighting (Not applicable to these projects)

Noise Barrier Walls (Ground Mount) (Not applicable to these projects)

Special Structures

**18.28** Fender System (Not applicable to these projects)

**18.29** Fender System Access (Not applicable to these projects)

**18.30** Special Structures (Not applicable to these projects)

**18.31** Other Structures (Not applicable to these projects)

18.32 Condition Evaluation of Signal and Sign Structures, and High Mast Light Poles

18.33 Condition Evaluation of Signal and Sign Structures, and High Mast Light Poles (No As built or Design Plans Available)

18.34 Analytical Evaluation of Signal and Sign Structures, and High Mast Light Poles

#### **18.35 Ancillary Structures Report**

#### **19 SIGNING AND PAVEMENT MARKING ANALYSIS**

The CONSULTANT shall analyze and document Signing and Pavement Markings Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

#### **19.1 Traffic Data Analysis**

The CONSULTANT shall review the approved preliminary engineering report, typical section package, traffic technical memorandum and proposed geometric design alignment to identify proposed sign placements and roadway markings. Perform queue analysis.

The CONSULTANT shall evaluate the existing signage to determine the need for additional signs, correcting redundant or conflicting signage, and the replacement of damaged signs. It is NOT the DEPARTMENT's intent to replace signs based solely on age or installation date. Existing signage problems/issues that are discovered during the design phase should be communicated to the maintaining agency to be addressed as appropriate.

The CONSULTANT shall prepare a detailed summary of additional or modified traffic regulations affected by this project. The summary shall include affected regulatory signs (No U, No Left, No Parking etc.), signals (including school zones, pedestrian devices, intersection control beacons, post-mounted warning devices) or pavement markings. This information is to be forwarded to the District Traffic Operations Engineer for use in fulfilling Florida Statute 335.10(1). The CONSULTANT may refer to Traffic Engineering

## *Topic Number 750-010-011: Traffic Regulation Approval Process, and the Roadway Characteristic Inventory (RCI) database for additional information.*

#### **19.2** No Passing Zone Study (Not applicable to these projects)

#### 19.3 Signing and Pavement Marking Master Design File

The CONSULTANT shall prepare the Signing & Marking Design file to include all necessary design elements and all associated reference files.

#### **19.4 Multi-Post Sign Support Calculations (Not applicable to these projects)**

#### 19.5 Sign Panel Design Analysis

Establish sign layout, letter size and series for non-standard signs.

#### **19.6 Sign Lighting/Electrical Calculations (Not applicable to these projects)**

#### **19.7 Quantities for EQ Report**

The CONSULTANT shall determine pay items and quantities and the supporting documentation.

#### Quantities shall be included in an Estimated Quantities Report per FDM 902.

The CONSULTANT shall be responsible for inputting pay items and quantities into the DEPARTMENT's Project Preconstruction (PrP) System through the use of the DEPARTMENT's Designer Interface.

Phase I - The project shall be established in PrP by Phase I (30%). The District Preliminary Estimates Office will create the project(s) in the system upon receiving a copy of the Notice to Proceed for the design contract.

Phase II - A Summary of Pay Items sheet shall be prepared with Phase II and subsequent plans submittals. The Phase II (60%) submittal shall have all pay items identified with or without quantities. If quantities have not been determined at this point, the CONSULTANT shall load a quantity of "1.0".

Phases III & IV - At Phase III (90%) the CONSULTANT shall have all quantities loaded into PrP, with only minor change anticipated at subsequent submittals. Within PrP, the CONSULTANT shall run a Project Edit Report for the project at Phases III and IV just prior to submitting the plans to the DEPARTMENT for review. This program outputs invalid pay items that may be erroneously loaded for a project. The above shall be provided for each component set of plans (i.e., Roadway, Bridge, Signing and Marking, etc.).

#### **19.8 Cost Estimate**

**19.9** Technical Special Provisions and Modified Special Provisions (Not applicable to these projects)

19.10 Other Signing and Pavement Marking Analysis (Not applicable to these projects)

19.11 Field Reviews

**19.12 Technical Meetings** 

19.13 Quality Assurance/Quality Control

**19.14 Independent Peer Review (Not applicable to these projects)** 

**19.15 Supervision** 

**19.16 Coordination** 

#### **20 SIGNING AND PAVEMENT MARKING PLANS**

The CONSULTANT shall prepare a set of Signing and Pavement Marking Plans in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums that includes the following.

20.1 Key Sheet

20.2 General Notes/Pay Item Notes

20.3 Project Layout

20.4 Plan Sheet

20.5 Typical Details

20.6 Guide Sign Work Sheets (Not applicable to these projects)

**20.7 Traffic Monitoring Site (Not applicable to these projects)** 

20.8 Cross Sections (Not applicable to these projects)

**20.9 Special Service Point Details (Not applicable to these projects)** 

20.10 Special Details

20.11 Interim Standards

20.12 Quality Assurance/Quality Control

The CONSULTANT shall be responsible for the professional quality, technical accuracy and coordination of traffic design drawings, specifications and other services furnished by the CONSULTANT under this contract.

The CONSULTANT shall provide a Quality Control Plan that describes the procedures to be utilized to verify, independently check, and review all design drawings, specifications and

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other services prepared as a part of the contract. The CONSULTANT shall describe how the checking and review processes are to be documented to verify that the required procedures were followed. The Quality Control Plan may be one utilized by the CONSULTANT as part of their normal operation or it may be one specifically designed for this project.

#### 20.13 Supervision

#### 21 SIGNALIZATION ANALYSIS

The CONSULTANT shall analyze and document Signalization Analysis Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

#### **21.1 Traffic Data Collection**

#### 21.2 Traffic Data Analysis

The CONSULTANT shall determine signal operation plan, intersection geometry, local signal timings, pre-emption phasing & timings, forecasting traffic, and intersection analysis run.

As applicable for the purposes of providing signal design related services as described in this scope of services, the CONSULTANT shall determine signal operation plan, intersection geometry, local signal timings, pre-emption phasing & timings, forecasting traffic, and intersection analysis run.

21.3 Signal Warrant Study (Not applicable to these projects)

**21.4 Systems Timings (Not applicable to these projects)** 

21.5 Reference and Master Signalization Design File (Not applicable to these projects)

**21.6** Reference and Master Interconnect Communication Design File (Not applicable to these projects)

21.7 Overhead Street Name Sign Design (Not applicable to these projects)

**21.8 Pole Elevation Analysis (Not applicable to these projects)** 

**21.9 Traffic Signal Operation Report (Not applicable to these projects)** 

21.10 Quantities for EQ Report

Quantities shall be included in an Estimated Quantities Report per FDM 902.

The CONSULTANT shall be responsible for inputting pay items and quantities into the DEPARTMENT's Project Preconstruction (PrP) System through the use of the DEPARTMENT's Designer Interface.

Phase I - The project shall be established in PrP by Phase I (30%). The District Preliminary Estimates Office will create the project(s) in the system upon receiving a copy of the Notice to Proceed for the design contract.

Phase II - A Summary of Pay Items sheet shall be prepared with Phase II and subsequent plans submittals. The Phase II (60%) submittal shall have all pay items identified with or without quantities. If quantities have not been determined at this point, the CONSULTANT shall load a quantity of "1.0".

Phases III & IV - At Phase III (90%) the CONSULTANT shall have all quantities loaded into PrP, with only minor change anticipated at subsequent submittals. Within PrP, the CONSULTANT shall run a Project Edit Report for the project at Phases III and IV just prior to submitting the plans to the DEPARTMENT for review. This program outputs invalid pay items that may be erroneously loaded for a project. The above shall be provided for each component set of plans (i.e., Roadway, Bridge, Signing and Marking, etc.).

#### 21.11 Cost Estimate

21.12 Technical Special Provisions and Modified Special Provisions (Not applicable to these projects)

#### 21.13 Other Signalization Analysis (Not applicable to these projects)

#### 21.14 Field Reviews

The CONSULTANT shall collect information from the maintaining agencies and conduct a field review. The review should include, but is not limited to, the following:

- Existing Signal and Pedestrian Phasing
- Controller Make, Model, Capabilities and Condition/Age
- Condition of Signal Structure(s)
- Type of Detection as Compared with Current District Standards
- Interconnect Media
- Controller Timing Data

#### 21.15 Technical Meetings

#### 21.16 Quality Assurance/Quality Control

The CONSULTANT shall be responsible for the professional quality, technical accuracy and coordination of traffic design drawings, specifications and other services furnished by the CONSULTANT under this contract.

The CONSULTANT shall provide a Quality Control Plan that describes the procedures to be utilized to verify, independently check, and review all design drawings, specifications and other services prepared as a part of the contract. The CONSULTANT shall describe how the checking and review processes are to be documented to verify that the required procedures were followed. The Quality Control Plan may be one utilized by the CONSULTANT as part of their normal operation or it may be one specifically designed for this project.

#### 21.17 Independent Peer Review (Not applicable to these projects)

#### 21.18 Supervision

#### 21.19 Coordination

#### **22 SIGNALIZATION PLANS**

The CONSULTANT shall prepare a set of Signalization Plans in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums, which includes the following:

- 22.1 Key Sheet
- 22.2 General Notes/Pay Item Notes
- 22.3 Plan Sheet
- 22.4 Interconnect Plans (Not applicable to these projects)
- 22.5 Traffic Monitoring Site
- 22.6 Guide Sign Worksheet (Not applicable to these projects)
- 22.7 Special Details
- **22.8 Special Service Point Details (Not applicable to these projects)**
- 22.9 Mast Arm/Monotube Tabulation Sheet (Not applicable to these projects)
- **22.10 Strain Pole Schedule (Not applicable to these projects)**
- 22.11 TTCP Signal (Temporary) (Not applicable to these projects)
- 22.12 Temporary Detection Sheet
- 22.13 Utility Conflict Sheet (Not applicable to these projects)
- 22.14 Interim Standards (Not applicable to these projects)

#### 22.15 Quality Assurance/Quality Control

The CONSULTANT shall be responsible for the professional quality, technical accuracy and coordination of traffic design drawings, specifications and other services furnished by the CONSULTANT under this contract.

The CONSULTANT shall provide a Quality Control Plan that describes the procedures to be utilized to verify, independently check, and review all design drawings, specifications and other services prepared as a part of the contract. The CONSULTANT shall describe how the ADVERTISED Page A-79 FPIDs: 426937-3-32-01 426961-2-32-01

checking and review processes are to be documented to verify that the required procedures were followed. The Quality Control Plan may be one utilized by the CONSULTANT as part of their normal operation or it may be one specifically designed for this project.

#### 22.16 Supervision

#### **23 LIGHTING ANALYSIS**

The CONSULTANT shall analyze and document Lighting Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

#### 23.1 Lighting Justification Report

The CONSULTANT shall prepare a Lighting Justification Report. The report shall be submitted under a separate cover with the Phase I plans submittal, titled Lighting Justification Report. The report shall provide analyses for mainlines, interchanges, and arterial roads and shall include all back-up data such that the report stands on its own. Back up data shall include current ADT's, general crash data average cost from the Florida Highway Safety Improvement Manual, crash details data from the last three years, and preliminary lighting calculations.

The report shall address warrants to determine if lighting warrants are met, and shall include a benefit-cost analysis to determine if lighting is justified. The report shall include calculations for the night-to-day crash ratio as well as a table summarizing the day-time and the night-time crashes. The report shall follow the procedures outlined in the FDOT Manual on Uniform Traffic Studies (MUTS) manual which utilize ADT, Three Year Crash Data, night/day crash ratio, percentage of night ADT, etc.

#### 23.2 Lighting Design Analysis Report (LDAR)

The CONSULTANT shall prepare a Preliminary Lighting Design Analysis Report in accordance with the requirements of the FDOT Design Manual. The report shall be submitted under a separate cover with the Phase II plans submittal. After approval of the preliminary report, the CONSULTANT shall submit a revised report for each submittal.

#### **23.3 Voltage Drop Calculations**

The CONSULTANT shall submit voltage drop calculations showing the equation or equations used along with the number of luminaries per circuit, the length of each circuit, the size conductor or conductors used and their ohm resistance values. The voltage drop incurred on each circuit (total volts and percentage of drop) shall be calculated, and all work necessary to calculate the voltage drop values for each circuit should be presented in such a manner as to be duplicated by the District.

The Voltage Drop Calculations shall be submitted as part of the Lighting Design Analysis Report.

#### 23.4 FDEP Coordination and Report

#### 23.5 Reference and Master Design Files

The CONSULTANT shall prepare the Lighting Design file to include all necessary design elements and all associated reference files.

#### 23.6 Temporary Highway Lighting (Not applicable to these projects)

#### 23.7 Design Documentation

The CONSULTANT shall submit a Design Documentation with each plans submittal under a separate cover and not part of the roadway documentation book. At a minimum, the design documentation shall include:

- Phase submittal checklist.
- Structural calculations for special conventional pole concrete foundations.
- Correspondence with the power company concerning new electrical service.

#### 23.8 Quantities for EQ Report

#### Quantities shall be included in an Estimated Quantities Report per FDM 902.

The CONSULTANT shall be responsible for inputting pay items and quantities into the DEPARTMENT's Project Preconstruction (PrP) System through the use of the DEPARTMENT's Designer Interface.

Phase I - The project shall be established in PrP by Phase I (30%). The District Preliminary Estimates Office will create the project(s) in the system upon receiving a copy of the Notice to Proceed for the design contract.

Phase II - A Summary of Pay Items sheet shall be prepared with Phase II and subsequent plans submittals. The Phase II (60%) submittal shall have all pay items identified with or without quantities. If quantities have not been determined at this point, the CONSULTANT shall load a quantity of "1.0".

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#### 23.9 Cost Estimate

**23.10** Technical Special Provisions and Modified Special Provisions (Not applicable to these projects)

#### 23.11 Other Lighting Analysis (Not applicable to these projects)

#### 23.12 Field Reviews

The CONSULTANT shall collect information from the maintaining agencies and conduct a field review. The review should include but is not limited to the following:

- Existing Lighting Equipment
- Load Center, Capabilities and Condition/Age
- Condition of Lighting Structure(s)
- Verification of horizontal clearances
- Verification of breakaway requirements

#### 23.13 Technical Meetings

#### 23.14 Quality Assurance/Quality Control

#### 23.15 Independent Peer Review (Not applicable to these projects)

23.16 Supervision

23.17 Coordination

#### **24 LIGHTING PLANS**

The CONSULTANT shall prepare a set of Lighting Plans in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

24.1 Key Sheet

24.2 General Notes/Pay Item Notes

24.3 Pole Data, Legend & Criteria

24.4 Service Point Details

24.5 Project Layout

24.6 Plan Sheet

24.7 Special Details

24.8 Temporary Highway Lighting Detail Sheets (Not applicable to these projects)

24.9 Temporary Highway Lighting Plan Sheets (Not applicable to these projects)

24.10 Interim Standards (Not applicable to these projects)

24.11 Quality Assurance/Quality Control

The CONSULTANT shall be responsible for the professional quality, technical accuracy and coordination of traffic design drawings, specifications and other services furnished by the CONSULTANT under this contract.

The CONSULTANT shall provide a Quality Control Plan that describes the procedures to be utilized to verify, independently check, and review all design drawings, specifications and other services prepared as a part of the contract. The CONSULTANT shall describe how the checking and review processes are to be documented to verify that the required procedures were followed. The Quality Control Plan may be one utilized by the CONSULTANT as part of their normal operation or it may be one specifically designed for this project.

#### 24.12 Supervision

#### **21 SIGNALIZATION ANALYSIS**

The CONSULTANT shall analyze and document Signalization Analysis Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

#### 21.1 Traffic Data Collection

#### 21.2 Traffic Data Analysis

The CONSULTANT shall determine signal operation plan, intersection geometry, local signal timings, pre-emption phasing & timings, forecasting traffic, and intersection analysis run.

As applicable for the purposes of providing signal design related services as described in this scope of services, the CONSULTANT shall determine signal operation plan, intersection geometry, local signal timings, pre-emption phasing & timings, forecasting traffic, and intersection analysis run.

**21.3 Signal Warrant Study (Not applicable to these projects)** 

**21.4 Systems Timings (Not applicable to these projects)** 

21.5 Reference and Master Signalization Design File (Not applicable to these projects)

**21.6** Reference and Master Interconnect Communication Design File (Not applicable to these projects)

21.7 Overhead Street Name Sign Design (Not applicable to these projects)

**21.8 Pole Elevation Analysis (Not applicable to these projects)** 

**21.9 Traffic Signal Operation Report (Not applicable to these projects)** 

21.10 Quantities for EQ Report

Quantities shall be included in an Estimated Quantities Report per FDM 902.

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#### 21.15 Technical Meetings

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#### 21.18 Supervision

#### **21.19** Coordination

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The Voltage Drop Calculations shall be submitted as part of the Lighting Design Analysis Report.

#### **23.4 FDEP Coordination and Report**

#### 23.5 Reference and Master Design Files

The CONSULTANT shall prepare the Lighting Design file to include all necessary design elements and all associated reference files.

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#### 23.7 Design Documentation

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- Structural calculations for special conventional pole concrete foundations.
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#### 23.8 Quantities for EQ Report

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#### 23.9 Cost Estimate

## 23.10 Technical Special Provisions and Modified Special Provisions (Not applicable to these projects)

#### 23.11 Other Lighting Analysis (Not applicable to these projects)

#### 23.12 Field Reviews

The CONSULTANT shall collect information from the maintaining agencies and conduct a field review. The review should include but is not limited to the following:

- Existing Lighting Equipment
- Load Center, Capabilities and Condition/Age
- Condition of Lighting Structure(s)
- Verification of horizontal clearances
- Verification of breakaway requirements

#### 23.13 Technical Meetings

#### 23.14 Quality Assurance/Quality Control

#### 23.15 Independent Peer Review (Not applicable to these projects)

#### 23.16 Supervision

#### 23.17 Coordination

#### **24 LIGHTING PLANS**

The CONSULTANT shall prepare a set of Lighting Plans in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

- 24.1 Key Sheet
- 24.2 General Notes/Pay Item Notes
- 24.3 Pole Data, Legend & Criteria
- 24.4 Service Point Details
- 24.5 Project Layout
- 24.6 Plan Sheet
- 24.7 Special Details
- 24.8 Temporary Highway Lighting Detail Sheets (Not applicable to these projects)
- 24.9 Temporary Highway Lighting Plan Sheets (Not applicable to these projects)
- 24.10 Interim Standards (Not applicable to these projects)
- 24.11 Quality Assurance/Quality Control

The CONSULTANT shall be responsible for the professional quality, technical accuracy and coordination of traffic design drawings, specifications and other services furnished by the CONSULTANT under this contract.

The CONSULTANT shall provide a Quality Control Plan that describes the procedures to be utilized to verify, independently check, and review all design drawings, specifications and other services prepared as a part of the contract. The CONSULTANT shall describe how the checking and review processes are to be documented to verify that the required procedures were followed. The Quality Control Plan may be one utilized by the CONSULTANT as part of their normal operation or it may be one specifically designed for this project.

#### 24.12 Supervision

#### **25 LANDSCAPE ANALYSIS (Not applicable to these projects)**

#### **26 LANDSCAPE PLANS (Not applicable to these projects)**

#### **27 SURVEY**

The CONSULTANT shall perform survey tasks in accordance with all applicable statutes, manuals, guidelines, standards, handbooks, procedures, and current design memoranda.

The CONSULTANT shall submit all survey notes and computations to document the surveys. All field survey work shall be recorded in approved media and submitted to the DEPARTMENT. Field books submitted to the DEPARTMENT must be of an approved type. The field books shall be certified by the surveyor in responsible charge of work being performed before the final product is submitted.

The survey notes shall include documentation of decisions reached from meetings, telephone conversations or site visits. All like work (such as bench lines, reference points, etc.) shall be recorded contiguously. The DEPARTMENT may not accept field survey radial locations of section corners, platted subdivision lot and block corners, alignment control points, alignment control reference points and certified section corner references. The DEPARTMENT may instead require that these points be surveyed by true line, traverse or parallel offset.

#### 27.1 Horizontal Project Control (HPC)

Establish or recover HPC, for the purpose of establishing horizontal control on the Florida State Plane Coordinate System or datum approved by the District Surveyor (DS) or District Location Surveyor (DLS); may include primary or secondary control points. Includes analysis and processing of all field collected data, and preparation of forms.

#### 27.2 Vertical Project Control (VPC)

Establish or recover VPC, for the purpose of establishing vertical control on datum approved by the District Surveyor (DS) or the District Location Surveyor (DLS).; may include primary or secondary vertical control points. Includes analysis and processing of all field collected data, and preparation of forms.

#### 27.3 Alignment and/or Existing Right of Way (R/W) Lines

Establish, recover or re-establish project alignment. Also includes analysis and processing of all field collected data, existing maps, and/or reports for identifying mainline, ramp, offset, or secondary alignments. Depict alignment and/or existing R/W lines (in required format) per DEPARTMENT R/W Maps, platted or dedicated rights of way.

#### Refer to the FDOT Survey and Mapping Handbook for requirements.

#### 27.4 Aerial Targets

Place, locate, and maintain required aerial targets and/or photo identifiable points. Includes analysis and processing of all field collected data, existing maps, and/or reports. Placement of the targets will be at the discretion of the aerial firm.

#### **27.5 Reference Points**

Reference Horizontal Project Control (HPC) points, project alignment, vertical control points, section, ¼ section, center of section corners and General Land Office (G.L.O.) corners as required.

#### Refer to the FDOT Survey and Mapping Handbook for requirements.

#### 27.6 Topography/Digital Terrain Model (DTM) (3D)

Locate all above ground features and improvements for the limits of the project by collecting the required data for the purpose of creating a DTM with sufficient density. Shoot all break lines, high and low points. Effort includes field edits, analysis and processing of all field collected data, existing maps, and/or reports.

#### Refer to the FDOT Survey and Mapping Handbook for requirements.

#### 27.7 Planimetric (2D)

Locate all above ground features and improvements. Deliver in appropriate electronic format. Effort includes field edits, analysis and processing of all field collected data, existing maps, and/or reports.

#### Refer to the FDOT Survey and Mapping Handbook for requirements.

#### 27.8 Roadway Cross Sections/Profiles

Perform cross sections or profiles. May include analysis and processing of all field-collected data for comparison with DTM.

#### Refer to the FDOT Survey and Mapping Handbook for requirements.

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#### 27.9 Side Street Surveys (Not applicable to these projects)

#### **27.10 Underground Utilities**

Designation includes 2-dimensional collection of existing utilities and selected 3-dimensional verification as needed for designation. Location includes non-destructive excavation to determine size, type and location of existing utility, as necessary for final 3-dimensional verification. Survey includes collection of data on points as needed for designates and locates. Includes analysis and processing of all field collected data, and delivery of all appropriate electronic files.

#### 27.11 Outfall Survey (Not applicable to these projects)

#### 27.12 Drainage Survey

Locate underground data (XYZ, pipe size, type, condition and flow line) that relates to above ground data. Includes field edits, analysis and processing of all field collected data, existing maps, and/or reports.

#### Refer to the FDOT Survey and Mapping Handbook for requirements.

27.13 Bridge Survey (Minor/Major) (Not applicable to these projects)

27.14 Channel Survey (Not applicable to these projects)

**27.15 Pond Site Survey (Not applicable to these projects)** 

**27.16 Mitigation Survey (Not applicable to these projects)** 

#### 27.17 Jurisdiction Line Survey

Perform field location (2-dimensional) of jurisdiction limits as defined by respective authorities, also includes field edits, analysis and processing of all field collected data, preparation of reports.

#### Refer to the FDOT Survey and Mapping Handbook for requirements.

#### 27.18 Geotechnical Support

Perform 3-dimensional (X,Y,Z) field location, or stakeout, of boring sites established by geotechnical engineer. Includes field edits, analysis and processing of all field collected data and/or reports.

#### Refer to the FDOT Survey and Mapping Handbook for requirements.

27.19 Sectional/Grant Survey (Not applicable to these projects)

27.20 Subdivision Location (Not applicable to these projects)

#### 27.21 Maintained R/W (Not applicable to these projects)

#### 27.22 Boundary Survey (Not applicable to these projects)

27.23 Water Boundary Survey (Not applicable to these projects)

27.24 Right of Way Staking, Parcel / Right of Way Line (Not applicable to these projects)

27.25 Right of Way Monumentation (Not applicable to these projects)

#### 27.26 Line Cutting (Not applicable to these projects)

#### 27.27 Work Zone Safety

Provide work zone as required by DEPARTMENT standards.

#### Refer to the FDOT Survey and Mapping Handbook for requirements.

#### 27.28 Vegetation Survey (Not applicable to these projects)

#### 27.29 Tree Survey (Not applicable to these projects)

#### 27.30 Miscellaneous Surveys

Refer to tasks of this document, as applicable, to perform surveys not described herein. The percent for Supplemental will be determined at negotiations. This item can only be used if authorized in writing by the District Surveyor (DS), District Location Surveyor (DLS) or their representative.

#### Refer to the FDOT Survey and Mapping Handbook for requirements.

#### 27.31 Supplemental Surveys (Not applicable to these projects)

#### 27.32 Document Research

Perform research of documentation to support field and office efforts involving surveying and mapping.

#### 27.33 Field Review

Perform verification of the field conditions as related to the collected survey data.

#### Refer to the FDOT Survey and Mapping Handbook for requirements.

#### 27.34 Technical Meetings

Attend meetings as required and negotiated by the Surveying and Mapping Department.

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

Establish and implement a QA/QC plan. Also includes subconsultant review, response to comments and any resolution meetings if required, preparation of submittals for review, etc.

#### ADVERTISED

#### Refer to the FDOT Survey and Mapping Handbook for requirements.

#### 27.36 Supervision

Perform all activities required to supervise and coordinate project. These activities must be performed by the project supervisor, a Florida P.S.M. or their delegate as approved by the District Surveying Office.

#### 27.37 Coordination

Coordinate survey activities with other disciplines. These activities must be performed by the project supervisor, a Florida P.S.M. or their delegate as approved by the District Surveying Office.

#### **28 PHOTOGRAMMETRY (Not applicable to these projects)**

**29 MAPPING (Not applicable to these projects)** 

**30 TERRESTRIAL MOBILE LiDAR (Not applicable to these projects)** 

**31 ARCHITECTURE DEVELOPMENT (Not applicable to these projects)** 

# **32 NOISE BARRIERS IMPACT DESIGN ASSESSMENT IN THE DESIGN PHASE (Not applicable to these projects)**

**33 INTELLIGENT TRANSPORTATION SYSTEMS ANALYSIS (Not applicable to these projects)** 

# **34 INTELLIGENT TRANSPORTATION SYSTEMS PLANS (Not applicable to these projects)**

#### **35 GEOTECHNICAL**

The CONSULTANT shall, for each project, be responsible for a complete geotechnical investigation. All work performed by the CONSULTANT shall be in accordance with DEPARTMENT standards, or as otherwise directed by the District Geotechnical Engineer. The District Geotechnical Engineer will make interpretations and changes regarding geotechnical standards, policies and procedures and provide guidance to the CONSULTANT.

Before beginning each phase of investigation and after the Notice to Proceed is given, the CONSULTANT shall submit an investigation plan for approval and meet with the DEPARTMENT's Geotechnical Engineer or representative to review the project scope and DEPARTMENT requirements. The investigation plan shall include, but not be limited to, the proposed boring locations and depths, and all existing geotechnical information from available sources to generally describe the surface and subsurface conditions of the project site. *Upon approval of the investigation plan by the DEPARTMENT, the CONSULTANT shall submit an updated schedule prior to initiating the investigation plan.* Additional

meetings may be required to plan any additional field efforts, review plans, resolve plans/report comments, resolve responses to comments, and/or any other meetings necessary to facilitate the project.

The CONSULTANT shall notify the DEPARTMENT in adequate time to schedule a representative to attend all related meetings and field activities.

The CONSULTANT shall be responsible for coordination of all geotechnical related fieldwork activities. The CONSULTANT shall retain all samples until acceptance of final plans. Rock cores shall be retained as directed in writing by the District Geotechnical Engineer.

**CONSULTANT** shall perform specialized field-testing as required by project needs.

All testing and classification will be performed in accordance with applicable DEPARTMENT standards, ASTM Standards or AASHTO Standards, unless otherwise specified in the Contract Documents.

All Standard Penetration Testing will be performed using an automatic hammer.

#### **35.1 Document Collection and Review**

CONSULTANT will review printed literature including topographic maps, county agricultural maps, aerial photography (including historic photos), ground water resources, geology bulletins, potentiometric maps, pile driving records, historic construction records and other geotechnical related resources. Prior to field reconnaissance, CONSULTANT shall review U.S.G.S., S.C.S. and potentiometric maps, and identify areas with problematic soil and groundwater conditions.

#### Roadway

The CONSULTANT shall be responsible for coordination of all geotechnical related field work activities. The CONSULTANT shall retain all samples until acceptance of Phase IV plans. Rock cores shall be retained as directed in writing by the District Geotechnical Engineer.

Obtain pavement cores as directed in writing by the District Geotechnical Engineer.

If required by the District Geotechnical Engineer, a preliminary roadway exploration shall be performed before the Phase I plans submittal *and shall include a preliminary economic analysis, a plan for geotechnical investigation, and all field reconnaissance results.* The preliminary roadway exploration will be performed and results provided to the Engineer of Record to assist in setting roadway grades and locating potential problem areas. The preliminary roadway exploration shall *note, but not be limited to, the following as applicable unless directed otherwise* in writing by the District Geotechnical Engineer.

- Location survey stakes
- Bench marks
- Geological formation
- Surface soils (i.e., potential muck pockets)

- Surface water table
- General site conditions
- Debris and/or sanitary dump locations
- Rock type
- Conditions for detours
- Foundation type, condition and location
- Nearby structure type, condition and location
- Evidence of scour
- Site conditions relevant to boring plan including utilities, site access, private property access, equipment necessary, etc.
- Flow through soils, dunes, exposure, flood elevations on FIRM maps
- Possible obstructions to construction

CONSULTANT shall perform specialized field-testing as required by project needs and as directed in writing by the District Geotechnical Engineer.

All laboratory testing and classification will be performed in accordance with applicable DEPARTMENT standards, ASTM Standards or AASHTO Standards, *and the Florida Department of Transportation Soils and Foundations Handbook* unless otherwise specified in the Contract Documents.

#### 35.2 Develop Detailed Boring Location Plan

Develop a detailed boring location plan. Meet with DEPARTMENT Geotechnical Project Manager for boring plan approval. If the drilling program expects to encounter artesian conditions, the CONSULTANT shall submit a methodology(s) for plugging the borehole to the DEPARTMENT for approval prior to commencing with the boring program.

#### 35.3 Stake Borings/Utility Clearance

Auger borings with water table readings, Standard Penetration Test (SPT) borings with water table readings, and Cone Pentrometer Test (CPT) soundings with water table readings shall be performed as applicable. Submit copies of field boring logs with driller's notes via fax or email to the DEPARTMENT's Geotechnical Project Manager.

Stake borings and cores and obtain utility clearance.

#### **35.4** Muck Probing (Not applicable to these projects)

## 35.5 Coordinate and Develop Temporary Traffic Control Plans for Field Investigation

Coordinate and develop Temporary Traffic Control Plan (TTCP). All work zone traffic control will be performed in accordance with the DEPARTMENT's Standard Plans Index 102 series.

#### **35.6 Drilling Access Permits (Not applicable to these projects)**

#### **35.7 Property Clearances (Not applicable to these projects)**

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#### 35.8 Groundwater Monitoring

Monitor groundwater, using piezometers.

#### 35.9 LBR / Resilient Modulus Sampling (Not applicable to these projects)

#### **35.10** Coordination of Field Work

Coordinate all field work required to provide geotechnical data for the project.

#### 35.11 Soil and Rock Classification - Roadway

Refine soil profiles recorded in the field, based on results of laboratory testing.

#### 35.12 Design LBR (Not applicable to these projects)

#### 35.13 Laboratory Data

The laboratory testing for roadway shall consist of, but not be limited to, the following tests by designated procedures or directives available from the Geotechnical Project Manager:

- Sieve analysis conducted according to AASHTO T88 and additional applicable methods: AASHTO M-92, AASHTO M 145, AASHTO M 146, AASHTO M 147, FM 1-T87
- Atterberg limits conducted according to AASHTO T89 and AASHTO T90 and additional applicable methods: FM 1-T 87, AASHTO M 146
- LBR tests conducted according to FM 5-515 and additional applicable methods: Modification of AASHTO T-180 Method D, AASHTO M-92
- Corrosion testing for alternate culvert materials including pH (FM 5-550), resistivity (FM 5-551), chloride content (FM 5-552) and sulfate content (FM 5-553), and/or according to FDOT directives
- Consolidation tests according to AASHTO T216 with an unload/reload cycle near the preconsolidation pressure
- Triaxial compression tests according to AASHTO T297
- Moisture content according to AASHTO T265
- Conduct hydrometer analysis according to AASHTO T88
- Organic content according to FM 1-T 267 and additional applicable methods: AASHTO T194, AASHTO M-231, AASHTO T87
- Specific Gravity according to AASHTO T100 and additional applicable methods: AASHTO T88, ASTM D-854, AASHTO 132
- Torvane sensitivity and/or pocket pentrometer tests as directed by the Project Manager/Engineer
- Quantitative determination of asphalt content from asphalt paving mixtures by the ignition method according to FM 5-563.
- Mechanical analysis of extracted aggregate according to FM 1-T 30 and additional applicable methods: AASHTO M-231, AASHTO T27

### (FM – Florida Methods available from the Tallahassee Maps and Publications Department.)

Tabulate laboratory test results for inclusion in the geotechnical report, the report of tests sheet (Roadway Soil Survey Sheet), and for any necessary calculations and analyses.

#### 35.14 Seasonal High Water Table

Review the encountered ground water levels and estimate seasonal high ground water levels. Estimate seasonal low ground water levels, if requested.

#### 35.15 Parameters for Water Retention Areas

Calculate parameters for water retention areas, exfiltration trenches, and/or swales.

#### **35.16** Delineate Limits of Unsuitable Material

Delineate limits of unsuitable material(s) in both horizontal and vertical directions. Assist the Engineer of Record with detailing these limits on the cross-sections. If requested, prepare a plan view of the limits of unsuitable material.

#### 35.17 Electronic Files for Cross-Sections

Create electronic files of boring data for cross-sections.

#### 35.18 Embankment Settlement and Stability

Estimate the total magnitude and time rate of embankment settlements. Calculate the factor of safety against slope stability failure.

#### **35.19** Monitor Existing Structures (Not applicable to these projects)

### 35.20 Stormwater Volume Recovery and/or Background Seepage Analysis (Not applicable to these projects)

#### **35.21** Geotechnical Recommendations

Provide geotechnical recommendations regarding the proposed roadway construction project including the following: description of the site/alignment, design recommendations and discussion of any special considerations (i.e. removal of unsuitable material, consolidation of weak soils, estimated settlement time/amount, groundwater control, high groundwater conditions relative to pavement base, etc.) Evaluate and recommend types of geosynthetics and properties for various applications, as required.

#### **35.22** Pavement Condition Survey and Pavement Evaluation Report

Pavement Evaluation Report: Pavement coring, testing, and a pavement condition evaluation shall be performed by the CONSULTANT. The evaluation and report submittal shall be in accordance with Section 3.2 of the Materials Manual: Flexible Pavement Coring and Evaluation. The CONSULTANT will be responsible for recommendations regarding milling and recycling.

The condition of the pavement at each core location shall be observed and recorded on

#### ADVERTISED

the Pavement Evaluation Coring and Condition Data Sheet (Form #675-030-09), and input into the Pavement Coring Reporting (PCR) system.

The CONSULTANT shall provide the District Materials Office the opportunity to review the Pavement Coring. A Coring plan shall be submitted to the District Bituminous Engineer, for concurrence, prior to commencing with any coring.

#### 35.23 Preliminary Roadway Report

If a preliminary roadway investigation is performed, submit a preliminary roadway report before the Phase I plans submittal. The purpose of the preliminary roadway report will be to assist in setting road grades and locating potential problems.

- Copies of U.S.G.S. and S.C.S. maps with project limits shown.
- A report of tests sheet that summarizes the laboratory test results, the soil stratification (i.e. soils grouped into layers of similar materials, *including water tables plotted to elevation*) and construction recommendations relative to Standard Plans Index 120-001 and 120-002.
- The results of all tasks discussed in all previous sections regarding data interpretation and analysis.
- An appendix that contains stratified soil boring profiles, laboratory test data sheets, sample embankment settlement and stability calculations, design LBR calculation/graphs, *seasonal high and/or low water tables*, and other pertinent calculations.
- Electronic input files for plotting the boring data on the roadway and pond plan and cross section sheets.
- The CONSULTANT will respond in writing to any changes and/or comments from the DEPARTMENT and submit any responses and revised reports.

#### 35.24 Final Report

The Final Roadway Report shall include the following:

- Copies of U.S.G.S. and S.C.S. maps with project limits shown.
- A report of tests sheet that summarizes the laboratory test results, the soil stratification (i.e. soils grouped into layers of similar materials, *including water tables plotted to elevation*) and construction recommendations relative to Standard Plans Index 120-001 and 120-002. The results of all tasks discussed in all previous sections regarding data interpretation and analysis.
- An appendix that contains stratified soil boring profiles, laboratory test data sheets, sample embankment settlement and stability calculations, design LBR calculation/graphs, *seasonal high and/or low water tables*, and other pertinent calculations.
- Electronic input files for plotting the boring data on the plan and cross section sheets.

Final reports will incorporate comments from the DEPARTMENT and contain any additional field or laboratory test results, design parameters and special provisions for the contract plans. These reports will be submitted to the District Geotechnical Engineer for review prior to project completion. After review by the District Geotechnical Engineer, the reports will be submitted to the District Geotechnical Engineer in final form and will include the following:

- one (1) electronic copy of the Plans,
- one (1) electronic copy of the Specifications,
- one (1) electronic copy of the Special Provisions
- one (1) electronic copy of all reference and support documentation

The CONSULTANT shall submit the following deliverables in addition to the Final Report:

- one (1) electronic copy of the completed Soil Boring GIS Data Sheets for publishing on FDOT's GIS Soil Boring Database according to District requirements
- one (1) electronic copy of the Report of Core Boring Sheets

Additional final reports (up to four), aside from stated above, may be needed and requested for the DEPARTMENT's Project Manager and other disciplines.

The final reports, special provisions, as well as record prints, will be electronically signed and sealed by a Professional Engineer licensed in the State of Florida.

Draft the detailed boring/sounding standard sheet, including environmental classification, results of laboratory testing, and specialized construction requirements, for inclusion in final plans.

35.25 Auger Boring Drafting

Prepare a complete set of drawings to include all SPT borings, auger borings and other pertinent soils information in the plans. Include these drawings in the Final Geotechnical Report. Draft borings, location map, S.C.S. map and U.S.D.A. map as directed by the DEPARTMENT. Soil symbols must be consistent with those presented in the latest Florida Department of Transportation Soils and Foundations Handbook.

**35.26 SPT Boring Drafting** 

Draft SPT borings as directed by the DEPARTMENT.

- **35.27** Develop Detailed Boring Location Plan (Not applicable to these projects)
- **35.28** Stake Borings/Utility Clearance (Not applicable to these projects)
- 35.29 Coordinate and Develop TTCP for Field Investigation (Not applicable to these projects)
- **35.30 Drilling Access Permits (Not applicable to these projects)**
- **35.31 Property Clearances (Not applicable to these projects)**

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- **35.32** Collection of Corrosion Samples (Not applicable to these projects)
- 35.33 Coordination of Field Work (Not applicable to these projects)
- 35.34 Soil and Rock Classification Structures (Not applicable to these projects)
- **35.35** Tabulation of Laboratory Data (Not applicable to these projects)
- 35.36 Estimate Design Groundwater Level for Structures (Not applicable to these projects)
- 35.37 Selection of Foundation Alternatives (BDR) (Not applicable to these projects)
- 35.38 Detailed Analysis of Selected Foundation Alternate(s) (Not applicable to these projects)
- 35.39 Bridge Construction and Testing Recommendations (Not applicable to these projects)
- 35.40 Lateral Load Analysis (Optional) (Not applicable to these projects)
- **35.41 Walls (Not applicable to these projects)**
- 35.42 Sheet Pile Wall Analysis (Optional) (Not applicable to these projects)
- 35.43 Design Soil Parameters for Signs, Signals, High Mast Lights, and Strain Poles and Geotechnical Recommendations (Not applicable to these projects)
- 35.44 Box Culvert Analysis (Not applicable to these projects)
- 35.45 Preliminary Report BDR (Not applicable to these projects)
- 35.46 Final Report Bridge and Associated Walls (Not applicable to these projects)
- 35.47 Final Reports Signs, Signals, Box Culvert, Walls, and High Mast Lights (Not applicable to these projects)
- **35.48 SPT Boring Drafting (Not applicable to these projects)**
- 35.49 Other Geotechnical (Not applicable to these projects)
- 35.50 Technical Special Provisions and Modified Special Provisions (Not applicable to these projects)

#### 35.51 Field Reviews

Identify and note surface soil and rock conditions, surface water conditions and locations, and preliminary utility conflicts. Observe and note nearby structures and foundation types.

#### **35.52** Technical Meetings

#### 35.53 Quality Assurance/Quality Control

#### 35.54 Supervision

#### **35.55** Coordination

#### **36 3D MODELING**

The CONSULTANT shall analyze and document Roadway Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

The CONSULTANT shall deliver all master design files, 3D surface design models, and all supporting digital files for the development of plans as required in the FDOT CADD Manual.

The CONSULTANT shall prepare a 3D model using the latest FDOT software in accordance with the FDOT CADD Manual. Includes all efforts required for developing files for 3D deliverables supporting automated machine guidance for design models. This includes importing survey data and creation of existing 3D surface features and models, and developing proposed corridor models with necessary detail of features to depict the proposed project in 3D to comply with the FDOT CADD Manual.

The CONSULTANT shall add detail to the corridor and design model for 3D design. Includes many elements that contribute to this including but not limited to slope transitions, typical section transitions, changes in pavement depth, berms, swales/ditches, and other feature transitions. Extra corridor structure leads to extra assemblies, extra targeting, etc.

The CONSULTANT shall create an accurate roadway design model which includes modeling the intersections.

The CONSULTANT shall submit .dgn files associated with the 3D Model and their respective components.

#### 36.1 Phase I 3D Design Model

The CONSULTANT shall prepare, submit and present for approval by the DEPARTMENT, Phase I 3D interactive model, comprised of, but not limited to: Existing features (pavement, shoulders, sidewalk, curb/gutter, utilities-if required per scope, drainage - if required per scope) and proposed corridor(s).

#### 36.2 Phase II 3D Design Model

The CONSULTANT shall prepare, submit and present for approval by the DEPARTMENT, Phase II 3D model, comprised of, but not limited to: Modification of the Phase I model to update the model to comply with changes based on the Phase I review comments and to include the addition of ponds, floodplain compensation sites, retaining walls, barrier walls, guardrail terminals, cross overs, gore areas, side street connections, roundabouts, and driveways.

#### 36.3 Phase III 3D Design Model

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The CONSULTANT shall prepare, submit and present for approval by the DEPARTMENT, Phase III 3D model and deliverables files for review, comprised of, but not limited to: Modification of the Phase II model to update the model to comply with changes based on the Phase II review comments and to further refine areas of transition between templates, detailed grading areas, bridge approaches and end bents, median noses, shoulder transition areas, retaining walls, barrier walls and guardrail.

#### 36.4 Final 3D Model Design

The CONSULTANT shall prepare for approval by DEPARTMENT, the Phase IV 3D model, comprised of, but not limited to: Modification of the Phase III model to update the model to comply with changes based on the phase III review comments and to accurately generate, export and otherwise prepare the final 3D deliverable files as described in the FDOT CADD Manual.

#### **36.5 Cross Section Design Files**

The CONSULTANT shall establish and develop cross section design files in accordance with the FDOT CADD manual and FDOT Design Manual. Includes all work required to establish and utilize intelligent/automated methods for creating cross sections including determining the locations for which all cross sections will be shown, existing and proposed features, cross section refinement, placement of utilities and drainage, soil boxes, R/W lines, earthwork calculations, and other required labeling.

#### 36.6 Template and Assembly Development (Optional)

The CONSULTANT shall prepare for approval by DEPARTMENT, project specific templates/assemblies needed to develop the features required to deliver the 3D model.

#### 36.7 Quality Assurance/Quality Control

#### 36.8 Supervision

#### **36.9** Coordination

#### **37 PROJECT REQUIREMENTS**

#### **37.1 Liaison Office**

The DEPARTMENT and the CONSULTANT will designate a Liaison Office and a Project Manager who shall be the representative of their respective organizations for the Project. While it is expected the CONSULTANT shall seek and receive advice from various state, regional, and local agencies, the final direction on all matters of this project remain with the DEPARTMENT Project Manager.

#### **37.2 Key Personnel**

The CONSULTANT's work shall be performed and directed by the key personnel identified in the proposal presentations by the CONSULTANT. Any changes in the indicated personnel shall be subject to review and approval by DEPARTMENT.

#### **37.3 Progress Reporting**

The CONSULTANT shall meet with the DEPARTMENT as required and shall provide a written monthly progress report with approved schedule, schedule status, and payout curve or by using the earned value method that describe the work performed on each task. The report will include assessing project risk through monthly documentation of identifying and updating the risk category and approach for monitoring those tasks. Invoices shall be submitted after the DEPARTMENT approves the monthly progress report and the payout curve or with earned value analysis. The Project Manager will make judgment on whether work of sufficient quality and quantity has been accomplished by comparing the reported percent complete against actual work accomplished.

#### **37.4 Correspondence**

Copies of all written correspondence between the CONSULTANT and any party pertaining specifically to this contract shall be provided to the DEPARTMENT for their records within one (1) week of the receipt or mailing of said correspondence.

#### **37.5 Professional Endorsement**

The CONSULTANT shall have a Licensed Professional Engineer in the State of Florida sign and seal all reports, documents, Technical Special Provisions and Modified Special Provisions, and plans as required by DEPARTMENT standards.

#### **37.6** Computer Automation

The project will be developed utilizing Computer Aided Drafting and Design (CADD) systems. The DEPARTMENT makes available software to help assure quality and conformance with policy and procedures regarding CADD. It is the responsibility of the CONSULTANT to meet the requirements in the FDOT CADD Manual. The CONSULTANT shall submit final documents and files as described therein.

#### **37.7** Coordination with Other Consultants

The CONSULTANT is to coordinate his work with any and all adjacent and integral consultants so as to effect complete and homogenous plans and specifications for the project(s) described herein.

#### **37.8 Optional Services**

The CONSULTANT is requested to provide optional services *for Load Rating Analyses and sidewalk design*. The fee for these 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(s).

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FPIDs: 426937-3-32-01 426961-2-32-01 Assuming that the proposed pavement design will increase the profile grade, the intent for this project will be to feather/taper the pavement to the bridge deck/ box culvert to prevent an increase in the dead load. A load rating analysis will be required if the pavement design results in a change in the dead load on the box culvert at Unnamed Stream (CB550079) or the box culvert at ditch (CB550118).

#### **38 INVOICING LIMITS**

Payment for the work accomplished shall be in accordance with Method of Compensation of this contract. Invoices shall be submitted to the DEPARTMENT through the DEPARTMENT's Consultant Invoice Transmittal System (CITS) or in a format prescribed by the DEPARTMENT. The DEPARTMENT Project Manager and the CONSULTANT shall monitor the cumulative invoiced billings to ensure the reasonableness of the billings compared to the project schedule and the work accomplished and accepted by the DEPARTMENT.

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.

### Leon County Resurfacing, Rehabilitation, Restoration (RRR) Project

### SR 10 (US 90/W Tennessee Street) From West of CR 1581 (Aenon Church Road) to Ocala Road

### FPID: 426937-3 Section No.: 55060000



### PROJECT LOCATION MAP





Version: 1.4.2.27 08/12/2019

Date: 3/15/2021 1:01:04 PM

### FDOT Long Range Estimating System - Production R3: Project Details by Sequence Report

Project: 426937-3	3-52-01			Le	etting Date: 02/2024
Description: SR	10 (US 90) W TENNESSEE ST FR	OM CR 1581 AENO	N CH	URCH RD T	O OCALA RD
District: 03 Contract Class: 7	County: 55 LEON 7 Lump Sum Project: N	Market Area: 03 Design/Build: N	Units Proje	: English ct Length:	3.951 MI
Project Manager	: SAM WEEDE				
Version 2-P Proje Description: SR 1 6MU	ect Grand Total 0 (US 90) W TENNESSEE ST FRO	OM CR 1581 AENON	I CHL	JRCH RD T	<b>\$7,980,524.04</b> O OCALA RD. 21
Sequence: 1 RSD	- Resurfacing, Divided			Net L	ength: 0.059 MI
<b>Description</b> : SEC PAV	5506000 (CMP 2.200-2.259), URE ED SHOULDER RIGHT, plus incid	3AN, MR 4-12' LANE entals	S, 8' I	PAVED SHO	DULDER LEFT, 4'
	ROADWA	Y COMPONENT			
User Input Data					
Description	١	Value			
Number of Lanes	24.00.//	4			
Structural Spread Rate		24.00/2	24.00 165		
Friction Course Spread Rate			138		
Pay Items					
Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
327-70-15	MILLING EXIST ASPH PAVT,2 3/ AVG DEPTH	4" 1,661.44	SY	\$2.75	\$4,568.96
334-1-53	SUPERPAVE ASPH CONC, TRA C, PG76-22	F 137.07	ΤN	\$140.00	\$19,189.80
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	114.64	TN	\$160.00	\$18,342.40
X-Items					
Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
536-1-1	GUARDRAIL- ROADWAY, GEN TL-3	852.00	LF	\$20.00	\$17,040.00
536-73	GUARDRAIL REMOVAL	852.00	LF	\$5.00	\$4,260.00
536-85-20	GUARDRAIL END TREAT- TRAILING ANCHORAGE	6.00	EA	\$1,150.00	\$6,900.00
536-85-24	GUARDRAIL END TREATMENT- PARA APP TERM	6.00	EA	\$3,000.00	\$18,000.00
710-90	PAINTED PAVEMENT MARKING FINAL SURFACE	S, 1.00	LS	\$75,000.00	\$75,000.00
711-14-160	THERMOPLASTIC, PREFORMED WHITE, MESSAGE	D, 34.00	EA	\$176.42	\$5,998.28
711-14-170	THERMOPLASTIC, PREFORMED WHITE, ARROW	D, 299.00	EA	\$132.71	\$39,680.29
711-15-101		7.91	GM	\$4,197.97	\$33,205.94

https://fdotwp1.dot.state.fl.us/LongRangeEstimating/estimates/LREAESR04R3E.asp 3/15/2021
	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"			
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	7.91 GM	\$2,053.19	\$16,240.73
711-15-201	THERMOPLASTIC, STD- OP,YELLOW, SOLID, 6"	7.91 GM	\$4,173.96	\$33,016.02

# **Turnouts/Crossovers Subcomponent**

Description	Value
Asphalt Adjustment	999.00
Milling Code	Y
Friction Course Code	Y

# Pay Items

Pay item	Description	Quantity Unit	Unit Price	<b>Extended Amount</b>
327-70-15	MILLING EXIST ASPH PAVT,2 3/4" AVG DEPTH	16,597.79 SY	\$2.75	\$45,643.92
334-1-53	SUPERPAVE ASPH CONC, TRAF C, PG76-22	1,369.33 TN	\$140.00	\$191,706.20
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	1,145.25 TN	\$160.00	\$183,240.00

# Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

# Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	24.00 EA	\$6.38	\$153.12
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.47 GM	\$976.73	\$459.06
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.24 GM	\$509.07	\$122.18

# Roadway Component Total

\$712,766.90

# SHOULDER COMPONENT

# User Input Data

Total Outside Shoulder Width L/R	8.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 2.67
Paved Outside Shoulder Width L/R	8.00 / 4.00
Structural Spread Rate	0
Friction Course Spread Rate	138
Total Width (T) / 8" Overlap (O)	Т
Rumble Strips	0

# Pay Items

https://fdotwp1.dot.state.fl.us/LongRangeEstimating/estimates/LREAESR04R3E.asp

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
327-70-12	MILLING EXIST ASPH PAVT,1 1/4" AVG DEPTH	415.36 SY	\$2.50	\$1,038.40
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	28.66 TN	\$160.00	\$4,585.60
570-1-2	PERFORMANCE TURF, SOD	92.42 SY	\$4.00	\$369.68
X-Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	1,000.00 SY	\$60.00	\$60,000.00
527-2	DETECTABLE WARNINGS	1,390.00 SF	\$30.00	\$41,700.00
Erosion Control Pay Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-11	FLOATING TURBIDITY BARRIER	5.90 LF	\$20.00	\$118.00
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	5.90 LF	\$22.33	\$131.75
107-1	LITTER REMOVAL	0.43 AC	\$60.00	\$25.80
107-2	MOWING	0.43 AC	\$75.00	\$32.25
	Shoulder Component Total			\$108,001.48
	SIGNALIZATIONS CO	MPONENT		
Signalization 1				
Description		Value	)	
Туре		Miscellaneous	5	
Multiplier		1		
Description	Signal Loops			
X-Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	1,204.00 LF	\$10.00	\$12,040.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	892.00 LF	\$22.00	\$19,624.00
635-2-12	PULL & SPLICE BOX, F&I, 24" X 36"	24.00 EA	\$1,650.00	\$39,600.00
641-3-263	CONCRETE CCTV POLE, FUR & INS W/O LOW	5.00 EA	\$18,500.00	\$92,500.00

Sequence 1	Total			\$1,300,470.06
	Signalizations Component Total			\$479,701.68
684-6-11	WIRELESS COMMUNICATION DEVICE, F&I, ETHE	5.00 EA	\$5,000.00	\$25,000.00
682-1-113	ITS CCTV CAMERA, F&I, DOME ENCL-PRESS	5.00 EA	\$10,000.00	\$50,000.00
670-5-110	TRAF CNTL ASSEM, F&I, NEMA	5.00 AS	\$26,500.00	\$132,500.00
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	33.00 AS	\$1,216.58	\$40,147.14
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	56.00 AS	\$894.05	\$50,066.80
660-2-101	LOOP ASSEMBLY- F&I, TYPE A	18.00 AS	\$1,012.43	\$18,223.74
641-3-263	CONCRETE CCTV POLE, FUR & INS W/O LOW	5.00 EA	\$18,500.00	\$92,500.00

### Sequence: 2 RSD - Resurfacing, Divided

Net Length: 0.225 MI 1,188 LF

Description: SEC 5506000 (CMP 2.259-2.484), URBAN, MR 4-12' LANES, 2-4' PAVED SHOULDERS, plus incidentals

ROADWAY	COMPONENT
NOADHAI	

User Input Data	
Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	24.00 / 24.00
Structural Spread Rate	165
Friction Course Spread Rate	138

### Pay Items

•				
Pay item	Description	Quantity Unit	Unit Price Ex	tended Amount
327-70-15	MILLING EXIST ASPH PAVT,2 3/4" AVG DEPTH	6,336.00 SY	\$2.75	\$17,424.00
334-1-53	SUPERPAVE ASPH CONC, TRAF C, PG76-22	522.72 TN	\$140.00	\$73,180.80
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	437.18 TN	\$160.00	\$69,948.80

# Pavement Marking Subcomponent

Value
Ν
Asphalt
2
4
2
2

### Pay Items

Pay item	Description	Quantity Unit	Unit Price E	extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	91.00 EA	\$6.38	\$580.58
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	1.80 GM	\$976.73	\$1,758.11
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.90 GM	\$509.07	\$458.16

# Roadway Component Total

# \$163,350.45

### SHOULDER COMPONENT

### **User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	4.00 / 4.00
Structural Spread Rate	0
Friction Course Spread Rate	138
Total Width (T) / 8" Overlap (O)	Т
Rumble Strips ï¿1/2No. of Sides	0

Pay itemDescriptionQuantity UnitUnit PriceExtended Arr327-70-12MILLING EXIST ASPH PAVT,1 1/4"1,056.00 SY\$2.50\$2,6AVG DEPTH1,056.00 SY\$2.50\$2,6337-7-82ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-2272.86 TN\$160.00\$11,6570-1-2PERFORMANCE TURF, SOD704.88 SY\$4.00\$2,8Erosion Control Pay itemsDescriptionQuantity UnitUnit PriceExtended Arr104-11FLOATING TURBIDITY BARRIER NYL REINF PVC22.50 LF\$20.00\$44104-12STAKED TURBIDITY BARRIER- NYL REINF PVC22.50 LF\$22.33\$56107-1LITTER REMOVAL1.64 AC\$60.00\$1107-2MOWING1.64 AC\$75.00\$12MEDIAN COMPONENTUser Input Data	1 <b>ount</b> 40.00
327-70-12       MILLING EXIST ASPH PAVT, 1 1/4"       1,056.00 SY       \$2.50       \$2,6-         337-7-82       ASPH CONC FC, TRAFFIC       72.86 TN       \$160.00       \$11,6-         570-1-2       PERFORMANCE TURF, SOD       704.88 SY       \$4.00       \$2,8         Erosion Control       Pay item       Description       Quantity Unit       Unit Price       Extended Am         104-11       FLOATING TURBIDITY BARRIER       22.50 LF       \$20.00       \$44         104-12       STAKED TURBIDITY BARRIER-       22.50 LF       \$22.33       \$56         107-1       LITTER REMOVAL       1.64 AC       \$60.00       \$11         107-2       MOWING       1.64 AC       \$75.00       \$11         MEDIAN COMPONENT         MEDIAN COMPONENT	40.00
337-7-82       ASPH CONC FC, TRAFFIC C, FC-9.5, PG 76-22       72.86 TN       \$160.00       \$11,6:         570-1-2       PERFORMANCE TURF, SOD       704.88 SY       \$4.00       \$2,8         Erosion Control Pay items         Pay item       Description       Quantity Unit       Unit Price       Extended Am         104-11       FLOATING TURBIDITY BARRIER       22.50 LF       \$20.00       \$44         104-12       STAKED TURBIDITY BARRIER- 	
570-1-2       PERFORMANCE TURF, SOD       704.88 SY       \$4.00       \$2,8         Erosion Control Pay items       Description       Quantity Unit       Unit Price       Extended Am         104-11       FLOATING TURBIDITY BARRIER       22.50 LF       \$20.00       \$44         104-12       STAKED TURBIDITY BARRIER- NYL REINF PVC       22.50 LF       \$22.33       \$56         107-1       LITTER REMOVAL       1.64 AC       \$60.00       \$1         107-2       MOWING       1.64 AC       \$75.00       \$13         MEDIAN COMPONENT	57.60
Erosion Control Pay ItemsDescriptionQuantity UnitUnit PriceExtended Arr104-11FLOATING TURBIDITY BARRIER22.50 LF\$20.00\$44104-12STAKED TURBIDITY BARRIER- NYL REINF PVC22.50 LF\$22.33\$56107-1LITTER REMOVAL1.64 AC\$60.00\$4107-2MOWING1.64 AC\$75.00\$12MEDIAN COMPONENTUser Input Data	19.52
Pay itemDescriptionQuantity UnitUnit PriceExtended Arr104-11FLOATING TURBIDITY BARRIER22.50 LF\$20.00\$44104-12STAKED TURBIDITY BARRIER- NYL REINF PVC22.50 LF\$22.33\$56107-1LITTER REMOVAL1.64 AC\$60.00\$41107-2MOWING1.64 AC\$75.00\$11MEDIAN COMPONENTUser Input Data	
104-11       FLOATING TURBIDITY BARRIER       22.50 LF       \$20.00       \$44         104-12       STAKED TURBIDITY BARRIER- NYL REINF PVC       22.50 LF       \$22.33       \$56         107-1       LITTER REMOVAL       1.64 AC       \$60.00       \$41         107-2       MOWING       1.64 AC       \$75.00       \$11         MEDIAN COMPONENT         User Input Data	ount
104-12       STAKED TURBIDITY BARRIER- NYL REINF PVC       22.50 LF       \$22.33       \$50         107-1       LITTER REMOVAL       1.64 AC       \$60.00       \$10         107-2       MOWING       1.64 AC       \$75.00       \$11         MEDIAN COMPONENT         User Input Data	50.00
107-1         LITTER REMOVAL         1.64 AC         \$60.00         \$1           107-2         MOWING         1.64 AC         \$75.00         \$11           Shoulder Component Total         \$18,25           MEDIAN COMPONENT           User Input Data	02.42
107-2 MOWING 1.64 AC \$75.00 \$1: Shoulder Component Total \$18,29 MEDIAN COMPONENT User Input Data	98.40
Shoulder Component Total \$18,24 MEDIAN COMPONENT User Input Data	23.00
MEDIAN COMPONENT User Input Data	90.95
User Input Data	
Description Value	
Total Median Width     32.00	
Performance Turf Width 5.34	
I otal Median Shoulder Width L/R     8.00 / 8.00       Devid Median Observation Width L/R     0.00 / 0.00	
Paved Median Shoulder Width L/R 0.00 / 0.00	
Structural Spread Rate 110	
Total Width (T) / 8" Overlap (O)	
Rumble Strips $\ddot{i}_{2}$ No. of Sides0	
Pay Items	
Pay item Description Quantity Unit Unit Extended Am	ount
570-1-2         PERFORMANCE TURF, SOD         704.88 SY         \$4.00         \$2,8	19.52
Median Component Total \$2,8	19.52
Sequence 2 Total \$184,44	60.92

### Sequence: 3 RSD - Resurfacing, Divided

# Net Length: 0.138 MI

729 LF

Description: SEC 5506000 (CMP 2.484-2.622), URBAN, MR 4-12' LANES, 9' PAVED SHOULDER LEFT, 4' PAVED SHOULDER RIGHT, plus incidentals

# **ROADWAY COMPONENT**

User Input Data	
Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	24.00 / 24.00
Structural Spread Rate	165
Friction Course Spread Rate	138

### Pay Items

•				
Pay item	Description	Quantity Unit	Unit Price Ex	ctended Amount
327-70-15	MILLING EXIST ASPH PAVT,2 3/4" AVG DEPTH	3,886.08 SY	\$2.75	\$10,686.72
334-1-53	SUPERPAVE ASPH CONC, TRAF C, PG76-22	320.60 TN	\$140.00	\$44,884.00
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	268.14 TN	\$160.00	\$42,902.40

# **Pavement Marking Subcomponent**

Value
Ν
Asphalt
2
4
2
2

### Pay Items

Pay item	Description	Quantity Unit	Unit Price E	xtended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	56.00 EA	\$6.38	\$357.28
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	1.10 GM	\$976.73	\$1,074.40
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.55 GM	\$509.07	\$279.99

### Roadway Component Total

# SHOULDER COMPONENT

### **User Input Data**

Description	Value
Total Outside Shoulder Width L/R	9.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 2.67
Paved Outside Shoulder Width L/R	9.00 / 4.00
Structural Spread Rate	0
Friction Course Spread Rate	138
Total Width (T) / 8" Overlap (O)	Т
Rumble Strips ï¿1/2No. of Sides	0

\$100,184.79

Pay Items				
Pay item	Description	Quantity Unit	Unit Price E	Extended Amount
327-70-12	MILLING EXIST ASPH PAVT,1 1/4" AVG DEPTH	1,052.48 SY	\$2.50	\$2,631.20
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	72.62 TN	\$160.00	\$11,619.20
570-1-2	PERFORMANCE TURF, SOD	216.16 SY	\$4.00	\$864.64
Erosion Control Pay Items				
-				
Pay item	Description	Quantity Unit	Unit Price E	extended Amount
<b>Pay item</b> 104-11	<b>Description</b> FLOATING TURBIDITY BARRIER	Quantity Unit 13.80 LF	Unit Price \$20.00	Extended Amount \$276.00
<b>Pay item</b> 104-11 104-12	<b>Description</b> FLOATING TURBIDITY BARRIER STAKED TURBIDITY BARRIER- NYL REINF PVC	Quantity Unit 13.80 LF 13.80 LF	Unit Price \$20.00 \$22.33	xtended Amount \$276.00 \$308.15
<b>Pay item</b> 104-11 104-12 107-1	Description FLOATING TURBIDITY BARRIER STAKED TURBIDITY BARRIER- NYL REINF PVC LITTER REMOVAL	Quantity Unit 13.80 LF 13.80 LF 1.00 AC	Unit Price \$20.00 \$22.33 \$60.00	<b>Extended Amount</b> \$276.00 \$308.15 \$60.00
Pay item 104-11 104-12 107-1 107-2	Description FLOATING TURBIDITY BARRIER STAKED TURBIDITY BARRIER- NYL REINF PVC LITTER REMOVAL MOWING	Quantity Unit 13.80 LF 13.80 LF 1.00 AC 1.00 AC	Unit Price \$20.00 \$22.33 \$60.00 \$75.00	<b>Extended Amount</b> \$276.00 \$308.15 \$60.00 \$75.00
Pay item 104-11 104-12 107-1 107-2	Description FLOATING TURBIDITY BARRIER STAKED TURBIDITY BARRIER- NYL REINF PVC LITTER REMOVAL MOWING Shoulder Component Total	Quantity Unit 13.80 LF 13.80 LF 1.00 AC 1.00 AC	Unit Price \$20.00 \$22.33 \$60.00 \$75.00	<b>Extended Amount</b> \$276.00 \$308.15 \$60.00 \$75.00 \$15,834.19

### Sequence: 4 RSD - Resurfacing, Divided

Net Length: 0.155 MI

818 LF

Description: SEC 5506000 (CMP 2.622-2.777), URBAN, MR 4-12' LANES, 2-4' PAVED SHOULDERS, plus incidentals

	ROADWAY COMPONENT	
User Input Data		
Description	Value	
Number of Lanes	4	
Roadway Pavement Width L/R	24.00 / 24.00	
Structural Spread Rate	165	
Friction Course Spread Rate	138	

### Pay Items

•				
Pay item	Description	Quantity Unit	Unit Price Ex	tended Amount
327-70-15	MILLING EXIST ASPH PAVT,2 3/4" AVG DEPTH	4,364.80 SY	\$2.75	\$12,003.20
334-1-53	SUPERPAVE ASPH CONC, TRAF C, PG76-22	360.10 TN	\$140.00	\$50,414.00
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	301.17 TN	\$160.00	\$48,187.20

# Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

### Pay Items

Pay item	Description	Quantity Unit	Unit Price E	extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	63.00 EA	\$6.38	\$401.94
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	1.24 GM	\$976.73	\$1,211.15
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.62 GM	\$509.07	\$315.62

# Roadway Component Total

# \$112,533.11

# SHOULDER COMPONENT

### **User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	4.00 / 4.00
Structural Spread Rate	0
Friction Course Spread Rate	138
Total Width (T) / 8" Overlap (O)	Т
Rumble Strips ï¿1/2No. of Sides	0

Pay Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
327-70-12	MILLING EXIST ASPH PAVT,1 1/4" AVG DEPTH	727.47 SY	\$2.50	\$1,818.68
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	50.20 TN	\$160.00	\$8,032.00
570-1-2	PERFORMANCE TURF, SOD	485.58 SY	\$4.00	\$1,942.32
Erosion Control Pay Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-11	FLOATING TURBIDITY BARRIER	15.50 LF	\$20.00	\$310.00
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	15.50 LF	\$22.33	\$346.12
107-1	LITTER REMOVAL	1.13 AC	\$60.00	\$67.80
107-2	MOWING	1.13 AC	\$75.00	\$84.75
	Shoulder Component Total			\$12,601.67
	MEDIAN COMF	PONENT		
User Input Data				
Description		Value		
Total Median Wid	lth	32.00		
Performance Tur	f Width	5.34		
Total Median Sho	builder Width L/R	8.00 / 8.00		
Paved Median Sr	noulder Width L/R	0.00 / 0.00		
Structural Spread	a Rale	80		
Total Width (T) /	8" Overlan (O)	т		
Rumble Strips ï¿	½No. of Sides	0		
Pay Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
570-1-1	PERFORMANCE TURF	485.58 SY	\$1.81	\$878.90
	Median Component Total			\$878.90
Sequence 4 Tot	al			\$126,013.68
-				·

## Sequence: 5 RSD - Resurfacing, Divided

Net Length: 0.235 MI 1,241 LF

Description: SEC 5506000 (CMP 2.777-3.012), URBAN, MR 4-12' LANES, 2-4' PAVED SHOULDERS, plus incidentals

User Input Data	
Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	24.00 / 24.00
Structural Spread Rate	165
Friction Course Spread Rate	138

### Pay Items

•				
Pay item	Description	Quantity Unit	Unit Price Ex	xtended Amount
327-70-15	MILLING EXIST ASPH PAVT,2 3/4" AVG DEPTH	6,617.60 SY	\$2.75	\$18,198.40
334-1-53	SUPERPAVE ASPH CONC, TRAF C, PG76-22	545.95 TN	\$140.00	\$76,433.00
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	456.61 TN	\$160.00	\$73,057.60

# Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Ν
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

### Pay Items

Pay item	Description	Quantity Unit	Unit Price Ex	xtended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	95.00 EA	\$6.38	\$606.10
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	1.88 GM	\$976.73	\$1,836.25
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.94 GM	\$509.07	\$478.53

# Roadway Component Total

# SHOULDER COMPONENT

### **User Input Data**

Description	Value
Total Outside Shoulder Width L/R	4.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 2.67
Paved Outside Shoulder Width L/R	4.00 / 4.00
Structural Spread Rate	0
Friction Course Spread Rate	138
Total Width (T) / 8" Overlap (O)	Т
Rumble Strips ï¿1/2No. of Sides	0

\$170,609.88

Pay Items				
Pay item	Description	Quantity Unit	Unit Price Ex	tended Amount
327-70-12	MILLING EXIST ASPH PAVT,1 1/4" AVG DEPTH	1,102.93 SY	\$2.50	\$2,757.32
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	76.10 TN	\$160.00	\$12,176.00
570-1-2	PERFORMANCE TURF, SOD	368.10 SY	\$4.00	\$1,472.40
Erosion Control Pay Items				
Pay item	Description	Quantity Unit	Unit Price Ex	tended Amount
104-11	FLOATING TURBIDITY BARRIER	23.50 LF	\$20.00	\$470.00
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	23.50 LF	\$22.33	\$524.76
107-1	LITTER REMOVAL	1.71 AC	\$60.00	\$102.60
107-2	MOWING	1.71 AC	\$75.00	\$128.25
	Shoulder Component Total			\$17,631.34
	MEDIAN COMP	PONENT		
User Input Data				
Description		Value		
Total Median Wid	lth	31.00		
Performance Tur	f Width	5.34		
Total Median Sho	oulder Width L/R	8.00 / 8.00		
Structural Spread	I Rate	0.0070.00		
Friction Course S	pread Rate	80		
Total Width (T) / 8	3" Overlap (O)	T		
Rumble Strips ï¿	2No. of Sides	0		
Pay Items				
Pay item	Description	Quantity Unit	Unit Price Ex	tended Amount
570-1-2	PERFORMANCE TURF, SOD	736.21 SY	\$4.00	\$2,944.84
	Median Component Total			\$2,944.84
Sequence 5 Tot	al			\$191,186.06

## Sequence: 6 RSD - Resurfacing, Divided

Net Length: 0.116 MI 612 LF

Description: SEC 5506000 (CMP 3.012-3.128), URBAN, MR 4-12' LANES, 2-4' PAVED SHOULDERS, plus incidentals

	ROADWAY COMPONENT		
User Input Data			
Description	Value		
Number of Lanes	4		
Roadway Pavement Width L/R	24.00 / 24.00		
Structural Spread Rate	165		
Friction Course Spread Rate	138		

# Pay Items

Pay item	Description	Quantity Unit	Unit Price Ex	tended Amount
327-70-15	MILLING EXIST ASPH PAVT,2 3/4" AVG DEPTH	3,266.56 SY	\$2.75	\$8,983.04
334-1-53	SUPERPAVE ASPH CONC, TRAF C, PG76-22	269.49 TN	\$140.00	\$37,728.60
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	225.39 TN	\$160.00	\$36,062.40

# Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Ν
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

# Pay Items

Pay item	Description	Quantity Unit	Unit Price Ex	tended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	47.00 EA	\$6.38	\$299.86
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.93 GM	\$976.73	\$908.36
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.46 GM	\$509.07	\$234.17

# Roadway Component Total

# SHOULDER COMPONENT

### **User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 2.67
Paved Outside Shoulder Width L/R	4.00 / 4.00
Structural Spread Rate	0
Friction Course Spread Rate	138
Total Width (T) / 8" Overlap (O)	Т
Rumble Strips ï¿1/2No. of Sides	0

\$84,216.43

Pay Items				
Pay item	Description	Quantity Unit	Unit Price E	xtended Amount
327-70-12	MILLING EXIST ASPH PAVT,1 1/4" AVG DEPTH	544.43 SY	\$2.50	\$1,361.08
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	37.57 TN	\$160.00	\$6,011.20
570-1-2	PERFORMANCE TURF, SOD	181.70 SY	\$4.00	\$726.80
Erosion Control Pay Items				
Pay item	Description	Quantity Unit	Unit Price E	xtended Amount
<b>Pay item</b> 104-11	<b>Description</b> FLOATING TURBIDITY BARRIER	Quantity Unit 11.60 LF	Unit Price \$20.00	xtended Amount \$232.00
<b>Pay item</b> 104-11 104-12	<b>Description</b> FLOATING TURBIDITY BARRIER STAKED TURBIDITY BARRIER- NYL REINF PVC	Quantity Unit 11.60 LF 11.60 LF	Unit Price \$20.00 \$22.33	xtended Amount \$232.00 \$259.03
<b>Pay item</b> 104-11 104-12 107-1	Description FLOATING TURBIDITY BARRIER STAKED TURBIDITY BARRIER- NYL REINF PVC LITTER REMOVAL	<b>Quantity Unit</b> 11.60 LF 11.60 LF 0.84 AC	Unit Price \$20.00 \$22.33 \$60.00	xtended Amount \$232.00 \$259.03 \$50.40
<b>Pay item</b> 104-11 104-12 107-1 107-2	Description FLOATING TURBIDITY BARRIER STAKED TURBIDITY BARRIER- NYL REINF PVC LITTER REMOVAL MOWING	Quantity Unit 11.60 LF 11.60 LF 0.84 AC 0.84 AC	Unit Price \$20.00 \$22.33 \$60.00 \$75.00	<b>Extended Amount</b> \$232.00 \$259.03 \$50.40 \$63.00
<b>Pay item</b> 104-11 104-12 107-1 107-2	Description FLOATING TURBIDITY BARRIER STAKED TURBIDITY BARRIER- NYL REINF PVC LITTER REMOVAL MOWING Shoulder Component Total	Quantity Unit 11.60 LF 11.60 LF 0.84 AC 0.84 AC	Unit Price \$20.00 \$22.33 \$60.00 \$75.00	xtended Amount \$232.00 \$259.03 \$50.40 \$63.00 \$8,703.51

### Sequence: 7 RSD - Resurfacing, Divided

Net Length: 0.355 MI 1,874 LF

Description: SEC 5506000 (CMP 3.128-3.483), URBAN, MR 4-12' LANES, 2-4' PAVED SHOULDERS, plus incidentals

	ROADWAY COMPONENT
User Input Data	
Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	24.00 / 24.00
Structural Spread Rate	165
Friction Course Spread Rate	138

# Pay Items

•				
Pay item	Description	Quantity Unit	Unit Price E	xtended Amount
327-70-15	MILLING EXIST ASPH PAVT,2 3/4" AVG DEPTH	9,996.80 SY	\$2.75	\$27,491.20
334-1-53	SUPERPAVE ASPH CONC, TRAF C, PG76-22	824.74 TN	\$140.00	\$115,463.60
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	689.78 TN	\$160.00	\$110,364.80

# Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Ν
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

### Pay Items

Pay item	Description	Quantity Unit	Unit Price Ex	tended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	144.00 EA	\$6.38	\$918.72
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	2.84 GM	\$976.73	\$2,773.91
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	1.42 GM	\$509.07	\$722.88

# Roadway Component Total

# SHOULDER COMPONENT

### **User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	4.00 / 4.00
Structural Spread Rate	0
Friction Course Spread Rate	138
Total Width (T) / 8" Overlap (O)	Т
Rumble Strips ï¿1⁄2No. of Sides	0

\$257,735.11

Pay Items				
Pay item	Description	Quantity Unit	Unit Price E	xtended Amount
327-70-12	MILLING EXIST ASPH PAVT,1 1/4" AVG DEPTH	1,666.13 SY	\$2.50	\$4,165.32
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	114.96 TN	\$160.00	\$18,393.60
Erosion Control Pay Items				
Pay item	Description	Quantity Unit	Unit Price E	xtended Amount
104-11	FLOATING TURBIDITY BARRIER	35.50 LF	\$20.00	\$710.00
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	35.50 LF	\$22.33	\$792.72
107-1	LITTER REMOVAL	2.58 AC	\$60.00	\$154.80
107-2	MOWING	2.58 AC	\$75.00	\$193.50
	Shoulder Component Total			\$24,409.95
Sequence 7 Tot	al			\$282,145.06

# Sequence: 8 RSD - Resurfacing, Divided

#### Net Length: 0.179 MI 945 LF

Description: SEC 5506000 (CMP 3.483-3.662), URBAN, MR 4-12' LANES, 4' PAVED SHOULDER RIGHT, plus incidentals

	ROADWAY COMPONENT	
User Input Data		
Description	Value	
Number of Lanes	4	
Roadway Pavement Width L/R	24.00 / 24.00	
Structural Spread Rate	165	
Friction Course Spread Rate	138	

# Pay Items

Pay item	Description	Quantity Unit	Unit Price Ex	tended Amount
327-70-15	MILLING EXIST ASPH PAVT,2 3/4" AVG DEPTH	5,040.64 SY	\$2.75	\$13,861.76
334-1-53	SUPERPAVE ASPH CONC, TRAF C, PG76-22	415.85 TN	\$140.00	\$58,219.00
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	347.80 TN	\$160.00	\$55,648.00

# **Pavement Marking Subcomponent**

Value
Ν
Asphalt
2
4
2
2

### Pay Items

Pay item	Description	Quantity Unit	Unit Price E	xtended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	72.00 EA	\$6.38	\$459.36
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	1.43 GM	\$976.73	\$1,396.72
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.72 GM	\$509.07	\$366.53

# Roadway Component Total

# SHOULDER COMPONENT

### **User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 2.67
Paved Outside Shoulder Width L/R	0.00 / 4.00
Structural Spread Rate	0
Friction Course Spread Rate	138
Total Width (T) / 8" Overlap (O)	Т
Rumble Strips ï¿1/2No. of Sides	0

\$129,951.37

Pay Items				
Pay item	Description	Quantity Unit	Unit Price Ex	tended Amount
327-70-12	MILLING EXIST ASPH PAVT,1 1/4" AVG DEPTH	420.05 SY	\$2.50	\$1,050.12
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	28.98 TN	\$160.00	\$4,636.80
570-1-2	PERFORMANCE TURF, SOD	280.39 SY	\$4.00	\$1,121.56
Erosion Control Pay Items				
Pay item	Description	Quantity Unit	Unit Price Ex	tended Amount
<b>Pay item</b> 104-11	<b>Description</b> FLOATING TURBIDITY BARRIER	Quantity Unit 17.90 LF	Unit Price \$20.00	tended Amount \$358.00
<b>Pay item</b> 104-11 104-12	<b>Description</b> FLOATING TURBIDITY BARRIER STAKED TURBIDITY BARRIER- NYL REINF PVC	Quantity Unit 17.90 LF 17.90 LF	Unit Price \$20.00 \$22.33	ttended Amount \$358.00 \$399.71
<b>Pay item</b> 104-11 104-12 107-1	Description FLOATING TURBIDITY BARRIER STAKED TURBIDITY BARRIER- NYL REINF PVC LITTER REMOVAL	Quantity Unit 17.90 LF 17.90 LF 1.30 AC	Unit Price Ex \$20.00 \$22.33 \$60.00	<b>xtended Amount</b> \$358.00 \$399.71 \$78.00
<b>Pay item</b> 104-11 104-12 107-1 107-2	Description FLOATING TURBIDITY BARRIER STAKED TURBIDITY BARRIER- NYL REINF PVC LITTER REMOVAL MOWING	Quantity Unit 17.90 LF 17.90 LF 1.30 AC 1.30 AC	Unit Price \$20.00 \$22.33 \$60.00 \$75.00	<b>xtended Amount</b> \$358.00 \$399.71 \$78.00 \$97.50
<b>Pay item</b> 104-11 104-12 107-1 107-2	Description FLOATING TURBIDITY BARRIER STAKED TURBIDITY BARRIER- NYL REINF PVC LITTER REMOVAL MOWING Shoulder Component Total	Quantity Unit 17.90 LF 17.90 LF 1.30 AC 1.30 AC	Unit Price Ex \$20.00 \$22.33 \$60.00 \$75.00	xtended Amount \$358.00 \$399.71 \$78.00 \$97.50 \$7,741.70

### Sequence: 9 RSD - Resurfacing, Divided

Net Length: 0.638 MI 3,369 LF

Description: SEC 5506000 (CMP 3.662-4.300), URBAN, MR 4-12' LANES, 2-4' PAVED SHOULDERS, plus incidentals

User Input Data	
Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	24.00 / 24.00
Structural Spread Rate	165
Friction Course Spread Rate	138

# Pay Items

•				
Pay item	Description	Quantity Unit	Unit Price	tended Amount
327-70-15	MILLING EXIST ASPH PAVT,2 3/4" AVG DEPTH	17,966.08 SY	\$2.75	\$49,406.72
334-1-53	SUPERPAVE ASPH CONC, TRAF C, PG76-22	1,482.20 TN	\$140.00	\$207,508.00
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	1,239.66 TN	\$160.00	\$198,345.60

# Pavement Marking Subcomponent

Value
Ν
Asphalt
2
4
2
2

# Pay Items

Pay item	Description	Quantity Unit	Unit Price Ex	tended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	258.00 EA	\$6.38	\$1,646.04
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	5.10 GM	\$976.73	\$4,981.32
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	2.55 GM	\$509.07	\$1,298.13

# Roadway Component Total

# SHOULDER COMPONENT

### **User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	4.00 / 4.00
Structural Spread Rate	0
Friction Course Spread Rate	138
Total Width (T) / 8" Overlap (O)	Т
Rumble Strips ï¿1/2No. of Sides	0

\$463,185.81

Pay Items				
Pay item	Description	Quantity Unit	Unit Price Ex	tended Amount
327-70-12	MILLING EXIST ASPH PAVT,1 1/4" AVG DEPTH	2,994.35 SY	\$2.50	\$7,485.88
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	206.61 TN	\$160.00	\$33,057.60
570-1-2	PERFORMANCE TURF, SOD	1,998.73 SY	\$4.00	\$7,994.92
Erosion Control Pay Items				
Pay item	Description	Quantity Unit	Unit Price Ex	tended Amount
<b>Pay item</b> 104-11	<b>Description</b> FLOATING TURBIDITY BARRIER	Quantity Unit 63.80 LF	Unit Price \$20.00	tended Amount \$1,276.00
<b>Pay item</b> 104-11 104-12	<b>Description</b> FLOATING TURBIDITY BARRIER STAKED TURBIDITY BARRIER- NYL REINF PVC	Quantity Unit 63.80 LF 63.80 LF	Unit Price \$20.00 \$22.33	tended Amount \$1,276.00 \$1,424.65
<b>Pay item</b> 104-11 104-12 107-1	<b>Description</b> FLOATING TURBIDITY BARRIER STAKED TURBIDITY BARRIER- NYL REINF PVC LITTER REMOVAL	<b>Quantity Unit</b> 63.80 LF 63.80 LF 4.64 AC	Unit Price \$20.00 \$22.33 \$60.00	tended Amount \$1,276.00 \$1,424.65 \$278.40
<b>Pay item</b> 104-11 104-12 107-1 107-2	Description FLOATING TURBIDITY BARRIER STAKED TURBIDITY BARRIER- NYL REINF PVC LITTER REMOVAL MOWING	Quantity Unit 63.80 LF 63.80 LF 4.64 AC 4.64 AC	Unit Price \$20.00 \$22.33 \$60.00 \$75.00	tended Amount \$1,276.00 \$1,424.65 \$278.40 \$348.00
<b>Pay item</b> 104-11 104-12 107-1 107-2	Description FLOATING TURBIDITY BARRIER STAKED TURBIDITY BARRIER- NYL REINF PVC LITTER REMOVAL MOWING Shoulder Component Total	Quantity Unit 63.80 LF 63.80 LF 4.64 AC 4.64 AC	Unit Price \$20.00 \$22.33 \$60.00 \$75.00	tended Amount \$1,276.00 \$1,424.65 \$278.40 \$348.00 \$51,865.45

### Sequence: 10 RSD - Resurfacing, Divided

Net Length: 0.219 MI

1,156 LF

Description: SEC 5506000 (CMP 4.300-4.519), URBAN, MR 4-12' LANES, 4' PAVED SHOULDER RIGHT, plus incidentals

	ROADWAY COMPONENT	
User Input Data		
Description	Value	
Number of Lanes	4	
Roadway Pavement Width L/R	24.00 / 24.00	
Structural Spread Rate	165	
Friction Course Spread Rate	138	

# Pay Items

Pay item	Description	Quantity Unit	Unit Price Ex	tended Amount
327-70-15	MILLING EXIST ASPH PAVT,2 3/4" AVG DEPTH	6,167.04 SY	\$2.75	\$16,959.36
334-1-53	SUPERPAVE ASPH CONC, TRAF C, PG76-22	508.78 TN	\$140.00	\$71,229.20
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	425.53 TN	\$160.00	\$68,084.80

# **Pavement Marking Subcomponent**

Value
Ν
Asphalt
2
4
2
2

### Pay Items

Pay item	Description	Quantity Unit	Unit Price E	xtended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	89.00 EA	\$6.38	\$567.82
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	1.75 GM	\$976.73	\$1,709.28
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.88 GM	\$509.07	\$447.98

# Roadway Component Total

### SHOULDER COMPONENT

### **User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 2.67
Paved Outside Shoulder Width L/R	0.00 / 4.00
Structural Spread Rate	0
Friction Course Spread Rate	138
Total Width (T) / 8" Overlap (O)	Т
Rumble Strips ï¿1/2No. of Sides	0

\$158,998.44

Pay Items				
Pay item	Description	Quantity Unit	Unit Price Ex	tended Amount
327-70-12	MILLING EXIST ASPH PAVT,1 1/4" AVG DEPTH	513.92 SY	\$2.50	\$1,284.80
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	35.46 TN	\$160.00	\$5,673.60
570-1-2	PERFORMANCE TURF, SOD	343.04 SY	\$4.00	\$1,372.16
Erosion Control Pay Items				
Pay item	Description	Quantity Unit	Unit Price Ex	tended Amount
<b>Pay item</b> 104-11	<b>Description</b> FLOATING TURBIDITY BARRIER	Quantity Unit 21.90 LF	Unit Price \$20.00	tended Amount \$438.00
<b>Pay item</b> 104-11 104-12	<b>Description</b> FLOATING TURBIDITY BARRIER STAKED TURBIDITY BARRIER- NYL REINF PVC	Quantity Unit 21.90 LF 21.90 LF	Unit Price \$20.00 \$22.33	ttended Amount \$438.00 \$489.03
<b>Pay item</b> 104-11 104-12 107-1	Description FLOATING TURBIDITY BARRIER STAKED TURBIDITY BARRIER- NYL REINF PVC LITTER REMOVAL	Quantity Unit 21.90 LF 21.90 LF 1.59 AC	Unit Price \$20.00 \$22.33 \$60.00	<b>xtended Amount</b> \$438.00 \$489.03 \$95.40
<b>Pay item</b> 104-11 104-12 107-1 107-2	Description FLOATING TURBIDITY BARRIER STAKED TURBIDITY BARRIER- NYL REINF PVC LITTER REMOVAL MOWING	Quantity Unit 21.90 LF 21.90 LF 1.59 AC 1.59 AC	Unit Price \$20.00 \$22.33 \$60.00 \$75.00	<b>xtended Amount</b> \$438.00 \$489.03 \$95.40 \$119.25
<b>Pay item</b> 104-11 104-12 107-1 107-2	Description FLOATING TURBIDITY BARRIER STAKED TURBIDITY BARRIER- NYL REINF PVC LITTER REMOVAL MOWING Shoulder Component Total	Quantity Unit 21.90 LF 21.90 LF 1.59 AC 1.59 AC	Unit Price \$20.00 \$22.33 \$60.00 \$75.00	<b>xtended Amount</b> \$438.00 \$489.03 \$95.40 \$119.25 \$9,472.24

Sequence: 11 RSD -	Resurfacing, Divided	Net Length:	0.256 MI 1.352 LF
Description: SEC 5	506000 (CMP 4.519-4.775), URBAN, MR 4-12' LANES	, plus incidentals	,

### **ROADWAY COMPONENT**

User Input Data	
Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	24.00 / 24.00
Structural Spread Rate	165
Friction Course Spread Rate	138

### Pay Items

Pay item	Description	Quantity Unit	Unit Price	led Amount
327-70-15	MILLING EXIST ASPH PAVT,2 3/4" AVG DEPTH	7,208.96 SY	\$2.75	\$19,824.64
334-1-53	SUPERPAVE ASPH CONC, TRAF C, PG76-22	594.74 TN	\$140.00	\$83,263.60
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	497.42 TN	\$160.00	\$79,587.20

# **Pavement Marking Subcomponent**

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

### Pay Items

Pay item	Description	Quantity Unit	Unit Price Ex	tended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	104.00 EA	\$6.38	\$663.52
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	2.05 GM	\$976.73	\$2,002.30
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	1.02 GM	\$509.07	\$519.25
	Roadway Component Total			\$185,860.51

### SHOULDER COMPONENT

### User Input Data

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	Т
Rumble Strips ï, ½No. of Sides	0

### **Erosion Control**

Pay Items				
Pay item	Description	Quantity Unit	Unit Price E	xtended Amount
104-11	FLOATING TURBIDITY BARRIER	25.60 LF	\$20.00	\$512.00
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	25.60 LF	\$22.33	\$571.65
107-1	LITTER REMOVAL	1.86 AC	\$60.00	\$111.60
107-2	MOWING	1.86 AC	\$75.00	\$139.50
	Shoulder Component Total			\$1,334.75
Sequence 11 T	Fotal			\$187,195.26

Sequence: 12 RSD - Resurfacing, Divided	<b>Net Length:</b> 0.80 4,2	)9 MI 72 LF
Description: SEC 5506000 (CMP 4.775-5.584), URBAN, MR	4-12' LANES, plus incidentals	

# ROADWAY COMPONENT

User Input Data	
Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	24.00 / 24.00
Structural Spread Rate	165
Friction Course Spread Rate	138

### Pay Items

Pay item	Description	Quantity Unit	Unit Price	ktended Amount
327-70-15	MILLING EXIST ASPH PAVT,2 3/4" AVG DEPTH	22,781.44 SY	\$2.75	\$62,648.96
334-1-53	SUPERPAVE ASPH CONC, TRAF C, PG76-22	1,879.47 TN	\$140.00	\$263,125.80
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	1,571.92 TN	\$160.00	\$251,507.20

# **Pavement Marking Subcomponent**

Description	Value
Include Thermo/Tape/Other	Ν
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

### Pay Items

Pay item	Description	Quantity Unit	Unit Price Ex	tended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	328.00 EA	\$6.38	\$2,092.64
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	6.47 GM	\$976.73	\$6,319.44
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	3.24 GM	\$509.07	\$1,649.39
	Roadway Component Total			\$587,343.43

### SHOULDER COMPONENT

### **User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	Т
Rumble Strips ï, ½No. of Sides	0

### **Erosion Control**

Pay Items				
Pay item	Description	Quantity Unit	Unit Price Ext	ended Amount
104-11	FLOATING TURBIDITY BARRIER	80.90 LF	\$20.00	\$1,618.00
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	80.90 LF	\$22.33	\$1,806.50
107-1	LITTER REMOVAL	5.88 AC	\$60.00	\$352.80
107-2	MOWING	5.88 AC	\$75.00	\$441.00
	Shoulder Component Total			\$4,218.30
	MEDIAN COM	PONENT		
User Input Data	1			
Description		Value		
Total Median Wi	idth	50.00		
Performance Tu	rf Width	5.34		
Total Median Sh	noulder Width L/R	8.00 / 8.00		
Paved Median S	onoulder Width L/R	0.00 / 0.00		
Eriction Course	lu Rale Spread Pate	0		
Total Width (T) /	8" Overlap (O)	U T		
Rumble Strips ï¿	g1/2No. of Sides	0		
Pay Items				
Pay item	Description	Quantity Unit	Unit Price Ext	ended Amount
570-1-2	PERFORMANCE TURF, SOD	2,534.44 SY	\$4.00	\$10,137.76
	Median Component Total			\$10,137.76
Sequence 12 T	otal			\$601,699.49

Sequence: 13 RSD - Resurfacing, Divided	Net Length:	0.567 MI 2.994 LF
Description: SEC 5506000 (CMP 5.584-6.151), URBAN, MR 4-12' LANES, plus inci	dentals	

### **ROADWAY COMPONENT**

User Input Data	
Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	24.00 / 24.00
Structural Spread Rate	165
Friction Course Spread Rate	138

### Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
327-70-15	MILLING EXIST ASPH PAVT,2 3/4" AVG DEPTH	15,966.72 SY	\$2.75	\$43,908.48
334-1-53	SUPERPAVE ASPH CONC, TRAF C, PG76-22	1,317.25 TN	\$140.00	\$184,415.00
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	1,101.70 TN	\$160.00	\$176,272.00

# **Pavement Marking Subcomponent**

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

### Pay Items

Pay item	Description	Quantity Unit	Unit Price Ex	tended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	230.00 EA	\$6.38	\$1,467.40
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	4.54 GM	\$976.73	\$4,434.35
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	2.27 GM	\$509.07	\$1,155.59
	Roadway Component Total			\$411,652.82

### SHOULDER COMPONENT

### User Input Data

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	Т
Rumble Strips ï¿1/2No. of Sides	0

### **Erosion Control**

Pay Items				
Pay item	Description	Quantity Unit	Unit Price Ex	tended Amount
104-11	FLOATING TURBIDITY BARRIER	56.70 LF	\$20.00	\$1,134.00
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	56.70 LF	\$22.33	\$1,266.11
107-1	LITTER REMOVAL	4.12 AC	\$60.00	\$247.20
107-2	MOWING	4.12 AC	\$75.00	\$309.00
	Shoulder Component Total			\$2,956.31
Sequence 13	Fotal			\$414,609.13

Net Length: 4.665 MI 24,633 LF

Description: Turn Lanes

**ROADWAY COMPONENT** 

User Input Data	
Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	12.00 / 0.00
Structural Spread Rate	165
Friction Course Spread Rate	138

### Pay Items

Pay item	Description	Quantity Unit	Unit Price	tended Amount
327-70-15	MILLING EXIST ASPH PAVT,2 3/4" AVG DEPTH	32,843.71 SY	\$2.75	\$90,320.20
334-1-53	SUPERPAVE ASPH CONC, TRAF C, PG76-22	2,709.61 TN	\$140.00	\$379,345.40
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	2,266.22 TN	\$160.00	\$362,595.20

# Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	0

### Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	18.66 GM	\$976.73	\$18,225.78

# **Roadway Component Total**

\$850,486.58

### SHOULDER COMPONENT

User Input Data	3			
Description		Value		
Total Outside S	houlder Width L/R	10.00 / 10.00		
Total Outside S	houlder Perf. Turf Width L/R	0.00 / 0.00		
Paved Outside	Shoulder Width L/R	0.00 / 0.00		
Structural Sprea	ad Rate	110		
Friction Course	Spread Rate	80		
Total Width (T) / 8" Overlap (O)		Т		
Rumble Strips ï	¿1∕₂No. of Sides	0		
Erosion Contro Pay Items	51			
Pay item	Description	Quantity Unit	Unit Price Exte	ended Amount
104-11	FLOATING TURBIDITY BARRIER	466.53 LF	\$20.00	\$9,330.60

Saguanaa				¢072 446 94
Shoulder Component Total \$2				
107-2	MOWING	11.29 AC	\$75.00	\$846.75
107-1	LITTER REMOVAL	11.29 AC	\$60.00	\$677.40
104-18	INLET PROTECTION SYSTEM	10.00 EA	\$138.79	\$1,387.90
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	466.53 LF	\$22.33	\$10,417.61

Sequence: 15 RSU - Resultacing, Undivided	uence: 15 RSI	- Resurfacing,	Undivided
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Net Length: 0.979 MI 5,169 LF

Description: Right Turns with keyholes

RUVUAN	COMPONENT
NOADIIAI	

User Input Data	
Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	0.00 / 17.00
Structural Spread Rate	165
Friction Course Spread Rate	138

### Pay Items

Pay item	Description	Quantity Unit	Unit Price	ktended Amount
327-70-15	MILLING EXIST ASPH PAVT,2 3/4" AVG DEPTH	9,762.90 SY	\$2.75	\$26,847.98
334-1-53	SUPERPAVE ASPH CONC, TRAF C, PG76-22	805.44 TN	\$140.00	\$112,761.60
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	673.64 TN	\$160.00	\$107,782.40

# **Pavement Marking Subcomponent**

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	0

### Pay Items

Pay item	Description	Quantity Unit	Unit Price Ex	tended Amount
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	3.92 GM	\$976.73	\$3,828.78

# **Roadway Component Total**

# SHOULDER COMPONENT

User Input Data				
Description		Value		
Total Outside She	oulder Width L/R	10.00 / 10.00		
Total Outside She	oulder Perf. Turf Width L/R	0.00 / 0.00		
Paved Outside S	houlder Width L/R	0.00 / 0.00		
Structural Spread	l Rate	110		
Friction Course Spread Rate		80		
Total Width (T) / 8" Overlap (O)		Т		
Rumble Strips �No. of Sides		0		
Erosion Control Pay Items				
Pay item	Description	Quantity Unit	Unit Price Ext	ended Amount
104-11	FLOATING TURBIDITY BARRIER	97.89 LF	\$20.00	\$1,957.80

\$251,220.76

\$255,961.97
\$4,741.21
\$177.75
\$142.20
\$277.58
\$2,185.88

Sequence: 16 MIS - Miscellaneous Construction			Net Length:	0.000 MI
Description: W	iden Bridge Culvert 550079			
	DRAINAGE CO	MPONENT		
Pay Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
430-572-100	STRAIGHT CONC ENDW 72", SINGLE, 0 ROUND	1.00 EA	\$22,000.00	\$22,000.00
X-Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
430-175-172	PIPE CULV, OPT MATL, ROUND, 72"S/CD	24.00 LF	\$525.00	\$12,600.00
Box Culvert 1				
Description		Value		
Size		Dbl. 10 x 8		
Length		20.00		
munupiler		2		
Pay Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-4-1	CONC CLASS IV, CULVERTS	139.20 CY	\$1,250.00	\$174,000.00
415-1-1	REINF STEEL- ROADWAY	17,788.00 LB	\$1.28	\$22,768.64
	Drainage Component Total			\$231,368.64
Sequence 16 Te	otal			\$231,368.64

# FDOT Long Range Estimating System - Production R3: Project Details by Sequence Report

Project: 426937-3	Project: 426937-3-52-01 Letting Date: 02/2024				
Description: SR	10 (US 90) W TENNESSEE ST FF	ROM CR 1581 AENO	ON CHURCH RD	TO OCALA RD	
District: 03 Contract Class:	County: 55 LEON 7 Lump Sum Project: N	Market Area: 03 Design/Build: N	Units: English Project Length:	3.951 MI	
Project Manager	: SAM WEEDE				
Version 2-P Proje Description: SR 6 6ML	ect Grand Total 10 (US 90) W TENNESSEE ST FR 1	OM CR 1581 AENO	N CHURCH RD 1	<b>\$7,980,524.04</b> TO OCALA RD. 21	
Resurfacing Lan	e Mile Cost			\$372,052.40	
Project Sequenc	es Subtotal			\$5,678,411.04	
102-1 N	Naintenance of Traffic	10.00 9	%	\$567,841.10	
101-1 N	lobilization	10.00 9	%	\$624,625.21	
Project Sequences Total \$6,870,877.35					
Project Unknowns	5	15.00 9	%	\$1,030,631.60	
Design/Build		0.00	%	\$0.00	
Non-Bid Components:					
Pay item [	Description	Quantity l	Jnit Unit Price	Extended Amount	
999-25 II	NITIAL CONTINGENCY AMOUNT DO NOT BID)	L	S \$79,015.09	\$79,015.09	
Project Non-Bid Subtotal \$79,015.09					
Version 2-P Proj	Version 2-P Project Grand Total \$7,980,524.04				







Date: 3/15/2021 1:01:56 PM

# FDOT Long Range Estimating System - Production R3: Project Details by Sequence Report

Project: 426961	-2-52-01			Le	etting Date: 11/2023
Description: SF	R 10 (US 90) MAHAN DR FR SR 263	(US 319) CAPITAL	CIR 1	TO E OF CR	1568
District: 03 Contract Class	County: 55 LEON : 7 Lump Sum Project: N	Market Area: 03 Design/Build: N	Units Proje	: English ect Length:	0.943 MI
Project Manage	er: SAM WEEDE				
Version 2-P Pro Description: SR 2/1	<b>ject Grand Total</b> 10 (US 90) MAHAN DR FR SR 263 0/2021 - RK	(US 319) CAPITAL (	CIR T	O E OF CR	<b>\$2,809,774.07</b> 1568 - 2021 6MU -
Sequence: 1 RS	D - Resurfacing, Divided			Net L	ength: 0.790 MI
Description: SE inc	C 55020000 (CMP 3.416-4.206), UR identals	BAN, MR 6-12' LAN	ES, 2	-3' PAVED S	4,171 LF SHOULDERS, plus
	ROADWA	COMPONENT			
User Input Data	1	_			
Description Number of Lane	S	\	alue/ 6		
Roadway Paver	nent Width L/R	36.00 / 3	36.00		
Structural Sprea	nd Rate		165		
Friction Course Spread Rate			138		
Pay Items					
Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
327-70-15	MILLING EXIST ASPH PAVT,2 3/4 AVG DEPTH	4" 33,369.60	SY	\$2.25	\$75,081.60
334-1-53	SUPERPAVE ASPH CONC, TRAF C, PG76-22	2,752.99	TN	\$120.00	\$330,358.80
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	2,302.50	TN	\$140.00	\$322,350.00
X-Items					
Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
710-90	PAINTED PAVEMENT MARKING FINAL SURFACE	S, 1.00	LS	\$25,000.00	\$25,000.00
711-14-160	THERMOPLASTIC, PREFORMED WHITE, MESSAGE	0, 22.00	EA	\$176.42	\$3,881.24
711-14-170	THERMOPLASTIC, PREFORMED WHITE, ARROW	D, 80.00	EA	\$132.71	\$10,616.80
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	3.78	GM	\$4,197.97	\$15,868.33
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	3.47	GM	\$2,053.19	\$7,124.57
711-15-201	THERMOPLASTIC, STD- OP,YELLOW, SOLID, 6"	1.89	GM	\$4,173.96	\$7,888.78

### **Turnouts/Crossovers Subcomponent**

https://fdotwp1.dot.state.fl.us/LongRangeEstimating/estimates/LREAESR04R3E.asp 3/15/2021
Description	Value
Asphalt Adjustment	3.00
Milling Code	Y
Friction Course Code	Y

Pay Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
327-70-15	MILLING EXIST ASPH PAVT,2 3/4" AVG DEPTH	1,001.09 SY	\$2.25	\$2,252.45
334-1-53	SUPERPAVE ASPH CONC, TRAF C, PG76-22	82.59 TN	\$120.00	\$9,910.80
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	69.08 TN	\$140.00	\$9,671.20

# Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Ν
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	4

# Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	533.00 EA	\$6.36	\$3,389.88
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	6.32 GM	\$976.73	\$6,172.93
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	6.32 GM	\$509.07	\$3,217.32
	Roadway Component Total			\$832,784.70

#### SHOULDER COMPONENT

# User Input Data

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	3.00 / 3.00
Structural Spread Rate	165
Friction Course Spread Rate	138
Total Width (T) / 8" Overlap (O)	Т
Rumble Strips �No. of Sides	0

# Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
327-70-15	MILLING EXIST ASPH PAVT,2 3/4" AVG DEPTH	2,780.80 SY	\$2.25	\$6,256.80
334-1-53	SUPERPAVE ASPH CONC, TRAF C, PG76-22	229.42 TN	\$120.00	\$27,530.40
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	191.88 TN	\$140.00	\$26,863.20

X-Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	350.00 SY	\$57.83	\$20,240.50
527-2	DETECTABLE WARNINGS	672.00 SF	\$30.09	\$20,220.48
Erosion Contro	I			
Pay Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-11	FLOATING TURBIDITY BARRIER	79.00 LF	\$14.00	\$1,106.00
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	79.00 LF	\$22.33	\$1,764.07
107-1	LITTER REMOVAL	5.74 AC	\$60.00	\$344.40
107-2	MOWING	5.74 AC	\$70.00	\$401.80
	Shoulder Component Total			\$104,727.65
	SIGNALIZATIONS C	OMPONENT		
Signalization 1				
Description		Value	!	
Туре		Miscellaneous	i	
Multiplier		1		
Description	signal loops			
X-Items				
<b>D</b>	<b>-</b>			Frate in the state of the second
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	Description CONDUIT, F& I, OPEN TRENCH	Quantity Unit 1,996.00 LF	<b>Unit Price</b> \$7.87	\$15,708.52
630-2-11 630-2-12	Description CONDUIT, F& I, OPEN TRENCH CONDUIT, F& I, DIRECTIONAL BORE	Quantity Unit 1,996.00 LF 4,984.00 LF	\$7.87 \$21.08	\$15,708.52 \$105,062.72
Pay item 630-2-11 630-2-12 635-2-11	Description CONDUIT, F& I, OPEN TRENCH CONDUIT, F& I, DIRECTIONAL BORE PULL & SPLICE BOX, F&I, 13" x 24"	Quantity Unit 1,996.00 LF 4,984.00 LF 30.00 EA	\$7.87 \$21.08 \$765.96	\$15,708.52 \$105,062.72 \$22,978.80
Pay item 630-2-11 630-2-12 635-2-11 635-2-12	Description CONDUIT, F& I, OPEN TRENCH CONDUIT, F& I, DIRECTIONAL BORE PULL & SPLICE BOX, F&I, 13" x 24" PULL & SPLICE BOX, F&I, 24" X 36"	Quantity Unit 1,996.00 LF 4,984.00 LF 30.00 EA 16.00 EA	\$7.87 \$21.08 \$765.96 \$1,650.00	\$15,708.52 \$105,062.72 \$22,978.80 \$26,400.00
Pay item 630-2-11 630-2-12 635-2-11 635-2-12 646-1-11	Description CONDUIT, F& I, OPEN TRENCH CONDUIT, F& I, DIRECTIONAL BORE PULL & SPLICE BOX, F&I, 13" x 24" PULL & SPLICE BOX, F&I, 24" X 36" ALUMINUM SIGNALS POLE, PEDESTAL	Quantity Unit 1,996.00 LF 4,984.00 LF 30.00 EA 16.00 EA 30.00 EA	\$7.87 \$21.08 \$765.96 \$1,650.00 \$1,467.75	\$15,708.52 \$105,062.72 \$22,978.80 \$26,400.00 \$44,032.50
Pay item   630-2-11   630-2-12   635-2-11   635-2-12   646-1-11   653-1-11	Description CONDUIT, F& I, OPEN TRENCH CONDUIT, F& I, DIRECTIONAL BORE PULL & SPLICE BOX, F&I, 13" x 24" PULL & SPLICE BOX, F&I, 24" X 36" ALUMINUM SIGNALS POLE, PEDESTAL PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	Quantity Unit 1,996.00 LF 4,984.00 LF 30.00 EA 16.00 EA 30.00 EA 30.00 AS	\$7.87 \$21.08 \$765.96 \$1,650.00 \$1,467.75 \$950.39	<b>Extended Amount</b> \$15,708.52 \$105,062.72 \$22,978.80 \$26,400.00 \$44,032.50 \$28,511.70
Pay item   630-2-11   630-2-12   635-2-11   635-2-12   646-1-11   653-1-11   660-2-101	Description CONDUIT, F& I, OPEN TRENCH CONDUIT, F& I, DIRECTIONAL BORE PULL & SPLICE BOX, F&I, 13" x 24" PULL & SPLICE BOX, F&I, 24" X 36" ALUMINUM SIGNALS POLE, PEDESTAL PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY LOOP ASSEMBLY- F&I, TYPE A	Quantity Unit 1,996.00 LF 4,984.00 LF 30.00 EA 16.00 EA 30.00 EA 30.00 AS 6.00 AS	\$7.87 \$21.08 \$765.96 \$1,650.00 \$1,467.75 \$950.39 \$1,012.43	Extended Amount \$15,708.52 \$105,062.72 \$22,978.80 \$26,400.00 \$44,032.50 \$28,511.70 \$6,074.58
Pay item   630-2-11   630-2-12   635-2-11   635-2-12   646-1-11   653-1-11   660-2-101   660-2-102	Description CONDUIT, F& I, OPEN TRENCH CONDUIT, F& I, DIRECTIONAL BORE PULL & SPLICE BOX, F&I, 13" x 24" PULL & SPLICE BOX, F&I, 24" X 36" ALUMINUM SIGNALS POLE, PEDESTAL PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY LOOP ASSEMBLY- F&I, TYPE A LOOP ASSEMBLY, F&I, TYPE B	Quantity Unit 1,996.00 LF 4,984.00 LF 30.00 EA 16.00 EA 30.00 AS 6.00 AS 46.00 AS	\$7.87 \$21.08 \$765.96 \$1,650.00 \$1,467.75 \$950.39 \$1,012.43 \$894.05	Extended Amount \$15,708.52 \$105,062.72 \$22,978.80 \$26,400.00 \$44,032.50 \$28,511.70 \$6,074.58 \$41,126.30
Pay item   630-2-11   630-2-12   635-2-11   635-2-12   646-1-11   653-1-11   660-2-101   660-2-102   660-2-106	Description CONDUIT, F& I, OPEN TRENCH CONDUIT, F& I, DIRECTIONAL BORE PULL & SPLICE BOX, F&I, 13" x 24" PULL & SPLICE BOX, F&I, 24" X 36" ALUMINUM SIGNALS POLE, PEDESTAL PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY LOOP ASSEMBLY- F&I, TYPE A LOOP ASSEMBLY, F&I, TYPE B LOOP ASSEMBLY, F&I, TYPE F	Quantity Unit 1,996.00 LF 4,984.00 LF 30.00 EA 16.00 EA 30.00 AS 6.00 AS 46.00 AS 16.00 AS	\$7.87 \$21.08 \$765.96 \$1,650.00 \$1,467.75 \$950.39 \$1,012.43 \$894.05 \$1,216.58	Extended Amount \$15,708.52 \$105,062.72 \$22,978.80 \$26,400.00 \$44,032.50 \$28,511.70 \$6,074.58 \$41,126.30 \$19,465.28
Pay item 630-2-11 630-2-12 635-2-12 646-1-11 653-1-11 660-2-101 660-2-102 660-2-106 665-1-11	Description CONDUIT, F& I, OPEN TRENCH CONDUIT, F& I, DIRECTIONAL BORE PULL & SPLICE BOX, F&I, 13" x 24" PULL & SPLICE BOX, F&I, 24" X 36" ALUMINUM SIGNALS POLE, PEDESTAL PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY LOOP ASSEMBLY- F&I, TYPE A LOOP ASSEMBLY, F&I, TYPE B LOOP ASSEMBLY, F&I, TYPE F PEDESTRIAN DETECTOR, F&I, STANDARD	Quantity Unit 1,996.00 LF 4,984.00 LF 30.00 EA 16.00 EA 30.00 AS 6.00 AS 46.00 AS 16.00 AS 16.00 AS	\$7.87 \$21.08 \$765.96 \$1,650.00 \$1,467.75 \$950.39 \$1,012.43 \$894.05 \$1,216.58 \$267.57	Extended Amount \$15,708.52 \$105,062.72 \$22,978.80 \$26,400.00 \$44,032.50 \$28,511.70 \$6,074.58 \$41,126.30 \$19,465.28 \$8,027.10
Pay item 630-2-11 630-2-12 635-2-11 635-2-12 646-1-11 653-1-11 660-2-101 660-2-102 660-2-106 665-1-11	Description CONDUIT, F& I, OPEN TRENCH CONDUIT, F& I, DIRECTIONAL BORE PULL & SPLICE BOX, F&I, 13" x 24" PULL & SPLICE BOX, F&I, 24" X 36" ALUMINUM SIGNALS POLE, PEDESTAL PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY LOOP ASSEMBLY- F&I, TYPE A LOOP ASSEMBLY, F&I, TYPE B LOOP ASSEMBLY, F&I, TYPE F PEDESTRIAN DETECTOR, F&I, STANDARD Signalizations Component Total	Quantity Unit 1,996.00 LF 4,984.00 LF 30.00 EA 16.00 EA 30.00 AS 6.00 AS 46.00 AS 16.00 AS 30.00 EA	\$7.87 \$21.08 \$765.96 \$1,650.00 \$1,467.75 \$950.39 \$1,012.43 \$894.05 \$1,216.58 \$267.57	Extended Amount \$15,708.52 \$105,062.72 \$22,978.80 \$26,400.00 \$44,032.50 \$28,511.70 \$6,074.58 \$41,126.30 \$19,465.28 \$8,027.10 \$317,387.50
Pay item 630-2-11 630-2-12 635-2-11 635-2-12 646-1-11 653-1-11 660-2-101 660-2-102 660-2-106 665-1-11	Description CONDUIT, F& I, OPEN TRENCH CONDUIT, F& I, DIRECTIONAL BORE PULL & SPLICE BOX, F&I, 13" x 24" PULL & SPLICE BOX, F&I, 24" X 36" ALUMINUM SIGNALS POLE, PEDESTAL PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY LOOP ASSEMBLY- F&I, TYPE A LOOP ASSEMBLY, F&I, TYPE B LOOP ASSEMBLY, F&I, TYPE F PEDESTRIAN DETECTOR, F&I, STANDARD Signalizations Component Total	Quantity Unit 1,996.00 LF 4,984.00 LF 30.00 EA 16.00 EA 30.00 AS 6.00 AS 46.00 AS 16.00 AS 30.00 EA	\$7.87 \$21.08 \$765.96 \$1,650.00 \$1,467.75 \$950.39 \$1,012.43 \$894.05 \$1,216.58 \$267.57	Extended Amount \$15,708.52 \$105,062.72 \$22,978.80 \$26,400.00 \$44,032.50 \$28,511.70 \$6,074.58 \$41,126.30 \$19,465.28 \$8,027.10 \$317,387.50
Pay item 630-2-11 630-2-12 635-2-12 646-1-11 653-1-11 660-2-101 660-2-102 660-2-106 665-1-11 Conventional Li	Description CONDUIT, F& I, OPEN TRENCH CONDUIT, F& I, DIRECTIONAL BORE PULL & SPLICE BOX, F&I, 13" x 24" PULL & SPLICE BOX, F&I, 24" X 36" ALUMINUM SIGNALS POLE, PEDESTAL PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY LOOP ASSEMBLY- F&I, TYPE A LOOP ASSEMBLY, F&I, TYPE B LOOP ASSEMBLY, F&I, TYPE F PEDESTRIAN DETECTOR, F&I, STANDARD Signalizations Component Total LIGHTING COMI	Quantity Unit 1,996.00 LF 4,984.00 LF 30.00 EA 16.00 EA 30.00 AS 6.00 AS 46.00 AS 16.00 AS 30.00 EA	\$7.87 \$21.08 \$765.96 \$1,650.00 \$1,467.75 \$950.39 \$1,012.43 \$894.05 \$1,216.58 \$267.57	Extended Amount \$15,708.52 \$105,062.72 \$22,978.80 \$26,400.00 \$44,032.50 \$28,511.70 \$6,074.58 \$41,126.30 \$19,465.28 \$8,027.10 \$317,387.50
Pay item   630-2-11   630-2-12   635-2-12   646-1-11   653-1-11   660-2-101   660-2-102   660-2-106   665-1-11	Description CONDUIT, F& I, OPEN TRENCH CONDUIT, F& I, DIRECTIONAL BORE PULL & SPLICE BOX, F&I, 13" x 24" PULL & SPLICE BOX, F&I, 24" X 36" ALUMINUM SIGNALS POLE, PEDESTAL PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY LOOP ASSEMBLY- F&I, TYPE A LOOP ASSEMBLY, F&I, TYPE B LOOP ASSEMBLY, F&I, TYPE F PEDESTRIAN DETECTOR, F&I, STANDARD Signalizations Component Total LIGHTING COMI	Quantity Unit 1,996.00 LF 4,984.00 LF 30.00 EA 16.00 EA 30.00 AS 6.00 AS 46.00 AS 16.00 AS 30.00 EA	Unit Price \$7.87 \$21.08 \$765.96 \$1,650.00 \$1,467.75 \$950.39 \$1,012.43 \$894.05 \$1,216.58 \$267.57	Extended Amount \$15,708.52 \$105,062.72 \$22,978.80 \$26,400.00 \$44,032.50 \$28,511.70 \$6,074.58 \$41,126.30 \$19,465.28 \$8,027.10 \$317,387.50 Value MIN

r ay nonn	Decemption	Quantity offic	Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	1,000.00 LF	\$7.87	\$7,870.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	2,500.00 LF	\$21.08	\$52,700.00

https://fdotwp1.dot.state.fl.us/LongRangeEstimating/estimates/LREAESR04R3E.asp

635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	60.00 EA	\$765.96	\$45,957.60
635-2-12	PULL & SPLICE BOX, F&I, 24" X 36"	5.00 EA	\$1,650.00	\$8,250.00
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	7,000.00 LF	\$2.25	\$15,750.00
715-4-13	LIGHT POLE COMPLETE, F&I- STD, 40'	40.00 EA	\$5,866.31	\$234,652.40
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	40.00 EA	\$604.17	\$24,166.80
	Subcomponent Total			\$389,346.80
X-Items				
Pay item	Description	Quanti	ty Unit Unit Price	Extended Amount
715-7-12	LOAD CENTER, F&I, PRIMARY VOLTAGE	5.0	00 EA \$10,701.48	\$53,507.40
	Lighting Component Total			\$442,854.20
Sequence 1 T	otal			\$1,697,754.05

#### Sequence: 2 RSD - Resurfacing, Divided

Net Length: 0.150 MI 792 LF

Description: SEC 55020000 (CMP 4.206-4.356), URBAN, MR 4-12' LANES, 2-3' PAVED SHOULDERS, plus incidentals

ROADWAY C	OMPONENT
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User Input Data	
Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	24.00 / 24.00
Structural Spread Rate	165
Friction Course Spread Rate	138

#### Pay Items

•				
Pay item	Description	Quantity Unit	Unit Price E	xtended Amount
327-70-15	MILLING EXIST ASPH PAVT,2 3/4" AVG DEPTH	4,224.00 SY	\$2.25	\$9,504.00
334-1-53	SUPERPAVE ASPH CONC, TRAF C, PG76-22	348.48 TN	\$120.00	\$41,817.60
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	291.46 TN	\$140.00	\$40,804.40

## **Pavement Marking Subcomponent**

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

#### Pay Items

Pay item	Description	Quantity Unit	Unit Price Ex	xtended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	61.00 EA	\$6.36	\$387.96
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	1.20 GM	\$976.73	\$1,172.08
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.60 GM	\$509.07	\$305.44

# Roadway Component Total

# SHOULDER COMPONENT

#### **User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	3.00 / 3.00
Structural Spread Rate	165
Friction Course Spread Rate	138
Total Width (T) / 8" Overlap (O)	Т
Rumble Strips ï¿1/2No. of Sides	0

\$93,991.48

Pay Items				
Pay item	Description	Quantity Unit	Unit Price Ex	tended Amount
327-70-15	MILLING EXIST ASPH PAVT,2 3/4" AVG DEPTH	528.00 SY	\$2.25	\$1,188.00
334-1-53	SUPERPAVE ASPH CONC, TRAF C, PG76-22	43.56 TN	\$120.00	\$5,227.20
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	36.43 TN	\$140.00	\$5,100.20
Erosion Control Pay Items				
i aj nomo				
Pay item	Description	Quantity Unit	Unit Price Ex	tended Amount
Pay item 104-11	<b>Description</b> FLOATING TURBIDITY BARRIER	Quantity Unit 15.00 LF	Unit Price \$14.00	tended Amount \$210.00
Pay item 104-11 104-12	Description FLOATING TURBIDITY BARRIER STAKED TURBIDITY BARRIER- NYL REINF PVC	Quantity Unit 15.00 LF 15.00 LF	Unit Price Ex \$14.00 \$22.33	tended Amount \$210.00 \$334.95
Pay item 104-11 104-12 107-1	Description FLOATING TURBIDITY BARRIER STAKED TURBIDITY BARRIER- NYL REINF PVC LITTER REMOVAL	<b>Quantity Unit</b> 15.00 LF 15.00 LF 1.09 AC	Unit Price \$14.00 \$22.33 \$60.00	tended Amount \$210.00 \$334.95 \$65.40
Pay item 104-11 104-12 107-1 107-2	Description FLOATING TURBIDITY BARRIER STAKED TURBIDITY BARRIER- NYL REINF PVC LITTER REMOVAL MOWING	Quantity Unit 15.00 LF 15.00 LF 1.09 AC 1.09 AC	Unit Price \$14.00 \$22.33 \$60.00 \$70.00	xtended Amount \$210.00 \$334.95 \$65.40 \$76.30
Pay item 104-11 104-12 107-1 107-2	Description FLOATING TURBIDITY BARRIER STAKED TURBIDITY BARRIER- NYL REINF PVC LITTER REMOVAL MOWING Shoulder Component Total	Quantity Unit 15.00 LF 15.00 LF 1.09 AC 1.09 AC	Unit Price \$14.00 \$22.33 \$60.00 \$70.00	ttended Amount \$210.00 \$334.95 \$65.40 \$76.30 \$12,202.05

Net Length: 0.812 MI 4,289 LF

Description: Turn Lanes

**ROADWAY COMPONENT** 

User Input Data	
Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	12.00 / 0.00
Structural Spread Rate	165
Friction Course Spread Rate	138

### Pay Items

Pay item	Description	Quantity Unit	Unit Price Ex	tended Amount
327-70-15	MILLING EXIST ASPH PAVT,2 3/4" AVG DEPTH	5,719.30 SY	\$2.25	\$12,868.42
334-1-53	SUPERPAVE ASPH CONC, TRAF C, PG76-22	471.84 TN	\$120.00	\$56,620.80
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	394.63 TN	\$140.00	\$55,248.20

# Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Ν
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	0

### Pay Items

Pay item	Description	Quantity Unit	Unit Price Ex	tended Amount
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	3.25 GM	\$976.73	\$3,174.37

# **Roadway Component Total**

# SHOULDER COMPONENT

User Input Data	a			
Description		Value		
Total Outside S	houlder Width L/R	10.00 / 10.00		
Total Outside S	houlder Perf. Turf Width L/R	0.00 / 0.00		
Paved Outside	Shoulder Width L/R	0.00 / 0.00		
Structural Sprea	ad Rate	110		
Friction Course	Spread Rate	80		
Total Width (T)	/ 8" Overlap (O)	Т		
Rumble Strips ï	¿¹∕₂No. of Sides	0		
Erosion Contro Pay Items	bl			
Pay item	Description	Quantity Unit	Unit Price Exte	ended Amount
104-11	FLOATING TURBIDITY BARRIER	81.24 LF	\$14.00	\$1,137.36

\$127,911.80

Shoulder Component Total			\$3,485.13
MOWING	1.97 AC	\$70.00	\$137.90
LITTER REMOVAL	1.97 AC	\$60.00	\$118.20
INLET PROTECTION SYSTEM	2.00 EA	\$138.79	\$277.58
STAKED TURBIDITY BARRIER- NYL REINF PVC	81.24 LF	\$22.33	\$1,814.09
	STAKED TURBIDITY BARRIER- NYL REINF PVC INLET PROTECTION SYSTEM LITTER REMOVAL MOWING Shoulder Component Total	STAKED TURBIDITY BARRIER- NYL REINF PVC81.24 LFINLET PROTECTION SYSTEM2.00 EALITTER REMOVAL1.97 ACMOWING1.97 ACShoulder Component Total1.97 AC	STAKED TURBIDITY BARRIER- NYL REINF PVC81.24 LF\$22.33INLET PROTECTION SYSTEM LITTER REMOVAL2.00 EA\$138.79LITTER REMOVAL1.97 AC\$60.00MOWING1.97 AC\$70.00Shoulder Component Total

Net Length:	0.212 MI
-	1,120 LF

Description: Right Turn with Key Hole

Sequence: 4 RSU - Resurfacing, Undivided

ROADWAY COMPONE	=NT

User Input Data	
Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	0.00 / 17.00
Structural Spread Rate	165
Friction Course Spread Rate	138

#### Pay Items

Pay item	Description	Quantity Unit	Unit Price Ex	tended Amount
327-70-15	MILLING EXIST ASPH PAVT,2 3/4" AVG DEPTH	2,116.34 SY	\$2.25	\$4,761.77
334-1-53	SUPERPAVE ASPH CONC, TRAF C, PG76-22	174.60 TN	\$120.00	\$20,952.00
337-7-82	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22	146.03 TN	\$140.00	\$20,444.20

## **Pavement Marking Subcomponent**

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	0

#### Pay Items

Pay item	Description	Quantity Unit	Unit Price Exte	ended Amount
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.85 GM	\$976.73	\$830.22

# **Roadway Component Total**

## SHOULDER COMPONENT

User Input Data	3			
Description		Value		
Total Outside S	houlder Width L/R	10.00 / 10.00		
Total Outside S	houlder Perf. Turf Width L/R	0.00 / 0.00		
Paved Outside	Shoulder Width L/R	0.00 / 0.00		
Structural Sprea	ad Rate	110		
Friction Course	Spread Rate	80		
Total Width (T)	/ 8" Overlap (O)	Т		
Rumble Strips ï	¿1∕₂No. of Sides	0		
Erosion Contro Pay Items	51			
Pay item	Description	Quantity Unit	Unit Price Exte	nded Amount
104-11	FLOATING TURBIDITY BARRIER	21.22 LF	\$14.00	\$297.08

\$46,988.19

Sequence 4 Total			\$47,964.20	
	Shoulder Component Total			\$976.01
107-2	MOWING	0.51 AC	\$70.00	\$35.70
107-1	LITTER REMOVAL	0.51 AC	\$60.00	\$30.60
104-18	INLET PROTECTION SYSTEM	1.00 EA	\$138.79	\$138.79
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	21.22 LF	\$22.33	\$473.84

Date: 3/15/2021	1:01:57 PM
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# FDOT Long Range Estimating System - Production R3: Project Details by Sequence Report

Project: 426961-2-52-01 Letting Date: 11/2023				
Description: SR 10 (US 90) MAHAN DR FR SR 263 (US 319) CAPITAL CIR TO E OF CR 1568				
District: 03 Contract Class:	County: 55 LEON 7 Lump Sum Project: N	Market Area: 03 Design/Build: N	Units: English Project Length:	: 0.943 MI
Project Manage	: SAM WEEDE			
Version 2-P Proj Description: SR 2/10	<b>ect Grand Total</b> 10 (US 90) MAHAN DR FR SR 263 //2021 - RK	(US 319) CAPITAL	CIR TO E OF CF	<b>\$2,809,774.07</b> R 1568 - 2021 6MU -
Resurfacing Lar	ne Mile Cost			\$441,788.38
Project Sequend	ces Subtotal			\$1,983,308.71
102-1	Maintenance of Traffic	10.00 %	, 0	\$198,330.87
101-1 I	Mobilization	10.00 %	, 0	\$218,163.96
Project Sequend	ces Total			\$2,399,803.54
Project Unknown	S	15.00 %	, 0	\$359,970.53
Design/Build		0.00 %	0	\$0.00
Non-Bid Compo	nents:			
Pay item I	Description	Quantity U	nit Unit Price	Extended Amount
999-25 I	NITIAL CONTINGENCY AMOUNT DO NOT BID)	L	S \$50,000.00	\$50,000.00
Project Non-Bid Subtotal \$50,000.00				
Version 2-P Proj	ect Grand Total			\$2,809,774.07