



*Florida Department of Transportation*  
*District V*

**DESIGN/BUILD/FINANCE MAXIMUM PRICE  
REQUEST FOR PROPOSAL  
With Option for Length**

**For**

**Widening of SR 9 (I-95) from SR 406 to 0.5 miles north of  
SR 44 in Brevard and Volusia Counties**

**Financial Projects Numbers: 406869-8-52-01**

**Federal Aid Project Numbers: 0953 112 I**

**Contract Number: E5R39**

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## **ATTACHMENTS**

Permits (St. Johns River Water Management District and Army Corps of Engineers)

Typical Section Package

Pavement Designs

Variations and Exceptions:

Border Width all locations Variation

Bridge Cross Slope for CR 5A Variation

Horizontal Alignment all locations Variation

Vertical Alignment all locations Variation

Vertical Clearance SR 406 and SR 44 Exception

Vertical Clearance Fox Lake Road, Dairy Road, CR 5A Variation

Structural Capacity CR 5A Variation

Structural Capacity Aurantia Road

Structural Capacity Maytown Road

Right of Way Maps

Section 475, Value Added Bridge Component

Section 645 and 611, Value Added Signal Installation

Division I Specifications

The attachments listed in the table of contents are by this reference hereby incorporated into and made a part of this RFP as though fully set forth herein.

## **OTHER DOCUMENTS**

The following documents are being provided with this RFP. Except as specifically set forth in the body of this RFP, these documents are being provided for general information only. They are not being incorporated into and are not being made part of the RFP, 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 other documents must be verified by a proper factual investigation. The bidder agrees that by accepting copies of the documents, any and all claims for damages, time or any other impacts based on the documents are expressly waived.

Straight Line Diagrams

Geotechnical Data

Bridge Inspection Reports

Pond Siting Reports

Noise Analysis Study

Traffic Data

Pavement Core Reports

Design Calculations (roadway, drainage, structures, under-deck lighting)

Plans:

Concept Plans (roadway, structures, signing, signal and pavement marking, ITS)

Guardrail/Milling and Resurfacing Plans

Utilities – Marked plans

ITS Plans (Existing)

## **I. INTRODUCTION**

The Florida Department of Transportation (Department) has issued this Request for Proposal (RFP) to solicit competitive bids and proposals from Proposers for the widening of SR 9 (I-95) from south of SR 406 to 0.5 miles north of SR 44 in Brevard and Volusia Counties, Florida.

Alternative Technical Concepts (ATC's) will be considered for this project as specified in the Alternative Technical Concepts Reviews in the "Innovative Aspects" section of this RFP.

The Department has set a maximum bid price of \$99,739,036.00 for this project. A portion of this maximum bid price will be financed by the Design/Build Firm according to the schedule provided in this RFP.

Each Design/Build Firm is to develop design approaches with corresponding schedules that maximize the amount of scope in the RFP and that can be designed and built without exceeding this maximum price. The scope may be modified to meet this maximum bid price.

The southern limit is at approximate Station 3160+00, as shown on concept plans 405506-2 (design/build plans for 405506-2 by JMT dated 5-26-2011). The northern limit is at approximate station 5599+00.00, as shown on the concept plans for 406869-4 (plans by HNTB dated 4-8-2009). Also included in this contract is an option to reduce the widening of SR 9 (I-95) from the northern limit to a point determined by the Design/Build Firm. This point shall not occur south of the Brevard/Volusia County line. As a minimum, the project will include widening of existing four-lane I-95 to a six lane interstate highway from south of SR 406 (Garden Street) (approximate MP 18.409) to the Brevard/Volusia County Line (approximate MP 31.190) for a distance of approximately 12.781 miles (referred to as the base project). The scope may be modified to meet the maximum bid price by reducing the limits, in 1/10<sup>th</sup> mile segments from north to south.

The competition is on project scope, qualifications, quality, innovation, schedule and costs (not to exceed the maximum price). If this maximum bid price is exceeded, the Design/Build Firm's price proposal shall be found non-responsive and the firm will not be considered for Final Selection.

### **Description of Work**

The project involves the widening of existing four-lane I-95 to a six-lane interstate highway from south of SR 406 (Garden Street) (approximate MP 18.409) to 0.5 miles north of SR 44 in Volusia County (approximate MP 16.896) with an option to reduce the limits from the north to the south to a limit determined by the Design/Build Firm. The project work includes new pavement, drainage system improvements, bridge widening, bridge replacement, soundwall construction, Intelligent Transportation System (ITS) modifications, median barriers (temporary concrete barriers during all phases of construction and double-faced guardrail with rub rail when the project is complete), signing and pavement markings, signalization and milling and resurfacing.

Roadway work includes new asphalt pavement and milling and resurfacing of the existing pavement. The roadway work also includes construction of acceleration and deceleration lanes that meet Department requirements for parallel type ramps at all ramp locations. Drainage work includes all work necessary to comply with the permit requirements for water quality and quantity. Stormwater management facilities must be located within the right-of-way owned by the Department and as defined in this RFP. Structural work includes widening of the I-95 bridges over SR 406, replacement of the I-95 bridges over SR 46, widening of I-95 over Aurantia Road, widening of I-95 over CR 5A, widening of I-95 over Maytown Road, replacement of I-95 over SR 442, widening of I-95 over SR 44, soundwall construction and

foundations for cantilever signs. ITS and count station work will involve any necessary modifications to existing infrastructure. Modifications may include, but not be limited to, ITS equipment or communication such as fiber optic lines, DMS, CCTV, detection loops, equipment cabinets, junction or pull boxes, etc. located in areas with construction by the Design/Build Firm. Signing will include replacement of all appropriate signs. Pavement rehabilitation includes mainline I-95 and the interchange ramps to the limits as indicated on the Concept Plans.

The Traffic Control Plans for the project shall meet the requirements of the Plans Preparation Manual, Department Standard Indices and special requirements included in this RFP in Section VI.L.

Existing Call boxes shall be removed, stored during construction and reinstalled after construction to all Department and ADA criteria.

This project will include partnering.

Any proposed changes to the requirements of this RFP by a Design/Build Firm must be received by the Alternative Technical Concepts (ATC) submission deadline and approved by the Department. A change is defined as any deviation from the requirements of this RFP. These changes will be shared with other Design/Build Firms.

Proposed innovative concepts presented through the ATC process will not be shared with other Design/Build Firms. An innovative concept or idea is defined as the Design/Build Firm's means and methods in constructing the project and are not a part of the approved changes to the RFP. The Department will determine if information submitted by the Design/Build Firm constitutes a change that is required to be shared with the other Design/Build Firms. All accepted variations and/or exceptions will be shared with the other Design/Build Firms.

#### **A. Design/Build Responsibility**

The Design/Build Firm shall be responsible for survey, geotechnical investigation, design, acquisition of all permits not acquired by the Department, any required modification of permits acquired by the Department, maintenance of traffic, demolition, and construction on or before the project completion date indicated in the Proposal. The Design/Build Firm will coordinate all utility relocations.

The Design and Construction Criteria (Section VI) sets forth requirements regarding survey, design, construction, and maintenance of traffic during construction, requirements relative to project management, scheduling, and coordination with other agencies and entities such as state and local government, utilities and environmental permitting agencies, and the public.

The Design/Build Firm shall demonstrate good project management practices while working on this project. These include communication with the Department and others as necessary, management of time and resources, and documentation.

#### **B. Department Responsibility**

The Department will provide contract administration, management services, construction engineering inspection services and quality acceptance reviews of all work associated with the development and preparation of the contract plans and construction of the improvements. The Department will provide job specific information and/or functions as outlined in this document.

## II. SCHEDULE OF EVENTS

Below is the current schedule of events that will take place in the selection process. The Department reserves the right to make changes or alterations to the schedule as the Department determines is in the best interest of the public. 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 time stated shall cause a Proposer to be disqualified.

<b>Date</b>	<b>Event</b>
<u>December 13, 2011</u>	Advertisement
<u>January 5, 2012</u>	Expanded Letters of Interest (ELOI) for Phase I of the procurement process due in District Office by 5:00 pm local time
<u>January 26, 2012</u>	Public Meeting of Selection Committee to review and confirm Expanded Letter of Interest scores 8:15 am local time
<u>January 26, 2012</u>	Notification to Responsive Design/Build Firms of ELOI Scores 10:00 am local time
<u>January 30, 2012</u>	Deadline for all responsive Design-Build firms to affirmatively declare intent to continue to Phase II of the procurement process 12:00 pm local time
<u>January 30, 2012</u>	Posting of Shortlisted Firms
<u>February 2, 2012</u>	Final RFP provided to Design-Build firms providing Affirmative Declaration of Intent to continue to Phase II of the procurement process
<u>February 7, 2012</u>	Pre-proposal meeting at <b>2:00 p.m.</b> local time in the Cypress A conference room, 1 <sup>st</sup> floor of the District V Administration building (District Office), 719 South Woodland Blvd, Deland, Florida.
<u>February 27, 2012</u>	Final deadline for submission of requests for information prior to the submittal of the Technical Proposal.
<u>March 1, 2012</u>	Information Cut-off date (Last Date Department guarantees to provide responses to requests for information to Design-Build Firms prior to the submittal of Technical Proposals)
<u>February 15, 2012</u>	Alternative Technical Concept (ATC) Submission Deadline
<u>February 2, 2012 to February 15, 2012</u>	Alternative Technical Concept (ATC) meeting with shortlisted firms, as requested by the firms
<u>February 29, 2012</u>	Responses due for Alternative Technical Concepts to shortlisted firms
<u>March 8, 2012</u>	Phase II Technical Proposals due in District Office by <b>12:00 p.m.</b> local time
<u>March 28, 2012 and March 29, 2012</u>	Question and Answer Session. Times will be assigned during the pre-proposal meeting. One hour will be allotted for questions and responses.
<u>April 4, 2012 and April 5, 2012</u>	Deadline for submittal of Written Clarification letter following Question and Answer Session 5:00 am local time
<u>April 3, 2012</u>	Final deadline for submission of questions (on bid questions web site) in order to guarantee response by the Department prior to the submittal of the Bid Proposal.
<u>April 6, 2012</u>	Last day the Department will to provide and post responses to bid questions prior to Bid opening.
<u>April 12, 2012</u>	Price Proposals due to the Professional Services Office in District Office by <b>2:00 p.m.</b> local time.
<u>April 12, 2012</u>	Public announcing of Technical Scores and opening of Price Proposals at <b>2:30 p.m.</b> local time in Osceola County conference room, 4 <sup>th</sup> floor of the

	District V Administration building (District Office), 719 South Woodland Blvd, Deland, Florida.
<u>April 27, 2012</u>	Final Letter of Commitment or Credit/Statement of No Change or updated firm commitment letter due in the District Office by 9:00 am
<u>April 30, 2012</u>	Public Meeting of Selection Committee to determine intended Award
<u>April 30, 2012</u>	Posting of the Department's intended decision to Award (will remain posted for 72 hours)
<u>May 21, 2012</u>	Anticipated Award Date
<u>July 10, 2012</u>	Anticipated Execution Date

### **III. THRESHOLD REQUIREMENTS**

#### **A. 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.

#### **B. Joint Venture Firm**

Two or more firms submitting as a Joint Venture must meet the Joint Venture requirements of Section 14-22.007, Florida Administrative Code. 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 Interest.

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 construction portions of the Work.

#### **C. Price Proposal Guarantee**

A bid guaranty in an amount of not less than five percent of the total bid amount shall accompany each Proposer's Price Proposal. The guaranty may, at the discretion of the Proposer, be in the form of a cashier's check, bank money order, bank draft of any national or state bank, certified check, or surety bond, payable to the Department. The surety on any bid bond shall be a company recognized to execute bid bonds for contracts of the State of Florida. The guaranty shall stand for the Proposer's obligation to timely and properly execute the contract and supply all other submittals due therewith. The amount of the guaranty shall be a liquidated sum, which shall be due in full in the event of default, regardless of the actual damages suffered. The bid guaranty of all Proposers' shall be released at such time as the successful Proposer has complied with the condition stated herein, but not prior to that time.

#### **D. Pre-Proposal Meeting**

Attendance at the pre-proposal meeting is mandatory. Any affirmatively declared proposer failing to attend will be deemed non-responsive and automatically disqualified from further consideration. The purpose of this meeting is to provide a forum for all concerned parties to discuss the proposed project, answer questions on the design and construction criteria, CPM schedule, and method of compensation,

instructions for submitting proposals, design exceptions/variances, and other relevant issues. In the event that any discussions or questions at the pre-proposal meeting require, in the Department's opinion, official additions, deletions, or clarifications of the Request for Proposal, the Design and Construction Criteria, or any other document, the Department will issue a written summary of questions and answers or an addendum to this Request for Proposals as the Department determines is appropriate. No oral representations or discussions, which take place at the pre-proposal meeting, will be binding on the Department. FHWA will be invited on oversight projects, in order to discuss the project in detail and to clarify any concerns. Utility Companies will be invited to discuss utility issues with the short listed firms.

Proposers shall direct all questions to the Departments Question and Answer website.

During and after the meeting, it is the responsibility of the Project Manager/Contracting Unit to ensure that each Proposer develops their technical proposal with the same information. If a Proposer receives information from the Department relating to the project the Department will ensure that all Proposers receive the same information in a timely fashion. The project file will clearly document all communications with any Firm regarding the design and construction criteria by the Contracting Unit or the Project Manager.

#### **E. Question and Answer Session**

The Department may meet with each Proposer, formally, for a Question and Answer session. FHWA shall be invited on FA Oversight Projects. The purpose of the Q&A session is for the Technical Review Committee to seek clarification and ask questions, as it relates to the Technical Proposal, of the Proposer. The Q&A session will occur a minimum of two (2) weeks after the date the Technical Proposal is due, and be part of the Overall Technical Proposal Scoring. The Proposers shall be given a minimum of one (1) week after the Q&A session to submit their Price Proposal. The Department may terminate the Q&A session promptly at the end of the allotted time. The Department may tape record or videotape all or part of the Q&A session. Such recordings will become part of the Contract Documents in accordance with the Specifications. The Q&A session will not constitute "discussions" or negotiations. Proposers will not be permitted to ask questions of the Department except to ask the meaning of a clarification question posed by the Department. Within one (1) week of the Q&A session, the Design/Build Firm shall submit to the Department a written clarification letter summarizing the answers provided during the Q&A session. The Design/Build Firm shall not include information in the clarification letter which was not discussed during the Q&A session. In the event the Design/Build Firm includes additional information in the clarification letter which was not discussed during the Q&A session and is not otherwise included in the Technical Proposal, such additional information will not be considered by the Department during the evaluation of the Technical Proposal. No additional time will be allowed to research answers.

The Department will provide some (not necessarily all) proposed questions to each firm as it relates to their technical proposal approximately 24 hours before the scheduled Q&A session. No supplemental materials, handouts, etc. will be allowed to be presented in the Q&A session.

There will be no limit to the number of staff members that the proposing firms can bring to the Question and Answer Session however, it is highly recommended that the staff members be limited to those with knowledge and decision-making authority of the question and answer topics and those who will actually be providing the services.

#### **F. Protest Rights**

Any person who is adversely affected by the specifications contained in this Request for Proposal must file a notice of intent to protest in writing within seventy-two hours of the receipt of this Request for

Proposals. The formal written protest shall be filed within ten days after the date of the notice of protest if filed. The person filing the Protest must send the notice of intent and the formal written protest to:

Clerk of Agency Proceedings  
Department of Transportation  
605 Suwannee Street, MS 58, Room 562  
Tallahassee, Florida 32399-0458

The formal written protest must state with particularity the facts and law upon which the protest is based and be legible, on 8 ½ x 11-inch white paper and contain the following:

1. Name, address, telephone number, and Department identifying number on the Notice, if known, and name, address and telephone number of a representative, if any; and
2. An explanation of how substantial interest will be affected by the action described in the Request for Proposals; and
3. A statement of when and how the request for Proposals was received; and
4. A statement of all disputed issues of material fact. If there are none, this must be indicated; and
5. A concise statement of the ultimate facts alleged, as well as the rules and statutes, which entitle to relief; and
6. A demand for relief; and
7. Conform to all other requirements set out in Florida Statutes (F.S.), Chapter 120 and F.A.C., Chapter 28-106, including but not limited to Section 120.57, F.S. and Rules 28-106.301, F.A.C., as may be applicable.

A formal hearing will be held if there are disputed issues of material fact. If a formal hearing is held, this matter will be referred to the Division of Administrative Hearings, where witnesses and evidence may be presented and other witnesses may be cross-examined before an administrative law judge. If there are no disputed issues of material fact, an informal hearing will be held, in which case the person filing the protest will have the right to provide the Department with any written documentation or legal arguments which they wish the Department to consider.

Mediation pursuant to Section 120.573, F.S., may be available if agreed to by all parties, and on such terms as may be agreed upon by all parties. The right to administrative hearing is not affected when mediation does not result in a settlement.

Failure to file a protest within the time prescribed in Section 120.57(3), Florida Statutes, shall constitute a waiver of proceedings under Chapter 120, F.S.

#### **G. Non-Responsive Proposals**

Proposals found to be non-responsive shall not be considered. Proposals may be rejected if found to be in nonconformance with the requirements and instructions herein contained. A proposal may be found to be non-responsive by reasons, including, but not limited to, failure to utilize or complete prescribed forms, conditional proposals, incomplete proposals, indefinite or ambiguous proposals, failure to meet deadlines

and improper and/or undated signatures.

Other conditions which may cause rejection of proposals include evidence of collusion among Proposers, obvious lack of experience or expertise to perform the required work, submission of more than one proposal 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 proposals wherein the same Engineer is identified in more than one proposal), 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 Comptroller General's List of Ineligible Design/Build Firms for Federally Financed or Assisted Projects.

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

If this maximum bid price is exceeded, the Design/Build Firm's price proposal shall be found non-responsive and the firm will not be considered for Final Selection.

#### **H. Waiver of Irregularities**

The Department may waive minor informalities or irregularities in proposals 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 and will not affect the price of the Proposals by giving a Proposer an advantage or benefit not enjoyed by other Proposers.

1. Any design submittals that are part of a proposal shall be deemed preliminary only.
2. Preliminary design submittals may vary from the requirements of the Design and Construction Criteria. The Department, at their discretion, may elect to consider those variations in awarding points to the proposal rather than rejecting the entire proposal.
3. In no event will any such elections by the Department be deemed to be a waiving of the Design and Construction Criteria.
4. The Proposer who is selected for the project will be required to fully comply with the Design and Construction Criteria for the price bid, regardless that the proposal may have been based on a variation from the Design and Construction Criteria.
5. Proposers shall identify separately all innovative aspects as such in the Technical Proposal. An innovative aspect does not include revisions to specifications or established Department policies. Innovation should be limited to Design/Build Firm's means and methods, roadway alignments, approach to project, use of new products, new uses for established products, etc.
6. The Proposer shall obtain any necessary permits or permit modifications not already provided.
7. Those changes to the Design Concept may be considered together with innovative construction techniques, as well as other areas, as the basis for grading the Technical Proposals in the area of innovative measures.

### **I. Modification or Withdrawal of Technical Proposal**

Proposers may modify or withdraw previously submitted technical proposals at any time prior to the proposal due date. Requests for modification or withdrawal of a submitted proposal shall be in writing and shall be signed in the same manner as the proposal. Upon receipt and acceptance of such a request, the entire proposal will be returned to the Proposer and not considered unless resubmitted by the due date and time. Proposers may also send a change in sealed envelope to be opened at the same time as the proposal provided the change is submitted prior to the proposal due date.

### **J. Department's Responsibilities**

This Request for Proposal does not commit the Department to make studies or designs for the preparation of any proposal, nor to procure or contract for any articles or services. Proposers shall examine the Contract Documents and the site of the proposed work carefully before submitting a proposal for the work contemplated and shall investigate the conditions to be encountered, as to the character, quality, and quantities of work to be performed and materials to be furnished and as to the requirements of all Contract Documents. Written notification of differing site conditions discovered during the design or construction phase of the project will be given to the Department's Project Manager.

The Department does not guarantee the details pertaining to borings, as shown on any documents supplied by the Department, to be more than a general indication of the materials likely to be found adjacent to holes bored at the site of the work, approximately at the locations indicated. Proposers shall examine boring data, where available, and make their own interpretation of the subsoil investigations and other preliminary data, and shall base his bid on his own opinion of the conditions likely to be encountered. The submission of a proposal is prima facie evidence that the Proposer has made an examination as described in this provision.

### **K. Design/Build Contract Method of Compensation and Funding**

The Department will enter into a Lump Sum Contract with the successful Design/Build firm. In accordance with Section V, the Design/Build firm will provide a schedule of values with its Bid Price Proposal documents. The total of the Schedule of Values will be the lump sum contract amount.

The terms and conditions of this Contract are fixed price and fixed time. The Design-Build Firm's submitted bid (time and cost) is to be a lump sum bid for completing the scope of work detailed in the Request for Proposal. Funds are contingent upon annual appropriation. This Contract is subject to Section 334.30, Florida Statutes. Further, while not a statutory requirement, the Department will ensure that the payments contemplated hereunder shall be included in the Department's tentative work program developed pursuant to [Section 339.135](#), Florida Statutes, and the long-range transportation plan for the applicable metropolitan planning organization developed under [Section 339.175](#), Florida Statutes, and also ensure that payments for this project extending beyond one fiscal year are prioritized ahead of new capacity projects in the development and updating of the tentative work program.

The cash available for reimbursement will be contingent upon annual appropriation; however, subject to annual appropriation, the Department agrees to fund this Contract in accordance with the Cash Availability Schedule set forth below:

**406869-8-52-01**

Fiscal Year (July 1 – June 30)	September 1	December 1	March 1	June 1	Total
2011/2012	0	0	0	\$ 18,611,794	\$ 18,611,794
2012-2013	\$ 7,189,603	\$ 8,175,274	\$ 5,798,067	\$ 5,682,105	\$ 26,845,048
2013/2014	\$ 6,609,796	\$ 4,696,434	\$ 1,217,594	0	\$ 12,523,824
2014/2015	0	0	0	0	
2015/2016	\$ 167,033	\$ 2,087,918	\$ 4,509,904	\$ 5,178,038	\$ 11,942,894
2016/2017	\$ 4,635,179	\$ 5,261,555	\$ 3,716,495	\$ 3,591,220	\$ 17,204,448
2017/2018	\$ 4,301,112	\$ 3,006,603	\$ 2,380,227	\$ 2,254,952	\$ 11,942,894
2018/2019	\$ 668,134				\$ 668,134
Total					\$ 99,739,036

Reimbursement shall be made to the Design-Build Firm by warrant mailed to the Project Specific Escrow Account using a unique vendor number sequence. The Design-Build Firm shall complete form number 700-011-16 Request for Project Specific Escrow Account and submit it to the FDOT Comptroller at 605 Suwannee Street MS 24, Tallahassee, FL. 32399-0424 to set up the unique vendor number sequence. This Project Specific Escrow Account payment process shall be irrevocable unless mutual written request to the Department (using form number 700-011-17 Request for Direct Payment to Firm’s Primary Vendor) is made by the Design-Build Firm, its Surety(ies) and its Lender(s)/Financier(s), and thereafter approved by the Department. The Design-Build Firm may, with the express written consent of the Surety(ies) and the Lender(s)/Financier(s), sell, assign or pledge any monies paid into the Project Specific Escrow Account by the Department in favor of third parties and including but not limited to the Design-Build Firm’s Surety(ies) and Lender(s)/Financier(s); however, any such sale, assignment or pledge must only attach to payments made by the Department after such funds have been paid by warrant mailed to the Project Specific Escrow Account, and no sale, assignment or pledge of any receivable from the Department is authorized nor will be permitted by the Department.

**NOTE: THE CASH AVAILABILITY SCHEDULE (MAXIMUM ALLOWED TO BE INVOICED) IS BASED ON THE FUNDING AS ORIGINALLY PROGRAMMED. IN THE EVENT THAT THE BID IS LOWER THAN THE TOTAL AMOUNT OF FUNDS AVAILABLE FOR PAYMENT, THE ABOVE APPROPRIATE CASH AVAILABILITY SCHEDULE(S) WILL BE MODIFIED WITH THE LAST AVAILABLE FUNDS BEING REDUCED.**

**Invoicing the Department:**

1. Each month, on a predetermined schedule of monthly cut-off dates, the Department shall determine the Design-Build Firm’s monthly progress and certify the value of Contract work that the Design-Build Firm has completed.

The amount established by each approved and certified monthly progress estimate of the Department shall not be subject to set-off, deduction, reduction, or withholding for any reason by the Department, including but not limited to defective work, liquidated damages, default, termination, latent defects, or warranty claims. Rather, any set-off, deduction, reduction or withholding of payment shall be applied only to subsequent monthly progress estimates or the final estimate, as such may not yet be certified by the Department. The amount established by the approved and certified final estimate of the Department shall not be subject to set-off, deduction,

reduction, or withholding for any reason by the Department, including but not limited to defective work, liquidated damages, default, termination, latent defects, or warranty claims.

2. Each month, the Department's monthly estimate shall include:
  - a. The total value of Contract work to-date
  - b. The total value of any adjustments
3. The Design-Build Firm may invoice the Department monthly for actual work completed and the delivery of certain materials as authorized by this Contract and per the monthly progress estimate, up to the amount established and remaining available for the then-current quarter in the applicable Cash Availability Schedule (Fiscal Year is July to June). The monthly invoice will be reduced by the amount the cumulative payments and current invoice are in excess of the then-current quarter's Cash Availability Schedule funds plus any prior quarter's cash not previously paid. Any such reduction should be billed by the Design-Build Firm on the next monthly invoice, or as otherwise outlined above.
4. Section 337.145 of the Florida Statutes, providing for offsetting payments, is not applicable to this Contract.
5. Nothing contained in this provision constitutes a waiver or release of the Design-Build Firm's responsibility to properly perform all of its obligations under this Contract.
6. Once the project is complete and has been final accepted by the Department, the Design-Build Firm may begin or continue invoicing on a quarterly basis (at the beginning of the quarter) an amount equal to the applicable Cash Availability Schedule plus any prior quarters' cash not previously paid.

#### **Extra Work Costs and Delay Costs:**

The Department shall compensate the Design-Build Firm for amounts due for Extra Work Costs or Delay Costs through either (a) monthly progress payments invoiced as the Extra Work is completed or Delay Costs incurred and also acknowledged by the Department, (b) as periodic payments pursuant to a separate Cash Availability Schedule for such Extra Work Costs or Delay Costs, or (c) a combination of the above, in each instance as may be determined in the Department's sole discretion. For this contract, it is the Department's desire to look first to funding any such Extra Work Costs or Delay Costs compensation obligations through monthly progress payments invoiced as the Extra Work is completed or Delay Costs incurred and also acknowledged by the Department. If the Department chooses to pay such Extra Work Costs or Delay Costs pursuant to a separate Cash Availability Schedule, the reasonable and actual cost of financing incurred by the Design-Build Firm due to such delayed payment shall be compensated for by the Department in addition to the compensation for such Extra Work Costs or Delay Costs as otherwise provided pursuant to the contract.

#### **L. Financial Qualifications and Project Financial Plan (Financial Proposal)**

1. On the due date as shown in the Schedule of Events in Section II of this document, each Design-Build-Finance Firm will deliver to the Department five (5) hard copies, and five (5) digital copies of its Financial Proposal (including the Project Financial Plan in Microsoft Excel). The Financial Proposal is required so the Department can be assured that the Design-Build-Finance Firm has sufficient financial

resources to construct the project within the allotted contract time, based on the timetable for the availability of funds as noted in this RFP.

The minimum required documents the Design-Build-Finance Firm must submit to the Department for performance of financial due diligence shall include, but may not be limited to, the following:

- a. Project Financial Plan, including at a minimum:
  - i. A narrative describing all financial elements to finance the project as proposed.
  - ii. Provision for total projected costs that at a minimum, equals the bid price.
  - iii. Project Sources and Uses of Funds. A statement sufficient to serve as a cash flow needs analysis.
- b. Audited Financial Statements, prepared in accordance with Generally Accepted Accounting Principles, for the most recent two (2) fiscal years. These Financial Statements must be submitted for each party of the Design-Build-Finance Firm providing financial support to the project. Required financial statements shall include:
  - i. Opinion Letter (Auditor's Report)
  - ii. Balance Sheet
  - iii. Income Statement
  - iv. Statement of Changes in Cash Flow
  - v. Footnotes
  - vi. If financial statements are prepared in accordance with principles other than U.S. Generally Accepted Accounting Principles, a letter from a Certified Public Accountant must be included addressing in detail the areas of the financial statements that would be impacted by a conversion to U.S. Generally Accepted Accounting Principles and the financial impact thereof.
- c. If audited financials are not available, unaudited financial statements, prepared in accordance with Generally Accepted Accounting Principles, shall be provided and certified as true, correct and complete by the Chief Financial Officer. Requirements are the same as for Audited Financial Statements except an Opinion Letter is not required.
- d. Interim Financial Statements must be submitted for each party of the Design-Build-Finance Firm providing financial support to the project. The statements, prepared in accordance with Generally Accepted Accounting Principles and certified by the entity's Chief Financial Officer, shall be provided for the period since the last Audited Financial Statement. Interim Financial Statements through the most recent completed fiscal quarter should be provided. Requirements are the same as for Audited Financial Statements except an Opinion Letter is not required.
- e. If the Financial Proposal requires debt financing as a source of funds, a Preliminary Letter of Commitment and/or a Letter of Line of Credit must be submitted. Letters of Commitment from financial institutions submitted with the Financial Proposal shall contain, at a minimum:
  - a) An interest in providing financial support for the project;
  - b) Indication that the financial institution has reviewed the financial elements associated with the project;
  - c) The amount the financial institution intends to lend; and
  - d) Any conditions the letter is subject to.

A demonstration of Line of Credit(s) from financial institutions submitted with the Financial Proposal shall contain, at a minimum:

- a) An interest in providing financial support for the project;
- b) Indication that the financial institution has reviewed the financial elements associated with the project;
- c) The amount of the Line of Credit;
- d) The outstanding balance on the Line of Credit, if any;

- e) Any conditions the Line of Credit is subject to that may impede the contractor's ability to use the Line of Credit;
- f) Whether the Line of Credit will only be used for the project or if the Line of Credit is used to finance the overall working capital of the contractor; and
- g) The expiration of the Line of Credit.

The Letters of Commitment and/or Letter of Line of Credit should meet the amount required identified in the Project Financial Plan.

No later than 48 hours before posting of the Department's intended decision to award, the proposer must submit:

- a) Final Letters of Commitment, which shall contain at a minimum:
    - a. A statement from the financial institution stating that they are providing financial support for the project;
    - b. The amount the financial institution intends to lend;
    - c. Any conditions the letter is subject to;
  - b) Final Letters of Line of Credit, which shall contain at a minimum:
    - a. The amount of the Line of Credit;
    - b. The outstanding balance on the Line of Credit, if any;
    - c. Any conditions the Line of Credit is subject to that may impede the contractor's ability to use the Line of Credit;
    - d. Whether the Line of Credit will only be used for the project or if the Line of Credit is used to finance the overall working capital of the contractor; and
    - e. The expiration of the Line of Credit.
  - c) Statement indicating there has been no changes with the letters submitted with the Financial Proposal.
- f. Attestation by the Chief Financial Officer as to accuracy and completeness of all financial information provided.
- g. Ownership and Organizational structure of all entities involved in the project, including financial relationships with other entities included or involved in the delivery of this project.
- h. An affidavit from a bonding company that certifies contractor has the financial means and capacity to bond 100% payment and performance for the face amount of \$99,739,036 for the project.
- i. Any and all financial warranties, bonds, sureties, certifications and other commitments for the financial security of the project, as may be appropriate.

2. The Department's review of the Financial Proposal shall neither create, modify nor activate any legal rights or obligations of the Department. The Department's evaluation of a Financial Proposal is solely for the benefit of the Department and not for the benefit of the Design-Build-Finance Firm, any entity related thereto, the public or any member thereof, nor create any third party rights. A claim for damages may not be maintained against the Department based on or arising out of the Department's review of the Financial Proposal. The Department's evaluation of each Financial Proposal will be on a pass/fail basis. Analysis of the Design-Build-Finance Firm's Financial Proposal by the Department will include, but not be limited to, the following:

- a. Review of the Design-Build-Finance Firm's Project Financial Plan to determine if the Plan includes all financial elements to finance the project as proposed.
- b. Review and determine if the Design-Build-Finance Firm's Project Financial Plan demonstrates ability to meet the cash flow needs of the project consistent with the Department's Cash Availability Schedule.

- c. Review of the Financial Statements and Interim Financial Statements.
- d. Review of the Financial Institution Letters of Commitment or Credit.
- e. Review of the attestation by the Design-Build-Finance Firm's Chief Financial Officer as to accuracy and completeness of all financial information provided.
- f. Review of the financial relationships and responsibilities of Ownership and Organizational structure of all of the entities involved.
- g. Review of bonding company certification of contractor capacity for \$99,739,036 payment and performance bond.
- h. Review of any and all financial warranties, bonds, sureties, certifications and other commitments for the financial security of the project, as may be appropriate.

The Department reserves the right to request any additional information or pursue other actions required to meet its obligation to complete the financial due diligence.

#### **IV. DISADVANTAGED BUSINESS ENTERPRISE (DBE) PROGRAM**

##### **A. DBE Availability Goal Percentage:**

The Department of Transportation has an overall eight point six tenths percent (8.6%) race-neutral DBE goal. This means that the State's goal is to spend at least 8.6% of the highway dollars with Certified DBE's as prime Design/Build Firms or as subcontractors. Race-neutral means that the Department believes that the 8.6% overall goal can be achieved through the normal competitive procurement process. The Department has reviewed this project and assigned a DBE availability goal shown on the bid blank/contract front page under "% DBE Availability Goal". Although not a contract requirement, the Department believes that this DBE percentage can realistically be achieved on this project based on the number of DBE's associated with the different types of work that will be required.

Under 49 Code of Federal Regulations Part 26, if the 8.6% goal is not achieved, the Department may be required to return to a race-conscious program where goals are imposed on individual contracts. The Department encourages all of our Design/Build Firms to actively pursue obtaining bids and quotes from Certified DBE's.

##### **B. Anticipated DBE Participation Statement:**

The Department is reporting to the Federal Highway Administration the planned commitments to use DBE's. This information is being collected through the Anticipated DBE Participation Statement. This statement shall be submitted to the District Contract Compliance Manager/ Resident Compliance Officer who will then submit it electronically to the Equal Opportunity Office. Although these statements WILL NOT become a mandatory part of the contract, they will assist the Department in tracking and reporting planned or estimated DBE utilization.

##### **C. Equal Opportunity Reporting System:**

The Design/Build Firm is required to report monthly, through the Department's Equal Opportunity Reporting System on the Internet at, <http://www.dot.state.fl.us/equalopportunityoffice/> actual payments, minority status, and the work type of all subcontractors and suppliers. All DBE payments must be reported whether or not the prime initially planned to utilize the company. Each month the prime must report actual payments to all DBE and MBE subcontractors and suppliers. In order for the race neutral DBE Program to be successful, cooperation is imperative.

**D. DBE Supportive Services Providers:**

The Department has contracted with a consultant, referred to as DBE Supportive Services Provider, to provide managerial and technical assistance to DBE's. This consultant is also required to work with prime Design/Build Firms, who have been awarded contracts, to assist in identifying DBE's that are available to participate on the project. The successful Design/Build Firm should meet with the DBE Supportive Services Provider to discuss the DBE's that are available to work on this project. The current Provider for the State of Florida is serviced by Blackmon Roberts Group and can be reached at (863) 802-1280 in Lakeland or (305) 777-0231 in Coral Gables.

**E. DBE Affirmative Action Plan:**

A DBE Affirmative Action Plan must be approved and on file with the Equal Opportunity Office prior to award of the contract for each prime Design/Build Firm. Update and resubmit the plan every three years. No Contract will be awarded until the Department approves the plan. The DBE Affirmative Action Plan must be on your company's letterhead, signed by a company official, dated and contain all elements of an effective DBE Affirmative Action Plan. These Plans should be mailed to:

Florida Department of Transportation  
Equal Opportunity Office  
605 Suwannee Street, MS 65  
Tallahassee, FL 32399-0450

Questions concerning the DBE Affirmative Action Plan may be directed to the Equal Opportunity Office by calling (850) 414-4747.

**F. Bidders Opportunity List:**

The Federal DBE Program requires States to maintain a database of all firms that are participating, or attempting to participate, on DOT-assisted contracts. The list must include all firms that bid on prime contracts or bid or quote subcontracts on DOT-assisted projects, including both DBE's and Non-DBE's.

On the Bidders Opportunity Form if the answers to numbers 2, 3, 4, or 5 are not known, leave them blank and the Department will complete the information. This information should be returned with the bid package or proposal package or submitted to the Equal Opportunity Office within three days of submission. It can be mailed to the Equal Opportunity Office or faxed to (850) 414-4879.

**V. PROJECT REQUIREMENTS AND PROVISIONS FOR WORK**

**A. Governing Regulations:**

The services performed by the Design/Build Firm shall be in compliance with all applicable 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 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 with the exception of the Standard Specifications for Road and Bridge Construction (Divisions II & III), Special Provisions and Supplemental Specifications, Manual on

Uniform Traffic Control Devices (MUTCD), Design Standards and Design Standards Modifications. The Design/Build Firm shall use the edition of the Standard Specifications for Road and Bridge Construction (Divisions II & III), Special Provisions and Supplemental Specifications, Design Standards and Design Standard Modifications that is in effect at the time the bid price proposals are due in the District Office. The Design/Build Firm shall use the 2009 edition of the MUTCD. It shall be the Design/Build Firm's responsibility to acquire and utilize the necessary manuals and guidelines that apply to the work required to complete this project. 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 Roadway Plans Preparation Manuals (PPM)  
<http://www.dot.state.fl.us/rddesign/PPMManual/PPM.shtm>
2. Florida Department of Transportation Design Standards  
<http://www.dot.state.fl.us/rddesign/DesignStandards/Standards.shtm>
3. Florida Department of Transportation Standard Specifications for Road and Bridge Construction (Divisions II & III), Special Provisions and Supplemental Specifications  
<http://www.dot.state.fl.us/specificationoffice/Default.shtm>
4. Florida Department of Transportation Surveying Procedure  
<http://www2.dot.state.fl.us/proceduraldocuments/procedures/bin/550030101.pdf>
5. Florida Department of Transportation EFB User Handbook (Electronic Field Book)  
<http://www.dot.state.fl.us/surveyingandmapping/regulations.shtm>
6. Florida Department of Transportation Drainage Manual  
<http://www.dot.state.fl.us/rddesign/dr/Manualsandhandbooks.shtm>
7. Florida Department of Transportation Soils and Foundations Handbook  
<http://www.dot.state.fl.us/structures/Manuals/SFH.pdf>
8. Florida Department of Transportation Structures Manual  
<http://www.dot.state.fl.us/structures/manlib.shtm>
9. Florida Department of Transportation Current Structures Design Bulletins  
<http://www.dot.state.fl.us/structures/Memos/currentbulletins.shtm>
10. Florida Department of Transportation Computer Aided Design and Drafting (CADD) Production Criteria Handbook  
<http://www.dot.state.fl.us/ecso/downloads/publications/CriteriaHandBook/>
11. Florida Department of Transportation Production Criteria Handbook CADD Structures Standards  
<http://www.dot.state.fl.us/ecso/downloads/publications/CriteriaHandBook/>
12. Instructions for Design Standards  
<http://www.dot.state.fl.us/structures/IDS/IDSportal.pdf>
13. AASHTO – A Policy on Geometric Design of Highways and Streets  
[https://bookstore.transportation.org/item\\_details.aspx?ID=110](https://bookstore.transportation.org/item_details.aspx?ID=110)
14. MUTCD - 2009  
<http://mutcd.fhwa.dot.gov/>
15. Safe Mobility For Life Program Policy Statement  
<http://www2.dot.state.fl.us/proceduraldocuments/procedures/bin/000750001.pdf>

16. Traffic Engineering and Operations Safe Mobility for Life Program  
<http://www.dot.state.fl.us/trafficoperations/Operations/SafetyisGolden.shtm>
17. Florida Department of Transportation American with Disabilities Act (ADA) Compliance – Facilities Access for Persons with Disabilities Procedure  
<http://www2.dot.state.fl.us/proceduraldocuments/procedures/bin/625020015.pdf>
18. Florida Department of Transportation Florida Sampling and Testing Methods  
<http://www.dot.state.fl.us/statematerialsoffice/administration/resources/library/publications/fstm/disclaimer.shtm>
19. Florida Department of Transportation Flexible Pavement Coring and Evaluation Procedure  
<http://www.dot.state.fl.us/statematerialsoffice/administration/resources/library/publications/materialsmanual/documents/v1-section32-clean.pdf>
20. Florida Department of Transportation Design Bulletins and Update Memos  
<http://www.dot.state.fl.us/rddesign/updates/files/updates.shtm>
21. Florida Department of Transportation Utility Accommodation Manual  
<http://www.dot.state.fl.us/rddesign/utilities/UAM.shtm>
22. AASHTO LRFD Bridge Design Specifications  
[https://bookstore.transportation.org/category\\_item.aspx?id=BR](https://bookstore.transportation.org/category_item.aspx?id=BR)
23. Florida Department of Transportation Flexible Pavement Design Manual  
<http://www.dot.state.fl.us/pavementmanagement/PUBLICATIONS.shtm>
24. Florida Department of Transportation Rigid Pavement Design Manual  
<http://www.dot.state.fl.us/pavementmanagement/PUBLICATIONS.shtm>
25. Florida Department of Transportation Pavement Type Selection Manual  
<http://www.dot.state.fl.us/pavementmanagement/PUBLICATIONS.shtm>
26. Florida Department of Transportation Right of Way Manual  
<http://www.dot.state.fl.us/rightofway/Documents.shtm>
27. Florida Department of Transportation Intelligent Transportation System Guide Book  
[http://www.dot.state.fl.us/TrafficOperations/Doc\\_Library/Doc\\_Library.shtm](http://www.dot.state.fl.us/TrafficOperations/Doc_Library/Doc_Library.shtm)
28. Federal Highway Administration Checklist and Guidelines for Review of Geotechnical Reports and Preliminary Plans and Specifications  
<http://www.fhwa.dot.gov/engineering/geotech/pubs/reviewguide/checklist.cfm>
29. Florida Department of Transportation Bicycle and Pedestrian Policies and Standards  
[http://www.dot.state.fl.us/safety/ped\\_bike/ped\\_bike\\_standards.shtm](http://www.dot.state.fl.us/safety/ped_bike/ped_bike_standards.shtm)
30. Federal Highway Administration Hydraulic Engineering Circular Number 18 (HEC 18).  
[http://www.fhwa.dot.gov/engineering/hydraulics/library\\_arc.cfm?pub\\_number=17](http://www.fhwa.dot.gov/engineering/hydraulics/library_arc.cfm?pub_number=17)
31. Florida Department of Transportation Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways  
<http://www.dot.state.fl.us/rddesign/FloridaGreenbook/FGB.shtm>
32. Florida Statutes  
<http://www.leg.state.fl.us/Statutes/index.cfm?Mode=View%20Statutes&SubMenu=1&Tab=statutes&CFID=14677574&CFTOKEN=80981948>

**B. Innovative Aspects:**

All innovative aspects shall be identified separately as such in the Technical Proposal.

An innovative aspect does not include revisions to specifications, standards or established Department policies. Innovation should be limited to Design/Build Firm's means and methods, roadway alignments, approach to project, etc.

## **Alternative Technical Concepts Reviews**

### **1. Alternative Technical Concept (ATC) Proposals**

The ATC process allows innovation, flexibility, time and cost savings on the design and construction of Design/Build projects. ATC's allow the Department to obtain the best value for the public. ATC meeting(s) may be held (maximum of two meetings per Design/Build Firm), in order for the Design/Build Firm to propose changes to supplied basic configurations, project scope, design criteria, or construction criteria. The proposed changes shall provide a solution that is equal or better than what is required by the Request for Proposal (RFP) as determined by the Department. A concept is not an ATC if it reduces quality, performance, reliability or scope or if the proposed concept is contemplated or not specifically prohibited by the RFP.

The purpose of this meeting is to discuss the proposed changes, answer questions and other relevant issues. Each Design/Build Firm with proposed changes may request a meeting to describe the proposed changes. The meeting should be between representatives of the Design/Build Firm and/or the Design/Build Engineer of Record and District/Central Office staff as needed to provide feedback on the ATC. The meeting should take place prior to the ATC due date noted in the RFP.

### **2. Submittal and Review of ATC'S**

After the meeting, the District Design Engineer (DDE) will communicate with the appropriate staff (i.e. District Structures Engineer, District Construction Engineer, District Maintenance Engineer, State Structures Engineer, State Roadway Design Engineer, FHWA, as applicable) as necessary, and respond to the Design/Build Firm in writing as to whether the ATC is acceptable, not acceptable, needs additional information or does not qualify as an ATC within two weeks of the ATC meeting. If the DDE or his designee determines that more information is required for the review of an ATC, questions should be prepared by the DDE or his designee to request and receive responses from the Design/Build Firm. The review should be completed within two weeks of the receipt of the ATC. If the review will require additional time, the Design/Build Firm should be notified in advance with an estimated timeframe for completion.

If the ATC will result in changes to design standards or criteria, the changes will need to be approved in accordance with the Department's procedures prior to responding to the Design/Build Firm.

The project file will clearly document all communications with any Design/Build Firm.

ATC's are accepted by the Department at its discretion and the Department reserves the right to reject any ATC submitted.

### **3. Contents of ATC Submittal**

All ATC submittals shall be sequential numbered and include the following information and discussions:

- a) Description: A description and conceptual drawings of the configuration of the ATC or other appropriate descriptive information, including, if appropriate, product details and a traffic operational analysis;
- b) Usage: The locations where and an explanation of how the ATC would be used on the project;
- c) Deviations: References to requirements of the RFP which are inconsistent with the proposed ATC, an explanation of the nature of the deviations from the requirements and a request for approval of such deviations or a determination that the ATC is consistent with the requirements of the RFP;
- d) Analysis: An analysis justifying use of the ATC and why the deviation, if any, from the requirements of the RFP should be allowed;
- e) Impacts: A preliminary analysis of potential impacts on vehicular traffic (both during and after construction), environmental impacts, community impacts, safety, and life-cycle Project and infrastructure costs, including impacts on the cost of repair, maintenance, and operation;
- f) Risks: A description of added risks to the Department or third parties associated with implementation of the ATC;
- g) Quality: A description of how the ATC is equal or better in quality and performance than the requirements of the RFP; and
- h) Operations: Any changes in operation requirements associated with the ATC, including ease of operations;
- i) Maintenance: Any changes in maintenance requirements associated with the ATC, including ease of maintenance;
- j) Anticipated Life: Any changes in the anticipated life of the item comprising the ATC;

After the ATC meetings, the Contracting Unit, along with the Project Manager, will update the RFP criteria or issue an Addendum, if the ATC deviates from the RFP and is approved by the Department (**FHWA must approve such change as applicable**). Approved Design Exceptions or Design Variances will require an update to the RFP.

The Department reserves the right to disclose to all Design/Build Firms any issues raised during the ATC meetings, except to the extent that FDOT determines, in its sole discretion, such disclosure would reveal confidential or proprietary information of the ATC.

#### 4. Incorporation into Proposal

The Design/Build Firm will have the option to include any ATC's to which it received approval in their proposal and the Proposal Price should reflect any incorporated ATC's.

By submitting a Proposal, the Design/Build Firm agrees, if it is not selected, to disclosure of its work product to the successful Design/Build Firm, only after receipt of the designated stipend or after award of the contract whichever occurs first.

## **C. Geotechnical Services:**

### **1. General Conditions:**

The Design/Build Firm shall submit qualification statements for the geotechnical and non-destructive testing firms to be used on the project for approval by the District Geotechnical Engineer at least 30 calendar days before beginning the design. Acceptance of the contractor's personnel does not relieve the Design/Build Firm of the responsibility for obtaining the required results in the completed work.

The Design/Build Firm will be responsible for identifying and performing any geotechnical investigation, analysis, and design dictated by the project needs. All geotechnical work necessary shall be performed in accordance with the governing regulations.

The Design/Build Firm shall provide the Department signed and sealed design and construction reports. The reports shall be a record set of all geotechnical information, including relevant support data.

### **2. Pile Foundations**

The Design/Build Firm shall provide Geotechnical Consultant Services in accordance with the Department standards, policies and procedures to perform geotechnical design, foundation construction services and dynamic testing. In addition to the standard policies, the following qualifications are required:

- Production pile lengths and driving criteria shall be developed by the same engineering firm performing the dynamic pile testing under the direct supervision of a Registered Professional Engineer in the State of Florida. Dynamic testing equipment operators must have at least a Basic Pile Driving Analyzer (PDA) certification in the Foundation QC High-Strain Dynamic Pile Testing (HSDPT) Examination and experience testing on at least 5 Department bridges including at least two Structures Design Category 2 bridge projects. The experience may be obtained while working under the supervision of another qualified operator. The Professional Engineer in responsible charge must have at least an Advanced PDA certification in the Foundation QC High-Strain Dynamic Pile Testing (HSDPT) examination and have been in responsible charge of the geotechnical foundation construction engineering and dynamic testing work on at least 5 Department bridge projects, including Department Structures Design Category 2 bridge projects, having driven pile foundations. This "responsible charge" experience shall include verifiable and successful experience using the test methods that will be utilized on the project such as static, Osterberg Cell and/or Statnamic load tests, collection and analyses of Embedded Data Collectors (EDC), dynamic load testing with signal matching, and/or WEAP computer analysis. Production pile lengths and driving criteria shall be authorized in a letter signed and sealed jointly by the Engineer responsible for the dynamic testing and the Geotechnical Foundation Design Engineer of Record.
- When EDCs will be used to monitor piles and/or test piles, EDC monitoring shall be performed by an Operator who has completed the SmartPile EDC training course administered by Applied Foundation Testing (AFT). The Operator shall work under the supervision of a State of Florida Registered Professional Engineer. This Engineer must have been in responsible charge of the geotechnical foundation construction engineering and dynamic testing work on at least 5 Department bridge projects, including Structures Design Category 2 bridge projects having driven pile foundations. This "responsible

charge” experience shall include verifiable and successful dynamic pile load testing and WEAP computer program experience.

- When a dynamic monitoring system utilizing externally attached gauges will be used to monitor piles and/or test piles, the monitoring shall be performed by an Operator experienced and proficient with the equipment. The Operator shall work under the supervision of a State of Florida Registered Professional Engineer. This Engineer must have been in responsible charge of the geotechnical foundation construction engineering and dynamic testing work on at least 5 Department bridge projects, including Structures Design Category 2 bridge projects having driven pile foundations. This “responsible charge” experience shall include verifiable and successful dynamic pile load testing with signal matching, and WEAP computer program experience.
- The pile foundation installation shall be supervised and certified by the Geotechnical Foundation Design Engineer of Record. These services shall include providing CTQP-certified Pile Driving Technicians in the numbers necessary to comply with Department specifications for recording pile driving records. Provide pile-driving logs to Department within 24 hours of completing the driving of each pile. The Geotechnical Foundation Design Engineer of Record shall be responsible for addressing any foundation installation problems with the assistance and concurrence of the Engineer responsible for the dynamic testing.

### **3. Drilled Shaft Foundations for Bridges and Major Structures**

The Design-Build Firm is responsible for identifying and performing all geotechnical investigation, analysis, and design required for the project in accordance with FDOT guidelines, procedures, and specifications. The Design-Build Firm shall employ geotechnical and drilled shaft testing consultants with the following minimum qualifications:

- Use professional engineers registered in the State of Florida with at least 3 years of post-registration experience in drilled shaft foundation design and construction. The Geotechnical Foundation Design Engineer of Record must have designed and worked on at least three (3) FDOT bridge projects, including at least one (1) FDOT Structures Design Category 2 bridge project with drilled shaft foundations. This “responsible charge” experience shall include verifiable and successful implementation of static, Osterberg Cell and/or Statnamic load test results, and evaluation of pilot hole data. All designs must be signed and sealed by the Geotechnical Foundation Design Engineer of Record.
- The drilled shaft installation shall be supervised and certified by the Geotechnical Foundation Design Engineer of Record. These services shall include providing CTQP-qualified Drilled Shaft Inspectors in the numbers necessary to comply with Department specifications for recording drilled shaft construction records. Provide drilled shaft construction logs to FDOT within 24 hours of completing the shaft.
- Use drilled shaft superintendents in responsible charge of drilling operations experienced in drilled shaft installation and testing in the State of Florida. This “responsible charge” experience shall include at least three (3) FDOT bridge projects, including at least one (1) FDOT Structures Design Category 2 bridge project with drilled shaft foundations.

The Design-Build Firm shall submit qualification statements for the geotechnical and non-destructive testing firms to be used on the project for approval by the District Geotechnical Engineer at least 30 calendar days before beginning the design. Acceptance of the Design-Build Firm's personnel does not relieve the Design-Build Firm of the responsibility for obtaining the required results in the completed work.

#### **4. Drilled Shaft Foundations for Miscellaneous Structures**

The Design-Build Firm is responsible for identifying and performing all geotechnical investigation, analysis, and design required for the project in accordance with FDOT guidelines, procedures, and specifications. The Design-Build Firm shall employ geotechnical and drilled shaft testing consultants with the following minimum qualifications:

- Use professional engineers registered in the State of Florida with at least 3 years of post-registration experience in drilled shaft foundation design and construction.
- The drilled shaft installation shall be supervised and certified by the Geotechnical Foundation Design Engineer of Record. These services shall include providing CTQP-qualified Drilled Shaft Inspectors in the numbers necessary to comply with Department specifications for recording drilled shaft construction records. Provide drilled shaft construction logs to FDOT within 24 hours of completing the shaft.

Use drilled shaft superintendents in responsible charge of drilling operations experienced in drilled shaft installation and testing in the State of Florida. This "responsible charge" experience shall include at least three (3) FDOT projects with drilled shaft foundations of similar size.

#### **5. Foundations for Sound Barriers**

The Design/Build Firm shall employ geotechnical and drilled shaft testing consultants with the following minimum qualifications:

- Use professional engineers registered in the State of Florida with experience in design and construction using the same type of sound barrier foundation. This Engineer must have been in responsible charge of the geotechnical foundation construction engineering work on at least two FDOT sound barrier projects. All designs must be signed and sealed by the Geotechnical Foundation Design Engineer of Record.
- The sound barrier foundation installation shall be supervised and certified by the Geotechnical Foundation Design Engineer of Record. These services shall include providing foundation installation inspectors in the numbers necessary to comply with Department specifications for recording spread footing and/or augercast pile construction records. Provide foundation installation logs to FDOT within 24 hours of concrete placement.
- Use augercast pile installation superintendents in responsible charge of drilling operations experienced in augercast pile installation and testing in the State of Florida. The superintendent's experience shall include at least three (3) projects with augercast pile foundations of similar size and length.

**D. Environmental Permits:**

**1. Storm Water and Surface Water:**

Plans shall be prepared in accordance with Chapter 62-25, Regulation of Storm water Discharge, Florida Administrative Code.

**2. Permits:**

All applicable data shall be prepared in accordance with Chapter 373 and 403, Florida Statutes, Chapters 40 and 62, Florida Administrative Code; Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act, 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. 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 will obtain permits while acting as an authorized representative for the "Department" for permitting purposes only. 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 is approved.

The Design/Build Firm will be required to pay all permit fees. Any fines levied by permitting agencies shall be the responsibility of the Design/Build Firm.

The Design/Build Firm shall be responsible for an assessment of all potential gopher tortoise habitat that could be impacted by the project. The habitat will be systematically surveyed according to the current guidelines published by the Florida Fish and Wildlife Conservation Commission (FWC). If gopher tortoise burrows are found, all practicable measures will be employed to avoid impacts. The Design/Build Firm shall be responsible for obtaining an FWC permit for the relocation of gopher tortoises and commensals from burrows which cannot be avoided, and relocation shall be performed at a time as close as practicable to the start of construction activities at the site of the burrows. If new burrows are found after relocation, their occupants will also be relocated. A copy of the permit and any subsequent reports to FWC must be provided to the District Environmental Management Office.

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.

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 Construction Engineer, the Department reserves unto the District Construction Engineer, in his 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 Construction 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 Construction Engineer under this provision.

**E. Railroad Coordination: N/A**

**F. Survey:**

The Design/Build Firm shall perform all surveying and mapping services necessary to complete the project. Survey services must also comply with all pertinent Florida Statutes and applicable rules in the Florida Administrative Code. All field survey data will be furnished to the District Surveyor 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 Procedure, Topic Nos. 550-030-101; Right-of-Way Mapping Procedure, Topic No. 550-030-015; Aerial Surveying Standards for Transportation Projects Procedure, Topic No. 550-020-002. This work must comply with the Minimum Technical Standards for Professional Surveyors and Mappers, Chapter 5J-17, Florida Administrative Code (F.A.C.), pursuant to Section 472.027, Florida Statutes (F.S.) and any special instructions from the Department. This survey also must comply with the Department of Environmental Protection Rule, Chapter 18-5, F.A.C. pursuant to Chapter 177, F.S., and the Department of Environmental Protection.

**G. Verification of Existing Conditions:**

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 the contract, 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 and that any information is being provided merely to assist the Design/Build Firm in completing adequate site investigations. Notwithstanding any other provision in the contract documents to the contrary, no additional compensation will be paid in the event of any inaccuracies in the preliminary information.

**H. Submittals:**

**1. Plans:**

Plans must meet the minimum contents of a particular phase submittal prior to submission for review. The particular phase of each submittal shall be clearly indicated on the cover sheet. Component submittals must be accompanied by sufficient information for adjoining components or areas of work to allow for proper evaluation of the component under review.

Submittals for Category I and II bridges are limited to the following component submittals: foundation, substructure, and superstructure. Bridge component submittals must be accompanied by all supplemental information required for a complete review. Submittals for individual component elements (i.e. Pier 2, Abutment 1, Span 4, etc.) and incomplete submittals will not be accepted.

Category I and II bridge component submittals shall contain the following:

- Plan sheets for the component under review developed to the specified level of detail (i.e. 90% plans, Final plans, etc.),
- 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.

- For Category II bridges component submittals shall also include independent peer review documentation.

The Design/Build Firm shall provide copies of required review documents as listed below.

### **90% Component Plans**

- 11 sets of 11" X 17" roadway plans
- 6 sets of 11" X 17" structure plans
- 6 sets of 11" X 17" each component set, except ITS plans
- 3 sets of 11" X 17" ITS plans
- 4 copies of Final Geotechnical Report
- 2 sets of documentation – roadway/drainage
- 2 set of documentation - structures
- 1 copy of Technical Special Provisions
- 2 Bridge Load Rating Reports, with 2 Load Rating Summary Forms (Excel Format) and
- 2 Load Rating Detail Tables (CADD)
- 2 sets of Independent Peer reviewer's comments and comment responses

### **Final Component Plans**

- 11 sets of 11" X 17" roadway plans
- 6 sets of 11" X 17" structure plans
- 8 sets of 11" X 17" each component set, except ITS plans
- 3 sets of 11" X 17" ITS plans
- 2 sets of final documentation
- 1 signed and sealed copy of Specifications Package
- 3 copies of the bridge load rating (if different that initial)
- 2 sets of electronic copies of Technical Special Provisions on CD

### **Construction Set:**

- 1 set of 11"X 17" copies of the signed and sealed plans for the Department to stamp "Released for construction".
- 2 sets of 11" x 17" roadway and component plans in Adobe Acrobat format (.pdf) on CD
- 1 As-Bid Bridge Load Rating Summary Form (Excel format), and 1 Detail Table (CADD), both signed and sealed. Provide full Report if rating revisions occur subsequent to the 90% Component Submittal

Final signed and sealed plans will be delivered to the Department's Design Project Manager a minimum of 5 working days prior to construction of that component. The Department's Project Manager will send a copy of a final signed and sealed plans to the appropriate office for review and stamping "Released for Construction". Only stamped signed and sealed plans are valid and all work that the Design/Build Firm performs in advance of the Department's release of Plans will be at the Design/Build Firm's risk.

### **Record Set:**

The Design/Build Firm shall furnish to the Department, upon project completion, the following:

- 1 set of 11" X 17" signed and sealed plans
- 1 As-Built Bridge Load Rating Summary Form (Excel format) based on as-built conditions, stating that the rating will function As-Built, signed and sealed. Provide full Report if rating adjustments occur subsequent to the 90% or Construction Set submittals
- 2 sets of final documentation (if different from final component submittal)
- 2 (two) Final Project CD's including CADD files and plans in Adobe Acrobat

The Design/Build Firm's Professional Engineer in responsible charge of the project's design shall professionally endorse (signed and sealed and certified) the record prints, the special provisions and all reference and support documents. The professional endorsement shall be performed in accordance with the Department Plans Preparation Manual.

The Design/Build Firm shall complete the record set as the project is being constructed. The record set becomes the as-builts at the end of the job and signed/sealed changes are by the EOR. The record set shall reflect all changes initiated by the Design/Build Firm or the Department in the form of revisions. The record set shall be submitted on a Final Project CD upon project completion. The CEI shall do a review of the record set prior to final acceptance in order to complete the record set.

The CEI shall certify the final plans as per Section 4.5.7 of Chapter 4 of the Preparation and Documentation Manual (TOPIC No. 700-050-010)

**2. Milestones:**

There are no milestone submittals identified for this project. .

**3. Railroad Coordination: N/A**

**I. Contract Duration:**

The Design/Build Firm shall establish the contract duration for the subject project. In no event shall the contract duration exceed **1100** calendar days for the base project. The optional length contract time shall not exceed **80 calendar days per mile**. The schedule supporting the proposed contract duration will be submitted with the Technical Proposal and should identify if the work activity durations are based on calendar days or working days. The Proposed Contract Time (PCT) reflected in the schedule may be amended in the bid proposal. The official PCT will be the one submitted with the Bid Price Proposal.

**J. Project Schedule:**

The Design/Build Firm shall submit a project schedule, in accordance with Subarticle 8-3.2 (Design/Build Division I Specifications), which supports the established contract duration submitted as part of the Proposal. The Design/Build Firm's schedule should allow for a fifteen (15) calendar day (excluding Holidays as defined in section 1-3 of the Specifications) review time for the Department's review of all design submittals with the exception of Category II structures. The review of Category II structures requires Central Office involvement and the schedule shall allow twenty (20) calendar days (excluding Holidays as defined in section 1-3 of the Specifications) for these reviews.

The minimum number of activities shall be those listed in the payout schedule and those listed below:

- Anticipated NTP Date

- Design Submittals
- Design Survey
- Design Reviews by the Department and FHWA
- Design Review / Acceptance Milestones
- Materials Quality Tracking
- Geotechnical Investigation
- Start of Construction
- Clearing and Grubbing
- Construction Mobilization
- Embankment/Excavation
- Environmental Permit Acquisition
- Foundation Design
- Foundation Construction
- Substructure Design
- Substructure Construction
- Superstructure Design
- Superstructure Construction
- Walls Design
- Walls Construction
- Roadway Design
- Roadway Construction
- Signing and Pavement Marking Design
- Signing and Pavement Marking Construction
- Intelligent Transportation System Design
- Intelligent Transportation System Construction
- Maintenance of Traffic Design
- Maintenance of Traffic Set-Up (per duration)
- Erosion Control
- Additional Construction Milestones as determined by the Design/Build Firm
- Final Completion Date for All Work

**K. Key Personnel/Staffing:**

The Design/Build Firm's work shall be performed and directed by key personnel identified in the technical proposal by the Design/Build Firm. Any changes in the indicated personnel shall be subject to review and approval by the Department's Project Manager. The Design/Build Firm shall have available a professional staff that meets the minimum training and experience set forth in Florida Statute Chapter 455.

**L. 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
- Permit agency coordination
- Local government agency coordination
- Scoping Meetings

During design, the Design/Build Firm shall meet with the Department's Project Manager on a regular basis and provide a look ahead of the upcoming activities.

During construction, the Design/Build Firm shall meet with the Department's Project Manager on a weekly basis and provide a one-week look ahead for activities to be performed during the coming week.

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 in a Department approved format.

**M. Public Involvement:**

**1. General:**

Public involvement is an important aspect of the project. Public involvement includes communicating to all interested persons, groups, and government organizations information regarding the development of the project. A Public Involvement Consultant (PIC) has been hired by the Department to carry out an exhaustive Public Involvement Campaign and a marketing effort. The Design/Build Firm will continue to be part of the Public Involvement effort but on a limited basis as described below.

**2. Community Awareness:**

The Design/Build Firm will review and comment on a Community Awareness Program provided by the PIC for the project.

**3. Public Meetings:**

The Design/Build Firm shall provide all support necessary for the PIC to hold various public meetings, which may include:

- Kick-off or introductory meeting
- Metropolitan Planning Organization (MPO) Citizens Advisory Committee Meetings
- MPO Transportation Technical Committee Meetings
- MPO Meetings
- Public Information Meetings
- Elected and appointed officials
- Special interest groups (private groups, homeowners associations, environmental groups, minority groups and individuals)

The Design/Build Firm shall include attendance at two meetings for the term of the contract to support the public involvement program.

For any of the above type meetings the Design/Build Firm shall provide all technical assistance, data and information necessary for the PIC to produce display boards, printed material, video graphics, computerized graphics, etc., and information necessary for the day-to-day exchange of information 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 workshops, information meetings, and public hearings.

The Design/Build Firm shall, on an as-needed basis, attend the meetings with an appropriate number of his personnel to assist the Department's Project Representative/PIC. The Design/Build Firm shall forward all requests for group meetings to the PIC. The Design/Build Firm shall inform the PIC 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 listed in No. 3 above.

All legal/display ads announcing workshops, information meetings, and public meetings will be prepared and paid for by the PIC.

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

5. **Public Involvement Data:**

The Design/Build Firm is responsible for the following:

- Coordinating with the Public Involvement Consultant.
- Identifying possible permit and review agencies and providing names and contact information for these agencies to the PIC.
- Providing required expertise (staff members) to assist the PIC on an as-needed basis.
- Preparing color graphic renderings and/or computer generated graphics to depict the proposed improvements for coordination with the Department, local governments, the Urban Design Guidelines Committee, and other agencies.

The collection of public input occurs throughout the life of the project and requires maintaining files, newspaper clippings, letters, and especially direct contacts before, during and after any of the public meetings. Articles such as those mentioned shall be provided to the PIC for their use and records.

In addition to collecting public input data, the Design/Build Firm may be asked by the PIC to prepare responses to any public inquiries as a result of the public involvement process. The Department shall review all responses prior to mailing.

N. **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, 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 are to 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 15 working days of the written Notice to Proceed. 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.

No fabrication, casting, or construction will occur until all related design review and shop drawing review comments are resolved.

**2. Construction:**

The Design/Build Firm shall be responsible for developing and maintaining a Construction Quality Control Plan 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 "Access Instruction for LIMS" for more information on how to gain access to the Department's databases: <http://www.dot.state.fl.us/statematerialsoffice/quality/programs/qualitycontrol/contractor.shtm>

Prepare and submit to the Engineer a Job Guide Schedule (JGS) using the Laboratory Information Management System (LIMS) in accordance with Section 105 of Standard Specifications.

The Department 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.

**O. Liaison Office:**

The Department and the Design/Build Firm will designate a Liaison Office and a Project Manager who shall be the representative of their respective organizations for the project.

**P. Engineers Field Office**

The Design/Build Firm will provide a 1500 square foot Engineers Field Office in accordance with Special Provision 109. If the Design/Build Firm sets up a field office, the Engineer's Field Office shall be co-located with the Design/Build Firm's office.

**Q. 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. The quantities will be compared with the project 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 assign the Schedule of Values to the activities in the CPM 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 the first Sunday of the month.

**Prompt Payment Law:**

Participants providing goods and services to the Department should be aware of the following time frames. The Department has 5 working days from the date the monthly progress estimate is created to inspect and approve the goods and services. The Department has 20 days to deliver a request for payment (voucher) to the Department of Financial Services. The 20 days are measured from the latter of the date the invoice is received or the goods or services are received, inspected and approved.

**Invoices will be reduced for amounts invoiced as earned but in excess of the amounts available per the Cash Availability Schedule(s) as outlined in Sections III. K.**

If a payment is not available within 40 days, a separate interest penalty at a rate as established pursuant to **Section 55.03(1), F.S.**, will be due and payable, in addition to the invoice amount, to the Design-Build Firm. Interest penalties of less than one (1) dollar will not be enforced unless the Design-Build Firm requests payment. Invoices that have to be returned to a Design-Build Firm because of Design-Build Firm preparation errors will result in a delay in payment. The invoice payment requirements do not start until a properly completed invoice is provided to the Department.

A Vendor Ombudsman has been established within the Department of Financial Services. The duties of this individual include acting as an advocate for contractors/vendors who may be experiencing problems in obtaining timely payment(s) from a state agency. The Vendor Ombudsman may be contacted at (850) 413-5516 or by calling the Department of Financial Services Division of Consumer Services, 1-877-693-5236.

**R. 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 of Transportation policies and procedures. Seed Files, Cell Libraries, User Commands, MDL Applications and related programs developed for roadway design and drafting are available for the MicroStation V8 format in the FDOT CADD Software Suite. However, it is the responsibility of the Design/Build Firm to obtain and utilize current Department releases of all CADD applications.

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 Intergraph / Micro station format, as described in the above referenced document.

The archived submittal shall also include either a TIMS database file, CADD Index file (generated from RDMENU) or documentation that shall contain the project history, file descriptions of all (and only) project files, reference file cross references, and plotting criteria a (e.g. batch, level symbology, view attributes, and display requirements). A printed directory of the archived submittal shall be included.

**S. Construction Engineering and Inspection:**

The Department is responsible for providing Construction Engineering and Inspection (CEI) and Quality Assurance Engineering.

The Design/Build Firm is subject to the Department's Independent Assurance (IA) Procedures.

**T. Testing:**

The Department or its representative will perform verification and resolution testing services in accordance with the latest Specifications. On all Federal Aid Projects, the Department or its representative shall perform verification sampling and testing on site as well as off site locations such as pre-stress plants, batch plants, structural steel and weld, fabrication plants, etc.

**U. Value Added:**

The Design/Build Firm may provide a Value Added Project Features, in accordance with Article 5-14 of the Specifications for the following features:

- Roadway features
- Roadway drainage systems,
- Approach slabs
- Superstructure
- Substructure
- Concrete defects
- Structural steel defects
- Post-tensioning systems
- And any other products or features the Design/Build Firm desires.

The Design/Build Firm shall develop the Value Added criteria, measurable standards, and remedial work plans in the Design/Build Firm's technical proposal features proposed by the Design/Build Firm.

The Design/Build Firm shall guarantee the performance of all structural components in accordance with Section 475, Value Added Bridge Component, included as an Attachment.

The Design/Build Firm shall guarantee the performance of all signal components in accordance with Section 645 and 611, Value Added Signal Installation, included as an Attachment.

**V. Adjoining Construction Projects:**

The Design/Build Firm shall be responsible for coordinating 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, or other regional and state agencies. There is an adjacent project to the south that is the widening of I-95.

**W. Use of Department Owned Right of Way**

Use of Department owned Right of Way by the Design-Build Firm for the purpose of equipment or material storage, lay-down facilities, pre-cast material fabrication sites, batch plants for the production of asphalt, concrete or other construction related materials, etc. shall require advance approval by the

Department. Use of Department owned Right of Way by the Design-Build Firm for these purposes is expressly limited to the project(s) referenced in this RFP.

**X. Design Issue Escalation:**

The Department has established the issue escalation process for design questions and conflict resolution that the Design/Build Firm shall follow unless revised by the Partnering agreement. All issues are to be directed to the Department Project Manager. If the issue cannot be resolved at this level the Department Project Manager shall forward the issue to the next level in the process. The escalation process begins with the District Design Engineer, followed by the Director of Transportation Operations, and finally to the District Secretary. Each level shall have a maximum of three working days to answer, resolve or address the issue. This three day window is a response time and does not infer resolution. Questions may be expressed verbally and followed up in writing. The Department Project Manager will respond in a timely manner but not to exceed three working days. The Design/Build Firm shall provide any available supporting documentation.

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

The District Secretary will have the final authority on design decisions.

**Y. Construction Clarification, Conflict Resolution, and Issue Escalation:**

In the event that construction problems occur, the resolution of those problems will be processed in one of the following two ways unless revised by a Partnering agreement:

- If the resolution does not change the original intent of the technical proposal/RFP, then the Design/Build Firm Engineer of Record (EOR) will be responsible for developing the design solution to the construction problem and the District Resident Engineer will be responsible for review and response within 10 working days. The District Resident Engineer will either concur with the proposed solution or, if the District Resident Engineer has concerns, the issue will be escalated as described in the process below.
- If the resolution does alter the original intent of the technical proposal/RFP then the EOR will develop the proposed solution, copy in the District Resident Engineer, and send it to the District Construction Office for review and response through the Department Project Manager. The District Construction Office will respond to the proposed solution within ten working days. The District Construction Office will either concur with the proposed solution or, if the District Resident Engineer has concerns, the issue will be escalated as described in the process below. Changes to the original intent of the technical proposal/RFP will require a contract change order and FHWA approval.
- The Department has established the issue escalation process for construction questions and conflict resolution that the Design/Build Firm shall follow unless revised by the Partnering agreement. All issues are to be directed to the Department Project Manager. If the issue cannot be resolved at this level the Department Project Manager shall forward the issue to the next level in the process. The escalation process begins with the District Construction Engineer, followed by the Director of Transportation Operations, and finally to the District

Secretary. Each level shall have a maximum of three working days to answer, resolve or address the issue. This three day window is a response time and does not infer resolution. Questions may be expressed verbally and followed up in writing. The Department Project Manager will respond in a timely manner but not to exceed three working days. The Design/Build Firm shall provide any available supporting documentation.

The Design/Build Firm shall provide a similar chain of command for his 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.**

## **VI. DESIGN AND CONSTRUCTION CRITERIA**

### **A. General:**

The Design/Build Firm shall be responsible for: detailed plan checking as outlined in the Plans Preparation Manual (PPM); as described in the RFP; and the Design and Construction criteria. This includes a checklist of the items listed in the PPM for each completed phase submittal. Bridge submittals may be broken into foundation, substructure, superstructure, approach spans and main channel spans. Roadway submittals may be broken down into grading, drainage, walls, ITS, signing & pavement marking, signalization, landscaping and final geometry components. The component design must be in conformity with the Design and Construction Criteria requirements, approved preliminary layout and concept as provided in the Technical Proposal.

Before construction activities can begin for a specific component, signed and sealed design plans and calculations supporting the design for that component must be reviewed by the Department. Component submittals shall be complete submittals along with all the supporting information necessary for review. The work must represent logical work activities and must show impacts on subsequent work on this project. Any modification to the component construction due to subsequent design changes as the result of design development is solely the Design/Build Firm's risk. Upon review by the Department, the plans will be stamped "Released for Construction" and initialed and dated by the reviewer. Any construction initiated by the Design/Build Firm prior to receiving signed and sealed plans stamped "Released for Construction" shall be at the sole risk of the Design/Build Firm.

Prior to submittal to the Department, all Category II bridge plans shall have a peer review analysis in accordance with PPM Volume 1 Chapter 26.

All design and construction documents shall be prepared using the English system.

Concept Plans are being provided to Proposers together with this RFP. These concept plans provide the Design/Build Firm with a depiction of one approach that is generally consistent with the Department's intent for this project; however, the Department makes no representation, guarantee, or warranty of any nature whatsoever that these concept plans comply with the requirements of this RFP or any other requirements. In addition, nothing in the concept plans shall be construed as a representation of any field condition or of any state of facts upon which a design can be based or the project constructed without proper factual investigation and the proper application of independent engineering judgment. The Design/Build Firm shall be fully and independently responsible for the design and construction of the project in accordance with the applicable requirements regardless of the content of the concept plans. The

concept plans are provided for general information only and do not form a part of the design criteria or any other document that is connected or related to this project. Any reference on the concept plans to specific bid item numbers, pay items or other payment options are incidental to the information provided and are not applicable to this lump sum project.

## B. Geotechnical Services

### Driven Pile Foundations for Bridges and Major Structures

The Design/Build Firm shall perform a subsurface investigation, analysis and design for all aspects of the project in accordance with Department standards, policies and procedures. Existing subsurface information may be used. Supplemental subsurface investigation and testing will be required to ensure all aspects of the project are covered.

The Design/Build Firm shall determine whether the resistance factors used for pile design will be based on load testing. Before the resistance factors for load testing may be used for pile foundations in any of the following areas of the project, a minimum of two (2) successful load tests must be performed in representative locations of that area:

Financial Project ID 406869-3-52-01 Bridge Nos. 700059, 700134, and 700230:  
Minimum Tip Elevations shall meet minimum penetration requirements per Section 455-5.8.

Financial Project ID 406869-5-52-01  
Bridge Nos. 700066, 700138: Do not tip deep  
Foundations above Elevation -10 ft {NAVD88}

Bridges Nos. 700102, 700156: Do not tip deep  
Foundations above Elevation + 0 ft {NAVD88}

Production Piles driven to less than the Nominal Bearing Resistance and accepted based on a set check performed more than 72 hours after initial drive, calculate the Nominal Bearing Resistance using the appropriate Resistance Factor from the table below titled "Resistance Factors for Pile Installation Using Soil Setup (all structures)".

On the other hand, Production Piles that are driven to less than the Nominal Bearing Resistance may be accepted based on the anticipated soil setup (without set-checks on every pile) if and only if the following criteria are met:

1. Pile tip is deeper than the Minimum Penetration Elevation stated in this RFP.
2. EOID resistance exceeds 1.10 times the Factored Design Load for the pile bent/pier.
3. The Resistance Factor for computing Nominal Bearing Resistance is taken from the following table:

Resistance Factors for Pile Installation Using Soil Setup (all structures)			
Loading	Design Method	Construction QC Method	Resistance Factor, $\phi$
Compression	Davisson	PDA and CAPWAP <sup>1</sup>	0.55

		Static Load Testing <sup>2</sup>	0.65
		Statnamic Load Testing <sup>2</sup>	0.60
Uplift	Skin Friction	PDA and CAPWAP <sup>1</sup>	0.45
		Static Load Testing <sup>2</sup>	0.55
<sup>1</sup> Dynamic Load Testing and Signal Matching Analysis			
<sup>2</sup> Used to confirm the results of Dynamic Load Testing and Signal Matching Analysis			

4. At least one test pile is driven at each bent and one of the following sets of dynamic load testing conditions are met:
  - a. At least 10% of piles in bent/pier (round up to the next whole number), are instrumented, and all test piles & instrumented drives demonstrate pile resistance exceeds the Nominal Bearing Resistance within 7 days.
  - b. At least 20% of piles in bent/pier (round up to the next whole number), are instrumented, and all test piles & instrumented drives demonstrate pile resistance exceeds the Nominal Bearing Resistance within 21 days.

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

1. Selection of pile type.
2. Selection of test pile lengths and locations.
3. Selection of the hammer driving system(s).
4. Handling and driving piles without damage.
5. Performance of the test pile program, including dynamic load test personnel and equipment. All Concrete Test Piles shall be dynamically load tested using the Pile Driving Analyzer (PDA) and/or Embedded Data Collectors (EDC). The Department may observe the installation of test piles and all pile testing.
6. Selection of production pile lengths.
7. Selection of one of the following Production Pile acceptance options and notifying the Department of the selection before driving Test Piles:
  - i. Standard pile driving criteria with PDA test pile(s), CAPWAP, and Wave Equation Analysis in accordance with specifications.
  - ii. Standard Pile Driving Criteria with 100% PDA instrumented set checks at the end of drive.
  - iii. 100% EDC monitoring based of Test Piles and Production Piles.
  - iv. 100% full drive monitoring by PDA.
8. Development of a Foundation Plan (FP) for the Installation of Piles.
9. Upon completion of the test pile program, selection of the production pile lengths and driving criteria development, the Department shall be given one copy of the dynamic testing data, EDC data, engineering analysis and Production Pile acceptance criteria. At least five calendar days prior to beginning production pile driving, submit the authorized pile lengths, authorized driving criteria, including

EDC damping values, dynamic testing data and engineering analyses to the Department. Include the following electronic files (on Windows compatible 5-1/4 inch CD ROM or DVD) in the driving criteria submittal: PDA data, CAPWAP data and results, and Wave Equation data and results.

10. Driving piles to the required capacity and minimum penetration depth.
11. Recording the pile driving information, keeping a pile-driving log for each pile driven performing dynamic load tests on production piles when required, and submitting results of all dynamic load testing performed to verify bearing has been achieved in accordance with the Specifications.
12. When EDC is selected as the dynamic testing method, installing and monitoring all EDCs.
13. Submitting the Foundation Certification Packages: Submit two copies of a certification of pile foundations signed and sealed by the Geotechnical Foundation Design Engineer of Record to the Department within 1 week of finishing each foundation unit and prior to Pile Verification Testing. The Foundation Certification shall cover axial capacity, lateral stability, pile integrity, and foundation settlement. A foundation unit is defined as all the piles within one bent or pier for a specific bridge. Each Foundation Certification Package shall contain an original signed and sealed certification letter, and clearly legible copies of all pile driving logs, EDC records, all supplemental dynamic testing data and analyses for the foundation unit. The certification shall not be contingent on any future testing or approval by Department.
14. Within two working days of receipt of the Foundation Certification Package, the Department will examine the certification package and determine whether piles in that foundation unit will be selected for dynamic testing. For bridge widening, the Department may select a maximum of 10% (minimum of two (2) per bridge) of the total number of piles (rounded up to the nearest whole number) for dynamic load testing. For new bridges, the Department may select a maximum of 10% (minimum 1 per foundation unit) of the production piles (rounded up to the nearest whole number) for dynamic load testing.
15. In the event a foundation unit has more than one design pile load, the Department may select and test one pile for each loading case (these additional tests are not considered part of the 10% maximum).
16. For piles selected by the Department for verification testing, the Department shall provide the dynamic load test equipment and personnel for the Pile Verification Testing. The Design/Build Firm shall provide the driving equipment and pile driving crew(s) for the Pile Verification Testing and provide support as needed to prepare the piles for testing. The Department shall determine whether Verification Testing shall be accomplished by dynamic load testing during set check, over the shoulder review of the pile driving operation and/or other means acceptable to both the Design/Build Firm and the Department.
17. If the capacity or integrity of any pile is found to be deficient, the Design/Build Firm shall correct the deficiency (i.e. re-drive or replace) and/or modify the

design to compensate for the deficient pile capacity. After the Design/Build Firm corrects the deficiency, the pile shall be retested. If the capacity or integrity of a verification pile is found to be deficient, an additional pile (not considered part of the 10% maximum) shall be verified by dynamic testing. This process shall continue until no more pile capacity or integrity deficiencies are detected and all previous deficiencies have been corrected and retested or the design is modified accordingly. Piles shall not be cut-off nor bent/pier caps placed prior to successful completion of the Pile Verification Testing Program for that foundation unit. In case of disagreement of PDA test results, the Department's results will be final and will be used for acceptance.

After the Pile Verification Testing for a foundation unit is performed, the Department will provide the results and, as necessary, provide requirements for additional verification testing within two working days.

The Design/Build Firm shall develop a FP for the installation of piles. Submit the proposed FP to the District Geotechnical Engineer for approval. The FP is intended to establish process control standards and quality assurance for the installation of piles. The Design/Build Firm shall establish a FP to ensure: (1) the operation of the pile driving system(s) during production pile driving compares to the pile driving system(s) during the test pile program, (2) the proper operation and maintenance of the driving system, (3) the replacement of hammer/pile cushions to comply with the Specifications, and (4) a dynamic monitoring program is established for production piles at a pre-determined frequency and after re-working/modifying the pile driving system.

The FP will be used to govern all piling installation. In the event that deviations from the FP are observed, the Department may perform Independent Verification Testing/Review of the Design/Build Firm's equipment, procedures, personnel and pile installation FP at any time during production pile driving. If dynamic testing is performed by the Department, the Department will provide the results within two working days. If, as determined by the Department, pile driving equipment, procedures and/or personnel for the FP is deemed inadequate to consistently provide undamaged driven piling meeting the contract requirements, the Design/Build Firm's FP approval may be withdrawn pending corrective actions. Production driving shall then cease and not restart until corrective actions have been taken and the FP re-approved.

### **Drilled Shaft Foundations for Bridges and Major Structures**

The Design-Build Firm shall perform a subsurface investigation, analysis and design for all aspects of the project in accordance with FDOT standards, policies and procedures. Existing subsurface information may be used. Supplemental subsurface investigation and testing will be required to ensure all aspects of the project are covered. The Department reserves the right to observe and perform verification testing on any drilled shafts during any phases of the foundation operation.

The Design/Build Firm shall determine whether the resistance factors used for drilled shaft design will be based on load testing. Before the resistance factors for load testing may be used for drilled shafts in any of the following areas of the project, successful load tests must be performed in representative locations of that area:

Before the resistance factors for load testing may be used for drilled shafts in any of the following areas of the project, a minimum of two (2) tests shall be performed at locations approved by the District Geotechnical Engineer.

The Design-Build Firm shall develop a Foundation Plan (FP) for drilled shaft construction. Submit the proposed FP to the CEI Geotechnical Engineer for review and recommendation to the District Geotechnical Engineer for approval. The FP is intended to establish process control standards and quality assurance for drilled shaft construction. Include in the FP the items required in Specification 455-15.1.2 (Drilled Shaft Installation Plan), the equipment and procedures for visual inspection of drilled shaft excavations, and any additional methods to identify and remediate drilled shaft deficiencies. If the FP is updated based on the construction of the test shaft(s), or other changes in circumstances, the update will not be in effect until approved by the CEI Geotechnical Engineer.

The FP will be used to govern all drilled shaft construction activities. In the event that deviations from the FP are observed, the CEI Geotechnical Engineer CEI Geotechnical Engineer may perform Independent Verification Testing/Review of the Design-Build Firm's equipment, procedures, personnel and drilled shaft construction FP at any time during production drilled shaft construction. If, as determined by the CEI Geotechnical Engineer, drilled shaft construction equipment, procedures and/or personnel for the FP is deemed inadequate to consistently provide drilled shafts meeting the contract requirements, the Design-Build Firm's FP approval may be withdrawn pending corrective actions. All drilled shaft construction activities shall then cease and not restart until corrective actions have been taken and the FP has been re-approved.

The FDOT reserves the right to observe and perform verification testing on any drilled shafts during any phases of the foundation operation.

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

- Evaluating geotechnical conditions and designing the foundations including the drilled shaft diameter and length, and construction methods to be used.
- Completing the subsurface investigation and drilling pilot holes prior to establishing the drilled shaft tip elevations and socket requirements.
- Determining the location of the test shaft(s) and the types of tests that will be performed on the test shaft(s).
- Providing test hole pilot boring results to the District Geotechnical Engineer at least 48 hours before beginning test shaft construction.
- Constructing the method shaft (test hole) successfully and conducting integrity tests on the shaft using both crosshole sonic logging and gamma-gamma density logging test methods. More than one test hole will be required when there are shafts both on land and in water. When there is more than one size of drilled shaft, perform a test hole for the largest diameter for each condition (land and water).
- Providing all personnel and equipment to perform a load test program on the test shaft(s). The frequency of static tests, Osterberg Cell tests or Statnamic tests will be dictated by the variability of the geology and the size of the project. Provide sufficient instrumentation to determine side friction components in segments not longer than five ft and the end bearing component. Provide a caliper tool or system to measure accurately and continuously the actual shape of test shafts prior to placing concrete.

- Determining the production shaft lengths. Production shaft lengths may be based on the load transfer characteristics measured during the load test. End bearing characteristics may be based on load test results if the properties of the material below the tips of the production shafts meet or exceed the strength of the materials below the tip of the test shaft. If the theoretical bearing strength of the material below the tips of the production shafts is less than the theoretical bearing strength of the materials below the tip of the test shaft, the production shafts shall be extended to meet design capacity by side shear only, unless the end bearing resistance of the weaker material is verified by additional load testing.
- Documenting and providing a report that includes all test shaft data, analysis, and recommendations to the District Geotechnical Engineer. The report should include but not be limited to the following: results of the load testing program, crosshole sonic logging, gamma-gamma density logging, pilot borings for all drilled shafts, and recommended production drilled shaft tip elevations and socket requirements. This report shall be signed and sealed by a Florida licensed Professional Engineer and shall be submitted to the District Geotechnical Engineer for review and approval at least five working days prior to beginning production shaft construction. Additional data or analysis may be required by the Engineer.
- Constructing all drilled shafts to the required tip elevation and socket requirements.
- Verifying level and clean hole bottom conditions and properties of the drilling fluid at the time of concrete placement.
- Furnishing and using an underwater television camera or any other approved Shaft Inspection Device to continuously videotape the inspection of each excavation for a drilled shaft bridge foundation after final cleaning. By audio or other means, recordings shall clearly identify the location and items being observed.
- Documenting and submitting the drilled shaft excavation and concreting logs to the District Geotechnical Engineer within 24 hours of concrete placement. The documentations shall include the drilled shaft installation procedures and sequencing as well as any problems encountered during construction and concrete placement.
- Allow three working days for the District Geotechnical Engineer to review the data before any further construction on the tested shafts.
- Performing Cross-Hole Sonic Logging (CSL) tests on all nonredundant drilled shafts supporting bridges. For redundant drilled shaft bridge foundations and drilled shaft foundations for miscellaneous structures, perform CSL on at least 30% of the shafts (rounded up to the next whole number) on shafts selected by the Department.
- Repairing all detected defects and conducting post repair integrity testing using 3D tomographic imaging and gamma-gamma density logging. Submitting all results to the District Geotechnical Engineer within five days of test completion.
- Submitting the Foundation Certification Packages.

- Each Foundation Certification Package shall contain an original signed and sealed letter certifying capacity and integrity of all drilled shafts, and clearly legible copies of all shaft excavation and concreting logs, video-tapes of visual shaft bottom inspections, all CSL reports and electronic data, slurry test data, supplemental testing data and analyses for the foundation unit. The certification shall not be contingent on any future testing or approval by FDOT.
- Submit two copies of the Foundation Certification Package signed and sealed by the Geotechnical Foundation Design Engineer of Record to FDOT within three weeks of finishing each foundation unit and prior to Verification Testing. A foundation unit is defined as all the shafts within one bent or pier for each phase of each bridge.
- Providing safe access and needed equipment, and cooperating with and working with the Department in verification of the drilled shafts, both during construction of shafts and after submittal of the certification package.
- The Department may verify the bottom cleanliness of all drilled shaft excavations prior to and at the time of concreting. The Department may verify bottom cleanliness by over the shoulder review of the Design-Build Firm's visual inspection methods and/or by independent means.
- The Department may verify properties of drilling fluid at the time of concreting. The Department shall determine whether verification of drilling fluid properties shall be accomplished by over the shoulder review of the Design-Build Firm's slurry testing and/or by independent means.

Within two working days of receipt of a Foundation Certification Package, the Department will examine the certification package and determine whether shafts in that foundation unit will be selected for Verification Testing. The Department may select every shaft for Verification Testing, if defects are suspected. The Department will provide equipment and personnel as needed for Verification Testing. Methods used for Verification Testing of a completed shaft are at the discretion of the Department and may include coring, cross-hole sonic logging, gamma-gamma density logging, low-strain dynamic integrity testing, or other methods.

After Verification Testing for a foundation unit is performed, the Department will provide the results within five working days. Integrity testing access tubes shall not be grouted and construction of footings, caps, columns or any superstructure elements shall not occur until the Department has notified the Design-Build Firm that additional Verification Testing is not required.

If any shaft is found to be deficient, the Design-Build Firm shall correct the deficiency (i.e. repair or replace the shaft) and/or modify the design to compensate for the deficiency. After the deficiency is corrected, retest and recertify the shaft. The Department may then perform additional Verification Testing. In case of disagreement of test results, the Department's results will be final and used for determination of acceptance.

### **Drilled Shaft Foundations for Miscellaneous Structures**

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

- Evaluating geotechnical conditions and designing the foundations including the drilled shaft diameter and length, and construction methods to be used.
- Completing the subsurface investigation prior to establishing the drilled shaft tip elevations and socket requirements.
- Constructing the method shaft (test hole) successfully and conducting integrity tests on the shaft using crosshole sonic logging. More than one test hole will be required when there are shafts both on land and in water. When there is more than one size of drilled shaft, perform a test hole for the largest diameter for each condition (land and water).
- Determining the production shaft lengths.
- Documenting and providing a report that includes all data, analysis, and recommendations to the Department. The report should include but not be limited to the following: results of pilot borings for all drilled shafts, and recommended production drilled shaft tip elevations and socket requirements. This report shall be signed and sealed by a Florida licensed Professional Engineer and shall be submitted to the Department for review and approval at least seven (7) calendar days prior to beginning production shaft construction. Additional data or analysis may be required by the Engineer. Constructing all drilled shafts to the required tip elevation and socket requirements.
- Utilizing the services of a specialty engineer to perform Engineering Analysis Reviews (EAR's) to evaluate and address non-conformance issues, and submitting the report to the Department for approval.
- Verifying level and clean hole bottom conditions and properties of the drilling fluid at the time of concrete placement.
- Documenting and submitting the drilled shaft construction logs to the Department within 24 hours of concrete placement. The documentations shall include the drilled shaft installation procedures and sequencing as well as any problems encountered during construction and concrete placement. Allow five (5) calendar days for the Department to review the data before any further construction on the shafts.
- Performing Cross-Hole Sonic Logging (CSL) tests on at least 30% of the shafts (rounded up to the next whole number) selected by the Department.
- Repairing all detected defects and conducting post repair integrity testing using 3D tomographic imaging and gamma-gamma density logging. Submitting all results to the Department within seven (7) calendar days of test completion.
- Submitting the Foundation Certification Packages.
  - Each Foundation Certification Package shall contain an original signed and sealed letter certifying capacity and integrity of all drilled shafts, and clearly legible copies of all shaft excavation and concreting logs, all CSL reports and electronic data, slurry test data, supplemental testing data and analyses for the foundation unit. The certification shall not be contingent on any future testing or approval by FDOT.

- Submit two copies of the Foundation Certification Package signed and sealed by the Geotechnical Foundation Design Engineer of Record to FDOT within three weeks of finishing each foundation unit and prior to Verification Testing. A foundation unit is defined as all the shafts within one intersection/interchange or for each phase of an intersection/interchange.
- Providing safe access and needed equipment, and cooperating with and working with the Department in verification of the drilled shafts, both during construction of shafts and after submittal of the certification package.
  - The Department may verify the bottom cleanliness of all drilled shaft excavations prior to and at the time of concreting. The Department may verify bottom cleanliness by over the shoulder review of the Design/Build Firm's inspection methods and/or by independent means.
  - The Department may verify properties of drilling fluid at the time of concreting. The Department shall determine whether verification of drilling fluid properties shall be accomplished by over the shoulder review of the Design/Build Firm's slurry testing and/or by independent means.

Within four (4) calendar days of receipt of a Foundation Certification Package, the Department will examine the certification package and determine whether shafts in that foundation unit will be selected for Verification Testing. The Department may select every shaft for Verification Testing, if defects are suspected. The Department will provide equipment and personnel as needed for Verification Testing. Methods used for Verification Testing of a completed shaft are at the discretion of the Department and may include coring, cross-hole sonic logging, gamma-gamma density logging, low-strain dynamic integrity testing, or other methods.

After Verification Testing for a foundation unit is performed, the Department will provide the results within seven (7) calendar days. Integrity testing access tubes shall not be grouted and construction of caps, columns or any superstructure elements shall not occur until the Department has notified the Design/Build Firm that additional Verification Testing is not required.

If any shaft is found to be deficient, the Design/Build Firm shall correct the deficiency (i.e. repair or replace the shaft) and/or modify the design to compensate for the deficiency. After the deficiency is corrected, the shaft shall be retested and recertified by the Design/Build Firm. The Department may then perform additional Verification Testing. In case of disagreement of test results, the Department's results will be final and used for determination of acceptance.

### **C. Utility Coordination**

The Design/Build Firm shall utilize a single dedicated person responsible for managing all utility coordination. This person shall be contractually referred to as the Utility Coordination Manager and shall be identified in the Design/Build Firm's proposal. The Design-Build Firm shall notify the Department in writing of any change in the identity of the Utility Coordination Manager. The Utility Coordination Manager shall have the following knowledge, skills, and abilities:

1. A minimum of 4 years of experience performing utility coordination in accordance with Department standards, policies, and procedures.
2. Knowledge of the Department plans production process and utility coordination

- practices,  
3. Knowledge of Department agreements, standards, policies, and procedures.

The Design/Build Firm’s Utility Coordination Manager 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. Reviewing proposed utility permit application packages and recommending approval/disapproval of each permit application based on the compatibility of the permit as related to the Design/Build firm’s plans.
3. Scheduling utility meetings, keeping and distribution of minutes of all utility meetings, and ensuring expedient follow-up on all unresolved issues.
4. Distributing all plans, conflict matrixes and changes to affected utility owners and making sure this information is properly coordinated.
5. Identifying and coordinating the execution and performance under any agreement that is required for any utility work needed in with the Design/Build project. Reviewing, approving, signing and coordinating the implementation of all Utility Work Schedules.
6. Resolving utility conflicts.
7. Obtaining and maintaining all appropriate Sunshine State One Call Tickets.
8. 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.
9. Providing periodic project updates to the Department Project Manager and District Utility Office as requested.
10. Coordination with the Department on any issues that arise concerning reimbursement of utility work costs.

The Department has reviewed the project limits and has determined which utility facilities located within the project limits may be impacted by the Project and whether the cost of any necessary utility work as to that impacted utility is to be borne by the utility or by the Design-Build Firm. That information is contained herein. The following UA/O’s have been identified by the Department as having facilities within the project corridor which may be impacted by the Project. Also provided below is a determination made by the Department as to the eligibility of reimbursement for each potentially impacted UA/O identified herein.

<b><u>UA/O for limits formally known as 406869-3</u></b>	Eligible for Reimbursement (Y/N)
AT&T (Formerly BellSouth), Mr. Leland Chemerys 700 N. Dixie Avenue, Titusville, FL 32796 (321) 267-4877 <a href="mailto:l.chemerys@att.com">l.chemerys@att.com</a>	Yes for all listed here
Brevard County Water Resources, Richard Martens 2725 Judge Fran Jamieson Way, Building A-213 Melbourne, FL 32940 (321) 633-2089 <a href="mailto:dick.martens@brevardcounty.us">dick.martens@brevardcounty.us</a>	

Bright House Networks, Mike Isom Post Office Box 361016, Melbourne, FL 32935 (321) 757-6451 <a href="mailto:mike.isom@mybighthouse.com">mike.isom@mybighthouse.com</a>	
City of Titusville (Water/Sewer), Janet Elrod 2836 Garden Street, Titusville, FL 32781 (321) 383-5668 <a href="mailto:janet.elrod@titusville.com">janet.elrod@titusville.com</a>	
Com-Cast (formerly Adelphia), Scott Osebold 8130 CR 44 Leg A, Leesburg, FL 34788 (352) 315-8527 <a href="mailto:scott_osebold@cable.comcast.com">scott_osebold@cable.comcast.com</a>	
Florida City Gas, Ron Muller 4180 South US Highway 1, Rockledge, FL 32955 (321) 638-3424 <a href="mailto:rmuller@agresources.com">rmuller@agresources.com</a>	
Florida Power & Light (Dist), Michelle Hernandez 9001 Ellis Road, West Melbourne, FL 32904-1056 (321) 383-7253 <a href="mailto:michelle.hernandez@fpl.com">michelle.hernandez@fpl.com</a>	
Florida Power & Light (Trans), Peter Washio 700 Universe Boulevard, Department TS4/JW Juno Beach, FL 33408 (561) 904-3693 <a href="mailto:peter.h.washio@fpl.com">peter.h.washio@fpl.com</a>	

<b><u>UA/O for limits formally known as 406869-5</u></b>	Eligible for Reimbursement (Y/N)
AT&T (Formerly BellSouth), Mr. Leland Chemerys 700 N. Dixie Avenue, Titusville, FL 32796 (321) 267-4877 <a href="mailto:l.chemerys@att.com">l.chemerys@att.com</a>	Yes for all listed here
AT&T Corp, Greg Jacobsen 6015 Benjamin Road, Suite 306 Tampa, FL 33634 (813) 342-0512 <a href="mailto:gtjacobson@att.com">gtjacobson@att.com</a>	
Bright House Networks, Mike Isom Post Office Box 361016, Melbourne, FL 32935 (321) 757-6451 <a href="mailto:mike.isom@mybighthouse.com">mike.isom@mybighthouse.com</a>	
Connexion Technologies, Jeff Raynor 111 Corning Road Suite 250, Cary, NC 27518 (919) 535-7280	
Com-Cast (formerly Adelphia), Scott Osebold 8130 CR 44 Leg A, Leesburg, FL 34788 (352) 315-8527 <a href="mailto:scott_osebold@cable.comcast.com">scott_osebold@cable.comcast.com</a>	
Florida Power & Light (Dist), Michelle Hernandez 9001 Ellis Road, West Melbourne, FL 32904-1056 (321) 383-7253 <a href="mailto:michelle.hernandez@fpl.com">michelle.hernandez@fpl.com</a>	
Florida Power & Light (Trans), Peter Washio 700 Universe Boulevard, Department TS4/JW Juno Beach, FL 33408 (561) 904-3693 <a href="mailto:peter.h.washio@fpl.com">peter.h.washio@fpl.com</a>	

<b><u>UA/O for limits formally known as 406869-4</u></b>	Eligible for Reimbursement (Y/N)
AT&T (Formerly BellSouth), Mr. Leland Chemerys 700 N. Dixie Avenue, Titusville, FL 32796 (321) 267-4877 <a href="mailto:l.chemerys@att.com">l.chemerys@att.com</a>	Yes for all listed here
New Smyrna Beach Utilities Commission (Electric), Mr. Ian Beason Post Office Box 100 New Smyrna Beach, FL 32170 <a href="mailto:ibeason@ucnsb.org">ibeason@ucnsb.org</a>	
New Smyrna Beach Utilities Commission (Water), Ms. Dana Hale Post Office Box 100 New Smyrna Beach, FL 32170 <a href="mailto:dhale@ucnsb.org">dhale@ucnsb.org</a>	
Volusia County, Mr. Scott Mays 123 West Indiana Avenue DeLand, FL 32720 <a href="mailto:smays@co.volusia.fl.us">smays@co.volusia.fl.us</a>	
FPL Fibernet, Mr. Danny Haskett 9250 West Flagler Street Miami, FL 33174 <a href="mailto:danny.haskett@fpl.com">danny.haskett@fpl.com</a>	
City of Edgewater, Ms. Robin Matusick Post Office Box 100 Edgewater, FL 32132 <a href="mailto:rmatusick@cityofedgewater.org">rmatusick@cityofedgewater.org</a>	
Florida Power & Light (Dist), Michelle Hernandez 9001 Ellis Road West Melbourne, FL 32904-1056 (321) 383-7253 <a href="mailto:michelle.hernandez@fpl.com">michelle.hernandez@fpl.com</a>	
Florida Power & Light (Trans), Peter Washio 700 Universe Boulevard, Department TS4/JW Juno Beach, FL 33408 (561) 904-3693 <a href="mailto:peter.h.washio@fpl.com">peter.h.washio@fpl.com</a>	

**D. Roadway Plans:**

**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, Traffic Control Plans, Environmental Permits and other necessary documents.

**Design Analysis:**

1. **Typical Section Package:**

The Department has developed an approved typical section package (an Attachment to this RFP) for this project. Any deviation from or revision to this approved typical section package is at the risk of the Design/Build Firm and will require approval from FDOT and FHWA. A typical section revision is a change to the requirements of the RFP and must be submitted to the Department by the ATC date as shown in Section II, Schedule of Events, of the RFP.

**2. Pavement Design Package:**

The Department has developed approved minimum pavement designs for asphalt pavements for use on this project. The minimum pavement designs are included as an Attachment to this RFP. Any modification of the pavement designs provided must be approved by the Department and FHWA. Any modification to the pavement design is a change to the requirements of the RFP and must be submitted to the Department by the ATC date as shown in Section II, Schedule of Events, of the RFP.

**3. Roadway Widening:**

The roadway widening shall add an additional through lane in each direction on the I-95 mainline based on the approved typical section. The widening and resurfacing shall include all cross slope corrections to meet Department criteria.

The roadway widening shall include the construction of a median barrier. Any guardrail median barrier shall include rub rail. Three strand cable barrier is not acceptable as the median barrier.

The outside shoulders shall be maintained at a minimum of 4 feet paved and 2 feet stabilized for a total of 6 feet during all phases of construction.

Temporary rumble strips shall be constructed on all temporary shoulders.

No construction vehicles will be allowed to pull in or out of the construction zone without a lane closure or a temporary deceleration/acceleration lane

Existing deceleration/acceleration lanes at all interchanges shall be maintained at current lengths during construction.

For any section of roadway where the length is greater than two miles between interchanges and the existing shoulders have been reduced to less than 10 feet, an emergency "pull off" area shall be provided per the sketch included in this RFP package.

**a. Milling and Resurfacing:**

The existing I-95 mainline asphalt pavement and outside shoulder pavement throughout the project limits shall be milled and resurfaced in accordance with the approved asphalt pavement design provided by the Department.

**b. Drainage Analysis:**

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 Manual; Florida Administrative Code, chapter 14-86; Federal Aid Policy Guide 23 CFR 650A; and the requirements of the regulatory agencies. This work will include the engineering analysis necessary to design any or all of the

following: cross drains, French drains, roadway ditches, outfall ditches, storm sewers, retention/detention facilities, interchange drainage and water management, 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 Drainage Design section will be required from the outset. Full documentation of all meetings and decisions are to be submitted to the District Drainage Design section. These activities and submittals should be coordinated through the Department's Project Manager.

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 objective is to obtain approved stormwater treatment/attenuation design. This service shall include, but is not limited to the following:

- Provide for a drainage design and stormwater management system that can be accommodated within the right-of-way owned by the Department. The right-of-way available to the Design/Build Firm for stormwater management facilities is shown on the right-of-way maps, an Attachment to this RFP.
- The Design/Build Firm will be required to re-design Pond 5 (406869-3) located just north of SR 406, west of the interstate. The configuration shown in the concept plans does not match the Right-of-Way Maps. A preliminary concept plan sheet has been included in other documents. A Permit modification will be required and will be the responsibility of the Design/Build Firm.
- Perform design and generate construction plans documenting the permitted systems function to criteria.

The Design/Build Firm shall verify that all existing cross drains and storm sewers that are to remain have adequate hydraulic capacity and design life. Flood flow requirements will be determined in accordance with the Department's procedures. If any of these existing cross drains or storm sewers are found to be hydraulically inadequate or found to have insufficient design life, they must be replaced or supplemented in accordance with the drainage requirements of this RFP. If any existing cross drains or storm sewers require repairs but otherwise would have sufficient remaining design life, repairs shall be made in accordance with the requirements of this RFP.

The Design/Build Firm will consider optional culvert materials in accordance with the Department's Drainage Manual Criteria.

The following criteria apply to the drainage design of this project:

- Vertical pipes shall not be constructed on this project. Deep structures shall be used along MSE walls to connect to storm water systems located outside MSE walls.
- All inflow and outfall pipes shall be constructed with the downstream end at the toe of slope such as the bottom of ditch, bottom of pond, or bottom of sump.
- The minimum tailwater elevation to be used in the design of a storm sewer system connected to a pond or other stormwater management facility shall be the flood routed stage at PEAK INFLOW with the INITIAL POND STAGE set at the WEIR and the orifice and all volume below the weir turned off or ignored. **The Engineer shall provide the inflow hydrograph locating the peak inflow discharge rate, the time it occurs, and the stage over the weir at that time.** That stage over the weir is the tailwater for the storm sewer design.
- Stormwater pipe ends shall always connect to a drainage structure with the exception of submerged outfall pipe or inflow pipe ends.

- Conflict structures shall not be used on this project without the approval of the District Drainage Design Engineer or his designee.
- Siphons shall not be used on this project. All storm water pipe installations shall require each successive pipe flow line be lower than the upstream pipe flow line.
- With the exception of interchange ponds, all ponds shall be fenced.
- Aluminum skimmers will not be allowed on State maintained facilities.
- With the exception of the locations shown in the concept plans, conveyance ditches shall not be constructed at or below the Seasonal High Ground Water Table elevation.
- Non Reinforced Concrete Pipe (NRCP) shall not be used on this project unless there is no other pipe option available and NRCP meets all structural, corrosion, and installation requirements .

Prior to proceeding with the Drainage Design, the Design/Build Firm shall meet with the 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 15 working days prior to any submittals containing drainage components.

The Design/Build Firm shall provide the Department's District Drainage Engineer a comprehensive final signed and sealed Drainage Design Report and a .pdf copy of CD. It shall be a record set of all drainage computations, both hydrologic and hydraulic. The engineer shall include all necessary support data.

**REDUCTION OF LIMITS** – Any reduction in limits will require that when a basin line is crossed, the stormwater retention pond(s) for that basin must be constructed.

#### **E. Geometric:**

The Design/Build Firm shall design the geometric for the project using the design standards that are most appropriate with proper consideration given to the design traffic volumes, adjacent land use, design consistency, aesthetics, ADA requirements, and this document.

The design elements shall include, but not be limited to, the horizontal and vertical alignments, lane widths, shoulder widths, median widths, cross slopes, borders, sight distance, side slopes, front slopes and ditches. The geometric design developed by the Design/Build Firm shall be an engineering solution that is not merely an adherence to the minimum AASHTO and/or Department standards.

#### **F. Design Documentation, Computations and Quantities:**

The Design/Build Firm shall submit to the Department design notes 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 record set of plans and tracings.

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

1. Design standards used for the project
2. Geometric design calculations for horizontal alignments
3. Vertical geometry calculations

4. Documentation of decisions reached resulting from meetings, telephone conversations or site visits
5. Final quantities list

**G. Structure Plans:**

1. **Bridge 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 insure 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 shall be submitted to the Department for review with the 90% superstructure submittal. The as-bid load rating (based on the 90% design plans) shall be provided to the Department before any traffic is placed on the bridge. The as-bid load rating shall be signed and sealed by a Professional Engineer licensed in the State of Florida. A final, signed and sealed copy of the Bridge Load Rating, updated for the as-built conditions shall be submitted to the Department's Project Representative and the District Structures Maintenance Engineer with the as-built bridge plans.
- d. The Design/Build Firm shall evaluate scour on all bridges over water using the procedures described in HEC 18.
- e. Any erection, demolition, and any proposed sheeting and/or shoring plans that may potentially impact the railroad must be submitted to and approved by the railroad. This applies to areas adjacent to, within and over railroad rights of ways.
- f. 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, falseworks systems, etc.) to ensure compliance with the contract plan requirements and intent.

2. **Criteria**

The Design/Build Firm shall incorporate the following into the design of this facility:

- a. All plans and designs are to be prepared in accordance with AASHTO LRFD Bridge Design Specifications, Department Standard Specifications, Structures Manual, Plans Preparation Manual,

Department Standard Drawings, Supplemental Specifications, Special Provisions, and directions from the State Structures Design Engineer, Temporary Design Bulletins, Structures Design Office and / or District Structures Design Engineer.

- b. Bridge Widening: In general, match the existing as per the Department Structures Manual. AASHTO girders will be allowed for bridge widenings.
- c. Critical Temporary Retaining Walls: Whenever the construction of a structural component (such as a wall, footing, or other such component) requires excavation that may endanger the public or an existing structure that is in use the Design/Build Firm must protect the existing facility and the public. If a critical temporary retaining wall is, therefore, required during the construction stage only, it may be removed and reused after completion of the work. Such systems as steel sheet pilings, soldier beams and lagging or other similar systems are commonly used. In such cases, the Design/Build Firm is responsible for designing detailing the wall in the set of contract plans. These plans must be signed and sealed by the Structural Engineer in responsible charge of the wall design.

The Design/Build Firm shall design and construct, in general conformance with the Concept Plans improvements at the following bridge locations:

- I-95 over SR 406 – Widen Bridge Nos. 700059 and 700134
- I-95 over SR 46 – Replace Bridge Nos. 700060 and 700136
- I-95 over Aurantia Road – Widen Bridge Nos. 700066 and 700138
- I-95 over CR 5A – Widen Bridge Nos. 700102 and 700158
- I-95 over Maytown Road – Widen Bridge Nos. 700058 and 700059
- I-95 over SR 442 – Replace Bridge Nos. 700062 and 700063
- I-95 over SR 44 – Widen Bridge Nos. 700064 and 700065

### **Sound Barrier Walls**

The Design/Build Firm shall be responsible for the preparation of Sound Barrier Wall Plans. The sound barrier wall shall be designed and constructed in accordance with Department requirements and meet the minimum requirements as shown in the Concept Plans with the exception of the Brentwood Estates soundwall. The Design/Build Firm shall also furnish and install all sound walls in accordance with the 5200 series of the Design Standards or with pre-approved alternatives listed on the Department's Qualified Products List (QPL). For walls where soil N values are less than 10 or greater than 40, provide site specific designs for the foundations. Provide foundation design calculations meeting Plans Preparation Manual, Chapter 32 and Soils Foundation Manual Section 8.2.4. (Appendix B). The Design/Build Firm shall submit to the Department final signed and sealed design documentation prepared during the development of the plans. The Design/Build Firm shall insure that the final geotechnical and hydraulic recommendations and reports required for design are submitted with the 90% plans.

There is an existing sound barrier wall north of Fox Lake Road. This sound barrier wall is to be extended 500 feet. New sound barrier walls are to be designed and constructed at the Brentwood and Sherwood subdivisions in general conformance with the concept plans. The wall at Brentwood shall be extended so that the end of the wall is 200 feet from the end of the northern property line. Currently, the concept

plans show the end station at 818+40.00. This end station should be approximately 820+10.

A new sound wall is to be constructed at Swan Lake Manufactured Home community. This wall is not shown in the concept plans. The wall shall be approximately 1150 feet long and 19 feet high. This wall is shown as Barrier 2 in the noise study.

The walls shall maintain a constant top of wall elevation for as long as practically possible. Minor changes in the ground surface should not be reflected in the top of wall profile. The top of wall profile may change periodically if necessary to maintain the required wall height. The Design/Build Firm will be required to paint the sound barrier wall up to a maximum of three colors. The Department shall provide the Design/Build Firm with the finishes and colors to be used on the noise wall. The finish shall include sacrificial anti-graffiti coating up to 10 feet in elevation on all sides of all sound barrier walls.

#### **H. Specifications:**

Department Specifications may not be modified or revised. The Design/Build Firm shall also include all Technical Special Provisions, which will apply to the work in the proposal. 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.

Before construction activities can begin, 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 Supplement Specifications from the Specifications Workbook in effect at the time the Bid Price Proposals were due in the District Office. The Specifications Package shall be prepared by the individual(s) identified in the Technical Proposal as having successfully completed the mandatory Specifications Preparations Training.

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

<http://www2.dot.state.fl.us/SpecificationsEstimates/PackagePreparation/TrainingConsultants.aspx>

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

<https://www2.dot.state.fl.us/SpecificationsPackage/Utilities/Membership/login.aspx?ReturnUrl=%2fspecificationspackage%2fDefault.aspx>.

The signed and sealed Specifications Package shall also include individually signed and sealed Technical Special Provisions for any and all work not addressed by Department Specifications. Any Technical Special Provisions included in the signed and sealed Construction Specifications Package which had not been included in the proposal phase, may require a contract cost modification as a condition of approval.

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

Any subsequent modifications to the Construction Specifications Package shall be prepared, signed and sealed as a Supplemental Specifications Package, subject to the same process for submittal, review, and, release for construction, as described above, for the original Construction Specifications Package. Construction work affected by Supplemental Specifications Packages shall not begin until stamped "Released for Construction" Supplemental Specification Package is obtained.

**I. Shop Drawings:**

The Design/Build Firm shall be responsible for the preparation and approval of all Shop Drawings. Shop Drawings shall be in conformance with the Department Plans Preparation Manual when submitted to the Department and shall bear the stamp and signature of the Design/Build Firm's Engineer of Record (EOR) and Specialty Engineer, as appropriate. The Department shall review the Shop Drawing(s) to evaluate compliance with project requirements and provide any findings to the Design/Build Firm. The Department's 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. Upon review of the shop drawing, the Department will stamp "Released for Construction" or "Released for Construction as noted" and initialed and dated by the reviewer.

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.

**J. 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 Traffic Control Plan (TCP) 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. Proper coordination with adjacent construction projects and maintaining agencies.

**K. Stormwater Pollution Prevention Plans (SWPPP)**

The Design/Build Firm shall prepare an erosion control plan that complies with the Storm Water Pollution Prevention Plan (SWPPP) as required by the National Pollution Discharge Elimination System (NPDES). The Design/Build Firm shall refer to the Plans Preparation Manual for information in regard to the SWPPP and Florida Department of Environmental Protection (FDEP) Rule 62-25 for requirements on the erosion control plan. Detailed limits of the erosion control items will be necessary but may be shown on the roadway plans sheets. This plan shall be submitted along with the Design/Build Firm's Certification at least 15 working days prior to beginning construction activities.

**L. Temporary Traffic Control Plan:**

**1. Traffic Control Analysis:**

The Design/Build Firm shall design a safe and effective Temporary Traffic Control Plan to move vehicular traffic during all phases of construction. The areas shall include, but are not limited to, construction phasing, utility relocation, drainage structures, signalization, ditches, front slopes, back slopes, drop offs within clear zone, and traffic monitoring sites. Special consideration shall be given to the drainage system when developing the construction phases. Positive drainage must be maintained at all

times.

The Temporary Traffic Control Plan shall address how to assist with maintenance of traffic throughout the duration of the contract.

The Temporary Traffic Control Plan shall be prepared by a certified designer who has completed the Department's training course, and in accordance with the Department's Design Standards and the Roadway Plans Preparation Manual.

Transportation Management Plans (TMPs) are required for significant projects which are defined as:

1. A project that, alone or in combination with other concurrent projects nearby, is anticipated to cause sustained work zone impacts.
2. All Interstate system projects within the boundaries of a designated Transportation Management Area (TMA) that occupy a location for more than three days with either intermittent or continuous lane closures shall be considered as significant projects.

For significant projects a TMP will consist of three components:

- (1) Temporary Traffic Control (TTC) plan component;
- (2) Transportation Operations (TO) component; and
- (3) Public Information (PI) component

Additional information can be found in Volume 1 chapter 10 of the PPM.

#### 2. Temporary Traffic Control Plans:

The Design/Build Firm shall utilize Index Series 600 of the Department's Design Standards 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), traffic control plan sheet(s).

The Design/Build Firm shall prepare additional plan sheets such as cross sections, profiles, drainage structures, retaining wall details, and sheet piling as necessary for proper construction and implementation of the Temporary Traffic Control Plan.

#### 3. Traffic Control Restrictions:

There will be **NO LANE CLOSURES ALLOWED:**

- On I-95 from 6:00 AM to 10:00 PM**
- On SR 406 there are no restrictions**
- On SR 46 from 3:30 PM to 6:30 PM**
- On CR 5A there are no restrictions**
- On SR 442 there are no restrictions**
- On SR 44 from 7:00 AM to 7:00 PM**

**Special Events:**

**The Design/Build Firm shall be responsible for obtaining information concerning any Special Events that occur during the life of the contract. Special Events include, but are not limited to, Daytona Speed Weeks, Bike Week, Spring Break, Black College Reunion and Biketoberfest.**

A lane may only be closed during active work periods. Rolling barricades will be allowed during the approved lane closure hours. All lane closures, including ramp closures, must be reported to the local emergency agencies, the media and the District Public Information Officer, Steve Olson at 386-943- 5479 a minimum of seven (7) calendar days in advance. Also, the Design/Build Firm shall develop the project to be able to provide for all lanes of traffic to be open in the event of an emergency or if the lane closure causes a driver delay greater than 20 minutes.

The Design/Build Firm shall coordinate all lane closures with local agencies. The Design/Build Firm shall be required to place Variable Message Signs advising the traveling public of proposed lane closures. These Variable Message Signs shall be operational for a minimum of seven (7) calendar days prior to the proposed lane closures

Existing posted speed limits must be maintained during construction unless otherwise approved by the Department.

**M. Environmental Services/Permits/Mitigation:**

The Design/Build Firm will be responsible for preparing designs and proposing construction methods that are permitable. The Design/Build Firm will be responsible to pay all permit fees and any additional (above what the Department has already received concurrence for) mitigation fees. All permits required for a particular construction activity will be acquired prior to commencing the particular construction activity. Delays due to incomplete permit packages, agency rejection, agency denials, agency processing time, or any permit violations, except as provided in Section V.D.2, will be the responsibility of the Design/Build Firm, and will not be considered sufficient reason for time extension.

If contamination is detected the Design/Build Firm will notify the Department and the Department will employ a Contamination Assessment/Remediation (CAR) contractor or similar process to remediate the contamination. The Department will be responsible for contamination in all areas of the Department owned Right of Way.

**N. Signing and Pavement Marking Plans:**

The Design/Build Firm shall prepare signing and pavement marking plans in accordance with Department criteria.

The Design/Build Firm shall be responsible for verifying the vertical clearance to existing overhead signing above the improved roadway. If existing overhead signing will not meet minimum clearance standards, the Design/Build Firm shall be responsible for modifications to provide required clearances. All existing overhead guide signs shall be maintained overhead in appropriate positions until new signage is installed, unless specifically approved by the Engineer.

All signs within the project limits shall be replaced. Lighting shall be provided by the Design/Build Firm for all overhead (cantilever or truss mounted) signs. The Design/Build Firm shall be responsible for the connection to the power source and the service through final acceptance.

Speed Limit signs shall be 48-inch by 60-inch panels.

Existing logo signs (gas, food, lodging, camping and attraction blue ground mounted sign structures), shall be maintained and visible to motorists on I-95 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.  
Andy Hennosy, 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/Build Firm shall be responsible for the repair or replacement of any logo signs that are damaged during the construction period. All logo structures remain the property of the Department.

**O. Signalization Plans:**

The Design/Build Firm shall prepare Signalization Plans in accordance with Department criteria.

The signal design, details and installation must be approved by the Department and shall meet the standards and specifications of the Department. In addition, the local agencies have standards and preferences that must also be met.

**P. Lighting Plans: Not Applicable to this project**

**Q. ITS, Call Boxes and Count Stations**

**1. General:**

The Design/Build Firm will be responsible for maintaining ITS sub-system components that exist on ITS Interstate 95. ITS sub-systems components shall be defined as a fiber optic network system (FON), a vehicle detection system (VDS), a closed circuit television (CCTV) camera system, Dynamic Message Signs (DMS) and Master and Local Hubs cabinets in which cabinet shall include at minimum a Remote Power Management (RPM) device, a Managed Field Ethernet Switch (MFES), an Uninterruptable Power Supply (UPS) and other associated infrastructure.

The Design/Build Firm shall communicate and coordination all ITS related issues, concerns, meetings and/or details with the ITS Project Manager listed below:

Edward Grant  
133 S. Semoran Blvd, Suite C  
Orlando, FL 32807  
[edward.grant@dot.state.fl.us](mailto:edward.grant@dot.state.fl.us)  
407-736-1906

**2. Turnover Test**

The Design/Build Firm shall meet with the ITS Project Manager shortly after the NTP to perform the Turnover Test. This test must be completed prior to the Design/Build Firm performing any ITS field

related work. The Department will demonstrate the functionality of subsystems within project limits through the SunGuide Software. The Design Build Firm shall document any deficiencies for the Department to correct. Upon such time as all subsystems are shown as functioning correctly, the Design/Build Firm shall be responsible for maintaining functionality of the existing system until the project has reached final acceptance.

## **2. Equipment and Components:**

The Design/Build Firm shall examine carefully each component and equipment assembly it furnishes to verify that the material, design and construction, markings, and workmanship comply with the requirements of this RFP. Visual inspections shall be performed on all modules and subassemblies to determine any physical defects such as cracking, scaling, poor fastening, incorrect component values, etc. Complete electrical testing shall be performed on each module and subassembly to determine its compliance to the designed function. Housing, chassis, and connection terminals shall be inspected for mechanical sturdiness, and harnessing to sockets shall be electrically tested for proper wiring sequence.

The Design/Build Firm shall conduct QC procedures to assure that equipment units and components are not damaged during shipping and storage. The Design/Build Firm shall develop a quality assurance program and submit it to the ITS Project Manager for review and acceptance within fifteen (15) days after Notice to Proceed (NTP). The Design/Build Firm shall follow the approved quality assurance program for the construction and installation of all field hardware.

## **3. Design and Engineering Services:**

The design of the new ITS system shall integrate with the existing ITS scheme. The design shall include the necessary infrastructure and components to ensure proper connection of the new ITS sub-systems. This shall include but not be limited to all proposed ITS sub-systems of this project as well as existing sub-systems that remain or are re-deployed as the final ITS of the project.

The design of all proposed ITS poles supporting CCTV, VDS, co-located combinations thereof, or any other sub-systems requiring poles for mounting shall be concrete. No #57 rock shall be used as foundations for any structures within the project limits, including but not limited to CCTV poles and MVDS poles.

The Design/Build Firm shall ensure all the required plans, schematic diagrams, cabling/wiring diagrams, splice diagrams, and other pertinent information related to the equipment, materials, and incidentals for the installation of the ITS are "Released for Construction" by the Department prior to the commencement of the installation of the ITS. Any efforts to accelerate installation of any ITS sub-system components shall require written consent from the Department and will be at the risk of the Design/Build Firm.

## **4. ITS Construction Criteria**

### **i. ITS Governing Rules, Guidelines and Specifications**

The work in this section specifies the criteria that the Design/Build Firm shall be responsible for furnishing and installing. All equipment furnished for this project shall meet but are not limited to the following specifications and/or requirements when applicable:

- State of Florida's NTCIP requirements
- Statewide Approved Products List (APL)

All plans and designs are to be prepared in accordance to the FDOT Specifications.

**ii. Microwave Vehicle Detection System (MVDS) Requirements**

The Design/Build Firm shall be responsible for furnishing and installing a Microwave Vehicle Detection System (MVDS). All existing VDS within the project limits shall be replaced with a side-fire dual radar MVDS and must have a range resolution of 4' or less and therefore use a bandwidth of 240 MHz or more. The MVSD shall be capable of automatically configuring a minimum of ten of lanes of traffic by automatically determining lane boundaries, lane centers and detection thresholds. The MVDS shall be a non-intrusive device equivalent to the existing MVDS's currently installed within the Department's ITS infrastructure. These units shall be fully compatible and functional with the SunGuide Software. The MVSD shall be capable of providing accurate travel monitoring data in slow or congested traffic conditions. The MVDS systems shall interface with the local hub via a terminal server.

The table below provides an approximate location of the existing detectors that are to be replaced. All existing MVDS devices and components, not including inductive loops, shall be retained and delivered to an FDOT inventory facility specified by the FDOT ITS Project Manager. It will be the responsibility of the Design/Build Firm to verify their location in the field and to provide final locations that meet spacing requirements and provide accurate detection across all lanes and each site. The Design/Build Firm shall be responsible for augmenting the number of the MVDS locations to provide a maximum of ½ mile spacing.

VDS	Approximate MM
1	I-95 @ MM 220 NB
2	I-95 @ MM 221.2 SB
3	I-95 @ MM 222.2 NB
4	I-95 @ MM 223 SB
5	I-95 @ MM 224.7 SB
6	I-95 @ MM 225.6 SB
7	I-95 @ MM 226.7 SB
8	I-95 @ MM 227.3 SB
9	I-95 @ MM 228.2 SB
10	I-95 @ MM 229.8 NB
11	I-95 @ MM 230 SB
12	I-95 @ MM 231.1 SB
13	I-95 @ MM 232.1 SB
14	I-95 @ MM 232.9 SB
15	I-95 @ MM 233.9 SB
16	I-95 @ MM 234.9 SB
17	I-95 @ MM 235.9 SB
18	I-95 @ MM 236.9 NB
19	I-95 @ MM 236.9 SB
20	I-95 @ MM 237.9 NB
21	I-95 @ MM 237.9 SB
22	I-95 @ MM 239 NB
23	I-95 @ MM 239 SB
24	I-95 @ MM 239.9 NB
25	I-95 @ MM 239.9 SB

VDS	Approximate MM
26	I-95 @ MM 240.9 NB
27	I-95 @ MM 240.9 SB
28	I-95 @ MM 241.9 NB
29	I-95 @ MM 241.9 SB
30	I-95 @ MM 242.8 NB
31	I-95 @ MM 242.8 SB
32	I-95 @ SR 442 MM 244 NB
33	I-95 @ MM 245.3 NB
34	I-95 @ MM 245.4 SB
35	I-95 @ MM 246.1 NB
36	I-95 @ MM 246.1 SB
37	I-95 @ MM 247.1 NB
38	I-95 @ MM 247.1 SB
39	I-95 @ MM 247.9 NB
40	I-95 @ MM 247.9 SB
41	I-95 @ MM 248.9 NB

### iii. ITS Network Integration Requirements

The Design/Build Firm shall provide a Logical Topology to the department for review. The logical topology for integration is to include all Layer 2 Ethernet switches within the project limits. The Design/Build Firm shall then setup a Pre-Integration Meeting with District 5 ITS representatives allowing minimally 14 calendar days notice and review time of the logical topology. At the Pre-Integration Meeting the Department will provide an IP Scheme, Standard Port Utilization for the Layer 2 devices (including which ports are to be disabled), VLAN Tagging Scheme for all subnets, and information on all Layer 2 to be run on the switches. It shall be the Design/Build Firms responsibility to setup all tagging, disable all applicable ports, setup all IP addresses, physically connect all devices per plan and to verify Layer I and Layer II connectivity. The Design-Build Firm shall not configure any Layer III or higher protocols on the switches.

It shall be the responsibility of the Design/Build Firm to integrate the subsystems. The Design/Build Firm shall integrate the new ITS sub-system components to the existing ITS System to deliver a fully operational ITS system. The project includes any parts or devices needed to provide fully functional communication within the ITS network including, but not limited to, all field devices, fiber optic patch panels, splice enclosures, switches, port servers, sub-system devices, optics within existing switch and other devices.

The communication equipment for the this project shall consist of fiber optic cable, 10 Gig Ethernet Switches, MFES, DMS, VDS, CCTV, Terminal Servers, Controllers, Encoders and Decoders as well as other required and necessary equipment (jumpers fiber/UTP, rack, parts or devices) to provide a full operational system. This Design Build Project includes any parts or devices, parts, connectors, jumpers needed at the RTMC or other control center to provide full functional communication within the ITS network, including, but not limited to all Field Devices, 10 Gig Ethernet Switches, Terminal Servers and other devices.

The ITS system shall provide, at a minimum, the transmitting of:

- Video with real-time PTZ control of the CCTV sub-system

- Volume, occupancy, and speed data, in addition to detector status information of the VDS sub-system.
- Control and monitoring commands of the DMS sub-system.
- Command and control of any other ITS deployed sub-system

The Design-Build Firm shall contact the Department's ITS Project Manager for configuring the management software (SunGuide) to control the devices. The Design-Build Firm shall allow 2 weeks for FDOT to enter the information into the management software. The Design-Build Firm shall troubleshoot field devices in the event that issues arise that prevent the Department from configuring said devices into SunGuide. Once the local devices have been entered into the central software the Department shall inspect the network for issues from a remote location.

### **5. Testing, Integration and Acceptance:**

All equipment furnished by the Design/Build Firm shall be subject to monitoring and testing to determine conformance with all applicable requirements and to ensure proper operation of the DMS within the SunGuide Software. Documentation that demonstrates component performance and operation in conformance to FDOT Specifications and that described in subsequent sections shall be furnished by the Design/Build Firm as part of this project. All equipment required for conducting tests shall be supplied by the Design/Build Firm. No separate payment shall be made for the monitoring, testing, test equipment, and documentation of test results, but shall be included in the amount bid for the project scope.

The Department reserves the right to examine and test any or all materials furnished by the Design/Build Firm for the project to determine if they meet FDOT Specifications.

If the Department decides that any material used in the construction of this project is defective or otherwise unsuitable, and the workmanship does not conform to the design or specifications of this contract, the Design/Build Firm shall replace such defective parts and material at no cost to the Department.

The Design/Build Firm shall conduct all testing in accordance to the FDOT Specifications. The Design/Build Firm shall make a request in writing at least fourteen (14) days prior to the proposed testing, excluding the Pre-Installation and Installed Site Test. The Design/Build Firm must coordinate the times and dates of tests and submit a schedule for acceptance to the Department's ITS Project Manager. The Design/Build Firm shall conduct all tests in the presence of the Department's ITS Project Manager or designated representative. Testing shall take place only on weekdays, which are official working days of the State, unless the Project Manager allows the test to be conducted and/or continued on weekends and non-working days.

#### **i. Pre-Installation Test**

The following tests shall be conducted prior to the installation of the equipment:

After due notice to the FDOT Project Manager, the Design/Build Firm shall prepare and submit for approval to the Department, test and demonstration procedures for all pre-installation tests.

#### **ii. Installed Site Test**

After due notice to the FDOT Project Manager, the Design/Build Firm shall perform an installed site test on system components in accordance with FDOT Specifications and as stated herein. Whenever any equipment unit fails to pass the component tests, the Design/Build Firm shall correct the deficiencies,

either by repair or replacement, at the Design/Build Firm's expense (including freight costs) as required to comply with the testing requirements. Upon notification by the Design/Build Firm that deficiencies have been corrected, the equipment will be retested entirely and not only that part of the failed segment of the test. All installed site testing and any retesting shall be performed in the presence of FDOT personnel.

### iii. Central Software Integration Test

The Department will integrate the new system components into SunGuide. After the Department completes SunGuide software integration, the Design/Build Firm shall perform the Central Control Testing from the RTMC. The Design/Build Firm shall plan for a minimum of two (2) weeks and a maximum of four (4) weeks for complete integration of the central software by the Department's ITS personnel. Network integration time is to be included in the Design Build Firm's construction schedule.

The Design/Build Firm must provide the following data to the Department:

- Latitude and Longitude for all devices
- Camera Manufacturer & Model (if applicable)
- Video Encoder Manufacturer (if applicable)
- Video Encoder IP Address (if applicable)
- Port Server Type (if applicable)
- Port Server Port number (if applicable)
- Port Server IP Address (if applicable)
- Encoder Model (if applicable)
- DMS Manufacture(if applicable)
- Location (Route and description)
- DMS IP Address
- Drop Address (if Applicable)
- All pertinent information as it pertains to VDS
- Any other data needed to fully integrate new devices into SunGuide (The ITS PM shall furnish a complete list of the SunGuide integration requirements at the Pre-Integration Meeting.)

### iv. Central Control Test

The central control and monitoring of equipment shall be tested at the Regional Traffic Management Center. Tests will be coordinated with the Department. The tests shall include, but not be limited to:

- Demonstration of CCTV pan, tilt, zoom control functionality within the SunGuide Software.
- Demonstration of VDS monitoring and collection of traffic volume, speed and occupancy data within the SunGuide Software.
- Demonstration of DMS functionality to send a test message, blank a message and display 3 phase messages.
- Communication verification of all network equipment by successfully pinging each device from the RTMC.

### v. Field Inspection Test

After all system integration testing has been successfully completed, all documentation, including but not limited to the system test documentation, has been submitted, and approved, and all utility work has been

completed, the Design/Build Firm shall contact the ITS Project Manager to schedule a Field Inspection Test. The Department shall conduct a Field Inspection within 10 days of notification. The purpose of this test is to verify that the workmanship and services provided by the Design/Build Firm to the Department meet the requirement of this RFP and FDOT Specifications. Accurate as-built plans of the system shall be provided at the Field Inspection. If during the inspection the Department finds that all work has been satisfactorily completed, then the Design/Build Firm shall have successfully passed the Field Inspection Test and begin the 60-Day System Acceptance Test. If any or all of the work is found to be unsatisfactory, The Department shall detail the remedial work required to satisfactorily complete the Field Inspection. The Design/Build Firm shall immediately perform such remedial work. Subsequent inspections shall be made on the remedial work until the Department accepts all work.

**vi. System Acceptance Test (SAT)**

The system acceptance test shall demonstrate that all equipment furnished, adjusted, or modified by the Design/Build Firm has been installed properly and operates as a fully functional ITS system. Prior to initiating the system acceptance test, all in place component tests and the central control test shall have been successfully completed by the Design/Build Firm in the presence of the Department's ITS Project Manager or designated representative.

The system acceptance test will begin within seven (7) days after the Department's ITS Project Manager is advised of intent to begin by the Design/Build Firm and shall be contingent upon the Department's ITS Project Manager providing notice that all work has been completed satisfactorily. The newly installed ITS infrastructure shall be activated and left on for sixty (60) consecutive days. During this period, all materials and components of the system shall operate as specified and without any failure.

In the event that any component of the project, provided by Design/Build Firm, malfunctions or operates below the level specified within the FDOT Specifications, the system acceptance test period will be terminated, and the Design/Build Firm shall be required to determine and correct the problems, including repair and replacement of equipment, at no cost to the Department.

The Design/Build Firm shall respond with a qualified technical representative on site to determine and correct any problems within twenty-four (24) hours, following notification by the Department. Upon correction of the problems, to the satisfaction of the Department, it shall be at the sole discretion of the Department to determine to either restart the 60-day SAT or to extend the 60-day SAT period by the number of days lost due to failure and repair time. In the event a malfunction is the result of equipment not installed by the Design Build Firm or others not under the responsibility of the Design/Build Firm (e.g., power service, leased telephone circuits, etc.), the system acceptance test period will be suspended until correction of these problems by others.

All equipment furnished by the Design/Build Firm shall be subject to monitoring and testing to determine conformance with all applicable requirements and to ensure proper operation of the RTMC. Documentation that demonstrates component performance and operation in conformance to FDOT Specification and that described in all sections of this document shall be furnished by the Design/Build Firm as part of this project. All equipment required for conducting tests shall be supplied by the Design/Build Firm. No separate payment shall be made for the monitoring, testing, test equipment, and documentation of test results, but shall be included in the amount bid for the project scope.

The Department reserves the right to examine and test any or all materials furnished by the Design/Build Firm for the project to determine if they meet the Specifications.

If the Department decides that any material used in the construction of this project is defective or otherwise unsuitable, and the workmanship does not conform to the design or specifications of this

contract, the Design/Build Firm shall replace such defective parts and material at no cost to the Department. The Design/Build Firm shall be responsible for the conduct and documentation of the results of these tests that will be countersigned by the Department's ITS Project Manager or a designated representative at the end of each test. The signature of the Department's representative implies only proof of presence.

**vii. System Acceptance**

Upon determination from the Department in writing that the project has completed the sixty (60) day system acceptance test period and is in conformance with the requirements of the Plans and the FDOT Specification, the new ITS infrastructure and all components therein will have achieved Final Acceptance.

**6. Partial Use Prior to System Acceptance:**

FDOT, based on justification of public interest, may order any completed or partially completed portion of the project placed in service. Such action shall not be deemed an acceptance of the project in whole or in part, nor shall such action be construed as a waiver by FDOT of any provision of the Contract for this project. The Design/Build Firm shall have no right to additional compensation or extension of time for completion of the work or any other concession because of the use of the project or any part thereof prior to system acceptance of the completed project.

**7. ITS Maintenance**

**i. Operational Maintenance Requirements**

The Design/Build Firm shall be responsible for repairing and replacing all components/software used on the project that have become defective from the completion of the Turn-On Inspection until the completion of the sixty (60) day SAT. Repairs made shall conform to the Plans, this RFP, the ITS Statewide Specifications and the FDOT Standards.

If the Design/Build Firm fails to perform any maintenance within the time frame for component-related defects or central system defects, the Department shall either perform the corrective work itself or contract with a third party to perform the necessary corrective work. Corrective work necessary due to non-performance by the Design/Build Firm shall be deducted from any payments due the Design/Build Firm. Consistent non-performance on the part of the Design/Build Firm shall result in attachment of the supplemental performance bond.

The Department's or its representative's performance of corrective work under this provision shall have no effect on the Design/Build Firm's warranty obligations.

The Design/Build Firm shall be responsible for all locates throughout the duration of the project from the Notice to Proceed to Final Acceptance. The Design/Build Firm shall be provided with locates at the beginning of the project by the Department. After initial locates are provided to the Design/Build Firm by the Department they shall add their name to Sunshine One Call and be responsible for all locates at no cost to the Department.

**ii. Repair of Damage to Existing Equipment**

Any damage caused by the Design/Build Firm to any existing roadway features (i.e. drainage structures, bituminous pavement sections, existing sign structures, etc.) shall be repaired to the satisfaction of

Department's Maintenance Engineer at the expense of the Design/Build Firm. All repair work shall conform to the latest edition of the FDOT Specifications.

Any damage caused by the Design/Build Firm to any existing ITS features (i.e. Fiber Optic cable, etc.), signs, illumination equipment, and electrical service shall be replaced by equal or better components or repaired to the satisfaction of the Department's ITS Project Manager at the expense of the Design/Build Firm. All repair work shall conform to the latest edition of the FDOT Specifications.

The Design/Build Firm shall register with Sunshine One Call for the fiber optic cable within the construction limits. The Design/Build Firm must be registered by the issuance of the NTP and shall remain registered until after final acceptance

There are two Portable Traffic Monitoring Sites within the project limits. The traffic monitoring sites (700363 and 700436) will be reconstructed. This reconstruction is not shown in the concept plans but is a requirement of this RFP.

There is one Telemetered Traffic Monitoring Site (TTMS) 70322 to be reconstructed as a part of this contract. The TTMS 70322 is located at approximately MP 25.8, about 0.9 Miles south of Aurantia Road under Pass. This site is to be reconstructed in general conformance with the concept plans. Design Build firm shall reconstruct TTMS equipment in the location impacted by this proposed project. The equipment that can be reconstructed includes the items TMS Inductive Loop Assemblies, TMS Vehicle Sensors, Buried Conduit (under pavement), Pull Boxes, Directional Bore. The work on Telemetered traffic Monitoring Site (TTMS) shall be in accordance with the applicable FDOT Standard Specifications for Road and Bridge Construction, Special Provisions (section 741 to 748) and FDOT Design Standards Indexes of latest edition.

The Design /Build firm shall notify James Whitley of Transportation Statistics, Central Office, at (850) 921-7300 or (800) 399-5523, 10 (ten) working days prior to roadwork performed in the vicinity of the site and 10 (ten) working days prior to installation of loops and axle sensors.

There is one Traffic Count Site in the optional limits that shall be constructed as a permanent station at site 790503 if the Design/Build Firms widens the roadway at this location.

Existing Call Boxes are to be removed and stored not more that 10 days prior to any outside shift in traffic. The Design Build firm will be responsible for removal, storage, any damage to the boxes, reinstallation and meeting all ADA requirements.

## **VII. TECHNICAL PROPOSAL REQUIREMENTS**

### **A. General:**

Each Design/Build Firm being considered for this project is required to submit a Technical Proposal. The proposal shall include sufficient information to enable the Department to evaluate the capability of the Design/Build Firm to provide the desired services. The data shall be significant to the project and shall be innovative, when appropriate, and practical.

**The technical Proposal shall be developed for the limits from south of SR 406 (Garden Street) (approximate MP 18.409) to the Brevard/Volusia County line. These limits are referred to in the bid formula as the base project.**

**Evaluation of the project between the county line and the northern most limit will not be considered. Do not provide information concerning this section in the Technical Proposal.**

**B. Submittal Requirements:**

The Technical Proposal shall be bound with tabs labeled for each section with the information, paper size and page limitation requirements as listed below:

A copy of the "Written Technical Proposal" must also be submitted in electronic format on a CD. The format shall be in Microsoft Word and the file saved in html. No macros will be allowed. Minimum font allowed will be size of ten (10). Graphics and photographs shall be held to a minimum, in the electronic version only, so that Internet loading of the Technical Proposal takes place in 15 seconds or less.

The maximum number of pages for the Technical Proposal shall be 12 typed pages. This page limitation does not include Section 1 Schedule, Section 3 Design Support Documents and Section 4 Preliminary Plans. Paper size shall be 8½" x 11", additional larger charts and graphs may be provided if folded neatly to 8½" x 11"

Submit: 1 original copy, 4 hard copies and 12 CDs of the Technical Proposal to:

Ms. Chela Wood, Professional Services  
Florida Department of Transportation  
719 South Woodland Boulevard  
DeLand, Florida 32720

The minimum information to be included:

Section 1: Proposed Schedule

- Paper size: 8½" x 11" or larger if folded neatly to 8½" x 11"
- Maximum allowed pages: 2
- Identify if the Schedule is based on Calendar or Working Days
- The minimum information to be included in the summary CPM schedule of anticipated major milestones and their associated phasing as follows:

Anticipated Award Date  
Design Schedule  
Design Reviews by the Department  
Geotechnical Investigations  
Permitting  
Start of Construction  
Construction Milestones  
Construction Phasing and major MOT shifts  
Utility Relocations  
Structure Completion Date  
Final Completion Date for all Work

Section 2: Value Added

- Paper size: 8½" x 11"
- This may be provided in a table however it is included within the technical proposal page limit.

The Design-Build Firm shall submit the Value Added criteria, measurable standards and remedial work plan for features proposed.

Section 3: Design Support Documents

- Provide on a CD only

Technical Special Provisions which apply to the work in the Proposal shall be identified. Technical Special Provisions shall be written only for those items not addressed by the Department's Standard Specifications.

The Design-Build firm shall be prepared to submit to the Department during the Technical Proposal Evaluation phase any calculations, studies and/or research to support features identified in the Technical Proposal and detailed in Section 4 Preliminary Plans.

Section 4: Preliminary Plans

- Paper size: 11" x 17".
- No hard covers on the plans
- Maximum Number of Plan Sheets: 100

The minimum information to be included in the preliminary design requirements is as follows

**Roadway**

- Project Limits
- Horizontal alignment
- Pier and abutment location
- Major topographic features
- Proposed vertical profile
- Survey controls and bench marks
- Stationing along Horizontal alignment
- Connections to existing roadway
- Utility provisions
- Maintenance of traffic provisions
- Roadway Typical Section
- Technical Special Provisions

**Structures**

- General Notes
- Plan and elevation
- Begin and end bridge stations
- Proposed Foundation Types and Location
- Proposed Foundation Testing requirements
- Span lengths
- Minimum vertical and horizontal clearances

- Location of expansion and fixed bearings
- Scour analysis
- Basic material properties (concrete strengths, classifications)
- Typical pier(s) and abutment details
- Cross section of proposed superstructure showing type, size and locations of structural elements
- Proposed means and methods of construction
- Proposed method of removal of the existing structure and approaches and final disposition
- Technical special provisions
- Variations and documentation

	<u>Item</u>	<u>Value</u>
1	Maintainability and Added Value	20
2	Schedule and Project Management Plan	10
3	Design	25
4	Construction Methods and Maintenance of Traffic	<u>25</u>
	<b>Maximum Score</b>	<b>80</b>

**A. Evaluation Criteria:**

The Technical Review Committee shall evaluate the written Technical Proposal by each Design-Build Firm. The Design-Build Firm should not discuss or reveal elements of the price proposal in the written proposals. A technical score for each Design-Build Firm will be based on the following criteria:

The following is a description of each of the above referenced items:

**1. Maintainability and added Value (20 points)**

Credit will be given for a design that minimizes periodic and routine maintenance. The following elements should be considered: access to provide adequate inspections and maintenance, maintenance of navigational system lighting, access to structure's lighting system, and quality of construction materials. Credit will be given for the extent of the Value Added coverage. Credit will be given for exceeding minimum material requirements to enhance durability of structural components.

**2. Schedule & Project Management Plan (10 points)**

Credit will be given for a comprehensive and logical schedule that minimizes contract duration. Proper attention should be provided to the project's critical path elements. Credit will be given for a comprehensive Project Management Plan (PMP) that addresses Project Management approach, Quality Management Plan and coordination. Credit will also be given for incorporation of effective peer reviews.

**3. Design Approach (25 points)**

Credit will be given for the quality of the following elements:

- Roadway Design and approach to minimizing impacts to Utilities
- Drainage Design and approach to the permitting and/or permit modifications
- Structures Design and geotechnical considerations
- Signalization, Signing & Pavement Marking
- ITS Modifications
- Utilization of existing right-of-way
- Innovative aspects relative to the design of the project

**4. Construction Methods and Maintenance of Traffic (25 points)**

Credit will be given for construction methods that minimize impacts to the traveling public, business owners, property owners, utility owners and the environment; reduces costs; improves worker safety; and minimizes contract duration. Credit will also be given for innovative aspects related to construction.

Credit will be given for a MOT scheme that minimizes disruption of roadway traffic. This shall include, but not be limited to, minimization of lane and driveway closures, lane widths, visual obstructions, and drastic reductions in speed limits.

**B. Final Selection Formula:**

The Department shall publicly open the sealed bid proposals and calculate an adjusted score for each firm using one of the formulas below:

The base project was defined in Section I of this RFP to be from the begin project to the Volusia/Brevard County Line and is the minimum scope allowed.

**If  $L \geq 0$  and  $L < 16.8$  miles then BPP is = \$99,739,036**

$$\frac{BPP - (L * LVC) - B}{TS} = \text{Adjusted Score}$$

BPP = Bid Price Proposal

L = Length (in 1/10<sup>th</sup> mile increments) proposed beyond minimum (base) project limits

LVC = Length Value Cost = \$ 4,000,000/mile

B=0 for  $L < 11.8$  or B = \$4 million for  $L \geq 11.8$

TS = Technical Score (Combined Scores from ELOI and Technical Proposal)

**If  $L = 16.8$  miles and BPP < \$99,739,036**

$$\frac{BPP - (16.8 * \$4\text{million} / \text{mile}) - \$4\text{million}}{TS} = \text{Adjusted Score}$$

The firm selected will be that firm whose adjusted score is lowest.

The Department reserves the right to consider any proposal as non-responsive if any part of the Technical Proposal does not meet established codes and criteria. Also, if Proposed Contract Time is greater than Maximum Allowable Contract Time the proposal will be considered non-responsive.

#### **C. Final Selection Process:**

After the sealed bids are received, the Department will have a public meeting for the announcement of the Technical Scores and opening of sealed bids. This meeting will be recorded. At this meeting, the Department will announce the score for each member of the Technical Review Committee for each Proposer and each Proposer's average Technical Score. Following announcement of the technical scores, the sealed bid proposals will be opened and the adjusted scores calculated. The Selection Committee should meet a minimum of five working days after the public opening of the Technical Scores and Price Proposals. The Department's Selection Committee will review the evaluation of the Technical Review Committee and the Price Proposal of each Proposer as to the apparent lowest adjusted score and make a final determination of the lowest adjusted score. The Selection Committee has the right to correct any errors in the evaluation and selection process that may have been made. The Department is not obligated to award the contract and the Selection Committee may decide to reject all proposals. If the Selection Committee decides not to reject all proposals, the contract will be awarded to the Proposer determined by the Selection Committee to have the lowest adjusted score.

#### **D. Stipend Awards:**

The FDOT has elected to not to offer stipends on this project.

**VIII. BID PROPOSAL REQUIREMENTS**

Bid Price Proposals shall be submitted on the Bid Blank form attached hereto and shall include one lump sum price for the Project and the number of calendar days within which the Proposer will complete the project. The lump sum price shall include all costs for all design, geotechnical surveys, architectural services, engineering services, Design/Build Firms quality plan, construction of that portion of the Project, and all other work necessary to fully and timely complete that portion of the Project in accordance with the Contract Documents, as well as all job site and home office overhead, and profit, it being understood that payment of that amount for that portion of the Project will be full, complete, and final compensation for the work required to complete that portion of the Project. The Price Proposal shall be hand delivered in a separate sealed package to the following:

Ms. Chela Wood, Professional Services  
Florida Department of Transportation  
719 South Woodland Boulevard  
DeLand, Florida 32720

The package shall indicate clearly that it is the Price Proposal and shall identify clearly the Proposer's name, and project description. The Bid Price Proposal shall be secured and unopened until the date specified for opening of Price Proposals.