# Florida Department of Transportation

# District One Corridors Program Office

## MODIFIED PHASED DESIGN-BUILD (MPDB)

REQUEST FOR QUALIFICATIONS (RFQ)

For

# I-75 (SR 93) FROM NORTH OF GOLDEN GATE PARKWAY TO SOUTH OF CORKSCREW ROAD

Financial Project Number: 452544-1-52-01

Contract Number: E1Y26 December 1, 2025

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## I. Additional Project Documents

#### A. Attachments

The Attachments listed below are hereby incorporated into and made a part of this Request for Qualifications (RFQ) as though fully set forth herein. These documents have been prepared for or by the Department utilizing registered professionals in their fields of practice, so the information contained therein can be construed as a sample representation of field conditions or statement of facts upon which the Design-Build Firm can rely. It is incumbent upon the Design-Build Firm to determine whether the information provided in these documents is sufficient and current enough to develop an informed Project Guaranteed Maximum Price or Guaranteed Maximum Price, or if further investigation is needed. See herein this RFQ for clarifications for the application of Attachments and Governing Regulations to this Project.

A01-Advertisement

A02-Division I Specs

A03-Division II and III Specs

A04-NEPA Documents

A05-Project Commitments

A06-ROW Maps

A07-Bridge Load Rating Reports

A08-Bridge Inspection Reports

A09-FTE Shop Drawing Process

A10-Survey Data<sup>1</sup>

A11-Typical Section Pkg<sup>1</sup>

A12-Horizontal Alignment Pkg<sup>1</sup>

A13-Pavement Design Pkg<sup>1</sup>

A14-Design Variations<sup>1</sup>

A15-Geotechnical Report<sup>1</sup>

A16-Toll Siting Tech Memo<sup>1</sup>

A17-ITS Minimum Requirements<sup>1</sup>

A18-SWZ Requirements<sup>1</sup>

### **B.** Reference Documents

The following documents are being provided with this RFQ. Except as specifically set forth in the body of this RFQ, these documents are being provided for reference and general information only. They are not being incorporated into and are not being made part of the RFQ, the Contract Documents or any other document that is connected or related to this Project except as otherwise specifically stated herein. No information contained in these documents shall be construed as a representation of any field condition or any statement of facts upon which the Design-Build Firm can rely upon in performance of this Contract. All information contained in these Reference Documents must be verified by a proper factual investigation. The Proposer agrees that by accepting copies of the documents, any and all claims for damages, time, additional compensation, or any other impacts based on the documents are expressly waived.

The Department may determine that reliance by the Design-Build Firm on certain information included in

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<sup>&</sup>lt;sup>1</sup> Attachment to be provided prior to Contract Execution

these Reference Documents is in the Department's best interest.

If before submitting its Request to Continue (RtC) submittal, a Design-Build Firm wishes to rely on a Reference Document, a written request must be made to the Department seeking approval. If the Department approves a Design-Build Firm's ability to rely on a Reference Document (thereby making it an attached document), all Design-Build Firms working on the project shall be notified.

If the Design-Build Firm wants to rely on a specific Reference Document, the Reference Document(s), or components thereof, it shall be identified in a Work Package Proposal prepared by the Design-Build Firm. Each time a Reference Document, or component thereof, that is requested by the Design-Build Firm to be relied upon, must be specifically approved by the Department and shall be documented in the associated Task Work Order.

R01-Concept Development Plans and CADD R02-Historical Geotech Info<sup>2</sup> R03-Historical Utility Info<sup>2</sup> R04-Historical Permit Info<sup>2</sup> R05-Historical As-Built Plans<sup>2</sup>

## II. Introduction

#### A. Modified Phased Design-Build Introduction

The Project will be delivered through a collaborative project delivery method that combines the Accelerated Innovation and Collaboration (AIC) Phase, the Design Phase, and the Construction Phase under one Contract. The initial selection of multiple Design-Build Firms will be based on the qualifications of the Proposers. The Department will evaluate the Proposers consistent with the criteria contained in this RFQ and select the highest scoring Proposers. Each Design-Build Firm selected will be allowed to enter into a Modified Phased Design-Build Contract for the AIC Phase services. Where this RFQ references a single Design-Build Firm, it is because each Firm will have a separate contract and the requirements of the RFQ shall be incorporated into each separate contract.

The Project will begin with an AIC Phase where multiple Design-Build Firms will be under separate contracts with the Department and asked to collaborate with the Department to provide innovations on the Project. During the AIC Phase, each Design-Build Firm will collaborate and coordinate with the Department, its representatives, and its stakeholders to progress and optimize the design in order to meet the scope and goals of the Project. During the AIC Phase, the multiple Design-Build Firms will be permitted to approach the Project differently and seek innovation approvals from the Department. Segmentation of the project will be determined at a later date. Although the Project will be segmented, there will be a single AIC Phase for the entire Project. At the end of the AIC Phase, the Design-Build Firms shall submit a Request to Continue (RtC) followed by a submission of a Project Guaranteed Maximum Price (PGMP) for the Project (the specific timing of the RtC and PGMP submittal will be defined by the Department during the AIC Phase). The Department will determine which of the contracted firms will be permitted to continue to work on the Design and Construction Phases of the Project and which Segments they may work on, based on a review of the RtC package, the PGMP submission, and how well each firm collaborated during the AIC Phase. The Department, in its sole discretion, may determine if a Design-Build Firm is to be issued a Design Phase Task Work Order and Construction Phase Task Work Orders.

Throughout the RFQ when referring to the "Project", if it is referencing Work after the AIC Phase, it is

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<sup>&</sup>lt;sup>2</sup> Reference Document to be provided prior to Contract Execution

referencing one of the Segments individually.

At the Department's request, the Design-Build Firm that is determined to move forward will progress to the Design Phase where a Design Phase Task Work Order will be issued with a Guaranteed Maximum Price (GMP) equal to or less than the Design cost listed on the PGMP. This Task Work Order will be for the Design-Build Firm to refine and finalize the design and develop four Work Package Proposals (WPPs) that include GMPs for applicable portions of the Project. These WPPs will include the Construction costs for the Work contained within the Work Package. The four WPPs will cover advanced construction work, early work, major work, and finishing work for the Project. If the Department accepts a WPP, the Design-Build Firm and the Department may execute a Task Work Order modifying the overall Contract, to perform Construction Phase services for the Work included in the WPP. It is expected that the Project will be constructed in phases through the four Work Packages aligned with the Department's work program and available funding, which is subject to change.

## **B.** Overview of the MPDB Process

The Work shall be performed by the Design-Build Firm in three phases: (a) the AIC Phase, (b) the Design Phase, and (c) the Construction Phase. Each phase may be authorized in segments or components of work upon the mutual agreement of the Department and the Design-Build Firm, as documented in an approved Task Work Order as described in the submitted and Department approved Phasing Plan. The completion of all three phases will result in the completion of the Project (including the AIC work for the Project and the Design and Construction Work for an individual Segment).

The AIC Phase shall begin upon acceptance and execution of the initial Contract and continue until the deliverables as described in the AIC Phase Section of this RFQ, including the Request to Continue (RtC), are submitted and accepted by the Department.

The Design Phase shall begin on the execution of a Task Work Order to commence the Work required by the Design Phase described herein. The Department may authorize Construction Phase services for specific areas of the Project prior to completion of the Design Phase. The Design Phase will end upon execution of the Task Work Order to begin work on the final Work Package (Finishing Work) or at another time as determined by the Department. The Design Phase will be completed via a Task Work Order with a GMP equal to or less than the Design cost listed on the PGMP submission.

The Construction Phase shall begin upon the earliest date a WPP is authorized to commence, via Task Work Order and continue until the end of the term of the Contract. Construction Phase services will be paid for on a guaranteed maximum price basis for each Work Package.

During the execution of the Contract, there will be several instances where Task Work Orders are issued to allow the Design-Build Firm to move on to the next portion of Work. No Task Work Order will be issued for this Project unless the Department has the funds encumbered to fund the Work associated with the Task Work Order. The Department, in its sole discretion, may refuse to consider issuance of new Task Work Orders on the Project during the month of June. No claims shall be permitted in relation to this election.

As part of this Contract the Design-Build Firm shall work collaboratively as a team with the Department, its representatives, and Project stakeholders to maximize the value and quality of the Project.

## C. Project Goals

Through a fully collaborative project delivery approach, the Design-Build Firm shall progress, optimize, innovate, deliver, and construct the Project consistent with the Department's goals listed below:

- 1. Develop designs and deliver phases of construction to enhance the safety and efficiency of the I-75 (S.R. 93) corridor at the earliest possible date.
- 2. Minimize impacts to the surrounding roadway network to the greatest extent practical.

- 3. Include aesthetic treatments to mitigate visual impacts and enhance the community.
- 4. Enhance safety through the use of Intelligent Transportation Systems (ITS) strategies.
- 5. Minimize disruption to FDOT's partners and the traveling public.
- 6. Collaborate and coordinate with FDOT's partners and the public.
- 7. Minimize impacts to the natural and built environments.
- 8. Ensure that all NEPA commitments in the Project Commitment Records are met.
- 9. Maintain compatibility and coordination with adjacent ongoing and future improvements.
- 10. Take advantage of newly constructed portions of constructed facilities as soon as possible when it is in the best interest of traffic operations.
- 11. No Right of Way (ROW) impacts are anticipated.
- 12. Minimize impacts to and endeavor to avoid utilities and accommodate Utility/Agency Owner's (UAO) utility relocation schedules and plans.
- 13. Work collaboratively as a team with the Department, its representatives, and Project stakeholders to maximize the value and quality of the Project.

## D. Description of Work

The Project scope, at a minimum, consists of the following:

- 1. Mill, resurface and widen I-75 (S.R. 93) from north of Golden Gate Parkway to south of Corkscrew Road.
- 2. Mill and resurface I-75 (S.R. 93) from Station 471+09.79 to Station 993+84.97 in Collier County and from Station 1022+71.82 to Station 1464+07.59 in Lee County.
- 3. Golden Gate Parkway widen Ramp C, mill and resurface Ramp D
- 4. Pine Ridge Road widen Ramp B and D, reconstruct Ramp C and mill and resurface Ramp A
- 5. Immokalee Road reconstruct Ramps A, B, C and D
- 6. Bonita Beach Road reconstruct, mill and resurface Ramps A and B, mill and resurface Ramps C and D
- 7. Corkscrew Road reconstruct, mill and resurface Ramps E and F
- 8. Construction of new retaining walls at bridges, elevated roadway locations, or cut-back locations.
- 9. Installation of new drainage systems and modifications to existing drainage infrastructure to enhance stormwater conveyance and mitigate flooding risks.
- 10. Expansion of existing ponds, construction of proposed ponds, and/or replacement of existing control structures to meet permitting requirements.
- 11. Rehabilitating, extending, and/or replacing existing cross drains.
- 12. Installation of guide signs in general conformity with the Signing Concept Plans.
- 13. Installation of new signing and pavement markings to support the lane configuration shown in the Concept Plans.
- 14. Replacing any existing signing impacted by the Design-Build Firm's work.
- 15. Installation of new roadway lighting, replacement of any existing lighting impacted by the Design-Build Firm's work, and maintenance of existing lighting levels during construction.
- 16. Maintenance of Communication for all communication networks and ITS devices within the Project Limits throughout the project's duration.
- 17. Installation of express lane ITS infrastructure for the future operations and monitoring of the I-75 (S.R. 93) Express Lanes.
- 18. Replacement of existing PTMS and TTMS sites with permanent traffic counters (vehicle speed/classification units) and loops and piezoelectric axle sensors.

- 19. Installation of new Connected Autonomous Vehicle (CAV) infrastructure per the ITS Minimum Technical Requirements included as an Attachment. Completion of construction of new fully functioning tolling sites in general conformity with the Toll Siting Technical Memorandum (452544-1). Tolling sites, ingress/egress locations are to be determined.
- 20. Development of Landscape Opportunity Plans for future installation by others.
- 21. Aesthetics Treatments as indicated in this RFQ and in general conformity with the Hardscape/Aesthetics Criteria.
- 22. Construction of noise walls as shown in the Horizontal Alignment Package included in the Attachments.
- 23. Replacement, repair, or rehabilitation of all deficiencies within the Project Limits such that maintenance work required upon Final Acceptance is limited to Routine Maintenance activities.

## III. Procurement

#### A. Schedule of Events

The following table shows the current schedule of the events that will take place in the procurement process. The Department reserves the right to make changes or alterations to the schedule. Proposers will be notified sufficiently in advance of any changes or alterations in the schedule. Unless otherwise notified in writing by the Department, the dates indicated below for submission of items or for other actions on the part of a Proposer shall constitute absolute deadlines for those activities and failure to fully comply by the date and time stated shall cause a Proposer to be held non-responsive.

Date	Event	
12/01/25	Advertisement	
12/08/25	Last day for Bid Questions and Answers (Q&A) requests, at 5:00pm.	
12/15/25	Deadline for Letters of Response expressing statements of qualifications delivered electronically to the D1.designbuild@dot.state.fl.us mailbox by 5:00 pm local time.	
12/15/25	Contracting Unit reviews Letters of Response to confirm the Proposer's prequalification, responsiveness to RFQ, Proposer's ability to self-perform in specific work classes, proof of ability to obtain the required payment and performance bond, and Proposer's ability to not exceed the Design-Build Firm's maximum capacity rating.	
12/18/25	Contracting Unit provides responsive list to Agency Head Designee	
12/18/25	Public Meeting to review and confirm responsive Proposer list, at 4:00 pm.	
12/18/25	Posting Date of List of Qualified and Responsive Design-Build Firms	
01/07/26	Interviews with Qualified and Responsive Design-Build Firms (Day 1)	
01/08/26	Interviews with Qualified and Responsive Design-Build Firms (Day 2, if needed)	
01/09/26	Technical Review Committee submit evaluation scores due to Contracting Unit.	
01/09/26	Contracting Unit provides qualification-based evaluation scores to Agency Head Designee to review and confirm scores	
01/12/26	Public Meeting Date to review and confirm evaluation scores and determine intended award (selection) of Design-Build Firm by 5:00 pm local time. Posting of Evaluation Scores and intended award will happen after the meeting.	
01/12/26	Final Selection Posting Date	
01/16/26	Notification of Award	
01/16/26	Anticipated Execution Date for the Contract	

## **B.** Threshold Requirements

## 1. Qualifications

Proposers are required to be pre-qualified in all work types required for the Project. The technical qualification requirements of Florida Administrative Code (F.A.C.) Chapter 14-75 and all qualification requirements of F.A.C. Chapter 14-22, based on the applicable category of the Project, must be satisfied.

Proposer shall be evaluated on their capacity to perform \$605,000,000 of work.

#### 2. Joint Venture Firm

Two or more Firms submitting as a Joint Venture must meet the Joint Venture requirements of Section 14-22.007, F.A.C. Parties to a Joint Venture must submit a Declaration of Joint Venture and Power of Attorney Form No. 375-020-18, prior to the deadline for receipt of Letters of Response.

If the Proposer is a Joint Venture, the individual empowered by a properly executed Declaration of Joint Venture and Power of Attorney Form shall execute the Proposal. The Proposal shall clearly identify who will be responsible for the engineering, quality control, and geotechnical and construction portions of the Work. The Joint Venture shall provide an Affirmative Action Plan specifically for the Joint Venture.

## 3. Protest Rights

Any person who is adversely affected by the specifications contained in this RFQ must file a notice of intent (NOI) to protest in writing within seventy-two hours of the posting of this RFQ. Pursuant to Section 120.57(3) and Rule Chapter 28-110, F.A.C., any person adversely affected by the agency decision or intended decision shall file with the agency both a notice of protest in writing and bond within 72 hours after the posting of the notice of decision or intended decision, or posting of the solicitation with respect to a protest of the terms, conditions, and specifications contained in a solicitation and will file a formal written protest within 10 days after the filing of the notice of protest. The formal written protest shall be filed within 10 days after the date of the notice of protest if filed. The person filing the Protest must send the NOI and the formal written protest to:

Clerk of Agency Proceedings Department of Transportation 605 Suwannee Street, MS 58 Tallahassee, Florida 32399-0458

Failure to file a notice of protest or formal written protest within the time prescribed in section 120.57(3), Florida Statutes, or failure to post the bond or other security required by law within the time allowed for filing a bond shall constitute a waiver of proceedings under Chapter 120 Florida Statutes.

## 4. Non-Responsive Letters of Response

Letter of Response submittals to this RFQ ("Responses") found to be non-responsive shall not be considered. Responses may be rejected if found to be in nonconformance with the requirements and instructions herein contained. A Response may be found to be non-responsive by reasons, including, but not limited to, failure to utilize or complete prescribed forms, conditional responses, incomplete responses, indefinite or ambiguous responses, failure to meet deadlines, responses materially inconsistent with the Phased Design Build approach outlined in this RFQ, and improper and/or undated signatures.

Other conditions which may cause rejection of responses include evidence of collusion among Proposers, obvious lack of experience or expertise to perform the required work, submission of more than one response for the same work from an individual, firm, joint venture, or corporation under the same or a different name (also included for Design-Build Projects are those responses wherein the same Engineer is identified in more than one response), failure to perform or meet financial obligations on previous contracts, employment of unauthorized aliens in violation of Section 274A (e) of the Immigration and Nationalization

Act, or in the event an individual, firm, partnership, or corporation is on the United States Department of Labor's System for Award Management (SAM) excluded parties list.

Letters of Response shall not include, and the Department will not give consideration to tentative or qualified commitments in the responses. For example, the Department will not give consideration to phrases as "we may" or "we are considering" in the evaluation process for the reason that they do not indicate a firm commitment.

Responses will also be rejected if not delivered or received on or before the date and time specified as the due date for submission.

## 5. Waiver of Irregularities

The Department, in its sole discretion, shall have the right to waive minor informalities or irregularities in Letters of Response received where such is merely a matter of form and not substance, and the correction or waiver of which is not prejudicial to other Proposers. Minor irregularities are defined as those that will not have an adverse effect on the Department's interest by giving a Proposer an advantage or benefit not enjoyed by other Proposers.

- 1. Any design exhibits that are part of a Letter of Response shall be deemed preliminary only.
- 2. The Proposer who is selected for the Project will be required to fully comply with the Design and Construction Criteria, notwithstanding that the Letter of Response may have been based on a variation from the Design and Construction Criteria.
- 3. The Proposer shall obtain any necessary permits or permit modifications not already provided by the Department.

## 6. Department's Responsibilities

This RFQ does not commit the Department to undertake studies, respond to the Proposers, nor to procure or contract for any articles, materials, or services.

## C. Letter of Response Requirements

Each Proposer desiring to be considered for this Project is required to submit a Letter of Response demonstrating their qualifications and approach to perform the required scope of work, responsibilities, requirements, and approach to deliver the Project. The Letter of Response shall include sufficient information to enable the Department to evaluate the capability of the Proposer to provide the desired services.

## 1. Submittal Requirements

A Letter of Response will not be accepted by the Department after the due date and time listed on the advertisement in this RFO.

The Letter of Response shall be submitted electronically in PDF format with the information, paper size and page limitation requirements as listed. The Letter of Response shall consist of three Sections. Each section shall be submitted as individual PDFs. The Letter of Response shall be evaluated in its totality.

No macros will be allowed. The minimum font size shall be 10 points, with the exception of graphics where the minimum font size shall be 8 points. A bold, italicized, or underlined font may be used provided it complies with the aforementioned requirements for font type and size.

Submit the Letter of Response (LOR) package electronically in PDF format:

#### Email LOR Package to: D1.DesignBuild@dot.state.fl.us

The total combined file size of the three PDFs for Sections 1, 2, and 3, shall not exceed 20MB. The name of each file shall be in the following format: *E1Y26-"NAMEofDesign-Build Firm"*- **LORSection** "(1,2)"

or3)" Example: [E1Y26-AcmeConstruction-LORSection1].

General requirements for Section 1 are:

- Page size: 8½" x 11".
- The maximum number of pages for Section 1 shall be five (5), single-sided, typed pages including text, graphics, tables, charts, and photographs.
- Section 1 shall be submitted as a single PDF document.

## General requirements for Section 2 are:

- A single 11"x17" organizational chart is allowed to be submitted. For the organizational chart the font size shall be no smaller than 8 points.
- Resumes for key personnel shall be limited to 2 pages per resume (8 ½" x 11"). Resumes for the key personnel listed in Section IV.C are required. Additional resumes for other key personnel are allowed. No more than fifteen (15) total resumes are permitted to be submitted.
- Section 2 shall be submitted as a single PDF document.

## General requirements for Section 3 are:

• The Design-Build Firm shall provide an affidavit from a surety/bonding company that certifies the Design-Build Firm has the financial means and capacity to provide the Department with a payment and performance bond for the face amount of \$605,000,000 for the Project. (An executed bond shall be provided upon Contract execution for \$3,300,000 on the form provided by the Department. Section 3 shall be submitted as a single PDF document

#### Criteria of the LOR that shall serve as a basis of the evaluation:

- Qualifications and Similar Experience
  - Describe the qualifications and organization of the Proposer including teaming arrangements, structure, key leadership personnel, discipline leads, staff, roles/responsibilities, and location. Identify field staff and office staff on comparable scope of work and delivery method.
  - O Describe Proposer's similar experience in accelerated projects with limited durations and large complex urban highway and bridge interchange reconstruction projects. Describe experience with large scale alternative delivery projects or programs that are similar in size and scope. Include and describe examples of similar work/projects, status of work, and references.
- Organization and Resource Approach
  - Provide evidence of the Proposer's capacity and ability to self-perform a minimum of 30% of the Project. Describe approach to self-performed work and subcontracting.
  - O Describe the level of commitment made by the members of the Proposer's team and the team members ability to make this Project their only or highest priority.
  - O Describe the Proposer's ability to increase the size of their workforce, either through planned hires or relocation of existing personnel.
- Workforce Development Initiatives
  - O Describe the Proposer's approach to support workforce development and inform job seekers of employment opportunities.
  - o Describe the Proposer's innovative ideas concerning workforce development.
  - o Describe the Proposer's approach to engage and encourage participation of subcontractors,

- suppliers, and other industry partners including SBE, WBE, and MBE firms during all phases of the Project.
- Describe the Proposer's approach to recruitment and training of entry level staff, and furtherance of training of existing staff, and advancement of staff into positions of increased responsibility.

## • Safety Approach

 Describe the Proposer's general approach to improving safety for the traveling public and field staff on all work, especially accelerated work. Report the Proposer's safety history pertaining to fatalities, TRIR, DART, and EMR.

## • Collaboration and Innovation Approach

- O Describe the Proposer's approach to develop a culture of collaboration with the Department, its representatives, Project stakeholders, and its own team including subcontractors and trades during all phases of the Project. The collaboration approach should address Project communications; understanding of, and outreach approach for stakeholder needs; progressing the design; developing and negotiating Work Package Proposals and GMPs; issue escalation; and construction.
- O Describe the Proposer's approach to developing, evaluating, and presenting innovations that improve the Project. Include relevant examples from projects listed in the Qualifications sections. This should be limited to a discussion about approach to innovation or examples from other projects; potential innovations specific to this Project should not be included and will be given no consideration.

## • Risk Management and Project Controls Approach

- O Describe the Proposer's approach to cost control, transparency, schedule management, budget management, construction phasing, design quality management, and construction quality management during all phases of the Project.
- O Describe the Proposer's understanding of the key project risks and approach to identifying, monitoring, mitigating, and managing risks during all phases of the Project, including the use of contingency, risk sharing, and shared savings.

## 2. Responsiveness Check

The Department will validate that the Proposer has submitted a responsive LOR. The Letter must comply with all of the requirements of the RFQ, include Section 1, Section 2, and Section 3 in the proper form, and be prequalified in all required areas of work. In addition, the Department will use its standard processes to determine whether the Proposer has sufficient capacity to perform \$605,000,000 of work. The Department will post the responsiveness decision as required by this RFQ.

#### 3. Interview Format

The Department will conduct Interviews with each qualified and responsive Proposer. The Interview duration will be 1.5 hours long. The beginning shall consist of an introduction by the Proposer, no more than 15-minutes, with the remaining time focused on an interview (questions provided at *Qualified and Responsive Firms Posting*). The Department reserves the right to ask other questions of the Proposer in addition to those provided. The Proposer is not permitted to ask questions of the Department during this period. No presentation materials or handouts will be permitted to be shown or provided during the Interview. The Department will have a copy of the Proposer's submittal available for reference during the Interview.

The Proposer is permitted to have no more than fifteen (15) persons in attendance. The specific Key Personnel listed in this RFQ are highly encouraged to attend in person. There will be no virtual component to the Interview.

#### 4. Evaluation Criteria

The Department shall conduct an evaluation of the Letter of Response and the Interview. An overall score for each Proposer will be made by each TRC member based on the following criteria:

Item	Value
Qualifications and Similar Experience	25
Organization and Resource Approach	20
Workforce Development Initiatives	5
Safety Approach	20
Collaboration and Innovation Approach	20
Risk Management and Project Controls Approach	10
Maximum Score	100

#### 5. Final Selection Formula

The total score of each TRC member shall be summed with all of the other TRC member scores resulting in a number ranging from 0 to 300.

The Department reserves the right to consider any response as non-responsive if any part of the Letter of Response does not meet the criteria established in this RFQ.

#### 6. Final Selection Process

After the evaluation scores are received from the Technical Review Committee, the Department's contracting unit will open the scores and provide them to the Agency Head Designee to review. The scores provided to the Agency Head Designee shall be the scores from each Technical Review Committee member and a form showing the summed scores for each Proposer. At least five days after the scores have been received by the Agency Head Designee, a public meeting will be held to review the evaluation of the Technical Review Committee of each Proposer and for the Agency Head Designee to make a final determination of the three highest scores which shall determine the intended selection of the Proposers. The Agency Head Designee has the right to correct any errors in the evaluation and selection process that may have been made.

After the Agency Head Designee determines that the Technical Review Committee's scores are correct, the Agency Head Designee shall hold that any Proposer that scored less than 240 is not eligible to be awarded a contract.

The Department is not obligated to award the Contract and the Agency Head Designee may decide to reject all responses. If the Agency Head Designee decides not to reject all responses, Contracts will be awarded to the Proposers determined by the Agency Head Designee to have the three highest scores. In the event of a tie, between two or more firms, the Agency Head Designee may award to any of the tied firms or may take any other action deemed appropriate for the procurement in the Agency Head Designee's sole discretion.

The Department will enter into a Contract with the three highest scoring Proposers for the services, obligations, basis of payment, and performance of work described in this RFQ. The Department, at its sole discretion, shall have the right to enter into a Contract with the fourth highest scoring Proposer if the any higher scoring Proposer does not enter into a Contract with the Department. The Department may continue

this process, with each subsequently highest scoring Proposer, if an agreement with the previous Proposer is not achieved. The Department may also elect not to continue the process and cancel this procurement, without hindering any future ability to initiate a new procurement for the same Work, at its sole discretion.

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## IV. Key Provisions

Capitalized terms not defined in this Request for Qualifications (RFQ) utilize the definitions found in the Florida Department of Transportation Division I Design-Build Specifications. Unless otherwise noted, "days" shall refer to calendar days throughout this RFQ, and "workdays" shall mean calendar days, excluding Saturdays, Sundays, and FDOT recognized Holidays.

#### A. Definitions

Terms contained in this RFQ shall have the meanings set forth in the RFQ. If a word is not defined in the RFQ or a definition is not modified in this RFQ, it shall have the meaning as set forth in the Attachments (specifically the Division I Design-Build Specifications). The following terms, when used in the RFQ, have the meaning described below:

AIC Phase. The portion of time, services, and work prior to the authorization of the Design Phase that includes collaboration with the Department, its representatives, and its stakeholders to progress, refine, and optimize the design and to plan, schedule, and develop costs for construction of the Project. The AIC Phase includes the preparation of preliminary design plans, risk register, schedules, Phasing Plan, PGMP, and other submittals as required by the Contract Documents. This work will begin with initial contract execution.

AIC Phase Multiplier. Multiplier applied to direct hourly rates for the Contractor Project Management staff during the AIC Phase to compensate the Design-Build Firm for its labor burden, such as insurance, taxes, employee benefits, and all expenses that relate directly to employees. All expenses that relate to employees of the Design-Build Firm during the AIC Phase are included in this multiplier and may include but not be limited to personal vehicle expenses, personal equipment such computer/phone/tablet, employee per-diem, home office overhead, and profit.

**Construction Phase.** The portion of the Project in which Work Packages are delivered through Task Work Orders that authorize Construction Work according to the Contract Documents.

**Construction Sub-Package** (CSP). A portion of work contained within a Work Package to be performed by a single entity, either the Design-Build Firm or a subcontractor.

**Construction Work.** All labor, materials, equipment, incidentals, and services required to complete the requirements of the Contract Documents and scope of work described within a Work Package. Construction Work does not include final design or post-design services.

Contract Documents. Includes Advertisement, all Terms and Conditions negotiated for the Contract, the Request for Qualifications, the Design Build Firm's Letter of Response, Certification as to Publication and Notice of Advertisement for Proposal, Appointment of Agent by Nonresident Contractors, Noncollusion Affidavit, Warranty Concerning Solicitation of the Contract by Others, Resolution of Award of Contract, Executed Form of Contract, Performance Bond and Payment Bond, Design Liability Insurance, Specifications, Plans (including revisions thereto issued during construction), Standard Plans, Addenda, written statements or transcripts or minutes of oral representation by the Design-Build Firm made at oral presentations, or other information mailed or otherwise transmitted to the prospective Proposers prior to

the receipt of Letters of Response, and Task Work Orders, supplemental agreements, and Work Packages, all of which are to be treated as one instrument whether or not set forth at length in the form of contract. As used in Section 2 of the Design-Build Specifications only, "Contract Documents" does not include Resolution of Award of Contract, Executed Form of Contract, and Performance and Payment Bond.

Contractor's Design Mark-up. Management fee that may be applied (at the Design-Build Firm's discretion) to compensate the Design-Build Firm for all oversight, profit, and home office overhead costs, and applied as a percentage to the AIC Phase of the work. The Contractor's Design Mark-up is only applicable to the AIC phase, and not applicable to other phases of work. Under no circumstances will applying the Contractor's Design Mark-up all Design-Build Firm to exceed the limiting amount of the AIC Phase.

Contractor Project Management. The Design-Build Firm's contractor project management staff engaging in all Planning and Design Phase activities, and ultimately construction management in the Construction Phase. Contractor Project Management staff involvement during the AIC Phase will be included in the AIC Phase services fee. Contractor Project Management staff involvement on the Project during the Design and Construction Phases will be negotiated and invoiced under a separate Construction Project Management Task Work Order spanning the Contract duration rather than dispersed over multiple Design Phase and Work Package Task Work Orders.

**Design Multiplier.** Multiplier applied to certified actual hourly rates of the Designer calculated as follows:

[(100% plus Designer's current approved Home Audited Overhead Rate Percentage) multiplied by 1.12]

If the approved Home Audit Overhead Rate Percentage is above 200%, it is considered 200% for this calculation.

This is to compensate the Design-Build Firm for their labor burden, such as insurance, taxes, employee benefits, and all expenses that relate directly to a Designer employee. Overall expenses that relate directly to a Designer employee may include but not be limited to personal vehicle expenses, personal equipment such computer/phone/tablet, employee per-diem, home office overhead, and profit. The Design-Build Firm will have the ability to charge project specific expenses to the Design expense line of during the Design Phase. Any expense that exceeds the expense line is assumed to be covered by the Design Multiplier.

**Design Phase.** The portion of time, services, and work after the AIC Phase that includes collaboration with the Department, its representatives, and its stakeholders to progress, refine, and optimize the design and to plan, schedule, and develop costs for construction of the Project in accordance with the Phasing Plan. The Design Phase includes the preparation of design plans, specifications, schedules, GMPs and the development of Work Package Proposals. This work will be directed through Task Work Orders for Design services.

Guaranteed Maximum Price (GMP). A fixed maximum price for the work included in a WPP to complete the requirements and responsibilities of the Work Package including all costs for self-performed work, mobilization and setup, general account/overhead, labor, materials, equipment, maintenance, office, administration, safety, salaries, expenses, permits, insurance, licenses, bonds, fees, risks, indirect costs and incidentals, engineering, and subcontractor work. A GMP shall also be provided for the Design Phase at the level of detail specified by the Department. The GMP may not be exceeded, although requests for compensation from the Risk Reserve shall not be considered when determining whether the GMP has been exceeded.

**Management Multiplier.** Multiplier applied to direct hourly rates for the Contractor Project Management staff to compensate the Design-Build Firm for their labor burden, such as insurance, taxes, employee benefits, and all expenses that relate directly to a Contractor Project Management employee. Expenses that

relate directly to a Contractor Project Management employee may include but not be limited to personal vehicle expenses, personal equipment such computer/phone/tablet, employee per-diem, home office overhead, and profit.

**Modified Phased Design-Build (MPDB).** As authorized by Section 337.11(7), F.S., a Design-Build delivery method that allows the Department to combine the design and construction phases of a fully funded project in the work program into a single contract in which the Design-Build Firm is selected based on qualifications in the early stages of a project then collaborates with the owner to develop the design as part of a step-by-step progression. The Design-Build Firm competitively bids construction trade subcontractor packages and negotiates with the owner a GMP that meets the project budget and scope as defined in the AIC Phase by the Design-Build Firm. A Phased Design-Build project includes the AIC Phase, the Design Phase(s), and the Construction Phase(s).

**Modified Phased Design-Build Mark-up (Mark-up).** Management fee (Construction Management and G&A Fee or CMGA Fee) to compensate the Design-Build Firm for all profit and home office overhead costs, which is applied as a percentage to the direct costs associated with each Work Package. The Mark-up shall not be applied to AIC Phase work and Design Phase, Contractor Project Management, and DRB Task Work Orders.

**Phasing Plan.** A document demonstrating an overall plan, strategy, and timeline for developing plans and constructing the Project in divided components of work, in accordance with available funding, with critical activities identified for review and authorization of work.

**Project Guaranteed Maximum Price (PGMP).** A fixed maximum price for the entirety of the Work included for the Project for all Work after the AIC Phase. If the PGMP is resubmitted and accepted due to Innovation inclusions at the request of the Department, for all purposes this resubmitted amount shall be considered the PGMP. This price serves as the maximum amount the Department is obligated to compensate the Design-Build Firm for the Project after the AIC Phase, and shall include all costs and risks associated with the Work. This price does not obligate the Department to compensate the Design-Build Firm for this amount, instead it sets the maximum amount the sum of all Task Work Orders on the Project cannot exceed. Excluding Force Majeure claims, no claim of any kind can be made for compensation greater than the amount of the PGMP. The PGMP value shall include all mark-ups referenced in the RFQ (no mark-up shall allow an increase to the PGMP).

**Proposer.** An individual, firm, corporation, company, or joint venture submitting a Letter of Response stating their qualifications to perform the Work.

**Request for Qualifications (RFQ).** This package and document, its associated Attachments, and forms provided to the engineering and contracting industry that defines the scope of work, the procurement process, and the responsibilities of the Design-Build Firm and establishes the foundation for the Contract between the Design-Build Firm and the Department.

Request to Continue (RtC) Package Submission. The package submitted by the Design-Build Firm requesting that the Department issue additional Task Work Orders on the Project.

**Risk Register.** A document prepared by the Design-Build Firm during the AIC Phase identifying project risks, probabilities, risk mitigation strategies, cost impacts, schedule impacts, and ownership of the risk.

**Risk Reserve.** The aggregate amount of funding made part of the PGMP for identified and accepted project risks. The Risk Reserve shall be the only method for additional compensation that can exceed a specific Work Package's GMP.

**Task Work Order.** Letter or work order issued by the Department authorizing the Design-Build Firm to commence work on a specific task or Work Package in accordance with the Contract.

Work Package. A segment or component(s) of the Project with a specific scope of work, requirements, obligations, and responsibilities that can be documented with preliminary or final construction Contract

#### Documents.

Work Package Proposal (WPP). The complete proposal prepared by the Design-Build Firm and presented to the Department for the completion of a Work Package, comprised of technical and price proposals, including plans, specifications, special provisions, schedule, GMP, etc., that has been collaboratively developed and mutually agreed to, or pending mutual agreement subject to continued negotiations, by the Department and Design-Build Firm during the Design Phase or related to changes during the Construction Phase. The number of WPPs shall be limited to four and shall be in alignment with the Phasing Plan developed in the AIC Phase. The four WPPs shall encompass (1) Advanced Construction Works (2) Early Works, (3) Major Works, and (4) Finishing Works.

- The approximate value of the Advanced Construction Works WPP and the Early Works WPP combined shall be approximately 25% of the construction value of the PGMP.
- The approximate value of the Major Works WPP shall be approximately 50% of the construction value of the PGMP.
- The approximate value of the Finishing Works WPP shall be approximately 25% of the construction value of the PGMP.

The percentages above are approximations and may vary.

## B. Clarifications of Attachments and Governing Regulations for MPDB

Attachments and Governing Regulations referenced herein that are published by the Department may reference terminology that is not directly applicable to the MPDB delivery method. The following terms are being clarified for interpretation and application of Attachments and Governing Regulations. The following definitions shall have priority over definitions found in other Attachments to this RFQ. In no case, however, shall the Design-Build Firm be relieved of its duty to design and construct the Project in accordance with the Governing Regulations and the Design and Construction Criteria contained herein without approval by the Department and documentation of the approved deviation in a Task Work Order. Deviations from the Governing Regulations and the Design and Construction Criteria contained herein may include but are not limited to a Design Exception, Design Variation or other modification of these requirements through written approval by the Department. If a provision contained in the Attachments and Governing Regulations is claimed to be ambiguous or unclear as to its applicability to the Project, the Department shall have the right to determine in its sole discretion how such ambiguity is resolved.

**Bid Proposal.** Refers to the GMP related to a unique Work Package.

**Design-Build Firm.** The individual, firm, corporation, company, or joint venture contracting with the Department to perform services and work to deliver this Project using the PDB delivery approach with the Department for the AIC Phase, Design Phases and the Construction Phases. The word "Contractor" is also deemed to include the Design-Build Firm contracting with the Department for performance of Work, including all engineering services, construction, and furnishing of materials. If the Design-Build Firm is made up of multiple firms, either through a joint venture or other mechanism to act as one entity, when the Contract Documents preclude the Design-Build Firm from taking an action, it also would preclude the members of a joint venture from taking the same action in an individual capacity. Members of the Design-Build Firm may not act as individual separate entities in order to accomplish something that the Design-Build Firm is not permitted to do.

**Proposal.** Refers to the complete WPP prepared by the Design-Build Firm and presented to the Department for the completion of a Work Package, comprised of technical and price proposals, including plans, specifications, special provisions, schedule, GMP, etc., that has been collaboratively developed and mutually agreed to, or pending mutual agreement subject to continued negotiations, by the Department and Design-Build Firm during the Design Phase or related to changes during the Construction Phase.

**Request for Proposal.** Refers to this RFQ including all Attachments. It does not include the reference documents.

**Technical Proposal.** Refers to the scope of improvements, inclusive of plans, specifications, and special provisions, for a Work Package collaboratively developed and mutually agreed-to by the parties through a Task Work Order.

## 1. Requirements for Work and Governing Order of Documents

If the Department issues a Department-wide or District-wide change to ongoing projects via mechanisms including but not limited to, District Construction Engineer memoranda and modifications to Specifications, such changes will apply to this Project at the sole discretion of the Department. For changes that require no cost to be incurred by the Design-Build Firm, no adjustment to the PGMP or GMP shall be made. If the implementation of the Department-wide change requires additional cost and the Department decides to implement the change on this Contract, the Department shall increase one or more Work Package GMPs to cover such costs, and adjust the PGMP accordingly.

All Terms and Conditions negotiated for the Contract, the RFQ, the Design-Build Specifications, the Plans, Special Provisions, and all supplementary documents are integral parts of the Contract; a requirement occurring in one is as binding as though occurring in all. In addition to the work and materials specifically called for in the Contract Documents and any additional incidental work, not specifically mentioned, when so shown in the Plans, or if indicated, or obvious and apparent, as being necessary for the proper completion of the Work is assumed to be included in the associated GMP.

In cases of discrepancy, the governing order of the documents is as follows:

- 1. Approved Innovations that are made part of the RtC Package
- 2. Request for Qualifications
- 3. Special Provisions
- 4. Technical Special Provisions
- 5. Plans
- 6. Standard Plans
- 7. Developmental Specifications
- 8. Supplemental Specifications
- 9. Design-Build Specifications

Computed dimensions govern over scaled dimensions.

## 2. Governing Regulations

The services performed by the Design-Build Firm in the AIC, Design, and Construction Phases shall be in compliance with all applicable Specifications, Manuals and Guidelines including the Department, FHWA, AASHTO, and additional requirements specified in this document. Except to the extent inconsistent with the specific provisions in this document, the current edition, including updates, of the following Specifications, Manuals and Guidelines shall be used in the performance of this work. Current edition is defined as the edition in place and adopted by the Department at the date of advertisement of this contract. The Design-Build Firm shall use the 11<sup>th</sup> Edition of the MUTCD. It shall be the Design-Build Firm's responsibility to acquire and utilize the necessary specifications, manuals and guidelines that apply to the work required to complete this Project. The Department may, in its sole discretion, allow or require the use of more current versions of any of these governing regulations on any Task Work Order entered into on this

Project. The decision to use a more current version of a governing regulation shall be documented in the Task Work Order with specifics as to what governing regulation applies. The services will include preparation of all documents necessary to complete the Project as described in Section I of this document.

- 1. Florida Department of Transportation Design Manual (FDM) <a href="http://www.fdot.gov/roadway/FDM/">http://www.fdot.gov/roadway/FDM/</a>
- 2. Florida Department of Transportation Specifications Package Preparation Procedure <a href="https://www.fdot.gov/specifications/specifications-guidance">https://www.fdot.gov/specifications/specifications-guidance</a>
- 3. Florida Department of Transportation Standard Plans for Road and Bridge Construction <a href="http://www.fdot.gov/design/standardplans/">http://www.fdot.gov/design/standardplans/</a>
- 4. Standard Plans Instructions (Refer to Part I, Chapter 115, FDM) <a href="http://www.fdot.gov/roadway/FDM/">http://www.fdot.gov/roadway/FDM/</a>
- 5. Florida Department of Transportation Standard Specifications for Road and Bridge Construction (Divisions II & III), Special Provisions and Supplemental Specifications <a href="https://www.fdot.gov/programmanagement/Implemented/SpecBooks/default.shtm">https://www.fdot.gov/programmanagement/Implemented/SpecBooks/default.shtm</a>
- 6. Florida Department of Transportation Surveying Procedure 550-030-101
  <a href="https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/geospatial/documentsandpubs/surveyingandmappingprocedure.pdf?sfvrsn=2e232d76\_7">https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/geospatial/documentsandpubs/surveyingandmappingprocedure.pdf?sfvrsn=2e232d76\_7</a>
- 7. Florida Department of Transportation EFB User Handbook (Electronic Field Book) <a href="http://www.fdot.gov/geospatial/doc">http://www.fdot.gov/geospatial/doc</a> pubs.shtm
- 8. Florida Department of Transportation Drainage Manuals http://www.fdot.gov/roadway/Drainage/ManualsandHandbooks.shtm
- 9. Florida Department of Transportation Soils and Foundations Handbook Soils and Foundation Handbook
- 10. Florida Department of Transportation Structures Manual http://www.fdot.gov/structures/DocsandPubs.shtm
- Florida Department of Transportation Computer Aided Design and Drafting (CADD)
   Manual
   CADD Manual FDOTConnect And FDOTC3D
- 12. AASHTO A Policy on Geometric Design of Highways and Streets <a href="https://bookstore.transportation.org/collection\_detail.aspx?ID=110">https://bookstore.transportation.org/collection\_detail.aspx?ID=110</a>
- 13. MUTCD 11<sup>th</sup> Edition http://mutcd.fhwa.dot.gov/
- 14. Safe Mobility for Life Program Policy Statement <a href="http://www.fdot.gov/traffic/TrafficServices/PDFs/000-750-001.pdf">http://www.fdot.gov/traffic/TrafficServices/PDFs/000-750-001.pdf</a>
- 15. Traffic Engineering and Operations Safe Mobility for Life Program <a href="http://www.fdot.gov/traffic/TrafficServices/SafetyisGolden.shtm/">http://www.fdot.gov/traffic/TrafficServices/SafetyisGolden.shtm/</a>

- 16. Florida Department of Transportation American with Disabilities Act (ADA) Compliance
   Facilities Access for Persons with Disabilities Procedure 625-020-015
  <a href="https://pdl.fdot.gov/api/procedures/downloadProcedure/625-020-015">https://pdl.fdot.gov/api/procedures/downloadProcedure/625-020-015</a>
- 17. Florida Department of Transportation Florida Sampling and Testing Methods <a href="http://www.fdot.gov/materials/administration/resources/library/publications/fstm/disclaimer.shtm">http://www.fdot.gov/materials/administration/resources/library/publications/fstm/disclaimer.shtm</a>
- 18. Florida Department of Transportation Flexible Pavement Coring and Evaluation Procedure <a href="http://www.fdot.gov/materials/administration/resources/library/publications/materialsmanual/documents/v1-section32-clean.pdf">http://www.fdot.gov/materials/administration/resources/library/publications/materialsmanual/documents/v1-section32-clean.pdf</a>
- 19. Florida Department of Transportation Design Bulletins and Update Memos Office of Design Bulletins/Memorandums (fdot.gov)
- 20. Florida Department of Transportation Utility Accommodation Manual <a href="https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/programmanagement/utilities/docs/uam/uam2017.pdf?sfvrsn=d97fd3dd\_0">https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/programmanagement/utilities/docs/uam/uam2017.pdf?sfvrsn=d97fd3dd\_0</a>
- 21. AASHTO LRFD Bridge Design Specifications <a href="https://bookstore.transportation.org/category">https://bookstore.transportation.org/category</a> item.aspx?id=BR
- 22. Florida Department of Transportation Flexible Pavement Design Manual <a href="http://www.fdot.gov/roadway/PM/publicationS.shtm">http://www.fdot.gov/roadway/PM/publicationS.shtm</a>
- 23. Florida Department of Transportation Rigid Pavement Design Manual http://www.fdot.gov/roadway/PM/publicationS.shtm
- 24. Florida Department of Transportation Pavement Type Selection Manual http://www.fdot.gov/roadway/PM/publicationS.shtm
- 25. Florida Department of Transportation Right of Way Manual http://www.fdot.gov/rightofway/Documents.shtm
- 26. Florida Department of Transportation Traffic Engineering Manual <a href="https://www.fdot.gov/traffic/trafficservices/trafficstudies.shtm/traffic-engineering-manual">https://www.fdot.gov/traffic/trafficservices/trafficstudies.shtm/traffic-engineering-manual</a>
- 27. Florida Department of Transportation Intelligent Transportation System Guide Book <a href="http://www.fdot.gov/traffic/Doc\_Library/Doc\_Library.shtm">http://www.fdot.gov/traffic/Doc\_Library/Doc\_Library.shtm</a>
- 28. Federal Highway Administration Checklist and Guidelines for Review of Geotechnical Reports and Preliminary Plans and Specifications <a href="http://www.fhwa.dot.gov/engineering/geotech/pubs/reviewguide/checklist.cfm">http://www.fhwa.dot.gov/engineering/geotech/pubs/reviewguide/checklist.cfm</a>
- 29. AASHTO Guide for the Development of Bicycle Facilities https://bookstore.transportation.org/collection\_detail.aspx?ID=116
- 30. Federal Highway Administration Hydraulic Engineering Circular Number 18 (HEC 18). <a href="https://www.fhwa.dot.gov/engineering/hydraulics/library\_arc.cfm?pub\_number=17&id=151">https://www.fhwa.dot.gov/engineering/hydraulics/library\_arc.cfm?pub\_number=17&id=151</a>

- 31. Florida Department of Transportation Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways <a href="http://www.fdot.gov/roadway/FloridaGreenbook/FGB.shtm">http://www.fdot.gov/roadway/FloridaGreenbook/FGB.shtm</a>
- 32. Florida Department of Transportation Project Development and Environment Manual, Parts 1 and 2
  <a href="http://www.fdot.gov/environment/pubs/pdeman/pdeman1.shtm">http://www.fdot.gov/environment/pubs/pdeman/pdeman1.shtm</a>
- 33. Florida Department of Transportation Driveway Information Guide <a href="http://www.fdot.gov/planning/systems/programs/sm/accman/pdfs/driveway2008.pdf">http://www.fdot.gov/planning/systems/programs/sm/accman/pdfs/driveway2008.pdf</a>
- 34. AASHTO Highway Safety Manual <a href="http://www.highwaysafetymanual.org/">http://www.highwaysafetymanual.org/</a>
- 35. Florida Statutes

  <a href="http://www.leg.state.fl.us/Statutes/index.cfm?Mode=View%20Statutes&Submenu=1&Ta">http://www.leg.state.fl.us/Statutes/index.cfm?Mode=View%20Statutes&Submenu=1&Ta</a>

  b=statutes&CFID=14677574&CFTOKEN=80981948
- 36. Florida Department of Transportation Equal Opportunity Construction Contract Compliance Manual <a href="http://www.fdot.gov/equalopportunity/contractcomplianceworkbook.shtm">http://www.fdot.gov/equalopportunity/contractcomplianceworkbook.shtm</a>
- 37. Florida Interchange Access Request Users Guide <a href="https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/planning/systems/systems-management/document-repository/iar/fdotiaurg\_september-2022.pdf?sfvrsn=59ccd2bd\_2">https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/planning/systems/systems-management/document-repository/iar/fdotiaurg\_september-2022.pdf?sfvrsn=59ccd2bd\_2</a>
- 38. Developmental Specifications https://www.fdot.gov/programmanagement/otherfdotlinks/developmental/default.shtm
- 39. Florida Administrative Code, Chapter 14.51 (Florida's Highway Guide Sign Program) <a href="https://flrules.org/gateway/ruleno.asp?id=14-51.051">https://flrules.org/gateway/ruleno.asp?id=14-51.051</a>
- 40. Florida Department of Environmental Protection (FDEP) <a href="https://floridadep.gov/southeast/se-permitting">https://floridadep.gov/southeast/se-permitting</a>
- 41. Florida Department of Transportation Maintenance Rating Program (MRP) Handbook <a href="https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/maintenance/rdw/mrp/oom\_20250717\_mrphandbook2025.pdf?sfvrsn=8757fe4b\_1">https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/maintenance/rdw/mrp/oom\_20250717\_mrphandbook2025.pdf?sfvrsn=8757fe4b\_1</a>
- 42. Construction Project Administration Manual CPAM Procedure 700-000-000 Construction Project Administration Manual (fdot.gov)
- 43. General Tolling Requirements (GTR)

  General Tolling Requirements Florida's Turnpike (floridasturnpike.com)
- 44. Florida Managed Lanes Guidebook Florida Managed Lanes Guidebook
- C. Kev Personnel Obligations

The Design-Build Firm's work shall be performed and directed by Key Personnel identified in the Letter

of Response by the Design-Build Firm.

In the event a change in Key Personnel is requested, the Design-Build Firm shall submit the qualifications of the proposed Key Personnel and include the reason for the proposed change. The proposed substituted Key Personnel must meet the requirements for the relevant position and must have comparable experience to the Key Personnel they are replacing. For Key Personnel not listed in the Letter of Response, the proposed substituted personnel must have similar experience as the person they are replacing.

Any proposed change to Key Personnel shall be subject to review and approval by the District Corridors Program Engineer. The Department shall have sole discretion in determining whether or not the proposed substitutions in Key Personnel are comparable to the Key Personnel identified in the Letter of Response and whether the proposed personnel meet the requirements included in the Table in this Section. When allowing substitutions for the Key Personnel positions, the Department in its sole discretion, will determine if the substitution is in good faith and at no fault of the Design-Build Firm or alternatively based solely on a business decision of the Design-Build Firm. The Design-Build Firm shall have available professional staff meeting the minimum training and experience set forth in Florida Statute Chapter 455.

The Design-Build Firm's work shall be performed and directed by Key Personnel identified in the Letter of Response by the Design-Build Firm. Key Personnel must include the following positions and minimum requirements:

## **List of Key Personnel**

<b>Key Personnel Position</b>	Minimum Qualifications and Experience
Project Principal	The Project Principal has decision making authority for the Design-Build Firm and will ensure proper internal and external coordination and collaboration is being conducted by the Design-Build Firm through all phases of the project. In addition to the Design and Construction Phase, the Project Principal is expected to be fully engaged during the AIC Phase.
Project Manager	The Project Manager (PM) must possess a minimum of 15 years of experience, including a minimum of five years of design-build experience, in construction and management of design and construction on highway projects that included work of a similar scope, nature, and complexity as required for the Project. The PM is designated as the Department's point of contact throughout the Project and must be delegated with the authority to make decisions affecting any aspect of the Project. Professional Engineer preferred.
Construction Manager	The Construction Manager (CM) must possess a minimum of 15 years of experience, including a minimum of five years of design-build experience, in construction and management of construction on highway projects with similar scope, nature, and complexity as required for the Project. The CM experience should include an emphasis on design-build construction and experience with interstate highways, interstate bridges, and system to system interchanges.
Project Controls Manager	The Project Controls Manager (PCM) must possess a minimum of 10 years of experience in project controls, estimating, and scheduling of transportation projects using Primavera software, including at least three years on design-build projects of a similar scope, nature, and complexity as this Project.
Design Manager	Must be a Professional Engineer. The Design Manager (DM) must possess a

	minimum of 15 years of experience in managing design for multidisciplinary highway projects with similar scope, nature, and complexity as required for the Project. The DM experience should include an emphasis on design experience in the design-build context and experience with interstate highways, interstate bridges, and system to system interchanges.
Roadway Design Manager	Must be a Professional Engineer. The Roadway Design Manager must possess a minimum of 10 years of experience in roadway design of highway projects that include work of a similar scope, nature, and complexity as this Project.
Structures Design Manager	Must be a Professional Engineer. The Structures Design Manager must possess a minimum of 10 years of experience in bridge design including steel and concrete superstructures, continuous multi-span bridges, and curved bridges that include work of a similar scope, nature, and complexity as this Project.
Utility Coordination/Design Manager	The Utility Coordination/Design Manager (UCDM) must possess a minimum of 4 years of experience performing utility coordination for projects with similar scope, nature, and complexity as this Project. The experience should include an emphasis on experience in the design-build context, knowledge of the Department plans production process and utility coordination practices, and knowledge of Department agreements, standards, policies, and procedures.
ITS/Technology Manager	The ITS/Technology Manager must possess a minimum of 10 years of experience in ITS and smart mobility deployment projects, including experience in the design and deployment of similar ITS, Advanced Transportation Management System (ATMS), Adaptive Traffic Control System (ATCS), and Connected Vehicle (both hardware and software) projects. Professional Engineer preferred.

#### D. Contract Duration

The Department has established a duration for this Project, to be no greater than 1,640 days following the execution of the Design Phase Task Work Order. The final Contract Duration will be established after the RtC package is submitted. If the Design-Build Firm is issued a Design Task Work Order, the Contract Duration included in the RtC package shall be included and become the final Contract Duration.

## E. Department's Availability of Funds

The Design-Build Firm shall align commitment/start of work on the AIC Phase, Design Phase, and Construction Phase for the Project to not exceed the Department's programmed funds, which are subject to change and contingent upon appropriation. These amounts are for the Design-Build Firms use in aligning work and do not represent a commitment of funds other than the \$3,300,000 currently available for the AIC Phase that will be made available upon execution of agreement. Amounts may be increased if available and at the Department's sole discretion:

## **Project Programmed Funding**

#### Construction

Funding: \$605,000,000

## F. The Department's Rights

By entering into the Contract with the Design-Build Firm, the Department is not obligated to authorize Design Phase Task Work Orders or Construction Work on any component of the Project, or once a Task Work Order has been issued for a specific Work Package to continue to approve any additional Work Package Proposals. If the Department, in its sole discretion, determines that the parties, after good faith negotiations, are unable or unwilling to agree upon any Work Package Proposal, then the Department may, at its election, take one or more of the following actions:

- Enter into discussions with the Design-Build Firm to reconcile basis of costs differences.
- Direct the Design-Build Firm to value engineer or reexamine the scope of the Work Package and make modifications to the proposal to satisfy the Department's concerns, and then resubmit the proposal as a new Work Package Proposal.
- Enter into negotiations with the Design-Build Firm to remove portions of the Work Package Proposal and either create a new Work Package Proposal with a modified scope, or add those removed portions to previously approved Work Packages through amendments, modifying the previously agreed upon Task Work Order for the associated Work Package accordingly.
- Take any other action allowed under the terms of the Contract.
- Reject the Work Package Proposal in its entirety.
- Issue a notice to the Design-Build Firm that the Department intends to terminate the agreement after current Task Work Orders and Work Packages are completed and not to issue future Task Work Orders or consider any future Work Package Proposals from the Design-Build Firm. If this election is chosen, it does not remove the obligations from the Design-Build Firm to complete any Work under existing Task Work Orders. This election shall not be considered a termination for convenience and shall not be considered a violation or breach of the Contract by the Department. If the Department believes that utilization of this election is premised on a breach by the Design-Build Firm, the Department shall state that in its notice to the Design-Build Firm.

The Department's decision on approving or not approving a Work Package Proposal does not modify any other portion of the Contract without written agreement of the parties.

#### **G.** Master Schedule

The Design-Build Firm shall submit a Master Schedule, in accordance with Subarticle 8-3.2 (Design-Build Division I Specifications), for the Project during the Design Phase and update it as each WPP is submitted. Each WPP shall be incorporated into the Master Schedule as a Work Breakdown Structure (WBS) that individually satisfy the requirements of Subarticle 8-3.2 (Design-Build Division I Specifications. The Design-Build Firm's Master Schedule shall allow for up to seven (7) workdays review time for the Department's review of all submittals with the exception of Category 2 structures submittals. The review of Category 2 structures submittals requires Central Office SDO and Independent Department Reviews (IDR). Durations for Department review of Category 2 structures shall be 60 days for the 90% and 30 days for the Final Submittals. An Independent Department Review Package (60%) shall be submitted as soon as practical but not less than 30 days prior to the submittal of the 90% Plan submittal.

IDR durations are subject to change based on the Design-Build Firm's AIC Phase deliverables. Upon review of the AIC Phase deliverables, new IDR review times may be provided to the Design-Build Firm. For the review of all additional Category 2 structures resubmittals, the Master Schedule shall allow for up

to twenty (20) workdays for these reviews. Category 2 structure resubmittals must include all required submittal documentation per Section VII.Q (Submittals).

The IDR of Category 2 structures will be performed concurrently with the normal Department review of submittals. Review will not begin until submittals are deemed complete by the Department.

The Department will perform the review of Foundation Construction submittals in accordance with Section 455.

The minimum number of activities included in the Master Schedule shall be those listed in the Schedule of Values and those listed below and shall meet the requirements of Subarticle 8-3.2 Design-Build Division I Specifications.

These minimums shall be provided for each planned Work Package the Design-Build Firm anticipates releasing:

- Anticipated Award Date
- Kickoff meeting with the Department's Independent Review consultant
- Design Submittals
- Utility Coordination and Relocation(s)
- Completed Category 2 bridge design for IDR.
- Shop Drawing Submittals
- Other Contractor-Initiated Submittals including RFI's, RFM's, RFC's, and NCR's
- Design Survey
- Submittal Reviews by the Department and FHWA
- Design Review / Acceptance Milestones
- Comment Resolution
- Materials Quality Tracking
- Geotechnical Investigation
- Vibration and Settlement Monitoring Plan
- Start of Construction
- Clearing and Grubbing
- Construction Mobilization
- Embankment/Excavation
- PD&E Study re-evaluation documentation
- Permit Submittals
- Permit Acquisition
- Foundation Design (60% IDR Package, 90%, Final, RFC)
- Foundation Construction
- Substructure Design (60% IDR Package, 90%, Final, RFC)
- Substructure Construction
- Superstructure Design (60% IDR Package, 90%, Final, RFC)
- Superstructure Construction
- Walls Design
- Walls Construction
- Roadway Design
- Roadway Construction
- Signing and Pavement Marking Design
- Signing and Pavement Marking Construction
- Signalization Design

- Signalization Construction
- Toll Gantry Foundation Design
- Toll Gantry Foundation Construction
- Toll Gantry Structure Construction
- Tolling Infrastructure Construction
- Intelligent Transportation System Design
- Intelligent Transportation System Construction
- Intelligent Transportation System Testing
- Lighting Design
- Lighting Construction
- Maintenance of Traffic Design
- Landscape Opportunity Plans
- Maintenance of Traffic Set-Up (per duration)
- Erosion Control
- As-Built Preparation and Review Coordination
- Holidays and Special Events (shown as non-workdays)
- Milestones associated with Contract Bonuses
- Additional Construction Milestones as determined by the Design-Build Firm
- Final Completion Date for All Work

The Master Schedule shall include cost loading for each offsite fabrication or construction activity. The cost loading shall be consistent with the schedule of values breakdown included in the respective Work Package. In addition, each construction activity shall include task code(s) that convey the type and number of assigned resources. The monthly Master Schedule update and associated narrative shall include a workload distribution report and analysis of resource utilization, including any adjustments, necessary to meet Construction Milestones.

## H. Liquidated Damages

The Design-Build Firm will include a final completion date for the Project as part of its RtC Submission. Upon acceptance of this date, and incorporation of this final completion date into the Design-Task Work Order, the submitted final completion date shall be the Contract duration. The Department has established a contract duration to be no greater than 1,640 days following the execution of the Design Phase Task Work Order. The submitted RtC final completion date may not exceed the Department's established date. This final completion date will be subject to delay adjustments following the Design-Build Specifications (i.e., requiring Department approval). Liquidated Damages, as defined in the Design-Build Specifications, will begin to accrue after the final acceptance date has been exceeded. The Liquidated Damage formula, contained in the Design-Build Specifications, shall be applicable to the whole Project and shall be calculated on the accepted PGMP submitted as part of the RtC package.

The Design-Build Firm and the Department shall determine whether liquidated damage provisions for each Work Package Proposal should be included in the individual Task Work Orders. Individual Work Package LDs, if included, shall be handled as defined in each approved Work Package.

#### I. Contract Bonuses

The Department, in collaboration with the Design-Build Firm, may consider establishing Contract Bonus provisions to meet the objectives of the Project. The definition of the Contract Bonus provisions (contract work items, terms and conditions, limits, durations and dollar amounts), if implemented, will be established during the AIC Phase.

The Department's payment of any Bonus is specifically conditioned upon the Design-Build Firm's

compliance with the Key Personnel sections of the RFQ. If the Design-Build Firm changes any of the key personnel required by this RFQ (the eight positions listed by name in Section IV.C) without good cause/no fault of the Design-Build Firm, in the Department's sole discretion, a deduction of \$500,000 shall be made against the Bonus subsequently earned by the Design-Build Firm for each change made without good cause/no fault of the Design-Build Firm. If the Design-Build Firm has already earned a Bonus, this deduction shall be made against its next monthly progress estimate or the final Contract payment as determined by the Department.

## J. Partner/Teaming Arrangement

Partner/Teaming Arrangements of the Design-Build Firm (i.e., Prime Contractor or Lead Design Firm) cannot be changed after submittal of the Letter of Response without written consent of the Department. In the event a change in the Partner/Teaming Arrangement is requested, the Design-Build Firm shall submit the reason for the proposed change. Any changes in the Partner/Teaming Arrangement shall be subject to review and approval by the Department's Chief Engineer. The Department shall have sole discretion in determining whether or not the proposed substitutions in Partner/Teaming Arrangements are comparable to the Partner/Teaming Arrangements identified in the Letter of Response.

## K. Meetings and Progress Reporting

The Design-Build Firm shall anticipate periodic meetings with Department personnel and other agencies as required for resolution of design and/or construction issues. These meetings may include:

- Department technical issue resolution
- Local government agency coordination
- Transportation Management Plan/Maintenance of Traffic Workshops
- Pavement Design Meeting
- Permit agency coordination
- PD&E Re-evaluation Meetings
- Phasing Meetings
- Scoping Meetings
- System Integration Meetings
- Design Workshops
- Progress Meetings
- Aesthetic Design Review Meetings
- Comment Resolution Meetings
- Adjacent Project Coordination Meetings
- Utility Meetings
- Public Meetings
- Project/Stakeholder Coordination Meetings
- Pre-activity Meetings
- DBE, OJT, DBRA, EEO Compliance, and Workforce Development Meetings
- Dispute Review Board Meetings

During the AIC Phase, the Design-Build Firm shall meet with the Department on an as-needed basis or upon the Department's request.

During the Design Phase, the Design-Build Firm shall meet with the Department on a bi-weekly basis at a minimum and provide a one month look ahead of the activities to be completed during the upcoming month.

During the Construction Phase, the Design-Build Firm shall meet with the Department on a weekly basis and provide a two-week look ahead for activities to be performed during the coming two weeks.

The Design-Build Firm shall, on a monthly basis, provide written progress reports that describe the items of concern and the work performed on each task.

The Design-Build Firm shall meet with the Department's Project Manager at least thirty (30) days before beginning system integration activities. The purpose of these meetings shall be to verify the Design-Build Firm's ITS and signalization integration plans by reviewing site survey information, proposed splicing diagrams, IP addressing schemes, troubleshooting issues, and other design issues. In addition, at these meetings the Design-Build Firm shall identify any concerns regarding the integration and provide detailed information on how such concerns will be addressed and/or minimized.

The Design-Build Firm shall provide all documentation required to support system integration meetings, including detailed functional narrative text, system and subsystem drawings and schematics. Also included shall be the documentation to demonstrate all elements of the proposed design which includes, but is not limited to: technical, functional, and operational requirements; ITS/communications; equipment; termination/patch panels; performance criteria; and details relating to interfaces to other ITS systems and subsystems.

System integration meetings will be held on mutually agreeable dates.

All action items resulting from the system integration meeting shall be satisfactorily addressed by the Design-Build Firm and reviewed and approved by the Department.

## L. Mark-up, Contractor's Design Mark-up, and Management Multiplier

The Design-Build Firm is allowed the Modified Phased Design-Build Markup (Construction Management and G&A Fee or CMGA Fee) of 14% on the direct cost of the work (both self-performed and subcontracted) of each Work Package. The Modified Phased Design-Build Mark-up (Mark-up) is not subject to negotiation after project award. The Mark-up is to compensate the Design-Build Firm for all profit and home office overhead costs associated with the Project. Home office overhead is defined as all auditable costs that are allocated to all of the Contractor's ongoing projects, such as off-site supervision and travel expenses for off-site supervisors, accountants, attorney and counsel fees, and insurance that is maintained by the Contractor as a general cost of doing business. All indirect costs, including all insurance costs, are considered to be part of the Mark-up.

The Mark-up will be used in the preliminary and final GMP(s) for each Work Package Proposal. The Mark-up shall be applied to all direct work compensated from the Risk Reserve.

The Contractor's Design Mark-up for this Project is 5% on any design work done during the AIC Phase. The Contractor's Design Mark-up is not subject to negotiation after project award. The Contractor's Design Mark-up is not applicable to the Design Phase Task Work Order.

Under no situation may the cost of an item of Work be modified by both the Mark-up and the Contractor's Design Mark-up simultaneously.

The AIC Phase Multiplier for this Project is 2.5. This Multiplier is not subject to negotiations after project award.

The Management Multiplier for this Project is 2.8. This Multiplier is not subject to negotiations after project award.

## M. Design-Build Firm's Designer Compensation and Design Multiplier

During the AIC Phase the Design-Build Firm's Designer and sub-designers will be permitted to charge to the Contract for the hours worked. These charges, combined with those of the Contractor (including any mark-up) during the AIC Phase, shall not exceed \$3,300,000.

For this Project, the Design Multiplier is

[(100% plus Designer's current approved Home Audited Overhead Rate Percentage) multiplied by 1.12]

If the approved Home Audit Overhead Rate Percentage is above 200%, it is considered 200% for this calculation.

For the AIC Phase and the Design Phase, the Designer shall calculate the value of its effort by taking the certified hourly rate of the employee and multiplying it by the Design Multiplier.

#### N. Task Work Orders

Throughout the duration of the Project, multiple Task Work Orders may be negotiated and issued with various payment structures during the AIC, Design and Construction Phases, all of which are subject to open book pricing as defined in this RFQ.

Contractor Project Management staff will be compensated under a Task Work Order at the start of the Design Phase and continuing until the Project is completed (Contractor Project Management Task Work Order). This Task Work Order shall be the sole source of compensation provided by the Department to the Design-Build Firm for these personnel. During the AIC Phase, the Design-Build Firm's contractor personnel will be compensated as a portion of the AIC Phase fee.

The following is a potential list of the types of Task Work Orders that may be issued, and the corresponding payment mechanism for each. The AIC Phase services will begin at the execution of the initial Contract (not as a separate Task Work Order), with a not-to-exceed cap of \$3,300,000. The AIC Phase information below is provided to identify the method of compensation.

## **AIC Phase**

- Designer: Compensated via certified actual hourly rates multiplied by the Design Multiplier.
  - o The Contractor's Design Mark-up may be applied to this AIC design cost at the Design-Build Firm's discretion.
- Contractor: Compensated via actual hourly rates multiplied by the AIC Phase Multiplier.
- No additional compensation will be paid to the Design-Build Firm for any additional expenses incurred by the Design-Build Firm during the AIC Phase.

The Design-Build Firm will complete a certified rate form including names of persons working on the Project and the role they are in. Any personnel change or additions, allowed by the Contract, must be provided to the Department prior to invoicing. By submitting the certified rate form, the Design-Build Firm certifies that all personnel are qualified. The Design-Build Firm shall provide personnel qualifications via resumes at the Department's request.

## Contractor Project Management Task Work Order

- Contractor: Compensated via actual hourly rates multiplied by the Management Multiplier.
- Expense Line: Lump sum expense line item for Project specific Contractor expenses not elsewhere covered (any item of expense not specifically included in this expense line is considered to be

contained in the Contractor's negotiated loaded rates)

o Should only contain the cost for the main Payment and Performance Bond due after the AIC Phase.

## DRB (Dispute Review Board) Task Work Order(s)

• Actual cost compensated, as provided in the DRB Agreement

## Design Task Work Order(s)

- The Design Task Work Order will be compensated via a single Design GMP. The Design GMP shall be equal to or less than the Design cost listed on the PGMP submission. The Design GMP shall be the limiting amount for the Task Work-Order. The development of the Design GMP shall be detailed. The level of detail shall be established by the Department.
- Designer: Compensated via certified actual hourly rates multiplied by the Design Multiplier.
- There is no additional Design Mark-up applied to this Task Work Order.
- The Design Task Work Order will have a Design Expense line. This expense line will be 6% of the Design GMP.
  - o The Design-Build Firm may charge project specific design expenses to this expense line.
- No additional compensation for Design expenses will be allowed.

## Construction Task Work Order(s) (Work Packages or WPPs)

- GMP via schedule of values which consists of:
  - o Direct Construction Costs (Modified Phased Design Build Mark-up (Mark-up) applied)

The Department will consider opportunities to issue Task Work Orders to advance purchase of materials when such Task Work Orders are in the best interest of the Project. The details concerning any opportunity will be negotiated with the Design-Build Firm at any point after the AIC Phase concludes. The amount of any such Task Work Order will be considered to be part of the Construction costs of the PGMP and shall not increase the PGMP of the Project.

#### O. Design-Build Firm's Responsibilities for Department Commitments

The Design-Build Firm will be responsible for adhering to the Project Commitments identified in the Project Commitment Records provided as an Attachment, as well as any additional commitments identified as the Project progresses through the AIC, Design, and Construction Phases. Any design change shall be evaluated by the Department to determine any associated additional environmental impacts and required actions and/or commitments as described in this RFQ. The Design-Build Firm will be responsible for tracking the Project Commitments throughout the Project duration for the Department's use in updating the Commitments Module in PSEE.

#### P. Submittals

If the Design-Build Firm is required to submit a deliverable to the Department, and the Department has the right to review and approve the deliverable, the Department is under no obligation to approve the deliverable until it is satisfied that the deliverable is acceptable. Failure of the Department to approve the deliverable does not entitle the Design-Build Firm to additional compensation and shall not be a basis for a claim or dispute.

Unless otherwise stated herein or agreed to during the development of the Master Schedule and/or subsequent Work Package schedules, the Department shall have seven (7) workdays for each review. Unless otherwise stated herein or otherwise agreed to in writing by both Parties, any deliverable not accepted or approved by the Department, as required by the submittal type, within the time required is deemed to be rejected.

The Department will perform an Independent Department Review (IDR) of all Category 2 bridge structures contained in each Work Package. The Design-Build Firm shall submit 60% structures plans for the Department to begin developing the modeling for the design review of each Work Package. The 60% Structures Plans shall contain sufficient information for each structure to begin developing the model for the Category 2 element(s) under consideration. For Category 2 bridges, each structure submission (60%, 90%, Final) can be broken down into "units" (defined as a stand-alone set of foundation, substructure and superstructure sheets) with each unit containing sufficient information to develop the models for the Category 2 element under consideration. The 60% Structures Plans submittal is not intended to be an official design review by the Department and formal review comments will not be provided at this stage. Lack of formal review comments at this stage should not be construed as acceptance or approval. When 90% plans are submitted, the Department's reviewer will verify that the information contained in the 90% plans is consistent with the models that were developed based upon 60% plans and the model will be updated, as required, and the actual design review performed. The results of the review will be forwarded to the Design-Build Firm for review and response. The Department will resolve all conflicts arising between the Design-Build Firm and Department's IDR reviewer during the IDR process. The Department's disposition of any such conflicts will be final.

## 1. Component Submittals:

The Design-Build Firm may submit applicable components of a Work Package plans set instead of submitting an entire Work Package plan set; however, sufficient information from other components must be provided to allow for a complete review. In accordance with the FDM, components of the Work Package plans set are roadway, signing and pavement marking, signalization, Intelligent Transportation Systems (ITS), lighting, landscape/irrigation, hardscape/aesthetics, and structural.

The Design-Build Firm may divide the Project into separate areas and submit components for each area; however, sufficient information on adjoining areas must be provided to allow for a complete review. Submittals for Category 1 bridges are limited to foundation, substructure, and superstructure.

For Category 2 structures, submittals for bridges are limited to "units" as previously described, or a complete bridge submittal.

For projects involving Category 2 structures, the Design-Build Firm shall submit a Category 2 Submittal Report summarizing the Category 2 elements included in the Project as part of the Work Package Proposal. The Design-Build Firm shall include in its Task Work Order for the Design a prioritized submittal schedule for the plans including Category 2 structure elements.

Category 1 and 2 bridge submittals shall contain the following:

- Plan sheets for the submittal under review developed to the specified level of detail (i.e. 90% plans, Final plans, etc.) as outlined in the FDM. Note for the 60% submittal on Category 2 Structures, provide the relevant sheets in accordance with the "Summary of 60% Structures Plans Submittals" table below. For the 90% and Final Submittals on Category 2 Structures, combine the required sheets for Foundation, Substructure, and Superstructure listed in FDM Table 121.14.3 to form the "unit" submittal.
- A complete set of the most developed plan sheets for all other major elements of the bridge. These sheets shall be marked "For Information Only" on the index sheet. In no case shall a plan sheet be less than 30% complete.
- Design documentation including a complete set of calculations, geotechnical reports, pertinent correspondence, etc. in support of the 90% and final component submittals.

#### 2. Phase Submittals:

For each Work Package, the Design-Build Firm shall provide the documents for each phase submittal listed

below to the Department's Project Manager. The particular phase shall be clearly indicated on the documents. The Department's Project Manager will send the documents to the appropriate office for review and comment. Once all comments requiring a response from the Design-Build Firm have been satisfactorily resolved as determined by the Department, the plans shall be digitally signed using Department approved software (such as IdenTrust) by the Engineer of Record (EOR). The plans are then digitally signed by the Design Review Coordinator (DRC) from the Owner's Representative (OR) and by the FDOT Project Manager as "Released for Construction" (RFC). The submittal of RFC component plans shall not be comprised of a combination of stamped plans and digitally signed plans.

All comments shall be resolved to the Department's satisfaction prior to making the next phase submittal.

Department review comments for the 60% Plans for IDR associated with Category 2 structures, 90% Component Plans, and Final Component Plans submittals will generally be provided through the Department's Electronic Review Comments (ERC) system or equivalent. For each phase submittal, it shall be the Design-Build Firm's responsibility to proactively and satisfactorily resolve all comments requiring a response from the Design-Build Firm with the Department's reviewers prior to making a subsequent phase submittal of the same component. The Department will designate in the review comments if the next submittal will be a resubmittal of the 90% phase submittal or if the plans and supporting calculations are significantly developed to proceed to the Final Submittal. If the Department requires more than 2 resubmittals, a submittal workshop between the Department and the Design-Build Firm must be held to resolve any outstanding issues or comments. Department acceptance of a subsequent phase submittal will not be conditioned on resolution of comments marked "For Information Only" by the reviewer.

## a. 60% Phase Submittal (Required for Category 2 structures)

- 1 copy of 11" x 17" Structures plans meeting the requirements of the "60% Structures Plans Submittal" as previously defined.
- 1 copy of draft geotechnical report that, at a minimum, includes the FB-MultiPier
   Input Parameters, as well as FBDeep Pile Capacity Curves
- 1 copy of draft Bridge Hydraulic Report
- 1 copy of design documentation (calculations not required)
- 1 copy of draft Technical Special Provisions
- 1 copy of Roadway Project Layout and TTCP plans
- Report of Core Boring sheets
- Any other information required for the Department to perform an Independent Department Review as discussed in the Independent Department Review Kickoff Meeting

The Design-Build Firm shall provide the sheets listed as applicable based on the structure type.

## **Summary of 60% Structures Plans Submittals**

ITEM	60% Structures Plans
Cover Sheet	S
Key Sheet	S
Sheet Index	P
General Notes	S
Plan and Elevation	C

ITEM	60% Structures Plans
Typical Section	C
Hydraulics Recommendation	S
Construction Sequence	C
Report of Core Borings	S
Foundation Layout	S
Pile/Shaft Data Table	P
End Bent	S
End Bent Details	P
Wing Wall Details	P
Pier	S
Pier Details	P
Footing	S
Drilled Shaft and Augercast Pile Details	S
Framing Plan	S
Superstructure Plan	S
Superstructure Details	P
Erection Sequence	S
Cross Frames/Diaphragm Details	S
Steel Girder Details	S
P/T Systems	S
Bearing Details	P
Post Tensioning Layout	C
P/T Details	S

## **Status Key:**

- **P** Preliminary: Basic shapes, geometry and layout of specified members are shown. Rebar and elevations are not required for Preliminary submittals. For example, the outline drawing of an end bent with complete dimensions including stationing, beam and pedestal layout but without pile layout dimensions or rebar.
- S Substantially Complete: Shapes, geometry and layout have been finalized. Design is 90% complete with most rebar, plate sizes, bolt patterns, concrete strengths finalized and incorporated into the plans. For example, an end bent drawing with rebar, complete dimensions, pile and beam layout but without elevations.
- ${f C}$  Complete but Subject to Change: The design, drawings and details are complete for the specified component. Only reviewer-initiated changes should be expected at this level. For example, an end bent drawing would be complete, including all rebar callouts, elevations, and dimensions.

## b. 90% Phase Submittal

- 1 copy of 11" X 17" plans (all required components)
- 1 copy of signed and sealed geotechnical report
- 1 copy of Settlement and Vibration Monitoring Plan (SVMP) for Department acceptance and update throughout the construction period
- 1 copy of signed and sealed Bridge Hydraulic Report

- 1 copy of Drainage Report
- 1 copy of design documentation
- 1 copy of Technical Special Provisions
- 1 copy of Landscape Opportunity Plans
- 1 copy of Bridge Load Rating Calculations
- 1 copy of Completed Bridge Load Rating Summary Detail Sheet
- 1 copy of Load Rating Summary Form
- 1 copy of all design changes introduced since the 60% plan submittal that affect the modeling or component design of various bridge components.
- Listing of all selected ITS technologies/products, reasons for selection, selected device locations, and mounting types.
- 1 copy of Maintenance of Communication (MOC) Plan
- All QC plans and documentation for each component submittal shall be electronic in .pdf format

Approval is required for the following prior to submitting the 90% phase submittals of ITS Component Plans:

- Project Concept of Operations (ConOps)
- Project Systems Engineering Management Plan (PSEMP)

#### c. Final Submittal

- 1 set of signed and sealed 11" X 17" plans (all required documents)
- 1 copy of signed and sealed 11" X 17" plans
- 1 copy of signed and sealed Drainage Report
- 1 copy of signed and sealed design documentation
- 1 copy of Settlement and Vibration Monitoring Plan (SVMP)
- 1 copy of Landscape Opportunity Plans
- 1 set of final documentation
- 1 signed and sealed copy of the Bridge Load Rating Summary Detail Sheet with supporting calculations
- 1 signed and sealed copy of the Load Rating Summary Form with supporting calculations
- 1 signed and sealed Construction Specifications Package or Supplemental Specifications Package
- 1 of electronic copy of Technical Special Provisions in .pdf format
- 1 copy of all major design changes introduced since the 90% plan submittal that affect the modeling or component design of various bridge components.
- 1 copy of all the IDR comments and the Engineer of Record's (EOR) response along with a statement that all comments have been addressed and resolved.
- All of the information above shall be submitted electronically in .pdf format.
- All QC plans and documentation for each component submittal shall be electronic in .pdf format.
- The Design-Build Firm shall coordinate with the District Maintenance Office to obtain bridge numbers for all new bridges prior to the RFC of bridge components.
- The Design-Build Firm shall provide the District Planning and Environmental Management Office the information required to update the Department's Roadway Characteristics Inventory (RCI) reflecting the final configuration of the Project.

The Design-Build Firm shall provide a list of all changes made to the plans or specifications that were not directly related to the 90% plans review comments. Significant changes (as determined by the Department) made as a part of the Final submittal, that were not reviewed or provided in response to the 90% submittal comments, may require an additional review phase prior to stamping the plans or specifications "Released for Construction." The Design-Build Firm shall provide a signed certification that all Electronic Review Comments (ERC) system or equivalent comments have been resolved to the Department's satisfaction as a requirement before obtaining "Released for Construction" plans.

#### 3. Requirements to Begin Construction

The Department's indication that the signed and sealed plans and specifications are "Released for Construction" authorizes the Design-Build Firm to proceed with construction of an approved Work Package based on the contract plans and specifications. The Department's review of submittals and subsequent Release for Construction is to assure that the Design-Build Firm's EOR has approved and signed the submittal, the submittal has been independently reviewed and is in general conformance with the contract documents. The Department's review is not meant to be a complete and detailed review. No failure by the Department in discovering details in the submittal that are released for construction and subsequently found not to be in compliance with the requirements of the contract shall constitute a basis for the Design-Build Firm's entitlement to additional monetary compensation, time, or other adjustments to the contract. The Design-Build Firm shall cause the EOR to resolve the items not in compliance with the contract, errors, or omissions at no additional cost to the Department and all revisions are subject to the Department's approval.

The Design-Build Firm may choose to begin construction prior to completion of the Phase Submittals and the Department stamping the plans and specifications Released for Construction except for Temporary Traffic Control Plans and bridge construction. Temporary Traffic Control Plans and permanent structures work, including fabrication of bridge members, shall only begin with signed and sealed plans or shop drawings (whichever controls the design and details utilized to construct/erect the specific structural component) that have been Released for Construction.

To begin construction the Design-Build Firm shall submit signed and sealed plans for the specific activity; submit a signed and sealed Construction Specifications Package or Supplemental Specifications Package; obtain regulatory permits as required for the specific activity; obtain a PD&E Study re-evaluation when required for the specific activity; obtain utility agreements and permits, if applicable; have an approved CPM schedule for the work except for the advanced construction works; have an approved temporary construction dewatering plan; and provide five (5) days' notice before starting the specific activity. The plans to begin construction may be in any format including report with details, 8 1/2" X 11" sheets, or 11" X 17" sheets, and only the information needed by the Design-Build Firm to construct the specific activity needs to be shown. Beginning construction prior to the Department stamping the plans and specifications Released for Construction does not reduce or eliminate the Phase Submittal requirements. If the Design-Build Firm elects to pursue changes to RFC plans after receiving stamped approval by the Department, work associated with the proposed deviations shall not begin until approval has been granted by Department, as described in the Modifications for Construction or Alternative Temporary Traffic Control Plan Specifications, as applicable.

## 4. Shop Drawings:

The Design-Build Firm shall be responsible for the preparation and approval of Shop Drawings. Shop Drawings shall be in conformance with the FDM. Shop Drawing submittals must be accompanied by sufficient information for adjoining components or areas of work to allow for proper evaluation of the Shop Drawing(s) submitted for review. When required to be submitted to the Department, Shop Drawings shall

bear the stamp and signature of the Design-Build Firm's Engineer of Record (EOR), and Specialty Engineer, as appropriate. All "Approved" and "Approved as Noted" Shop Drawings submitted to the Department for review shall also include Engineer of Record QA/QC Shop Drawing check prints along with the EOR stamped set(s). The Department shall review the Shop Drawing(s) to evaluate compliance with Project requirements and provide any findings to the Design-Build Firm. The Departments procedural review of Shop Drawings is to assure that the Design-Build Firm's EOR has approved and signed the drawing, the drawing has been independently reviewed and is in general conformance with the plans. The Department's review is not meant to be a complete and detailed review, but the Department reserves the right to perform a more detailed review, as necessary. Upon review of the Shop Drawing, the Department will initial, date, and stamp the drawing "Released for Construction" or "Released for Construction as Noted".

Shop Drawings submitted for tolling infrastructure shall include all applicable equipment, materials, and products as shown on the plans or as described in the applicable Specification section(s) for the item being submitted. Incomplete or partial Shop Drawings are not acceptable.

The Design-Build Firm shall submit all shop drawings for the tolling infrastructure as required in the Florida's Turnpike Enterprise (FTE) Shop Drawing Review Process for Design-Build Projects as included in the Attachments.

Shop Drawing submittals must be accompanied by sufficient information for adjoining components or areas of work to allow for proper evaluation of the shop drawing(s) submitted for review. For shop drawing coordination related to tolling infrastructure, please contact the Shop Drawing Review Office at Florida's Turnpike Enterprise Headquarters, Ocoee, FL (407) 264-3434.

#### 5. As-Built Set:

The Design-Build Firm's Professional Engineer in responsible charge of the Project's design shall professionally endorse (sign, seal, and certify) the As-Built Plans, the special provisions and all reference and support documents. The professional endorsement shall be performed in accordance with the FDM.

Design-Build Firm shall complete the As-Built Plans as the Project is being constructed, maintaining a conformed plan set detailing any redlines, Request for Information (RFI), Request for Modification (RFM), or Request for Correction (RFC). The conformed plans shall be updated to reflect redlines on a weekly basis, and after a response to an RFI, RFM or RFC that results in a change to any of the Component Plans. All changes made subsequent to the "Released for Construction" Plans shall be signed/sealed by the EOR. As-Built Plans shall be submitted for each Work Package as it is finished. If the Work Package does not have completed As-Built Plans (due to the item of work needing more than one Work Package to be completed), the Design-Build Firm will notify the Department of the reasoning and will provide a working copy of the As-builts to the Department. The conformed plans shall be available to the Department at all times. The As-built Plans submitted prior to Project completion for Department review and acceptance as a condition precedent to the Departments issuance of final acceptance.

The Department shall review, certify, and accept the As-Built Plans prior to issuing final acceptance of the Project.

The Department shall accept the As-Built Plans and related documents when in compliance with Design-Build Division I Specification 7-2.3, As-Built Drawings and Certified Surveys, and the As-Built Requirements.

The Design-Build Firm shall furnish to the Department, upon Project completion, the following:

- 1 set of 11" X 17" signed and sealed As-Built plans, drawings and Certified Surveys
- 1 set of 11 "X 17" copies of the signed and sealed As-Built plans, drawings and Certified Surveys (including as-built channel survey)

- All As-Built plans required to be submitted based on environmental permit conditions.
- 1 set of Landscape Opportunity Plans
- 1 signed and sealed copy of the Bridge Load Rating Summary Form and Calculations based on asbuilt conditions.
- 1 set of final documentation (if different from final component submittal)
- 1 set of survey information, including electronic files and field books
- Deliver the final CADD.zip in accordance with the CADD Manual
- 1 Final Project submittal containing the information above shall be electronic in .pdf format.
- ITSFM data and forms for all ITS and Signalization infrastructure within the Project Limits in compliance with District preferences and FDOT Standard Specifications

#### Q. Executive Review Board and Issue Escalation

Within the first 30 days after the NTP of the Task Work Order for the Design Phase, the Department and the Design-Build Firm will establish an Executive Review Board (ERB). Each party will appoint three people to serve on the board, and members should have authority to make final and binding decisions on the Project. Members of the board should be at a higher level of authority than those assigned to day-to-day duties on the Project.

Any decision on the Project that cannot be resolved at the project level, may be elevated to the Executive Review Board for resolution. This escalation is a prerequisite to any other source of relief, including Dispute Resolution Board referral, or litigation. Since the ERB isn't established until the Design Phase, any final approval on Innovations issued by the Department during the AIC Phase may not be elevated to the ERB.

The Executive Review Board shall meet at a minimum every other month, or as needed to resolve any outstanding issues.

In the event issues arise during prosecution of the work, the resolution of those issues will be processed as described below:

The escalation process begins with the Department's Construction Project Manager. All issues shall be directed to the Department Construction Project Manager. If the issue cannot be resolved by the Department Construction Project Manager shall forward the issue to the District Corridors Program Engineer who will coordinate with the appropriate Department personnel. Any decision on the Project that cannot be resolved at the project level, may be elevated to the Executive Review Board for resolution. This escalation is a prerequisite to any other source issue resolution, including Dispute Resolution Board referral, or litigation.

Each level shall have a maximum of five (5) workdays to answer, resolve, or address the issue. The Design-Build Firm shall provide all supporting documentation relative to the issue being escalated. The five (5) workday period begins when each level in the issue escalation process has received all required supporting documentation necessary to arrive at an informed and complete decision. The five (5) workday period is a response time and does not infer resolution. Questions asked by the Department may be expressed verbally and followed up in writing within one (1) workday. Responses provided by the Design-Build Firm may be expressed verbally and followed up in writing within one (1) working day. When a response is received from the District Corridors Program Engineer, the Construction Project Manager will respond to the Design-Build Firm in a timely manner but not to exceed three (3) workdays. The Design-Build Firm's Project Manager shall be responsible for initiating any escalation, and the Department shall only receive this request from the Design-Build Firm itself.

The Department will provide a "Utility Coordination Liaison" throughout the Project duration who will assist the Design-Build Firm as a liaison with the UAOs with the goal of preventing delays and potential

claims.

The Design-Build Firm shall provide a similar issue escalation process for their organization with personnel of similar levels of responsibility.

Should an impasse develop, the Dispute Review Board shall assist in the resolution of disputes and claims arising out of the work on the Contract.

## R. Cost Estimating and Invoicing

#### 1. General

Throughout the Design Phase, and as changes demand during the Construction Phase, the Design-Build Firm shall provide estimates of Project cost and/or cost of individual Project elements. These estimates shall follow a schedule of value format with a basis of estimate per pay item. The schedule of value format shall also include any lump sum pay items included in the Work. Each Work Package is to include the specification language for Fuel and Bituminous adjustments as defined in Design-Build Specifications (9.2.1.1 and 9.2.1.2). For Contract Time, this shall be considered the Work Package duration, and the baseline index shall be independent for each Work Package. No other Fuel and Bituminous adjustments will be permitted. The Department retains the right to adjust the GMP on a Work Package due to Fuel and Bituminous adjustments following the Design-Build Specifications. Any additional compensation or adjustment made to a WPP due to the Fuel and Bituminous specification shall not be considered when ensuring the PGMP and GMP have not been exceeded.

#### 2. Total Construction Cost Elements included in the Schedule of Values

The detailed cost estimate will be the basis of developing estimates during the Design Phase and for preparing the GMP(s). Total the direct and field indirect costs separately. The same cost estimating model, with the same transparency and level of detail, shall be used and submitted for cost proposals for the GMP(s) for each Work Package Proposal, and as construction changes, or additional work warrants for change proposals (Supplemental Agreements) during the Construction Phase.

The schedule of values line items list will be developed in conjunction with the Department and required specifications including measurement and payment are as specified by the Division 1 Design-Build Specifications.

The components of the schedule of values line items may include:

- A. Direct Costs. The Design-Build Firm shall enter the direct costs for performing the Construction Work in a format agreed to by the Department using the estimated quantities. The schedule of value line items shall include the direct cost of performing the Construction Work. Direct costs of the items of Construction Work shall not include the Mark-Up that compensates the Design-Build Firm for home office overhead or profit. Direct costs are to include any line items from the following list of jobsite and field office costs that are determined to be allowable direct costs as part of post-award negotiations:
  - a. Job Supervision and Overhead: Wages, including benefits, payroll insurance and taxes for onsite management, supervision, engineers, safety personnel, quality control staff, and administration staff.
  - b. Survey: Cost of construction survey including both Design-Build Firm hired and outside services.
  - c. Site Office Expense: Ownership or rental of building, maintenance, removal, utilities,

- office and engineering expendables, furniture, computers and infrastructure.
- d. Temporary Buildings: Cost of ownership or rental, set up, maintenance and removal of, such as warehouses, first aid building, and other miscellaneous.
- e. Personnel Expense: Small tools and supplies (unless carried in the direct cost portion of the estimate), safety expendables, drug screen testing, training, physicals, hiring expense; include any per-diem costs for craft or indirect personnel.
- f. Project Utilities: Site utilities such as temporary electric, water, and sanitation.
- g. Mobile Equipment: Overhead vehicles, maintenance equipment and personnel (if not in Equipment Operating Expense), and general service equipment (e.g., flatbeds and forklifts) and personnel if not already included in the direct cost.
- h. Mobilization: Cost of transportation of equipment and other items for move in, move out, set up, and take down, including cost of personnel moves and related expense.
- Construction Plant: Site fences, parking areas, material yards, temporary access, haul road construction, maintenance, and other such special construction not already included in direct costs.
- j. Quality Control: Cost of Quality Control labor, equipment, supplies, outside services, and Contractor-hired personnel and on-site quality supervision.
- k. Labor: Wages and add-ons, including overtime, vacation pay, and all fringe payments such as health and welfare, pensions, and any other that may be included in union agreement or as paid to both craft and staff employees; payroll insurance including Worker's Compensation and General Liability if based on labor amounts; payroll taxes including Federal Insurance Contributions Act (FICA) and State and Federal unemployment
- Permanent Materials: Cost of materials incorporated into the Construction Work, including estimated loss, waste, and non-pay overruns. Sales tax and any shipping for these materials will be a part of this category.
- m. Construction Expendable Materials: Non-permanent materials, temporary facilities, small tools, formwork, temporary construction, office supplies, services, insurance, and taxes
- n. Equipment Ownership: Rental or ownership charge of both company-owned and outside rentals, and tax on any rentals
- o. Equipment Operating Expense: Repair parts, tires and tracks, Contractor's repair labor, services and fuel, and oil and grease
- p. Subcontract: Cost of items of Construction Work subcontracted, including contracted trucking
- B. Indirect Costs. No additional indirect Costs shall be included in calculating a GMP.

#### 3. Summary Narrative of the Estimate

Upon request by the Department the Design-Build Firm shall provide a summary narrative of how the GMP

was created. Include a discussion of how specific items were developed in the estimate, such as, but not limited to, fuel pricing, material sources, labor rates, any craft labor agreements, and availability of skilled craftsman, including workload assumptions. Discuss approach to equipment availability and rental rates, including any equipment adjustments to hourly equipment rates used in the estimate based on schedule usage of equipment versus length of time equipment will be on the job, or if a buy-sell basis of ownership costs is applicable to the Project. Discuss temporary construction required such as haul roads, temporary pavement, temporary drainage, detours, any retained earth, and borrow or waste pit development. Discuss approach to schedule, including hours of Work, double or triple shifts, weather and season considerations, and the general duration of the estimated Work. All information provided by the Design-Build Firm will be subject to review by the Department and its representatives.

#### 4. Final Payment on Work Packages

At the completion of a Work Package, the final payment amount for that Work Package shall be the sum of the schedule of values and risk reserve expenditures authorized by the Department. In no event shall final payment exceed the GMP identified in the Task Work Order for an associated Work Package, with the exception that the Department retains the sole right to make additional payments (either through increasing a GMP or any other method allowed) to the Design-Build Firm in the case of force majeure impacts to the Project and only upon proper documentation of the impact from the Design-Build Firm. Acceptance of a Work Package is independent of final acceptance of the Project and does not relieve the Design-Build Firm from the responsibility for the Work or obligation to maintain the Work associated with the Work Package; it is solely a tool to make a final payment owed on a Work Package. The Project as a whole will not receive final acceptance until all Work Packages have been completed and accepted by the Department, and the Design-Build Firm will maintain responsibility, including maintenance, over the entire Project limits until final acceptance is granted by the Department.

The Department may in addition to accepting a completed Work Package for the above payment reasons, issue a letter of Partial Project Acceptance. Issuance of the Partial Project Acceptance letter for a particular Work Package will start the warranty period for that Work. As a precondition to a Partial Project Acceptance letter, the Department and the Design-Build Firm must enter into a separate Task Work Order for the maintenance of the limits of the Work Package. A letter of Partial Project Acceptance of a Work Package may only be issued by the Department if the Department members of the Executive Review Board determines that the Work in question is completed, has independent utility, and is not likely to be impacted by remaining Work on the Project.

## 5. Schedule of Values

The Schedule of Values approved by the Department will be the basis for determining each monthly progress estimate and the final estimate for each Work Package. The quantities will be compared with the Project Master Schedule to determine the percentage earned. The percentage shall be that portion of the work completed as compared to the total work contracted. The Design-Build Firm shall use the Schedule of Values to cost load the offsite fabrication and construction activities under the Master Schedule. The assignment of values to scheduled activities must be approved by the Department prior to the first monthly progress estimate and prior to any invoicing by the Design-Build Firm. The monthly progress estimates cut-off date will be as provided for on the Department's website currently at <a href="Estimate Cut-Off Dates (fdot.gov">Estimate Cut-Off Dates (fdot.gov)</a>. If the Department no longer publishes the estimate cut-off dates the estimate cut-off date shall be the third Sunday of the month. The Design-Build Firm must submit the schedule of values to the Department for approval for each Work Package.

#### 6. Cost Trends Data

The Design-Build Firm shall also submit the cost trends spreadsheet with estimated quantities along with the associated unit prices to support the Department's analysis of Construction Cost Trends at the

following link. This data shall be submitted to the Department within ninety (90) days of the Department's Release for Construction Plans. (https://www.fdot.gov/fpo/cost-trends-data)

The Design-Build Firm shall also submit estimated quantities along with the associated unit prices for all bridge pay items in the final approved bridge plans at the following link. The bridge data is required to complete the Department's annual Bridge Report which is required by FHWA. This data shall be submitted to the Department within ninety (90) days of the Department's Release for Construction Plans.

#### 7. Combined Invoice for Work

The Design-Build Firm is responsible for submitting invoices requesting payment. These invoices shall be submitted no later than twelve o'clock noon (12:00 P.M.), Monday, after the estimate cut-off date or as directed the Department and shall include all sums earned by the Design-Build Firm under the Contract and any Task Work Order, including the estimates associated with each Schedule of Values associated with any ongoing Work Packages. For the initial AIC Phase where the method of compensation is limiting amount a signed rate certification must be submitted showing the actual rates of the personnel included in the invoice. The Schedule of Values estimates portion of the invoice shall be based on the completion or percentage of completion of tasks as defined in each schedule of values, and/or as supported under the Master Schedule updates. If a Design-Build Firm is working on multiple Project Segments, Work for each Project Segment shall be clearly identified. No estimates requesting payment shall be submitted prior to Department approval of the schedule of values. If the Design-Build Firm earns any bonus payment associated with the bonus provisions defined in Section II.L, the Design-Build Firm should request in writing confirmation from the Department that the bonus was earned, and then may submit for payment of the bonus on the invoice in the month following confirmation from the Department that the bonus was earned. Upon receipt of the estimate requesting payment, the Department will determine whether work of sufficient quality and quantity has been accomplished by comparing the reported percent complete against actual work accomplished.

## S. Whole Project Contingency

The Department shall establish a Whole Project Contingency (WPC) for potential resolution of any Errors & Omissions (E&O) issues that exceed a GMPs total value throughout the life of the Project. This WPC shall be valued at \$11,500,000. This in lieu of requiring and compensating the Design-Build Firm for Project Specific Professional Liability Insurance or CPPI. At any time, the Design-Build Firm may make an E&O claim to the Department for claimed errors or omissions caused by the designer of the Project. This claim will be evaluated by the Executive Review Board, and if approved by the Department members of the Executive Review Board, compensation for the E&O claim would come from the WPC. Third-party claims may not be compensated out of the WPC. The WPC is only intended to cover claims made by the Design-Build Firm (including subcontractors) concerning its consultant designer (including subconsultants). Any claim made by subcontractors or referencing subconsultants must be supported by and brought by the Design-Build Firm. No other parties' or entities' claims shall be governed by this section.

Once the Project has been submitted to the Department for Final Acceptance and has been completed within allowable Contract Time (adjusted per Contract Documents) and there is no outstanding or anticipated litigation by the Design-Build Firm (certified by the Design-Build Firm that none exist), and if no E&O claim has been made on the Project, the Department shall pay the Design-Build Firm \$5,750,000 of the WPC (\$2,875,000 earned by the Design-Build Firm's Contractor and \$2,875,000 earned by the Design-Build Firm's Designer).

#### T. Risk Reserve

## 1. General

The Risk Reserve shall be used to cover unanticipated Project costs that are identified in the categories of the Risk Reserve and are properly reimbursable as a cost of the work. The Risk Reserve will not be apportioned to individual Work Package GMPs. Any risk perceived by the Design-Build Firm that is not captured on the Risk Reserve shall be incorporated into the Schedule of Values pricing for the Work. The Risk Reserve shall include an "Other Risks" item to encompass risks that are otherwise not listed at the creation of the WPP. Requests for compensation from the Risk Reserve are drawn from the total amount of the Risk Reserve as a whole and not from independent items, with the exception of "Other Risks". The total amount compensated for "Other Risks" may never exceed 20% of the total Risk Reserve.

The Design-Build Firm's use of the Risk Reserve shall be subject to the same requirements for a claim set forth within the Design-Build Specifications, with the exception that claims which may not be allowed under the Design-Build Specifications are allowed to use the Risk Reserve if otherwise approved by the Department.

All claims allowed by the Design-Build Specifications must be allocated to the Risk Reserve. These payments are not considered when ensuring a Work Package does not exceed its GMP.

The Department retains the right to make additional payments (either through increasing a GMP, increasing the Risk Reserve, or any other method allowed) to the Design-Build Firm in the case of force majeure impacts to the Project and only upon proper documentation of the impact from the Design-Build Firm.

All claims for additional time and compensation on any Work Package must be submitted in accordance with the RFQ in the format and timeframe described in the Design-Build Specifications that are incorporated into the Contract. Notwithstanding any other provision of the Contract, all pricing and compensation for claims shall be calculated in accordance with the RFQ and not as provided in the Design-Build Specifications.

In order to facilitate a request for additional compensation to be paid out from the Risk Reserve, either as a specific allowable claim or as a general request for additional funding, the Design-Build Firm must provide the notice, as defined in the Design-Build Specifications, to the Department of the potential for the claim, in sufficient time for the Parties to discuss steps to minimize the utilization of the Risk Reserve. The Design-Build Firm must also provide such supporting documentation as required by the Department. The Department has sole discretion to determine the amount of supporting documentation required based on each request. The amount of funds requested shall follow the same open-book pricing requirements as a GMP as defined in the RFO.

Before each Work Package is considered complete, the Design-Build Firm must make a final certified claim for any requests for compensation from the Risk Reserve. This final certified claim is considered the last and final opportunity to be compensated for Work completed under the Work Package.

For allowable time, the Design-Build Specifications govern Delay in the Critical Path of the Project Master Schedule. For associated costs for claims, including indirect costs, the RFQ will supersede all other described specific amounts defined in the Design-Build Specifications.

If a construction modification is approved after the issuance of a Task Work Order for an associated Work Package, and produce savings, the value of those savings shall be allocated to the Risk Reserve. This is applicable to any modification to a previously approved item and/or a deviation from a Contract Requirement, that require Department approval and that reduces the cost of the item as previously defined in an approved GMP. These modifications are specific to adjustments made after the AIC Phase. Any such modification must not impair the essential functions and characteristics of an item of work such as safety, service, life, reliability, economy of operation, ease of maintenance, aesthetics, and necessary standard design features as decided by the Department.

# 2. Risk and Opportunity Workshop, Constructability Review, and Quantity Reconciliation Meeting.

The Design-Build Firm, the Department and its representatives shall hold risk and opportunity workshops during the Design Phase to continue risk management that began with the AIC Phase Risk Register and identify and prioritize risks, discuss possible risk mitigation strategies, and explore risk sharing concepts for each Work Package. The workshops shall seek to quantify risks and predict probability of occurrence in an effort to predict the total Project risk reserve figure. The meetings shall focus on risk mitigation and how risks would affect bid items. For the priority risks, associated bid items will be identified and the affected pricing components (production rates, labor, materials, equipment, etc.) summarized for each.

During the risk and opportunity workshops, the Design-Build Firm, the Department and its representatives shall also discuss constructability review comments and quantities. The plans shall be reviewed to verify that the risk mitigation strategies and opportunities stemming from the risk and opportunity workshop have been incorporated. This review shall also include quantity takeoffs, verification, and reconciliation to verify all bidding parties have agreed to bid quantities. A key element of these reviews is identification of limitations to operations which will describe the segment and schedule requirements for the Project and will be helpful to the Design-Build Firm as they prepare their separate Master Schedules.

#### **U.** Workforce Development

To support workforce development and inform job seekers of employment opportunities, the Design-Build Firm shall develop, host, and maintain a website that lists available local employment opportunities for both skilled and entry level positions for the Project. Information on the website shall include job listings for the prime contractor and subcontractors for the Project, job requirements, and local contact information to assist applicants. The webpage shall be maintained with up-to-date employment opportunities through the completion of the Project. The website shall be developed to provide the ability to easily link the web address to the information on existing webpages, to provide greater visibility for interested parties to view information.

The Design-Build Firm shall develop an on-the-job training ("OJT") plan that complies with the requirements developed by the Department during the Design Phase. The requirements of the OJT plan are provided in the Attachments.

The Design-Build Firm is encouraged to submit Innovations during the AIC Phase that contribute to Workforce Development.

#### V. Drone Usage

The use of any Unmanned Aircraft System (UAS), Unmanned Aerial Vehicle (UAV), drone, or similar system to accomplish contract activities must comply with federal, state, and local laws and regulations. For all Department business, UASs must always be piloted by a Federal Aviation Administration (FAA) Certified Part 107 Pilot with an active and current certification. Legal variances can only be permitted by the regulating agency and NOT the FDOT.

#### W. Final Payments and Shared Savings

Once the Project has been fully completed by the Design-Build Firm and submitted to the Department for Final Acceptance and the Project has been completed within allowable Contract Time (adjusted per contract) and there is no outstanding or anticipated litigation (certified by the Design-Build Firm that none exist), the Department shall make the following payments:

The Department shall pay the Design-Build Firm the remainder of the Design Expense portion of the Design GMP. This compensation is earned by the Designer for being efficient in its expenses.

The Department shall pay the Design-Build Firm 20% of the difference between the Design Phase GMP and the final amount paid under the Design Phase Task Work Order (after paying out the above remainder

of Design Expense). This compensation is earned by the Designer for being efficient in its work.

The Department shall then calculate the Shared Savings amount for the Project. The Shared Savings is the difference between the final accepted PGMP (as defined in the Design Task Work Order) and the total fees paid to the Design-Build Firm (including the amounts in this section concerning Design expenses and the Design GMP). The Design-Build Firm shall receive 14% of the Shared Savings.

## V. Phases of Work

#### A. Accelerated Innovation and Collaboration (AIC) Phase

#### 1. Overview

Upon execution of the Contract, the Design-Build Firm shall commence the AIC Phase work. The AIC Phase shall end on March 13, 2026. All approvals for innovations must be received prior to this date.

During the AIC Phase, the Design-Build Firm shall develop a collaborative team environment that fosters communication, accountability, and trust with the Department, its representatives, and its stakeholders to progress, refine, and optimize the design and to develop and submit a Request to Continue (RtC) package and a PGMP submission.

#### 2. AIC Phase Activities

## Project Management Services:

- Build a collaborative team environment that fosters communication, accountability, and trust.
- Conduct regular risk and opportunity/innovation workshops.
- Initiate third-party coordination with Utility Agency Owner (to be led by the Design-Build Firm with oversight from the Department's Utility Coordination Liaison).

#### Preliminary Design Services:

- Implement an interactive design process to incorporate mitigation strategies for identified risks and innovations into the design in collaboration with the Department and its representatives.
- Conduct weekly design meetings and prepare minutes.
- Prepare presentations, engineering drawings, analysis, estimates, etc. to show work in progress or innovations.
- Perform preliminary design, prepare Revised Concept Plans, and provide documentation pursuant to the FDOT applicable manuals, policies, and procedures and the requirements in this RFQ.
- Perform supplemental site investigations and surveys needed to establish the PGMP.

## **Construction Planning Services:**

- Develop RtC Schedule
- Conduct workshops to establish the Phasing Plan.
- Develop and implement mitigation plans for identified risks.
- Identify, evaluate, optimize and propose alternatives to reduce schedule, reduce costs, or improvements that otherwise will improve the Project.
- Perform constructability and maintainability reviews of designs, plans and specifications.

- Submit a RtC package
- Develop PGMP

#### 3. AIC Meetings

The Design-Build Firm and the Department shall hold AIC Meetings throughout the AIC Phase. The parties shall work together to create a collaborative atmosphere and meet as frequently as necessary to advance the work. The Design-Build Firm shall provide an agenda for each meeting at least one day prior to the meeting, with sufficient detail so the Department can ensure the correct subject matter experts are included in the meeting.

#### 4. Innovations

Innovations are deviations from requirements contained within this RFQ and/or the Attachments.

The Department will also consider other non-technical changes to the RFQ in general during the AIC Phase. If a general (non-technical) change to the RFQ is accepted by the Department, it will be discussed with all Design-Build Firms, and upon agreement, a contract amendment will be executed to include the modification. These changes shall not be considered Innovations, but will be handled concurrently during the AIC Phase.

## 5. Workforce Development Innovations

During the AIC Phase, the Department may require that the Design-Build Firm offer Innovations to the Project for Workforce Development. If these specific Innovations are required by the Department, the Department will establish parameters for their submission and will collaborate with the Design-Build Firm in order to maximize any approach submitted by the Design-Build Firm. The Department may establish a specific fund set aside for specific Workforce Development to be included in the Design-Build Firm's PGMP.

#### 6. Submissions

During the AIC Phase, the Design-Build Firm will be permitted to submit Project Innovations for approval by the Department. The Innovations shall be submitted to the Department with the appropriate cover sheet and form as provided by the Department and sequentially numbered by submission order. All Innovation submissions should be submitted for review as early as possible to give the Department adequate time to review and respond. The Design-Build Firm and the Department shall discuss and outline the specific details required for each Innovation submission and indicate important features of the proposed innovation and the potential impact or reductions to, but not limited to, ROW, environmental and natural resources/permitting, design exceptions and/or variations, utilities, and complexity of bridge types (i.e., introduction of Category 2 structures).

While the Department cannot make an affirmative statement that the submissions by each Design-Build Firm made during the AIC Phase are confidential according to Florida law, the Department will make every effort to maintain the Innovations in confidence, with two exceptions. The first exception is when a particular Innovation identifies an error in the contract documents that the Department, in its sole discretion, needs to rectify. The second exception is when the Design-Build Firm states to the Department that an Innovation will increase the potential cost of the Project. In this case, if the Department determines it is in the best interest of the Project to include such innovation, the Department will release the Innovation to all Design-Build Firms working on the Project and modify the technical requirements to make inclusion of the

Innovation an obligation. Any Innovation handled this way is not subject to the AIC Phase Innovation Sharing and Incorporation as discussed in the RFQ.

Alternatively, with innovations that have a cost increase, the Department may allow the Design-Build Firm the ability to request that the Innovation is not shared.

#### 7. Innovation Evaluations

Upon submittal of the Innovations for review, the Department will evaluate the Innovations and shall either reject, approve, offer comments, ask questions concerning the Innovation, or if the Innovation does not deviate from the requirements contained within the RFQ and/or the Attachments, the Department will respond to the Innovation noting the disposition as Currently Allowed by Contract. If the Innovation is not rejected or approved, the Design-Build Firm may resubmit the Innovation after making adjustments or answering the Department's questions. Resubmittal of an Innovation shall require the number to be advanced by a tenth (Innovation #2, #2.1, #2.2, etc.). The Department shall endeavor to review each Innovation as quickly as possible, but Department response shall take no longer than 5 workdays. This process is intended to be collaborative in nature and not necessarily formal, but any Innovation disposition must be in writing by the Department. Any approved Innovation must follow all Department rules and regulations, unless deviations are stated within the approved Innovation.

## 8. Risk Register Submission and Establishment of Risk Reserve

The Design Build Firm shall submit to the Department a Risk Register ten days prior to the due date for the RtC Submission. This Risk Register shall list the risks the Design-Build Firm anticipates may occur during the completion of the Work, a monetary value associated with such risks, and potential mitigation strategies and potential costs that the Department or the Design-Build Firm can undertake to minimize and mitigate such risks. The main purpose of the Initial Risk Register is to identify risks and enable the Design-Build Firm, the Department, and its representatives to collaboratively develop mitigation strategies that can be implemented during the AIC and Design Phases to reduce project risks and the value of the Risk Reserve for the Project.

The Department will review all Risk Registers it receives and provide back to the Design-Build Firm a Risk Reserve listing risk categories the Department agrees that may occur on the job. The Department will also set a value for the Risk Reserve that shall be included in the PGMP. The Risk Reserve is not intended to encompass all risk associated with the Work, but it is to set a baseline for each of the Design-Build Firms working on the Project and shall serve as the list of risks that may be specifically compensated for by the Department. The Risk Reserve shall include an "Other Risks" category. The Department's establishment of the Risk Reserve shall be provided to the Design-Build Firm no later than five days preceding the required submission of the RtC.

#### 9. Request to Continue Submission

During the AIC Phase on the date provided by the Department, the Design-Build Firm shall submit to the Department a Request to Continue (RtC) package. The RtC package shall include the documents below, and serves as a request by the Design-Build Firm to have the Department issue a Design Phase Task Work Order (TWO) for the Project.

At the beginning of the AIC Phase the Department shall provide the Design-Build Firm with a schedule of deliverables due during the AIC Phase.

The following documents are deliverables that shall be submitted to the Department as part of the Design-Build Firm's RtC submission.

#### **AIC Phase RtC Submission**

Document	Description
Revised	Adjustments to the Horizontal Alignment Package incorporating innovative concepts
Horizontal	approved by the Department over the course of the AIC Phase. Adjustments to the
Alignment	Horizontal Alignment Package shall follow the Department's Plans Revision process
Package	described in the FDM. During the AIC Phase, the Department will provide direction
	on the level of development of the Adjustments to the Horizontal Alignment Package
	for each innovation. The level of detail shown in the Revised Horizontal Alignment
	Package should match the level of detail Horizontal Alignment Package Attachment.
Phasing Plan	The Phasing Plan shall describe how the Project scope is to be segmented into
	Advanced Construction Work, Early Work, Major Work, and Finishing Work
	Packages.
RtC Schedule	The RtC Schedule shall show Design Phase and Construction Phase activities. The
	schedule identifies durations for all review and approval periods for the Department,
	other agencies, and third-parties. The schedule shall identify the critical path and
	identify and account for long-lead procurement needs. The schedule shall include an
	overall Contract Duration not to exceed the duration set by the Department in this
	RFQ.
Innovation List	A list of approved Innovations that the Design-Build Firm has included in their
	PGMP. This list shall be on a form defined by the Department.

#### 10. PGMP Submission

After submitting the RtC package, the Design-Build Firm is required to submit a PGMP in the manner and time prescribed by the Department. By submitting the RtC and PGMP the Design-Build Firm understands and accepts that the Department, in its sole discretion, has the right to choose not to issue a Design or Construction Phase Task Work Order. By submitting the RtC, the Design-Build Firm explicitly agrees to be bound by the Department's determination on whether or not to issue a Design Phase Task Work Order, and waives any right to dispute the Department's determination.

#### 11. Department Determination

The Department's determination of best value will consist of a review of the RtC package and the PGMP submission. The Department's review shall consist of a comparison of all received RtC packages and PGMP submissions. Comparisons shall be made of PGMP prices, the relative worth of the approved innovations, the overall schedules and Contract durations, relative commitment made, how the Design-Build Firm exhibited collaboration, and the approaches to achieving the bonus associated with incentivized work.

At the beginning the AIC Phase, the Department shall establish the mechanism in which it shall make the determination on whether the Design-Build Firm will receive additional Task Work Orders.

#### 12. Incorporation of PGMP and RtCs

The RtC package, including the approved Innovations and schedule, and the PGMP shall be incorporated into the Design Phase Task Work Order as contractual obligations.

#### 13. Innovation Incorporation

Prior to issuing the Task Work Order for the Design Phase, the Department may require the Design-Build Firm to consider including Innovations developed by others during the AIC Phase. If the Design-Build Firm, in collaboration with the Department, agrees that the inclusion of such Innovations would cause a savings or increase to the PGMP of the Project, the PGMP must be resubmitted, and approved by the Department.

This new PGMP shall serve as the basis for the Design Phase Task Work Order. The Design-Build Firm is entitled to a bonus payment equal to 14% of the difference between the originally submitted PGMP and the resubmitted and accepted PGMP (after a reduction for inclusion of cost saving innovations is calculated). This bonus payment shall not be included in the resubmitted PGMP. This bonus payment may be invoiced upon final acceptance of the Project.

If the Department requires inclusion of an Innovation, and such requirement cause a reduction in the PGMP, the Department shall compensate the Design-Build Firm that created the Innovation 14% of the savings gained by the Department.

## B. Design Phase

#### 1. General

Upon execution of the Design Phase Task Work Order, the Design-Build Firm shall commence the Design Phase work.

During the Design Phase, the Design-Build Firm shall maintain the same collaborative team environment from the AIC Phase that fosters communication, accountability, and trust with the Department, its representatives, and its stakeholders to progress, refine, and optimize the design and to plan, schedule, and develop GMPs for Work Packages identified during the AIC Phase.

By entering into the Task Work Order for Design, the Design-Build Firm agrees that the PGMP submitted (and potentially modified after the Innovation inclusion step above) is the maximum amount of Project cost. Except for a claim due to Force Majeure, no claim of any kind will be permitted to cause the Department's cost for the Project to exceed the PGMP. The Department must have a total amount programmed for the Project equal to the final PGMP.

Prior to executing the Task Work Order for Design, the Design-Build Firm must provide the Department a payment and performance bond, on a form provided by the Department, for an amount equal to the PGMP of the Contract.

Within 30 days after executing the Design Task Work order the Design Build Firm must submit a whole Project schedule of values with an estimated quantity per pay item with unit prices or with a blended cost if approved by the Department and any additional lump sums associated with work. This submittal shall be utilized to facilitate efficient reviews of WPPs.

#### 2. Design Phase GMP

The Design Phase GMP shall be equal to or less than the Design cost established in the submitted PGMP. It shall act as the limiting amount for the Design Phase Task Work Order. The calculation of a GMP for Design shall be at a level of detail established by the Department and the Department shall establish the supporting documentation required for this GMP.

## 3. Design Phase Activities

## Management Services:

- Maintain a collaborative team environment that fosters communication, accountability, and trust.
- Continue the interactive design process to incorporate mitigation strategies for identified risks and innovations into the design.
- Develop the Project Management Plan for submittal to and approval by the Department.
- Develop the Design Quality Management Plan for submittal to and approval by the Department.
- Prepare the Safety Plan for submittal to and approval by the Department.
- Provide information required for periodic updates to the Community Awareness Plan and provide support to the District Public Information Director for the public involvement efforts.
- Continue conducting regular risk and opportunity/innovation workshops and prepare minutes.
- Continue third-party coordination with Utility Agency/Owners (UAO's) (to be led by the Design-Build Firm with oversight from the Department's Utility Coordination Liaison).
- Support and coordinate with Department on ROW matters, relative to schedules, construction impacts, maintenance of driveway access, cure improvements, etc.
- Prepare Governmental Approvals and permits required to complete the Project. When the Department is responsible for obtaining an approval/permit, provide supporting information and documentation when requested by the Department.
- Prepare a Hurricane Readiness Plan for submittal to and review and acceptance by the Department.

## Design Services:

- Weekly design meetings and minutes, plus regular discipline-specific meetings, including but not limited to Roadway, TTCP, structures, geotechnical, drainage, utilities, signing, ITS, hardscape/aesthetics, etc.
- Presentations and engineering drawings to show work in progress or innovations.
- Develop designs to 90% for purposes of WPP development. The Design-Build Firm may request Early Works WPP approval based on 60% design.
- Complete final design and post-design work for each WPP.
- Prepare and submit applications and/or modifications for permits and submit applicable fees required by authorities with jurisdiction
- Develop Project Technical Provisions
- Perform design and provide documentation pursuant to the FDOT applicable manuals, policies, and procedures and the requirements in this RFQ.
- Perform utility coordination, surveys and prepare utility adjustment sheets.
- Prepare designs and construction documents for utility adjustments and relocations
- Prepare ROW plans and provide ROW acquisition support services for any proposed new ROW, if required by the Department.
- Conduct any remaining site investigations and surveys

#### Risk Management:

• Update and maintain the Risk Register. Each modification to the Risk Register must be submitted to the Department for review and approval.

- Develop and implement mitigation plans for identified risks.
- Identify, evaluate optimize and propose alternatives to reduce schedule, reduce costs, or improvements that otherwise will improve the Project.
- Perform constructability and maintainability reviews of designs, plans and specifications at major milestones as determined by the parties.

## **Cost Estimating:**

- Develop GMPs and WPPs for submittal to and review by the Department.
- Open Book Negotiations: The development of all GMPs and Work Package Proposals and changes during Construction shall be on an open-book basis, and the Department shall have the right to access and copy all records, accounts, and other data used by the Design-Build Firm in connection with the preparation of any draft or final GMP and Work Package Proposal. Each GMP included in any WPP or for changes during Construction shall be developed in a cooperative manner in accordance with the guidelines and principles described in the Contract Documents.
- If directed by the Department, continue to participate in value engineering services so that the Design-Build Firm can reduce the GMP. At the Department's request the Design-Build Firm shall meet with the Department to review and discuss the WPP and make adjustments in response to comments from the Department.

#### Master Schedule:

- Develop the Master Schedule within 60 days of NTP on the Design Task Work Order. The Master Schedule shall meet the requirements of Section 8-3 of the Design-Build Specifications. Throughout the Construction Phase, the Master Schedule shall be updated monthly and include the Work Package Proposal Schedules as a Work Breakdown Structure (WBS) under the Master Schedule.
- Upon NTP of the Design Task Work Order and prior to the submittal of the Master Schedule, a twoweek activity look ahead schedule shall be submitted every two weeks, reflecting the controlling items of work and a list of planned submittals.

#### C. Construction Phase

#### 1. Construction Phase Activities

The following are tasks/deliverables that the Design-Build Firm shall perform/submit during the Construction Phase:

#### Management Services:

- Maintain a collaborative team environment that fosters communication, accountability, and trust.
- Attend weekly progress meetings.
- Update the Project Management Plan as needed.
- Update the Quality Management Plan as needed.
- Update the Safety Plan as needed.
- Update the Master Schedule monthly, or as needed.
- Update the Phasing Plan as needed.
- Ensure compliance with the on-the-job training (OJT) plan.

- Update and maintain the Risk Register. Implement mitigation plans for identified risks.
- Continue third-party coordination with Utility Agency/Owners (UAO's) (to be led by the Design-Build Firm with oversight from the Department's Utility Coordination Liaison).
- Provide review and information required for periodic updates to the Community Awareness Plan and provide support to the PIC for the public involvement efforts.
- Ensure NEPA commitments are met and continue Project Commitment Record tracking.

#### Construction Services:

- Construct Work Packages in accordance with the Contract requirements.
- Perform Incident/Emergency Management and Maintenance responsibilities within the Project Limits in accordance with the Contract requirements.

#### **Cost Estimating:**

 Open Book Negotiations: Any required changes/innovations during the Construction Phase shall be developed in a cooperative manner in accordance with the guidelines and principles described in the Contract Documents.

## 2. Self-Performance and Subcontracting Requirements

The Design-Build Firm shall self-perform at least thirty percent (30%) of the Construction Work and not more than sixty percent (60%) of the Construction Work. Only direct costs associated with Construction Work shall be considered in the calculation of the self-performance. The percentage of Construction Work (the four WPPs shall encompass (1) Advanced Construction Works (2) Early Works, (3) Major Works, and (4) Finishing Works) subcontracted shall be determined by dividing the total direct costs dollar value of the Subcontracted Construction Sub-Packages for Construction Work by the total value of Construction Work direct costs in all Work Packages.

For trade subcontracted work, the Design-Build Firm shall confirm that it competitively solicitated bids.

#### 3. Construction Work Package Proposal Submission

During the Design Phase, the Design-Build Firm shall develop WPPs in accordance with the Phasing Plan. The number of WPPs shall be limited to four and shall be in alignment with the Phasing Plan developed in the AIC Phase. The four WPPs shall encompass (1) Advanced Construction Works (2) Early Works, (3) Major Works, and (4) Finishing Works.

If the Design-Build Firm wishes to submit a draft WPP, the Department will review offer comments.

The Department shall review each submitted final WPP and provide feedback within 5 workdays. Thereafter, the Department and the Design-Build Firm shall engage in good faith negotiations to finalize the Work Package on a timely basis. If after 5 workdays of negotiation, a resolution to the WPP scope and price cannot be achieved, the negotiation must be escalated to the Executive Review Board. The Executive Review Board will meet and resolve within 5 workdays after receiving the escalated issue.

Each WPP shall be for a unique Work Package.

Upon agreement of the WPP and included GMP, the Department and the Design-Build Firm shall execute a Task Work Order (subject to availability of funds), which shall set forth each of the items listed below to the extent they are relevant to the scope of the Construction Work authorized by the Work Package:

- The GMP with backup documentation.
- The Schedule of Values;

- The Work Package Schedule, including a total duration of the work in calendar days. The schedule shall identify the critical path, identify and account for long-lead procurement needs for the Work Package. The Work Package Schedule shall be contained within the Master Schedule;
- The parties respective obligations for obtaining any required Governmental Approvals;
- A list of the Design Documents, including all addenda thereto, used in preparation of the GMP, including a list of clarifications and assumptions made to supplement the information contained in the Design Documents;
- The studies, plans, and reports generated as part of the Design Phase, including any Site investigation reports, the Utility Map, ROW Plans, Hazardous Materials Report, Project Management Plan, Quality Management Plan, Settlement and Vibration Monitoring Plan, and Safety Plan.
- Any changes to identified Key Personnel positions or the individuals serving in such positions;
- The Technical Provisions;
- Risk Register;
- The Design-Build Firm's obligations to perform work under any Utility Agreements;
- Any other documents or information reasonably required by the Department;
- Any clarifications made by the Department under the provisions of this RFQ; and
- Additional obligations or requirements agreed to by both parties.

#### 4. WPP GMPs

The GMP for each WPP shall be computed as the sum of the following and any other components agreed to by the Department and the Design-Build Firm:

- 1. The Design-Build Firm's reasonable, good faith estimate of the cost of the Work, presented as the Schedule of Values. This shall include all values for self-performed work and subcontracted work that makes up the Work Package.
- 2. The Design-Build Firm's Mark-up.

The backup support for the calculation of the GMP shall be provided to the Department in a manner agreed to by the Department and the Design-Build Firm.

The Design-Build Firm and the Department shall establish the backup support documentation required for a GMP. The backup support for the GMP calculation is anticipated to include the following: Pay Item list with associated quantities and unit prices to establish a Schedule of Values.

The Department and the Design-Build Firm may agree in any WPP that some or all of the pricing shall be expressed as a lump sum as opposed to a GMP amount. The Department and the Design-Build Firm may also agree in any WPP that elements of the pricing may be paid for on a unit-price basis in the interest of risk-sharing.

#### 5. Coordination with the Department for GMPs

The Design-Build Firm shall develop a collaborative environment with the Department and its representatives in order to maximize value and quality of the Project through open and transparent development of project costs, schedule, and risks. The requirements stated herein are minimums, and the Department may request additional meetings or documentation be shared by the Design-Build Firm to the Department or its representatives to enable those representatives to perform their services for the Department.

Before any pricing begins on any Work Package Proposal, the Design-Build Firm, the Department and its representatives shall meet to discuss and agree on how the GMP will be evaluated for the Work Package Proposal. In addition to reviewing the overall fair price strategy, the Design-Build Firm, Department and its representatives will seek agreement with the Design-Build Firm on how certain elements of price will be handled. The following issues will be discussed:

- 1. Definition of fair market price;
- 2. Labor and equipment rates;
- 3. Subcontractor quotes and self-performed work;

#### D. Maintenance Phase

## 1. Incident Management Responsibilities

Incident management within the Project Limits will be the responsibility of the Department's existing Incident Management Program with the exception of the following responsibilities. The Design-Build Firm shall be responsible for Long-Term Maintenance of Traffic associated with incident management activities, including any incident within the Project Limits that requires traffic control items to be placed outside of the construction limits, along the I-75 corridor beginning at execution of the Task Work Order for the first Construction Phase Task Work Order and continuing until Final Acceptance by the Department. Long-Term Maintenance of Traffic is defined as any lane blocking event lasting more than 60 minutes. The Design-Build Firm shall provide a qualified supervisor to be available twenty-four (24) hours per day, seven (7) days per week for incident management coordination and support.

The Design-Build Firm shall notify and assist the Department with traffic incidents during the construction and management of the Project, including but not limited to, contamination or hazardous materials release associated with traffic incidents, unauthorized dumping or similar incidents.

The current Service Patrol Program will remain in service throughout the duration of the contract and will be funded by others. The service patrol concept, known today as Road Rangers, is a free service offered by the Department and its partners, used for the management of vehicles for all types of incidents. The Road Rangers provide a direct service to motorists by quickly clearing travel lanes of minor incidents and assisting motorists. The Road Rangers and Florida Highway Patrol will provide short term maintenance of traffic for up to 60 minutes. The Design-Build Firm shall provide Long-Term Maintenance of Traffic (defined as all maintenance of traffic equipment setup and operational) within 60 minutes of any incident and such maintenance of traffic shall remain in place until the area is safe to reopen to traffic. If any incident causes the need for a detour route off the interstate system, the Design-Build Firm shall provide, install, and manage all maintenance of traffic features necessary to move traffic through the detour until the interstate system is safe to reopen to traffic. Failure to comply with these requirements will result in a \$5,000 per hour payment deduction from payments otherwise due to the Contractor at the discretion of the Department at the time of the incident.

The Design-Build Firm shall be responsible for cooperating, coordinating, and assisting with the Department's existing contractor(s) in meeting the goals of the "Open Roads Policy" agreement with the Florida Highway Patrol.

The Design-Build Firm shall include the cost of coordination in their Work Package Proposal(s) and also include these activities in the Schedule of Values.

In the event that any suspected contaminated and/or hazardous materials are encountered during construction, or if any spill of contaminated and/or hazardous material not caused by the Design-Build Firm's actions occurs, the Design-Build Firm shall stop work immediately and notify the District Corridors Program Engineer who will coordinate with the District Operations Center. The Design-Build Firm shall include the cost of coordinating and performing said responsibilities in their Work Package Proposal(s) and also include these activities in the Schedule of Values.

#### 2. Emergency Response Requirements

The Design-Build Firm shall refer to Section 7.6 of the FDOT Construction Project Management Administration Manual (CPAM) regarding responsibilities and payment for any advance preparation, repairs, replacement, etc. required as a result of natural disaster, catastrophic or emergency response events. Additional compensation for emergency management activities during a Governor's declared state of emergency will be at the sole discretion of the District Corridors Program Engineer and will be subject to participation by FHWA under the Emergency Relief program or Federal Emergency Management Agency under its disaster reimbursement procedures. Reimbursement for eligible emergency response work will be handled with a separate emergency contract. Otherwise, the Design-Build Firm will not receive any additional compensation. The Department authorizes the Design-Build Firm to pursue damage claims of costs incurred in response to non-natural disasters against the individual or entity which caused damages, or their insurers. Emergency management responsibilities will commence at execution of the Task Work Order for the first Construction Phase Task Work Order and continue until Final Acceptance by the Department.

The Design-Build Firm shall include the cost of performing said responsibilities in their Work Package Proposal(s).

#### 3. Maintenance Responsibilities

The Department will continue maintenance and inspection activities within the Project Limits until the Design-Build Firm receives Notice to Proceed on the first Construction Task Work Order. The Design-Build Firm shall schedule a meeting with the District or maintaining agency prior to NTP of the first Construction Task Work Order to discuss the responsibilities described herein. The Design-Build Firm will be responsible for maintenance and inspection activities through Project Final Acceptance with the exception of biennial bridge and overhead sign inspection and repairs associated with the inspection of existing infrastructure. Any bridge repairs resulting from the biennial inspections may be issued to the Design-Build Firm through a Maintenance Task Work Order. During the Design Phase, the Design-Build Firm shall coordinate with the Department to develop the maintenance limit drawings.

The Design-Build Firm's maintenance responsibilities shall include sweeping, litter removal, mowing, turf establishment, chemical vegetation control, tree trimming, erosion repairs, drainage, signing, lighting, ITS within the project limits until Final Acceptance by the Department, and shall be in accordance with the following minimum requirements:

- 1. Sweeping per FDOT Standard Specifications Section 107-1, except sweeping frequency shall be every 2 weeks.
- 2. Litter removal per FDOT Standard Specifications Section 107-1, except litter removal frequency shall be every 2 weeks.
- 3. Mowing per FDOT Standard Specifications Section 107-1, and includes existing turf and new turf with a mowing frequency of 10 cycles per year, with cycles between one month and two months

apart.

- 4. Turf establishment per FDOT Standard Specifications Section 570-4, and includes existing turf. Prior to Final Acceptance, the turf condition between Right of Way lines within the construction limits shall meet the Maintenance Rating Program (MRP) standards for turf condition.
- 5. Chemical vegetation control per FDOT Standard Specifications Section 570-4, and includes all existing turf and existing mechanically Stabilized Earth (MSE) wall faces and slope pavement.
- 6. Erosion repairs –repair all washouts within 72 hours of occurrence to the pre-event condition and reestablish the turf to prevent future washouts.
- 7. ITS maintaining ITS meeting the requirement of the ITS MTRs for FDOT District One, as appropriate, including preventative maintenance.

The existing ITS systems shall be maintained by the Design-Build Firm during construction, including the existing communication subsystems, devices, associated power subsystems, and infrastructure to enable fully operational systems for all stakeholders within the Project Limits. The Design-Build Firm shall prepare and submit to the Department a comprehensive Maintenance of Communications (MOC) plan. The MOC plan shall detail and document existing ITS equipment and report which devices will be removed, relocated, or impacted by Project work. The Design-Build Firm is prohibited from removing or discontinuing the operations of existing devices without approval from the Department.

#### The MOC plans shall at a minimum include:

- MVDS adjustments to maintain accurate, lane-by-lane detection reads providing volume, lane occupancy, and speed information
- CCTV camera adjustments to maintain visibility of the roadway, shoulders, on and off-ramps, and interchanges, as well as verification of DMS displays, and provide control functionality to operational staff within the RTMC.
- DMS adjustments to maintain the ability to disseminate real-time roadway and traffic conditions information to motorists receiving input from operational staff within the RTMC
- WWVDS adjustments to maintain accurate detection of wrong-way driving events on interchange off-ramps and notify motorists for self-correction measures and provide real-time alerts to operational staff within the RTMC
- Cabinet and in-cabinet equipment adjustments to maintain communications and power connections to all field devices and systems
- Communication cable adjustments to avoid conflicts with proposed or temporary features and infrastructure and prevent damage during construction operations
- Fiber optic jumper, terminations, and splicing connection adjustments to maintain communication between field devices, network, and the RTMC
- Adjustments to electrical power infrastructure and equipment to maintain power to field devices
- Protection of existing structures or installation of new temporary structures and foundations to safely support the existing field device relocation and/or adjustment during construction.

In addition to MOC plans, the Design-Build Firm shall prepare the following:

• ITS Repair Plan – document outlining the procedures, resources, points of contact

available twenty-four hours a day seven days a week (24/7), and step-by-step procedures on how damage and disruption to ITS devices and normal operations of systems will be addressed. This document will be required at the pre-construction meeting for review and approval.

- Method of Procedures (MOP) document accompanying the earliest MOC plan submission for review and approval by the Department. This document shall include all details for the proposed activities – including fiber optic communications cut-over plan, sequence of work with step-by-step field procedures, synchronization with TTCP phasing, and anticipated network and device outage times.
- Notification for Downtime written notification provided at least two (2) days in advance of disconnecting any ITS device or network components, or prior to any work that will disrupt the fiber optic network or communications and power to ITS infrastructure.

All activities for ITS maintenance shall be completed by prequalified contractors per Florida Administrative Code (FAC) Rule 14-22.003(3)(b) for work classes (8) electrical work, (16) intelligent transportation systems, and (39) traffic signals and as approved by the Department. The Design-Build Firm shall perform all necessary preventative and reparative activities including the inspection and maintenance of all ITS communications, field devices, equipment and ancillary infrastructure to ensure operation twenty-four hours per day, seven days per week (24/7). The Design-Build Firm shall maintain the ITS system to meet or exceed the following availability requirements measured on a quarterly basis:

- Dynamic Message Sign (DMS), Wrong-Way Vehicle Detection Systems (WWVDS)
   > 98.00%
- CCTV Cameras, Vehicle Detection System (VDS) > 95.00%
- ITS Communications System > 99.99%

The Design-Build Firm shall perform all preventative and routine maintenance activities within the specified intervals as recommended by the equipment manufacturer for each system, and in accordance with the prescribed preventative and routine maintenance schedule defined within the District One ITS Maintenance contract. In the event the intervals for preventative and routine maintenance activities differ, the Design-Build Firm shall adhere to the more stringent requirement.

The Design-Build Firm shall be responsible for the repair, replacement, and restoration of any failed ITS component or device, as well as any disruption to the systems from the normal operations. Failures or disruptions shall be determined by the Department. The Design-Build Firm is required to restore the ITS component, device, or system to a fully functional condition within the allowable time frames identified within the ITS MTR.

- Allowable Response Time total elapsed time between the initial notification of the identified issue(s) and the moment the Design-Build arrive on-site to address the issue.
- Allowable Repair Time total elapsed time between the initial notification of the identified issue(s) and the moment damaged or disrupted systems return to normal operations (i.e., fully functional).

The Department will be responsible for maintenance activities related to the ITS Master Hub facility and all internal networking equipment throughout the duration of construction. The Design-Build Firm shall be responsible for maintaining power and communications as

well as the physical integrity and functionality of the Master Hub building and associated generator. In the event that the Master Hub building, generator and power or communication infrastructure is damaged during construction, the Design-Build Firm shall repair or replace all damaged components at no cost to the Department. The Design-Build Firm is responsible for the installation of a new fiber optic Master Hub building, generator and internal networking equipment as detailed in the attached project ITS MTR requirements. Following the completion of all Master Hub construction activities resulting in final acceptance by the Department, the Department will resume maintenance responsibilities. The Design-Build Firm shall contact the Department to coordinate access within the Master Hub facility as necessary to complete construction activities.

As part of the monthly progress reporting, the Design-Build Firm shall provide the Construction Project Manager with an active construction zone map for discussion and coordination of any maintenance access issues and responsibilities.

FDOT Specification 7-11 Preservation of Property is replaced with the following in its entirety:

#### 7-11 Preservation of Property.

7-11.1 General: Preserve from damage all existing property within the project limits of or in any way affected by the Work, the removal or destruction of which is not specified in the Plans. This applies to, but is not limited to, public and private property, public and private utilities (except as modified by the provisions of 7-11.5), trees, shrubs, crops, sod, signs, monuments, fences, guardrail, pipe and underground structures, Intelligent Transportation Systems (ITS) facilities, traffic control signals and devices, highway lighting, and public highways (except natural wear and tear of highway resulting from legitimate use thereof by the Contractor).

Department owned underground facility locations shown in the Plans are approximate. Unless otherwise shown on the Plans Department owned underground facilities will not be located by the Department nor through notification to "Sunshine 811". Locate all Department owned underground facilities and fiber optic cables. Provide a fiber optic cable locator in accordance with Section 633.

Whenever the Design-Build Firm's activities damage such existing property, immediately restore it to a condition equal to or better than that existing at the time such damage occurred, at no expense to the Department. Temporary repairs may be used to immediately restore ITS facilities and traffic control signals and devices. Permanent repairs to ITS facilities and traffic control signals and devices shall be made within 90 days of any temporary repairs and prior to final acceptance of the project. Submit permanent ITS facility repair plans to the Engineer prior to beginning repair work.

Protect existing bridges during the entire construction period from damage caused by the Work. Immediately repair, at no expense to the Department, all damage to existing bridges caused by the Work, prior to continuing the Work. The Department may issue a Maintenance Task Work Order to provide routine repairs or maintenance for such structures.

Direct special attention to the protection of all geodetic monuments, horizontal or vertical, and Public Land Survey Corners located within the project. If any geodetic monument or Public Land Survey Corner, located within the project, is at risk of being damaged or destroyed, immediately notify the Engineer. Locate and replace any damaged or destroyed geodetic monuments or Public Land Survey Corners under the direction of a Professional Surveyor and Mapper registered in the State of Florida.

7-11.2 Failure to Restore Damaged Existing Property: In case of failure on the part of the Design-Build Firm to restore such property, bridge, road or street, or to make good such damage or injury, the Engineer may, upon 48 hours' notice, proceed to repair, rebuild, or otherwise restore such property, road, or street as may be deemed necessary, and the Department will deduct the cost thereof from any monies due or which may become due the Design-Build Firm under the Contract. Nothing in this clause prevents the Contractor from receiving proper compensation for the removal, damage, or replacement of any public or private property, not shown on the Plans, that is made necessary by alteration of grade or alignment. The Engineer will authorize such work, provided that the Design-Build Firm, or their employees or agents, have not, through their own fault, damaged such property.

## 7-11.3 Design-Build Firm's Use of Streets and Roads:

7-11.3.1 On Systems Other than the State Highway System: When hauling materials or equipment to the project over roads and bridges on the State park road system, county road system, or city street system, and such use causes damage, immediately, at no expense to the Department, repair such road or bridge to as good a condition as before the hauling began.

The Department may modify the above requirement in accordance with any agreement the Design-Build Firm might make with the governmental unit having jurisdiction over a particular road or bridge, provided that the Design-Build Firm submits written evidence of such agreement to the Engineer.

7-11.3.2 On the State Highway System: The Department is responsible for the repair of any damage that hauling materials to the site causes to roads outside the limits of the project, that are either on the State highway system (roads under the jurisdiction of the Department) or specifically designated in the Contract Documents as haul roads from Department-furnished material pits, except in the event damage is due to failure to comply with 7-7.2. The Design-Build Firm is responsible for all damages to any road or bridge caused by the Design-Build Firm's failure to comply with 7-7.2.

7-11.3.3 Within the Limits of a Construction Project: The Department will not allow the operation of equipment or hauling units of such weight as to cause damage to previously constructed elements of the project, including but not necessarily limited to bridges, drainage structures, base course, and pavement. Do not operate hauling units or equipment loaded in excess of the maximum weights specified in 7-7.2 on existing pavements that are to remain in place (including pavement being resurfaced), cement-treated subgrades and bases, concrete pavement, any course of asphalt pavement, and bridges. The Engineer may allow exceptions to these weight restrictions for movement of necessary equipment to and from its worksite, for hauling of offsite fabricated components to be incorporated into the project, and for crossings as specified in 7-7.3.

7-11.4 Operations within Railroad Right-of-Way: Submit written advanced notification of the flagging services and railroad right-of-way access required, construction timeframe, and duration to the Engineer and District Rail Office at least 45 calendar days prior to beginning any operation within the limits of the railroad right-of-way or the adjoining 15 feet. Operations include the movement of employees, equipment, and trucks in areas other than public crossings or any traffic signal work within 500 feet of a signalized at-grade railroad crossing. The Railroad Company will notify the District Rail Office when flaggers are available for use in project scheduling.

No operations shall be conducted that affect railroad operations and property without written approval from the railroad.

7-11.4.1 Notification to the Railroad Company: Submit written notification to the Engineer, District Rail Office and the authorized Railroad Representative at least 72 hours before beginning any operation within the limits of the railroad right-of-way; any operation requiring

movement of employees, trucks, or other equipment across the tracks of the railroad company at locations other than an established public crossing; and any other work that may affect railroad operations or property.

**7-11.4.1.1 Florida East Coast Railway (FEC):** Contact the FEC Signal Office at 904-279-3182 and FEC Railway at 1-800-342-1131, ext. 2377 in addition to the requirements in Section 7-11.4.1. **7-11.4.1.2 Florida Gulf and Atlantic Railroad (FGA):** Contact FGA at 615-791-0630 in addition to the requirements in Section 7-11.4.1.

7-11.4.2 Design-Build Firm's Responsibilities: Unless instructed otherwise in writing by the Railroad Company, do not perform work within or adjacent to the railroad right-of-way without a flagger present (including temporary lane closures, lane shifts or detours). Comply with requirements deemed necessary by the railroad company's authorized representative to safeguard the railroad's property and operations.

The Design-Build Firm is responsible for all damages, delays, or injuries and all suits, actions, or claims brought on account of damages or injuries resulting from the Contractor's operations within or adjacent to railroad company right-of-way. The work includes all items necessary to relieve the flagger from providing protective services.

Costs incurred by the Railroad Company for Design-Build Firm -caused delays that adversely impact railway operations will be forwarded to the Design-Build Firm for payment. If the Design-Build Firm fails to pay said cost, the Department will deduct the amount from payments owed to the Design-Build Firm.

**7-11.4.2.1 CSXT:** Comply with the Construction Submission Criteria of the CSXT Public Project Information document and Construction Requirements sections of the CSXT Pipeline and Wireline Design and Construction Specifications prior to beginning work. These documents are available at the following URL:

https://www.fdot.gov/programmanagement/Implemented/URLinSpecs/CSXT.shtm.

Perform no work within the limits of the railroad right-of-way on CSXT holidays (except with permission of CSXT for emergencies such as natural disasters). CSXT holidays are New Year's Day, President's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and the following Friday, Christmas Eve, Christmas Day, and New Year's Eve. Holidays falling on Saturday are observed on Friday and those falling on Sunday are observed on Monday.

7-11.4.2.2 Northfolk Southern (NS): Comply with the NS Special Provisions for Protection of Railway Interests (Appendix E) and the Construction Requirements (Appendix 4.3) of the NS Public Projects Improvement Projects Manual document prior to beginning and during all work. These documents are available at the following URL: <a href="https://www.norfolksouthern.com/en/rail-development-property/public-projects">https://www.norfolksouthern.com/en/rail-development-property/public-projects</a>.

**7-11.4.2.3 FEC:** Complete the On-Track Contractor Roadway Worker Training Course for FEC Railway. Contact FEC Railway at 1-800-342-1131 for training information.

**7-11.4.2.4 FGA:** Complete the On-Track Contractor Roadway Worker Training Course for FGA Railroad. Contact FGA Railroad at 1-615-791-0630 for training information.

7-11.4.2.5 South Florida Rail Corridor (SFRC): Complete the On-Track Contractor Roadway Worker Training Course for South Florida Regional Transportation Authority (SFRTA) Railway. Contact SFRTA at 954-788-7920 for training information.

7-11.4.3 Watchman or Flagging Services: The railroad company will furnish protective services (i.e., watchman or flagging services) to ensure the safety of railroad operations during certain periods of the project. The Department will reimburse the railroad company for the

cost thereof. Schedule work that affects railroad operations so as to minimize the need for protective services by the railroad company.

Submit construction schedules and schedule changes to the Engineer and District Rail Office which include an estimated start date, weekly construction schedule, daily hours of operation, and the calendar day duration for which flagging services will be necessary to perform work activities within railroad right-of-way in accordance with 8-3.2.

7-11.4.3.1 Central Florida Rail Corridor (CFRC) and SFRC: The Department will furnish protective services (i.e., watchman or flagging services) to ensure the safety of railroad operations.

#### **7-11.5 Utilities:**

7-11.5.1 Arrangements for Protection or Adjustment: Do not commence work at points where the construction operations are adjacent to utility facilities until all necessary arrangements have been made with the utility facilities owner for the protection, removal, temporary removal, relocation, de-energizing, deactivation or adjustment to protect against damage that might result in expense, loss, disruption of service, or other undue inconvenience to the public or to the owners.

Do not commence work until the agreement in 7-11.5.5 is executed and copy provided to the Department and if the protection, removal, temporary removal, relocation, deenergizing, deactivation or adjustment is going to be accomplished it must be in accordance with a Department approved utility Permit. Coordinate such work as to cause the least impediment to the overall construction operations and utility service. The Department is not responsible for utility removal, temporary removal, relocation, de-energizing, deactivation, or adjustment work where such work is determined not necessary by the Engineer or done solely for the benefit or convenience of the utility owner or its contractor, or the Design-Build Firm.

7-11.5.2 Cooperation with Utility Owners: In the event of interruption of water or other utility services as a result of accidental breakage, exposure, or lack of support, promptly notify the proper authority and cooperate with the authority in the prompt restoration of service. If water service is interrupted and the Design-Build Firm is performing the repair work, the Design-Build Firm shall work continuously until the service is restored. Do not begin work around fire hydrants until the local fire authority has approved provisions for continued service.

7-11.5.3 Utility Adjustments: Certain utility adjustments and reconstruction work may be underway during the progress of the Contract. Cooperate with the various utility construction crews who are maintaining utility service. Exercise due caution when working adjacent to relocated utilities. Repair at no expense to the Department all damage to the relocated utilities resulting from Contractor operations. The requirements of 7-11.1 and 7-11.5.2 outline the Design-Build Firm's responsibility for protecting utility facilities.

7-11.5.4 Intentionally left blank.

7-11.5.5 General Requirements: The Design-Build Firm shall be responsible for coordinating with all existing utility companies that have facilities within the job limits or which will be affected in any way by the Project and for coordinating all utility work with the Project schedule. Coordinate with the Utility Agency/Owner (UA/O) in order that these operations may progress in a reasonable manner, that duplication or rearrangement work may be reduced to a minimum, and that services rendered by the utility owners will not be unnecessarily interrupted. The Design-Build Firm shall make every attempt to design around existing utilities, minimizing impacts. Plans shall be provided to the Department showing existing and proposed utility locations and their relationship to the proposed construction. All utility work shall be done in accordance with the Department approved utility Permit.

Pursuant to Section 337.11(7)(a), Florida Statutes, construction activities may not begin on any portion of the Project for which utility agreements have not yet been executed. Design-Build Agreements referenced in 7-11.5.6 below are sufficient to meet this requirement. For utilities where no agreement has been executed by the Department, a separate agreement between the utility and the Design-Build Firm must be executed in order to comply with this statutory requirement.

The agreement executed by the UAO and the Design-Build Firm shall include a description of the work activities and the utilities affected and shall include the following clause; "Coordination has been sufficient to proceed with construction in the area of the affected utility." The agreement shall also include the following clause attested to by the Design-Build Firm's EOR; "The proposed work and the utility protection, adjustment or relocation are compatible with the Contract Documents."

7-11.5.6 Utility Agreements for Design-Build: The Department has entered into agreements with certain utility companies that may have utility facilities located within the limits of the Project. Copies of those agreements are provided to the Design-Build Firm as part of the Contract Documents. Those agreements govern the coordination and performance of the utility work for the Project as to the utility entities that have entered into them. The Design-Build Firm shall fully comply with all obligations of the Firm under those agreements.

The Design-Build Firm acknowledges and agrees that the Utility Agency Owners under those agreements are hereby made intended third party beneficiaries of this provision and the provisions of 7-11.5.10 with full rights of enforcement under that status as if they were a party to this Contract as to these provisions. This provision is made a part of the Contract notwithstanding Section 337.11(1), Florida Statutes, it being agreed by the Design-Build Firm and the Department that said statutory provision prohibits a non-party hereto from claiming incidental third party beneficiary rights, but does not prohibit the express creation of an intended third party beneficiary.

- 7-11.5.7 Utilities Without Executed Utility Agreements: The Department makes no representation that agreements have been executed with all utilities that have facilities located with the limits of the Project. For any utility that has not entered into an executed agreement with the Department, the Design-Build Firm shall be responsible for performing or arranging for the performance of all utility work. The Design-Build Firm's responsibilities shall include, but shall not be limited to the following:
- 1. Locate, by physical exposure and establishment of both vertical and horizontal limits, all existing facilities within right-of-way limits affected by the proposed design or impacted by the Project not within right-of-way.
- 2. Notify and keep informed all Utility Agency/Owner of all relevant information related to their facilities.
- 3. Determine what work is necessary for utilities that are impacted, including, but not limited to:
  - a. Design around if possible,
  - b. Protect,
  - c. Adjust,
  - d. Relocate.
  - e. Remove.
- 4. Make arrangements for any work necessary, including entering into the required utility agreement.

- 5. Obtain necessary Department permits from all other applicable agencies, and otherwise comply with other applicable laws, including, but not limited to, one call obligations under Chapter 556, Florida Statutes.
- 6. Coordinate the issuance of utility permits within the project limits for new utility work not necessarily related to the Project in order to assure consistency with the Project.
- 7-11.5.8 Cost of Utility Work and Conflict Resolution: Costs of utility reimbursements shall be paid in accordance with the resolution methodology established in Section VI, C, of the Request for Proposal, based on the final design of the Design-Build Firm.

The Design-Build Firm shall not impact any utility except those identified in the RFP where coordination has been completed and either the UAO or the DB Firm is shown as responsible for the relocation as contemplated by the Department's conceptual Plans. However, if the Design-Build Firm desires to impact a utility not contemplated, the Design-Build Firm may do so if the utility agrees and there is no additional cost to the Department or time added to the Project as a result thereof. If the project cannot be constructed without impacting additional utilities and the cost of the utility work is not legally the responsibility of the utility, or if the Department's determination as set forth in the RFP that utility work is to be done at the expense of the utility is in error, the Department will bear the expense of any such utility work.

If a utility is not being impacted by the Project, but the utility owner desires to have utility work performed in connection with the Project, the cost of the utility work will be the responsibility of the utility company. It will be the Design-Build Firm's responsibility to coordinate and resolve all utility impacts with each of the utility companies. In the event of a dispute with or lack of cooperation from a utility that does not arise out of or relate to an agreement between the Design-Build Firm and the utility, the matter shall be referred to the Department for resolution.

7-11.5.9 Utility Schedules: The utility work to be accomplished concurrently with the highway construction Contract will involve facilities owned by other UAOs. Utility Schedules (Utility Relocation and/or Work Schedules) for these agencies may have already been developed. Any existing Utility Schedules are posted on the Department's web site at the following URL address:

 $\underline{https://ftp.fdot.gov/public/folder/HkSWlK59G0qRNsAJUh3xXg/permits and or utility workschedules.}$ 

Take responsibility to obtain this information and comply with all requirements posted on this web site up through five calendar days before the opening of bids.

Where utility work must be coordinated with highway construction operations, the Department makes no guarantee that any portion of the anticipated utility work will begin on the day highway construction commences nor does the Department guarantee that such work will be performed on consecutive days.

The anticipated scheduling of new work, adjustments and/or relocation work is included on the Utility Schedules. More precise scheduling to accomplish utility work in the most expeditious manner that is feasible will be established at the preconstruction conference as provided in 8-3.5. The Utility Schedules must be used in conjunction with the utility sheets included in the roadway plans. If the Department's web site cannot be accessed, contact the Department's Specifications Office Web Coordinator at (850) 414-4101.

7-11.5.10 Claims Due to Utility Work not Contemplated in the RFP or the Conceptual Plans: No payment, compensation or adjustment of any kind (other than a non-compensable extension of time) shall be made to the Design-Build Firm for damages because of hindrances or delays arising out of or connected with the performance of utility work for the project regardless of the cause of such hindrance or delays and whether such hindrances or delays be

avoidable or unavoidable, and the Design-Build Firm agrees that it will make no claim for compensation, damages or mitigation of liquidated damages for any such hindrances or delays and will accept any non-compensable extension of time otherwise granted pursuant to other provisions of the Contract Documents as full satisfaction for such hindrances or delays.; provided that nothing herein shall obligate the Department to grant an extension of time not otherwise due and the failure of the Design-Build Firm to be granted an extension of time shall not create any entitlement to compensation, damages or mitigation of liquidated damages.

FDOT Specification 7-14 Design-Build Firm's Responsibility for Work is replaced with the following in its entirety:

#### 7-14 Design-Build Firm's Responsibility for Work.

The Contractor will take charge and custody of the Work, and take every necessary precaution against damage to the Work, by the action of the elements or from any other cause whatsoever, until the Department's final acceptance of the Work. The Contractor will rebuild, repair, restore, and make good, all damage to any portion of the Work occasioned by any of the above causes before final acceptance of the Contract.

The Department will have no obligation to pay any reimbursement for damage caused by the execution or nonexecution of the Work by the Design-Build Firm or its sub-contractors, or damage the Design-Build Firm was negligent in preventing.

For damage to installed material caused by third parties, the Design-Build Firm shall pursue recovery from the third party. The Department will reimburse the Design-Build Firm if they are not able to recover funds conditioned with the terms herein. The funds to reimburse the Design-Build Firm will draw from the Risk Reserve, but no specific category. The Department will not reimburse the Design-Build Firm for repair costs due to damage to installed material caused by known third parties unless the Design-Build Firm has contacted law enforcement within 14 calendar days of the damage, filed a report, provided the report to the Department within 14 calendar days of receiving the report from law enforcement and pursued recovery from the third party. If the Design-Build Firm fails to recover reimbursement for incurred costs, the Department retains the right to pursue recovery from the known third party. If damage to installed material is caused by a known third party, the Department will reimburse the Design-Build Firm for costs associated with the repair after reducing the amount of the repair cost by a \$2,000.00 deductible for each occurrence, borne solely by the Design-Build Firm. If the project is not in "Paid Off" status and the Department is successful in recovery, the Design-Build Firm may be reimbursed proportionally, up to the amount of the deductible.

If damage to installed material other than guardrail, guardrail transitions and end treatments, and crash cushions is caused by an unknown third party, the Department will reimburse the Design-Build Firm for 50% of the cost of the repair after reducing the amount of the repair cost by a \$2,000.00 deductible for each occurrence, borne solely by the Design-Build Firm. Repair costs for damage to guardrail, guardrail transitions and end treatments, and crash cushions installed as part of the work caused by unknown third parties will be reimbursed as the manufacturer's/distributor's invoice price for the new materials/parts plus 20% markup. The 20% markup is compensation for all necessary work, including but not limited to labor, equipment, supplies and profit, as authorized by the Engineer. Payment for any additional MOT required for the repair of guardrail, guardrail transitions and end treatments, and crash cushions installed as part of the work will be paid for under the appropriate MOT pay item.

Repair cost will be determined in accordance with 4-4. Theft and vandalism are considered damage caused by an unknown third party.

The Department may, at its discretion, reimburse the Design-Build Firm for the repair of damage to the Work not caused by a third party and due to unforeseeable causes beyond the control of and without the fault or negligence of the Design-Build Firm, including but not restricted to Acts of God, of the public enemy, or of governmental authorities.

All defects in workmanship caused by the Design-Build Firm will be the Design-Build Firm's responsibility to correct. All damage anywhere within the construction limits caused by the Design-Build Firm will be the Design-Build's Firm responsibility for repair.

The Design-Build Firm shall provide new fencing and gates with locks at access points from any cross road to the Project Right of Way to gain access to swales, retaining walls, noise walls, ITS, lighting, signing, and other facility assets within the Right of Way. The fencing and gates, including size and location, shall be coordinated and approved by the Department and FHWA prior to installation.

The Design-Build Firm shall coordinate reasonable timeframes with the Department's existing maintenance contractor for bridge work order lane closure requirements and for access for bi-annual bridge inspections. Damage to bridge structures by the Design-Build Firm shall be repaired within 30 days of notice unless emergency conditions require immediate corrective action. Once a bridge is actively under construction, any FDOT work orders for repair shall be performed by the Design-Build Firm.

The Design-Build Firm shall provide proper coordination with adjacent construction projects for routine maintenance activities.

The Design-Build Firm and the maintenance contractors shall perform a post-construction survey and agree on routine maintenance items that need attention. This survey shall be conducted far enough in advance of Final Acceptance to address all necessary deficiencies to the satisfaction of the Department.

The Design-Build Firm's Routine Maintenance Work will be negotiated on a yearly basis with the Department and executed as a yearly Task Work Order. The Routine Maintenance Task Work Orders shall not include Design, Construction, or Contractor Project Management costs.

## VI. Technical Requirements and Provisions for Work

#### A. Environmental Permits

#### 1. Storm Water and Surface Water

Plans shall be prepared in accordance with Chapters 373 and 403 (F.S.) and Chapters 40 and 62 (F.A.C.).

#### 2. Permits

The Department has obtained permits for stormwater treatment and attenuation requirements and wetland impact requirements for the project limits. This includes the following:

- ERP 36-03802-P from SFWMD
- ERP 11-00396-S from SFWMD

SFWMD is the agency responsible for issuance of the Environmental Resource Permits for the Project. USACE is the agency responsible for issuance of the 404 permit for the Project. The Department will endeavor to obtain permits or modify the existing SFWMD and/or USACE permits for the Roadway and Drainage Concept Plans included in the Attachments prior to completion of the AIC Phase.

The Design-Build Firm shall be responsible for obtaining and/ or modifying the issued permits, including any associated fees, as necessary to accurately depict the final design. The Design-Build Firm shall be responsible for any necessary permit time extensions or re-permitting, including any associated fees, in order to keep the environmental permits valid throughout the construction period. The Design-Build Firm shall provide the Department with draft copies of any and all permit applications, including responses to agency Requests for Additional Information, requests to modify the permits and/or requests for permit time extensions, for review, approval, and signature by the Department prior to submittal to the agencies.

All applicable data shall be prepared in accordance with Chapter 373 and 403, Florida Statutes, Chapters 40 and 62, F.A.C.; Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act, 23 CFR 771, 23 CFR 636, and parts 114 and 115, Title 33, Code of Federal Regulations. In addition to these Federal and State permitting requirements, any dredge and fill permitting required by local agencies shall be prepared in accordance with their specific regulations. Preparation of all documentation related to the acquisition of all applicable permits will be the responsibility of the Design-Build Firm. Preparation of complete permit packages will be the responsibility of the Design-Build Firm. The Design-Build Firm is responsible for the accuracy of all information included in permit application packages. As the permittee, the Department is responsible for reviewing, approving, and signing, the permit application package including all permit modifications, or subsequent permit applications. This applies whether the Project is Federal or state funded. Once the Department has approved the permit application, the Design-Build Firm is responsible for submitting the permit application to the environmental permitting agency. An electronic copy of any and all correspondence with any of the environmental permitting agencies shall be sent to the D1 District Drainage Engineer. If any agency rejects or denies the permit application, it is the Design-Build Firm's responsibility to make whatever changes necessary to ensure the permit application is approved.\_The Design-Build Firm shall be responsible for any necessary permit extensions or re-permitting in order to keep the environmental permits valid throughout the construction period.

The Design-Build Firm will be required to pay all permit and public notice fees. Any fines levied by permitting agencies shall be the responsibility of the Design-Build Firm. The Design-Build Firm shall be responsible for complying with all permit conditions.

The Department is responsible for providing mitigation of all wetland impacts identified in the permits. If any design modifications by the Design-Build Firm propose to have wetland impacts where mitigation is required, the Design-Build Firm shall be responsible for providing the Department information on the amount and type of wetland impacts as soon as the impacts are identified (including temporary impacts and/or any anticipated impacts due to construction staging or construction methods). Prior to submitting a permit modification to a regulatory agency, the Design-Build Firm shall provide the Department a draft of all supporting information. The Department will have up to seven (7) days to review and comment on the draft permit application package. The Design-Build Firm will address all comments by the Department and obtain Department approval, prior to submittal of the draft permit application package. The Design-Build Firm shall be solely responsible for all time and costs associated with providing the required information to the Department, as well as the time required by the Department to perform its review of the permit application package, prior to submittal of the permit application(s) by the Design-Build Firm to the regulatory agency(ies).

Any additional mitigation not identified in the permits but required due to design modifications proposed by the Design-Build Firm shall be the responsibility of the Design-Build Firm and shall be satisfied through the purchase of mitigation bank credits or, in the case of Conservation Easement impacts, through the purchase of offsetting acreage as required by the regulatory agencies. The Design-Build Firm shall purchase

credits directly from a permitted mitigation bank. In the event that permitted mitigation bank credits are unavailable or insufficient to meet the Project needs, the Design-Build Firm will be responsible for providing alternative mitigation consistent with the provisions of section 373.4137, Florida Statutes 40 CFR Part 230, Subpart J, and acceptable to the permitting agency(ies). The Design-Build Firm shall be responsible for all costs associated with permitting activities and shall include all necessary permitting activities in their schedule.

However, notwithstanding anything above to the contrary, upon the Design-Build Firm's preliminary request for extension of Contract Time, pursuant to 8-7.3, being made directly to the District Corridors Program Engineer, the Department reserves unto the District Corridors Program Engineer, in their sole and absolute discretion, according to the parameters set forth below, the authority to make a determination to grant a non-compensable time extension for any impacts beyond the reasonable control of the Design-Build Firm in securing permits. Furthermore, as to any such impact, no modification provision will be considered by the District Corridors Program Engineer unless the Design-Build Firm clearly establishes that it has continuously from the beginning of the Project aggressively, efficiently, and effectively pursued the securing of the permits including the utilization of any and all reasonably available means and methods to overcome all impacts. There shall be no right of any kind on behalf of the Design-Build Firm to challenge or otherwise seek review or appeal in any forum of any determination made by the District Corridors Program Engineer under this provision. Notwithstanding the above section, the Department, in its sole discretion, may allow the Design-Build Firm the ability to seek reimbursement for these costs as an appropriate expenditure of the Risk Register Fund.

#### **B.** Survey and Verification of Existing Conditions

The Design-Build Firm shall perform all surveying (Terrestrial, Mobile and/or Aerial) and mapping services necessary to complete the Project. Survey services must also comply with all pertinent Florida Statutes (Chapters 177 and 472, F.S.) and applicable rules in the Florida Administrative Code (Rule Chapter 5J-17, F.A.C.). All existing field survey data will be furnished to the District Corridors Program Office in a Department approved digital format, readily available for input and use in CADD Design files. All surveying and mapping work must be accomplished in accordance with the Department's Surveying and Mapping Procedure, Topic Nos. 550-030-101, and the Surveying and Mapping Handbook.

For any new ROW proposed by the Design-Build Firm, as approved by the Department, the Design-Build Firm shall provide final ROW survey and mapping services. These maps and any associated sketches, legal descriptions and all associated necessary documentation, field data collection and any other supporting documentation shall be included as part of the required phase submittals by the Design-Build Firm.

The Design-Build Firm shall be responsible for verification of existing conditions, including research of all existing Department records and other information.

By execution of a Task Work Order for Construction, the Design-Build Firm specifically acknowledges and agrees that the Design-Build Firm is contracting and being compensated for performing adequate investigations of existing site conditions sufficient to support the design developed by the Design-Build Firm for the Task Work Order scope and that any information provided in the Reference Documents is to merely assist the Design-Build Firm in completing adequate site investigations. Notwithstanding any other provision in the contract documents to the contrary, no additional time will be granted, nor compensation will be paid in excess of the PGMP in the event of any inaccuracies in the Reference Documents.

#### C. Public Involvement

#### 1. General

Public involvement is an important aspect of the Project. Public involvement includes effectively communicating to all interested persons, groups, and government organizations information regarding the planning, development and construction of the Project. The District Corridors Program Office will be charged with continuing the public information program currently underway. The District Corridors Program Office will assign a point of contact during the AIC, design, and construction phases of the Project. The Design-Build Firm shall identify a Public Involvement Liaison (DBF PI Liaison) and provide support for the public involvement efforts including the ongoing coordination and relationships with FDOT, FDOT's Owner's Representative, FDOT's Construction Project Manager, CEI, and others as described below. The DBF PI Liaison shall be the point of contact for the Strategic Communications Manager and provide timely and accurate construction information.

#### 2. Community Awareness:

The Design-Build Firm shall review and provide comments on the Project Community Awareness Plan (CAP) developed by FDOT. The CAP is a living document that will undergo continual updates. The Design-Build Firm shall be responsible for providing FDOT the information necessary to periodically update the CAP relating to Project issues, impacts, schedule and activities.

## 3. Public Meetings

The Design-Build Firm shall provide all supporting materials and staffing necessary for various public meetings, which may be in person and virtual (hybrid), and include:

- Kick-off or introductory meeting(s)
- Metropolitan Planning Organizations (MPO) Citizens Advisory Committee (CAC) Meetings
- MPO Transportation Technical Committee Meetings
- MPO Meetings
- City and/or County Elected Official/Board Meetings
- Public Information Meetings
- Elected and appointed officials
- Special interest groups (private groups, homeowners associations, environmental groups, minority groups, business groups and individuals)
- Open Houses
- Public Hearings based on the current guidance on the FDOT Public Involvement website: https://www.fdot.gov/planning/policy/publicinvolvement/index

The Design-Build Firm shall include attendance at bi-weekly meetings for the term of the contract to support the public involvement program. The DBF PI Liaison will be responsible for preparing and documenting the meeting minutes as well as engaging other Design-Build Firm team members as needed.

For any of the above type meetings the Design-Build Firm shall provide all technical assistance, data and information, display boards, printed material, video graphics, computerized graphics, etc., and information necessary for the day-to-day exchange of information, including collateral materials for detours and diversions, with the public, all agencies and elected officials in order to keep them informed as to the progress and impacts that the proposed Project will create. This includes stakeholder presentations, workshops, information meetings, open houses, and public hearings.

The Design-Build Firm shall, as determined by the Department, attend the meetings with an appropriate number of personnel to assist the Department and CEI. The Design-Build Firm shall forward all requests for group meetings to the Strategic Communications Manager. The Design-Build Firm shall inform the Strategic Communications Manager of any meetings with individuals that occur without prior notice.

## 4. Public Workshops, Information Meetings

The Design-Build Firm shall provide all the support services for the meetings listed above.

All legal/display advertisements announcing workshops, information meetings, and public meetings will

be prepared and paid for by the Department.

The Department will be responsible for the legal/display advertisements for design concept acceptance. The Department will be responsible for preparing and mailing (includes postage) all letters announcing the associated workshops and information meetings.

#### 5. Public Involvement Data

The Design-Build Firm is responsible for the following:

- Coordinating with the Strategic Communications Manager.
- Providing information to the Strategic Communications Manager for Community Awareness Plan (CAP) updates
- Identifying possible permit and review agencies and providing names and contact information for these agencies to the Department and Strategic Communications Manager.
- Providing required expertise (staff members) to assist the Department on an as-needed basis.
- Preparing color graphic renderings and/or computer-generated graphics to depict the proposed improvements for coordination with the Strategic Communications Manager, local governments, other agencies, and the public.
- Providing up-to-date information, including lane, ramp, and street closures, to the Strategic Communications Manager to keep the Department website current.
- Incorporating a communication plan using Smart Work Zone (SWZ) strategies and technologies to inform the traveling public about the intent, features, and duration of the SWZ strategies included in the Project.

The collection of public input occurs throughout the life of the Project and requires maintaining files, newspaper clippings, letters, and records of direct contacts before, during and after any of the public meetings. The Strategic Communications Manager will maintain the public involvement binder for the Project. The Design-Build Firm shall provide records of all public correspondence, written or verbal, to the Department throughout the life of the Project.

The Design-Build Firm may be asked by the Strategic Communications Manager to prepare draft responses to any public inquiries as a result of the public involvement process. FDOT shall review and approve all responses prior to responding.

#### 6. Media Relations

Media relations and media engagement strategies will be developed and led by the Strategic Communications Manager. The Strategic Communications Manager will establish the protocol and schedule in providing information to the media, as well as receiving and responding to media inquiries. To ensure the accuracy and consistency of all information to be provided, all correspondence and communication with the media will be coordinated through the Strategic Communications Manager and reviewed by FDOT as necessary prior to release. The Design-Build Firm shall serve as a resource to FDOT in providing information and/or supporting responses to media inquiries.

## D. Quality Management Plan (QMP)

## 1. Design

The Design-Build Firm shall be responsible for the professional quality, technical accuracy and coordination of all surveys, designs, drawings, specifications, geotechnical and other services furnished by the Design-Build Firm under this contract.

The Design-Build Firm shall provide a Design Quality Management Plan (DQMP), which describes the Quality Control (QC) procedures to be utilized to verify, independently check, and review all design drawings, specifications, and other documentation prepared as a part of the contract. In addition, the QMP shall establish a Quality Assurance (QA) program to confirm that the Quality Control procedures are

followed. The Design-Build Firm shall describe how the checking and review processes shall be documented to verify that the required procedures were followed. The QMP may be one utilized by the Design-Build Firm, as part of their normal operation or it may be one specifically designed for this Project. The Design-Build Firm shall submit a QMP within thirty (30) days, following issuance of the written Notice to Proceed for the Design Phase. A marked up set of prints from the Quality Control review will be sent in with each review submittal. The responsible Professional Engineers or Professional Surveyor that performed the Quality Control review, as well as the QA manager will sign a statement certifying that the review was conducted.

The Design-Build Firm shall, without additional compensation, correct all errors or deficiencies in the surveys, designs, drawings, specifications and/or other services.

#### 2. Construction

The Design-Build Firm shall be responsible for developing and maintaining a Construction Quality Control Plan (CQMP) for each Work Package, in accordance with Section 105 of Standard Specifications which describes their Quality Control procedures to verify, check, and maintain control of key construction processes and materials.

The sampling, testing and reporting of all materials used shall be in compliance with the Sampling, Testing and Reporting Guide (STRG) provided by the Department. The Design-Build Firm will use the Department's database(s) to allow audits of materials used to assure compliance with the STRG. The Department has listed the most commonly used materials and details in the Department's database. When materials being used are not in the Department's database list, the Design-Build Firm shall use appropriate material details from the STRG to report sampling and testing. Refer to the State Materials Office website for instructions on gaining access to the Department's databases: <a href="http://www.fdot.gov/materials/quality/programs/qualitycontrol/contractor.shtm">http://www.fdot.gov/materials/quality/programs/qualitycontrol/contractor.shtm</a>

Prepare and submit to the Engineer a Job Guide Schedule (JGS) using the Department database in accordance with Section 105 of Standard Specifications. For each Work Package, update the JGS monthly or at a frequency as required by the Department.

The Department, and FHWA, as necessary, shall maintain its rights to inspect construction activities and request any documentation from the Design-Build Firm to ensure quality products and services are being provided in accordance with the Department's Materials Acceptance Program.

#### E. Liaison Office, Engineer's Field Office, and Site Office

The Department will establish a Liaison Office and Engineer's Field Office for the Corridors Program.

The Design-Build Firm will establish Site Offices for the Design and Construction Phase. The Site Offices are to be included within the PGMP and shall accommodate space for the Contractor Project Management personnel.

## F. Computer Automation

The Project shall be developed utilizing computer automation systems in order to facilitate the development of the contract plans. Various software and operating systems were developed to aid in assuring quality and conformance with Department policies and procedures. The Department supports Bentley's OpenRoads Designer ORD and/or Autodesk's AutoCAD Civil 3D as an alternate platform. Seed Files, Cell Libraries, User Commands, MDL Applications and related programs developed for roadway design and drafting are in the FDOT CADD Software Current Supported Versions (fdot.gov).

Furnish As-Built documents for all building related components of the Project in AutoCAD format. It is the responsibility of the Design-Build Firm to obtain and utilize current Department releases of all CADD applications.

The Design-Build Firm will be required to furnish the Project's CADD files as defined in the Department's CADD Manual after the plans have been Released for Construction. The Design-Build Firm's role and responsibilities are defined in the Department's CADD Manual. The Design-Build Firm will be required to submit final documents and files which shall include complete CADD design and coordinate geometry files in Bentleys's OpenRoads Designer ORD and/or Autodesk's AutoCAD Civil 3D design files format.

As part of the As-Built Set deliverables, field conditions shall be incorporated into Bentleys's OpenRoads Designer ORD and/or Autodesk's AutoCAD Civil 3D design files. Use the cloud revision utility as well as an "AB" revision triangle to denote field conditions on plan sheets.

The Department may procure and implement a Program specific Electronic Document Management System (EDMS) to control and manage documents and workflows independent of the Department's existing Document Control System(s). The Design-Build Firm will be required to make submittals (such as designs, shop drawings, specifications, schedules, RFIs, etc.), store, and retrieve data from the Program specific EDMS.

## G. Construction Engineering and Inspection (CEI)

The Department is responsible for providing CEI and Quality Assurance Engineering. The Design-Build Firm is subject to the Department's Independent Assurance (IA) Procedures.

#### H. Testing

The Department or its representative will perform verification and resolution sampling and testing activities at both on site, as well as, off site locations such as pre-stress plants, batch plants, structural steel and weld, fabrication plants, powder coating, etc. in accordance with the Specifications. Additional testing requirements specific to Project elements may be specified in other Sections of this RFQ.

#### I. Value-Added

The Design-Build Firm shall meet the requirements of the Value-Added Bridge Components (SP4750000DB) Specification that is included in the Attachments.

#### J. Adjoining Construction projects

The Design-Build Firm shall be responsible for coordinating all design, permitting, and construction activities with other construction projects that are impacted by or impact this Project. This includes projects under the jurisdiction of local governments, the Department, other regional and state agencies, or private entities. Adjoining construction projects may include, but are not limited to:

FPID No. 445296-1-52-01	I-75 at Pine Ridge Road (CR 896)
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The Design-Build Firm shall consider and include any and all temporary detours or diversions required to facilitate traffic movements into and out of the Project Limits; notwithstanding the alignment, lane positioning and/or grade differences of traffic conditions on those adjacent projects.

## K. Right of Way

## 1. Right of Way Furnished by the Department

All Design-Build Firms who intend to submit Responses to this RFQ are restricted from discussing Right of Way (ROW) acquisition with owners of private property to be acquired by the Department.

It is the Department's intent that all Project construction activities be conducted within the existing Right of Way.

### 2. Additional Right of Way

It is the Department's intent that all Project construction activities be conducted within the existing ROW. Any necessary license agreements will be obtained by the Design-Build Firm. If the Design-Build Firm determines that the acquisition of additional ROW will be advantageous to the Project, this will be considered by the Department for incorporation into the Project Schedule. The Department will have sole authority to determine whether the acquisition of additional ROW on the Project is in the Department's best interest, and the Department reserves the right to reject the acquisition of additional ROW.

If the Department agrees that additional ROW is in the Department's best interest, the additional ROW will be required to be directly acquired by the Department. The Design-Build Firm shall submit ROW maps and legal descriptions, including area in square feet, of any proposed additional ROW parcels. The additional ROW will be acquired by the Department in accordance with all applicable state and federal laws, specifically including but not limited to the Uniform Relocation Assistance and Real Property Acquisition Policies for Federal and Federally Assisted Programs (42 USC Chapter 61) and its implementing regulations. The Department will have sole discretion with respect to the entire acquisition process of the additional ROW.

Any additional ROW acquisition will require a re-evaluation of the PD&E Study. The Design-Build Firm shall coordinate with the District Corridors Program Office and provide any required information so that the Department can complete the re-evaluation for approval. ROW acquisition cannot begin until the PD&E re-evaluation has been completed and approved.

The additional ROW cannot be used for any construction activity or other purpose until the Department has issued an applicable parcel clear letter or a ROW Certification for Construction.

If the Department's attempt to acquire the additional ROW is unsuccessful, then the Design-Build Firm shall provide a design of the Project within existing ROW and be required to complete the Project solely within the PGMP, with no further monetary or time adjustments arising therefrom. Under no circumstances will the Department be liable for any increase in either time or money impacts the Design-Build Firm suffers due to the Design-Build Firm's proposed acquisition of additional ROW, whether or not the acquisition is successful.

# VII. Design and Construction Criteria

#### A. General

All design and Construction Work completed under the Contract shall be in accordance with the United States Standard Measures.

The Design-Build Firm shall schedule and participate in a Design Workshop. The Design Workshop shall occur early in the AIC Phase with the primary objective of clarifying technical issues and/or comments relating to the Project scope, specifications, and requirements.

The Project Limits encompasses the entire Limited Access Right of Way along I-75 (S.R. 93) from north of Golden Gate Parkway to south of Corkscrew Road.

#### B. Vibration and Settlement Monitoring

The Design-Build Firm shall be responsible for the identification of and coordination with vibration sensitive sites impacted by the Work for the duration of the construction period.

The Design-Build Firm is responsible for evaluating the need for, design of, and the provision of any necessary precautionary features to protect existing structures from damage, including, at a minimum, selecting construction methods and procedures that will prevent damage. The Design-Build Firm shall submit for Department acceptance a Settlement and Vibration Monitoring Plan (SVMP) as part of the 90% plans submittal and update the SVMP throughout the Construction Period. The Design-Build Firm is responsible for establishing maximum settlement and vibration thresholds equivalent to or lower than the Department Specification requirements for all construction activities, including vibratory compaction operations and excavations. Submittals for Settlement and Vibration Monitoring Plan (SVMP) shall include the following as a minimum:

- Identify any existing structures that will be monitored for vibrations during the construction period.
- Establish the maximum vibration levels for the existing structures shall not be exceeded.
- Identify any existing structures that will be monitored for settlement during the construction period.
- Establish the maximum settlement levels for the existing structures that must not be exceeded.
- Identify any existing structures that require pre-construction and post-construction surveys.

The Department will perform the review of Vibration and Settlement submittals in accordance with Department Specifications.

Monitoring equipment shall be able to send vibration monitoring alerts and data in real time to the CEI and Department via wireless/cellular communications.

# C. Geotechnical Services

#### 1. General

The Design-Build Firm shall be responsible for identifying and completing the geotechnical investigation, analysis and design of foundations, foundation construction, foundation load and integrity testing, and inspection dictated by the Project needs in accordance with Department guidelines, procedures and specifications. All geotechnical work necessary shall be performed in accordance with the Governing Regulations. The Design-Build Firm shall be responsible for completing the geotechnical aspects of the Project.

#### 2. Driven Pile Foundations for Bridges and Major Structures

The Design-Build Firm shall determine whether the resistance factors used for pile design will be based on static/statnamic load testing. Prepare a Technical Special Provision (TSP) for tests other than the Modified Quick Test, such as Bidirectional (Osterberg Cell) Load Test or Statnamic Load Test. For Bidirectional Load Tests use the same loading and unloading intervals, as well as the same loading times specified for the Modified Quick Test. Comply with the instrumentation requirements of 455-2.4. Before the resistance factors for static/statnamic load testing may be used for pile foundations for a bridge, a minimum of one successful load test must be performed at each bridge location.

The Design-Build Firm shall be responsible for the following:

- 1. Selection of pile type and size.
- 2. Selection of test pile lengths, locations and quantity of test piles.
- 3. Selection of pile testing methods.
- 4. Determining the frequency of such testing unless otherwise stated herein.
- 5. Performance of the selected test pile program, including dynamic load test personnel and equipment. The Department may observe the installation of test piles and all pile testing.
- 6. Preparing and submitting a Pile Installation Plan for the Department's acceptance.
- 7. Selection of production pile lengths.
- 8. Development of the driving criteria.
- 9. Submitting Production Pile Length and Driving Criteria Letters (for projects that require a driving criteria), including analysis of dynamically load tested piles.
- 10. Driving piles to the required capacity and minimum penetration depth.
- 11. Inspecting and Recording the pile driving information. Provide a pile inspection device that displays and stores electronically for every hammer blow along with a timestamp: stroke for open-ended diesel hammers and blows per foot and blows per minute for all hammers. The device must auto-generate the Department's Pile Driving Record form and export the non-editable electronic data in a format compatible with the Pile Driving Record form. Use this device during the inspection of test piles and production piles.
- 12. Submitting Foundation Certification Packages.
- 13. Providing safe access, and cooperating with the Department in verification of the piles, both during construction and after submittal of the certification package.

### 3. Drilled Shaft Foundations for Bridges and Miscellaneous Structures

The Design-Build Firm shall determine whether the resistance factors used for drilled shaft design will be based on static/statnamic load testing. Prepare a Technical Special Provision (TSP) for tests other than the Modified Quick Test, such as Bidirectional (Osterberg Cell) Load Test or Statnamic Load Test. For Bidirectional Load Tests use the same loading and unloading intervals, as well as the same loading times specified for the Modified Quick Test. Comply with the instrumentation requirements of 455-2.4. Before the resistance factors for static/statnamic load testing may be used for drilled shafts for a bridge, a minimum of one successful load test must be performed at each bridge location.

The Design-Build Firm shall be responsible for the following:

- 1. Evaluating geotechnical conditions to determine the drilled shaft diameter and length and construction methods to be used.
- 2. Performing pilot holes prior to establishing the drilled shaft tip elevations and socket requirements.
- 3. Determining the locations of the load test shafts and the types of tests that will be performed.
- 4. Performing pilot borings for test holes (also known as test shafts or method shafts) and load test shafts and providing the results to the Department at least one (1) working day before beginning construction of these shafts.
- 5. Preparing and submitting a Drilled Shaft Installation Plan for the Department's acceptance.
- 6. Constructing the method shaft (test hole) and load test shafts successfully and conducting thermal integrity tests on these shafts.
- 7. Providing all personnel and equipment to perform a load test program on the load test shafts.
- 8. Determining the production shaft lengths.

- 9. Documenting and providing a report that includes all load test shaft data, analysis, and recommendations to the Department.
- 10. Constructing all drilled shafts to the required tip elevation and socket requirement in accordance with the specifications.
- 11. Inspecting and documenting the construction of all drilled shafts in accordance with the specifications.
- 12. Performing Non-Destructive Drilled Shaft Integrity Testing in accordance with 455-17.6.
- 13. Repairing all detected defects and conducting post repair integrity testing using 3D tomographic imaging and gamma-gamma density logging.
- 14. Submitting Foundation Certification Packages in accordance with the specifications.
- 15. Providing safe access, and cooperating with the Department in verification of the drilled shafts, both during construction and after submittal of the certification package.
- 16. Complying with the tolling gantry foundation requirements provided in the GTR.

# 4. Spread Footings Foundations for Structures other than Bridges

The Design-Build Firm shall be responsible for the following:

- 1. Evaluating geotechnical conditions and designing the spread footing.
- 2. Constructing the spread footing to the required footing elevation, at the required soil or rock material, and at the required compaction levels, in accordance with the specifications.
- 3. Inspecting and documenting the spread footing construction.
- 4. Submitting Foundation Certification Packages in accordance with the specifications.
- 5. Providing safe access, and cooperating with the Department in verification of the spread footing, both during construction and after submittal of the certification package.

# 5. Auger Cast Piles for Structures other than Bridges

The Design-Build Firm shall be responsible for the following:

- 1. Evaluating geotechnical conditions and designing the foundations, including diameter and lengths.
- 2. Constructing all auger cast piles to the required tip elevation and socket requirements, in accordance with the specifications.
- 3. Preparing and submitting an Auger Cast Pile Installation Plan for the Department's acceptance.
- 4. Inspecting and documenting the auger cast pile installation.
- 5. Submitting Foundation Certification Packages in accordance with the specifications.
- 6. Providing safe access, and cooperating with the Department in verification of the auger cast piles, both during construction and after submittal of the certification package.

# **6.** Specialty Geotechnical Services Requirements

Specialty geotechnical work is any alternative geotechnical work not covered by Department Specifications and requires the development of a Technical Special Provision (TSP). Any TSP for geotechnical work shall include the following:

- Criteria of measurable parameters to be met in order to accept the specialty geotechnical work,
- A field testing and instrumentation program to verify design assumptions and performance,
- A quality control program to be performed by the Design-Build Firm that includes sampling and testing to ensure the material quality, products, and installation procedures meet, requirements,
- A verification testing program to be performed by the Geotechnical Foundation Design Engineer of Record (GFDEOR) that includes inspection, sampling, and testing to verify the material,

products, and procedures meet requirements. The TSP shall include language providing separate lab samples to be used for the Department's independent verification.

A certification process

After construction of the specialty geotechnical work, the Design-Build Firm shall submit a certification package for Department's review within seven (7) days. The certification package shall include the results of all the field testing, instrumentation and lab testing performed and a signed and sealed letter by the GFDEOR certifying that the specialty geotechnical work meets the requirements. The Department may issue comments and require additional verification testing.

# **D.** Utility Coordination

The Design-Build Firm shall be responsible for coordinating with all Utility Agency Owners (UAOs) that have utilities within the Project Right of Way and shall comply with the Contract Documents, including Rule 14-46.001 (Utility Accommodation Manual) in performing the Utility Adjustment Work. The Design-Build Firm shall perform all utility coordination duties and responsibilities required in this RFQ.

The Design-Build Firm shall utilize a single dedicated person responsible for managing all utility coordination. This person shall be the Utility Coordination/Design Manager (UCDM).

The Design-Build Firm's UCDM shall be responsible for managing all utility coordination, including, but not limited to, the following:

- 1. Ensuring that all utility coordination and activities are conducted in accordance with the requirements of the Contract Documents.
- 2. Identifying all existing utilities and coordinating any new installations
- 3. Reviewing proposed utility permit application packages and providing comments based on the compatibility of the permit as related to the Design-Build Firm's plans.
- 4. Scheduling and conducting utility meetings, preparing and distributing minutes of all utility meetings, and ensuring expedient follow-up on all unresolved issues.
- 5. Distributing all plans, conflict matrices and changes to affected Utility Agency/Owners and making sure this information is properly coordinated.
- 6. Identifying, preparing, reviewing and facilitating any agreement required for any utility work needed through final approval and execution. The UCDM shall also be responsible for monitoring and reporting the performance of all involved parties under said agreement.
- 7. Preparing, reviewing and coordinating the execution and implementation of and submitting to the Department for review, all Utility Work Schedules.
- 8. Assist in resolving utility conflicts.
- 9. Performing Constructability Reviews of plans prior to construction activities with regard to the installation, removal, temporary removal, de-energizing, deactivation, relocation, or adjustment of utilities.
- 10. Providing periodic Project updates to the Department Project Manager and District Utility Office as requested.
- 11. Coordination with the Department on any issues that arise concerning reimbursement of utility work costs between the Department and the utility.
- 12. Prepare utility certifications or statements for all Federal-Aid construction projects per 23 CFR 635.309(p)(1)(v).

The following Utility Agency/Owners (UAO's) have been identified by the Department as having facilities within the Project corridor for which the Department contemplates an adjustment, protection, or relocation is possible.

Table A – Summary of UAO's having facilities within the Proposed Project Limits

UAO	<b>Contact Person</b>	Contact Number	Email
Blue Stream	Sean Hayden	772-345-1000 x	shayden@bluestreamfiber.com
Fiber		666	
Bonita Springs	Alberto Ramos	239-872-3464	aramos@bsu.us
Utilities			
Centurylink	Troy Inniss	239-920-5821	troy.inniss@lumen.com
Communications,			
LLC	М-44 Б	220 040 (241	The state of the s
City Of Bonita Springs	Matt Feeney	239-949-6241	matt.feeney@cityofbonitasprings.org
City Of Naples	David Morgan	239-213-4706	dmorgan@naplesgov.com
Collier County IT	Mark Fowski	239-252-8322	mark.fowski@colliercountyfl.gov
Collier County	Haris Domond	239-252-5151	haris.domond@colliergov.net
Traffic Ops	Haris Dolliona	239-232-3131	naris.domond@comergov.net
Collier County	Stephen Sarabia	239-252-5923	stephen.sarabia@colliercountyfl.gov
Utilities	1		
Comcast	Xavier Medina	239-671-5713	xavier_medina@comcast.com
	D 77 1	<b>5</b> 06 610 <b>5</b> 0 <b>50</b>	
Crown Castle	Danny Haskett	786-610-7073	southfloridaplansreview@crowncastle
Crown Castle	John Trudel	239-693-4260	.com   john.trudel@crowncastle.com
Fiber LLC	John Tradei	237-073-4200	John.truder@erowneastic.com
Florida Power &	Michael Martinez	239-353-6047	michael.martinez@fpl.com
Light -			
Distribution			
NextCity	Andy Cole	813-847-4037	andrew.cole@nexteraenergy.com
Network, LLC			
Florida Power &	Craig Ledbetter	561-803-7942	craig.ledbetter@fpl.com
Light -			
Transmission Hotwire	Walter Sancho-	954-699-0900	walter.sancho-
Communications	Davila Sancho-	934-099-0900	davila@hotwirecommunication.com
I5 Fiber	Matt Hillyer	330-224-8928	mhillyer@pccigroup.com
Lee County ITG -	Adam Boissiere	239-980-9043	aboissiere@leegov.com
Telecom/BBOCC	Addin Boissiere	237-700-7043	aboussiere@ieegov.com
Lee County	Patrick Mcfadden	239-533-9400	pmcfadden@leegov.com
Landscape &			
Irrigation			
Lee County -	Mike Padgett	239-533-9500	mpadgett@leegov.com
Traffic /Signal			
Lee County -	Darrin Wood	239-533-8178	dwood@leegov.com
Utilities Division			

Summit	Michelle Daniel	407-996-1183	mdaniel@summit-broadband.com
Broadband			
Teco Peoples Gas	Alex Mcfarlane	813-275-3762	amcfarlane@tecoenergy.com

Utilities requiring minor adjustment are the responsibility of the Design-Build Firm. The cost of the minor adjustments shall be included in the WPPs.

The Design-Build Firm may request the utility to be relocated to accommodate changes from the Concept Plans included in the Reference Documents; however, these relocations require the Department's approval and the Department will not pay the Utility Agency Owner (UAO) or the Design-Build Firm for the utility relocation work regardless of the UAO's eligibility for reimbursement.

For a reimbursable utility relocation where the UAO desires the work to be done by their contractor, the UAO will perform the work in accordance with the utility work schedule and permit and bill the Department directly.

No Subsurface Utility Engineering was performed for these projects. The Design-Build Firm shall be responsible for determining the locations of the UAO facilities within the project by Subsurface Utility Engineering during the design phase to resolve utility conflicts. DEVIATION FROM THE CONCEPTUAL PLANS: If the Design-Build Firm chooses to deviate from the conceptual plans and the scope of the impact to a utility depicted in the Reference Documents, and thereby causes a greater impact to a utility, the Design-Build Firm shall be solely responsible for all increased costs incurred by the utility owner associated with the increase in the scope of the impact to a utility from that depicted in the Reference Documents. The Design-Build Firm shall obtain an agreement from the utility owner being impacted which outlines the changes to the scope of the impact to a utility from that depicted in the Reference Documents. The agreement shall also address the Design-Build Firm's obligation to compensate the utility owner for the additional costs above the costs which would have been incurred without the Design Build Firm's increase in the scope of the impact to a utility from that depicted in the Reference Documents. The Design-Build Firm shall also provide a draft utility permit application acceptable to the Department for the placement of the utility owner's facilities based on the final design. The Department shall not compensate or reimburse the Design-Build Firm for any cost created by a change in scope of the impact to a utility from that depicted in the Reference Documents, or be liable for any time delays caused by a change in scope of the impact to a utility from that depicted in the Reference Documents.

The relocation agreements, plans, and permit application are to be forwarded to the District Utility Administrator. The District Utility Administrator only reviews the documents and is not to sign them. Once reviewed, the utility permit application will be forwarded to the appropriate District Maintenance office for the permit to be signed and recorded or submitted through the One Stop Permitting (OSP) system.

### E. Roadway Analysis, Design, and Plans

#### 1. General

The Design-Build Firm shall prepare the Roadway Plans Package. This work effort includes the roadway design and drainage analysis needed to prepare a complete set of Roadway Plans, Temporary Traffic Control Plans, Environmental Permits and other necessary documents.

#### 2. Design Analysis

The Design-Build Firm shall either utilize the signed and sealed Approved Typical Section Package provided in the Attachments and comply with the same or develop and submit a different signed and sealed Typical Section Package for review and concurrence by the Department.

Any deviation from the Department's design criteria will require a Design Variation and any deviation from AASHTO will require a Design Exception. The Design-Build Firm shall either utilize the signed and sealed Approved Design Variation provided in the Attachments and comply with the same or develop and submit a different signed and sealed Design Variation for review and concurrence by the Department.

The Design-Build Firm shall either utilize the signed and sealed Approved Pavement Design Package for the Project Limits provided in the Attachments and comply with the same or develop and submit a different signed and sealed Pavement Design Package for review and concurrence by the Department.

The Design-Build Firm shall develop and submit a signed and sealed Drainage Analysis Report for review and concurrence by the Department and FHWA on Projects of Division Involvement (PoDIs).

See FDM for Roadway Design sheets, elements and completion level required for each submittal.

- 1. Design Variations, and Design Exceptions: Refer to FDM Part 1, Chapter 122
- 2. Typical Section Package: Refer to FDM Part 1, Chapter 120
- 3. Pavement Design Package: Refer to FDOT Flexible Pavement Design Manual

The following documents are provided by the Department as attachments to the Pavement Design Package and shall be used by the Design-Build Firm in the development of the pavement design:

- 1. FDOT AADT Traffic Data and Equivalent Single Axle Loading (ESAL) values
- 2. Resilient Modulus Recommendations and LBR
- 3. FDOT Pavement Survey and Evaluation Report
- 4. Profilograph Data

Use of the Mechanistic-Empirical Pavement Design Guide (MEPDG) for pavement design shall not be allowed.

The Design-Build Firm shall make use of the Horizontal Alignment Criteria included in the Attachments and develop a design that is within a 5' horizontal tolerance of the Horizontal Alignment Criteria.

The Design-Build Firm shall adhere to the following minimum design requirements for facilities within the Project Limits:

- 1. I-75 (S.R. 93):
  - The design speed shall be 70 mph (all mainline lanes)
  - The design vehicle shall be WB-62FL
  - I-75 (S.R. 93) shall be designed to Interstate standards
- 2. Ramps:
  - The design speed shall be 50 mph
  - The design vehicle shall be WB-62FL

Additionally, the Design-Build Firm shall adhere to the following requirements:

- 1. The Design-Build Firm shall be responsible for the replacement, reconstruction and/or restoration of any existing drainage feature, shoulder gutter, bridge traffic railing, barrier walls, retaining walls, guardrail, or any other existing features impacted by the proposed reconstruction, widening, and resurfacing/overbuild (into the existing inside or outside shoulders). This includes required replacement, reconstruction and/or restoration to maintain the standard inside or outside shoulder cross slopes, as well as standard heights for roadside protection features such as traffic railings and guardrails.
- 2. The Design-Build Firm shall maintain all existing, and accommodate any future planned, pedestrian and bicycle facilities on all cross streets ensuring the most stringent of Department and local agency criteria is met.
- 3. The Design-Build Firm shall comply with number of lanes, lane widths, buffer widths, shoulder widths, separation, and maximum front slope shown in the Approved Typical Section Package and Horizontal Alignment Criteria included in the Attachments.
- 4. The Design-Build Firm shall construct auxiliary lanes at the locations shown in the Horizontal Alignment Criteria included in the Attachments. The length of the auxiliary lanes in the Horizontal Alignment Criteria shall be considered a minimum.
- 5. The Design-Build Firm shall construct turn lanes at the locations shown in the Horizontal Alignment Criteria included in the Attachments. The length of the turn lanes in the Horizontal Alignment Criteria shall be considered a minimum.
- 6. The Design-Build Firm shall construct parallel type ramp terminals as shown in the Horizontal Alignment Criteria included in the Attachments.
- 7. The Design-Build Firm shall mill and resurface at the locations shown in the Horizontal Alignment Criteria included in the Attachments. In addition, the Design-Build Firm shall mill and resurface the friction course in areas impacted by TTCP shifts.
- 8. The Design-Build Firm shall remove any existing median crossovers noted in the Concept Development Plans.
- 9. All curbs, curb ramps, sidewalks and pedestrian crosswalks impacted by construction shall be restored to meet current standards.
- 10. The Design-Build Firm shall prepare and submit requests for opening(s) in the Project Right of Way fence for the Department and FHWA) and/or partnering Governmental Entity approval. Requests shall include sketches for staging areas that the Design-Build Firm wishes to access from outside the existing Project Right of Way fence. Openings shall be controlled by the Design-Build Firm and used only for construction activities. Requested fence openings shall be gated and locked when not actively being used. The Design-Build Firm shall locate all gates outside the roadway clear zone. The Design-Build Firm shall restore any disturbed area to its preconstruction condition.
- 11. The Design-Build Firm shall replace any fencing impacted by Construction. Physical separation with a minimum height of six (6) feet shall be provided at all times between the Limited Access Right of Way and the surrounding area using one of the following three options:

- FDOT Type B Fence,
- For areas where noise barriers or retaining walls are six (6) feet or greater in height, fencing may be terminated at the retaining or noise wall as shown in the Design Standards unless the Department determines that the fence line shall be installed 6" from the Limited Access Right of Way as typically shown in the Design Standards.
- For areas with outside shoulder concrete barrier, fence may be attached to or located immediately behind the shoulder barrier to provide an installed height of at least six (6) feet.
- 12. The Design-Build Firm shall mill and resurface areas designated in the Concept Plans and as shown in the Approved Pavement Design Package.

### 3. Design Documentation, Calculations, and Computations

The Design-Build Firm shall submit to the Department design documentation, notes, calculations, and computations to document the design conclusions reached during the development of the construction plans.

The design notes and computation sheets shall be fully titled, numbered, dated, indexed, and signed by the designer and the checker. Computer output forms and other oversized sheets shall be folded to a standard size 8½" x 11". The data shall be in a hard-back folder for submittal to the Department. At the Project completion, a final set of design notes and computations, signed by the Design-Build Firm, shall be submitted with the As-Built Plans and tracings.

The design documentation, notes, calculations and computations shall include, but not be limited to the following data:

- Standards Plans and criteria used for the Project.
- Geometric design calculations for horizontal alignments
- Superelevation calculations
- Vertical geometry calculations
- Horizontal stopping sight distances
- Guardrail and barrier wall length of need
- Vertical clearances
- Design alignments and profiles output files.
- Documentation of decisions reached resulting from meetings, telephone conversations or site visits.

### F. Drainage Analysis, Design and Plans

The Design-Build Firm shall be responsible for designing the drainage and stormwater management systems. All design work shall be in compliance with the Department's Drainage Manuals; other Department's standards and criteria; Florida Administrative Code, Chapter 14-86; Federal Aid Policy Guide 23 CFR 650A; and the requirements of the regulatory agencies and permit conditions. This work will include the engineering analysis necessary to design any or all of the following: cross drains, French drains, underdrains, edge drains, roadway ditches, outfall ditches, storm sewers, retention/detention facilities, stormwater control structures, interchange drainage, water management systems, stormwater pump station(s), or other drainage systems and elements of systems as required for a complete analysis. Full coordination with all permitting agencies, the District Environmental Management section, and the District Drainage Design section will be required from the outset. Full documentation of all meetings and decisions shall be included in the Drainage Report.

The exact number of drainage basins, outfalls, and water management facilities (retention/detention areas, weirs, etc.) will be the Design-Build Firm's responsibility.

The project is divided into four major outfalls, which can be found in the Drainage Report included as a Reference Document. The outfalls include:

#### Collier County:

I-75 Canal

Cocohatchee Canal

#### Lee County:

Oak Creek
Imperial River
Imperial River Tributary Outfall
Leitner Creek
Rosemary Canal
Brooks Flow way
Stokes Head Slough
South Branch (Monty Run) Estero River
Estero River Tributary Outfall

The primary objectives of the Design-Build Firm are to obtain an approved stormwater treatment/attenuation design. The design service shall include, but is not limited to, the design of the conveyance system, treatment, pollutant loading, and attenuation system in compliance with all applicable regulations.

Prior to proceeding with the Drainage Design, the Design-Build Firm shall meet with the D1 District Drainage Engineer. The purpose of this meeting is to provide information to the Design-Build Firm that will better coordinate the Preliminary and Final Drainage Design efforts. This meeting is Mandatory and is to occur during the Design Phase, a minimum of fifteen (15) workdays prior to any submittals containing drainage components.

The Design-Build Firm shall design and generate construction plans documenting that the permitted systems function to the criteria.

The Design-Build Firm will consider optional culvert materials in accordance with the Department's Drainage Manual Criteria, as well as the following:

- The Design-Build Firm shall use one type of pipe material on pipe runs between drainage structures.
- All precast storm sewer manholes and inlets shall have resilient connectors from the Approved Products List (APL) in compliance with Specification Section 942.
- The Design-Build Firm shall include the type of resilient connectors, any required pipe adaptors, and the pipe material for each structure in the drainage shop drawing submittals.

The Design-Build Firm shall adhere to the following additional drainage design criteria:

1. Drainage and grading requirements for toll facilities are provided in the GTR.

- 2. Unless otherwise approved by the Department, the design of the final stormwater management system(s) shall conform to the stormwater management system identified in the Conceptual Drainage Report. The design of the stormwater management facilities shall demonstrate avoidance and minimization of French drains and side slopes steeper than 1:4 and conform with the requirements stipulated in the Landscape Opportunity Plans criteria of this RFQ. Additionally, design of the final stormwater management system(s) shall utilize the same seasonal high groundwater table (SHGWT) elevations, curve number calculation methodology, rainfall amounts, and rainfall files used in the conceptual design. The final design of the stormwater management system(s) shall limit maximum stages to those of the conceptual design or to the maximum allowable stages per FDOT freeboard requirements.
- 3. The Design-Build Firm shall be responsible for constructing new or modifying the existing drainage collection and conveyance system(s) to accommodate the proposed improvements, no proposed manhole lids or drainage structure grates, or aboveground drainage features shall be permitted within any travel lanes.
- 4. Positive drainage shall be maintained throughout the project. Positive drainage means overland, open channel and/or closed conduit flow of runoff by gravity towards or through a stormwater conveyance system from a higher elevation to a lower elevation. Positive Drainage also means providing conveyance where construction activities might divert or trap water and compromise safety and efficiency, including locations on offsite properties.
- 5. Any proposed berm style weirs, trapezoidal, or otherwise use shall require approval from the D1 District Drainage Engineer. If a berm style weir is approved by the Department, the Design-Build Firm shall submit for Department approval a structural design to support the loading of maintenance vehicles without failure for the life of the weir and a geotechnical design to prevent seepage through the pond or swale berm that may result in failure of the pond or swale berm. All berm style weirs in pond or swale berms shall be designed and constructed to be traversable.
- 6. Underground stormwater management systems shall not be placed under the pavement within the Project Limits. Underground stormwater management systems shall not be placed in engineered fill. "Engineered fill" means embankment that is strengthened by methods in addition to compaction; for example, using geotextiles as soil reinforcement.
- 7. Heavy equipment shall not be operated near pipe endwalls or other structures to cause their displacement.
- 8. Drainage design and stormwater management systems shall be accommodated within the Project Right of Way except as otherwise noted in the Project's joint use agreements unless the Design-Build Firm acquires additional Project Right of Way in accordance with the Contract Documents.
- 9. If the Design-Build Firm prefers to abandon in-place any drainage structures or culverts, approval must first be obtained from the District Drainage Engineer. The drainage structures and culverts approved by the Department to be permanently placed out of service shall meet the requirements within FDOT specification 430. All abandoned drainage structures and culverts shall be depicted on the As-Built Record Plans.
- 10. Drainage systems that are proposed for reuse shall require the following:

- a. The Design Build Team shall verify that all existing systems have adequate hydraulic capacity and will meet the design service life in accordance with the RFQ requirements and FDOT Drainage Manual.
- b. Flood flow requirements shall be determined in accordance with the FDOT Drainage Manual and drainage requirements of the RFQ.
- c. Existing drainage systems or components that are determined to be hydraulically inadequate shall be replaced or supplemented in accordance with the drainage requirements of the RFQ.
- d. A video pipe inspection in accordance with Specification 430-4.8 will be required for all existing pipes to remain.
- e. Existing drainage systems or components that are determined to have insufficient design service life as required by the FDOT Drainage Manual or show deficiencies per the video pipe inspection or the Department's field inspection reports shall be replaced or repaired using an acceptable repair method. Established repair methods can be found at <a href="Pipe Repair Matrix">Pipe Repair Matrix</a> (fdot.gov). The Department may consider alternative repair methods.
- 11. Drainage systems within the Milling and Resurfacing areas shall require the following:
  - a. The Design Build Team shall verify that all existing systems to be modified or extended have adequate hydraulic capacity in accordance with the RFQ requirements and FDOT Drainage Manual. Any systems or related components that are determined to be hydraulically inadequate shall be replaced or supplemented in accordance with the drainage requirements of the RFQ.
  - b. Flood flow requirements shall be determined in accordance with the FDOT Drainage Manual and drainage requirements of the RFQ.
  - c. A video pipe inspection in accordance with Specification 430-4.8 will be required.
- 12. All constructed inlets and manholes shall have an outlet storm drain pipe. The most downstream pipe of each storm drain system must be constructed with its outlet flow line at the toe of slope (ditch or swale) and bottom of any pond.
- 13. Temporary drainage calculations shall be submitted to the Department for approval prior to commencement of a given TTCP phase.
- 14. Maintenance of stormwater management facilities during construction shall be the responsibility of the Design-Build Firm, except as otherwise expressly provided in the Contract Documents.
- 15. All outfalls of adjacent drainage systems or properties (via Drainage Connection Permits or historical overland flow) shall be maintained in the final design and throughout construction. The Design-Build Firm shall identify any offsite areas with historical overland flow to the existing corridor and provide final design measures necessary to maintain such drainage and/or to provide a diversion to an adjacent receiving water body.

- 16. If storm drain pipes are proposed to cross a bridge/MSE wall interface (e.g. through end bent backwalls), such piping shall consist of steel pipe with stainless steel connectors and welded joints. The stormwater piping system and bridge hangers shall be designed for the differential settlement.
- 17. The detention pond control elevations shall not be lowered from the elevations shown in the Concept Plans or existing permits.
- 18. All embankment on the strap side of an MSE wall not designated as Wall Zone B, as shown in Figure D-3 of Appendix D of the FDOT Drainage Manual, shall be considered Wall Zone A regardless of embankment width between MSE walls, regardless of embankment width adjacent to the strap side of an MSE wall, and regardless of whether or not there are MSE walls on both sides of the embankment cross section.
- 19. Storm drain pipes shall not decrease in size in a downstream direction regardless of the available pipe gradient.
- 20. In locations where drainage collection and conveyance pipes are required within MSE wall sections, the Design-Build Firm shall perform early coordination with the wall manufacturer and provide documentation within the Drainage Design Report on the minimum required MSE strap length and placement relative to the proposed conveyance pipe offset from wall. Where pipes must go through MSE walls, the pipe external to the wall shall not be attached to the pipe internal to the wall until the MSE embankment is at full depth. Any pipes in the vicinity or within the MSE shall meet the wall zone requirements outlined in the Drainage Manual.
- 21. Vertical pipes adjacent to retaining walls shall have a concrete thrust block at the base of the pipe and a resilient connector at the base of the inlet.
- 22. Pond outfall locations shown in the Concept Plans shall not be relocated without the approval of the D1 District Drainage Engineer.
- 23. Drainage structure shop drawings shall be reviewed and approved by the Drainage Engineer of Record. The Department will not be responsible for approving the Drainage Structure Shop Drawings but will review each submittal to ensure that the EOR and Design-Build Contractor have reviewed/stamped each page and then return each submittal marked "Rejected" or "Released for Construction."
- 24. Existing cross drains shall be extended outside of the clear zone. The extended cross drain material shall be the same material type as the existing cross drain. The placement of a permanent protection barrier (guardrail or barrier wall) for the sole purpose of protecting cross drains shall be avoided unless the culvert extension cannot be constructed outside of the clear zone. Hydraulic calculations shall be submitted that show that no adverse impacts occur due to the extension.
- 25. No open cuts shall be permitted for any new drainage conveyance pipes crossing beneath roadways or ramps after the final surface course is placed or if the existing roadway or ramp is not being milled and resurfaced.
- 26. Jack and bore and micro-tunneling casing pipes can be utilized as carrier pipes in accordance with the following criteria:

- a. The casing shall extend the entire length from drainage structure to drainage structure. The entire length of the casing running from drainage structure to drainage structure shall have a uniform diameter, wall thickness and material type.
- b. The casing shall meet Specifications 556.
- c. Casing wall thickness calculations which support the jack and bore or micro-tunneling operation shall be provided. These calculations shall consider, at a minimum, the fill height over the casing and any installation requirements.
- d. A pitting analysis and soil boring(s) at each location shall be provided as part of the casing pipe service life estimator calculations.
- 27. Storm drain systems shall be designed to ensure that resilient connectors can be installed. The conditions where resilient connectors will not be required are as follows:
  - a. The pipe skew angle at the connection to the drainage structure is greater than 15 degrees, in either the horizontal or vertical direction.
  - b. The drainage structure and all connections fall outside the 1:2 roadway template control line for the Project construction or the future configuration (as depicted in the Typical Section Package) as per Standard Plans Index 120-001.
  - c. The remaining beam height of the single precast unit from the top of that segment to the existing crown of selected pipe is less than 8-inches.
  - d. Where elliptical pipes are specified on the plans.

Masonry sealing of pipe connections will be allowed where resilient connectors are not required. The Design-Build Firm shall submit supporting documentation which provides the justification for elimination of the resilient connectors to the D1 District Drainage Engineer for review and approval. Justification shall include a demonstration that avoidance of the above conditions is not practical.

- 28. Inverted siphons shall not be permitted, unless approved by the D1 District Drainage Engineer.
- 29. The Design-Build Firm shall provide the D1 District Drainage Engineer with a signed and sealed Drainage Design Report. It shall be an As-Built Plan of all drainage computations, both hydrologic and hydraulic. The engineer shall include all necessary support data.
- 30. The Design-Build Firm shall provide the D1 District Drainage Engineer with a signed and sealed Bridge Hydraulics Report. It shall be a record set of all drainage computations, including hydrologic, hydraulic, and scour. The Design-Build Firm shall include all necessary supporting data.
- 31. At the completion of all soil disturbing activities and paving and drainage work, the Design-Build Firm shall desilt the entire drainage system within the limits of construction, including existing and proposed cross drains, storm sewers, and drainage structures.

- 32. Prior to Final Acceptance by the Department, the Design-Build Firm shall prepare and submit all required permitting certifications, including a "As-Built Certification and Request for Conversion to Operation Phase" form [SFWMD Form 62-330.310(1)], to the Department with the appropriate As-Built Plans, signed and sealed by a professional engineer. For any components of the permitted activities that are not in substantial conformance with the permit, the Design-Build Firm shall correct such deficiencies or prepare and submit a complete permit application to the Department for modification of the permit.
- 33. Any permit special condition (such as water quality monitoring) which was required as a condition of future performance, prior to issuance of the permit, shall be satisfied, in full, to the satisfaction of the regulatory agencies prior to the end of the contract.
- 34. The existing FDOT ponds within the Project Limits that are to remain shall be restored to their permitted geometric and volume conditions. Restoration shall include, but not be limited to, grading of side slopes, removal of vegetation, dredging (if pond bottom has been raised), desilting of outfall control structures, and vegetative removal at inflow and outflow end treatments. In addition, outfall control structure physical characteristics (e.g., weir elevations, weir widths, grate types, skimmers, etc.) that are to remain shall be inspected and restored, if necessary, to meet the permitted parameters.
- 35. Stormwater dry retention ponds are designed where recovery is dependent upon infiltration of stormwater runoff into the soil. The dry retention ponds are susceptible to clogging from construction sediments and therefore have special construction requirements:
- 36. Avoid use of permanent dry retention areas (ponds/swales) for temporary settling basins. If permanent dry retention areas are necessary for temporary settlement basins, comply with the following requirements:
  - 1. Limit temporary settlement basins to areas required for construction.
  - 2. Partially construct ponds by excavating cut ponds to a depth six (6) inches above the pond bottom elevation. Overfill embankment ponds six (6) inches above the pond bottom elevation.
  - 3. Construct temporary berms to separate temporary settling basins from permanent dry retention ponds.
  - 4. Remove the final (6) inches of soil and additional accumulation of sediments and fines above the pond bottom elevation and dispose of off-site.
- 37. Remove the existing soils below the proposed dry retention ponds as shown in the cross sections. This existing soil shall not be re-utilized as backfill material for pond construction.
- 38. Following subsoil excavation, root rake the insitu dry retention pond bottom area to a depth of twelve (12) inches. The soils shall remain uncompacted after root raking is complete. Backfill the proposed dry retention ponds with A-3 sand meeting the requirements specified below and with limits shown in the construction plans. Grade the A-3 material in a loose, uncompacted state to the swale bottom elevations specified in the plans.
- 39. The use of ponds for construction staging or storage is prohibited.

- 40. A-3 sand utilized as backfill within the dry retention ponds shall consists of A-3 sand with less than 50% passing the No. 100 sieve and less than 6% passing the No. 200 sieve in accordance with AASHTO t-88 and be demonstrated to have a minimum laboratory permeability of the values shown below in accordance with AASHTO T-215 on soils compacted to at least 98% of the standard proctor per AASHTO T-99, method C.
- 41. Upon completion of the final dry retention swale/pond grading, scarify the bottom surface to a depth of twelve (12) inches below the bottom elevation with light earth moving equipment to loosen the surface soil.
- 42. Ninety (90) days prior to final acceptance and once all adjacent areas have been stabilized, perform a minimum of one double ring infiltration test (ASTM D3385/minimum 4-hour test) every 500 LF along each of the dry retention pond bottoms to verify the soil infiltration meets the rates defined below. Submit all testing data to the District Geotechnical Office. Cost is included in Pay Item No. 120-6.

POND	AVERAGE INFILTRATION RATE (XX FT PER DAY)
BONITA POND 2	16.00
BONITA POND 3	13.00
BONITA POND 4	11.00
SWALE 5 PT	16.00

- 43. Should the testing results indicate soil infiltration rates do not meet the specified criteria, consult the engineer to determine if rates are sufficient or if remediation is necessary. If remediation is required, prepare an action plan to achieve the required infiltration. Once approved by the engineer, implement the action plan. Cost is included in Pay Item No. 120-6.
- 44. Fine aggregate material shown in Index No. 120-001 and meeting Section 902 shall demonstrate a minimum laboratory permeability of XX feet/day, as shown in the table above, when tested in accordance with AASHTO T-215 on soils compacted to at least 98% of the standard proctor (FDOT FM 1-T099).

# G. Structure Analysis, Design, and Plans

### 1. Design Analysis:

- a. The Design-Build Firm shall submit to the Department final signed and sealed design documentation prepared during the development of the plans.
- b. The Design-Build Firm shall ensure that the final geotechnical and hydraulic recommendations and reports required for bridge design are submitted with the 90% bridge plans.
- c. The Design-Build Firm shall "Load Rate" all bridges in accordance with the Department Procedure 850-010-035 and the Structures Manual. The Bridge Load Rating Calculations, the Completed Bridge Load Rating Summary Detail Sheet, and the Load Rating Summary Form shall be submitted to the Department for review with the 90% superstructure submittal. The final Bridge Load Rating Summary Sheet and Load Rating Summary Form shall be submitted to the Department for review with the Final superstructure submittal. A

final, signed and sealed Bridge Load Rating, updated for as-built conditions, shall be submitted to the Department for each phase of the bridge construction prior to placing traffic on the completed phase of the bridge. A final, signed and sealed Bridge Load Rating, updated for the as-built conditions as part of the As-Built Plans submittal shall be submitted to the Department before any traffic is placed on the bridge. The Bridge Load Rating shall be signed and sealed by a Professional Engineer licensed in the State of Florida.

- d. The Design-Build Firm shall evaluate scour on all bridges over water using the procedures described in HEC 18.
- e. The Engineer of Record for bridges shall analyze the effects of the construction related loads on the permanent structure. These effects include but are not limited to: construction equipment loads, change in segment length, change in construction sequence, etc. The Engineer of Record shall review all specialty engineer submittals (camber curves, falsework systems, etc.) to ensure compliance with the contract plan requirements and intent.
- f. The Design-Build Firm is responsible for verifying and resolving any existing typical section element deficiencies that occur due to discrepancies between the current as-built survey and existing plans. The Design-Build Firm can request access to the bridges for inspection, testing, structural investigation, or as otherwise needed, prior to the RFQ Response by contacting:

Tara Rodrigues, P.E District Structures Maintenance Engineer Florida Department of Transportation 813-612-3386

### 2. Design Criteria

#### General

- 1. Bridges to be widened/modified:
  - o 030200 I-75 over Pine Ridge
  - o 030201 I-75 over Pine Ridge
  - o 030202 I-75 over Vanderbilt Beach
  - o 030203 I-75 over Vanderbilt Beach
  - 030321 I-75 over Immokalee
  - 030322 I-75 over Immokalee
  - o 030189 I-75 over Rock Canal
  - o 030190 I-75 over Rock Canal
  - o 120143 I-75 over Bonita Beach

- o 120417 I-75 over Bonita Beach
- o 120144 I-75 over Imperial River
- o 120146 I-75 over Imperial River
- o 120148 I-75 over Imperial River
- 120145 East Terry over I-75
- o 120149 I-75 over Stokes Head Slough
- o 120151 I-75 over Stokes Head Slough
- o 120130 I-75 over Monty Creek
- 120131 I-75 over Monty Creek
- 2. Disposal of existing bridge components shall be the responsibility of the Design-Build Firm. The reuse of a bridge component from a partial or complete demolition of an existing bridge for use as part of a new structure, at the same location or a different location, is prohibited. Existing piles remaining in place shall not be incorporated into any proposed foundations or substructures.
- 3. Ensure removal of all garbage/debris, graffiti, nuisance vegetation (any vegetation growing on including but not limited to the bridges, retaining wall joints, adjacent sidewalks, curbs, copings, et cetera), staining, etc. on bridges and associated retaining walls at the completion of construction within the Project Limits.
- 7. When additional bridge conduits are required beyond those already provided in the bridge traffic railings, for utility or aesthetic lighting purposes, conduits shall be located directly under the bridge deck, and in an interior beam bay.
- 8. Visibility of all bridge drainage conveyance systems shall be minimized as much as possible. The conveyance systems (piping) shall not be embedded within the piers or run within box structures but attached to the exterior and aesthetically integrated with the pier. The conveyance systems must be painted in accordance with the Department's Structures Detailing Manual (SDM) Section 22.3.1.E. Avoid, when possible, placing drainage pipes inside of box superstructures by providing inlets near piers.
- 9. The Design-Build Firm shall be responsible for providing new bridge deck drainage systems in locations necessary to accommodate spread criteria or where stipulated by the regulatory agencies. Bridge drainage system material requirements shall comply with Chapter 22 of the Structure Detailing Manual supplemented as follows:
  - Socket fittings shall be used and shall conform to ASTM D2467, and threaded fittings shall conform to ASTM D2464.
  - When possible, to account for bridge expansion, separate the downspout from the collector pipe and insert a minimum of 3 inches.
  - Pipes shall be hung beneath the deck utilizing two linked eye rods.
- 10. The LRFD Operational Importance Factor shall be 1.0 for all bridges.

- 11. Provide a 42" Single-Slope Traffic Railing (per FDOT Index 521-428) on both sides of ramp bridges and wall sections with a curve radius of 1200 feet or less, for the entire length of the ramp.
- 12. All new bridge piers and permanent retaining walls are to meet clear zone requirements without the use of permanent barrier wall or guardrail to protect within the clear zone, except for the median of I-75.
- 13. A permanent steel shell for forming and casting is not allowed for concrete pier caps.

#### **Materials**

- 14. A silicone-acrylic stain sealer Applied Finish Coating shall be provided on all new concrete construction.
- 15. Lightweight concrete shall not be permitted for any structural applications.
- 16. Reinforcing steels other than allowed by SDG 1.4.1.B are not permitted, except in drilled shafts and auger-cast piles. This restriction does not apply to non-corrosive materials that are allowed for by the RFQ.
- 17. All proposed structural steel (including shapes and plates for bracing members) shall generally be uncoated weathering steel (ASTM A 709 Grades 50W, HPS 50W, and HPS 70W), unless prohibited by site conditions or otherwise stated in the RFQ. See Aesthetic Requirements for painting limits of weathering steel structures. Miscellaneous hardware, including shapes, plates, and threaded bar stock (except when used on uncoated weathering steel) shall conform to ASTM A709, Grade 36. Do not use ASTM A 709 Grade HPS 100W steel. See also FHWA Technical Advisory T 5140.22 for additional information.

#### **Superstructure**

- 18. For existing traffic railing on existing bridges to be widened, use SDG Table 6.7.4-1 to retrofit or replace. For existing traffic railing on existing bridges and approach slabs not to be widened or modified/rehabilitated by the proposed construction, follow RRR criteria in SDG Table 6.7.4-1.
- 19. Where a non-standardized superstructure expansion joint is required (e.g. a finger joint or modular joint), a finger joint shall be used. It shall be self-cleaning with an elastomeric seal inserted between steel keepers, flush with the underside of the finger joint. The joint shall be designed to allow replacement of the elastomeric seal.
- 20. For bridges with different depth beams/girders, the maximum height variation between adjacent beams/girders shall be twelve inches.
- 21. Deck girders with longitudinal deck joints for bridges with two or more spans are not permitted.
- 22. Full-depth precast deck panels for interstate bridges are not permitted.
- 23. Partial-depth precast deck panels are not permitted.
- 24. Replacing transverse bridge deck grooving with longitudinal bridge deck grooving is not permitted.
- 25. Elimination of deck grooving is not permitted.
- 26. Elimination of deck planing is not permitted.

- 27. The elimination of cross frames in bays of bridges that are phase constructed is not permitted.
- 28. Partial depth deck removal of outside bays on steel bridge widenings in order to provide transverse reinforcing per SDG Table 4.2.5-1 is not permitted. Full depth removal is required to avoid unwanted deck stresses induced by the girder rebounding upward as it is unloaded.
- 29. Shored construction (composite dead load design) for steel type superstructures is not permitted.
- 30. Uplift in bridge bearings is not permitted.

#### **Substructure**

- 31. Cheekwalls shall be provided at exposed ends of all end bents and inverted-tee cap ledges. The cheekwalls shall be adjacent to the exterior beams. In addition to the requirements of SDM 13.8.B for the use of cheekwalls on pier caps, cheekwalls or the use of pre-cured silicone sealant based on SDM Figures 15.8-4 and 15.8-5 shall be provided at all intermediate supports where a gap exists between the back of beams/girders meeting an interior support (i.e. simple spans, discontinuity of beam element).
- 32. Intermediate pile bents or shaft bents shall not be permitted, except in creeks or adjacent low lying locations that don't span roadways. Bridge piers are required for intermediate supports except as noted.
- 33. All bridge foundations shall be deep foundations.
- 34. For existing grade separated bridges to remain or grade separated bridges to be widened that are deemed to be critical for pier protection, ensure existing pier protection satisfies the requirements of SDG 2.6.3.A.
- 35. Non-framed, non-integral straddle pier caps that are not permanently anchored or stabilized on one end are not permitted (e.g. pinned bolsters, sole plate and anchor bolts, pot or disc bearings with integral restraints, etc.).
- 36. All concrete straddle pier caps must be post-tensioned if the following criteria cannot be met: (1) the maximum number of layers of primary flexural reinforcement must be 3, (2) minimum vertical spacing of 4 inches between the layers, (3) minimum horizontal spacing between bars or bundles of 4d (d = rebar diameter), (4) bundled bars limited to 2 bars per bundle.
- 37. All steel integral piers require complete shop assembly of all girders to bent connections. Bearing sole plates shall not be left out of the shop assembly.
- 38. Temporary tie-downs are required for stability of non-framed straddle caps.

# **Retaining Walls**

- 39. Full height MSE Wall panels (piano walls) are not permitted.
- 40. GRS walls are not permitted.
- 41. All permanent retaining walls shall have a concrete facing on the exposed face. The concrete facing shall extend at least 1'-0" below the finished ground line.

- 42. For permanent retaining walls, partial height walls such as perched or toe-walls shall not be permitted except if extending an existing partial height wall. SDG Figure 3.12-1 shall apply to all wall types.
- 43. Walls adjacent to ponds are considered full height walls so long as the leveling pad is placed a minimum of 2 feet below the top of the adjacent maintenance berms.
- 44. Walls adjacent to the Right of Way shall consider the existing groundline outside of the Right of Way as natural grade. Internal and global stability of the walls shall be established based on existing conditions (i.e. existing terrain, existing ponds, etc.) outside of the Right of Way.
- 45. For bridge locations with walls, provide full-height wrap-around MSE walls for each individual bridge structure carrying I-75 or I-75 Express Lane systems to avoid median widening conflicts in the future. Prevent access to slope pavement in the median between twin bridges.
- 46. Wall Heights are limited to a maximum height as shown in SDG or Bridge Concept Plans, whichever is greater.

#### Miscellaneous Structures

47. No special requirements.

# Structures Manual (SM) Modification for Non-Conventional Projects

The following sections of SM are to be modified as stated:

- 48. SDG 1.1.3.B.1 No bridges over navigable waterways.
- 49. SDG 1.3.1.A See RFQ for environmental classifications.
- 50. SDG 1.3.3.A Samples not required.
- 51. SDG 1.4.5 See RFQ for Coating requirements.
- 52. SDG 1.5.A See Attachment 22 of RFQ: "Lead and Asbestos Reports".
- 53. SDG 1.5.D No asbestos abatement plans are required.
- 54. SDG 2.1.2.A Paragraph SDG 2.1.2.A shall apply.
- 55. SDG 2.6.2 See RFQ for new pier requirements.
- 56. SDG 2.6.3 See RFQ for existing pier requirements.
- 57. SDG 2.6.3.A See RFQ for existing pier requirements.
- 58. SDG 2.6.4 See RFO for piers adjacent to railroads.
- 59. SDG 2.10.B See RFQ for Operational Importance Factor.
- 60. SDG Table 3.5.1-1 Minimum concrete pile size is 18 inches.
- 61. SDG 3.5.11.B Test Piles are required to determine the authorized pile lengths during construction.
- 62. SDG 3.5.19. Micropiles are not permitted.
- 63. SDG 3.8.2.D GRS abutments are not permitted.
- 64. SDG 3.12.B See RFQ for use of partial height walls.
- 65. SDG 4.2.2.C For Major Widenings, minimum deck thickness shall be 8½".
- 66. SDG 5.1.1.B See Aesthetic Requirements in RFQ for special coating requirements.
- 67. SDG 5.1.1.C No preference to box girders over plate girders.
- 68. SDG 6.4.3 Match existing expansion joint material for widening.
- 69. SDG 6.7.1.F Provide maximum number of conduits per Index 630-010.
- 70. SDG 6.7.2.B Non-FDOT standard mounted traffic railings are not permitted.
- 71. SDG 6.7.4.A.2 See RFQ for existing traffic railings.
- 72. SDG 6.7.6 See RFQ for use of TL-5 traffic railings.
- 73. SDG 7.1.1 Perform Load Ratings per LRFR for widenings.
- 74. SDG 7.1.2.D Bridge file provided as Reference Document to RFQ.

- 75. SDG 7.7.A See RFO deck grooving requirements.
- 76. SDM 4.4 See RFQ for Coating requirements.
- 77. SDM 11.3.D See Section IX.D of RFQ Utility Coordination for utility requirements.

# H. Specifications

Notwithstanding modifications made in the RFQ or through the Innovation approval process, Department Specifications may not be modified or revised. Technical Special Provisions shall be written only for items not addressed by Department Specifications and shall not be used as a means of changing Department Specifications.

The Design-Build Firm shall prepare and submit a signed and sealed Construction Specifications Package for the Project, containing all applicable Division II and III Special Provisions and Supplemental Specifications from the Specifications Workbook in effect at the time the Work Package Proposals were due to the Department, along with any approved Developmental Specifications and Technical Special Provisions, that are not part of this RFQ. Any subsequent modifications to the Construction Specifications Package shall be prepared, signed and sealed as a Supplemental Specifications Package. The Specifications Package(s) shall be prepared, signed and sealed by the Design-Build Firms Engineer of Record who has successfully completed the mandatory Specifications Package Preparations Training.

The website for completing the training is at the following URL address:

http://www2.dot.state.fl.us/programmanagement/PackagePreparation/TrainingConsultants.aspx

Specification Workbooks are posted on the Department's website at the following URL address:

 $\underline{https://fdotewp1.dot.state.fl.us/SpecificationsPackage/Utilities/Membership/login.aspx?ReturnUrl=\%2fSpecificationsPackage%2fdefault.aspx$ 

Upon review and approval by the Department, the Construction Specifications Package will be stamped "Released for Construction" and initialed and dated by the Department.

### I. Sequence of Construction

The Design-Build Firm shall construct the work in a logical manner and with the following objectives as guides:

- 1. Maintain or improve, to the maximum extent possible, the quality of existing traffic operations, both in terms of flow rate and safety, throughout the duration of the Project.
- 2. Minimize the number of different Temporary Traffic Control Plan (TTCP) phases, i.e., number of different diversions and detours for a given traffic movement.
- 3. Take advantage of newly constructed portions of the permanent facility as soon as possible when it is in the best interest of traffic operations and construction activity.
- 4. Maintain reasonable direct access to adjacent properties at all times, with the exception in areas of limited access Right of Way where direct access is not permitted.
- 5. Coordinate with adjacent construction projects and maintaining agencies.

## J. Stormwater Runoff Control Concept (SRCC)

The Design-Build Firm shall prepare a SRCC as required by the National Pollution Discharge Elimination System (NPDES). The Design-Build Firm shall refer to the FDM and Florida Department of Environmental

Protection (FDEP) Rule 62-621.300(4)(a) for information in regard to the SRCC. The SRCC and the Design-Build Firm's Certification (FDEP Form 62-621.300(4)(b) **NOTICE OF INTENT (NOI) TO USE GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES)** shall be submitted for Department review and approval. Department approval must be obtained prior to beginning construction activities.

#### K. Transportation Management Plan

The Design-Build Firm must develop and implement a Transportation Management Plan in accordance with the Department's FDOT Design Manual.

The Design-Build Firm shall consider traffic management, operations, and signage, access to local businesses, detour routes, public notification of alternate routes, emergency services coordination, and Project schedule in the development of the Transportation Management Plan.

# 1. Temporary Traffic Control Plans:

The Temporary Traffic Control Plans shall address construction phasing, utility relocation, drainage structures and temporary drainage, signalization, ditches, front slopes, back slopes, drop offs within clear zone, lighting, landscaping, ITS, ramp signals, signing and marking, structural requirements including temporary retaining walls, operational transition, temporary roadway lighting traffic monitoring sites, toll site construction, and toll equipment contractor installation.

The Design-Build Firm shall utilize the Department's Standard Plans Index Series 102 where applicable. Should these standards be inadequate, a detailed Temporary Traffic Control Plan shall be developed. The Design-Build Firm shall prepare plan sheets, notes, and details to include the following: typical section sheet(s), general notes and construction sequence sheet(s), typical detail sheet(s), and traffic control plan sheet(s).

The Design-Build Firm shall prepare additional plan sheets such as detours, cross sections, profiles, drainage structures, temporary drainage systems including temporary outfalls, temporary roadway lighting, retaining wall details, and sheet piling as necessary for proper construction and implementation of the Temporary Traffic Control Plan.

The Design-Build Firm shall maintain positive collection, conveyance, and outfall systems for all roadways throughout all phases of construction, either using the existing drainage systems, temporary drainage systems, or the permanent new drainage system to be constructed with the proposed roadway improvements. Special consideration shall be given to the drainage system when developing the construction phases. Documentation of temporary drainage analysis, including necessary calculations, shall be submitted as part of the Drainage Design Documentation. The Design-Build Firm shall make use of the criteria contained in the FDOT Drainage Design Guide Chapter 10 for selection of temporary barrier wall to satisfy spread requirements during construction as well as address other temporary drainage issues associated with maintenance of traffic and during construction operations. Placing traffic on inlet grates on high speed facilities shall be avoided unless the grates are secured in place in a manner that demonstrably locks them in place and will not damage tires or any part of a vehicle when driven over.

The Temporary Traffic Control Plan shall address how to assist with maintenance of traffic throughout the duration of the contract, including coordination and interface with adjacent construction projects. The existing regulatory speed limits shall be maintained during construction unless otherwise approved by the Department.

Should the Design-Build Firm elect to use the existing roadway shoulders for temporary traffic control on a temporary basis, the Design-Build Firm shall modify the existing cross slope to match the adjacent lane. The Design-Build Firm shall be responsible for providing the required structural integrity and maintenance of the shoulder. When no longer needed for temporary traffic control, the Design-Build Firm shall restore the shoulder to the required width and cross slope, including rumble strips.

The Temporary Traffic Control Plan shall be prepared by a certified designer who has completed the Department's Advanced Maintenance of Traffic training course, and in accordance with the FDM and the Department's *Standard Plans for Road and Bridge Construction*.

Where existing roadway lighting exists within the Project Limits, the Design-Build Firm shall maintain current light levels utilizing either existing or temporary systems during construction until the final lighting is installed and operational. In areas within the Project Limits that currently do not have roadway lighting, at points where TTCP requires lane shifting, provide temporary or final lighting systems throughout the limit of the lane shift, as well as a minimum of 200 feet in advance of and after the shift, prior to shifting of traffic. The Design-Build Firm is responsible for maintaining the lighting system until Final Acceptance.

All overhead signage, existing or temporary guide signage, designating a dropped lane situation within the Project Limits shall be maintained as overhead signage through all phases of the TTCP. All other overhead signage within the Project Limits shall be maintained at a height that provides clear visibility from all lanes through all phases of the TTCP. Sled mounting of overhead signs shall not be permitted.

Any signs that conflict with traffic patterns shall be covered with an opaque material until such a time where the signs are no longer in conflict with the traffic patterns.

The following signage must be retained during all phases of construction, in the general location that it was in prior to the initiation of construction:

- 511 signage
- Emergency management (hurricane) shelter and hurricane evacuation signing.

Water blasting or asphalt replacement are the only acceptable methods for removal of conflicting pavement markings. There will be no pavement marking eradication permitted after the final asphalt course is placed. Temporary markings on concrete pavement shall be contrast paint.

The Design-Build Firm shall maintain existing pedestrian access on all sidewalks, transit facilities, and at all intersections where such access exists at the commencement of construction. Pedestrian sidewalks and paths shall be maintained and continue to conform to ADA requirements. When the Design-Build Firm allows work areas to encroach upon a sidewalk or crosswalk areas, and a minimum clear width of 4-foot cannot be maintained for pedestrian use, an alternative accessible pedestrian route or pedestrian detour route shall be provided in accordance with Standard Plans Index 102-660.

The Design-Build Firm shall maintain bicycle access for all sidewalks and bicycle paths at all locations where such access exists at the commencement of construction.

All temporary or alternate facilities must meet ADA requirements. The placement of an adjacent temporary pedestrian facility or pedestrian detour route is subject to review and approval by the Department before implementation.

PCMS shall be placed within 500 feet of the construction limits and placed every two (2) miles along the

Project corridor in both the northbound and southbound directions. These signs serve as advanced construction notice and shall be in place two (2) weeks prior to the start of construction activities. At the completion of the two (2) week advanced construction notice period the PCMS shall be removed. The message shall notify motorists that roadway construction is commencing and display the begin month and date. PCMS shall be in place seven (7) days in advance of any lane or ramp closure. The display shall alternate with messages stating the exit name to be closed and the date and time of closure. A PCMS shall be in place a minimum of seven (7) days prior to a new traffic pattern being implemented and for at least two (2) weeks after the new traffic pattern is implemented to inform motorists of the new traffic pattern and the date on which the new pattern is to commence.

All construction activities requiring traffic shifts in which the use and removal of temporary pavement markings is required shall be completed prior to the placement of friction course. Construction activities that require traffic shifts that entail the installation and removal of temporary pavement markings, or other activities that in any way damage or scar the existing pavement that is to remain, shall require full width milling and resurfacing (all travel lanes) for the full limits of the impacted pavement using a friction course to match the adjacent sections of existing roadway to remain.

Acceleration and deceleration of all construction vehicles within an open travel lane is prohibited. The Design-Build Firm shall make provisions for construction vehicle access to the work areas including material delivery. Non-construction related vehicles shall be prevented from entering a closed travel lane or the work area. Where required, soil tracking devices shall be provided. Work area access and egress points shall be clearly delineated with proper signage.

The Design-Build Firm shall be responsible for daily temporary retiming of existing signalization systems to provide for changes in traffic volumes affected by the proposed lane closures or detours implemented as part of the Temporary Traffic Control Plan. The Design-Build Firm shall be responsible for performing the signal timing analysis, providing recommendations, and coordinating with the local Traffic Engineering Division. A traffic analysis shall be performed of each detour route to determine delays or other impacts to the detour route and to determine if temporary improvements are required to the route to accommodate the additional traffic on any route to be utilized for more than one nighttime operation, whether sequential or non-sequential. Any temporary improvements shall be removed and restored to existing condition as soon as construction requiring the detour is complete unless otherwise directed by the maintaining agency to remain.

### 2. Smart Work Zone:

The Design-Build Firm shall employ Smart Work Zone (SWZ) strategies and technologies to provide real-time work zone traffic information and to optimize traffic safety and traffic flow approaching and through all active work zones and traffic restrictions such as lane closures, traffic diversions, narrow lanes, and narrow shoulders. The comprehensive SWZ system will include the necessary combination of portable trailer assemblies, ITS field devices, central software platforms, and communications networks to facilitate the following applications.

- Queue Warning System (QWS)
- Exiting Construction Vehicle Notification (ECVN)

The Design-Build Firm, as part of the Transportation Management Plan (TMP), shall design and deploy a SWZ system described in the Attachments that remains operational for the duration of the construction.

The TTCP shall show the proposed locations of SWZ and/or ITS devices and include a description of the proposed detection zones, logic thresholds, and proposed PCMS messaging, as appropriate.

- The Design-Build Firm shall develop a Smart Work Zone Deployment Plan in the form of a technical report for review and concurrence by the Department prior to the deployment of roadside equipment. The Smart Work Zone Deployment Plan shall be developed using the standard FDOT Systems Engineering templates for Concept of Operations (<a href="https://www.fdot.gov/traffic/its/projects-deploy/semp.shtm">https://www.fdot.gov/traffic/its/projects-deploy/semp.shtm</a>) and include, at a minimum, the following elements: Project overview including high-level objectives, intended applications, stakeholders, and roles and responsibilities (i.e., operations, maintenance).
- Equipment descriptions including manufacturer, model, and technical data sheets for all proposed system components.
- Systems diagram depicting the architecture for each SWZ application complete with system equipment, data format, and information exchange between system components. Each diagram shall include data exchange between the SWZ system, the traveling public, and operational staff within the RTMC.
- Operational concepts for each SWZ application defining the involved system components, operational states, business logic, deployment locations, and synchronization with phasing of the TTCP. This section shall include, but is not limited to, detection zones, defined PCMS messaging per operational state, and more.
- Data exchange information including the format and means of sharing real-time SWZ data with external systems (e.g., FL511, WAZE, Google Maps).

It is the Department's intent that the Design-Build Firm's SWZ design, materials, construction, and operations will meet the Department's developmental design standards, developmental standard plans, and developmental specifications. The Lane Closure Notification Systems (LCNS) will require Design-Build Firm personnel to receive training and approval to use the Department's LCNS interface for entering lane closure information.

The Design-Build Firm shall be responsible for all aspects of the SWZ deployment – including but not limited to procurement, installation, integration, configuration, and testing of equipment; relocation of equipment as necessary for synchronization with all phases of the TTCP; preventative and reparative maintenance of all equipment; and replacement of damaged or defective equipment. The Design-Build Firm shall be responsible for payment of all recurring subscriptions and licensing fees related to the SWZ system – including central software and monthly cellular service costs.

#### 3. Traffic Control Restrictions:

The Design-Build Firm shall, at a minimum, adhere to the following lane closure restrictions listed in the table below:

Facility	No Single Lane Closure	No Dual Lane Closure
I-75 Mainline Northbound (Collier County)	6:00 AM to 8:00 PM	6:30 AM to 9:00 PM
I-75 Mainline Southbound (Collier County)	6:00 AM to 8:00 PM	6:00 AM to 8:00 PM

I-75 Mainline Northbound (Lee County)	6:00 AM to 8:00 PM	6:00 AM to 9:00 PM
I-75 Mainline Southbound (Lee County)	6:00 AM to 8:00 PM	5:30 AM to 9:00 PM
One Lane Ramps	6:00 AM to 8:00 PM	6:00 AM to 8:00 PM
Two Lane Ramps	6:00 AM to 8:00 PM	6:00 AM to 8:00 PM

NO LANE CLOSURES are allowed on the Project during the dates shown below so as to minimize potential impacts:

- Working Day before Martin Luther King Jr. Day
- Working Day before President's Day
- Day before/after Independence Day (July 3rd and July 5th)
- Friday before Easter
- Friday before Memorial Day
- The day before/after Thanksgiving Day
- The day before/after Christmas Day
- New Years Eve Day and New Years Day

There will be no ramp closures allowed for this project except for span sign structure erection and milling and resurfacing operations on single lane ramps. During ramp closures, traffic shall be routed around closure using an approved off-site detour.

Pedestrian and bicycle facilities must be maintained on at least one side of the roadway during full roadway closures.

All ramp closures shall be coordinated with the Department two (2) weeks in advance of the work. All ramp closures require a minimum of seven (7) days of advance PCMS notifications to the roadway users and the notification to use alternate routes via PCMS is required. The exact locations and messages of the PCMS are to be shown on the Temporary Traffic Control Plans (TTCP) and coordinated with FDOT.

Closure of auxiliary lanes is permitted with proper public notice and only on NON-EVENT weekends.

All lane closures, including ramp closures, must be reported to the local emergency agencies, the media and the District Public Information Director a minimum of seven (7) days in advance and be submitted into the Department's database.

ALL LANES WITHIN THE PROJECT LIMITS SHALL BE OPEN TO TRAFFIC DURING AN EVACUATION NOTICE OF A HURRICANE OR OTHER CATASTROPHIC EVENT AND SHALL REMAIN OPEN FOR THE DURATION OF THE EVACUATION OR EVENT AS DIRECTED BY THE ENGINEER.

Within 30 days following the NTP for the Design Task Work Order, the Design-Build Firm shall submit a Hurricane or Other Catastrophic Event Readiness Plan which will address the measures the Design-Build Firm will implement in preparation for a hurricane or catastrophic event. The Plan shall also stipulate the measures to be taken post-event.

The Design-Build Firm shall submit a detailed Emergency Shoulder Use (ESU) Plan for each MOT Phase to provide an NB inside shoulder during construction. The ESU Plan shall include details ensuring it can logistically be implemented within 24 hours of notice.

Full closures on cross streets will be permitted only for demolition, bridge deck concrete pours, and beam setting.

The Design-Build Firm shall obtain concurrence from the local agency when detours are to utilize local (county or city) roadways. For any work requiring full roadway closures the Design-Build Firm shall prepare and submit traffic operational analysis, including detour route timing plans, and temporary detour route plans to the Department for approval. Off-site detour plans from past projects in the area have been provided in the Reference Documents for informational purposes only.

The Design-Build Firm shall use a Law Enforcement Officer as required by Specifications Section 102. All lanes of traffic shall be open in the event of an emergency evacuation or if the lane closure(s) causes a driver delay greater than 10 minutes as determined by the Department.

The Design-Build Firm may request, and the Department may approve in its sole discretion modifications to the lane closure restriction times. The Design-Build Firm shall request in writing the proposed modifications accompanied by a signed and sealed Lane Closure Analysis completed by the Engineer of Record using current up-to-date traffic data collected by the Design-Build Firm. The Department reserves its rights to suspend modifications to the lane closure restriction times in its sole discretion.

For lane closure periods, other than those stated in this section, the Design-Build Firm shall submit a request to demonstrate that the roadway network can accommodate the requested lane closure. The request to modify the established limitations shall be submitted with sufficient time (at least three weeks in advance) for the Department to review and obtain approval by the District Corridors Program Engineer. The request shall include, but not be limited to written justification for need including length of time for lane closure; a Temporary Traffic Control Plan; a Transportation Operations component including a lane closure analysis; and a Public Information component including specific recommendations for advanced notifications to the public.

In addition to the above dates, there may be Special Events throughout the duration of the Project. These Special Events may be caused by the location of the Project being around the attractions and other stakeholders. There will likely be a significant number of Special Events that the Design-Build Firm will have to accommodate and may impact detour routes and lane, ramp, and/or roadway closure dates and times currently permitted in the RFQ. The Department will work collaboratively with the Design-Build Firm and the stakeholders to determinate what Special Events need to be accommodated. The Special Events will need to be accommodated in the Design-Build Firm's schedule and in their PGMP submittal. Coordination with the attractions is necessary during the Project to plan for the Special Events. No additional compensation will be provided for Special Events.

## 4. Hurricane Readiness Plan

Within 30 days following the NTP for the Design Task Work Order, the Design-Build Firm shall submit a Hurricane or Other Catastrophic Event Readiness Plan which will address the measures the Design-Build Firm will implement in preparation for a hurricane or catastrophic event. The Plan shall also stipulate the measures to be taken post-event. The Plan shall address all associated equipment and activities within the Project Limits.

All lanes and available shoulders within the Project Limits must be open to traffic during an evacuation notice of a hurricane or other catastrophic event and shall remain open for the duration of the evacuation event as directed by the Engineer.

#### 5. Work Restrictions

The Design-Build Firm shall use means and methods of construction that minimize noise throughout all phases of the Project. Location of mobile and stationary equipment such as, air compressors, generators, pumps, etc., shall be such as to minimize impact to businesses and residences in the vicinity of the Project.

All equipment associated with the work shall be equipped with noise suppression devices which shall be maintained in their original operating condition considering normal wear. Manufacturer installed noise suppression devices such as mufflers, engine covers, insulation, etc. shall not be removed nor rendered ineffectual nor remain off the equipment while the equipment is in use. The necessity for additional noise suppression, beyond standard manufacturer feature, shall be at the sole discretion of the Department.

Construction activities that create excessive noise or vibration including demolition, pile driving, sheet pile installation, and other similar construction activities, shall occur only during the following time periods:

- Monday through Friday 7:00am to 7:00pm
- Saturday 9:00am to 5:00pm
- Sunday and holidays not permitted

Any deviation from the time restrictions provided above shall be submitted for Department approval on a case-by-case basis.

The Design-Build Firm shall not perform pile driving or sheet piling within one-half (1/2) mile of any school during days that Florida standardized testing is administered. The Design-Build Firm shall coordinate with the local County School Board for specific dates of said testing. Hours for pile driving, sheet piling or any other operation that creates excessive noise or vibration shall be coordinated with local clinics, laser surgery related businesses, and diagnostic facilities located along the Project within a 1,000-foot radius, prior to the start of work activity.

This list may not include all of the businesses/facilities that could be impacted by excessive noise or vibration. The Design-Build Firm shall be responsible for confirming that all related business/facilities are identified and notified of the proposed construction activities and to coordinate work restrictions accordingly.

### L. Environmental Services Permits/ Mitigation

In addition to other requirements in the RFQ, the Department has identified additional regulatory permits that will likely be required for this Project and will be the responsibility of the Design-Build Firm for procuring.

The Design-Build Firm will be responsible for preparing designs and proposing construction methods that are permittable. The Design-Build Firm will be responsible for any required permit fees. All permits required for a particular construction activity will be acquired prior to commencing the particular construction activity. Delays due to incomplete or erroneous permit application packages, agency rejection, agency denials, agency processing time, or any permit violations, except as provided herein, will be the

responsibility of the Design-Build Firm, and will not be considered sufficient reason for a time extension or additional compensation.

As the permittee, the Department is responsible for reviewing, approving, and signing the permit application package including all permit modifications, or subsequent permit applications.

### 1. Additional Environmental Services/Permits

The following Project-specific Environmental Services/Permits have been identified as specific requirements for this project:

• National Pollutant Discharge Elimination System (Florida Department of Environmental Protection)

The Design-Build Firm shall be responsible for obtaining a South Florida Water Management District (SFWMD) Environmental Resource Permit (ERP), a US Army Corps of Engineers (USACE) Section 404 Permit, and a Florida Department of Environmental Protection Permit for any and all design changes not included in the above referenced permits.

The Department has identified additional regulatory permits that will likely be required for this Project and will be the responsibility of the Design-Build Firm for procuring. This list is indicative only and is not meant to be comprehensive:

• Dewatering Permit (South Florida Water Management District)

All coordination by the Design-Build Firm with the Department regarding gopher tortoises will be completed through the District Corridors Program Office. If the Department has determined that suitable gopher tortoise habitat exists in the Project area, then the Design-Build Firm shall be responsible for conducting the gopher tortoise burrow survey for the purpose of identifying potential gopher tortoise habitats that could be impacted by the Project including any areas to be used for construction staging. The habitat will be systematically surveyed according to the current Gopher Tortoise Permitting guidelines published by the Florida Fish and Wildlife Conservation Commission (FWC). The Department must verify the completeness and accuracy of the assessment prior to commencement of any permitting or construction activities. Any areas where the Design-Build Firm proposes to protect burrows to remain on-site with "exclusionary fencing" shall be reviewed by the Department. The Design-Build Firm shall submit an "exclusionary fencing" plan for review prior to any "exclusionary fencing" installation.

If there are unavoidable impacts to gopher tortoise burrows, the Design-Build Firm shall be responsible for preparing required documentation for the Department to obtain a FWC permit for the relocation of gopher tortoises and commensals from burrows which cannot be avoided. Preparation of complete permit packages will be the responsibility of the Design-Build Firm. As the "permittee", the Department is responsible for reviewing and approving the permit application package including all permit modifications, or subsequent permit applications. This applies whether the project is Federal, or state funded. Once the Department has approved the permit application, the Design-Build Firm is responsible for submitting the permit application to FWC. A copy of the permit and any subsequent reports to FWC must be provided to the District Environmental Management Office or District Environmental Permit Office, as appropriate. If FWC rejects or denies the permit application, it is the Design-Build Firm's responsibility to make whatever changes necessary to ensure the permit application is approved. Once the permit is obtained, the Design-Build Firm shall notify the Department at least one week prior to the relocation of gopher tortoises. If gopher tortoise

relocations are phased throughout the construction, the Design-Build Firm shall notify the Department at least one week prior to each relocation phase.

The Department will provide oversight of the relocations and ensure permit compliance. The Design-Build Firm shall be responsible for any necessary permit extensions or re-permitting in order to keep the relocation permit valid throughout the construction period. The Design-Build Firm shall provide the Department with draft copies of requests to modify the permits, re-permitting, and/or requests for permit extensions, for review and approval by the Department prior to submittal to the Agencies. The Design-Build Firm shall provide the appropriate reports as required by the permit conditions, including closing out the permit. The Design-Build Firm shall note that permits for gopher tortoise relocation for areas outside of the Department owned Right of Way (i.e. utility easements; license agreements) cannot be obtained with the Department as the "permittee", per FWC requirements. Should permits in areas outside of the Right of Way be required, the Department will still perform the oversight of the process as described above. The Design-Build Firm will be required to pay all permit fees including any and all fees associated with the relocation of gopher tortoises. Any fines levied by permitting agencies shall be the responsibility of the Design-Build Firm.

In addition to the requirements in Section V.E.2., the following Project specific Environmental Services/Permits have been identified as specific requirements for this project: The Design-Build Firm will be responsible for all analysis, assessments, and reports related to the following in support of all design changes.

- Cultural Resources
- Wetlands and Mitigation
- Floodplains
- Wildlife and Habitat
- Noise
- Contaminated Site and Materials

Please note that all cultural resources assessments must meet the following requirement: As per Chapter 1A-46 of the Florida Administrative Code, Principal Investigators shall meet the minimum qualifications for archaeology, history, architecture, architectural history, or historic architecture contained in 36 C.F.R. 61 ("Procedures for Approved State and Local Historic Preservation Programs, Appendix A, Professional Qualifications Standards"), effective 10-97.

All assessments and reports will be performed according to their respective chapters in the latest version of the FDOT's Project Development and Environment (PD&E) Manual. The Design-Build Firm will coordinate with the District Environmental Office for review of these assessments and reports. The Design-Build Firm will not be compensated for any additional costs or time of these assessments, reports, or other activities to support the proposed design changes.

# 2. NEPA Requirements

In accordance with NEPA, several environmental agency coordination meetings and concurrence reviews have been ongoing for the Project. The District Planning and Environmental Management office will continue to coordinate with these agencies and provide additional information or surveys as requested throughout the design and construction phases.

Although unlikely, should construction activities uncover any archaeological material, it is required that activity in the immediate area be stopped while a professional archaeologist evaluates the material. The

Design-Build Firm shall notify the District Corridors Program Office. All archaeological services will be provided by the Department.

# 3. Monitoring Wells

Monitoring Wells (MWs) may be present within the FDOT ROW along the Project corridor(s). For groundwater monitoring wells found within the Project Right of Way, the Design-Build Firm shall be required to adhere to Subarticle 110-10.1 of Section 110 (Clearing and Grubbing) in the FDOT Standard Specifications for Road and Bridge Construction – "Water Wells Required to be Plugged." If conflicts with existing MWs are identified and deemed unavoidable, the Design-Build Firm shall schedule a meeting with the DCIC at least 4 weeks prior to any activities with potential to disturb existing MWs to determine scheduling and proper abandonment of the MWs. The CAR Contractor will be responsible for abandoning the MWs and coordinating with the regulatory agencies, as deemed necessary.

The Design-Build Firm shall indemnify the Department against any and all claims arising from Design-Build Firm's handling, storage, transportation or disposal of contaminated materials. The Design-Build Firm shall also be solely and totally responsible, at its own cost, for completely assessing and remediating any contamination caused by its own activities in accordance with applicable environmental regulatory requirements. This includes but is not limited to spillage/leakage of contaminants from equipment and/or portable tanks used in constructing the Project.

# M. Signing and Pavement Marking Plans

The Design-Build Firm shall prepare Signing and Pavement Marking Plans in accordance with Department criteria for the Project Limits. Design should reflect FDOT - District One Signing & Pavement Marking Policies and Procedures as indicated in the latest Signing and Marking documents website. Access to the website is to be requested at the email address D1-TrafficDesign@dot.state.fl.us. This website also contains additional items useful in designing Signing and Pavement Marking component plans in District One.

The Design-Build Firm shall make use of the Signing Concept Plan included in the Attachments as a starting point for the design. The location of signs in the Signing Concept Plan are to be used as a guide. The Design-Build Firm shall utilize the Florida Administrative Code, Chapter 14.51 (Florida's Highway Guide Sign Program) and the FDOT Traffic Engineering Manual regarding sign spacing and sequencing.

All existing sign panels and sign structures within the Project Limits, as depicted in the Signing Concept Plan, shall be completely replaced and all additional guide signs shown in the Signing Concept Plan shall be provided. Not all signs (including, but not limited to regulatory, warning, recreational or cultural, general service or logo, emergency, ramp designation, mile post, wrong way signs, etc.) required for complete signing installations are shown in the Signing Concept Plan. Wrong way signs shall be added to the back of new and signs and sign structures where logical to support the WWVDS.

The Design-Build Firm shall furnish and install all overhead structures in the Project Limits.

All new overhead static sign structures shall be designed and constructed to accommodate an additional 25% increase in the final sign panel area, to accommodate potential future sign retrofits. All Toll Amount sign structures and foundations shall be designed to accommodate a three (3) destination Toll Amount sign plus an additional 25% increase in panel area. If a three destination Toll Amount sign is not being proposed in the Signing Concept Plan, then the dimensions to be used for the calculations of a three destination Toll Amount sign shall be assumed to be 32 feet wide by 24 feet high. The Design-Build Firm is responsible for determining the dimensions of the 125% panel that will create the worst-case loading scenario. A note shall

be added to each sign structure cross section and to the structural Table of Variable notes that the design accounts for the 25% increase in area.

The Design-Build Firm shall be responsible for the design of all new sign supports (post, overhead span, overhead cantilever, bridge mount and any applicable foundations). The type of overhead sign structures to accommodate static signs, dynamic signs, or combination of static and dynamic signs shall be determined by the Design-Build Firm. Butterfly sign structures are not permitted for median mounted signs. The Design-Build Firm shall show all details (anchor bolt size, bolt circle, bolt length, etc.) as well as all design assumptions (wind loads, support reactions, etc.) used in the analysis. Any existing sign structure to be removed shall not be relocated and reused, unless approved by the Department.

All proposed overhead sign structures having median uprights shall be constructed such that the above ground portion of the median foundation system does not encroach into the roadway shoulder. All proposed overhead sign structure uprights shall be located outside the required clear zone in accordance with Chapter 215 of the FDOT FDM. At locations where clear zone requirements cannot be met, the Design-Build Firm shall provide written justifications to the Department for approval.

All sign panels and sign structures and crosswalks shall be consistent with the aesthetics requirements in this RFQ.

The Design-Build Firm shall incorporate the following into the design of the Project:

- The Design-Build Firm shall use Standard Thermoplastic, Permanent Tape, and Preformed Thermoplastic in accordance with FDM Section 230.3.1 and Table 230.3.1 for all final pavement markings.
- The Design-Build Firm shall use Alternating Contrast Markings on all concrete pavement and riding surfaces for the following markings:
  - White skip lines (10'-30') with trailing black contrast, i.e. 10 feet white tape plus 10 feet black tape. Use only the alternating skip pattern.
  - White dotted lines (3'-9') with trailing black contrast, i.e. 3 feet white tape plus 3 feet black tape). Use only the alternating skip pattern.
- All existing stripes and markings shall be removed from concrete surfaces before placing new permanent tape.
- The Design-Build Firm must develop a naming scheme for all ramps and collector distributor road systems that provides a unique name for each. This naming scheme must be submitted for review and approval by the Department during the Design Phase. The Department will identify ramps that require supplemental signage installed by the Design-Build Firm that use the approved naming scheme to assist the traveling public and first responders quickly identify their location in case of an emergency—this is expected to include all system-to-system interchange ramps and ramps over 1 mile long. The supplemental signage will consist of retroreflective stickers installed on miscellaneous structures located along ramps at ¼ mile maximum intervals, such as light poles and overhead sign structures, and single post signs that are similar to traditional mile marker signage. The Design-Build Firm must coordinate with the Department to obtain guidance regarding color, text size, and location of the supplemental signage and submit the supplemental signage for approval by the Department with the 90% Submittal. Said signage must include the direction of

travel, a unique ramp identifier based on the exit number, the word "RAMP", and face towards and away from the direction of travel.

It shall be the Design-Build Firm's responsibility to field inventory and show all existing signs within the Project Limits and address all signage within the Project Limits. All existing single and multi-post sign assemblies within the I-75 Project Limits shall be entirely replaced and upgraded to meet current standards.

Within the I-75 Project Limits, all Mile Marker Signs shall be replaced with Enhanced Reference Location Signs (D10-4) and new ½ Mile Intermediate Enhanced Reference Location Signs (D10-5) shall be installed.

All proposed sign panels shall comply with the requirements of the current MUTCD and FDM, unless otherwise directed by the Department. The Design-Build Firm shall maintain the existing sign lighting during construction (or shall provide temporary lighting when existing lighting can no longer be maintained).

Any existing sign structure to be replaced shall be constructed to maintain a continuous shoulder width (i.e. no reduced shoulders are allowed).

Existing sign structures to remain must be located outside of the proposed clear zone. No proposed barrier or extension of an existing barrier will be allowed exclusively for the protection of a sign structure.

Existing logo signs (gas, food, lodging, camping and attraction blue ground mounted sign structures), shall be maintained and visible to motorists on I-75 during the entire construction period. The logo signs are to be relocated as required. If a logo sign will not be visible for any period of time, the Design-Build Firm shall notify:

Florida Logos, Inc. General Manager 3764 New Tampa Hwy Lakeland, FL 33815 (863) 686-5261 office 1-888-608-0833 toll free (863) 284-2622 fax

The design and installation of the WWVDS signs shall meet or exceed the FDOT Standard Specifications, FDOT Design Manual, and the additional requirements contained herein.

### N. Lighting Plans

The Design-Build Firm shall prepare Lighting Plans in accordance with Department criteria for the Project Limits and utilizing the referced Lighting Plans.

The lighting design, lighting analysis, and lighting plans shall be developed in accordance with Department criteria. The Design-Build Firm must coordinate with the Department to determine maintenance limits of each agency involved in maintenance of lighting systems, which is expected to include FDOT District One . The lighting system maintained by each agency must be designed according to their preferences and requirements, which may include utility-installed and maintained lighting systems for areas outside of limited access Right of Way with photometric analysis provided by the Design-Build Firm.

Each maintaining agency shall have independent and separately metered load center for the lighting systems they maintain. The lighting plans must clearly indicate the maintaining agency responsible for each

proposed lighting circuit, light pole, load center, lighting power service and other lighting components. Load centers shared with ITS Systems are prohibited.

The Design-Build Firm shall utilize governing regulations to complete the Lighting Plans with notes as per the FDM and any other applicable maintaining agency design guideline notes.

The Design-Build Firm shall develop and submit for approval, a Load Center/Circuit/Pole Number identification plan that is compatible with each maintaining agency's identification scheme.

Where existing roadway lighting circuit sources (services, load centers, etc.) are being removed, the Design-Build Firm shall either:

- 1. Provide a new load center per current codes and all applicable criteria.
- 2. Identify an existing load center capable of feeding the existing and proposed lighting while meeting all current codes and all applicable criteria.

The Design-Build Firm shall remove all out of service lighting system components including underground and surface mount conduits, conductors, pole bases, poles, pull boxes, service points, load centers, and all other ancillary components related to the out of service lighting system.

The Design-Build Firm is responsible for any modifications of existing load centers required to accommodate the lighting modifications, meet current National Electrical Code requirements, comply with all applicable criteria, and shall be in like new condition.

For all Department maintained lighting, within the I-75 Project Limits, the Design-Build Firm shall provide light poles and luminaries using a structural shape and finish matching the aesthetic treatment of light poles and luminaries consistent with the corridor. Existing conventional lighting installed on bridge pedestals that is not being impacted by construction shall be retrofit with LED fixtures that match the Correlated Color Temperature (CCT) of the adjoining proposed lighting.

For all new Department maintained lighting within the I-75 Project Limits the Design-Build Firm shall provide light poles and luminaires and CCT that matches the existing system.

Existing light poles, luminaire arms, luminaires, and load centers identified for removal shall be coordinated with the Maintaining Agency as to whether these features will become the property of Design-Build Firm or salvaged, transported, and delivered to the Maintaining Agency for future use.

Within the I-75 Project Limits, the Design-Build Firm shall perform detailed field reviews. Review and document all lighting (poles/luminaires, sign luminaires, etc.), circuiting, load centers, service points, utility transformers, etc., within the limits of lighting construction. This review includes conductors, conduit, grounding, enclosures, voltages, mounting heights, pullboxes, etc. This review also includes circuits outside the limits of lighting construction that originate or touch this Project's scope of work.

Within the I-75 Project Limits, any deficiencies outside the limits of lighting construction shall be brought to the attention of the Department.

After the field reviews are completed, a list of all damaged and/or non-functioning equipment within the I-75 Project Limits shall be documented and forwarded to the Department prior to the start of construction. All damaged and/or non-functioning equipment within the I-75 Project Limits and within the limits of lighting construction are required to be replaced or repaired to meet all applicable criteria and shall be in like-new condition.

Where new electrical services are required, the Design-Build Firm shall coordinate the final locations of distribution transformer and service poles to minimize service and branch circuit conductors and conduit lengths. Existing lighting shall be maintained until proposed lighting has completed its burn-in period. The Design-Build Firm shall coordinate with the local power company to determine new electrical service locations and shall be responsible for any Contribution in Aid of Construction (CIAC) cost associated with the new service location. Each service point shall be separately metered.

The Design-Build Firm shall comply with the requirements of each jurisdictional authority within the Project Limits. Compliance with the jurisdictional authority includes but is not limited to field reviews, technical meetings, special deliverables, etc. It is the Design-build Firm's responsibility to verify and comply with all jurisdictional authority's requirements.

Within the I-75 Project Limits, if wildlife areas or residential properties are within 1000 feet of the proposed lighting assemblies and have line-of-sight to a luminaire, the Design-Build Firm shall select a luminaire model that has original manufacturer's shielding options available for installation. If residential/commercial structures are directly adjacent to luminaires, determine type of shielding that would prevent light from entering nearby windows and living spaces and call for such shielding in the plans per FDM 231.2.2. See FDM 231.2.1 for additional wildlife area requirements.

The Design-Build Firm shall provide a general overview of the light spill status within the I-75 Project Limits to coordinate mitigation decisions with the District Design Office, and provide a brief summary of these coordination efforts, including the participants and results, in the LDAR per FDM 231.7.

Within the I-75 Project Limits, daytime supplemental lighting may be required when the bridge structure limits natural sunlight penetration and limits a driver's visibility under the structure. The Design-Build Firm shall comply with the lighting requirements in the AASHTO Roadway Lighting Design Guide and the ANSI/IES RP-22-11 Tunnel Lighting (ANSI/IES-TL). Daytime supplemental lighting shall be provided by the Design-Build Firm at each underpass, as warranted. No daytime supplemental lighting is required for underpasses less than 80 feet in length. Daytime lighting shall be on a separate circuit from roadway lighting and underdeck lighting circuits. The LDAR shall include daytime lighting evaluation per FDM 231.3.6.2.

Within the I-75 Project Limits, LED source lighting shall meet all FDM requirements including illumination level, uniformity, and veiling luminance ratios. New high mast lighting systems will not be permitted. Any existing conventional or high mast lighting within the I-75 Project Limits that is not impacted by construction must be retrofit with LED fixtures that match the CCT of the adjoining proposed lighting.

Conventional lighting with an Aluminum Light Pole system shall be designed in accordance with applicable FDM criteria and with the following:

- A special spread footing foundation may be used whenever there is conflict with an underground utility and the standard concrete foundation.
- Existing underground and median barrier conduits shall not be re-used by the Design-Build Firm.
- All new conduits, including a spare conduit crossing the existing roadways shall be installed by directional bore or jack and bore methods unless otherwise approved by the Department.
- The Design-Build Firm will be responsible for coordinating with the appropriate power company for both existing service point upgrades and/or proposed service points. Location of load centers shall be accessible to maintenance personnel. The Design-Build Firm shall include all associated

costs in their Work Package Proposal(s).

- The Design-Build Firm shall coordinate with the adjacent projects and investigate the existing or proposed lighting systems outside the Project Limits to ensure that the proposed pole spacing will provide appropriate lighting levels between limits of existing or proposed lighting projects.
- Screw type foundations for light poles will not be permitted.
- One photoelectric cell shall be installed for each load center and shall be located adjacent to the load center panel.
- The lighting design within the I-75 Project Limits shall address the potential for light trespass beyond the Right of Way onto adjacent residential, hotel, and motel properties that are directly adjacent to the Project. The Design-Build Firm shall take the necessary measures to eliminate this condition with the use of shields or other similar fixture attachments.

The Design-Build Firm shall maintain existing lighting levels for the travel lanes throughout all phases of construction. Within the I-75 Project Limits, additional roadway lighting complying with FDM criteria shall be provided for the widened roadway and along temporary lanes used to carry traffic during all phases of construction. This may be accomplished by maintaining the existing lighting, providing temporary lighting, and/or activating the proposed lighting system.

### O. Signalization and Intelligent Transportation System Plans

#### 1. General

The Design-Build Firm shall prepare Signalization and Intelligent Transportation Systems (ITS) Plans in accordance with Department criteria and the ITS MTR for the Project Limits. The Design-Build Firm shall be responsible for the design and implementation of a fully integrated system spanning the logical limits of the project, as determined by the Department, utilizing the referenced ITS Concept Plans. The logical limits are defined as the begin and end points of the ITS for which network communication, electrical service, and device functionality is required to seamlessly integrate with adjacent roadway sections to provide continuity of operations. The Design-Build Firm shall include communications network tie-ins at both ends of the Project Limits; the connections may be located outside of the Project Limits. Ensure fiber optic splice vaults and a minimum of 400' fiber optic backbone cabling slack is installed on either end of the Project Limits.

The Design-Build Firm shall design and construct the necessary infrastructure to support the I-75 Express Lane systems within the Project Limits – including ITS devices (i.e. Dynamic Message Signs, Toll Rate DMS, Lane Status DMS, Verification Cameras, Vehicle Detection Devices and Warning Gate Systems), support structures, poles, conduits, cabinets, power systems, networking equipment, and junction boxes. I-75 Express Lane system devices may be collocated on new infrastructure to support the ITS for general-use lanes, including conduits, pull boxes, cabinets, poles, network switches, fiber optic communications, power subsystems, and more subject to Department approval.

All ITS components constituting the final ITS shall be new – existing devices, equipment, and infrastructure shall not be relocated or reutilized in the final condition. The Design-Build Firm may temporarily relocate existing ITS components as part of the Maintenance of Communications plan (interim condition) to maintain functionality; however, replacement with new equipment and infrastructure is required in the final condition.

Within the Project Limits, the Design-Build Firm shall be responsible for the analysis, design, installation, testing, and maintenance of all devices, equipment, components, and infrastructure related to the following

#### systems:

- FDOT District One Freeway Management System this includes all subsystems installed for the continuous monitoring and operations of the general-purpose mainline lanes along I-75 (S.R. 93) with all equipment communicating with the FDOT District One ITS network.
- Collier County Advanced Traffic Management System (ATMS) this includes all traffic signalization equipment and subsystems installed for the continuous monitoring and operations of arterial corridors and cross-streets with all equipment communicating with the Collier County ATMS networks.
- Lee County Advanced Traffic Management System (ATMS) this includes all traffic signalization equipment and subsystems installed for the continuous monitoring and operations of arterial corridors and cross-streets with all equipment communicating with the Collier County ATMS networks.
- Other Agencies multiple third-party agencies rely on existing communications infrastructure within the Project Limits to facilitate end-to-end network connections and data exchange. These agencies may not own and maintain physical infrastructure within the Project Limits, but maintain existing fiber sharing agreements and shall be considered as key stakeholders with requirements to maintain active communications with minimal downtime (refer to Maintenance of Communications requirements).
  - o FDOT Motor Carrier Size and Weight (MCSAW)
  - o Florida Highway Patrol (FHP)
  - o *FDOT Central Office Florida ITS Operations Network (FION)* the existing FION will need to be maintained in a manner to provide a minimum 100 Gbps speed at all times.

All existing ITS within the Project Limits shall be maintained throughout all stages of construction to a fully functional level by the Design-Build Firm.

The Design-Build Firm shall prepare Signalization and Intelligent Transportation Systems (ITS) Plans in accordance with the following criteria:

- Department regulations, standards, and specifications specified herewith
- Concept of Operations (ConOps) for I-75
- Project-specific Concept of Operations (prepared by the Design-Build Firm)
- ITS Minimum Technical Requirements (MTR)
- ITS Concept Plans

All ITS maintained by District One must comply with the District One ITS Minimum Technical Requirements. The Design-Build Firm must coordinate with District One, Lee County, and Collier County during design to determine any proprietary products required by each agency, obtain approval for the use of each product following the Department's Proprietary Product Certification (PPC) process, and install all approved proprietary products during construction. Proprietary products per agency include, but may not be limited to, the following:

- Houston Radar SpeedLane Pro (APL: 660-020-010) (District One)
- Cisco IE3300 (APL: 684-002-014) (District One)
- •
- Axis Q6135-LE PTZ Network Camera (APL: 682-002-023) (Lee County)
- Cisco IE3300 (APL: 684-002-014) (Lee County)
- Axis Q6075-E PTZ Network Camera (APL: 682-002-016) (Collier County)
- Cisco IE3300 (APL: 684-002-014) (Collier County)

The Design-Build Firm shall prepare design plans and specifications and provide necessary documentation for the procurement, installation, configuration, and testing of all Signalization and ITS equipment, as well as the overall system construction and integration. Release for Construction plans shall be developed in accordance with Department requirements and shall include but not limited to the following:

- Key Sheet for component plan set
- General Notes Sheet complete with symbology legend and all applicable installation and construction notes
- Project Layout Sheet identifying the device naming nomenclature and locations of field elements
- ITS Plan Sheets
- Installation Detail Sheets, including:
  - DMS structure, attachment, display/layout
  - CCTV structure, attachment, operation/layout
  - Vehicle Detection System (VDS) structure, attachment, operation/layout
  - Roadside Unit (RSU) structure, attachment, operation/layout
  - Wrong-Way Vehicle Detection System (WWVDS) structure, detection configuration, and operation/layout
  - Network controlled Blank-Out Sign (BOS), structure, messaging, attachment, and operation/layout
  - Warning Gate System (WGS) support structure, attachment, and operation/layout for signs, gates, and control infrastructure.
  - Traffic Monitoring Sites (TMS) structure, detection, wiring, and operation/layout
  - Fiber Optic Splice Vault, Pull Box, and Conduit Installation
  - Power Service Distribution
  - Generators and Automatic Transfer Switches
  - Wiring Diagrams
  - Cabinets Assemblies (Local Hub), layout, and physical dimensioning
  - Communication Hub (Master Hub) site, building, racks, and electrical system details
  - System-Level Block Diagrams.
  - Device-Level Block Diagrams.
  - Fiber Optic Splicing Diagrams.
  - Maintenance of Communications (MOC) Plan.
  - Cross-Sections showing device locations, mounting heights, and detection zones.

The Design-Build Firm is responsible for ensuring project compliance with the Regional ITS Architecture and FDOT ITS Topic 750-040-003-c, Systems Engineering and ITS Architecture Procedure, as applicable. This includes, but is not limited to, the development of a project-specific Concept of Operations (ConOps), and Requirement Traceability Verification Matrix (RTVM), as well as coordination of document review.

The Design-Build Firm shall evaluate existing Signalization and Intelligent Transportation System (ITS) equipment and document which devices will be removed, replaced, or impacted by project work for review and approval by the Department.

## 2. Design and Engineering Services

The design of the new system(s) shall integrate with the existing devices. The design shall include the necessary infrastructure and components to ensure proper connection of the new and existing ITS components, ATMS, and signalization components. This includes but shall not be limited to all proposed

components of the project, as well as existing subsystems to remain or be replaced in the final condition. At a minimum, the ITS work in this project consists of the following major components:

- a. Installation of new ITS devices, equipment, infrastructure, and components for the general-use lanes and I-75 Express Lanes within the Project Limits. All equipment in the final condition shall be new.
- b. DMS includes sign support structures, controllers, cabinet assemblies, static signs, and mounting brackets for lane control, lane status, express lanes, toll amount, travel time and full-matrix display DMS. The Design-Build Firm shall design and install all new, relocated, or modified DMS elements required in the Conceptual Signing Plan.
- c. CCTV Includes cameras, poles, in-cabinet equipment, mountings, and camera lowering devices (as required in the ITS MTR) to provide continuous CCTV coverage of the project corridor, as well as dedicated verification cameras to meet the requirement set forth in the ITS MTR. Continuous CCTV coverage shall be defined as the ability to view all general-purpose mainline lanes, express lanes, and shoulders from one end of the project to the other with minimal occlusions. Camera locations shall maximize the coverage of interchanges, on ramps, off-ramps, and underneath overpasses to the greatest extent possible. The Department maintains the ability to review proposed CCTV camera locations and request relocation of devices or additional cameras to minimize occlusions and maximize coverage. CCTV cameras connected to maintaining agency's ATMS network are required at all signalized intersections and shall provide complete coverage of the intersection including all approaches, as well as upstream and downstream of the major street to the greatest extent possible
- d. VDS Includes sensors, poles, cabinets, in-cabinet equipment, and mountings to detect all general purpose and express lanes along the project corridor.
  - 1. Traffic Data Detection non-intrusive devices providing per-lane detection zones shall be spaced at 1/3-mile or less intervals on each side of I-75 (S.R. 93) to capture presence, volume, occupancy, and speed data for the general-purpose lanes, as well as supporting the I-75 Express Lane operations. The Design-Build Firm may be required to install separate infrastructure for general-purpose versus express lanes to ensure coverage for all lanes is provided. Each VDS must only monitor a single direction of travel. All general use lanes, express lanes, and on and off ramp lanes must be monitored.
  - 2. Automatic Vehicle Identification (AVI) System along I-75 (S.R. 93), design and construct Bluetooth travel time reader AVI devices at each walk-in DMS location and at all interchanges with a maximum spacing of five (5) miles, in accordance with the ITS MTR. All AVI deployment must be connected to the ITS network.
  - 3. Portable Traffic Monitoring Site (PTMS) installed along the I-75 (S.R. 93) mainline for general purpose lanes, PTMS shall meet the requirements of the ITS MTR and be collocated and integrated with proposed Traffic Data Detection sites for the following locations:
    - o South of Pine Ridge Road Site No. 032003
    - 0.5 miles north of Pine Ridge Road Site No. 030191
    - o 1.25 miles north of Immokalee Road Site No. 039950
    - South of Corkscrew Road Site No. 120054
- e. Wrong-Way Vehicle Detection Systems (WWVDS) Includes sensors, poles, cabinets, incabinet equipment, signing, and mountings to detect all general purpose and express lane off-ramps along the project corridor.
- f. The Design-Build Firm shall install signing and pavement marking and WWVDS improvements within the Project Limits depicted within the conceptual ITS Plans for Wrong Way Vehicle

Detection Systems, Signing, and Pavement Markings included as an Attachment. The Design-Build Firm shall review the proposed construction phasing plan with the Department and prioritize the installation of these improvements as one of the first packages of work, if possible. The WWVDS elements installed as part of these improvements may use solar power and wireless communication as an interim (temporary) measure during construction to ensure these improvements are installed in the earliest stages of construction; however, if utilized these systems will require modification or replacement to hardline power and communication systems for the final condition. WWVDS utilizing solar power and wireless communication are not permitted in the final condition. existing ramps are being modified or physically moved during construction, temporary WWVDS shall be installed and maintained throughout all phases of construction. Temporary WWVDS sites may use solar power and wireless communication.

- 1. WWVDS shall adhere to the requirements set forth in the ITS MTR and FDOT Standard Specifications for Road and Bridge Construction.
- g. Network Controlled Blank-Out Signs The Design-Build Firm shall coordinate the need for blank-out sign messaging with FDOT District One Traffic Operations during design and show all proposed messaging in the Plans for Department review and approval. Includes multi-message sign displays, web-relay controller, cabinets, in-cabinet equipment, and mountings to provide user-controlled information to motorists on the roadside. The Design-Build Firm must design, install, and test network controlled blank-out signs to replace any existing systems impacted by construction. The Design-Build Firm shall obtain written approval for all proposed messages proposed on each blank-out sign prior to deployment.
- h. Roadside Units (RSU) Includes wireless radios, cabinets, in-cabinet equipment, and mountings to transmit and receive information and messages to equipped vehicles for real-time roadway and traffic conditions. The Design-Build Firm shall provide new RSU devices along the corridor at one-mile maximum spacing between deployment locations and maintaining existing arterial roadway coverage. New installations include all mounting hardware, brackets, cabling, and incabinet equipment (e.g., power supply, surge protection) required for a complete installation. The Design-Build Firm shall handle all activities to physically locate the RSU and ensure network connectivity with the appropriate ITS network, but is not responsible for configuration of the RSU. The Department will be responsible for all configuration of the RSU (e.g., revision to MAPdata files) following inspection and approval of the installation. The Design-Build Firm shall comply with FCC regulations for RSU installation and follow the manufacturer's installation instructions. Notify the District One Regional Traffic Management Center (RTMC) within five (5) days of RSU relocation so the Department can perform RSU configuration and provide all integration information required in the ITS MTR.

Prior to installation, coordinate RSU site registration with the Department using the latest FCC registration forms. Provide all information required to register RSUs at each individual location and submit the completed forms to the Department. Provide the Department with the scheduled turn-on date for RSUs a minimum of ten (10) days prior to initiating testing. Do not activate RSU broadcasts prior to notifying the Department.

- i. Fiber Optic Network (FON) Includes backbone and drop cabling, conduit, pull boxes, splice vaults, terminations, splices, and connection hardware to facilitate end-to-end communications between field devices and the appropriate ITS network, as well as center-to-center communications between networks.
  - 1. Fiber Optic Backbone:
    - a. Design, furnish, install, and test two (2) new 144-strand single-mode fiber optic backbone cables with one (1) on each side of I-75 (S.R. 93) to extend the existing District One existing FON.
    - b. Comply with all Communication System requirements described in the Concept of

- Operations (ConOps) for I-75.
- c. Within the Project Limits, all existing network connections leveraging the existing fiber optic backbones shall remain operational throughout construction and shall be transferred over to the new backbone cables with minimal network disruption. The existing backbones service connections to various agencies along the I-75 (S.R. 93) corridor—including, but not limited to, Collier County, Lee County, FHPFDOT Central Office (i.e., FION, MCSAW), FDOT intra-district, and inter-district communication. The Design-Build Firm shall verify existing connections to the backbone and design, furnish, install, and test modifications required to maintain these existing connections. Design-Build Firm shall remove existing cabling and associated infrastructure no longer in use in the final condition and at the end of the project.
- d. Replace any impacted Lee County and Collier County ATMS fiber backbone with a minimum 96-strand single-mode fiber optic backbone, unless the existing cable being replaced has a greater strand count in which case the cable shall be replaced with a cable providing the same fiber count.

# 2. Fiber Optic Drops:

- a. District One Design, furnish, install, and test 12-strand single-mode fiber drops to all ITS cabinets in compliance with ITS MTR. Splice the drop fibers to one of the backbones in a splice box. Terminate all strands of the drop fiber in patch panels located within cabinets. Provide a fiber optic drop to each ITS device site from the backbone on the same side of the roadway.
- b. Collier County Design, furnish, install, and test 12-strand single-mode fiber drops to all traffic signal cabinets. Splice the drop fibers to the County's fiber backbone in a splice vault with hardened enclosure. Terminate all strands of the drop fiber in patch panels located within cabinets. Coordinate fiber strand assignments with the County.
- c. Lee County Design, furnish, install, and test 12-strand single-mode fiber drops to all traffic signal cabinets. Splice the drop fibers to the County's fiber backbone in a splice vault with hardened enclosure. Terminate all strands of the drop fiber in patch panels located within cabinets. Coordinate fiber strand assignments with the County.
- 3. Provide continuous network rings that connect all field devices to the appropriate ITS network through fiber connections to each Local Hub. Ensure network rings do not exceed fifteen (15) nodes between Master Hubs, unless otherwise approved by the Department. This includes all ITS sites within the Project Limits, as well as network nodes along the fiber optic backbone beyond the Project Limits. Coordinate with District One fiber strand assignments for each respective fiber optic backbone.
- 4. Establish communication from the Collier County TMC to all traffic signals in the Project Limits maintained by Collier County.
- 5. Establish communication from the Lee County TMC to all traffic signals in the Project Limits maintained by Lee County.
- 6. Design, construct, configure, and test the fiber optic network to ensure proper routing and data exchange of all ITS, tolling, and other data required in compliance with the Concept of Operations (ConOps) for I-75. All existing connections to Master Hubs within the Project Limits shall be maintained and re-established if the Master Hub is modified, replaced, or relocated.
- 7. Remove and dispose of all abandoned Department and County ATMS fiber optic cabling.
- 8. Where fiber optic cables are to remain and are connected to existing fiber optic backbones being removed or replaced, cables shall be spliced to new backbone fiber optic cables in a

- manner that retains existing network functionality for ITS devices or facilities connected with minimal network disruption.
- 9. Fiber optic backbone cabling shall be installed with a minimum of 10,000 feet between butt splices or to match the existing connection locations, whichever distance is shorter. New mid-entry butt splice connections are prohibited. All splicing of fiber optic cables must comply with ITS MTR requirements.
- 10. Network topology shall include intermittent Mini Hubs with managed Hub ethernet switches consistent with the requirements of the ITS MTR. Mini Hubs shall be located such that no single fiber optic circuit exceeds 15 network nodes between Mini Hubs or Master Hubs. The Design-Build Firm shall submit the proposed network topology to the Department for review and approval.

## j. Conduit:

- 1. Department Fiber Optic Backbone Install conduit duct back in accordance with the ITS MTR requirements and the following:
  - a. Install a new fiber optic duct bank along both sides of I-75 (S.R. 93) throughout the Project Limits to support the FDOT District One ITS FON.
- 2. Lee County and Collier County Backbone Install a new HDPE fiber optic duct bank to replace any impacted sections of County ATMS conduit. Provide a minimum of three (3) two-inch conduits.
- 3. Department Fiber Optic Drops Install new fiber optic duct banks for each fiber optic drop in accordance with the ITS MTR requirements. Comply with Florida's Turnpike General Tolling Requirements for requirements for fiber optic drops to toll facilities.
- 4. County Fiber Drops Install new HDPE fiber optic duct banks for each fiber optic drop. Fiber optic duct banks for drop fibers shall include a minimum of two (2) two-inch conduits.
- 5. Power Conduit Install new power conduits to protect electrical service wire powering ITS devices in accordance with the ITS MTR.
- 6. Fiber optics, power, and low-voltage communication cabling cannot share the same conduits, pull boxes, or splice vaults.
- 7. Use color coded conduits to differentiate use as required in the ITS MTR.
- 8. All necessary crossings of roadways, and water bodies shall be perpendicular to with pull boxes located on either end of the crossing.

### k. Power System:

- 1. All ITS devices along I-75 (S.R. 93) and all ITS devices associated with I-75 Express Lanes—including vehicle detection systems (VDS), toll amount DMS, lane status DMS, full-matrix display DMS, Warning Gate System (WGS) components, and verification CCTV cameras—shall be connected to backup generators. All Master Hubs must be connected to backup generators.
- 2. The Design-Build Firm shall design and construct all infrastructure for ITS generators installed within the Project Limits including but not limited to concrete pad, fuel tank, conduit, pull boxes, automatic transfer switch, electrical service disconnects, circuitry, and grounding. The ITS generator shall be designed to provide backup power to all systems and equipment associated with the pricing system of the I-75 Express Lanes excluding the toll collection system. Size generators with capacity to simultaneously operate all circuits, devices, and equipment within the Project Limits at full capacity plus an additional thirty percent (30%) capacity for future expansion. Generators shall be outfitted with a remote monitoring and control system. ITS cabinets shall be outfitted with a network-enabled uninterruptible power supply (UPS) and remote power management unit (RPMU). Refer to the Florida's Turnpike General Tolling Requirements for information on generators specifically for toll collection systems installed at tolling sites.

- 3. All ITS devices shall be connected to an UPS for battery backup power. Each ITS device shall be capable of being individually power cycled by a network-enabled RPMU. Electrical systems must be designed to comply with the National Electrical Code (NEC). Existing ITS power systems within the Project Limits shall be upgraded as needed to meet current NEC requirements and to comply with the applicable ITS MTR.
- 1. Install four (4) two-inch electrical conduits with a minimum of two (2) remaining empty for future use (spare) through all sections of the project constructed to support backup generator circuitry. Install electrical pull boxes on either end of the Project Limits with conduits terminated within for future access.

## m. Pull Boxes and Splice Vaults:

- 1. New pull and splice boxes shall be installed for access to ITS conduits, storage of slack cable, and to facilitate cable installation and maintenance.
- 2. Provide lid labels that describe the box usage (e.g., "FIBER", "ELECTRICAL") and maintaining agency as required in the ITS MTR and FDOT Standard Specifications for Road and Bridge Construction. Provide separate pull boxes for each maintaining agency.
- 3. Fiber and electrical conductors must not share boxes.
- 4. Fiber optic, low-voltage communication, and power cabling shall not be collocated within the same box.
- 5. The maximum spacing between pull boxes along a conduit run carrying low-voltage communications and power cabling is 500 feet.
- 6. Provide traffic-rated pull boxes and lids with a TIER 22 load capacity rating for all installation locations within the paved shoulder.

### n. ITS Cabinets and Equipment Enclosures:

- Provide Local Hub cabinets to house the communication and power components required
  to support ITS devices. Local Hub cabinets shall be sized by the Design-Build Firm on a
  per-location basis but must not be smaller than Type 336S. Provide a Local Hub to each
  ITS device site with direct connection to the fiber optic backbone and electrical power
  subsystem on the same side of the roadway. Remote sites (spur connections) extending
  across the mainline to power additional ITS devices with only one fiber optic drop are
  prohibited.
- 2. Small equipment enclosures may be used to house surge suppression devices, power supplies, and other miscellaneous ITS components where a Local Hub is not attached to the same structure as the ITS device it serves, as approved by the Department.
- 3. Each maintaining agency shall be provided with separate ITS cabinets and equipment enclosures. ITS cabinets and equipment enclosures shall only contain or be connected to ITS equipment of a single maintaining agency collocation is not permitted.
- 4. Type 336S cabinets and small equipment enclosures shall be pole mounted. All other ITS cabinets shall be affixed to a concrete base with technical pads for each door.
- 5. Replace any impacted ITS Master Hubs in-kind, in accordance with the ITS MTR.
- o. All ITS structures must comply with Project Aesthetic Requirements and ITS MTR.
- p. All existing ITS devices, equipment, and components impacted and removed by the project shall remain the property of the Department and be delivered to the Department's designated facility. Coordinate with the Department for material delivery a minimum of three (3) days prior to anticipated delivery. Removed equipment shall not be relocated or re-utilized.
- q. Testing of fiber optic backbone and drops furnished and installed or modified by the Design-Build Firm, in accordance with the ITS MTR.
- r. Testing of the Intelligent Transportation System (ITS).
- s. Maintenance of Communication (MOC) for all communication networks and ITS devices within the Project Limits. No unscheduled downtime is permitted.
- t. Provide fiber optic cable locator to identify and mark all department owned and maintained fiber optic facilities within the project limits prior to performing any subsurface work, in accordance

with FDOT Specification Section 633.

The Design-Build Firm shall ensure that the design and construction of the ITS system and landscape opportunities are fully coordinated to prevent obstructed sight lines and visual occlusion of ITS devices, components, and equipment.

## 3. Construction and Integration Services

The Design-Build Firm shall be responsible for all Signalization and ITS construction and integration services relating to the Project.

## 4. Testing and Acceptance

The Design-Build Firm must perform all testing of ITS devices and equipment per the procedures outlined in the ITS MTR.

The Design-Build Firm is required to develop a detailed Testing Plan including the comprehensive materials, procedures, and durations to be completed for all systems installed on the project. The Testing Plan will be submitted to the District for review and concurrence no later than sixty (60) days prior to the beginning of testing. The Testing Plan is required to cover all elements to verify a complete end-to-end installation - including stand-alone and Systems Acceptance Test per FDOT Standards Specifications for Road and Bridge Construction, Section 611.

All equipment furnished by the Design-Build Firm shall be subject to monitoring and testing to determine conformance with all applicable requirements. The Design-Build Firm is responsible for the coordination and performance of material inspection and testing, field acceptance tests, system acceptance tests, and As-Built documentation. The times and dates of tests must be accepted in writing by the Department. The Design-Build Firm shall conduct all tests in the presence of the Department or designated representative.

The Design-Build Firm shall be responsible for completing all activities required to get existing, modified, and new ITS facilities recorded within the Departments ITSFM platform, in accordance with FDOT Specification Section 611.

## 5. Existing Conditions

This section is intended to provide a general overview of the existing conditions of the Department's ITS System and its components such as the fiber optic network (FON) communications infrastructure within the Project Limits.

The ITS components shall be defined as follows:

Closed Circuit Television (CCTV) Cameras: CCTV camera deployments consist of pan-tilt-zoom (PTZ) cameras along the corridor typically spaced at one (1) mile intervals, as well as fixed cameras for verification of DMS displays. CCTV cameras are used by Department staff for incident management and monitoring traffic and roadway conditions in real-time. Each camera is integrated with a specific Local Hubs within the corridor which connects to the appropriate network via a single-mode fiber optic communications backbone installed along the corridor.

- Dynamic Message Sign (DMS): DMS provides current roadway information and travel times to
  motorists in visual and pictorial format. DMS deployments include sign displays, housings,
  structures, controller units, and cabinet assemblies and are connected to the appropriate network
  to communicate via a single-mode fiber optic communications backbone installed along the
  corridor.
- Vehicle Detection Systems (VDS): The VDS consists of non-intrusive sensors using microwave radar technology to collect vehicle volume, speed, and occupancy data from mainline travel lanes on a per-lane basis. Detectors are typically located at approximately one-half (1/2) mile intervals. Detectors are installed either on standalone device poles or collocated with other ITS devices on structures in a side-fire configuration to detect data on a lane-by-lane basis. VDS data is used by the Department to determine current travel time information for dissemination to motorists and for incident detection. VDS shall connect with the appropriate network via a single-mode fiber optic communications backbone installed along the corridor.
- Fiber Optic Network (FON): The FON infrastructure provides communications between ITS and Tolls systems and the appropriate network. The FON is composed of fiber optic backbone and drop cabling and communications equipment including but not limited to Layer 2 and 3 Ethernet switches, port servers, routers, and fiber patch panels installed either Local Hub or Master Hub locations. Existing center-to-center communications between FTE, FDOT District One, and other agencies leverage the FON within the project area. Cabling associated with the FON is installed within existing buried conduit duct banks with pull boxes and splice vaults for cabling access. Within the Project Limits, backbone cables are maintained and operated by FDOT District One ITS, Collier County, and Lee County.
- Wrong-Way Vehicle Detection System (WWVDS): WWVDS are application-specific vehicle
  detection systems installed at limited-access interchange off-ramps to detect and deter wrongway drivers from entering the limited-access mainline traveling in the wrong direction. Upon
  detection of a wrong-way driver, the WWVDS activates flashing LED highlighted signs and
  provides a real-time notification to operational staff within the RTMC.
- A FDOT District One Master Hub is present within the Project Limits. These are climatecontrolled buildings with backup generators containing extensive networking equipment serving
  as a centralized communications node for all fiber optic communications within the area
  facilitating reliable communications between field devices, partner agencies, and the appropriate
  network. Master Hubs are considered vital to the communication of ITS and tolling systems.

### 6. Signalization

Signal equipment shall meet the requirements of FDOT Minimum Specifications for Traffic Control Devices and be listed on FDOT Approved Product List (APL). Signal equipment shall also meet the maintaining agency's requirements in effect at the time of equipment installation, including any proprietary products required by the maintaining agency.

The Design-Build Firm shall be responsible for replacement of any impacted fiber optic interconnect cable along with terminations and integration into the existing County ATMS. Communication using fiber optic cabling shall be provided for all traffic signal cabinets within the Project Limits. No new butt splices shall be added to existing fiber optic cables.

# P. Landscape Opportunity Plans

The Design-Build Firm shall provide the necessary site inventory and site analysis and shall prepare a "Landscape Opportunity Plan" (Opportunity Plan) as part of the roadway plan set for the I-75 Project Limits..

The Design-Build Firm shall include a Landscape Architect duly authorized to practice Landscape Architecture in the State of Florida consistent with State Statute 481 part II. The Design-Build Firm's Landscape Architect (DBLA) shall review and identify future unencumbered landscape areas in the I-75 Project Limits. This Project shall reserve landscape opportunities and implement the FDOT Highway Beautification Policy. Landscape construction will be performed by others and not included with this Project. Areas shall be identified in the Design-Build Firm's Proposal Plans as "future landscape areas to be constructed by others". Coordination will be required by the Design-Build Firm and the District Landscape Architect. Coordination between Design-Build Firm's Landscape Architect, the District Landscape Architect and Engineer will be required during the Design-Build plans development process to ensure landscape opportunities are accommodated within the I-75 Project Limits. The DBLA shall be included in the project kick-off meeting and subsequent progress meetings.

It is the intent of this work item to preserve the opportunity to provide for significant landscape planting areas within the I-75 Project Limits that meet the intent of FDOT Highway Beautification Policy. The landscape opportunity design shall adhere to the FDOT Highway Beautification Policy with the intent of creating a unified landscape theme for the Project.

Additionally, it is the intent to always preserve existing vegetation including trees and palms that do not conflict with proposed improvements. Tree and palm protection shall comply with FDOT Standard Plans for Road and Bridge Construction (Standard Plans), Index 110-100. Within the Project Limits and within the Project Right of Way, it will be the responsibility of the Design-Build Firm to identify and remove all Category 1 invasive exotics as defined by the Florida Exotic Pest Plant Council (www.fleppc.org) and as identified in the Landscape Opportunity Plan.

The Opportunity Plan shall consider the Design-Build Firm's proposed roadway and drainage improvements, utilities, setbacks and clear zone dimensions, community commitments and other Project needs in identifying future landscape planting areas. Landscape opportunity areas should be prepared in accordance with the Department's "Bold" initiative and all other FDOT requirements for Landscape Opportunity Plans.

The Opportunity Plans shall include the following:

- 1. Proposed improvements and existing elements to remain as associated with the Project.
- 2. Vegetation disposition depicting existing plant material to be removed, relocated or to remain.
- 3. Wetland jurisdictional lines.
- 4. Proposed drainage retention areas and easements.
- 5. Proposed utilities and existing utilities to remain.
- 6. Graphically depicted on-site and off-site desired or objectionable views.
- 7. Locations of landscape opportunity planting areas in a bubble format which identifies various vegetation groupings in a hatched or colorized manner. Examples are: "trees/palms/shrubs", "shrubs only", "buffer plantings", etc.

- 8. Provided and labeled applicable clear zone, horizontal clearance, setback dimensions on the plans and in chart form which reflect AASHTO, FDOT and Department guidelines for landscape installation and maintenance operations, including those that have been coordinated with other disciplines
- 9. Outdoor advertising sign locations, owners and contacts and show 1000 ft. view zone per applicable State Codes and Rules.
- 10. Potential area(s) for wildflower plantings.

The Opportunity Plan shall match the scale and format used for the proposed roadway sheets. Should this format not convey design intent that is clearly legible, an alternate format may be considered.

Landscape construction documents and landscape installation are not included in this Contract and shall be provided by others. In developing and refining the Opportunity Plan, the Design-Build Firm will be responsible for coordinating with the design teams that will be selected to prepare the landscape plans within the I-75 Project Limits.

Disciplines that will have greatest impact to preserving landscape opportunities include environmental, drainage, utilities, signing, lighting and ITS. The DBLA shall identify potential conflicts relating to preserving opportunity landscape areas and provide suggested resolutions to preserve them. If conflicts cannot be resolved by the Design-Build Firm and the DBLA, they shall be discussed with the Department's Project Manager and District Landscape Architect for coordination and resolution.

The DBLA shall research and confirm any legally permitted outdoor advertising billboard (ODA) within 1,000-feet of the Project Limits. The ODA sign(s) and 1,000-feet maximum vegetation protection zone limit shall be indicated on the plans as required by applicable State Codes and Rules. The Design-Build Firm's Landscape Architect shall provide a copy of all correspondence and attachments to the District Landscape Architect.

The DBLA shall conduct a visual survey of existing vegetation within and adjacent to the Right of Way of the Project. General locations of existing vegetation that will remain after roadway and associated improvements are completed shall be shown with notations of general plant species in each location on the Opportunity Plan. The DBLA shall identify proposed buffer areas as needed.

The DBLA shall meet with the District Landscape Architect prior to the beginning of work on the Landscape Opportunity Plans for the purposes of coordination and to discuss adherence to the Highway Beautification Policy. No proposed planting areas indicated on the Opportunity Plan can occur in federal and/or state jurisdictional wetlands or other surface waters; within open water bodies; in the bottom of stormwater management facilities; or use obligate wetlands or facultative wetland species within 25 feet of the seasonal high water of wetlands or other surface waters. Limited plantings may occur on the slopes and bottom of stormwater management facilities once coordinated with the D1 District Drainage Engineer and Landscape Architect. Trees may not be planted within 5 feet of storm sewer pipes and utilities.

### Q. Tolling Infrastructure Plans

The Design-Build Firm shall construct fully functional toll sites at the locations to be determined based on the Toll Siting Technical Memorandum which will represent the locations that have been reviewed by and are acceptable to the Department. Deviations from the locations specified in the Toll Siting Technical Memorandum requires the Design-Build Firm to submit an updated Toll Siting Technical Memorandum during the AIC Phase. The Design-Build Firm shall also complete the construction of Toll Sites. The General Tolling Requirements document includes toll facility design criteria specific to the toll site. The

Design-Build Firm shall refer to and comply with all General Tolling Requirements design criteria and construction requirements for the design of the toll site.

The General Tolling Requirements includes requirements for providing full utility connections for power and communication to the toll site.

## **R.** Aesthetic Requirements

The Design-Build Firm shall be responsible for fully integrating and implementing aesthetic features and enhancements within the I-75 Project Limits. The Design-Build Firm shall match the aesthetics of the existing surrounding infrastructure within the I-75 Project Limits. The Design-Build Firm shall utilize a single dedicated person responsible for managing all aesthetics coordination. That person must be a Registered Architect, Landscape Architect or other person with 10 years' experience with the design and construction of complex custom aesthetic features.