Florida Department of Transportation
District One

DESIGN-BUILD
REQUEST FOR PROPOSAL
for
Adaptive System on US 27 from Highlands Avenue to Sebring Parkway, Highlands County

Financial Projects Number(s): 440225-1-52-01
Federal Aid Project Number(s): D118 107 B
Contract Number: E1T56

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ATTACHMENTS

The Attachments listed below are hereby incorporated into and made a part of this Request for Proposal (RFP) as though fully set forth herein.

Project Advertisement
Division I Design-Build Specifications
- Award and Execution of Contract – Public Records (SP0030900DX)
- Legal Requirements and Responsibilities to the Public – E-Verify (SP0072900)
- Legal Requirements and Responsibilities to the Public – Scrutinized Companies (SP0073000)

Divisions II and III Special Provisions identified by the Department to be used on the Project:
- Mobilization (SP1010000DB)
- Contractor Quality Control General Requirements (SP1050813DB)
- Structures Foundations (SP4550000DB)

Verification Plan
District One Traffic Operations Guidelines for the Department of Traffic Signal Timings
ITS Facility Management District One Implementation Plan

Bid Price Proposal Forms:

1. Bid Blank (375-020-17)
2. Design-Build Proposal of Proposer (375-020-12)
3. Design-Build Bid Proposal Form (700-010-65)
4. Bid or Proposal Bond (375-020-34)
5. DBE Forms (as applicable)

REFERENCE 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 reference and 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 reference 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.

As-Built Plans
Concept Plans
Concept of Operations (ConOps)
System Requirements
Validation Plan
Requirement Traceability Verification Matrix (RTVM)
Sample Optical Time Domain Reflectometer (OTDR) Results

I. Introduction

The Florida Department of Transportation (Department) (FDOT) has issued this Request for Proposal (RFP) to solicit competitive bids and proposals from Proposers for the design, procurement, and construction of an Adaptive Signal Control Technology (ASCT) System and Intelligent Transportation System (ITS) devices on US 27 from Highlands Avenue to Sebring Parkway (FPN: 440225-1-52-01). The scope of work includes all investigations, design, permitting, coordination, final approved construction documents and the construction activities necessary to complete the Project as detailed below.

With the exception of installation of equipment at a City Fire Station and the integration activities at the County Engineering Building and the FDOT Regional Transportation Management Center (RTMC), it is the Department's intent that all Project construction activities be conducted within the existing Right-of-Way. Any Technical Proposal that requires the acquisition of additional Right-of-Way will not extend the contract duration as set forth in the RFP under any circumstances. The Department will have sole authority to determine whether the acquisition of additional Right-of-Way on the Project is in the Department's best interest, and the Department reserves the right to reject the acquisition of additional Right-of-Way.

If a Design-Build Firm intends to submit a Technical Proposal that requires the acquisition of additional Right-of-Way, the Design-Build Firm shall discuss such a proposal with the Department prior to submitting a Proposal. If a Design-Build Firm submits a Technical Proposal that requires the acquisition of additional Right-of-Way and the Design-Build Firm fails to obtain Department approval prior to submitting a Proposal, then the Department will not consider such aspects of the Proposal during the Evaluation process. If the Design-Build Firm's Technical Proposal requires additional Right-of-Way approved by the Department, the additional Right-of-Way will be required to be directly acquired by the Department. The Design-Build Firm shall submit, along with the Technical Proposal, Right-of-Way maps and legal descriptions including area in square feet of any proposed additional Right-of-Way parcels in the Technical Proposal. The additional Right-of-Way will be acquired by the Department in accordance with all applicable state and federal laws, specifically including, but not limited to, the Uniform Relocation Assistance and Real Property Acquisition Policies for Federal and Federally Assisted Programs (42 USC Chapter 61) and its implementing regulations. This includes completing a State Environmental Impact Report (SEIR) or National Environmental Policy Act (NEPA) evaluation as appropriate. All costs concerning the acquisition of additional Right-of-Way will be borne solely by the Design-Build Firm. These costs include, but are not limited to consultant acquisition, appraisal services, court fees, attorney and any expert fees, property cost, etc. The Department will have sole discretion with respect to the entire acquisition process of the additional Right-of-Way.

If the Design-Build Firm's Technical Proposal requires additional Right-of-Way, the acquisition of any such Right-of-Way shall be at no cost to the Department, and all costs associated with securing and making ready for use such Right-of-Way for the Project shall be borne solely by the Design-Build Firm as a part of the Design-Build Firm's Lump Sum Price Bid. The Department will not advance any funds for any such Right-of-Way acquisition and the Design-Build Firm shall bear all risk of delays in the acquisition of the additional property, regardless of cause or source. No additional contract time will be granted.

The Design-Build Firm shall provide to the Department an estimate of the purchase price of the land from the property owner and any conditions related to the purchase. The Department will provide to the successful Design-Build Firm an estimate of all costs related to the acquisition and use of the additional Right-of-Way for the Project. At the time the Design-Build Firm returns the executed contract to the Department, the Design-Build Firm will provide the Department funds equal to the amount of the Department's estimate along with a Letter of Credit approved by the Department in an amount equal to 100% of the Department's estimate. If additional funds beyond the Department's estimate are anticipated,

the Design-Build Firm shall be solely responsible for all such costs and provide the same to the Department upon 10 days written notice from the Department. The Letter of Credit is for the purpose of securing the obligations of the Design-Build Firm with respect to the acquisition and use of additional Right-of-Way. The Letter of Credit will be released upon the Department's determination that all costs related to the acquisition of and making ready for use of the additional Right-of-Way have been satisfied. Any remaining funds provided will be returned to the Design-Build Firm.

Any additional Right-of-Way must be acquired prior to the commencement of any construction on or affecting the subject property. The Design-Build Firm waives any and all rights or claims for information, compensation, or reimbursement of expenses with respect to the Design-Build Firm's payment to the Department for costs associated with the acquisition of the additional Right-of-Way. The additional Right-of-Way cannot be used for any construction activity or other purpose until the Department has issued an applicable parcel clear letter or a Right-of-Way Certification for Construction.

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

Description of Work

This Project includes the design, procurement, installation, and testing of new traffic control devices, new ITS devices, and an ASCT System on US 27 in Sebring from Highlands Avenue to Sebring Parkway. The Project length is approximately 5.7 miles. The Design-Build Firm shall design and prepare a complete set of construction plans, specifications package, and Technical Special Provisions (TSPs) for the infrastructure included in the Project. The Project elements include, but may not be limited to:

- ITS infrastructure
- Conduit and fiber optic cable
- Closed Circuit Television (CCTV) cameras
- Central and ASCT System software
- Controllers and cabinets
- Vehicle detection systems
- A communication network/service to connect the ATMS/ASCT System corridor to the South West Interagency Facility for Transportation (SWIFT) Center and Highlands County's Engineering Building
- All related utility work
- Location surveys for the Project areas as required to complete the work
- Geotechnical investigations as required to complete the work
- Subsurface utility investigations
- Appropriate traffic management, maintenance and control during construction
- Providing assistance to the Department for the Public Involvement Program
- Preparation of As-Built surveys and plans
- Provision of all project data necessary to populate the District ITS Facility Management (ITSFM) database in Microsoft Excel format
- Undertaking of the designs for all work, and submitting for and obtaining all permits required, including all environmental and utility connection/disconnection permits, for the Project
- Plans Delivery

This Project will be connected to, and monitored and controlled by, the FDOT District One RTMC, named the SWIFT SunGuide® Center.

The intent of this Project is to furnish, install, and integrate a new ATMS/ASCT System and ITS devices noted in the RFP within the Project limits such that maintenance work required upon Final Acceptance is limited to routine work. To this end, proposed devices and software should be compatible with existing hardware and software as much as possible.

A. Design-Build Responsibility

The Design-Build Firm shall be responsible for survey, geotechnical investigation, design, preparation of all documentation related to the acquisition of all permits not acquired by the Department, preparation of any and all information required to modify permits acquired by the Department if necessary, maintenance of traffic, demolition, and construction on or before the Project completion date indicated in the Proposal. The Design-Build Firm shall coordinate all utility relocations.

The Design-Build Firm shall be responsible for compliance with Design and Construction Criteria (Section VI of this document) which 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 the public.

The Design-Build Firm is responsible for coordinating with the District Environmental Office any engineering information related to Environmental Reevaluations. The Design-Build Firm will not be compensated for any additional costs or time associated with Reevaluation(s) resulting from proposed design changes.

The Design-Build Firm 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 Design-Build Firm shall examine boring data, where available, and make their own interpretation of the subsoil investigations and other preliminary data and shall base their bid on their own opinion of the conditions likely to be encountered. The submission of a proposal is prima facie evidence that the Design-Build Firm has made an examination as described in this provision.

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.

The Design-Build Firm will provide litter removal and mowing within the project limits in accordance with Specification Section 107. Areas to be maintained for Litter Removal and Mowing will be limited to a five-foot radius around disturbed ASCT deployment areas including trench lines, pull boxes, poles, and cabinets. The Design-Build Firm shall mow and maintain vegetation within these areas to within five inches to 12 inches in height. Litter removal shall be performed at the same frequency as the mowing.

B. Department Responsibility

The Department will provide contract administration, management services, Construction Engineering and Inspection (CEI) services, environmental oversight, and quality acceptance reviews of all work associated

with the development and preparation of the contract plans, permits, and construction of the improvements. The Department will provide Project-specific information and/or functions as outlined in this document.

In accordance with 23 Code of Federal Regulations (C.F.R.) 636.109 of the Federal Highway Administration (FHWA), in a Federal Aid Project, the Department shall have oversight, review, and approval authority of the permitting process.

The Department will determine the environmental impacts and coordinate with the appropriate agencies during the preparation of NEPA or SEIR Reevaluations. For federal projects, NEPA Reevaluations will be processed by the Department's EMO Office for approval by OEM pursuant to 23 U.S.C. §327 and a Memorandum of Understanding dated December 14, 2016 and executed by the FHWA and the Department.

II. Schedule of Events

Below is the current schedule of the events that will take place in the procurement process. The Department reserves the right to make changes or alterations to the schedule as the Department determines is in the best interests 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.

Date	Event
February 17, 2020	Planned Advertisement
April 6, 2020	Official Advertisement
April 27, 2020	Letters of Interest for Phase I of the procurement process due in District Office by 05:00 pm local time
May 18, 2020	Proposal Evaluators submit Letter of Interest Scores to Contracting Unit 12:00 pm local time
May 21, 2020	Contracting Unit provides Letter of Interest scores and Proposal Evaluators comments to Selection Committee 10:00 am local time
May 26, 2020	Public Meeting of Selection Committee to review and confirm Letter of Interest scores 10:00 am local time
May 26, 2020	Shortlist Posting Date
June 1, 2020	Final RFP provided to Design-Build Firms
June 9, 2020	Mandatory Pre-Proposal meeting at 10:00 am local time in District One Headquarters, 801 N. Broadway Avenue, Bartow FL, 33830. All Utility Agency/Owners that the Department contemplates an adjustment, protection, or relocation is possible are to be invited to the Mandatory Pre-Proposal Meeting.
June 23, 2020	Deadline for submittal of questions, for which a response is assured, prior to the submission of the Technical Proposal. All questions shall be submitted to the Pre-Bid Q&A website.
June 30, 2020	Deadline for the Department to post responses to the Pre-Bid Q&A website for questions submitted by the Design-Build Firms prior to the submittal of the Technical Proposal.
July 2, 2020	Technical Proposals due in District Office by 5:00 pm local time
July 2, 2020	Deadline for Design-Build Firm to "opt out" of Technical Proposal Page Turn meeting.
July 9, 2020	Technical Proposal Page Turn Meeting. Times will be assigned during the Pre-Proposal Meeting. 30 Minutes will be allotted for this Meeting.

August 5, 2020	Question and Answer Written Reponses. Deadline for the Department to provide a list of questions/clarifications for the Design-Build Firm to answer.
August 12, 2020	Deadline for submittal of Question and Answer Written Responses to the Department's questions/clarifications from the Design-Build Firm. 2:00 pm local time
August 19, 2020	Deadline for submittal of follow up questions to previously submitted Question and Answer Written Responses to the Department's questions/clarifications from the Design-Build Firm. 2:00 pm local time
August 26, 2020	Deadline for submittal of Question and Answer Written Responses to the Department's follow up questions. 2:00 pm local time.
August 26, 2020	Deadline for submittal of questions, for which a response is assured, prior to the submission of the Price Proposal. All questions shall be submitted to the Pre-Bid Q&A website.
September 1, 2020	Deadline for the Department to post responses to the Pre-Bid Q&A website for questions submitted by the Design-Build Firms prior to the submittal of the Price Proposal.
September 1, 2020	Deadline for the Design-Build Firm to submit a written statement per Section III. Threshold Requirements, F. Question and Answer Written Responses
September 3, 2020	Price Proposals due in District Office by 11:00 am local time.
September 3, 2020	Public announcing of Technical Scores and opening of Price Proposals at 11:00 am local time in District One Headquarters, 801 N. Broadway Avenue, Bartow FL, 33830
September 15, 2020	Public Meeting of Selection Committee to determine intended Award
September 15, 2020	Final Selection Posting Date
September 29, 2020	FHWA Concurrence to Award
October 5, 2020	Anticipated Award Date
October 19, 2020	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, F.A.C. Parties to a Joint Venture must submit a Declaration of Joint Venture and Power of Attorney Form No. 375-020-18 prior to the deadline for receipt of Letters of 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 and construction portions of the Work. The Joint Venture shall provide an Affirmative Action Plan specifically for the Joint Venture.

C. Price Proposal Guarantee

A Price Proposal guaranty in an amount of not less than five percent (5%) of the total bid amount shall

accompany each Proposer's Price Proposal. The Price Proposal 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 Price Proposal 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 Price Proposal guaranty shall be a liquidated sum, which shall be due in full in the event of default, regardless of the actual damages suffered. The Price Proposal guaranty of all Proposers' shall be released pursuant to Sections 3-4 of the Division I Design-Build Specifications.

D. Pre-Proposal Meeting

Attendance at the pre-proposal meeting is mandatory. Any Short-Listed Design-Build Firm failing to attend will be deemed non-responsive and eliminated from further consideration. The purpose of this meeting is to provide a forum for the Department to discuss with all concerned parties the proposed Project, the design and construction criteria, Critical Path Method (CPM) schedule, method of compensation, instructions for submitting proposals, Design Exceptions, Design Variations, and other relevant issues. In the event that any discussions at the pre-proposal meeting require official additions, deletions, or clarifications of the RFP, the Design and Construction Criteria, or any other document, the Department will issue a written addendum to this RFPs 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 Projects of Division Interest (PoDIs) in order to discuss the Project in detail and to clarify any concerns. Proposers shall direct all questions to the Department's Question and Answer website:

https://fdotwp1.dot.state.fl.us/BidQuestionsAndAnswers/

Failure by a Proposer to attend or be represented at the pre-proposal meeting will constitute a non-responsive determination of their bid package. Bids found to be non-responsive will not be considered. All Proposers must be present and signed in prior to the start of the mandatory pre-proposal meeting. The convener of the meeting will circulate the attendee sign-in sheet at the time the meeting was advertised to begin. Once all Proposers have signed, the sign-in sheet will be taken and the meeting will "officially" begin. Any Proposer not signed in at the "official" start of the meeting will be considered late and will not be allowed to propose on the Project.

E. Technical Proposal Page-Turn Meeting

The Department will meet with each Proposer, formally for 30 minutes, for a page-turn meeting. FHWA will be invited on PoDIs. The purpose of the page-turn meeting is for the Design-Build Firm to guide the Technical Review Committee through the Technical Proposal, highlighting sections within the Technical Proposal that the Design-Build Firm wishes to emphasize. The page-turn meeting will occur between the date the Technical Proposal is due and the Question and Answer (Q&A) Written Response occurs, per the Schedule of Events section of this RFP. The Department will terminate the page-turn meeting promptly at the end of the allotted time. The Department will record all of the page-turn meeting. All recordings will become part of the Contract Documents. The page-turn meeting will not constitute discussions or negotiations. The Design-Build Firm will not be permitted to ask questions of the Technical Review Committee during the page-turn meeting. Plan sheets submitted with the Technical Proposal and an unmodified aerial or map of the project limits provided by the Design-Build Firm is acceptable for reference during the page-turn meeting. The unmodified aerial or map may not be left with the Department upon conclusion of the page-turn meeting. Use of other visual aids, electronic presentations, handouts, etc., during the page-turn meeting is expressly prohibited. Upon conclusion of the 30 minutes, the Technical Review Committee is allowed five minutes to ask questions pertaining to information highlighted by

Design-Build Firm. Participation in the page-turn meeting by the Design-Build Firm shall be limited to eight representatives from the Design-Build Firm. Design-Build Firms desiring to opt out of the page-turn meeting may do so by submitting a request to the Department.

F. Q&A Written Responses

The Department will provide all proposed questions to each Design-Build Firm as it relates to their Technical Proposal approximately one week before the written Q & A letter is due.

The Design-Build Firm shall submit to the Department a written letter answering the questions provided by the Department. The questions and written answers/clarifications will become part of the Contract Documents and will be considered by the Department as part of the Technical Proposal.

G. Protest Rights

Any person who is adversely affected by the specifications contained in this RFP must file a notice of intent to protest in writing within 72 hours of the posting of this RFP. Pursuant to Sections 120.57(3) and 337.11, Florida Statutes (F.S.), and Rule Chapter 28-110, F.A.C., any person adversely affected by the agency decision or intended decision shall file with the agency both a notice of protest in writing and bond within 72 hours after the posting of the notice of decision or intended decision, or posting of the solicitation with respect to a protest of the terms, conditions, and specifications contained in a solicitation and will file a formal written protest within 10 days after the filing of the notice of protest. The formal written protest shall be filed within 10 days after the date of the notice of protest if filed. The person filing the Protest must send the notice of intent and the formal written protest to:

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

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

H. 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 Department of Labor's System for Award Management (SAM) list.

The Department will not give consideration to tentative or qualified commitments in the proposals. For example, the Department will not give consideration to phrases as "we may" or "we are considering" in the evaluation process for the reason that they do not indicate a firm commitment.

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

Any proposal submitted by a Proposer that did not sign-in at the mandatory pre-proposal meeting will be non-responsive.

I. 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.

J. Modification or Withdrawal of Technical Proposal

Proposers may modify or withdraw previously submitted Technical Proposals at any time prior to the Technical Proposal due date. Requests for modification or withdrawal of a submitted Technical Proposal shall be in writing and shall be signed in the same manner as the Technical Proposal. Upon receipt and acceptance of such a request, the entire Technical 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 Technical Proposal provided the change is submitted prior to the Technical Proposal due date.

K. Department's Responsibilities

This RFP 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.

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.

L. Design-Build Contract

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 to the Department for their approval. 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 RFP.

IV. Disadvantaged Business Enterprise (DBE) Program

A. DBE Availability Goal Percentage

The Department of Transportation has an overall, race-neutral DBE goal. This means that the State's goal is to spend a portion of the highway dollars with Certified DBEs as prime Design-Build Firms or as subcontractors. Race-neutral means that the Department believes that the overall goal can be achieved through the normal competitive procurement process. The Department has reviewed this Project and assigned a DBE availability goal shown in the Project Advertisement and on the bid blank/contract front page under "% DBE Availability Goal". The Department has determined that this DBE percentage can be achieved on this Project based on the number of DBEs associated with the different types of work that will be required.

Under 49 C.F.R. Part 26, if the overall 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 Design-Build Firms to actively pursue obtaining bids and quotes from Certified DBEs.

The Department is reporting to the FHWA the planned commitments to use DBEs, as well as actual dollars paid to DBEs. This information is being collected through the Department's Equal Opportunity Compliance (EOC) system. Additional requirements of the Design-Build Firm may be found in Chapter 2 of the FDOT Equal Opportunity Construction Contract Compliance Manual.

B. 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 DBEs. This consultant is also required to work with prime Design-Build Firms, who have been awarded contracts, to assist in identifying DBEs that are available to participate on the Project. The successful Design-Build Firm should meet with the DBE Supportive Services Provider to discuss the DBEs that are available to work on this Project. The current DBE Supportive Services Provider for the State of Florida can be found in the Equal Opportunity website at: http://www.fdot.gov/equalopportunity/serviceproviders.shtm

C. 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 DBEs and Non-DBEs.

A Bid Opportunity List should be submitted through the EOC system, which is available on the Equal Opportunity Office Website. This information should be entered into the EOC System within three business days of submission of the bid or proposal.

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, American Association of State Highway and Transportation Officials (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), and FDOT Standard Plans with applicable Interim Revisions. 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, FDOT Standard Plans and applicable Interim Revisions 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 (as amended in 2012). 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 Design Manual (FDM)
   http://www.fdot.gov/roadway/FDM/

2. Florida Department of Transportation Specifications Package Preparation Procedure
   http://www.fdot.gov/programmanagement/PackagePreparation/Handbooks/630-010-005.pdf

3. Florida Department of Transportation Standard Plans for Road and Bridge Construction
   http://www.fdot.gov/design/standardplans/

4. Standard Plans Instructions (Refer to Part I, Chapter 115, FDM)
   http://www.fdot.gov/roadway/FDM/

5. Florida Department of Transportation Standard Specifications for Road and Bridge Construction (Divisions II & III), Special Provisions and Supplemental Specifications
   http://www.fdot.gov/programmanagement/default.shtm

6. Florida Department of Transportation Surveying Procedure 550-030-101
   http://fdotwp1.dot.state.fl.us/ProceduresInformationManagementSystemInternet/FormsAndProcedures/ViewDocument?topicNum=550-030-101

7. Florida Department of Transportation EFB User Handbook (Electronic Field Book)
   http://www.fdot.gov/geospatial/doc_pubs.shtm

8. Florida Department of Transportation Drainage Manual
   http://www.fdot.gov/roadway/Drainage/ManualsandHandbooks.shtm

9. Florida Department of Transportation Soils and Foundations Handbook
   http://www.fdot.gov/structures/Manuals/SFH.pdf

10. Florida Department of Transportation Structures Manual
    http://www.fdot.gov/structures/DocsandPubs.shtm

11. Florida Department of Transportation Computer Aided Design and Drafting (CADD) Manual
http://www.fdot.gov/cadd/downloads/publications/CADDManual/default.shtm

12. AASHTO – A Policy on Geometric Design of Highways and Streets
https://bookstore.transportation.org/collection_detail.aspx?ID=110

13. MUTCD - 2009
http://mutcd.fhwa.dot.gov/

14. Safe Mobility for Life Program Policy Statement
http://www.fdot.gov/traffic/TrafficServices/PDFs/000-750-001.pdf

15. Traffic Engineering and Operations Safe Mobility for Life Program
http://www.fdot.gov/traffic/TrafficServices/SafetyisGolden.shtm/

16. Florida Department of Transportation American with Disabilities Act (ADA) Compliance – Facilities Access for Persons with Disabilities Procedure 625-020-015
https://fdotwp1.dot.state.fl.us/ProceduresInformationManagementSystemInternet/?viewBy=0&procType=pr

17. Florida Department of Transportation Florida Sampling and Testing Methods
http://www.fdot.gov/materials/administration/resources/library/publications/fstm/disclaimer.shtm

18. Florida Department of Transportation Flexible Pavement Coring and Evaluation Procedure
http://www.fdot.gov/materials/administration/resources/library/publications/materialsmanual/documents/v1-section32-clean.pdf

19. Florida Department of Transportation Design Bulletins and Update Memos
http://www.fdot.gov/roadway/Bulletin/Default.shtm

20. Florida Department of Transportation Utility Accommodation Manual
https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/programmanagement/utilities/docs/uam/uam2017.pdf?sfvrsn=d97fd3dd_0

21. AASHTO LRFD Bridge Design Specifications
https://store.transportation.org/item/collectiondetail/152

22. Florida Department of Transportation Flexible Pavement Design Manual
http://www.fdot.gov/roadway/PM/publicationS.shtm

23. Florida Department of Transportation Rigid Pavement Design Manual
http://www.fdot.gov/roadway/PM/publicationS.shtm

24. Florida Department of Transportation Pavement Type Selection Manual
http://www.fdot.gov/roadway/PM/publicationS.shtm

25. Florida Department of Transportation Right-of-Way Manual
http://www.fdot.gov/rightofway/Documents.shtm

26. Florida Department of Transportation Traffic Engineering Manual
http://www.fdot.gov/traffic/TrafficServices/Studies/TEM/tem.shtm

27. Florida Department of Transportation Intelligent Transportation System Integration Guidebook
http://www.fdot.gov/traffic/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. AASHTO Guide for the Development of Bicycle Facilities
https://store.transportation.org/Item/CollectionDetail?ID=116

30. Federal Highway Administration Hydraulic Engineering Circular Number 18 (HEC 18).
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.fdot.gov/roadway/FloridaGreenbook/FGB.shtm

32. Florida Department of Transportation Project Development and Environment Manual, Parts 1 and 2
http://www.fdot.gov/environment/pubs/pdeman/pdeman1.shtm

33. Florida Department of Transportation Driveway Information Guide
http://www.fdot.gov/planning/systems/programs/sm/accman/pdfs/driveway2008.pdf

34. AASHTO Highway Safety Manual
http://www.highwaysafetymanual.org/

35. Florida Statutes
http://www.leg.state.fl.us/Statutes/index.cfm?Mode=View%20Statutes&Submenu=1&Tab=statutes&CFID=14677574&CFTOKEN=80981948

36. Florida Department of Transportation Equal Opportunity Construction Contract Compliance Manual
http://www.fdot.gov/equalopportunity/contractcomplianceworkbook.shtm

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. 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.

C. Geotechnical Services

1. General Conditions:

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

D. Environmental Permits

1. Storm Water and Surface Water:

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

2. Permits:

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

All applicable data shall be prepared in accordance with Chapter 373 and 403, F.S., Chapters 40 and 62, F.A.C., Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act, 23 C.F.R. 771, 23 C.F.R. 636, and parts 114 and 115, Title 33, C.F.R. In addition to these Federal and State permitting requirements, any dredge and fill permitting required by local agencies shall be prepared in accordance with their specific regulations. Preparation of all documentation related to the acquisition of all applicable permits will be the responsibility of the Design-Build Firm. Preparation of complete permit packages will be the responsibility of the Design-Build Firm. The Design-Build Firm is responsible for the accuracy of all information included in permit application packages. As the permittee, the Department is responsible for reviewing, approving, and signing the permit application package including all permit modifications, or subsequent permit applications. This applies whether the Project is Federal or State funded. Once the Department has approved the permit application, the Design-Build Firm is responsible for submitting the permit application to the environmental permitting agency. Copies (electronic and hard copy) of any and all correspondence with any of the environmental permitting agencies shall be sent to the District Environmental Permits Office. If any agency rejects or denies the permit application, it is the Design-Build Firm's responsibility to make whatever changes necessary to ensure the permit application is approved. The Design-Build Firm shall be responsible for any necessary permit extensions or re-permitting in order to keep the environmental permits valid throughout the construction period. The Design-Build Firm shall provide the Department with draft copies of any and all permit applications, including responses to agency Requests for Additional Information, requests to modify the permits and/or requests for permit extensions, for review and approval by the Department prior to submittal to the agencies.

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

If any design modifications by the Design-Build Firm propose to increase the amount of wetland impacts such that mitigation is required, the Design-Build Firm shall be responsible for providing the Department information on the amount and type of wetland impacts as soon as the impacts are identified (including temporary impacts and/or any anticipated impacts due to construction staging or construction methods). Prior to submitting a permit modification to a regulatory agency, the Design-Build Firm shall provide the Department a draft of all supporting information. The Department will have up to 15 calendar days (excluding weekends and Department-observed holidays) to review and comment on the draft permit application package. The Design-Build Firm will address all comments by the Department and obtain Department approval prior to submittal of the draft permit application package. The Design-Build Firm shall

be solely responsible for all time and costs associated with providing the required information to the Department, as well as the time required by the Department to perform its review of the permit application package, prior to submittal of the permit application(s) by the Design-Build Firm to the regulatory agency(ies).

Any additional mitigation required due to design modifications proposed by the Design-Build Firm shall be the responsibility of the Design-Build Firm and shall be satisfied through the purchase of mitigation bank credits. The Design-Build Firm shall purchase credits directly from a permitted mitigation bank. In the event that permitted mitigation bank credits are unavailable or insufficient to meet the project needs, the Design-Build Firm will be responsible for providing alternative mitigation consistent with the provisions of Section 373. 4137, F.S., and acceptable to the permitting agency(ies)**.** The Design-Build Firm shall be solely responsible for all costs associated with permitting activities and shall include all necessary permitting activities in their schedule.

However, notwithstanding anything above to the contrary, upon the Design-Build Firm's preliminary request for extension of Contract Time, pursuant to Section 8-7.3 of the Standard Specifications for Road and Bridge Construction, being made directly to the District Construction Engineer, the Department reserves unto the District Construction Engineer, in their sole and absolute discretion, according to the parameters set forth below, the authority to make a determination to grant a non-compensable time extension for any impacts beyond the reasonable control of the Design-Build Firm in securing permits. Furthermore, as to any such impact, no modification provision will be considered by the District 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. Survey

The Design-Build Firm shall perform all surveying (Terrestrial, Mobile and/or Aerial) and mapping services necessary to complete the Project. Survey services must also comply with all pertinent F.S. (Chapters 177 and 472) and applicable rules in the Florida Administrative Code (Rule Chapter 5J-17). 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 and Mapping Procedure, Topic Nos. 550-030-101, and the Surveying and Mapping Handbook.

If the Design-Build Firm acquires additional Right-of-Way the Design-Build Firm shall provide final Right-of-Way survey and mapping services unless the Department determines it is not needed for the Project. The scope of work shall include performing appropriate Right-of-Way survey for the proposed Project, including mainline alignment, side streets as needed, as well as all Right-of-Way interests.

If the Design-Build Firm acquires additional Right-of-Way the Design-Build Firm shall provide final Right-of-Way maps unless the Department determines it is not needed. These maps and any associated sketches, legal descriptions and all associated necessary documentation, field data collection and any other supporting documentation shall be included as part of the Construction Set of plans submitted by the Design-Build Firm.

F. 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.

G. Submittals

1. Phase Submittals:

The Design-Build Firm shall provide the documents for each phase submittal listed below to the Department's Project Manager. The particular phase shall be clearly indicated on the documents. The Department's Project Manager will send the documents to the appropriate office for review and comment. Once all comments requiring a response from the Design-Build Firm have been satisfactorily resolved as determined by the Department, the Department's Project Manager will initial, date and stamp the signed and sealed plans and specifications as "Released for Construction".

90% Phase Submittal

1 copy of 11" X 17" plans (all required components)
1 copy of signed and sealed geotechnical report as required for new structures
1 copy of design documentation
1 copy of ASCT Timing Parameter Report to include all editable ASCT parameters and settings for the corridor to function in ASCT mode (Requirements defined in Section VI.L.2)
1 copy of Technical Special Provisions
All of the information above shall be submitted electronically in .pdf format.
All QC plans and documentation for each component submittal shall be electronic in .pdf format

The Department will designate in the review comments if the next submittal will be a resubmittal of the 90% phase submittal or if the plans and supporting calculations are significantly developed to proceed to the Final Submittal. If the Department requires more than two resubmittals, a submittal workshop between the Department and the Design-Build Firm must be held to resolve any outstanding issues or comments.

Final Submittal

1 set of signed and sealed 11" X 17" plans (all required documents)
1 copy of signed and sealed 11" X 17" plans
1 set of signed and sealed design documentation
1 copy of signed and sealed design documentation
1 set of signed and sealed ASCT Timing Parameter Report (Requirements defined in Section VI.L.2)
1 copy of signed and sealed ASCT Timing Parameter Report (Requirements defined in

Section VI.L.2)
1 set of final documentation
1 signed and sealed Construction Specifications Package or Supplemental Specifications Package
1 copy of signed and sealed copy of Construction Specifications Package or Supplemental Specifications Package
1 electronic copy of Technical Special Provisions in .pdf format

All of the information above shall be submitted electronically in .pdf format.

All QC plans and documentation for each component submittal shall be electronic in .pdf format

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

2. Requirements to Begin Construction:

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

The Design-Build Firm may choose to begin construction prior to completion of the Phase Submittals and the Department stamping the plans and specifications Released for Construction. To begin construction, the Design-Build Firm shall submit signed and sealed plans for the specific activity; submit a signed and sealed Construction Specifications Package or Supplemental Specifications Package; obtain regulatory permits as required for the specific activity; obtain utility agreements and permits, if applicable; and provide five days notice before starting the specific activity. The plans to begin construction may be in any format, including report with details, 8 1/2" X 11" sheets, or 11" X 17" sheets, and only the information needed by the Design-Build Firm to construct the specific activity needs to be shown. Beginning construction prior to the Department stamping the plans and specifications Released for Construction does not reduce or eliminate the Phase Submittal requirements.

As-Built Set:

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

Design Manual.

The Design-Build Firm shall complete the As-Built Plans as the Project is being constructed. All changes made subsequent to the Released for Construction Plans shall be signed/sealed by the EOR. The As-Built Plans shall reflect all changes initiated by the Design-Build Firm or the Department in the form of revisions. The As-Built Plans shall be submitted for Department review prior to the start of the Operational System Acceptance Test (OSAT).

The Department shall review, certify, and accept the As-Built Plans prior to issuing Final Acceptance of the project in order to complete the As-Built Plans.

As-Built Plans shall include Global Positioning System (GPS) data utilizing the criteria set forth in the ITS Facility Management District One Implementation Plan, included as an Attachment to this RFP.

Along with the As-Built Plans, a copy of the completed ITSFM data shall be submitted for review prior to the start of OSAT. It is the Design-Build Firm's responsibility to obtain all training and certifications necessary to collect and submit the ITSFM data. Documentation showing the necessary training and certifications have been obtained and/or scheduled shall be submitted within two weeks of beginning work on the ASCT System infrastructure. Contact d1-itsfm@dot.state.fl.us for ITSFM information.

The Design-Build Firm shall provide data as necessary for populating ITSFM based on the Implementation Plan with all required equipment that the ASCT System interacts with. This will include, but not be limited to, all new and existing conduit runs, fiber infrastructure, pull boxes, and cabinets. Attached to this RFP is the ITSFM manual describing the procedures and amount of detail required to efficiently and accurately complete this task.

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

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

- 1 set of 11" X 17" signed and sealed As-Built plans, drawings and Certified Surveys
- 3 sets of 11 "X 17" copies of the signed and sealed As-Built plans, drawings and Certified Surveys
- 3 sets of final documentation (if different from final component submittal)
- 3 sets of survey information, including electronic files and field books
- 3 sets of signed and sealed ASCT Timing Parameter Report to include all editable ASCT parameters and settings for the corridor to function in ASCT mode
- CADD Files
- ITSFM import templates, ITSFM master code lists applicable to this project. Provide all project data necessary to populate the District ITSFM database in Microsoft Excel format
- RTVM in Microsoft Excel format
- 1 Final Project submittal containing the information above shall be electronic in .pdf format

3. Milestones:

In addition to various submittals mentioned throughout this document the following milestone submittals will be required.

- 90% Design Submittal
- RTVM – Submitted seven days prior to the submittal of the Certified Monthly Estimate and Payment
- Project Specifications
- Shop Drawings
- Design Approval for Construction
- Material Acquisition
- Final Design Submittal
- IP Addressing
- Integration Plan
- ASCT System Test Plans and Test Results
- Training Plans
- As-Built Plans

H. Contract Duration

The Department has established a Contract Duration of 440 calendar days for the subject Project.

I. Project Schedule

If required, the Design-Build Firm shall submit a Schedule, in accordance with Subarticle 8-3.2 (Design-Build Division I Specifications). The Design-Build Firm's Schedule shall allow for up to 15 calendar days (excluding weekends and Department-observed Holidays) review time for the Department's review of all submittals.

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

The following Special Events have been identified in accordance with Specification 8-6.4:

Annual Mobil 1 Twelve Hours of Sebring

The minimum number of activities included in the Schedule shall be those listed in the Schedule of Values and those listed below:

- Anticipated Award Date
- Notice to Proceed (NTP)
- Design Submittals
- Shop Drawing Submittals
- Other Contractor-Initiated Submittals including RFIs, RFMs, RFCs, and NCRs
- Design Survey
- Submittal Reviews by the Department and FHWA
- Design Review / Acceptance Milestones
- Materials Quality Tracking
- Submittal Data Form Submittal
- Geotechnical Investigation
- Start of Construction

- Clearing and Grubbing
- Construction Mobilization
- Environmental Permit Acquisition
- Foundation Design
- Foundation Construction
- Signalization and ITS Design
- Signalization and ITS Construction
- System Integration
- Test Plan Submittal
- Training
- Maintenance of Traffic Design
- Permit Submittals
- Maintenance of Traffic Set-Up (per duration)
- Erosion Control
- Holidays and Special Events (shown as non-work days)
- Additional Construction Milestones as determined by the Design-Build Firm
- Final Completion Date for All Work

J. Key Personnel/Staffing

The Design-Build Firm's work shall be performed and directed by key personnel identified in the Letter of Interest and/or Technical Proposal by the Design-Build Firm. In the event a change in key personnel is requested, the Design-Build Firm shall submit the qualifications of the proposed key personnel and include the reason for the proposed change. Any changes in the indicated personnel shall be subject to review and approval by the District Construction Engineer. The Department shall have sole discretion in determining whether or not the proposed substitutions in key personnel are comparable to the key personnel identified in the Letter of Interest and/or Technical Proposal. The Design-Build Firm shall have available professional staff meeting the minimum training and experience set forth in Chapter 455, F.S.

K. Partner/Teaming Arrangement

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

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
- Local government agency coordination
- Maintenance of Traffic Workshop
- Permit agency coordination
- System Integration Meeting

During design, the Design-Build Firm shall meet with the Department's Project Manager on a monthly basis at a minimum and provide a one-month look ahead of the activities to be completed during the upcoming month.

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

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

The System Integration Meeting will be held on a mutually agreeable date.

All action items resulting from the System Integration Meeting shall be satisfactorily addressed by the Design-Build Firm and reviewed and approved by the Department.

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.

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. The Department, or its designated representative, will serve as the Public Involvement Consultant (PIC) to carry out an exhaustive Public Involvement Campaign and a marketing effort. The Design-Build Firm will assist the Department in the Public Involvement effort 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 supporting materials necessary for various public meetings, which may include:

- Kick-off or introductory meeting

- Public Information Meetings
- Elected and appointed officials
- Special interest groups (private groups, homeowners associations, environmental groups, minority groups and individuals)
- Open Houses
- Virtual Public Hearings

The Design-Build Firm shall include attendance at three meetings 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, 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, open houses, and public hearings.

The Design-Build Firm shall, as determined by the Department, attend the meetings with an appropriate number of personnel to assist the CEI/Department. The Design-Build Firm shall forward all requests for group meetings to the CEI/Department. The Design-Build Firm shall inform the CEI/Department 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 advertisements announcing workshops, information meetings, and public meetings will be prepared and paid for by the Department.

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

5. **Public Involvement Data:**

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

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

The Design-Build Firm shall provide records of all public correspondence, written or verbal, to the Department throughout the life of the Project.

The Design-Build Firm may be asked by the CEI/Department to prepare draft responses to any public

inquiries as a result of the public involvement process.

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 QMP 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 QC 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 calendar days (excluding weekends and Department Department-observed holidays) following issuance of the written NTP. A marked-up set of prints from the QC review will be sent in with each review submittal. The responsible Professional Engineers or Professional Surveyor that performed the QC review, as well as the QA Manager, will sign a statement certifying that the review was conducted.

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

2. Construction:

The Design-Build Firm shall be responsible for developing and maintaining a Construction QC Plan in accordance with Section 105 of the Standard Specifications which describes their QC procedures to verify, check, and maintain control of key construction processes and materials.

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

The Design-Build Firm shall prepare and submit to the Engineer a Job Guide Schedule (JGS) using the Department database in accordance with Section 105 of the 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 representatives of their respective organizations for the Project.

P. Schedule of Values

The Design-Build Firm is responsible for submitting estimates requesting payment. Estimates requesting payment will be based on the completion or percentage of completion of tasks as defined in the Schedule of Values. Final payment will be made upon final acceptance by the Department of the Design-Build Project. Tracking DBE participation will be required under normal procedures according to the Construction Project Administration Manual. The Design-Build Firm must submit the Schedule of Values to the Department for approval. No estimates requesting payment shall be submitted prior to Department approval of the Schedule of Values.
Upon receipt of the estimate requesting payment, the Department's Project Manager will make judgment on whether or not work of sufficient quality and quantity has been accomplished by comparing the reported percent complete against actual work accomplished.

Q. Computer Automation

The Project shall be developed utilizing computer automation systems in order to facilitate the development of the contract plans. Various software and operating systems were developed to aid in assuring quality and conformance with Department policies and procedures. The Department supports MicroStation and GEOPAK as its standard graphics and roadway design platform as well as Autodesk's AutoCAD Civil 3D as an alternate platform. Seed Files, Cell Libraries, User Commands, MDL Applications and related programs developed for roadway design and drafting are in the FDOT CADD Software Suite. It is the responsibility of the Design-Build Firm to obtain and utilize current Department releases of all CADD applications.

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

As part of the As-Built Set deliverables, field conditions shall be incorporated into MicroStation and/or AutoCAD design files. Use the cloud revision utility as well as an "AB" revision triangle to denote field conditions on plan sheets.

R. Construction Engineering and Inspection

The Department is responsible for providing CEI and QA Engineering.

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

S. Testing

The Department or its representative will perform verification and resolution sampling and testing activities at both onsite as well as offsite locations, such as pre-stress plants, batch plants, structural steel and weld, fabrication plants, etc. in accordance with the latest Specifications.

The Design-Build Firm shall perform testing according to this RFP, the Specifications and the RTVM that is included as a Reference Document to this RFP. The Testing Requirements shall be adhered to for this

project in addition to the manufacturer's testing criteria. The RTVM is a table that lists requirements from the RFP and testing requirements from the Specifications. The Design-Build Firm must verify each requirement within the RTVM. The Design-Build Firm shall populate the RTVM table as project tasks are completed, submit for acceptance seven days prior to each invoice submittal, and deliver the final completed RTVM to the Department as a condition of Final Acceptance.

RTVM:

The Systems Engineering Process directs the development of the RTVM. The RTVM is a tracking document used to confirm contract requirements are met using four methods of verification: analysis, demonstration, inspection, and testing. Each of the contract requirements within this RFP and the testing requirements for the applicable Specifications is documented in the initial RTVM with a verification method.

The Department has prepared the initial RTVM for use by the Design-Build Firm. The Design-Build Firm shall update the RTVM as contract requirements are met and deliver to the Department seven days prior to the submittal of the Certified Monthly Estimate and Payment. If there are approved changes to the contract requirements during the project which necessitate a change to the RTVM, the Design-Build Firm will update and submit for review and acceptance by the Department.

The Design-Build Firm shall update and initial relevant lines of the RTVM on a monthly basis and submit it for Department's review seven days prior to any invoice submittal. The Department will review and accordingly initial the relevant lines and return the document to the Design-Build Firm within 15 calendar days (excluding weekends and Department Department-observed holidays) to allow the Design-Build Firm 15 calendar days (excluding weekends and Department Department-observed holidays) to update the document for the following month. Should the RTVM become 30 days behind, the Design-Build Firm will be required to meet with the FDOT Construction PM and representatives to resolve the issues and/or conflicts. Once the project construction is finished and the testing is successfully completed, the Design-Build Firm shall finalize the RTVM and deliver it with the as-builts to the Department.

T. Value Added

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

Any 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 for features proposed by the Design-Build Firm.

U. Adjoining Construction Projects

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

- FPID 442124-1-32-01 SR 25 (US 27) At Northwood Boulevard
- FPID 437732-1-32-01 SR 25 (US 27) From Highlands Avenue to Sparrow Avenue
- FPID 439433-1-32-01 SR 25 (US 27) From SR 66 to Highlands AvenueFPID 438376-1-32-01

SR 25 (US 27) At Lakeview Drive

The Design-Build Firm shall consider and include in the Construction Plans and Bid Price Proposal any and all temporary detours or diversions required to facilitate traffic movements into and out of the project limits, notwithstanding the alignment, lane positioning and/or grade differences of traffic conditions on those adjacent projects.

V. Issue Escalation

In the event issues arise during prosecution of the work, the resolution of those issues will be processed as described below unless revised by a project-specific Partnering Agreement:

The escalation process begins with the Construction Project Manager. All issues are to be directed to the Construction Project Manager. If the issue cannot be resolved by the Construction Project Manager in coordination with the Resident Engineer and Design Project Manager as applicable, the Construction Project Manager shall forward the issue to the District Construction Engineer who will coordinate with the District Design Engineer and the District Utility Administrator, as applicable. Each level shall have a maximum of five calendar days (excluding weekends and Department-observed holidays) to answer, resolve, or address the issue. The Design-Build Firm shall provide all supporting documentation relative to the issue being escalated. The five calendar day period (excluding weekends and Department-observed holidays) begins when each level in the issue escalation process has received all required supporting documentation necessary to arrive at an informed and complete decision. The five calendar day period (excluding weekends and Department-observed holidays) is a response time and does not infer resolution. Questions asked by the Department may be expressed verbally and followed up in writing within one calendar day (excluding weekends and Department-observed holidays). Responses provided by the Design-Build Firm may be expressed verbally and followed up in writing within one working day. Once a response is received from the District Construction Engineer, the Construction Project Manager will respond to the Design-Build Firm in a timely manner but not to exceed three calendar days (excluding weekends and Department-observed holidays).
The Design-Build Firm shall provide a similar issue escalation process for their organization with personnel of similar levels of responsibility.

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

VI. Design and Construction Criteria

A. General

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

B. Geotechnical Services

Drilled Shaft Foundations for Bridges and Miscellaneous Structures

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

1. Evaluating geotechnical conditions to determine the drilled shaft diameter and length and construction methods to be used.

2. Performing the subsurface investigation and drilling pilot holes prior to establishing the drilled shaft tip elevations and socket requirements.
3. Preparing and submitting a Drilled Shaft Installation Plan for the Department's acceptance.
4. Determining the production shaft lengths.
5. Documenting and providing a report that includes all load test shaft data, analysis, and recommendations to the Department.
6. Constructing all drilled shafts to the required tip elevation and socket requirement in accordance with the specifications.
7. Inspecting and documenting the construction of all drilled shafts in accordance with the specifications.
8. Performing Cross-Hole Sonic Logging (CSL) or Thermal Integrity tests on all nonredundant drilled shafts supporting bridges. For redundant drilled shaft bridge foundations and drilled shafts for miscellaneous structures, perform CSL or Thermal Integrity testing on any shaft suspected of containing defects.
9. Repairing all detected defects and conducting post repair integrity testing using 3D tomographic imaging and gamma-gamma density logging.
10. Submitting Foundation Certification Packages in accordance with the specifications.
11. Providing safe access and cooperating with the Department in verification of the drilled shafts, both during construction and after submittal of the certification package.

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 (UCM) 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 UCM. The UCM shall have the following knowledge, skills, and abilities:

1. A minimum of four 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 UCM shall be responsible for managing all utility coordination, including, but not limited to, the following:

1. Ensuring that all utility coordination and activities are conducted in accordance with the requirements of the Contract Documents.
2. Identifying all existing utilities and coordinating any new installations.
3. Reviewing proposed utility permit application packages and recommending approval/disapproval of each permit application based on the compatibility of the permit as related to the Design-Build Firm's plans.
4. Scheduling and conducting utility meetings, preparing and distributing minutes of all utility meetings, and ensuring expedient follow-up on all unresolved issues.
5. Distributing all plans, conflict matrices and changes to affected Utility Agency/Owners (UA/Os) and making sure this information is properly coordinated.
6. Identifying, preparing, reviewing and facilitating any agreement required for any utility work needed through final approval and execution. The UCM shall also be

responsible for monitoring and reporting the performance of all involved parties under said agreement.

7. Preparing, reviewing, approving, signing, and coordinating the implementation of and submitting to the Department for review, all Utility Agreements.
8. Resolving utility conflicts.
9. Obtaining and maintaining all appropriate "*Sunshine State One Call of Florida*" tickets.
10. 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.
11. Providing periodic Project updates to the Department Project Manager and District Utility Office as requested.
12. Coordination with the Department on any issues that arise concerning reimbursement of utility work costs between the Department and the utility.
13. The Design-Build Firm shall be responsible for providing and maintaining locates throughout the Project corridor for both Sunshine 811 and non-Sunshine 811 subscribers for any portion(s) of the proposed system for the duration of the Project when requested by the Department or third parties authorized to work within the Project limits.

The following UA/Os have been identified by the Department as having facilities within the Project corridor. The Department does not anticipate the relocation of any utilities.

Table A - Summary of UA/O Having Facilities Within the Proposed Project Limits

UA/O	Contact Information
CenturyLink (Local)	Bill McCloud Phone: 850-599-1444
CenturyLink (National)	Network Relations Phone: 877-366-8344 Ext: 2
City of Sebring – Water	Garvin Elkhill Phone: 863-471-5113
City of Sebring – WWC	Jim Jackson Phone: 863-471-5156
Comcast	Leonard Maxwell-Newbold Phone: 754-221-1254
Duke Energy	Stephanie Olmo Phone: 407-905-3376
Highlands County Traffic	Edward Cardona Phone: 863-402-6536 Ext: 6536
Sebring Gas System, Inc.	Cameron Menzie Phone: 863-385-0194
Sun ' N Lakes Improvement District	Drew Jones Phone: 863-385-5564

The Design-Build Firm may request the utility to be relocated to accommodate changes from the conceptual plans; however, these relocations require the Department's approval and the Department will not pay the UA/O or the Design-Build Firm for the utility relocation work regardless of the UA/O's eligibility for reimbursement.

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

D. Geometric Design

The Design-Build Firm shall prepare the geometric design for the Project using the Standard Plans and criteria 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, and median widths. 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.

E. Design Documentation, Calculations, and Computations

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

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

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

1. Standards Plans and criteria 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

F. Specifications

Department Specifications may not be modified or revised. Technical Special Provisions shall be written only for items not addressed by Department Specifications, and shall not be used as a means of changing Department Specifications.

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

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

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

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

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

Upon review and approval by the Department, the Construction Specifications Package will be stamped

"Released for Construction" and initialed and dated by the Department.

G. Shop Drawings

The Design-Build Firm shall be responsible for the preparation and approval of Shop Drawings. Shop Drawings shall be in conformance with the FDM. Shop Drawing submittals must be accompanied by sufficient information for adjoining components or areas of work to allow for proper evaluation of the Shop Drawing(s) submitted for review. When required to be submitted to the Department, Shop Drawings shall bear the stamp and signature of the Design-Build Firm's EOR and Specialty Engineer, as appropriate. All "Approved" and "Approved as Noted" Shop Drawings submitted to the Department for review shall also include EOR QA/QC Shop Drawing check prints along with the EOR stamped set(s). The Department shall review the Shop Drawing(s) to evaluate compliance with Project requirements and provide any findings to the Design-Build Firm. The 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 initial, date, and stamp the drawing "Released for Construction" or "Released for Construction as Noted".

H. Sequence of Construction

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

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

I. Stormwater Pollution Prevention Plans (SWPPP)

The Design-Build Firm shall prepare a SWPPP as required by the National Pollution Discharge Elimination System (NPDES). The Design-Build Firm shall refer to the Department's Project Development and Environment Manual and Florida Department of Environmental Protection (FDEP) Rule 62-621.300(4)(a) for information in regard to the SWPPP. The SWPPP and the Design-Build Firm's Certification (FDEP Form 62-621.300(4)(b) **NOTICE OF INTENT (NOI) TO USE GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES)** shall be submitted for Department review and approval. Department approval must be obtained prior to beginning construction activities.

J. Transportation Management Plan

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

1. Traffic Control Restrictions:

There will be NO LANE CLOSURES allowed between the hours of 8:00 AM to 7:00 PM**.** A lane may only be closed during active work periods. There will be NO PACING OPERATIONS allowed. There will be no detours allowed. All lane closures must be reported to the local emergency agencies, the media and the District Public Information Office (PIO). 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.

K. Environmental Services/Permits/Mitigation

The Design-Build Firm will be responsible for preparing designs and proposing construction methods that are permittable. The Design-Build Firm will be responsible for any required permit fees. All permits required for a particular construction activity will be acquired prior to commencing the particular construction activity. Delays due to incomplete or erroneous permit application packages, agency rejection, agency denials, agency processing time, or any permit violations, except as provided herein, will be the responsibility of the Design-Build Firm, and will not be considered sufficient reason for a time extension or additional compensation.

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

The Department has conducted an investigation of the Project site and determined that potential gopher tortoise habitats could be impacted by the Project. All coordination by the Design-Build Firm with the Department regarding gopher tortoises will be completed through the District Environmental Management Office. If the Department has determined that suitable gopher tortoise habitat exists in the project area, then the Design-Build Firm shall be responsible for conducting the gopher tortoise burrow survey for the purpose of identifying potential gopher tortoise habitats that could be impacted by the Project including any areas to be used for construction staging. The habitat will be systematically surveyed according to the current Gopher Tortoise Permitting guidelines published by the Florida Fish and Wildlife Conservation Commission (FWC). The Department must verify the completeness and accuracy of the assessment prior to commencement of any permitting or construction activities. Any areas where the Design-Build Firm proposes to protect burrows to remain on-site with "exclusionary fencing" shall be reviewed and approved by the Department. The Design-Build Firm shall submit an "exclusionary fencing" plan for review prior to any "exclusionary fencing" installation. If there are unavoidable impacts to gopher tortoise burrows, the Design-Build Firm shall be responsible for preparing required documentation for the Department to obtain a FWC permit for the relocation of gopher tortoises and commensals from burrows which cannot be avoided. Preparation of complete permit packages will be the responsibility of the Design-Build Firm. As the "permittee", the Department is responsible for reviewing and approving the permit application package including all permit modifications, or subsequent permit applications. This applies whether the project is Federal or state funded. Once the Department has approved the permit application, the Design-Build Firm is responsible for submitting the permit application to FWC. A copy of the permit and any subsequent reports to FWC must be provided to the District Environmental Management Office or District Environmental Permit Office, as appropriate. If FWC rejects or denies the permit application, it is the Design-Build Firm's responsibility to make whatever changes necessary to ensure the permit application is approved. Once the permit is obtained, the Design-Build Firm shall notify the Department at least one week prior to the relocation of gopher tortoises. If gopher tortoise relocations are phased throughout the construction, the Design-Build Firm shall notify the Department at least one week prior to each relocation phase. The Department will provide oversight of the relocations and ensure permit compliance. The Design-Build Firm shall be responsible for any necessary permit extensions or re-permitting in order to keep the relocation permit valid throughout the construction period. The Design-Build Firm shall provide

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

L. Signalization and ITS Plans

1. General

The Design-Build Firm shall prepare Signalization and ITS plans in accordance with Department criteria.

The Design-Build Firm shall prepare design plans and provide necessary documentation for the procurement and installation of the Signalization and ITS devices and ATMS/ASCT System software equipment as well as overall system construction and integration. The construction plan sheets shall be in accordance with Department requirements and include, but not be limited to:

- Key Sheet
- Summary of Pay Items
- Tabulation of Quantities
- Project Layout / Overview sheets outlying the locations of field elements
- Detail sheets on:
  - ATMS central control software and ASCT System equipment including providing a Laptop Computer at the Highlands County's Engineering Building
  - CCTV camera structure, CCTV camera attachment, CCTV camera layout
  - Fiber optic splice and conduit
  - Power service distribution
  - Wiring and connection details
  - Grounding details
  - Conduit, pull box, and vault installation
  - Communication closet and Field cabinets
  - System-level block diagrams
  - Device-level block diagrams
  - Field hub/router cabinet configuration details
  - Fiber optic splicing diagrams
  - System configuration / Wiring diagram / Equipment interface for field equipment at individual locations
  - Communications Plan

The contractor shall install field equipment on US 27 at the following FDOT-owned and Highlands County-maintained intersections:

Table B: List of Intersections

FDOT ID	Major Street	Minor Street
189	US 27 (SR 25)	South Highlands Avenue
190	US 27 (SR 25)	Desoto Square
191	US 27 (SR 25)	Sebring Drive / SR 17

192	US 27 (SR 25)	Lakeview Drive
193	US 27 (SR 25)	Sparta Road
194	US 27 (SR 25)	Golfview Road
195	US 27 (SR 25)	Country Club Lane (Emergency Signal)
196	US 27 (SR 25)	Hammock Road
197	US 27 (SR 25)	Flare Road
198	US 27 (SR 25)	Vicki Drive
199	US 27 (SR 25)	Sparrow Avenue / Jeri Kay Lane
200	US 27 (SR 25)	Thunderbird Road
201	US 27 (SR 25)	New Life Way / Bayview Street
202	US 27 (SR 25)	Schumacher Road / Sebring Parkway

The Design-Build firm is responsible for ensuring project compliance with the Regional ITS Architecture (RITSA) and FHWA Rule 940 as applicable. This includes, but is not limited to, the monthly updates to the RTVM, as well as coordination of document review.

The Design-Build Firm shall document existing Signalization and ITS equipment and report which devices will be removed, replaced, or impacted by project work.

2. Design and Engineering Services

The Design-Build Firm shall be responsible for all Signalization and ITS design and engineering services relating to the Project. All system components shall be new unless otherwise identified for relocation.

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

At a minimum, the work in this project consists of the following major components:

- Removal and replacement of any system components that are impacted by the Design-Build Firm's scope of work as approved by the Department. All equipment shall be new unless otherwise specified.
- Replacement or upgrade of signal controllers for ATMS/ASCT System operation.
- Detection equipment and all ancillary components required to provide a fully functional ATMS/ASCT System. If any detection equipment requires mounting to an existing structure, the Design-Build Firm shall complete a structural analysis of the existing structure to confirm the adequacy of mounting new ASCT System detection equipment. The analysis shall include a detailed analytical evaluation of the proposed structure with new structure criteria in accordance with the Structures Manual Volume 3 (without Appendix C). Reported results shall include the Demand/Capacity (D/C) ratios and Combined Stress Ratios (CSRs). The structure analysis shall be reviewed and approved by the Department. In the event that the analysis indicates any D/C ratios or CSRs greater than one, a new support structure or new pole installation will be required. All costs associated with any new support or pole shall be the responsibility of the Design-Build Firm and shall be installed at no additional cost to the Department.
- CCTV camera system for monitoring the project corridor. The CCTV camera system shall include, but not be limited to, Pan, Tilt, and Zoom (PTZ) CCTV cameras, concrete poles / strain

poles, conduits, pull boxes power supplies and all ancillary components to provide complete camera coverage of the project intersections. CCTV cameras can be attached to signal mast arm uprights with a Department-approved structural evaluation of the upright. The Design-Build Firm shall complete a structural analysis of the existing structure to confirm the adequacy of mounting new CCTV cameras. The analysis shall include a detailed analytical evaluation of the proposed structure with new structure criteria in accordance with the Structures Manual Volume 3 (without Appendix C). Reported results shall include the D/C ratios and CSRs. The structure analysis shall be reviewed and approved by the Department. In the event that the analysis indicates any D/C ratios or CSRs greater than one, a new support structure or new pole installation will be required. All costs associated with any new support or pole shall be the responsibility of the Design-Build Firm and shall be installed at no additional cost to the Department.

- The fiber optic cable-based communications shall include, but not be limited to, conduits, pull boxes, splice vaults, a 96-count single-mode fiber optic cable backbone, 12-count single-mode lateral cables, splice enclosures, patch panels, jumpers, splicing, Managed Field Ethernet Switches (MFESs), and all ancillary components to provide a fully functional communications system.
- The required communications infrastructure shall be installed in the City's Fire Station, located at 3118 Golfview Road, Sebring, Florida for the connection to the RTMC and Highlands County's Engineering Building.
- ATMS central control software including, but not limited to, firmware, software and licensing, servers, programming, training, and all ancillary components required to provide a fully functional ATMS.
- ASCT System central and field software including, but not limited to, software and licensing, servers, programming, training, and all ancillary components required to provide a fully functional ASCT System.
- The Design-Build Firm shall utilize the current District One "Guidelines for the Development of Traffic Signal Timings" to develop the new ASCT signal timings. The Design-Build Firm shall provide the Department with a signed and sealed ASCT Timing Parameter Report containing the final timing/phasing parameters and settings developed for implementation. The ASCT Timing Parameter Report shall be reviewed and approved by the Department prior to implementation in the field. The Design-Build Firm shall provide any specific data collection, analysis and modeling efforts associated with the new ASCT signal timings and shall coordinate their efforts with the Department. Any changes proposed to the signal phasing or lane configuration shall be reviewed and approved by the Department prior to implementation. The Design-Build Firm shall provide all analysis and justifications supporting these changes to the Department for review.
- Existing grounding shall be tested and brought up to FDOT ITS grounding standards at all 14 intersections.
- Testing and training for project components and systems.

Coordination with the Department must be maintained to avoid conflicts with landscape plans within the Department Right-of-Way. While procedures are being revised to facilitate this increased collaboration and cooperation, the Design-Build Firm is required to ensure that during the design and construction the project and each landscape project are entirely coordinated with existing and proposed facilities and landscapes. Both programs have been determined to be important components of the state transportation system.

3. Construction and Integration Services

The Design-Build Firm shall be responsible for all Signalization and ITS construction and integration services relating to the Project. The requirements of these services are as defined in the ConOps and the System Requirements documents, included as Reference Documents to this RFP.

The Design-Build Firm shall furnish all tools, equipment, materials, supplies, and manufactured hardware, and shall perform all operations and equipment integration necessary to provide a complete, fully operational ATMS and ASCT System. All equipment shall be mounted or secured within the new or existing signal controller cabinets.

a. Upgrading Existing Signalized Intersections

The Design-Build Firm will provide all design services necessary to upgrade all intersections to ensure conformance with the RFP. This may include signal controllers, controller support hardware, and support software required for the complete and fully functional operation of all project intersections in an ATMS/ASCT System mode. The design will include any and all necessary cabinet support equipment, firmware, or miscellaneous materials required to connect each of the project intersections with the RTMC and also to connect the intersections to a work station located in Highlands County's Engineering Building. The Concept Plans show the required signal cabinet, cabinet base, and signal controller upgrades.

Existing cabinet foundations will be utilized where noted in the Conceptual Plans. The Design-Build Firm will be responsible for verifying sufficient spare conduits exist into the signal cabinets. If the existing spare conduits are not sufficient for communication and the base is concrete, a new foundation will be constructed. The design of new foundations or modification of existing foundations will be in accordance with all FDOT specifications and standards for controller cabinets, cabinet foundations, and cabinet technician pads.

b. CCTV Camera System

The project will deploy PTZ CCTV cameras to monitor the functionality of the system within the project corridor. The cameras will provide real-time monitoring capabilities and will be operated and controlled from the RTMC. Proposed locations for the CCTV cameras are shown in the Conceptual Plans, attached as a Reference Document, that were developed as part of this project. The CCTV camera monitoring system will include the deployment of the following field subsystem components:

- PTZ CCTV camera assembly
- CCTV camera pole and foundation (if required)
- Video encoder (internal to camera)
- Surge protection as required
- Power injectors as needed

The CCTV Camera System shall conform to FDOT specifications and shall be dome-type High Definition (HD) PTZ cameras, 1080p Internet Protocol (IP) with Power over Ethernet (PoE), using National Transportation Communications for ITS Protocol (NTCIP) protocol at a minimum. The Design-Build Firm will determine a location for each camera that provides an unobstructed view of US 27 with consideration of being able to monitor traffic queues on the side streets at the signalized intersections.

The Design-Build Firm shall determine the mounting height and location of new CCTV cameras to provide optimized sightlines. A sightline is defined as the clear and unobstructed view to the adjacent signalized intersection in each direction on mainline and a minimum of 500 feet in each direction on the side streets.

Sightlines shall not be obstructed by bridges, buildings, other structures or any current vegetation growth. In the event that roadway geometry, existing obstructions or distances to adjacent signalized intersections limit the ability to achieve all desired sightlines, preference shall be given to optimization of the mainline sightlines. Means and methods for verification of sightlines and mounting heights shall be submitted by the Design-Build Firm to the Department for approval. Sightline findings, as per the approved method above, shall be provided to the Department for review and approval prior to 90% phase submittal.

CCTV camera communications cables may not share conduits with cables or pull boxes with power cables carrying voltage greater than 24 VDC/VAC or current in excess of 1.5 amps.

The cameras will display each CCTV camera image on workstations, video wall, and other CCTV software applications designated in the RTMC and Highlands County's Engineering Building. The system will be compatible with existing monitors in the RTMC.

c. Communications Infrastructure

The Design-Build Firm shall provide communication infrastructure and equipment necessary to provide a fully operational ASCT System. The intersections and ATMS field devices shall be integrated into the centralized command and control software and hardware as required, at the RTMC located at 10041 Daniels Parkway, Fort Myers, Florida and the Highlands County's Engineering Building located at 505 S. Commerce Avenue, Sebring, Florida, consistent with the ConOps and System Requirements.

This project will include the deployment of a new 96-count fiber optic network utilizing IP over Ethernet communications technologies and protocols. The Design-Build Firm shall design and construct the fiber optic communications system using FDOT Specifications.

The Design-Build Firm shall install conduit, locate wire, warning tape, fiber route markers, pull boxes, splice enclosures, and splice vaults as outlined in FDOT Specifications 630 and 635. The conduit system shall be installed to include two 2" conduits. One will contain the 96-count fiber optic cable and the other shall be a designated spare. Trunk line conduits shall be installed as close as possible to the right-of-way.

The fiber design shall include a "leap frog" daisy chain topology with a collapsed ring for redundancy. Loss of communications to one switch shall not affect communications to the others.

The locate tone wire shall be installed outside and on top of the conduit. The minimum size of any pull box shall be 24"W x 36"L x 36"D, and boxes shall not be greater than 1,000 feet apart. The ITS/Signalization components are to be connected with laterals from the backbone with a 12-count single-mode fiber optic cable inside one 2" HDPE conduit and one spare 2" conduit. Splice vaults shall be sized to accommodate the bending radius of the fiber optic cable backbone. Fiber optic splice enclosures shall be pressurized and flash tested as part of installation procedure. This procedure shall be submitted as part of the fiber optic testing procedures document. Only one end-to-end splicing of the trunk cable shall be allowed as part of this project and the location of it is to be included in the Communications Plan and approved by the Department.

The Design-Build Firm shall supply and configure layer 2 MFESs as part of this project. The Design-Build Firm shall provide MFES that conform to FDOT Specification 684 in addition to the requirements outlined in this RFP. The MFESs shall be configured with two 1-gigabit fiber ports and 12 100Base TX copper ports.

The Design-Build Firm shall be responsible for connecting the ATMS/ASCT System corridor to an internet

service provider inside the City of Sebring's Fire Station by the way of a 12-count fiber optic drop cable. All 12 fibers shall be terminated in the patch panel. The patch panel, Uninterruptable Power Supply (UPS), ethernet switch, internet modems, routers, firewalls and all related devices shall be rack mountable and provided with a lockable and vented wall mounted enclosure to secure the components. The Design-Build Firm shall coordinate the location of conduit entry into the building, power outlet to the UPS, and the location and installation of the proposed equipment with the City of Sebring IT Administrator and the Fire Station's Fire Chief. The communications system must be configured, operational, and available for ATMS/ASCT System implementation prior to the time that the existing detection is turned off. A UPS shall provide clean uninterrupted power to the networking equipment installed as part of this connection. The UPS and batteries shall be sized to meet FDOT ITS runtime specifications.

d. ATMS Central Control

The Design-Build Firm shall furnish, install, integrate, populate and test an ATMS software package. The ATMS central control software package or upgrade shall include ATMS central control software and hardware, with CCTV camera viewer software.

i. General

The ATMS central control software shall provide complete access, command, control, operations, and management to all device functions for this project, including the PTZ CCTV cameras. This shall include, but is not limited to, operating systems, databases, Network Management Software (NMS), device drivers, Graphical User Interfaces (GUIs), signal system software, and other Commercial Off-The-Shelf (COTS) software necessary to operate and maintain the ATMS.

The ATMS Central Control Software shall be capable of being operated on the following Microsoft products:

- Database: Microsoft SQL Server
- Server OS: Microsoft Server
- Workstation OS: Microsoft Windows 10 Professional

The ATMS central control software shall communicate with and manage the 14 traffic signal controllers included in this project. All system sensors (new and existing) shall be capable of communicating with the ATMS central control software. The ATMS central control software shall provide all command and control functions to the operator laptop computer provided by the Design-Build Firm at the Highlands County's Engineering Building and also to the existing workstations located at the RTMC.

The ATMS central control software shall be capable of monitoring, reporting, and displaying the status of all devices and processes, including field devices, network communications link status, internal systems and hardware components, software processes, and database processes. The system shall be able to support NEMA-type controllers with the selected local software.

All configurable features shall be configurable by a FDOT designated user/administrator.

The ATMS central control software shall provide for expandability to include current and future ITS and ATMS devices. The integration of future devices and systems shall require minimal modifications to the ATMS central control software. Future additional devices may include, but are not limited to:

- IP addressable CCTV cameras
- Vehicle Detection Systems (e.g., microwave, inductive, video)
- Automated Vehicle Identification Devices

- ASCT Intersections
- Arterial Dynamic Message Signs (ADMSs)
- Advance Traveler Information Systems (ATISs)
- Transit and Emergency Responder Priority/Preemption Systems
- Incident Detection Systems
- Connected Vehicle Systems
- External Hyperlinks

A complete backup copy of all ATMS central control software modules, algorithms, device drivers, and all other software components shall be provided to the maintaining agency on CD/DVD and in electronic format prior to final system acceptance.

ii. NTCIP Compatibility

The NTCIP allows for flexible future expansion without reliance on a specific brand of equipment. Currently, Highlands County has McCain eX2 NEMA TS2 Type 2 controllers installed at all project intersections except for a single PEEK 3000E controller, UPSs, as well as inductance loops for detection. It is the responsibility of the Design-Build Firm to verify actual field and cabinet conditions at the time of letting.

The new central control software must support NTCIP compatibility in order to share data and support interoperable, multi-vendor equipment, and provide for interchangeable services throughout the region.

Highland County currently operates a decentralized traffic signal management software, Transparity IMS, on technician laptops to maintain traffic controller databases. The Design-Build Firm shall provide the County any additional training and software required for County technicians to locally monitor and manage the traffic signal controllers with the proposed ATMS.

iii. ATMS Software as a Service (SaaS)

The ATMS central control software shall be offered by the vendor as SaaS with licensing for a period of five years, with options to renew or extend the service for additional years. The licensing shall include all licensing required for the devices that are part of this program and a minimum of five concurrent users and all of the devices that are part of this project. The service shall include all maintenance, updates, and support.

iv. Cloud Services Provider

The SaaS shall be operated from a commercial cloud service with ISO certifications in Cloud, Security, and Operations. Data centers shall be Tier 4 offering 99.995% availability. The primary data center shall be located in the southeast portion of the United States with redundancy data centers located elsewhere in the United States. In the event of a natural, weather, or other unplanned outage occurs at the main data center, the SaaS shall be capable of continuing operations from the secondary data center transparently to the end user with minimum disruption.

v. Communications and Communication Security

The Design-Build Firm will provide commercial internet service for a prepaid period of three years after final acceptance to the City's Fire Station along the project corridor and the service shall be transferred to the Department upon final acceptance. The internet connection will be rated by the provider as a minimum capability of 150 Mbps download and 20 Mbps upload. Higher levels of service, if required to gain

acceptable performance, shall remain the responsibility of the Design-Build Firm. Network latency shall measure 100 milliseconds or less as tested using RFC 2544 standards, and provide video and camera control without noticeable delay. The Design-Build Firm shall be responsible for creating a secured virtual private tunnel connection to the ATMS SaaS. The virtual private network connection shall secure all traffic passing through the internet to the ATMS service, including video. Traffic in the tunnel between end points and clients shall be encrypted with AES128 or AES256 and use Diffie-Hellman groups for key exchange, providing Perfect Forward Secrecy. The Design-Build Firm shall include all communication routing and encryption software, hardware, and licensing requirements as part of the SaaS.

All communications installed or provided through SaaS for this project will comply with F.A.C. 60GG-2. The Design-Build Firm shall change all default passwords to a temporary password as provided by the Department prior to integration into the ATMS network. Instructions and training shall be provided by the Design-Build Firm on how to effect password changes via remote connection such that the Department can change temporary passwords after project acceptance.

vi. Client Access

The RTMC Operations group shall operate the traffic signal system and stream, view and control a minimum of four camera feeds concurrently without any performance or image degradation. In addition to the RTMC video streams, the same four concurrent video streams shall be available for viewing purposes only at the Highlands County Engineering Building. The system shall be licensed and capable of providing additional streams to include all of the CCTV cameras deployed as part of this project. Video frame rate shall be a minimum 30 frames per second at 1920 x 1080 pixels resolution. Access to the system outside these two locations will require Department's approval.

vii. Reliability, Level of Service, and Data Protection

The Design-Build Firm shall have established, documented and proven processes for dealing with planned and unplanned downtime and outages. This documentation shall be submitted to Department for approval. Backup and recovery responsibility shall remain the responsibility of the SaaS provider.

viii. ATMS Operational Features

The ATMS central control software shall provide orderly start-up, restart, and shutdown with minimal operator action and no noticeable disturbance to the ATMS network. The ATMS central control software shall provide unattended operations for all central, field, and communication components of the ATMS. The ATMS central control software shall be capable of automatic (scheduled) and manual initiation, termination, and re-initiation of system events.

The ATMS central control software shall have a scheduler for execution of programmed, unattended operations that shall include, as a minimum:

- Master/local clock updates
- Field log retrievals
- Controller data uploads
- Comparison or cyclic redundancy check (CRC) to validate field data integrity
- System backups

The scheduler shall allow for event scheduling with the following frequencies:

- Daily
- Weekly

- Annually
- Seasonally
- Holidays
- Special (an event for any situation not described above)
- One-time event (ability to run an event once)

The ATMS central control software shall allow for the use of portable devices (e.g., laptops, tablets, smartphones, etc.) to support diagnostics and configuring and testing of the field devices. The ATMS central control software shall allow for the use of the portable devices to execute all commands and monitor/modify all settings available within the device controllers. The portable devices shall be easily synchronized to the central system computer database through upload/download commands.

The ATMS central control software shall have multi-tasking capabilities. A minimum of two operators shall be able to perform management functions at the same time. Only one operator at a time shall be able to control any given device. A second operator attempting to control a device shall be informed of the identity of the operator currently controlling the device. It shall be possible to define camera control priorities for different users of the system.

The ATMS central control software shall communicate with the field devices through the fiber optic communications network via IP over Ethernet communications protocols and perform the following:

- Set or check the universal and controller date and time
- Poll each device on a device specific periodic basis as defined by the user and specified in the database to retrieve device status
- Examine the CRC of the device operating parameters and message library against the CRC parameters of the database
- Download, upload, verify, and compare operating parameters including intersection timing parameters
- Upload/download system sensor data
- Upload/download controller and cabinet alarms, event data, preemption data
- Query system detectors for diagnostic data.

The ATMS central control software shall allow automatic synchronization to a Universal Coordinated Time (UCT) standard via a GPS receiver and Network Time Protocol. The software shall transmit the time to the field control equipment at least once a day at a user defined time so that a common time reference can be maintained for coordination. The system software shall automatically adjust to time adjustments for Daylight Savings Time.

ix. Monitoring Features

The ATMS central control software shall automatically detect and report device errors, process errors, and malfunctions. The software shall include failure alarms. The intersection identification, device type, failure type, and time of failures shall be indicated. Messages shall be generated when the failures are corrected. The communication protocol between the ATMS central control software and the controller shall support this feature to allow this information to be collected using the project's communications network.

The ATMS central control software shall support an SMTP-based email account with server authentication and optional SSL encryption for the purpose of sending alarm and alert notifications to users' emails and cellular email/SMS accounts. Status reporting functions shall include the ability to send event notifications via email and cellular email/SMS, as well as visual and audio notifications (alarms) at all operator workstations at the RTMC and Highlands County's Engineering Building. All alarms defined by the system

operator as critical shall be relayed to the designated e-mail. The relayed alarm shall include sufficient information to identify the field unit and the type of the alarm. All alarms received or generated at the central system monitoring location shall have the ability to be prioritized as an event to be dispatched to the automated paging program for relay to the designated cell phone or e-mail.

The ATMS central control software shall include the ability to provide detector fail/repair monitoring. This shall be a programmed and operational component of the system. This includes all field level and central-end data entry and set-up work.

The ATMS central control software shall include a communications diagnostics utility. The ATMS central control software shall display the utility results in plain language. The ATMS central control software shall display, log, and archive all field UPS alarms, any incidental field equipment need to accomplish this shall be provided in the project.

x. Logging Features

A historical record of failures and repairs shall be maintained by the ATMS central control software. The detected failures shall be logged, automatically saved, and displayed to system operators. The intersection identification, device type, failure type, time of failures, and corrections for the failures shall be indicated. All event notifications and system transactions shall be stored in the central database and tagged with the system time and date of occurrence. All status monitoring information collected shall be capable of being stored in the database. A log of all changes made to the database shall be maintained by time and operator identification. A change made to the controller in the field using a laptop computer or the keyboard of the controller shall be logged as an event.

Each log file message shall be time-stamped and shall provide some indication as to the origin of the message (i.e., what process reported or detected the error).

xi. Database Management and Report Features

The ATMS central control software shall use Microsoft SQL. Only one database product shall be required to operate the system. The software shall allow the data to be exported and manipulated by third party tools such as Microsoft Access, Microsoft Excel, Microsoft Word, Portable Document Format (PDF), and extensible markup language (xml).

The ATMS central control software shall allow users with proper security permissions to load, modify, examine, copy, and retrieve database tables from the operator workstations. This shall include system configuration, timing plans, schedules, measures of effectiveness (MOEs), operator databases, and alarm databases. System configuration shall include channel assignment, communication parameters, and included field devices. Data collected from the devices shall update the database tables in response to operator commands.

Uploaded field controller data shall be held in a separate file until a review of the data is conducted by an operator. The decision to store the uploaded data to a permanent file should be a manual operation. An option shall be provided to store historical data for all devices for a specified amount of time and shall be programmable at the system administrator level.

The ATMS central control software database shall include and allow updates to system and module configuration parameters and device specific settings. The ATMS central control software shall support the creation of reports by system operators. System operators shall be able to generate both standard and

custom (user-defined) reports. These reports shall include, but not be limited to:

- Detector and event logs
- Implemented timing plans
- Equipment and communication failures
- MOEs

All reports shall be selected from a menu on the operator's workstation and, where applicable, shall contain location parameters that indicate a roadway segment (link) or traffic signal (intersection). It shall be possible to save intersection plan sheets, cabinet drawings, and other graphic data in the databases. It shall be the responsibility of the Design-Build Firm to build and populate this database for all project signals and project detection (new and existing).

The ATMS central control software shall allow report generation to be scheduled by time-of-day and by event. The system administrator shall be able to access system database files using standard SQL tools. Any database changes shall be achievable without having to restart the central software. All tables in the database shall be printable in the same form as shown on the computer screens for easy use in the field.

The ATMS central control software shall allow the operator to copy and paste data tables with other Microsoft Windows applications.

xii. System Backup and Archiving Features

The system support function shall provide an automated backup component that can be programmed to perform one or more backups throughout the day at a times specified by the user. The backup script shall make a complete backup of all database-related files. The ATMS central control software shall provide automated archiving of data to a common file usable by the database management system for reporting purposes at a time interval specified by the system administrator. The system shall support local archiving requirements.

At a minimum, the system support archiving component shall archive the following information:

- Incident history data
- Device status logs
- MOEs/detector data
- System logs
- Operator diagnostics

xiii. NMS Features

A NMS shall be included with the ATMS central control software, and provide the following minimum device information:

- Device ID
- Device name
- Device type
- Device group
- Current online/offline communications state
- Response time (milliseconds)
- Percent communications loss
- Successful communications attempts
- Failed communications attempts

- Number of total requests
- User notes

xiv. Security Features

The ATMS central control software shall include protection against unauthorized access to the software system.

The ATMS central control software shall provide for secure information sharing and collection to parties with various access rights. The ATMS central control software shall provide the capability to assign specific users and groups to categories that have specific access to levels of the software functionality. The system administrator shall be able to assign user privileges for system access. Operator privileges shall be definable on a functional level. Each operator shall have a privilege level defined by the functions the operator is authorized to perform. The levels shall include at a minimum:

- No access
- View/Read only
- Upload only
- Download only
- Jurisdiction only
- Full access

The ATMS central control software shall use passwords to identify which users or groups can access what levels of software functionality. The ATMS central control software shall validate the entered operator information against the operator information. Any function that a particular operator is not authorized to access shall be either not shown or grayed out. Each user added to a group shall inherit the privilege of the group. Users shall be able to log into other workstations and have the same functionality they would have if they were at their own workstation.

The Department will designate which personnel will have access to the security of the operating system and operating system functionality (access to disk drives, system configuration, security mechanisms, etc.). This person(s) shall have full access to the system as well as the responsibility for maintaining account passwords and privilege levels. Any modifications to access protocols or operational rights shall be reviewed and approved by the Department.

Local area network access shall be limited to activities that support the ATMS central control software functions. Any executable file that is not needed for this support shall be eliminated from the system or protected from being accessed.

Unsuccessful log-in attempts shall be added to the ATMS central control software log. When the operator signs off any individual workstation, all Microsoft Windows applications that are part of the ATMS shall be closed.

xv. User Interface Features

The ATMS central control software shall utilize Microsoft Windows GUI standards. The GUI interface shall allow user access to all system functions. All GUI selections shall be available through menus and by clicking on icons. Icons and menus to various functions shall be easily accessible. GUI displays and forms shall be implemented in a logical manner minimizing the number of user actions in transitions between GUI displays/forms. The ATMS central control software shall have on-line help for each field subsystem type.

The ATMS central control software shall allow the operator to display system information, such as the current system state, as well as historical information such as system performance, uptime, and error logs. All uploaded information from the device shall be displayed at the user's workstation. It shall be possible to monitor status, mode, and MOEs of several intersections at the same time.

A dynamic time-space diagram shall be provided that builds a diagram based on the actual field traffic signal indications returned from the periodic polling of the intersections. The diagram shall support a minimum of 15 intersections. The system shall also display a real-time split monitor which compares the actual split time used to the database value. This function shall be capable of being scheduled to occur at user-defined intervals, with the results being stored in tabular or graphic format as a measure of effectiveness for an operator-defined period of time or number of cycles.

The ATMS central control software Geographic Information System (GIS) function shall be capable of using the ArcView/MapObjects software client to view GIS-formatted data such as traffic speed, incidents, and device status. The software shall provide displays of intersections, control sections, and system status. The displays shall be both graphic and text-based. The operator shall be able to create new graphic background for these displays and import these displays using external software (CADD, GIS, or common graphic interface software).

xvi. System Map Display Features

The ATMS central control software installation shall include a system map that displays all intersections, CCTV cameras, and system detectors in the system. The user shall be able to both move/pan and zoom-in and zoom-out within the map to subset regions of the network. This map shall be fully operational and accurately programmed and set up as part of the project.

The ATMS central control software map installation shall include intersection displays that show lane markings, detector locations, signal indications, local detector activation, system detector activation, preemption status, and transition status. The operator shall be able to select intersection displays from an area-wide map display. This functionality shall be built, programmed, and made fully operational by the Design-Build Firm for all intersections that are monitored as part of this project.

The operator shall be able to overlay text and annotations on the map and place special indicators or icons on the map. The ability to embed hotlinks and shortcuts into the displays and tabs shall exist for other devices associated with the intersection (UPS, Malfunction Management Unit (MMU), Video Detection System (VIDS), CCTV cameras, MFESs, etc.). The map shall be able to display failure status or mode of all intersections, main street greens, and the MOEs of all links (colors representing volume, occupancy, or speed levels).

The operators shall be able to define thresholds for color display, superimpose text over these displays, and access actual flow data numbers as properties of the road segments. A graphical, geocoded, and aerial base map showing the field devices as part of the provided system shall be provided. The map shall include current streets along the corridor. The map shall support the use of geocode coordinates for all items displayed on the map and shall include GIS mapping update capabilities.

Users shall be able to both move/pan and zoom-in and zoom-out within the map display to the full extent of the image. Map elements (streets, speed/flow, and device icons) shall be scalable between zoom levels such that they are resized appropriately for each level. The system shall support map icon and base map editing by system administrators. Default icons for the map shall be provided.
The map shall display icons representing all field devices defined by the system administrator. Each device

shall be linked to a unique icon type. Users shall be able to access device control, configuration, and data from the system map by clicking on a device icon. Dynamic elements of each intersection (signal displays, ped displays, MOE) shall be represented and updated in real-time.

xvii. Traffic Signal Control Features

The ATMS central control software shall provide at least three signal control processing levels: local signal control level, signal control zone level, and system-wide level. It shall be possible to have intersections and detectors assigned to different sections by time-of-day (TOD) or by operator command. In addition, the ATMS central control software shall allow multiple sections to operate as one section. The system shall allow TOD/day-of-week (DOW), traffic-responsive (TRSP), ASCT System, manual, standby, flash, and special events control.
The ATMS central control software shall have the ability for manual control (override controller time-of-day plans) at the local signal control level, signal control zone level, and system-wide level. When the ATMS central control software sends out a pattern override to a group of controllers, the command shall be received by all selected controllers nearly simultaneously to expedite the synchronization of the coordinated units.

The ATMS central control software shall have the capability to implement free and flash operations on a manual and TOD/DOW basis for an intersection or a signal control zone. It shall be possible to implement different operation modes for different signal control zones. The ATMS central control software shall be able to schedule any command for execution using the special event scheduler. The operator shall be able to make entries into the event scheduler a minimum of one -year in advance.

Permanent commands shall be possible on an every day, every week, every time-span, every weekend, and every holiday basis. Temporary commands shall be possible for specific dates, times, and on a date/time basis.

Manual commands shall have priority over scheduled events. The ATMS central control software shall be able to schedule any command for execution using a special event scheduler. It shall be possible to transmit the complete controller database (or any combination of modules contained within) from the central control software or a portable computer to the local controller. The complete controller database at the local controller shall always be available at the central location. It shall be possible to view, store, manipulate, create, edit, download, upload, compare, and verify local controller databases and parameters from central and remote locations subject to security constraints. The ATMS central control software shall be able to verify that the timing plan at the TMC matches the plans being used in the field. In the case of communication system failure, the local controller shall revert to its locally stored TOD/DOW scheduler and use time-based coordination to maintain coordination.

Timing plans eligible for traffic responsive (TRSP) selection shall be specifiable based on time-of-day. TRSP operation shall minimize the number of unbeneficial timing plan transitions. The system shall not change timing plans more frequently than five minutes.

The operator shall have the ability to bring an intersection “offline” without receiving an alarm indicating communications failure or removing the intersection from the database or system.

The ATMS central control software shall allow copying timing plan parameters from one controller database to another when commanded by the operator.

The ATMS central control software and local signal controllers shall support a field request for a complete

download of a signal's controller database, and only require the programming of the basic communication parameters at the signal controller. This process shall be capable of being automated and require no operator intervention at the RTMC.

xviii. Traffic Responsive Control Features

The ATMS central control software shall provide TRSP control of the project intersections. The TRSP mode shall use either the user-defined threshold based or the V+kO (volume plus scaled occupancy) algorithm developed by the US Department of Transportation for traffic responsive operations.

In the TRSP mode, the user shall be able to define the active intersections required for the algorithm to operate and the parameters for its execution. In response to the decisions of the TRSP algorithm, the ATMS central control software shall automatically send commands to the intersections to implement the appropriate timing plans which are stored locally in the intersection controller. The TRSP mode shall be capable of operating up to 30 intersections per section.

The TRSP control menu shall allow the operator to select which signal controllers to set to the TRSP control mode, functionally lock and unlock the timing plans of selected "slave" section(s) to a selected "master" section, and implement a new set of TRSP parameters. The TRSP shall have the option of running and logging pattern changes in an off-line mode, whereby the controllers in the street utilize normal TOD operation while the TRSP mode is logging the pattern changes that would occur if implemented.

xix. Traffic Detector Features

The ATMS central control software shall utilize real-time data from local traffic detectors and system sensors to determine, display, archive, and report current traffic conditions for any detector-enabled segment of roadway within the scope of system. The detector data, including volume, occupancy, and speeds, shall be used for traffic condition monitoring, incident detection and management, and control strategy tasks as required.

The ATMS central control software shall be capable of collecting traffic data from a variety of in-pavement (invasive) and off-pavement (non-invasive) traffic detection technologies that are NTCIP compliant. This shall include, but not be limited to, inductive loop systems, probe detection, true presence microwave systems, and video detection systems.

It shall be possible to display or create a printable report both real-time and historical traffic flow measurements, including speed, flow-rate, and occupancy and to store these measurements in the database. The ATMS central control software shall be able to automatically archive user-defined detector data and generate reports summarizing traffic volumes, both in textual and graphic format.

The ATMS central control software shall provide automatic alarms both visual and/or audible (selectable) when traffic flow falls outside a threshold specified by the user. The ATMS central control software shall provide user-defined failure filters that define the thresholds to identify detector failures. The failure types considered shall include at minimum:

- Maximum presence
- No activity
- Erratic output
- Bad communications

The ATMS central control software shall provide the ability to produce a traffic measurement and

congestion report for all roadway segments in the system that have detectors. The ATMS central control software shall record detector data in the database and be able to archive the data to a user-specified location.

xx. Incident Event Management Features

The ATMS central control software shall support the detection and verification of incidents or congestion. The performance of the detection of incidents or congestion shall be documented and, at minimum, expressed in incident detection rates and the percent of false alarms. The GUI shall display flow conditions on maps in a color-coded fashion for links where traffic detectors are deployed. The map shall change the color of the roadway segment based on the current congestion level. This shall be in accordance with a color scheme acceptable to the maintain agency. For example, green links could indicate adequate traffic flow, yellow slowing, and red indicating congestion. The thresholds for congestion levels shall be re-configurable.

The ATMS central control software vendor will assist the maintaining agency with configuring the Incident Management System (IMS) to cause an alarm status to be displayed on the operator workstation. The alarms shall be configurable for alerting when a detection threshold has been reached. The alarms shall be logged in the system log. Upon receipt of an alarm, the system shall have the capability to manually or automatically run a predetermined action or script. Actions allow the operator to execute, in a single action, a mix of pre-configured control overrides for one or multiple intersections. The ATMS central control software should be able to store more than 500 predetermined actions.

Existing local intersection detection, in conjunction with new system detection units to be installed as part of this project, shall be utilized. The congestion and incident detection feature shall be configured for all project signals.

xxi. Remote Access Features

The ATMS central control software shall allow an operator with proper clearance the ability to access the full operator interface remotely subject to the security requirements defined by the maintaining agency. A list of the operators that are currently logged onto the ATMS central control software shall be available to be viewed by a user-defined set of parameters. The ATMS central control software shall allow a minimum of five remote workstations.

xxii. Software Provision and Integration

The Design-Build Firm shall be responsible for the provision, installation, and integration of the ATMS central control software to provide the required functionality. The ATMS central control software shall allow for backup and restoration of control system configuration settings. The ATMS central control software shall include a software removal utility to remove the software from servers and/or workstations.

xxiii. General Traffic Control Requirements

If the existing ATMS central control software meets all the requirements specified in this document, it can be used for project deployment, and if not the Design-Build Firm must provide a new central control software meeting all the requirements.

The ATMS central control software shall be able to manage up to 100 signalized intersections and 50 system detectors (not including local detectors) at full build-out without upgrading the ATMS central control

software. The ATMS central control software shall allow a minimum of three operator workstations and one shift supervisor workstation at the SWIFT SunGuide Center, and five workstations outside of the SWIFT SunGuide Center A minimum of five users shall be able to access the ATMS central control software from various locations concurrently.

Intersection control zones shall be configurable through the ATMS central control software. It shall be possible to define up to 50 sections. The selected system shall be able to implement at least 64 different timing plans for each intersection. Each plan shall include uniquely programmable values for cycle lengths, offsets, splits, and phase sequence.

xxiv. System Map

The graphical data on an intersection display shall be dynamically updated with a once-per-second refresh rate to provide a visual representation of the operations in the field as reported by the controller. The system shall be capable of accessing up to four intersection displays at one time on the same monitor screen without any noticeable degradation in the system performance. The map displays shall be launched in less than 10 seconds at least 90 percent of the time. Redisplaying maps in response to user commands (i.e., zoom, pan, etc.) shall be done in less than five seconds at least 90 percent of the time.

xxv. Detectors

The ATMS central control software shall allow raw detector data to be stored in memory in five-minute increments. The ATMS central control software shall allow upload/download of local detector data from at least 32 detectors per intersection controller.

e. ASCT System

An ASCT is one in which some or all the signal timing parameters are modified in response to changes in the traffic conditions in real-time. The Design-Build Firm may choose to provide either a Sequence-based or Non-sequence based adaptive operation to achieve the operational goals listed within the ConOps.

The Design-Build Firm will provide and integrate all the required hardware, software, and firmware for the functionality of a new ASCT System. The system will be deployed at the 14 project intersections and will be controlled by the operators at the RTMC and monitored from a work station located at the Highlands County's Engineering Building. The ConOps describes and provides a rationale for the expected operations of the proposed adaptive system. The Design-Build Firm will provide an adaptive system that meets these requirements. The Design-Build Firm will also provide design and technical support for the installation, training, and maintenance as outlined in the ConOps and System Requirements.

i. Detection

The Design-Build Firm shall provide a detection system with flexible detection zone and/or count sensor placement in accordance with the requirements of the ASCT System. All detection devices shall be listed on the FDOT Approved Product List (APL). A system that meets the detection requirements of the ConOps and System Requirements Document is required. Detection shall be placed to meet the requirement of the ASCT System provider. The Design-Build Firm shall use as much of the existing detection as possible. The Design-Build Firm shall be responsible for determining the condition of the existing detection and replacing it as necessary.

The system should be capable of using the latest version of Automated Traffic Signal Performance Metrics

(ATSPM) available, based on the national collaboration of FHWA, Utah DOT, AASHTO, Purdue University, etc. There is no requirement for the Design-Build Firm to deploy any advanced detection that will be required for ATSPM queue measurement.

The detection system shall be programmable via a web browser using the same IP network connection that delivers the output to allow the Department staff to have complete control of the system without being physically present at the intersection. Real-time and historical statistical information must be available in graphical and/or tabular form.

ii. ASCT System Software

The Design-Build Firm shall provide the system software required for the ASCT System, as well as provide the initial setup and configuration to support the successful turn-on of the ASCT pursuant to the ConOps and System Requirements. This includes detecting vehicles in multiple lanes, communicating to an existing signal controller passively, and allowing the signal controller to handle emergency pre-empts.

The following functionality requirements shall be met:

- Display, interface, and control of the ASCT System by RTMC operators
- Sharing of information and data between the traffic signal controllers, the ASCT System, and the ATMS software
- The system should be capable of producing full ATSPM reports and any future operations of performing automated traffic signal performance measures
- The system, whether sequence-based or non-sequence based, shall meet the appropriate system requirements listed in the ConOps
- The system shall revert to an operator-selected default operation should the ASCT-controller communication stop or an error occur

The Design-Build Firm shall provide technical and system support for the integration between the ASCT System software/hardware and the central ATMS software.

iii. Configuration

The Design-Build Firm shall provide system software that enables staff to review, modify, and deploy changes to the adaptive protocols and operational preferences in accordance with the ConOps and System Requirements. The system software shall use a user-friendly graphical interface. The system software shall not require licenses or fees but rather be available for use on as many computers as requested for as long as needed without per-user or time-based fees. The system shall enable the maintaining agency to easily revert back to the original timings, either remotely or in the field, in the event that adaptive operations at any intersection are not functioning at an acceptable level of efficiency.

f. Laptop Computer Requirements

As part of this project, the Design-Build Firm shall provide a new commercially supplied, business class, premium, and professional laptop computer to the Highlands County Engineering Department suitable for operating and monitoring the ATMS/ASCT System. The laptop shall meet the recommended requirements of the proposed ATMS/ASCT System and the minimum following requirements:

- Operating System: Microsoft Windows 10 Pro 64bit English
- Central Processor: 9th Generation Intel® Core i7-9850H Processor (6 Core, 12MB Cache, 2.6 GHz, 4.6GHz Turbo, 35W vPro)
- Memory: 16GB, 1x16GB, DDR4 Non-ECC

- Hard Drive: M.2 512GB PCIe NVMe Class 40 Solid State Drive
- Graphics: Intel® UHD Graphics 630 with Thunderbolt™ 3
- Non-Touch Screen: 15.6" FHD (1920 x 1080)
- Keyboard: US English Keyboard Backlit with 10 Key Numeric Keypad Dual Pointing
- Wireless: Intel® Dual Band Wireless AC 9560 (802.11ac) 2x2 + Bluetooth 5.0
- Battery: 4 Cell 68Whr Battery w/ 130-Watt charger
- Extended Battery Service: 2 Years Extended Battery Service for Years 2 and 3 of System Life
- Support / Warranty: 5 Years ProSupport with Next Business Day Onsite Service
- Docking Station: with Thunderbolt™ 3

g. Locate Services

The Design-Build Firm shall provide locate services for all new facilities from the time the Design-Build Firm begins construction through Final Acceptance. The Design-Build Firm shall register all new facilities with Florida State Sunshine One Call.

The Design-Build Firm shall coordinate with the Department, Highlands County and the City of Sebring in the locating and field verifying of any existing underground conduits, cables or other infrastructure not subscribing to Florida State Sunshine One Call.

h. Environmental Protection Requirements

The Design-Build Firm shall meet the following environmental protection requirements:

- Provide a design where all components, enclosures, structures, poles, antennas, sensors, and device mounts withstand sustained wind loads and gust wind factors in accordance with the FDOT Structures Design Manual and local building codes as applicable.
- Provide complete protection of all devices and enclosures from roadside pollutants, vandalism and theft of equipment.
- Design and maintain devices to prevent performance degradation or failure due to the adverse impact of fatigue, corrosion and fungal growth. The Design-Build Firm shall be responsible, at their own expense, to replace or repair any device that has been reviewed and/or inspected by the Department and determined that there is evidence of performance degradation, damage or failure due to fatigue, internal moisture, corrosion, internal dust, and fungal growth.
- Provide a design that prevents insects and rodents from attacking and damaging the devices as approved the Department.

i. Field Installation Requirements

The Design-Build Firm shall meet the following field installation requirements:

- Perform site preparation and other site upgrades required for all device installations.
- Install below-ground fiber optic cable, conduit, pull boxes, and splice boxes within 10 feet of the Right-of-Way line, or as close as possible with Department approval, without affecting existing utilities.
- Final locations of conduit/fiber routing/running lines must be reviewed and approved by the Department. This requirement may be adjusted as necessary with written Department approval to avoid conflicts as follows:
    - Existing field conditions, such as conflicts with existing utilities.
    - Planned future construction improvements within the Project limits such as roadway widening.

  - Existing/proposed wetlands and drainage facilities.
  - Devices (i.e., CCTV camera poles, cabinets, detection devices etc.), pull box/junction boxes and splice boxes shall not be installed near the median or ditch bottoms, in or near wet areas or in areas that present maintainability and accessibility issues.
- Evaluate maintenance access before and during construction and design all devices and infrastructure components to provide safe and clear access for maintenance personnel. The design must take into account the following accessibility items:
  - Provide safe access to device locations which require bucket truck access without full lane closures.
  - Install any detection devices which require bucket truck access away from power lines and sloped or wet areas.
  - Install a culvert and appropriate fill material to allow foot traffic at locations which require maintenance personnel to cross a ditch or wet area.
- Provide a design so that maintenance access areas permit safe access to all devices, cabinets, and infrastructure without the need for special equipment.
- Risk of systems field devices due to vulnerability to hacking will be minimized with adequate cybersecurity measures to include, at a minimum, password protection of devices and protected access to traffic signal debugging ports.

j. Commercial Electrical Power Services

If new services are required, the Design-Build Firm shall establish power service addresses and the necessary commercial electrical power service. All fees and cost to establish commercial power service is the responsibility of the Design-Build Firm. Once power service has been established by the Design-Build Firm, the Department or its designee will inspect the power service for compliance with Department, NFPA, and NEC standards, and all Contract Documents. The Design-Build Firm shall be responsible for all utility charges until Final Acceptance.

4. ITS Maintenance Services

The Design-Build Firm shall assume the responsibility of maintenance and repair for all existing and newly installed ITS devices and infrastructure within the Project limits when any existing ITS device is taken out of service or altered, or at the beginning of construction, whichever occurs first (as shown in the Design-Build Firm's schedule). The Design-Build Firm shall develop a test plan to determine the operational condition of all existing devices/infrastructure within the Project limits. The Department and the Design-Build Firm shall conduct an operational test 30 days prior to Released for Construction plans according to the Design-Build Firm's schedule. All equipment will be made operational by Highlands County before it becomes the Design-Build Firm's responsibility.

For any areas of the project corridor that are under construction during the time that the Design-Build Firm is responsible for ITS maintenance, the Design-Build Firm shall coordinate with the contractor for the other projects to ensure the Design-Build Firm can perform maintenance on the impacted area.

The Design-Build Firm shall provide maintenance of the signalized intersections to the same level as currently provided by the County's Maintenance Contractor for the project area. This includes preventive maintenance, as well as required routine maintenance.

The Design-Build Firm's maintenance responsibility shall continue until the written notice of Final Acceptance.

The Design-Build Firm shall provide all locates in the Project corridor from the receipt of NTP until Final Acceptance, per FDOT Standard Specification 7-11.

Prior to assumption of the maintenance responsibilities, the Design-Build Firm shall provide:

- ITS Maintenance and Repair Plan with a time schedule for typical repairs.
- Written documentation that all personnel involved in the maintenance/repair of the signalized intersections have had previous experience.
- Names and resumes for personnel who will maintain and repair the infrastructure and field elements.

5. Testing and Acceptance

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

All testing and verification will be performed by the Design-Build Firm with Department oversight, under the Design-Build contract. The verification cases as stated in the Verification Plan are required and shall be tested and documented by the Design-Build Firm. Each verification case consists of a group of system requirements that satisfy an operational need of the system operator that was described in the ConOps.

a. General Requirements

The Design-Build Firm shall develop and submit test plans for this Project, a corresponding testing schedule, and an updated RTVM to the Department for review and approval at least 60 calendar days in advance of the Design-Build Firm's scheduled testing dates. If the Department rejects or requests modifications to the test plan, the Design-Build Firm shall update and resubmit a revised test plan and RTVM to the Department for review and approval. The Design-Build Firm shall allow 15 calendar days (excluding weekends and Department Department-observed holidays) for the Department's review and approval of the revised test plan and RTVM. No testing will commence until the Department has reviewed and approved the test plan.

Request in writing to the Department for approval to start each testing activity a minimum of 15 calendar days (excluding weekends and Department Department-observed holidays) prior to the requested start date. The Department reserves the right to reschedule the start date if needed. The start date for each testing activity cannot be prior to the successful completion of all previous testing activities unless otherwise approved by the Department. Provide test plans that are based on and include the following:

- The updated RTVM
- A step-by-step outline of the test procedures and sequence to be followed demonstrating compliance with the project requirements
- A test set-up/configuration diagram showing what is being tested
- A description of expected operation, output, and test results (pass/fail criteria)
- An estimate of the test duration and proposed testing schedule
- A data form to be used to record all data and quantitative results obtained during the tests

- A description of any special equipment, setup, test software, manpower, and/or conditions required for each respective test
- The number of test cases must reflect the complexity of each device or subsystem and the content of test cases must cover all functionalities and requirements

All provided test plans shall have the signed approval of the EOR. Conduct the following tests on all devices and subsystems:

- Pre-Installation Tests (PIT)
- Installed Site Test \ Stand Alone Tests (SATs)
- Fiber Optic Cable End-to-End Tests
- Subsystem Tests
- Acceptance Tests
- 30-Day Operational System Acceptance Test (OSAT)
- 60-Day Burn-in Period
- Close-Out and Final Acceptance

Provide Maintenance of Traffic (MOT) during all testing activities as required. Provide and maintain all test equipment and software, made ready for use by the Design-Build Firm and/or the Department. Provide up-to-date calibration certification with dates and test parameters for all test equipment utilized in accordance with the manufacturer's recommended procedures.

Conduct all tests in the presence of the Department, unless otherwise approved in writing by the Department. The Department reserves the right to waive the right to witness certain tests. Neither witnessing of the tests by the Department nor the waiving of the right to do so shall relieve the Design-Build Firm of the responsibility to comply with the Project requirements.

Document and submit all test results to the Department 15 calendar days (excluding weekends and Department Department-observed holidays) after the completion of the tests for review and approval by the Department. Test results must include documentation of:

- Test results with pass/fail criteria and test objectives
- Cross reference to what Project requirement(s) were tested using the RTVM. All lines in the RTVM marked with the verification method of "Test" shall be part of the test procedures.
- Date of test
- Start/end times of test
- Location of test
- Names and signatures of testers and witnesses of the test
- Sketch of test location and set-up (if applicable)
- Conditions during the test (i.e., weather conditions, etc.)
- Any and all field notes provided by the tester
- Any discrepancies found during testing
- Equipment serial numbers
- Equipment IP addresses (if applicable)
- Equipment MAC addresses (if applicable)

Fiber Optic Cable End-to-End Tests must include all of the information provided in the Sample OTDR Results included as a Reference Document to this RFP. Replace, repair, and retest all devices that failed testing at no additional cost to the Department.

b. Pre-Installation Test (PIT)

The Design-Build Firm shall meet the following PIT requirements:

- Document and submit the factory and reel fiber testing results for all fiber strands to the Department for review and approval 15 calendar days (excluding weekends and Department Department-observed holidays) prior to any fiber installation.
- Inspect all devices and materials delivered to the designated Design-Build Firm's project field site for any damage as a result of shipping.
- Provide written documentation stating that all devices and materials showed no signs of damage or compromise as a result of shipping.

c. Stand Alone Tests (SAT)

The Design-Build Firm shall meet the following SAT requirements:

Field inspect and verify the following items:

- All devices and equipment, once installed at each field site, are undamaged and correctly installed, with correct cabling and wiring terminations, port settings, cable interconnections, good workmanship.
- All devices are functional, operational and can be controlled locally prior to connecting to the communication network.
- All local cabinet components and subsystems, including Ethernet switches, power supply voltages and outputs, are fully functional and operational.
- All devices are properly connected to their power source, and the lightning protection system which includes air terminal, down conductors, surge protection devices and grounding array has been installed.
- Site grounding meets and/or exceeds the FDOT Standard Specifications and is compliant with this RFP.
- Replace any device with the same make and model that fails its SAT more than twice. The entire SAT must be repeated for the replaced or repaired device until proven successful.

Perform SAT on every device, including the following:

- CCTV cameras and components
- Detection components
- Controller Cabinets
- Layer 2 MFESs
- All fiber optic cables, including splices, patch cables and connectors
- Layer 3 MFESs
- Perform OTDR bi-directional testing using a launch cable and a receive cable

Document and submit all test results to the Department 15 calendar days (excluding weekends and Department Department-observed holidays) after the completion of the tests for review and approval by the

Department. Test results must include documentation of any discrepancies found during testing, successful test completion dates, and equipment serial numbers.

d. Subsystem Tests

The Design-Build Firm shall meet the following Subsystem Tests requirements:

- Perform subsystem tests to demonstrate that each subsystem meets the relevant sections of FDOT Standard Specifications and this RFP. No partial subsystem testing will be permitted.
- Begin subsystem tests only when the Design-Build Firm has satisfied the Department requirements that all SATs along with all fiber optic facilities have been successfully completed and approved by the Department and that all work on the subsystem to be tested has been completed.

Provide qualified personnel to support the diagnosis and repair of system equipment during the subsystem tests as required.

- Perform subsystem tests for the following subsystems:
    - Communications subsystem
    - CCTV camera subsystem
    - Detector subsystem
    - Software subsystem

Perform subsystems tests as required to satisfy the requirements as defined in the RTVM and the ConOps. The subsystem test shall include, but not be limited to, the following;

- Verify Layer 2 communications between cabinet MFESs. Layer 2 redundancy along the corridor shall be tested.
- Demonstrate full control and functionality of all devices associated with the subsystem from the Department utilizing the provided ATMS central control software, including but not limited to;
    - Display of each CCTV camera image on workstations, video wall, and other CCTV camera software applications designated in the RTMC and Highlands County's Engineering Building.
    - Verify all CCTV camera remote control functions and full PTZ functionality using the ATMS central control software. Verify that video produced by the CCTV camera is true, accurate, distortion free, vibration free, and free from transfer smear, oversaturation, and any other image defects under all lighting conditions (dusk, dawn, and night hours) in both color and monochrome modes.
    - Verify the proper operation of the auto iris feature. Demonstrate that the functionalities of the local/remote trouble shooting/diagnostics perform as specified in the specific subsystem functional requirements.
- Verify detector data is accurately collected and presented in the ATMS central control software, as well as the monitoring of the detector devices.
- Verify full integration of all other devices installed on this Project to the RTMC, including the verification of all control and monitoring capabilities ATMS central control software and ASCT System software
- Verify remote monitoring and control of all field devices.

Correct any problem in the event a subsystem fails and is rejected by the Department. The Design-Build Firm shall repeat the subsystem tests within seven calendar days after receiving direction from the Department that a retest can be conducted.

e. Operational System Acceptance Test (OSAT)

Conduct the OSAT covering all subsystems, integrated together and fully operable as a single system with the ATMS central control software and ASCT System software from the RTMC and the Highlands County's Engineering Building for a period of 30 consecutive calendar days without failure of any ITS device or subsystem. The OSAT will demonstrate that all subsystems operate together and meet the relevant sections of FDOT Standard Specifications, the RTVM, ConOps, and this RFP.

Perform tests with the Department personnel managing, monitoring, and controlling the devices in real-time to assure conformance to the Project requirements. Maintain a daily log for all operations after the start of the OSAT. Report in an OSAT daily log all activities associated with OSAT.

Shut down the OSAT in the event that a device or subsystem failure is identified by the Department and/or the Design-Build Firm. The Design-Build Firm will not be allowed access to the system once testing has commenced without OSAT shutdown. In the event of an OSAT suspension or shut down by the Department, provide qualified personnel to support the diagnosis and repair of system equipment during the OSAT as required.

Diagnose and correct all deficiencies causing the OSAT shutdown. After the deficiency or deficiencies causing the OSAT shutdown have been corrected, the Design-Build Firm shall re-perform all applicable tests as directed by the Department.

Restart tests at day zero for a new 30 consecutive calendar day test period as directed and approved by the Department, unless corrections are made within the requirements of Table C: Maximum Allowable Outage Times. If the allowable outage times have been met, then the OSAT shutdown will be reclassified as an OSAT suspension and the test will recommence at the point it was stopped upon approval by the Department.

Provide the following when the total number of OSAT shutdowns equals three for the same subsystem and/or device:

- Remove and replace the subsystem or device with a new and unused unit.
- Perform again all applicable tests, as deemed necessary by the Department.
- Submit diagnostic reports to demonstrate that errors were detected and corrected
- Upon written approval from the Department's CEI, restart the OSAT for a new 30 consecutive calendar day period.

Repeat the OSAT as necessary to satisfy the Project requirements. Submit to the Department the required documentation to verify that all subsystems and ITS devices have been successfully integrated and configured.

Table C: Maximum Allowable Outage Times

Item	Maximum Allowable Outage Times
ASCT System Software	2 hours
Design-Build Firm Installed Communications Subsystem*	4 hours
CCTV Camera Subsystem	12 hours
Detection Subsystem	8 hours

* OSAT will be suspended without penalty during internet service disruptions.

f. Burn-in Period

Upon completion of the OSAT and approval of the results by the Department, a 60-consecutive calendar-day Burn-In Period shall commence for all subsystems, ITS devices and ancillary components designed, procured, constructed, installed, mounted, integrated, made operational, and tested as part of the Project.
The Design-Build Firm shall submit, via a schedule, the start of the Burn-In Period to be approved by the Department.

The Design-Build Firm shall certify in writing to the Department the configuration of all subsystems, ITS devices, and ancillary components prior to beginning the Burn-In Period.
The Design-Build Firm shall provide technical personnel familiar with the Project that shall be available on-site within 24 hours of notification of the need for services.

The Burn-In Period shall consist of Department staff managing, monitoring, and controlling the ASCT System intersections, in real-time, to assure conformance of the project with the RFP, the Released for Construction plans, and all applicable standards.

The Design-Build Firm shall repair or replace any subsystem, device, or ancillary component that fails to function properly due to defective materials and/or workmanship at no additional cost to the Department. Corrective action by the Design-Build Firm for a failure shall be a part of the Design-Build Firm's Burn-In documentation process and be provided to the Department upon request. Department approval shall be obtained by the Design-Build Firm for the proposed corrective action prior to the Design-Build Firm's commencement of said corrective action. The Design-Build Firm shall submit to the Department the required documentation to prove that all units have been successfully reconfigured or updated.

If the same ITS device or ancillary component fails more than three times, the Design-Build Firm shall:

- Remove and replace the ITS device or ancillary component with a new and unused unit as per the requirements of this RFP;
- Perform all applicable Stand-alone, Subsystem, and OSATs, as deemed necessary by the Department.

In the event the failure percentages of a subsystem exceed the percentages shown in Table D: Maximum Allowable Failure Percentages, with the exception of consumable items, the project systems shall be shut down for purposes of testing and correcting identified deficiencies (Systems Shutdown). System Shutdown is defined as any condition, which due to work performed by the Design-Build Firm and/or its designee(s), results in any subsystem, of the Project to cease operation. No individual ITS device shall have a downtime of more than 10 consecutive days during the Burn-In Period.

Table D: Maximum Allowable Failure Percentages

Item	Maximum Allowable Failure Percentage
CCTV Camera Subsystem	<10% of project devices installed
Detection Subsystem	<10% of project devices installed

For each period of System Shutdown, the Burn-In Period will be stopped. After the identified deficiency has been corrected and met all applicable tests as per this RFP, the Burn-In Period will be resumed. In the event five System Shutdowns for any individual subsystem occurs during the Burn-In Period, the Department reserves the right to restart the Burn-In Period at day zero for a new 60 consecutive calendar days.

The Burn-In Period steps described herein shall be repeated as many times as deemed necessary by the Department to satisfy the requirements of this RFP.

Upon the Design-Build Firm's successful completion of the Burn-In Period and once all required submittals, testing, training, as-built documentation, and warranty documentation have been successfully delivered to and approved by the Department as specified in this RFP, and the requirements of the FDOT Standard Specifications and all applicable standards, the Department shall grant written notice of Final Acceptance.

Final Acceptance shall be issued on the basis of the Department's final inspection of the entire Project.

The final inspections of the entire Project shall be performed by the Department in the presence of a representative of the Design-Build Firm.

g. Device and Software Training

The Design-Build Firm or its designee shall conduct training for all the Project's subsystems, devices and software and shall accommodate up to 20 people. All trainings shall be conducted prior to the commencement of the OSAT. All trainings shall be conducted within the limits of District One and at a location approved by the Department.

The total hours of training conducted shall be a minimum of 16 hours for each of the subsystems and each ATMS/ASCT System software. Training shall be designed to familiarize the Department and the County and/or their designees with the design, operation and maintenance of the subsystems and software furnished under this contract. The training shall cover functionality, theory of operation, installation, calibration, operation, testing, maintenance, trouble-shooting, repair, and performance and operating parameters.

Training shall be provided by personnel thoroughly familiar with the equipment operation of the Project's devices and software. This shall be the combination of the Design-Build Firm personnel and equipment manufacturer's representatives. The Design-Build Firm personnel shall provide a single cohesive training session for the entire subsystem as a unit in addition to specific device/subsystem training provided by the device vendor/manufacturer. A complete course outline and summary of the experience and qualifications of the instructional personnel shall be submitted to the Department for approval at least 14 calendar days (excluding weekends and Department observed holidays) prior to the start of training. Training sessions may only be combined and/or shortened with approval, in writing, by the Department Project Manager.

The Design-Build Firm or its designee shall provide the training materials. These materials shall include, as a minimum, a course outline, a Microsoft Office PowerPoint presentation showing detailed subject material to be covered during training, operation and maintenance manuals, test equipment and tools and any other needed information.

If, at any time during a training course, the Department or its designee determines that the course is not being presented in an effective manner, the training for the course shall be suspended. The Design-Build Firm shall make the necessary changes to the course, resubmit the required training materials to the Department for approval, and reschedule the training course to be conducted prior to the OSAT.

h. Maintenance Personnel Training

Training for Department-designated and County-designated maintenance personnel shall consist of two separate and identical courses of 16 classroom and 16 system demonstration hours each. Both training

courses shall be conducted at a Department-approved location, shall be provided prior to commencement of the OSAT, and shall be as follows:

Part I - 16 hours: The objective of Part I is to provide operational description, troubleshooting procedures, recommendations for test equipment, test equipment use, repair procedures, design data and drawings for communications equipment as part of this Project.

Part II - 16 hours: The objective of Part II is to provide a hands-on training lab for Department-designated and County-designated maintenance personnel. These training sessions will provide the opportunity to apply the theory presented in Part I.

The training shall, when possible, make use of and be centered on test equipment approved for use and to be turned over to the Department. If different equipment is required to conduct the training, the Design-Build Firm will supply the equipment during the class period and the equipment will be turned over to the Department following the approved Training. Class size for each of the two courses shall be limited to 10 persons.

i. Final Acceptance

The Project shall not be eligible for Final Acceptance until the successful completion of the 60-Day Burn-in period. The Design-Build Firm shall meet the following Final Acceptance requirements:

- Close-Out
    - Provide final inspection to be conducted once the Burn-in period has demonstrated that the entire system is operating successfully and meets all Project requirements. The final inspection must include:
        - Conduct field visit(s) to ensure that all devices are in their correct final configuration.
        - Verify that all Project submittals including test reports have been submitted and approved by the Department.
        - Verify that all final cleanup requirements have been completed and field conditions restored to their original condition.
        - Ensure that final as-builts and all Project documentation is provided as specified.
        - Ensure that all training services have been successfully completed as specified.
        - Ensure that all warranties are in place from the date of final acceptance and are transferred to the Department as specified herein.
            - Replacement or repair of defective or failed equipment will be covered for three years by the manufacturers' warranties.
            - The Department expects maintenance of all adaptive system software for a period of three years. The price for this maintenance shall be included in the adaptive vendor’s price.
            - The Department will seek technical support from the vendor for assistance in using the adaptive software for three years. The price for this technical support shall be included in the adaptive vendor’s price.
            - The adaptive vendor shall supply assistance with adjustment of timings and parameters in response to comments and complaints from the public as requested by the Department for a period of one year after final acceptance. The price for this support shall be included in the adaptive vendor’s price.
    - Request in writing the Department’s approval to start the final inspection a minimum of 15

calendar days (excluding weekends and Department Department-observed holidays) prior to the requested start date. The Department reserves the right to reschedule the start date if needed.

- Repeat final inspection upon an unsuccessful or incomplete final inspection after the Design-Build Firm has made the necessary corrections. 15 calendar days (excluding weekends and Department Department-observed holidays) must be allowed for the Department to conduct a final inspection. The Department reserves the right to require, at no additional expense to the Department, the attendance of a qualified technical representative of the equipment and/or software manufacturers to attend the final inspection.

- Upon successful completion of the project close-out, the Design-Build Firm may request in writing Final Acceptance.

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.

B. Submittal Requirements

The Technical Proposal shall be bound with the information, paper size and page limitation requirements as listed herein.

A copy of the written Technical Proposal must also be submitted electronically in PDF format including bookmarks for each section. Bookmarks which provide links to content within the Technical Proposal are allowed. Bookmarks which provide links to information not included within the content of the Technical Proposal shall not be utilized. No macros will be allowed. Minimum font size of 10 shall be used. Times New Roman shall be the required font type.

Only upon request by the Department, provide calculations, studies and/or research to support features identified in the Technical Proposal. This only applies during the Technical Proposal Evaluation phase.

Submit the Technical Proposal electronically in PDF format on a flash drive to:

Jamie Reyes

ATTN: Jhoanna Garces de Beltre

Florida Department of Transportation District One

801 N. Broadway Avenue

Bartow, FL 33830

The minimum information to be included:

Section 1: Project Approach

- Paper size: 8½" x 11". The maximum number of pages shall be 10, single-sided, typed pages including text, graphics, tables, charts, and photographs.

Double-sided 8½" x 11" sheets will be counted as 2 pages. 11"x17" sheets are prohibited.

- Describe how the proposed design solutions and construction means and methods meet the project needs described in this RFP. Provide sufficient information to convey a thorough knowledge and understanding of the project and to provide confidence the design and construction can be completed as proposed.
- Provide the term, measurable standards, and remedial work plan for any proposed Value Added features that are not Value Added features included in this RFP, or for extending the Value Added period of a feature that is included in this RFP. Describe any material requirements that are exceeded.
- Provide a Written Schedule Narrative that describes the Design and Construction phases and illustrates how each phase will be scheduled to meet the Project needs required of this RFP. Bar or Gantt charts are prohibited.

Section 2: Plans

- Plan and Profile views of the proposed improvements shall be submitted on 11" x 17" plan sheets. All information such as typical sections, special emphasis details, structure plans, etc., shall be provided on 11"x17" sheets.
- Right-of-Way Maps and Legal Descriptions (including area in square feet) of any proposed additional Right-of-Way parcels, if applicable and approved through the ATC process. Provide Technical Proposal Plans in accordance with the requirements of the FDOT Design Manual, except as modified herein.
- The Plans shall complement the Project Approach.

C. Evaluation Criteria

The Department shall evaluate the written Technical Proposal by each Design-Build Firm. The Design-Build Firm shall 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:

	Item	Value
1.	Design	35
2.	Construction	30
3.	Innovation	10
4.	Value Added	5
Maximum Score		**80**

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

1. **Design (35 points)**

The Design-Build Firm is to address the quality and suitability of the following elements in the Technical Proposal:

- ITS design
- Use of SaaS
- Use of existing control and detection equipment
- Environmental design
- Design coordination plan minimizing design changes
- Minimizing impacts through design to:
  - Environment
  - Public
  - Adjacent Properties
  - Structures
- TTCP
- Incident Management Plan
- Aesthetics
- Utility Coordination and Design
- Design considerations which improve recycling and reuse opportunities

The Design-Build Firm is to address the following in the Technical Proposal: design and utility coordination efforts that minimize the potential for adverse impacts and project delays due to utility involvement.

The Design-Build Firm is to address the development of design approaches which minimize periodic and routine maintenance. The following elements should be considered: access to provide adequate inspections and maintenance and impacts to long-term maintenance costs.

2. **Construction (30 points)**

The Design-Build Firm is to address the quality and suitability of the following elements in the Technical Proposal:

- Safety
- ITS construction
- Construction coordination plan minimizing construction changes
- Minimizing impacts through construction to:
  - Environment
  - Public
  - Adjacent Properties
  - Structures
- Implementation of the Environmental design and Erosion/Sediment Control Plan
- Implementation of the Maintenance of Traffic Plan
- Implementation of the Incident Management Plan
- Utility Coordination and Construction

The Design-Build Firm is to address the following in the Technical Proposal: developing and deploying construction techniques that enhance project durability, reduce long-term and routine maintenance, and those techniques which enhance public and worker safety. This shall include, but not be limited to,

minimization of lane and driveway closures, lane widths, visual obstructions, construction sequencing, and drastic reductions in speed limits.

The Design-Build Firm is to address the following in the Technical Proposal: ensuring all environmental commitments are honored.

The Design-Build Firm is to address the following in the Technical Proposal: construction and utility coordination efforts that minimize the potential for adverse impacts and project delays due to utility conflicts.

3. **Innovation (10 points)**

The Design-Build Firm is to address introducing and implementing innovative design approaches and construction techniques related to the following elements in the Technical Proposal:

- The use of existing County hardware and software
- Minimize or eliminate utility relocations
- Materials
- Workmanship
- Enhance Design and Construction aspects related to future expansion of the transportation facility

4. **Value Added (5 points)**

The Design-Build is to address the following Value Added features in the Technical Proposal:

- Broadening the extent of the Value Added features of this RFP while maintaining existing threshold requirements
- Exceeding minimum material requirements to enhance durability of project components
- Providing additional Value Added project features proposed by the Design-Build Firm

The following Value Added features have been identified by the Department as being applicable to this project. The Design-Build Firm may propose to broaden the extent of these Value Added features.

Value Added Feature	Minimum Value Added Period
Signal Equipment	5 years
ITS Devices	5 years

D. Final Selection Formula

The Department shall publicly open the sealed bid proposals and calculate an adjusted score using the following formula:

$$\frac{BPP}{TS} = \text{Adjusted Score}$$

BPP = Bid Price Proposal

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

The Design-Build Firm selected will be the Design-Build 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.

E. 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 Bid Price Proposals. At this meeting, the Department will announce the score for each member of the Technical Review Committee, by category, for each Proposer and each Proposer's Technical Score. Following announcement of the Technical Scores, the sealed Bid Price Proposals will be opened and the adjusted scores calculated. The Department will document the preliminary bid results as presented in the meeting. The Selection Committee should meet a minimum of two calendar days (excluding weekends and Department observed holidays) after the public opening of the Technical Scores and Bid Price Proposals. The Department's Selection Committee will review the evaluation of the Technical Review Committee and the Bid 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.

F. Stipend Awards

The Department has elected to pay a stipend to all non-selected Short-Listed Design-Build Firms to offset some of the costs of preparing the Proposals. The non-selected Short-listed Design-Build Firms meeting the stipend eligibility requirements of the Project Advertisement and complying with the requirements contained in this section will ultimately be compensated. The stipend will only be payable under the terms and conditions of the Design-Build Stipend Agreement and Project Advertisement, copies of which are included with this RFP. This RFP does not commit the Department or any other public agency to pay any costs incurred by an individual firm, partnership, or corporation in the submission of Proposals except as set forth in the Design-Build Stipend Agreement. The amount of the stipend will be $25,000.00 per non-selected Short-listed Design-Build Firm that meets the stipend eligibility requirements contained in the Project Advertisement. The stipend is not intended to compensate any non-selected Short-listed Design-Build Firm for the total cost of preparing the Technical and Price Proposals. The Department reserves the right, upon payment of stipend, to use any of the concepts or ideas within the Technical Proposals, as the Department deems appropriate.

In order for a Short-listed Design-Build Firm to remain eligible for a stipend, the Short-listed Design-Build Firm must fully execute the stipend agreement within one week after the Short-list protest period for the Design-Build Stipend Agreement, Form No. 700-011-14. The Short-listed Design-Build Firm shall reproduce the necessary copies. Terms of said agreement are non-negotiable. A fully executed copy of the Design-Build Stipend Agreement will be returned to the Short-listed Design-Build Firm.

A non-selected Short-listed Design-Build Firm eligible for stipend compensation must submit an invoice for a lump sum payment of services after the selection/award process is complete. The invoice should include a statement similar to the following: "All work necessary to prepare Technical Proposal and Price Proposals in response to the Department's RFP for the subject Project".

VIII. Bid Proposal Requirements

A. Bid Price Proposal

Bid Price Proposals shall be submitted on the Bid Blank form attached hereto and shall include one lump sum price for the Project 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 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. One hard copy of the Bid Price Proposal shall be hand delivered in a separate sealed package to the following:

Jamie Reyes

ATTN: Jhoanna Garces de Beltre

Florida Department of Transportation District One

801 N. Broadway Avenue

Bartow, FL 33830

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