



Florida Department of Transportation
Florida's Turnpike Enterprise

**DESIGN-BUILD
REQUEST FOR PROPOSAL**

For

SR 91 (Turnpike) at I-4 Interchange Improvements

Orange County

Financial Projects Number(s): 429331-1-52-01 & 429332-1-52-01

Federal Aid Project Number(s): N/A

Contract Number: E8M50

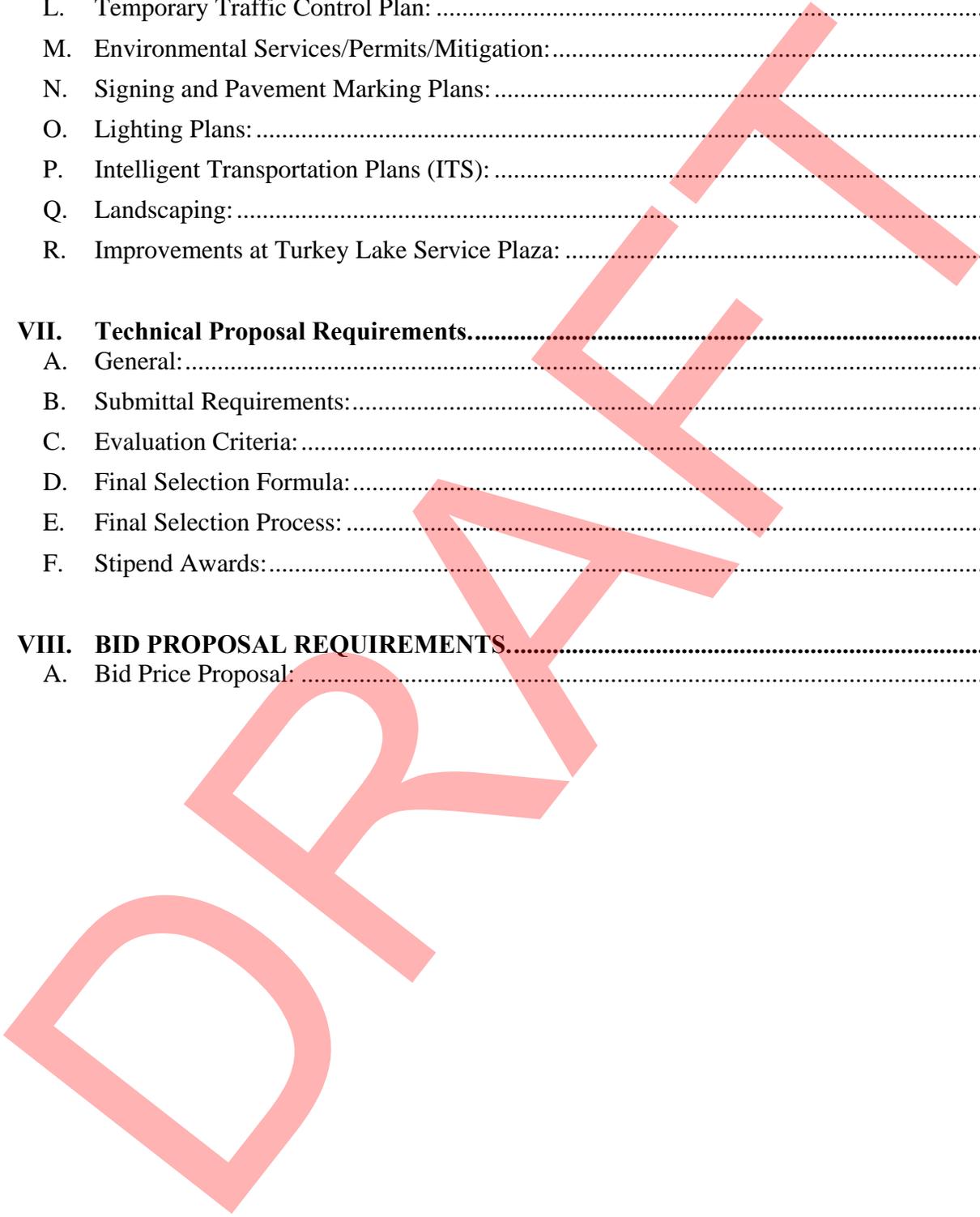
DRAFT 09.17.2012

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ATTACHMENTS

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

Attachment No. 1	Bid Blank (375-020-17)
Attachment No. 2	Design-Build Proposal of Proposer (375-020-12)
Attachment No. 3	Bid Price Proposal Summary
Attachment No. 4	Bid or Proposal Bond (375-020-34)
Attachment No. 5	DBE Forms (As Applicable)
Attachment No. 6	Design-Build Contract (375-020-13)
Attachment No. 7	Design-Build Contract Bond (375-020-14)
Attachment No. 8	Contract Affidavit (375-020-30)
Attachment No. 9	Division I Design-Build Specifications
Attachment No. 10	Design-Build Utility Agreement Form No. 710-010-19)
Attachment No. 11	Project Advertisement
Attachment No. 12	Concept Roadway Plans
Attachment No. 13	Concept Lighting Plans
Attachment No. 14	Concept Signing Plans
Attachment No. 15	Conceptual Design Criteria Evaluation
Attachment No. 16	Florida's Turnpike Enterprise Field Operations Guide
Attachment No. 17	Pavement Requirements
Attachment No. 18	Approved Typical Section Package
Attachment No. 19	Design Documentation Report
Attachment No. 20	Aesthetic Requirements
Attachment No. 21	Permanent Tandem Truck Turnaround at the Turkey Lake Service Plaza
Attachment No. 22	Maintenance of Traffic Concepts
Attachment No. 23	Drainage Design and Permitting Criteria
Attachment No. 24	Environmental Resource Permit Application / Drainage Report
Attachment No. 25	Project Network Control Sheets
Attachment No. 26	Conceptual Landscape Opportunity Plan
Attachment No. 27	Not Used
Attachment No. 28	Shop Drawing Review Process
Attachment No. 29	Bridge No. 750624 Existing Load Rating Analysis
Attachment No. 30	Pavement Survey and Evaluation Report
Attachment No. 31:	Approved Design Variations

Attachment No. 32 Approved Design Exceptions

OTHER DOCUMENTS

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

Existing As-Built Plans

1. (FPID 406091-1-52-01) Roadway Plans Turnpike Widening From Orlando South to I-4
2. (FPID 406091-1-52-01) Signing & Marking Plans Turnpike Widening From Orlando South to I-4
3. (FPID 406091-1-52-01) Lighting Plans Turnpike Widening From Orlando South to I-4
4. (FPID 406091-1-52-01) Structure Plans Turnpike Widening From Orlando South to I-4
5. (FPID 406148-1-52-01) Roadway Plans Turnpike Mainline Widening From I-4 to North of Gotha Road
6. (FPID 406148-1-52-01) Signing & Marking Plans Turnpike Mainline Widening From I-4 to North of Gotha Road
7. (FPID 406148-1-52-01) Landscape Plans Turnpike Mainline Widening From I-4 to North of Gotha Road
8. (FPID 406148-1-52-01) Lighting Plans Turnpike Mainline Widening From I-4 to North of Gotha Road
9. (FPID 406148-1-52-01) Structure Plans Turnpike Mainline Widening From I-4 to North of Gotha Road
10. (FPID 406148-1-52-01) Utility Plans Turnpike Mainline Widening From I-4 to North of Gotha Road
11. (FPID 406148-1-52-01) Traffic Control Plans Turnpike Mainline Widening From I-4 to North of Gotha Road
12. (FPID 406148-1-52-01) ITS Plans Turnpike Mainline Widening From I-4 to North of Gotha Road
13. (FPID 406148-1-52-01) Sound Wall Aesthetic Plans Turnpike Mainline Widening From I-4 to North of Gotha Road
14. (FPID 406148-1-52-01) ITS Plan Sheets Revised Turnpike Mainline Widening From I-4 to North of Gotha Road
15. (FPID 406148-1-52-01) Landscape Plan Sheets Revised Turnpike Mainline Widening From I-4 to North of Gotha Road
16. (FPID 406148-1-52-01) Lighting Plan Sheets Revised Turnpike Mainline Widening From I-4 to North of Gotha Road
17. (FPID 406148-1-52-01) Roadway Plan Sheets Revised Turnpike Mainline Widening From I-4 to North of Gotha Road
18. (FPID 406148-1-52-01) Signing Plan Sheets Revised Turnpike Mainline Widening From I-4 to North of Gotha Road

19. [Sunnav ITS \(FDIP 406123-1-52-01\) Vol 1.pdf](#)
20. [Sunnav ITS \(FPID 406123-1-52-01\) Vol 2.pdf](#)
21. [Sunnav ITS \(FPID 406120-1-52-01\) Vol 1.pdf](#)
22. [Sunnav ITS \(FPID 406120-1-52-01\) Vol 2.pdf](#)

Existing Plans CADD Files

1. [SR 91 Widening From I-4 to North of Gotha Road \(FPID 406091-1-52-01\)](#)
2. [SR 91 Widening From Orlando South to I-4 \(FPID 406148-1-52-01\)](#)

Concept Plans CADD Files

1. [SR 91 \(Turnpike\) at I-4 Interchange Improvements FPID Nos. 429331-1-52-01 & 429332-1-52-01](#)
2. [429331-1-52-01 & 429332-1-52-01 Project Aerial Survey \(2012\)](#)

Existing Environmental Permits

1. [I-4 Interchange Wetland Delineations.pdf](#)
2. [Pre-Application Final Meeting Minutes_03-20-2012.pdf](#)
3. [Pre-Application Meeting Agenda.pdf](#)
4. [SFWMD ERP Turnpike Widening From Beeline to I-4.pdf](#)
5. [SFWMD ERP Turnpike Widening From I-4 to Gotha.pdf](#)
6. [SFWMD ERP Turnpike Widening I-4 to Gotha Exhibits.pdf](#)

Geotechnical Data

1. [Geotechnical Report For Structures \(10-18-04\)](#)
2. [Pile Driving Logs Bridge No. 750624 Ramp A](#)
3. [Resilient Modulus Testing](#)
4. [Final Roadway Soil Survey \(10-19-04\)](#)
5. [Soil Survey Sheet](#)
6. [LBR Data](#)
7. [SR 91 Orange County M\(r\) Design April 2012](#)
8. [Nodarse Geotechnical Report \(Revised 06-18-2012\)](#)

Traffic Data Memorandum

1. [Design Traffic Report](#)

Equivalent Single Axle Loading (ESAL) Memorandum

Lane Closure Analysis Memorandum

Utility Plans

1. [FPID No. 429331-1 ATT Corp.pdf](#)
2. [FPID No. 429331-1 ATT Florida Telephone Log.pdf](#)
3. [FPID No. 429331-1 Bighthouse Networks.pdf](#)
4. [FPID No. 429331-1 City of Orlando Fiber Optic Cable.pdf](#)

5. [FPID No. 429331-1 City of Orlando Wastewater.pdf](#)
6. [FPID No. 429331-1 Orange County Utilities – No Facilities Email.pdf](#)
7. [FPID No. 429331-1 Orlando Telephone.pdf](#)
8. [FPID No. 429331-1 Orlando Utilities Comm Chilled Water Response.pdf](#)
9. [FPID No. 429331-1 Orlando Utilities Electric Distribution Reponse.pdf](#)
10. [FPID No. 429331-1 Orlando Utilities Comm – FOC.pdf](#)
11. [FPID No. 429331-1 Orlando Utilities Lighting.pdf](#)
12. [FPID No. 429331-1 Orlando Utilities Water.pdf](#)
13. [FPID No. 429331-1 Progressive Energy Dist.pdf](#)
14. [FPID No. 429331-1 Progressive Energy Transmission.pdf](#)

FDOT Communications Cables, Wireless Communications, and ITS Devices Coordination Process Memorandum

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I. Introduction.

Florida's Turnpike Enterprise (FTE), a District of The Florida Department of Transportation (Department) has issued this Request for Proposal (RFP) to solicit competitive bids and proposals from Proposers for the widening of SR 91 (Turnpike) Interchange Ramps at Interstate 4 as described below:

1. Widen the Turnpike Mainline northbound exit ramp from one lane to two lanes (FPID 429331-1)
2. Widen the Turnpike Mainline southbound entry ramp from one lane to two lanes and widen the Turnpike Mainline southbound exit ramp from one lane to two lanes from south of the ramp toll plaza through the interchange (FPID 429332-1)

Description of Work

The Department has prepared Concept Plans of the proposed Turnpike Mainline at I-4 interchange improvements and is provided in Attachment No 12 of this RFP document. The proposed modifications as part of this Project include but are not limited to the following:

1. Widen the Northbound and Southbound Turnpike Mainline exit ramps (Ramps C and K) and the eastbound on-ramp to Interstate 4 (Ramp F) to two-lanes from south of Oak Ridge Road Bridge to eastbound Interstate 4 including the Connector Road between Ramps K and F and the portion of the Interstate 4 auxiliary lane to from the Ramp F to the beginning of the Conroy exit ramp. See Concept Plans for details of Project limits.
 - a. Reconstruction/overbuild of a portion of the interchange Connector Road to satisfy the required cross slope and profile grades and maintain weave distances along the Connector Road.
 - b. Overbuild of portions of Ramp F along the curves at the diverge from the Turnpike Mainline and the merge with I-4 to satisfy the required cross slope
 - c. Construct retaining wall with barrier wall or guardrail with permanent erosion mat as necessary along the northbound Turnpike Mainline to minimize impacts to existing lateral stormwater treatment ponds
 - d. Milling and resurfacing of the outside lane to remove pavement markings will need to extend along I-4 to the Conroy Road interchange eastbound exit ramp.
 - e. Widen the southbound Turnpike exit ramp (Ramp 'C') to two lanes from south of the existing toll plaza to the Connector Road and a portion of Ramp G between the Connector Road and the EB Bridge over I-4
 - f. Overbuild along portions of both ramps (Ramps C and G) for cross slope correction
 - g. Construct a new raised traffic separator between the southbound exit ramp (Ramp 'C') and the southbound entry ramp (Ramp 'A') within the limits of the proposed improvements
 - h. Construct retaining wall with barrier wall along the widened loop ramp (Ramp 'C') to minimize impacts to existing stormwater treatment ponds and avoid right-of-way and utility impacts.
 - i. Special consideration shall be given in areas of the Water Conserv II's 42 inch NPW force main and FGT's gas transmission lines as identified the utility plans provided in "Other Documents".

- j. During the construction of Ramp K, Florida Gas Transmission will require four (4) calendar days (excluding weekends and Department observed holidays) to remove the existing casings on the 24" and 26" gas transmission lines under the existing alignment of Ramp K, as shown in their marked plans supplied in "Other Documents". The Design-Build Firm shall provide sufficient MOT and access for the removal of existing FGT gas line casings by FGT. The Design-Build Firm shall also remove existing pavement and base material in the areas of casing removal prior to FGT removing the casing.
2. Widen the southbound Turnpike Mainline entry ramp (Ramp 'A') to two lanes from the Connector Road to south of Oak Ridge Road Bridge (#755821) at the merge with Turnpike Mainline
 - a. Construct overbuild and resurfacing portions of the southbound connector between the westbound Interstate 4 entry ramp and Ramp 'A' to satisfy the required cross slope
 - b. Construct barrier wall to current PPM and TPPPH standards along Turnpike Mainline and under the Oak Ridge Road Bridge (#755821) and under the Ramp "A/C" Bridge (#750624) to mitigate for clear zone deficiencies and to provide appropriate pier and retaining wall protection
 - c. Construct retaining wall with barrier wall or guardrail with permanent erosion mat along the southbound Turnpike Mainline to minimize impacts to existing lateral stormwater treatment ponds
3. Widen Ramp "A/C" Bridge (#750624) over the Turnpike Mainline to the south to accommodate a two-lane southbound exit ramp (Ramp C) and two-lane southbound entry ramp (Ramp A)
 - a. Extend the existing Turnpike Mainline median barrier for new bridge pier as required by the current FDOT Structures Design Guidelines.
 - b. Mill and resurface the Turnpike Mainline travel lanes to remove temporary pavement markings a sufficient distance for correction of maintenance of traffic travel lane closures. Contractor shall replace friction course and restripe in full lane widths all areas that require temporary pavement markings.
4. Modify signing
 - a. Cantilever sign structure along the northbound Turnpike Mainline lanes at Sta. 2555+50 shall be removed and a new cantilever sign structure that accommodates the additional northbound auxiliary lane shall be constructed closer to the exit ramp gore, at approximate Sta. 2557+60. The cantilever column shall be located behind barrier wall/guardrail that is proposed to extend along the northbound outside shoulder as shown on the Concept Roadway Plans in Attachment 12 of this RFP document. A maximum of 5' diameter drilled shaft foundation is required for this structure to avoid utility conflicts and encroachment onto the gas main. Any other foundation size or type will have to be approved by FTE.
 - b. Overhead sign structure spanning both directions on the Connector Road at Sta. 617+50 shall be removed and replaced with a new overhead sign structure that accommodates the proposed northbound Connector Road widening as shown in the Concept Signing Plan included as Attachment No. 14 of this RFP document. The western column shall be set to meet clear zone criteria while the eastern column can be set behind proposed guardrail that extends along the northbound outside shoulder. A coordination meeting with FTE will be required by the Design-Build Firm during the design phase of this Project to discuss MOT and installation of structure.

- c. Overhead sign structure spanning both directions on the Connector Road Sta. 627+83 shall be removed and replaced with a new overhead sign structure located at approximately Sta. 624+31 as shown in the Concept Signing Plan (Attachment 14) that accommodates the proposed northbound Connector Road widening and future District Five modifications to the I-4 eastbound exit ramp. The location of this structure is taken from the current design plans for the District Five I-4 Widening Project (FPID 242484-3). The eastern and western columns shall meet clear zone criteria with the proposed FTE and future I-4 improvements. The sign structure shall also accommodate traffic control during construction of the District Five I-4 improvements utilizing temporary barrier to protect the structure column(s). Coordination with District Five will be required by the Design-Build Firm during the Design phase of this Project to ensure appropriate locations and offsets of proposed overhead sign structures.
 - d. Overhead sign structure (Structure #75S852) spanning both eastbound and westbound lanes on I-4 at Sta. 643+32 shall require sign panels for Exit 78, Conroy Road shall be modified as shown in the Concept Signing Plan (Attachment 14) to indicate a two lane exit under the proposed improvements. A preliminary analysis was performed for this structure for the proposed improvements and a Design Exception was approved by District Five and the SDO for structural capacity of fillet weld sizes connecting horizontal plates to the uprights. It appears that the foundation for the eastern structure column is flush with the ground and thus will require guardrail and steeper fill slopes through the area of the sign structure in order to prevent covering the sign structure foundation with fill.
5. Modify Existing Lighting (Roadway, Sign Structures and Under-Deck Bridge Lighting)
- a. All roadway and bridge lighting within the limits of new construction and new paved shoulders shall be relocated or replaced as necessary to meet current clearzone and lighting luminance criteria. The Design-Build Firm shall evaluate new roadway construction and paved shoulders locations that will affect horizontal clearance and elevation of the existing poles and foundations. The Design-Build Firm shall also evaluate the existing lighting luminance within the proposed Project limits and modify as necessary to bring to current standards.
 - b. Existing light poles impacted by the bridge widening currently located on the Turnpike Mainline shall be replaced or relocated to accommodate the proposed bridge and Turnpike Mainline widening and to provide the required luminance. Special consideration shall be given to avoid FGT Utility existing gas mains. Limited concept lighting plans are included as the Concept Lighting Plans (Attachment No. 13 of this RFP document) show acceptable locations of light poles in the vicinity of FGT Utilities and on the proposed Ramp A/C bridge widening and Ramp K alignment. Changes to these light pole locations will require FTE approval. The roadway lighting on the Ramp C Bridge over the Turnpike Mainline shall be evaluated and designed to current standards and new lighting system should be constructed on barrier wall pilasters along the south side of Ramp 'C'. The existing light poles and circuits on the south side the bridge structure and ramp shall be removed to accommodate the bridge widening.
 - c. Temporary lighting shall be maintained during construction at all times.
 - d. New under deck lighting shall be installed for the Oak Ridge Road Bridge over SR 91 and Ramp A/C Bridge over SR 91. The existing under deck lighting on the existing bridge structures shall be replaced. The new under deck bridge lighting shall meet current Turnpike criteria (TPPPH). Relocation of the existing load center (across from the truck staging area) and associated pull boxes will need to be coordinated FTE and UAO

for the proposed roadway improvements. Relocation of existing pull boxes and circuits will be the responsibility of the Design-Build Firm and coordinated with FTE. All cost of relocated and new load centers will be the responsibility of the Design-Build Firm.

6. Install a new pole mounted ITS closed circuit television (CCTV) camera along the east side of the Connector Road (approximate Sta. 42+20) as shown in Attachment 12 of this RFP document. The Design-Build Firm shall evaluate that the camera will provide the Turnpike TMC viewing coverage of the connector ramp and the interchange ramps which is currently a blind spot, design and connect the proposed CCTV camera with the FTE fiber optic backbone via one of the following options:
 - a. Connect the camera to the existing FTE ITS fiber optic backbone that extends along the west side of the Turnpike Mainline
 - b. Connect the camera to the existing fiber optic drop at the northbound entry ramp toll plaza
 - c. Connect the camera to the fiber optic drop at the existing highway advisory radio (HAR) transmitter located along the east side of the Turnpike Mainline
7. The Design-Build Firm shall locate and protect existing fiber optic lines along Interstate 4. The Design-Build Firm shall adjust as necessary the existing fiber optic conduit and pull boxes along Ramp 'K' as necessary to provide adequate access for maintenance.
8. The Design-Build Firm shall review the Conceptual Landscape Opportunity Plan provided in Attachment No. 26 of this RFP and identify future unencumbered landscape areas that are within the interchange improvement areas of this Project. The Turnpike Mainline interchange at I-4 is a major gateway for tourism and commerce. This Project shall reserve landscape opportunities to allow for the "BOLD VISION" project initiatives targeted by the FDOT's landscape initiative. Landscaping will be constructed by others and not included with this Project but should be considered during the Design-Build Proposal and Design Process and areas should be identified in the Design-Build Firm's Proposal Plans as "future landscape areas to be constructed by others".
 - a. Coordination will be required by the Design-Build Firm with the Turnpike Landscape Architect and interdisciplinary coordination between Design-Build Firms Landscape Architect and FTE Discipline Engineers will be required during the Design-Build plans development process to ensure landscape opportunities can be accommodated within the Interchange to greatest extent possible.
 - b. The Design-Build Firm shall restore all impacted wildflower areas located in the infield of Ramp A (except for the area of new embankment for Ramp 'A' fill slope) in accordance with FDOT Design Standards, Index No. 104, Sheet(s) 1 of 2. The installation of wildflower seed shall take place during the period from October through December. If the construction schedule does not allow the seeding to take place during this period, the Design-Build Firm shall prepare the wildflower area in accordance with the plans and all applicable permit requirements, and provide the specified wildflower seed to Turnpike Maintenance for installation during the applicable period following construction project acceptance. Turnpike Maintenance will assume all responsibility for

the germination and viability of the wildflower area following satisfactory site preparation and installation seed by the Design-Build Firm or Turnpike Maintenance.

The wildflower seed shall be Florida Eco Type Seed with certification to be provided by the Design-Build Firm. Should the Design-Build Firm perform the installation work, the wildflower seed shall be installed using a no-till seed drill. The Design-Build Firm shall provide and install a minimum of six (6) signs identifying the wildflower area. Seed rates shall be provided as shown in Table below:

Maintenance-modified Wildflower Seeding Rate Table from S.I. 104:

<i>WILDFLOWER SEEDING RATES</i>	
<i>Common Name (Botanical Name)</i>	<i>lbs/acre</i>
<i>Black-Eyed Susan (Rudbeckia hirta)</i>	<i>6</i>
<i>Lance-Leaf Tickseed (Coreopsis lanceolata)</i>	<i>10</i>
<i>Goldenmane Tickseed (Coreopsis basalis)</i>	<i>10</i>
<i>Leavenworth's Tickseed (Coreopsis leavenworthii)</i>	<i>10</i>
<i>Fire Wheel (Gaillardia pulchella)</i>	<i>5</i>
<i>Annual Phlox (Phlox drummondii)</i>	<i>10</i>
<i>Note: Wildflower seeding rates are for restoring impacted wildflower areas identified in the Concept Plans.</i>	

9. Substantial coordination between the Department and Florida Gas Transmission (FGT) has taken place during the development of the Concept Plans and the RFP. Deviations from the Concept Plans that encroach closer than what is shown between the existing gas mains and the following elements (but not limited to) will require FTE approval: lighting, drainage, roadside barriers, temporary shoring, landscaping, signing, etc.
10. The Design-Build Firm will not be allowed to perform mixing of pavement stabilized subgrade operations within the vicinity of existing FGT gas mains (from Ramp K Sta. 606+00 to Sta. 608+00). Premixing of pavement subgrade stabilization material offsite may be required prior to placement and compaction operations.

A. Design-Build Responsibility

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

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

The Design-Build Firm shall 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.

B. Department Responsibility

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

II. Schedule of Events.

Below is the current schedule of 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.

Event	Date	Time
Planned Advertisement Date	<u>09/04/2012</u>	N/A
Advertisement	<u>09/17/2012</u>	N/A
Expanded Letters of Interest for Phase I of the procurement process due in Florida's Turnpike Headquarters (Turkey Lake Service Plaza), Ocoee, Florida Office	<u>10/08/2012</u>	5:00 p.m.
Technical Review Committee Meeting	<u>10/22/2012</u>	1:00 p.m.
Public Meeting of Selection Committee to review and confirm Expanded Letter of Interest scores	<u>11/05/2012</u>	10:00 a.m.
Notification to Responsive Design-Build Firms of the Expanded Letter of Interest scores	<u>11/05/2012</u>	4:00 p.m.
Deadline for all responsive Design-Build firms to affirmatively declare intent to continue to Phase II of the procurement process	<u>11/07/2012</u>	5:00 p.m.
Shortlist Posting	<u>11/08/2012</u>	2:00 p.m.
Final RFP provided to Design-Build firms providing Affirmative Declaration of Intent to continue to Phase II of the procurement process	<u>11/14/2012</u>	N/A
Deadline for submission of written questions prior to the pre-	<u>11/26/2012</u>	5:00 p.m.

proposal meeting.		
Mandatory pre-proposal meeting in Florida's Turnpike Headquarters (Turkey Lake Service Plaza), Ocoee, Florida.	<u>11/28/2012</u>	2:00 p.m.
Alternative Technical Concept Meeting No. 1	<u>12/04/2012</u>	TBA
Alternative Technical Concept Meeting No. 1 (continued)	<u>12/05/2012</u>	TBA
Alternative Technical Concept Meeting No. 2	<u>12/12/2012</u>	TBA
Alternative Technical Concept Meeting No. 2 (continued)	<u>12/13/2012</u>	TBA
Deadline for submittal of Alternative Technical Concept Proposals and for the submission of Design Variations request	<u>01/04/2013</u>	5:00 p.m.
Deadline for Design-Build Firms to submit questions prior to Technical Proposal	<u>01/28/2013</u>	5:00 p.m.
Information Cut-off date (Last Date Department may provide any information to Design-Build Firms prior to the submittal of Technical Proposals)	<u>02/04/2013</u>	5:00 p.m.
Technical Proposals due in Florida's Turnpike Headquarters (Turkey Lake Service Plaza), Ocoee, Florida	<u>02/11/2013</u>	2:30 p.m.
Page Turn Meetings	<u>02/13/2013</u> <u>02/14/2013</u>	TBA
Question and Answer Session. Times will be assigned during the pre-proposal meeting. One hour will be allotted for questions and responses.	<u>02/28/2013</u>	TBA
Deadline for Design-Build Firms for submittal of Written Clarification letter following Question and Answer Session	<u>03/07/2013</u>	5:00 p.m.
Technical Review Committee Meeting	<u>03/11/2013</u>	N/A
Price Proposals due in Florida's Turnpike Headquarters (Turkey Lake Service Plaza), Ocoee, Florida	<u>03/21/2013</u>	2:30 p.m.
Public announcing of Technical Scores and opening of Price Proposals in Florida's Turnpike Headquarters (Turkey Lake Service Plaza), Ocoee, Florida.	<u>03/21/2013</u>	2:30 p.m.
Public Meeting of Selection Committee to determine intended Award	<u>03/28/2013</u>	10:00 a.m.
Posting of the Department's intended decision to Award (will remain posted for 72 hours)	<u>03/28/2013</u>	12:00 p.m.
Design-Build Firm Anticipated Award Date	<u>04/13/2013</u>	N/A
Anticipated Execution Date	<u>04/18/2013</u>	N/A

III. Threshold Requirements.

A. Qualifications

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

B. Joint Venture Firm

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

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

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 3-4 of the Division I Design-Build Specifications.

D. Pre-Proposal Meeting

Attendance at the pre-proposal meeting is mandatory. Any affirmatively declared proposer failing to attend will be deemed non-responsive and automatically disqualified from further consideration. All questions of Proposers to be discussed at the pre-proposal meeting must be submitted in writing by the deadline stated in the Schedule of Events. 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, CPM schedule, and method of compensation, instructions for submitting proposals, design exceptions/variances, and other relevant issues. In the event that any discussions at the pre-proposal meeting require, in the Department's opinion, official additions, deletions, or clarifications of the Request for Proposal, the Design and Construction Criteria, or any other document, the Department will issue a written addendum to this Request for Proposals as the Department determines is appropriate. No oral representations or discussions, which take place at the pre-proposal meeting, will be binding on the Department. Proposers shall direct all questions to the Departments Question and Answer website: <http://www2.dot.state.fl.us/construction/bidquestionmain.asp>.

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

E. Technical Proposal Page-turn Meeting

The Department will meet with each Proposer, formally for thirty (30) minutes, for a page-turn meeting. 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 session 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 audiotape record or videotape all or part of the page-turn meeting. All audiotape recordings or videotape 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. 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 thirty (30) minutes, the Technical Review Committee is allowed five (5) 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 five (5) 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. Question and Answer Session

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

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

G. Protest Rights

Any person who is adversely affected by the specifications contained in this Request for Proposal must file a notice of intent to protest in writing within seventy-two hours of the receipt of this Request for Proposals. The formal written protest shall be filed within ten days after the date of the notice of protest if filed. The person filing the Protest must send the notice of intent and the formal written protest to:

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

The formal written protest must state with particularity the facts and law upon which the protest is based

and be legible, on 8 ½ x 11-inch white paper and contain the following:

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

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

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

Failure to file a protest within the time prescribed in Section 120.57(3), F.S., 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 Comptroller General's List of Ineligible Design-Build Firms for Federally Financed or Assisted Projects.

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

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.
5. Proposers shall identify separately all innovative aspects as such in the Technical Proposal. An innovative aspect does not include revisions to specifications or established Department policies. Innovation should be limited to Design-Build Firm's means and methods, roadway alignments, approach to Project, use of new products, new uses for established products, etc.
6. The Proposer shall obtain any necessary permits or permit modifications not already provided.
7. Those changes to the Design Concept may be considered together with innovative construction techniques, as well as other areas, as the basis for grading the Technical Proposals in the area of innovative measures.

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 Request for Proposal does not commit the Department to make studies or designs for the preparation of any proposal, nor to procure or contract for any articles or services.

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 Request for Proposal.

IV. Disadvantaged Business Enterprise (DBE) Program.

A. DBE Availability Goal Percentage:

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

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

B. Anticipated DBE Participation Statement:

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

C. Equal Opportunity Reporting System:

The Design-Build Firm is required to report monthly, through the Department's Equal Opportunity Reporting System on the Internet at, <http://www.dot.state.fl.us/equalopportunityoffice/> actual payments,

minority status, and the work type of all subcontractors and suppliers. All DBE payments must be reported whether or not the prime initially planned to utilize the company. Each month the prime must report actual payments to all DBE and MBE subcontractors and suppliers. In order for the race neutral DBE Program to be successful, cooperation is imperative.

D. DBE Supportive Services Providers:

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

E. DBE Affirmative Action Plan:

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

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

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

F. Bidders Opportunity List:

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

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

V. PROJECT REQUIREMENTS AND PROVISIONS FOR WORK.

A. Governing Regulations:

The services performed by the Design-Build Firm shall be in compliance with all applicable Manuals and Guidelines including the Department, FHWA, AASHTO, and additional requirements specified in this document. Except to the extent inconsistent with the specific provisions in this document, the current

edition, including updates, of the following Manuals and Guidelines shall be used in the performance of this work. Current edition is defined as the edition in place and adopted by the Department at the date of advertisement of this contract with the exception of the Standard Specifications for Road and Bridge Construction (Divisions II & III), Special Provisions and Supplemental Specifications, Manual on Uniform Traffic Control Devices (MUTCD), Design Standards and Design Standards Modifications. The Design-Build Firm shall use the edition of the Standard Specifications for Road and Bridge Construction (Divisions II & III), Special Provisions and Supplemental Specifications, Design Standards and Design Standard Modifications in effect at the time the bid price proposals are due in the District Office. The Design-Build Firm shall use the 2009 edition of the MUTCD. It shall be the Design-Build Firm's responsibility to acquire and utilize the necessary manuals and guidelines that apply to the work required to complete this Project. The services will include preparation of all documents necessary to complete the Project as described in Section I of this document.

1. Florida Department of Transportation Roadway Plans Preparation Manuals (PPM)
<http://www.dot.state.fl.us/rddesign/PPMManual/PPM.shtm>
2. Florida Department of Transportation Design Standards
<http://www.dot.state.fl.us/rddesign/DesignStandards/Standards.shtm>
3. Florida Department of Transportation Standard Specifications for Road and Bridge Construction (Divisions II & III), Special Provisions and Supplemental Specifications
<http://www.dot.state.fl.us/specificationoffice/Default.shtm>
4. Florida Department of Transportation Surveying Procedure
<http://www2.dot.state.fl.us/proceduraldocuments/procedures/bin/550030101.pdf>
5. Florida Department of Transportation EFB User Handbook (Electronic Field Book)
<http://www.dot.state.fl.us/surveyingandmapping/regulations.shtm>
6. Florida Department of Transportation Drainage Manual
<http://www.dot.state.fl.us/rddesign/dr/Manualsandhandbooks.shtm>
7. Florida Department of Transportation Soils and Foundations Handbook
<http://www.dot.state.fl.us/structures/Manuals/SFH.pdf>
8. Florida Department of Transportation Structures Manual
<http://www.dot.state.fl.us/Structures/StructuresManual/CurrentRelease/StructuresManual.shtm>
9. Florida Department of Transportation Current Structures Design Bulletins
<http://www.dot.state.fl.us/structures/Memos/currentbulletins.shtm>
10. Florida Department of Transportation Computer Aided Design and Drafting (CADD) Production Criteria Handbook
<http://www.dot.state.fl.us/ecso/downloads/publications/CriteriaHandBook/>
11. Florida Department of Transportation Production Criteria Handbook CADD Structures Standards
<http://www.dot.state.fl.us/ecso/downloads/publications/CriteriaHandBook/>
12. Instructions for Design Standards
<http://www.dot.state.fl.us/structures/IDS/IDSportal.pdf>
13. AASHTO – A Policy on Geometric Design of Highways and Streets
https://bookstore.transportation.org/item_details.aspx?ID=110

14. MUTCD - 2009
<http://mutcd.fhwa.dot.gov/>
15. Safe Mobility For Life Program Policy Statement
<http://www2.dot.state.fl.us/proceduraldocuments/procedures/bin/000750001.pdf>
16. Traffic Engineering and Operations Safe Mobility for Life Program
<http://www.dot.state.fl.us/trafficoperations/Operations/SafetyisGolden.shtm>
17. Florida Department of Transportation American with Disabilities Act (ADA) Compliance – Facilities Access for Persons with Disabilities Procedure
<http://www2.dot.state.fl.us/proceduraldocuments/procedures/bin/625020015.pdf>
18. Florida Department of Transportation Florida Sampling and Testing Methods
<http://www.dot.state.fl.us/statematerialsoffice/administration/resources/library/publications/fstm/disclaimer.shtm>
19. Florida Department of Transportation Flexible Pavement Coring and Evaluation Procedure
<http://www.dot.state.fl.us/statematerialsoffice/administration/resources/library/publications/materialsmanual/documents/v1-section32-clean.pdf>
20. Florida Department of Transportation Design Bulletins and Update Memos
<http://www.dot.state.fl.us/rddesign/updates/files/updates.shtm>
21. Florida Department of Transportation Utility Accommodation Manual
<http://www.dot.state.fl.us/rddesign/utilities/UAM.shtm>
22. AASHTO LRFD Bridge Design Specifications
https://bookstore.transportation.org/category_item.aspx?id=BR
23. Florida Department of Transportation Flexible Pavement Design Manual
<http://www.dot.state.fl.us/pavementmanagement/PUBLICATIONS.shtm>
24. Florida Department of Transportation Pavement Type Selection Manual
<http://www.dot.state.fl.us/pavementmanagement/PUBLICATIONS.shtm>
25. Florida Department of Transportation Right of Way Manual
<http://www.dot.state.fl.us/rightofway/Documents.shtm>
26. Florida Department of Transportation Traffic Engineering Manual
<http://www.dot.state.fl.us/TrafficOperations//Operations/Studies/TEM/TEM.shtm>
27. Florida Department of Transportation Intelligent Transportation System Guide Book
http://www.dot.state.fl.us/TrafficOperations/Doc_Library/Doc_Library.shtm
28. Federal Highway Administration Checklist and Guidelines for Review of Geotechnical Reports and Preliminary Plans and Specifications
<http://www.fhwa.dot.gov/engineering/geotech/pubs/reviewguide/checklist.cfm>
29. Federal Highway Administration Hydraulic Engineering Circular Number 18 (HEC 18).
http://www.fhwa.dot.gov/engineering/hydraulics/library_arc.cfm?pub_number=17
30. Florida Department of Transportation Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways
<http://www.dot.state.fl.us/rddesign/FloridaGreenbook/FGB.shtm>
31. Florida Statutes
<http://www.leg.state.fl.us/Statutes/index.cfm?Mode=View%20Statutes&Submenu=1&Ta>

[b=statutes&CFID=14677574&CFTOKEN=80981948](#)

32. Florida Department of Transportation Traffic Engineering Manual
http://www.dot.state.fl.us/trafficoperations/operations/PDF/Traffic_Engineering_Manual_revised_October_2011.pdf
33. Florida Intersection Design Guide
<http://www.dot.state.fl.us/rddesign/FIDG-manual/FIDG2007.PDF>
34. Florida Department of Transportation Turnpike Enterprise – Design Website
<http://design.floridasturnpike.com>
35. Florida Bridge Load Rating Manual (March 2012)
<http://www.dot.state.fl.us/statemaintenanceoffice/StructuresOperations.shtm>
36. AASHTO Standard Specifications For Structural Supports of Highway Signs, Luminaries and Traffic Signals
https://bookstore.transportation.org/category_item.aspx?id=BR
37. Florida’s Turnpike Enterprise Drainage Manual Supplement, July 2011
http://www.floridasturnpike.com/design/prod_design/drainage/drainagemanuals/Drainage%20Manual%20Supplement%202011.pdf
38. FDOT Speed Zoning for Highways, Roads and Streets Manual (March 2010)
http://www.dot.state.fl.us/TrafficOperations/speedzone/Speed_Zoning_Manual_Complete_03_17_2011.pdf
39. Florida Highway Landscape Guide
<http://www.dot.state.fl.us/emo/beauty/landscap.pdf>
40. Turnpike Plans Preparation and Practices Handbook
http://www.floridasturnpike.com/design/prod_design/tppph/2012/TPPPH%20Volume%20I%202012/2012%20Volume%20I%20-%20Complete%20-%202003-09-12.pdf

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.

1. Alternative Technical Concept (ATC) Proposals

The ATC process allows innovation, flexibility, time and cost savings on the design and construction of Design-Build Projects while providing the best value for the public. ATC discussion meetings may be held in order for the Design-Build Firm to describe propose changes to supplied basic configurations, Project scope, design criteria, and/or construction criteria. The alternative technical concept shall provide an approach that is equal to or better than what is required by the Request for Proposal (RFP), as determined by the Department. Concepts which reduce quality, performance, or reliability should not be proposed. A proposed concept is not an ATC if it is contemplated by the RFP.

Each Design-Build Firm with proposed changes may request an ATC discussion meeting to describe

the proposed changes. Any request for an ATC discussion meeting must be accompanied by a list of ATC's to be reviewed and discussed during the ATC discussion meeting. This list may not be inclusive of all ATC's to be discussed but it should be comprehensively sufficient to allow the Department to identify appropriate personnel which should attend the ATC discussion meeting. The purpose of the ATC discussion meeting is to discuss the ATC proposals, answer questions that the Department may have related to the ATC proposal, review other relevant information and when possible establish whether the proposal meets the definition of an ATC thereby requiring the submittal of a formal ATC submittal. The meeting should be between representatives of the Design-Build Firm and/or the Design-Build Engineer of Record and District/Central Office staff as needed to provide feedback on the ATC proposal.

2. Submittal of ATC Proposals

All ATC submittals must be in writing.

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

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

3. Review of ATC Submittals

After receipt of the ATC submittal, the District Design Engineer (DDE) will communicate with the appropriate staff (i.e. District Structures Engineer, District Construction Engineer, District Maintenance Engineer, State Structures Engineer, State Roadway Design Engineer, FHWA, as applicable) as necessary, and respond to the Design-Build Firm in writing as to whether the ATC is acceptable, not acceptable, or requires additional information within 14 calendar days of receipt of the ATC submittal. If the DDE or designee determines that more information is required for the review of an ATC, questions should be prepared by the DDE or designee to request and receive responses from the Design-Build Firm. The review should be completed within 14 calendar of the receipt of the ATC submittal. If the review will require additional time, the Design-Build Firm should be notified in advance with an estimated timeframe for completion.

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

The Project file will clearly document all communications with any Design-Build Firm.

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

The Department will issue an addendum to the RFP subsequent to acceptance of any ATC. Approved Design Exceptions or Design Variances will result in an addendum to the RFP.

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

4. Incorporation into Proposal

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

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

C. Geotechnical Services:

1. General Conditions:

The Design-Build Firm shall submit qualification statements for the geotechnical, the dynamic testing, load testing and the non-destructive testing firms to be used on the Project for acceptance by the Turnpike Geotechnical Engineer at least thirty (30) calendar days before beginning the design. The Department will review these qualification statements, provide comments or request additional information within fifteen (15) calendar days (excluding weekends and Department observed holidays). Acceptance by the Department of the Design-Build Firm's personnel does not relieve the Design-Build Firm of the responsibility for obtaining the required results in the completed work.

The Design-Build Firm will be responsible for identifying and performing any geotechnical investigation, analysis, and design dictated by the Project needs in accordance with Department guidelines, procedures, and specifications. All geotechnical work necessary shall be performed in accordance with the governing

regulations. The Design-Build Firm shall be solely responsible for all geotechnical aspects of the Project.

The Design-Build Firm shall provide geotechnical design and construction reports to the Department. The reports shall be a record set of all geotechnical information, including relevant support data, and shall be signed and sealed by a Professional Engineer registered in the State of Florida and experienced in geotechnical engineering for roads and bridges designed and constructed in accordance with Department procedures. This registered professional shall hereinafter be referred to as the Geotechnical Foundation Design Engineer of Record.

2. Pile Foundations

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

- a. Production pile lengths and driving criteria shall be developed by the same engineering firm, and under the same Professional Engineer in responsible charge, that perform the dynamic pile testing. This Engineer must have been in responsible charge of the geotechnical foundation construction engineering and dynamic testing work on at least five (5) Department bridge projects, including at least one (1) Department Structure Design Category 2 bridge project having driven pile foundations. This “responsible charge” experience shall include verifiable and successful experience using the test methods that will be utilized on the Project such as static, Osterberg Cell and/or Statnamic load tests, collection and analyses of Embedded Data Collectors (EDC), dynamic load testing with signal matching, and/or WEAP computer analysis. Dynamic testing equipment operators must have successful dynamic testing experience on at least five (5) Department bridges including at least one (1) Department Structures Design Category 2 bridge project having driven pile foundations. The experience may have been obtained while working under the supervision of another qualified operator. Production pile lengths and driving criteria shall be authorized in a letter signed and sealed jointly by the Engineer responsible for the dynamic testing and the Geotechnical Foundation Design Engineer of Record.
- b. When EDCs will be used to monitor piles and/or test piles, EDC monitoring shall be performed by an Operator who has who has passed EDC Monitoring Certification as evidenced by a Smart Structures valid Certification Card and Identification. The Operator shall work under the supervision of a State of Florida Registered Professional Engineer. This Engineer must have been in responsible charge of the geotechnical foundation construction engineering and dynamic testing work on at least five (5) Department bridge projects, including at least one (1) Department Structures Design Category 2 bridge projects having driven pile foundations. This “responsible charge” experience shall include verifiable and successful dynamic pile load testing using EDC gauges with signal matching and Wave Equation computer analysis experience.
- c. When a dynamic monitoring system utilizing externally attached gauges will be

used to monitor piles and/or test piles, the monitoring shall be performed by an Operator experienced and proficient with the equipment. The Operator shall work under the supervision of a State of Florida Registered Professional Engineer. This Engineer must have been in responsible charge of the geotechnical foundation construction engineering and dynamic testing work on at least five (5) Department bridge projects, including at least one (1) Department Structures Design Category 2 bridge project having driven pile foundations. This “responsible charge” experience shall include verifiable and successful dynamic pile load testing with signal matching, and WEAP computer program experience.

- d. The pile foundation installation shall be supervised and certified by the Geotechnical Foundation Design Engineer of Record. These services shall include providing CTQP-qualified Pile Driving Technicians in the numbers necessary to comply with Department specifications for recording pile driving records. Provide pile-driving logs to the Department within twenty-four (24) hours of completing the driving of each pile. The Geotechnical Foundation Design Engineer of Record shall be responsible for addressing any foundation installation problems with the assistance and concurrence of the Engineer responsible for the dynamic testing to the satisfaction of the Department.

3. Drilled Shaft Foundations for Bridges and Major Structures

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

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

meeting the requirements of section 455-15.1.2 of the Department Standard Specifications. This “responsible charge” experience shall include at least three (3) Department bridge projects, including at least one (1) Department Structures Design Category 2 bridge project with drilled shaft foundations.

4. Drilled Shaft Foundations for Miscellaneous Structures

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

- a. Use professional engineers registered in the State of Florida with at least three (3) years of post-registration experience in drilled shaft foundation design and construction.
- b. The drilled shaft installation shall be supervised and certified by the Geotechnical Foundation Design Engineer of Record. These services shall include providing CTQP-qualified Drilled Shaft Inspectors in the numbers necessary to comply with Department specifications for recording drilled shaft construction records. Provide drilled shaft construction logs to the Department within twenty-four (24) hours of completing the shaft.
- c. Use drilled shaft superintendents in responsible charge of drilling operations experienced in drilled shaft installation and testing in the State of Florida meeting the requirements of section 455-15.1.2 of FDOT Standard Specifications. This “responsible charge” experience shall include at least three (3) Department projects with drilled shaft foundations of similar size and depth.

5. Auger Cast Piles for Sound Barriers

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

- a. Use professional engineers registered in the State of Florida with at least three (3) years of post-registration experience in auger cast pile foundation design and construction.
- b. The auger cast pile installation shall be supervised and certified by the Geotechnical Foundation Design Engineer of Record. These services shall include providing auger cast pile inspectors with experience in at least one (1) Department project inspecting the installation of auger cast piles. Inspectors shall complete and pass the CTQP computer based training class for auger cast piles.
- c. Use an auger cast pile superintendent in responsible charge of drilling and pile installation operations experienced in the installation of auger cast piles in Florida meeting the requirements of section 455-47 of the Department Standard

Specifications. This “responsible charge” experience shall include at least three (3) Department projects with auger cast piles of similar size and depth.

6. Spread Footings Foundations

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

- a. Use professional engineers registered in the State of Florida with at least three (3) years of post-registration experience in foundation design and construction. The Geotechnical Foundation Design Engineer of Record must have designed and worked on at least three (3) Department projects with spread footing foundations. All designs must be signed and sealed by the Geotechnical Foundation Design Engineer of Record.
- b. The spread footing construction shall be supervised and certified by the Geotechnical Foundation Design Engineer of Record.

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:

All applicable data shall be prepared in accordance with Chapter 373 and 403, Florida Statutes, Chapters 40 and 62, Florida Administrative Code; Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act, and parts 114 and 115, Title 33, Code of Federal Regulations. In addition to these Federal and State permitting requirements, any dredge and fill permitting required by local agencies shall be prepared in accordance with their specific regulations. Acquisition of all applicable permits will be the responsibility of the Design-Build Firm. Preparation of complete permit packages will be the responsibility of the Design-Build Firm. If any agency rejects or denies the permit application, it is the Design-Build Firm's responsibility to make whatever changes necessary to ensure the permit is approved.

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

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

The Design-Build Firm will be required to pay all permit fees including any and all fees associated with

the relocation of gopher tortoises. Any fines levied by permitting agencies shall be the responsibility of the Design-Build Firm.

However, notwithstanding anything above to the contrary, upon the Design-Build Firm's preliminary request for extension of Contract Time, pursuant to 8-7.3, being made directly to the Turnpike Construction Engineer, the Department reserves unto the Turnpike 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 Turnpike 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 Turnpike Construction Engineer under this provision.

E. Railroad Coordination: N/A

F. Survey:

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

The Design-Build Firm will be required to utilize the same horizontal and vertical control as provided with the Project Network Control Sheets (CTLs) included as Attachment 25 of this RFP document.

G. Verification of Existing Conditions:

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

By execution of the contract, the Design-Build Firm specifically acknowledges and agrees that the Design-Build Firm is contracting and being compensated for performing adequate investigations of existing site conditions sufficient to support the design developed by the Design-Build Firm and that any information is being provided merely to assist the Design-Build Firm in completing adequate site investigations. Notwithstanding any other provision in the contract documents to the contrary, no additional compensation will be paid in the event of any inaccuracies in the preliminary information.

H. Submittals:

1. Plans:

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

The Design-Build Firm should note that to the maximum extent possible the project documentation that is to be submitted for phase reviews should be directly created/printed electronically to an Adobe PDF format from the software that is used to produce the plan sheet(s), calculation sheet(s), report(s), etc. Creating the project documentation electronically rather than simply scanning the documents from a hard copy will greatly aid in the reviews of project submittals.

A Google Earth © ready kmz file will be developed by the consultant for all plan or roll plot submittals to the DEPARTMENT. The file will have both existing and proposed information for all disciplines.

The Technical Proposal (Plans and Documentation) will be reviewed by Department staff and comments will be provided to the selected Design-Build Firm. The selected Design-Build Firm shall provide written responses to all comments prior to submission of the 45% on-board submittal.

Minimum Design Contents			
Item	On-board 45%	Phase III 90%	Phase IV 100%
Key Sheet	P	C	F
Typical Section	P	C	F
Box Culvert Data(IR)		P	F
Project Layout	P	C	F
Roadway Plan-Profile	P	C	F
Special Profile (IR)	P	C	F
Interchange Layout (IR)	P	C	F
Intersection Layout/Detail (IR)	P	C	F
Lateral Ditch Plan-Profile (IR)		P	F
Lateral Ditch Cross Section (IR)		P	F
Retention/Detention Ponds		C	F
Cross Sections	P	C	F
Stormwater Pollution Prevention Plan		C	F
Traffic Control Plans	P	C	F
Utility Adjustment		P	F
Mitigation Plans (IR)	P	C	F
Miscellaneous Structures Plans (in respective plan sets)	P	C	F
*Signing and Pavement Marking Plans	P	C	F
*Structures Plans (Bridge and Retaining Walls)	P	C	F
*Intelligent Transportation System (ITS) Plans		P	F
*Roadway Lighting Plans		P	F

Utility Joint Participation Agreement Plans(IR)	P	F
Specifications	P	F
Technical Special Provisions	C	F
Landscape Opportunity Plan	P	F

*Note: Items marked with * shall be submitted as a separate component Plans Set with separate Key Sheet for each.*

Status Key:

P - Preliminary

C - Complete but subject to change

F - Final

(IR) - If required

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

Bridge component submittals shall contain the following:

1. Plan sheets for the component under review developed to the specified level of detail (i.e. 90% plans, Final plans, etc.),
2. A complete set of the most developed plan sheets for all other major elements of the bridge. These sheets shall be marked "For Information Only" on the index sheet. In no case shall a plan sheet be less than 30% complete.
3. Design documentation including a complete set of calculations, geotechnical reports, pertinent correspondence, etc. in support of the 90% and final component submittals.

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

45% On-Board Review

The purpose of the 45% On-Board Review is to provide the Design-Build Firm the opportunity to present their approach to the Project by further developing the Technical Proposal plans and Calculations. The Design-Build Firm shall prepare roadway concepts, MOT concepts, signing and marking concepts and structures concepts etc., on roll plots so that Department staff can review the material prior to proceeding to 90% plans.

The Design-Build Firm shall present their plans to the Department's Design Project Manager five (5) calendar days (excluding weekends and Department observed holidays) prior to the 45% On-Board Review meeting. At the meeting, the Design-Build Firm's Project Manager will lead the meeting and will be responsible for capturing all comments by discipline and responses by the Design-Build Firm in a MS Word or PDF document that will then be uploaded to the FTE's Electronic Review Comment (ERC) System for documentation purposes.

Hard Copy

2 sets of roll plots for line and grade and other items as listed in the Minimum Design Contents Table

Design Documentation/Calculations for all plan components as listed in the Minimum Design Contents Table

See TPPPH Volume I Chapter 16 Sections 16.2.4 to 16.2.6.1 for intent and additional requirements

for 45% Submittal

Electronic

1 complete set of plans and design calculations in portable document format (PDF) as listed in the Minimum Design Contents Table

PDFs of any other relevant design documents

Phase III - 90% Design Submittal

Hard Copy

2 sets of each plan component set in 11" x 17" plan sheets as listed in the Minimum Design Contents Table

2 sets of all Design Calculations/Documentation as listed in the Minimum Design Contents Table

2 copies of signed and sealed Final Geotechnical Report

Electronic

2 CD/DVDs of the following:

1 PDF of plans (All locations) as listed in the Minimum Design Contents Table

1 PDF of each design documentation/calculations as listed in the Minimum Design Contents Table

1 PDF of draft Supplemental and Technical Special Provisions

Phase IV - 100% Design Submittal

Hard Copy

2 sets of each plan component set in 11" x 17" plan sheets as listed in the Minimum Design Contents Table

2 copies of signed and sealed Design Reports (i.e. Drainage, Roadway, Traffic, Pavement Design, etc.)

Electronic

2 CD/DVDs of the following :

1 PDF of entire plan set per location (includes all component sets) as listed in the Minimum Design Contents Table

1 PDF of each design documentation/calculations for each Discipline as listed in the Minimum Design Contents Table

1 PDF of Specifications Package including Technical Special Provisions

Construction Set

Hard Copy

1 set of 11"X 17" signed and sealed plans of all locations for the Department to stamp "Released for Construction." The intended construction set of signed and sealed plans, with all comments resolved, will be delivered to the Department's Design Project Manager a minimum of 5

calendar days (excluding weekends and Department observed holidays) prior to construction of that component. The Department's Design Project Manager will make the construction plan set available to the Department reviewers to clear any previous comments. Once all comments have been cleared, the Department's Design Project Manager will stamp the signed and sealed plans "Released for Construction" and sign and date. Only stamped signed and sealed plans are valid and all work that the Design-Build Firm performs in advance of the Department's release of Plans will be at the Design-Build Firm's risk.

1 signed and sealed Specifications Package including individually signed and sealed Technical Special Provisions

1 set of signed and sealed design documentation

Electronic

2 CD/DVDs of the following:

1 PDF of each signed and sealed design documentation

1 PDF of signed and sealed Specifications Package including individually signed and sealed Technical Special Provisions

Record Set

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

Hard Copy

1 set of 11" X 17" signed and sealed final "as-built" plans

1 set of final signed and sealed design documentation (if different from construction set)

Electronic

2 CD/DVDs containing PDFs of all hardcopies listed above

2 CD/DVDs of CADD design files incorporating as-built conditions

2 CD/DVDs of CADD design files incorporating as-built conditions

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

The Design-Build Firm shall complete the record set as the Project is being constructed. The record set becomes the as-builts at the end of the Project. All changes shall be signed and sealed by the EOR. The record set shall reflect all changes initiated by the Design-Build Firm or the Department in the form of revisions. The record set shall be submitted on a Final Project CD upon Project completion.

The CEI shall do a review of the record set prior to final acceptance in order to complete the record set.

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

2. Milestones:

Component submittals, in addition to the plan submittals listed in the previous section will be required. In addition to various submittals mentioned throughout this document the following milestone submittals will be required.

Plans review prior to submittal for environmental permits (if required)

- 2 sets 11" x 17" Project Plans
- 2 copies of final Geotechnical Report
- 2 sets of Roadway and Drainage documentation
- 2 copies of Technical Special Provisions
- 2 CD/DVD with PDF files of all documents listed above

Permit documentation and submittal (if required)

- The specific number of copies required for each of the various agencies
- 2 copies for the Department

Where permits require the signature by the owner, the Department will provide said signature.

Other submittals identified by the Proposers in their Technical Proposal

3. Railroad Coordination: N/A

I. Contract Duration:

The Design-Build Firm shall establish the contract duration for the subject Project. In no event shall the contract duration exceed **500** calendar days. The schedule supporting the proposed contract duration will be submitted with the Technical Proposal and should identify if the work activity durations are based on calendar days or working days. The Proposed Contract Time (PCT) reflected in the schedule shall not be amended in the bid proposal.

J. Project Schedule:

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

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

The Design-Build Firm shall also include in their Project Schedule twenty-one (21) non-working days for Special Events that will be determined during the construction phase of the Project. Non-working days specified as Special Events shall be accommodated in accordance with Specification per 8-3.2.3 of the D-B Division I specifications and shall be identified to have a direct impact to traffic within the Project limits. The Design-Build Firm shall coordinate with the Turnpike Construction Office for the Special Events occurring within the Contract Time period that will impact the traveling public within the Project area.

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

1. Anticipated Award Date
2. Design Submittals
3. Design Survey
4. Design Reviews by the Department
5. Design Review / Acceptance Milestones
6. Materials Quality Tracking
7. Geotechnical Investigation
8. Start of Construction
9. Clearing and Grubbing
10. Construction Mobilization
11. Embankment/Excavation
12. Environmental Permit Acquisition
13. Foundation Design
14. Foundation Construction
15. Substructure Design
16. Substructure Construction
17. Superstructure Design
18. Superstructure Construction
19. Walls Design
20. Walls Construction
21. Roadway Design
22. Roadway Construction
23. Signing and Pavement Marking Design
24. Signing and Pavement Marking Construction
25. Intelligent Transportation System Design
26. Intelligent Transportation System Construction
27. Landscape Design
28. Landscape Construction
29. Maintenance of Traffic Design
30. Maintenance of Traffic Set-Up (per duration)
31. Erosion Control
32. Holidays and Special Events (shown as non-work days)
33. Additional Construction Milestones as determined by the Design-Build Firm
34. Final Completion Date for All Work

For Phase III-90% and Phase IV-100% design submittals, comments and responses shall be exchanged using the FTE's Electronic Review Comment (ERC) System: <http://www.fltpkdb.com/>

K. Key Personnel/Staffing:

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

L. Meetings and Progress Reporting:

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

1. Department technical issue resolution
2. Permit agency coordination
3. Local government agency coordination
4. Scoping Meetings

1. Design:

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

Prior to proceeding with the structural design, the Design-Build Firm's lead structures and geotechnical engineer shall meet with the Turnpike Structures and Geotechnical Engineers. The purpose of this meeting is to better coordinate the structural and geotechnical engineer's design efforts. This meeting is Mandatory and is to occur within fifteen (15) calendar days (excluding weekend and Department observed holidays) of the Notice to Proceed.

Prior to proceeding with the Drainage Design, the Design-Build Firm's drainage engineer shall meet with the Turnpike Drainage Engineer. The purpose of this meeting is to provide information to the Design-Build Firm's drainage engineer that will better coordinate the Preliminary and Final Drainage Design efforts. This meeting is Mandatory and is to occur 15 calendar days (excluding weekend and Department observed holidays) prior to any submittals containing drainage components.

After the Notice to Proceed has been issued, a pavement meeting is required with the Department and the Design-Build Firm on applications of the information provided in the attached Pavement Requirements table and alternate pavement designs. The meeting is Mandatory; contact the Department's Design Project Manager to schedule the meeting.

After the Notice to Proceed has been issued, two MOT workshops with the Department and the Design-Build Firm are required. These workshops are Mandatory; contact the Department's Design Project Manager to schedule the meetings.

The Design-Build Firm shall be responsible for preparing all agendas and meeting minutes for all meetings including the on-board review. The agendas shall be sent to the Department's Design Project Manager not less than two (2) calendar days (excluding weekends and Department observed holidays) prior to the meeting. All meeting minutes shall be prepared and sent to the Department's Design Project Manager within three (3) calendar days (excluding weekends and Department observed holidays) after the meeting was conducted. Any comments from the Department shall be incorporated by the Design-Build Firm within two (2) calendar days (excluding weekends and Department observed holidays) after receipt and distributed to all attendees for final distribution.

2. Construction:

During construction, the Design-Build Firm shall meet with the Department's Construction Project Manager on a weekly basis for the first three (3) months of coordination and bi-weekly thereafter until

completion. The Design-Build Firm will provide a two-week look ahead for activities to be performed during the upcoming weeks

The Design-Build Firm shall, on a monthly basis, provide written progress reports to the Department's Construction Project Manager that describes 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 Turnpike Public Involvement Office (PIO) will carry out an exhaustive Public Involvement Campaign and a marketing effort. The Design-Build Firm will continue to be part of the Public Involvement effort but on a limited basis as described below.

2. Public Meetings:

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

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

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

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

The Design-Build Firm shall, on an as-needed basis, attend the meetings with an appropriate number of personnel to assist the Department's Project Representative/Turnpike PIO. The Design-Build Firm shall forward all requests for group meetings to the Turnpike PIO. The Design-Build Firm shall inform the Turnpike PIO of any meetings with individuals that occur without prior notice.

3. Public Workshops, Information Meetings:

The Design-Build Firm shall provide all the support services listed in No. 3 above.

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

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

4. Public Involvement Data:

The Design-Build Firm is responsible for the following:

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

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

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

N. Quality Management Plan (QMP):

1. Design:

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

The Design-Build Firm shall provide a Design Quality Management Plan, which describes the Quality Control (QC) procedures to be utilized to verify, independently check, and review all design drawings, specifications, and other documentation prepared as a part of the contract. In addition the QMP shall establish a Quality Assurance (QA) program to confirm that the Quality Control procedures are followed. The Design-Build Firm shall describe how the checking and review processes are to be documented to verify that the required procedures were followed. The QMP may be one utilized by the Design-Build Firm, as part of their normal operation or it may be one specifically designed for this Project. The Design-Build Firm shall submit a QMP within 15 calendar days (excluding weekend and Department observed holidays) following issuance of the written Notice to Proceed. A marked up set of prints from the Quality Control review will be sent in with each review submittal. The responsible Professional Engineers or Professional Surveyor that performed the Quality Control review, as well as the QA manager will sign a statement certifying that the review was conducted.

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

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

2. Construction:

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

The sampling, testing and reporting of all materials used shall be in compliance with the Sampling, Testing and Reporting Guide (STRG) provided by the Department. The Design-Build Firm will use the Department's database(s) to allow audits of materials used to assure compliance with the STRG. The Department has listed the most commonly used materials and details in the Department's database. When materials being used are not in the Department's database list, the Design-Build Firm shall use appropriate material details from the STRG to report sampling and testing. Refer to the "Access Instruction for LIMS" for more information on how to gain access to the Department's databases: <http://www.dot.state.fl.us/statematerialsoffice/quality/programs/qualitycontrol/contractor.shtm>

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

Update the JGS and submit it to the Department's Construction Project Manager prior to each monthly progress estimate. The Department may not authorize payment of any progress estimate not accompanied by an up to date JGS. Maintain the JGS throughout the Project including the quantity placed since the previous submittal, and total to date quantity and any additional materials placed. Do not commence work activities that require testing until the JGS has been reviewed and accepted by the Department's Construction Project Manager. At final acceptance, submit a final JGS that includes all materials used on the Project in the same format as the monthly reports.

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

O. Liaison Office:

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

P. Engineers Field Office: N/A

Q. Schedule of Values:

The Design-Build Firm will be responsible for invoicing the Department based on current invoicing policy and procedure. Invoicing will be based on the completion or percentage of completion of major, well-defined 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 CPAM. The Design-Build Firm must submit the schedule of values to the Department for approval. No invoices shall be submitted prior to Department approval of

the schedule of values.

Upon receipt of the invoice, 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.

R. Computer Automation:

The Project shall be developed utilizing computer automation systems in order to facilitate the development of the contract plans. Various software and operating systems were developed to aid in assuring quality and conformance with Department of Transportation policies and procedures. Seed Files, Cell Libraries, User Commands, MDL Applications and related programs developed for roadway design and drafting are available for the MicroStation V8 format in the FDOT CADD Software Suite. However, it is the responsibility of the Design-Build Firm to obtain and utilize current Department releases of all CADD applications.

The Design-Build Firm's role and responsibilities are defined in the Department's CADD Manual. The Design-Build Firm will be required to submit final documents and files which shall include complete CADD design and coordinate geometry files in Intergraph / Micro station format, as described in the above referenced document.

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

S. Construction Engineering and Inspection:

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

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

T. Testing:

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

U. Value Added:

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

- a. Roadway features
- b. Roadway drainage systems
- c. Concrete defects
- d. Coating systems
- e. Aesthetic solutions

- f. Deficiencies observed within the project site
- g. Landscaping relocation and maintenance through establishment period.
- h. And any other products or features the Design-Build Firm desires.

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

V. Adjoining Construction Projects:

The Design-Build Firm shall be responsible for coordinating construction activities with other construction Projects that are impacted by or impact this Project. This includes Projects under the jurisdiction of local governments, the Department, or other regional and state agencies identified below:

FPID Number	Project Description	Department Contact	Design Status	Construction Status
242484-3	Interstate 4 Widening	District 5	In Progress	TBD
422418-3	Turkey Lake Service Plaza	Paul Naranjo	Complete	Under Construction

W. Use of Department Owned Right of Way

Use of Department owned Right of Way by the Design-Build Firm for the purpose of equipment or material storage, lay-down facilities, pre-cast material fabrication sites, batch plants for the production of asphalt, concrete or other construction related materials, etc. shall require advance approval by the Department. Use of Department owned Right of Way by the Design-Build Firm for these purposes is expressly limited to the Project referenced in this RFP.

Excavation beyond what is contemplated in the Roadway Concept Plans to generate Project embankment shall be disclosed to the Department during the ATC process and defined in the Technical Proposal and Plans. Over-excavation within the Department's Right-Of-Way within the limits of FPID No. 242484-3 other than that required to implement this Project's Concept Plans must be approved by the Department Project Manager.

X. Design Issue Escalation:

The Department has established the issue escalation process for design questions and conflict resolution that the Design-Build Firm shall follow unless revised by the Partnering agreement. All issues are to be directed to the Department Project Manager. If the issue cannot be resolved at this level the Department Project Manager shall forward the issue to the next level in the process. The escalation process begins with the Turnpike Design Engineer, followed by the Director of Transportation Operations, and finally to the District Secretary. Each level shall have a maximum of three (3) calendar days (excluding weekends

and Department observed holidays), to answer, resolve or address the issue. The three (3) calendar day (excluding weekends and Department observed holidays) period is a response time and does not infer resolution. Questions may be expressed verbally and followed up in writing. The Department Project Manager will respond in a timely manner but not to exceed three (3) calendar days (excluding weekends and Department observed holidays). The Design-Build Firm shall provide any available supporting documentation.

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

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

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

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

1. If the resolution does not change the original intent of the technical proposal/RFP, then the Design-Build Firm Engineer of Record (EOR) will be responsible for developing the design solution to the construction problem and the Turnpike Resident Engineer will be responsible for review and response within ten (10) calendar days (excluding weekends and Department observed holidays). The Turnpike Resident Engineer will either concur with the proposed solution or, if the Turnpike Resident Engineer has concerns, the issue will be escalated as described in the process below.
2. If the resolution does alter the original intent of the technical proposal/RFP then the EOR will develop the proposed solution, copy in the Turnpike Resident Engineer, and send it to the Turnpike Construction Office for review and response through the Department Project Manager. The Turnpike Construction Office will respond to the proposed solution within ten (10) calendar days (excluding weekends and Department observed holidays). The Turnpike Construction Office will either concur with the proposed solution or, if the Turnpike Resident Engineer has concerns, the issue will be escalated as described in the process below. Changes to the original intent of the technical proposal/RFP will require a contract change order.
3. The Department has established the issue escalation process for construction questions and conflict resolution that the Design-Build Firm shall follow unless revised by the Partnering agreement. All issues are to be directed to the Department Project Manager. If the issue cannot be resolved at this level the Department Project Manager shall forward the issue to the next level in the process. The escalation process begins with the Turnpike Construction Engineer, followed by the Director of Transportation Operations, and finally to the District Secretary. Each level shall have a maximum of three (3) calendar days (excluding weekends and Department observed holidays) to answer, resolve or address the issue. The three (3) calendar days (excluding weekends and Department observed holidays) period is a response time and does not infer resolution. Questions may be expressed verbally and followed up in writing. The Department Project Manager will respond in a timely manner but not to exceed three (3) calendar days (excluding weekends and Department observed holidays). The Design-Build Firm shall provide any available supporting documentation.

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:

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

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

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

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

B. Geotechnical Services

1. Driven Pile Foundations for Bridges and Major Structures

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

The Design-Build Firm shall develop a Foundation Plan (FP) for the installation of piles and submit the proposed FP to the Department for review and approval. The FP is intended to establish process control standards and quality assurance for the installation of piles. The FP shall include the following items:

- i. the pile installation plan as per section 455-10 of the Standard Specifications,
- ii. the names of the CTQP qualified inspectors assigned to inspect the pile

- installation,
- iii. the quality control processes that will be implemented to avoid that damaged piles are installed or that piles are damaged during installation,
 - iv. quality control processes to make sure that the required capacity is achieved in all piles. If driving criteria is used to accept piles, the FP shall include dynamic testing and analysis to verify or adjust the driving blow count criteria when driving conditions change (such as unanticipated tip elevations, hammer modifications, presence of temporary piles and structures, preforming changes, etc.),
 - v. a single representative of the Design-Build Team, independent of field operations personnel, to resolve to the Department's satisfaction conflicts in the driving procedures, the FP, and/or interpretations of the driving criteria. This person shall be available within four hours of notice and shall have the authority to refer issues to higher levels (corporate, if needed).

The FP will be used to govern all piling installation. In the event that deviations from the FP are observed, the Department may perform Independent Verification Testing/Review of the Design-Build Firm's equipment, procedures, personnel and pile installation FP at any time during production pile driving. If dynamic testing is performed by the Department, the Department will provide the results within two (2) calendar days (excluding weekends and Department observed holidays). If, as determined by the Department, pile driving equipment, procedures and/or personnel is deemed inadequate to consistently provide undamaged driven piling meeting the contract requirements, the Design-Build Firm's FP approval may be withdrawn pending corrective actions. Production driving shall then cease and not restart until corrective actions have been taken and the FP re-approved.

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

If the Design-Build Firm so desires, it may consider soil set-up. For Production Piles driven to less than the Nominal Bearing Resistance and accepted based on a set check performed more than seventy two (72) hours after initial drive, calculate the Nominal Bearing Resistance using the appropriate Resistance Factor from the table below titled "Resistance Factors for Pile Installation Using Soil Setup (all structures)".

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

1. Pile tip is deeper than the Minimum Penetration Elevation required by the Department standards or guidelines or stated in this RFP.
2. End of Initial Drive (EOID) resistance exceeds 1.10 times the Factored Design Load for the pile bent/pier.
3. The Resistance Factor for computing Nominal Bearing Resistance is taken from the following table:

Resistance Factors for Pile Installation Using Soil Setup (all structures)			
Loading	Design Method	Construction QC Method	Resistance Factor, ϕ
Compression	Davisson Capacity	PDA and CAPWAP ¹	0.55
		Static Load Testing ²	0.65
		Statnamic Load Testing ²	0.60
Uplift	Skin Friction	PDA and CAPWAP ¹	0.45
		Static Load Testing ²	0.55
¹ Dynamic Load Testing and Signal Matching Analysis			
² Used to confirm the results of Dynamic Load Testing and Signal Matching Analysis			

4. At least one (1) test pile is driven at each bent and one (1) of the following sets of dynamic load testing conditions are met:
 - a. At least 10% of piles in bent/pier (round up to the next whole number), are instrumented, and all test piles & instrumented drives demonstrate pile resistance exceeds the Nominal Bearing Resistance within seven (7) days.
 - b. At least 20% of piles in bent/pier (round up to the next whole number), are instrumented, and all test piles & instrumented drives demonstrate pile resistance exceeds the Nominal Bearing Resistance within twenty-one (21) days.

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

1. Selection of pile type.
2. Selection of test pile lengths and locations, if any.
3. Selection of the hammer driving system(s).
4. Handling and driving piles without damage.

Handling and driving piles without damage.

5. Selection of one of the following Production Pile acceptance options and notifying the Department of the selection before driving Test Piles:
 - i. Standard pile driving criteria with PDA test pile(s), CAPWAP, and Wave Equation Analysis in accordance with the specifications.
 - ii. Standard pile driving criteria with EDC monitored test piles, using tip and top gauges and Wave Equation Analysis in accordance with the specifications.
 - iii. EDC monitoring of all Test Piles and all Production Piles (100%), using tip and top gauges.
 - iv. PDA monitoring of all Test Piles and all Production Piles (100%), with CAPWAP analysis in at least ten (10) percent of the piles (rounded up to the nearest whole number) including at least one pile in each bent/pier.

6. Performance of the pile dynamic testing program, including dynamic load test personnel and equipment. All Concrete Test Piles shall be dynamically load tested using the Pile Driving Analyzer (PDA) and/or Embedded Data Collectors (EDC). The Department may observe the installation of test piles and all pile testing.
7. Selection of production pile lengths.
8. Development of the driving criteria in accordance with the specifications, when required.
9. Upon completion of the test pile program, selection of the production pile lengths and driving criteria development, the Department shall be given one copy of the dynamic testing data, engineering analysis and Production Pile acceptance criteria. At least one (1) calendar day (excluding weekends and Department observed holidays) prior to beginning production pile driving, submit the authorized pile lengths, authorized driving criteria, including EDC damping values, dynamic testing data and engineering analyses to the Department. Include the following electronic files (on Windows compatible 5-1/4 inch CD ROM or DVD) in the driving criteria submittal: PDA data, CAPWAP data and results, and Wave Equation data and results.
10. When EDC is selected as the dynamic testing method, installing and monitoring all EDCs.
11. Driving piles to the required capacity and minimum penetration depth.
12. Recording the pile driving information, keeping a pile-driving log for each pile driven, providing pile driving logs to the Department within twenty four (24) hours of completing the driving of each pile, performing dynamic load tests on production piles when required, and submitting results of all dynamic load testing performed to verify bearing has been achieved in accordance with the Specifications.
13. Submitting the Foundation Certification Packages: Submit two (2) copies of a certification of pile foundations signed and sealed by the Geotechnical Foundation Design Engineer of Record to the Department within one (1) week of finishing each foundation unit and prior to Pile Verification Testing. The Foundation Certification shall certify that the foundation piles have the required axial capacity, lateral stability, pile integrity, and that the foundation will have tolerable settlements that will not affect the functionality of the structure. A foundation unit is defined as all the piles within one (1) bent or pier for a specific bridge. For voided piles, perform a visual inspection of all piles above and below the water line prior to certifying the piles are free from damage. Each Foundation Certification Package shall contain an original signed and sealed certification letter, and clearly legible copies of all pile driving logs, EDC records, all supplemental dynamic testing data and analyses for the foundation unit. For voided piles, the Foundation Certification Package shall also contain documentation, including underwater video or still photography, which verifies the final integrity of the exposed portion of each pile, from mudline to pile cap.

The results of dynamic testing will not be sufficient to meet to this requirement, since dynamic testing does not identify vertical cracking. The certification shall not be contingent on any future testing or approval by the Department.

14. Within two (2) calendar days (excluding weekends and Department observed holidays) of receipt of the Foundation Certification Package, the Department will examine the certification package and determine whether piles in that foundation unit will be selected for dynamic verification testing. For bridge widening, the Department may select a maximum of 10% (minimum of two (2) per bridge) of the total number of piles (rounded up to the nearest whole number) for dynamic load testing. For new bridges, the Department may select a maximum of 10% (minimum one (1) per foundation unit) of the production piles (rounded up to the nearest whole number) for dynamic load testing.
15. For piles selected by the Department for verification testing, the Department shall provide the dynamic load test equipment and personnel for the Pile Verification Testing. The Design-Build Firm shall provide the driving equipment and pile driving crew(s) for the Pile Verification Testing and provide support as needed to prepare the piles for testing. The Department shall determine whether Verification Testing shall be accomplished by dynamic load testing during set check, over the shoulder review of the pile driving operation and/or other means acceptable to both the Design-Build Firm and the Department. The Department will provide the results of the verification testing and identify additional needs for verification testing within one (1) calendar day (excluding weekends and Department observed holidays) of testing.
16. If the capacity or integrity of any pile is found to be deficient, the Design-Build Firm shall correct the deficiency (i.e. re-drive or replace) and/or modify the design to compensate for the deficient pile capacity. After the Design-Build Firm corrects the deficiency, the pile shall be retested. If the capacity or integrity of a verification pile is found to be deficient, an additional pile (not considered part of the 10% maximum) selected by the Department shall be verified by dynamic testing. This process shall continue until no more pile capacity or integrity deficiencies are detected and all previous deficiencies have been corrected and retested or the design is modified accordingly.

NOTE: Piles shall not be cut-off nor bent/pier caps placed prior to successful completion of the Pile Verification Testing Program for that foundation unit. In case of disagreement of dynamic testing results, the Department's results will be final and will be used for acceptance.

2. Drilled Shaft Foundations for Bridges and Major Structures

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

The Design-Build Firm shall develop a FP for drilled shaft construction. The FP shall be reviewed and approved by the Geotechnical Foundation Design Engineer of Record before submitting to the Department. Submit the proposed FP to the Department for review and approval. The FP is intended to establish process control standards and quality assurance for drilled shaft construction. Include in the FP the items required in Specification 455-15.1.2 (Drilled Shaft Installation Plan), the equipment and procedures for visual inspection of drilled shaft excavations, and any additional methods to identify and remediate drilled shaft deficiencies. Include the names of the CTQP qualified inspectors assigned to inspect the drilled shaft installation. The FP shall identify a single representative of the Design-Build Team, independent of field operations personnel, to resolve to the Department's satisfaction conflicts in the drilled shaft installation procedures. This person shall be available within four (4) hours notice, and shall have the authority to refer issues to higher levels (corporate, if needed). If the FP is updated based on the construction of the test shaft(s), or other changes in circumstances, the update will not be in effect until approved by the Department.

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

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

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

1. Evaluating geotechnical conditions and designing the foundations including the drilled shaft diameter and length, and construction methods to be used.
2. Completing the subsurface investigation and drilling pilot holes prior to establishing the drilled shaft tip elevations and socket requirements.
3. Determining the location of the test shaft(s) and the types of tests that will be performed on the test shaft(s).
4. Providing test hole pilot boring results to the Department at least forty-eight (48) hours before beginning test shaft construction.
5. Constructing the method shaft (test hole) successfully and conducting integrity tests on the shaft using both crosshole sonic logging and gamma-gamma density logging test methods. More than one (1) test hole will be required when there are shafts both on land and in water. When there is more than one (1) size of drilled shaft, perform a test hole for the largest diameter for each condition (land and water).
6. Providing all personnel and equipment to perform a load test program on the test shaft(s). The frequency of static tests, Osterberg Cell tests or Statnamic tests will be dictated by the variability of the geology and the size of the Project. Provide sufficient instrumentation to determine side friction components in segments not

- longer than five (5) feet (ft) and the end bearing component. Provide a caliper tool or system to measure accurately and continuously the actual shape of test shafts prior to placing concrete.
7. Determining the production shaft lengths. Production shaft lengths may be based on the load transfer characteristics measured during the load test. End bearing characteristics may be based on load test results if the properties of the material below the tips of the production shafts meet or exceed the strength of the materials below the tip of the test shaft. If the theoretical bearing strength of the material below the tips of the production shafts is less than the theoretical bearing strength of the materials below the tip of the test shaft, the production shafts shall be extended to meet design capacity by side shear only, unless the end bearing resistance of the weaker material is verified by additional load testing.
 8. Documenting and providing a report that includes all test shaft data, analysis, and recommendations to the Department. The report should include but not be limited to the following: results of the load testing program, crosshole sonic logging, gamma-gamma density logging, pilot borings for all drilled shafts, and recommended production drilled shaft tip elevations and socket requirements. This report shall be signed and sealed by a Florida licensed Professional Engineer and shall be submitted to the Department for review and approval at least five (5) calendar days (excluding weekends and Department observed holidays) prior to beginning production shaft construction. Additional data or analysis may be required by the Engineer.
 9. Constructing all drilled shafts to the required tip elevation and socket requirements.
 10. Verifying level and clean hole bottom conditions and properties of the drilling fluid at the time of concrete placement.
 11. Furnishing and using an underwater television camera or any other approved Shaft Inspection Device to continuously videotape the inspection of each excavation for a drilled shaft bridge foundation after final cleaning. By audio or other means, recordings shall clearly identify the location and items being observed.
 12. Documenting and submitting the drilled shaft excavation and concreting logs to the Department within twenty-four (24) hours of concrete placement. The documentations shall include the drilled shaft installation procedures and sequencing as well as any problems encountered during construction and concrete placement.
 13. Allow three (3) calendar days (excluding weekends and Department observed holidays) for the Department to review the data and select shafts that will require CSL testing.
 14. Performing Cross-Hole Sonic Logging (CSL) tests on all non-redundant drilled shafts supporting bridges. For redundant drilled shaft bridge foundations, perform CSL on at least 30% of the shafts (rounded up to the next whole

number) on shafts selected by the Department.

15. Repairing all detected defects and conducting post repair integrity testing using 3D tomographic imaging and gamma-gamma density logging. Submitting all results to the Department within five (5) calendar days (excluding weekends and Department observed holidays) of test completion.
16. Submitting the Foundation Certification Packages.
17. Each Foundation Certification package shall include a letter signed and sealed that certifies the foundation drilled shafts have the required axial capacity, lateral stability, integrity, and that the foundation will have tolerable settlements that will not affect the functionality of the structure, and clearly legible copies of all shaft excavation and concreting logs, video-tapes of visual shaft bottom inspections, all CSL reports and electronic data, slurry test data, supplemental testing data and analyses for the foundation unit. The certification shall not be contingent on any future testing or approval by the Department.
18. Submit two (2) copies of the Foundation Certification Package signed and sealed by the Geotechnical Foundation Design Engineer of Record to FDOT within thirty (30) days of finishing each foundation unit and prior to Verification Testing. A foundation unit is defined as all the shafts within one (1) bent or pier for each phase of each bridge.
19. Providing safe access and needed equipment, and cooperating with and working with the Department in verification of the drilled shafts, both during construction of shafts and after submittal of the certification package.
20. The Department may verify the bottom cleanliness of all drilled shaft excavations prior to and at the time of concreting. The Department may verify bottom cleanliness by over the shoulder review of the Design-Build Firm's visual inspection methods and/or by independent means.
21. The Department may verify properties of drilling fluid at the time of concreting. The Department shall determine whether verification of drilling fluid properties shall be accomplished by over the shoulder review of the Design-Build Firm's slurry testing and/or by independent means.
22. The Department may verify the integrity of any shaft by thermal integrity testing, which could be performed within twenty-four (24) hours and seventy-two (72) hours after being poured, and/or by Cross Hole Sonic Logging.

Within two (2) calendar days (excluding weekends and Department observed holidays) of receipt of a Foundation Certification Package, the Department will examine the Certification Package and determine whether shafts in that foundation unit will be selected for Verification Testing. The Department may select every shaft for Verification Testing, if defects are suspected. The Department will provide equipment and personnel as needed for Verification Testing. Methods used for Verification Testing of a completed shaft are at the discretion of the Department and may include coring, cross-hole sonic logging, gamma-gamma density logging, low-strain dynamic integrity testing, or other methods.

After Verification Testing for a foundation unit is performed, the Department will provide the results within five (5) calendar days (excluding weekends and Department observed holidays). Integrity testing access tubes shall not be grouted and construction of footings, caps, columns or any superstructure elements shall not occur until the Department has notified the Design-Build Firm that additional Verification Testing is not required.

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

3. Drilled Shaft Foundations for Miscellaneous Structures

The Design-Build Firm shall develop a Foundation Plan (FP) for drilled shaft construction. The FP shall be reviewed and approved by the Geotechnical Foundation Design Engineer of Record before submitting to the Department. Submit the proposed FP to the Department for review and approval. The FP is intended to establish process control standards and quality assurance for drilled shaft construction. Include in the FP the items required in Specification 455-15.1.2 (Drilled Shaft Installation Plan), the equipment and procedures for visual inspection of drilled shaft excavations, and any additional methods to identify and remediate drilled shaft deficiencies. Include the names of the CTQP qualified inspectors assigned to inspect the drilled shaft installation. If the FP is updated based on the construction of the method shaft(s) (Test Hole), or other changes in circumstances, the update will not be in effect until approved by the Department.

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

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

1. Evaluating geotechnical conditions and designing the foundations including the drilled shaft diameter and length, and construction methods to be used.
2. Completing the subsurface investigation prior to establishing the drilled shaft tip elevations

3. Constructing the method shaft (test hole) successfully and conducting integrity tests on the shaft using crosshole sonic logging.
4. Determining the production shaft lengths.
5. Documenting and providing a report that includes all data, analysis, and recommendations to the Department. The report should include but not be limited to the following: results of soil borings for all drilled shafts, and recommended production drilled shaft tip elevations. This report shall be signed and sealed by a Florida licensed Professional Engineer and shall be submitted to the Department for review and approval at least seven (7) calendar days (excluding weekends and Department observed holidays) prior to beginning production shaft construction. Additional data or analysis may be required by the Engineer. Constructing all drilled shafts to the required tip elevation and socket requirements.
6. Verifying level and clean hole bottom conditions and properties of the drilling fluid at the time of concrete placement.
7. Documenting and submitting the drilled shaft construction logs to the Department within twenty-four (24) hours of concrete placement. The documentations shall include the drilled shaft installation procedures and sequencing as well as any problems encountered during construction and concrete placement. Allow two (2) calendar days (excluding weekends and Department observed holidays) for the Department to review the data before any further construction on the shafts.
8. Performing Cross-Hole Sonic Logging (CSL) tests on shafts selected by the Department, on at least 30% of the shafts (rounded up to the next whole number) .
9. Repairing all detected defects and conducting post repair integrity testing using 3D tomographic imaging and gamma-gamma density logging. Submitting all results to the Department within seven (7) calendar days of test completion.
10. Submitting the Foundation Certification Packages.
11. Each Foundation Certification Package shall contain an original signed and sealed letter certifying capacity (axial, lateral and torsional) and integrity of all drilled shafts, and clearly legible copies of all shaft excavation and concreting logs, all CSL reports and electronic data, slurry test data, supplemental testing data and analyses for the foundation unit. The certification shall not be contingent on any future testing or approval by the Department.
12. Submit two (2) copies of the Foundation Certification Package signed and sealed by the Geotechnical Foundation Design Engineer of Record to the Department within thirty (30) days of finishing each foundation unit and prior to Verification Testing. A foundation unit is defined as all the shafts within one (1) intersection/interchange or for each phase of an intersection/interchange.
13. Providing safe access and needed equipment, and cooperating with and working with the Department in verification of the drilled shafts, both during construction of shafts and after submittal of the certification package.
14. The Department may verify the bottom cleanliness of all drilled shaft excavations prior to and at

the time of concreting. The Department may verify bottom cleanliness by over the shoulder review of the Design-Build Firm's inspection methods and/or by independent means.

15. The Department may verify properties of drilling fluid at the time of concreting. The Department shall determine whether verification of drilling fluid properties shall be accomplished by over the shoulder review of the Design-Build Firm's slurry testing and/or by independent means.

Within two (2) calendar days (excluding weekends and Department observed holidays) of receipt of a Foundation Certification Package, the Department will examine the certification package and determine whether shafts in that foundation unit will be selected for Verification Testing. The Department may select every shaft for Verification Testing, if defects are suspected. The Department will provide equipment and personnel as needed for Verification Testing. Methods used for Verification Testing of a completed shaft are at the discretion of the Department and may include coring, cross-hole sonic logging, gamma-gamma density logging, low-strain dynamic integrity testing, or other methods.

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

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

4. Auger Cast Piles for Sound Barrier Walls

For the design and construction of Auger Cast piles for sound barrier walls, the Design-Build Firm shall perform a subsurface investigation, analysis and design for all aspects of the Project in accordance with Department standards, policies and procedures. Existing subsurface information may be used. Supplemental subsurface investigation and testing will be required to ensure all aspects of the Project are covered. The Department reserves the right to observe and perform verification testing on any auger cast pile installation during any phases of the foundation operations. Auger cast Piles are only acceptable for sound barrier wall foundations.

The Design-Build Firm shall develop a FP for auger cast pile construction. Submit the proposed FP to the Department for review and approval. The FP is intended to establish process control standards and quality assurance for drilled shaft construction. Include in the FP the items required in Specification 455-47 (Auger Cast Pile Installation Plan), the equipment and procedures for visual inspection and any additional methods to identify and remediate auger cast pile deficiencies. Include in the FP the name of the inspectors assigned to monitor the installation of the auger cast piles, including evidence of the inspectors having taken and passed the CTQP computer based training course for auger cast piles.

The FP will be used to govern all auger cast piling construction activities. In the event that deviations from the FP are observed, the Department may perform Independent Verification Testing/Review of the Design-Build Firm's equipment, procedures, personnel and auger cast pile construction FP at any time during production auger cast pile construction. If, as determined by the Department, construction

equipment, procedures and/or personnel for the FP is deemed inadequate to consistently provide auger cast piles meeting the contract requirements, the Design-Build Firm's FP approval may be withdrawn pending corrective actions. All auger cast piles construction activities shall then cease and not restart until corrective actions have been taken and the FP has been re-approved.

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

1. Evaluating geotechnical conditions and designing the foundations.
2. Constructing all auger cast piles to the required tip elevation and socket requirements.
3. Inspecting auger cast pile installation.
4. Documenting and submitting the field installation logs to the Department within 24 hours of grout placement.
5. Submitting the Foundation Certification Packages.
6. Each Foundation Certification package shall include a letter signed and sealed that certifies the auger cast piles have the required axial capacity, lateral stability and integrity, and that the foundation will have tolerable settlements that will not affect the functionality of the structure, and clearly legible copies of all auger cast pile logs and the Department spreadsheet properly completed for every auger cast pile, and the grout strength test results of the lots sampled. All integrity problems and non-compliance with the specifications must be properly addressed and corrected to the satisfaction of the Department prior to submitting the certification packages. The certification shall not be contingent on any future testing or approval by the Department.
7. Submit a certification letter signed and sealed by the Engineer of Record to the Department within thirty (30) days of finishing each foundation unit. The foundation unit is defined as a group of piles per wall segment or per full wall. Every auger cast pile must be certified and the certification accepted before continuing with the construction beyond the pile-column installation.
8. Providing safe access, and cooperating with and working with the Department in the visual verification of the auger cast pile installation.
9. The Department will have up to four (4) calendar days (excluding weekends and Department observed holidays) of receipt of the Foundation Certification Package to examine the records and determine the acceptability of the auger cast piles. The Department will reject any certification package that is incomplete or indicates non-compliance with the specifications without the situation being corrected to the satisfaction of the Department.
10. If any auger cast pile is found to be deficient, the Design-Build Firm shall correct the deficiency (i.e. repair or replace the auger cast pile) and/or modify the design to compensate for the deficiency. In case of disagreement of test results, the Department's results will be final and used for determination of acceptance.

Cement grout strength deficiencies shall be handled in accordance with the remedial procedures and payment reductions specified in section 455-43.

5. Spread Footings Foundations

For the design and construction of spread footings, the Design-Build Firm shall perform a subsurface investigation, analysis and design for all aspects of the Project in accordance with Department standards, policies and procedures. Existing subsurface information may be used. Supplemental subsurface

investigation and testing will be required to ensure all aspects of the Project are covered.

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

1. Evaluating geotechnical conditions and designing the spread footing.
2. Constructing the spread footing to the required footing elevation, at the required soil or rock material, and at the required compaction levels.
3. Inspecting the construction of the spread footings, verifying that the footing is founded at the proper soil/rock material and that the design requirements are met.
4. Submitting the Foundation Certification Packages.
5. Each Foundation Certification package shall include a letter signed and sealed that certifies the spread footing has the required axial capacity, lateral, torsional and overturning stability and integrity, and that the foundation will have tolerable settlements that will not affect the functionality of the structure. All integrity problems and non-compliance with the specifications must be properly addressed and corrected to the satisfaction of the Department prior to submitting the certification packages. The certification shall not be contingent on any future testing or approval by the Department.
6. Submit a certification letter signed and sealed by the Geotechnical Foundation Design Engineer of Record to the Department within thirty (30) days of finishing each foundation unit. The foundation unit is defined as a spread footing supporting a column of a bridge pier or bent, or spread footing(s) supporting a miscellaneous structure or a sound barrier segment. Spread footing must be certified and the certification accepted before continuing with the construction beyond the pile-column installation.
7. The Department will have up to two (2) calendar days (excluding weekends and Department observed holidays) of receipt of the Foundation Certification Package to examine the records and determine the acceptability of the shallow foundation. The Department will reject any certification package that is incomplete or indicates non-compliance with the specifications without the situation being corrected to the satisfaction of the Department.

C. Utility Coordination

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

1. A minimum of four (4) years of experience performing utility coordination in accordance with Department, FHWA, and AASHTO standards, policies, and procedures.
2. Knowledge of the Department plans production process and utility coordination practices,
3. Knowledge of Department agreements, standards, policies, and procedures.

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

1. Ensuring that all utility coordination and activities are conducted in accordance

- with the requirements of the Contract Documents.
2. Identifying all existing utilities and coordinating any new installations. Reviewing proposed utility permit application packages and recommending approval/disapproval of each permit application based on the compatibility of the permit as related to the Design-Build Firm's plans.
 3. Scheduling utility meetings, keeping and distribution of minutes of all utility meetings, and ensuring expedient follow-up on all unresolved issues.
 4. Distributing all plans, conflict matrixes and changes to affected utility owners and making sure this information is properly coordinated.
 5. Identifying and coordinating the execution and performance under any agreement that is required for any utility work needed in with the Design-Build project. Reviewing, approving, signing and coordinating the implementation of all Utility Work Schedules.
 6. Resolving utility conflicts.
 7. Obtaining and maintaining all appropriate Sunshine State One Call Tickets.
 8. Performing Constructability Reviews of plans prior to construction activities with regard to the installation, removal, temporary removal, de-energizing, deactivation, relocation, or adjustment of utilities.
 9. Providing periodic Project updates to the Department Project Manager and Turnpike Utility Office as requested.
 10. Coordination with the Department on any issues that arise concerning reimbursement of utility work costs.
 11. The Utility Coordinator shall participate in discussion with the Design-Build Landscape Architect for the purposes of coordination and avoiding conflicts where ever possible between the preliminary and final utility design efforts and the Landscape Opportunity Plan areas.

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

UA/O	Eligible for Reimbursement (Y/N)
AT&T Corp.	N
Florida Gas Transmission	N
Water Conserv II	N

D. Roadway Plans:

General

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

Design Analysis

The Design-Build Firm shall develop and submit a signed and sealed Pavement Design Package and Drainage Analysis Report for review and concurrence by the Department.

These packages shall include the following:

1. Roadway Plans Package

The Design-Build Firm shall prepare a component set of Roadway Plans Package for review and approval by the Department. This work effort includes the roadway design and drainage analysis needed to prepare a complete set of Roadway Plans, Traffic Control Plans (TCP), Environmental Permits (if applicable, see Section VI.N), Building Plans, Demolition Plans and other necessary documents. Optional Pipe Materials sheets are not required to be included in the Roadway Plans Package; however, the Optional Pipe Materials tabulation sheets shall be included in the Drainage Report that is submitted to the Department for review and approval as part of the Phase III-90% Plans Submittal.

The Department has developed Concept Roadway Plans (Attachment No. 12) for the Project. The solution developed by the Design-Build Firm shall be in general conformance with the attached Conceptual Roadway Plans and adhere to all required criteria. Design elements shall include, but not be limited to, the horizontal and vertical alignments, lane widths, shoulder widths, median widths, appropriate roadside barriers, cross slopes, border widths, sight distance, side slopes, front slopes and ditches.

a. Typical Section Package

The Approved Typical Section Package has been prepared by the Department and provided in Attachment No. 18 of the RFP document. Any deviation from the Approved Typical Section Package or criteria must be approved by the Department and is at the sole risk of the Design-Build Firm.

b. Pavement Design Package

The minimum pavements required for this Project are provided in the Pavement Requirements (Attachment No. 17) of this RFP document. In addition, a design traffic report has been prepared by the Department and is included in Other Documents for use by the Design-Build Firm. It is the responsibility of the Design-Build Firm to review and evaluate both documents and prepare a Pavement Design Package submittal for review and concurrence by the Department.

The Pavement Design Package shall include pavement designs for all Turnpike Mainline and ramp widening and shoulders, I-4 auxiliary lane widening and shoulder, overbuild areas, milling and resurfacing, full depth pavement reconstruction and should at minimum contain the following:

1. Minimum design period
2. Minimum ESAL's
3. Minimum design reliability factors
4. Roadbed resilient modulus
5. Minimum structural asphalt thickness
6. Cross slope
7. Pavement coring and evaluation

8. Ground water conditions

Pavement cores shall go to the bottom of the stabilized layer.

Soil samples for resilient modulus tests have been collected by the Department and delivered to the State Materials Office, in accordance with the FDOT Soils and Foundation Handbook and the results of these tests are provided as Other Documents to assist the Design-Build Firm in developing the applicable Final Pavement Design.

2. Design Variations, Exceptions

The Department has prepared Design Variations and Exceptions as shown below based on the Concept Plans provided as attachments to this RFP document. For any additional variations other than those identified and approved by the Turnpike below, the Design-Build Firm shall identify in writing during the ATC process and provide a written Design Variation for submittal, using standard Department procedures, for approval by the Turnpike Design Engineer. Additional variations, beyond those listed below, are at the risk and solely the responsibility of the Design-Build Firm to prepare. The acceptance of any proposed variations in addition to the following approved variations is at the sole discretion of the Department.

Design variations for design speed will not be permitted.

Design-Build Firm proposed Design Exceptions will not be permitted as part of this Project. Only Design Exceptions defined below and as prepared and approved by the Department will be permitted for this Project.

Approved Design Variations:

1. A Design Variation for Border Width is provided to the Design-Build Firm for specific locations as identified in the Approved Design Variations Attachment No. 31 of this RFP.
2. A Design Variation for Shoulder Width is provided to the Design-Build Firm for specific locations as identified in the Approved Design Variations Attachment No. 31 of this RFP.
 - a. Median Shoulder Width in Northbound and Southbound Directions for SR 91 under Oak Ridge Bridge
 - b. Median and Outside shoulder Widths in Southbound and median shoulder width in Northbound Directions For SR 91 under Ramp A
3. A Design Variation for Vertical Curve Alignment is provided with the Design Variations Attachment No. 31 of this RFP.

PVI Station is 2573+84.07 Mainline SR91 (Turnpike)
4. A Design Variation for Superelevation Transition Slope Rate is provided with the Design Variations Attachment No. 31 of this RFP.

PI Station is 607+03.82 Ramp K-1
5. A Design Variation for Superelevation is provided to the Design-Build Firm as identified in the Design Variation Attachment No. 31 of this RFP.

Station 521+72.15 Ramp D-1
6. A Design Variation for Vertical Clearance under Oak Ridge Road Bridge is provided to the Design-Build Firm as identified in the Design Variation Attachment No. 31 of this RFP.

SR 91 under Oak Ridge Road Bridge

Approved Design Exceptions:

The following Design Exceptions have been prepared or identified for this project and no other Design Exceptions will be permitted after the technical proposal phase.

1. A Design Exception for Vertical Alignment is provided with the Design Exceptions Attachment No. 32 of this RFP.

Station 636+00 Ramp F

2. A Design Exception for Sign Structure No. 75S852 modification as identified in the Design Exceptions Attachment No. 32 of this RFP.

I-4, Ramp F Baseline Station 643+32 (Structure #75S852)

3. Drainage Analysis

The Design-Build Firm shall be responsible for designing the drainage and stormwater management systems. All design work shall be in compliance with the Department's Drainage Manual; Florida Administrative Code, Chapter 14-86; Federal Aid Policy Guide 23 CFR 650A; and the requirements of the regulatory agencies. This work will include the engineering analysis necessary to design any or all of the following: cross drains, French drains, roadway ditches, outfall ditches, storm sewers, retention/detention facilities, interchange drainage and water management, other drainage systems and elements of systems as required for a complete analysis. Analysis shall accommodate, to the extent possible, the Department's desire to maintain landscape areas, as identified in the Conceptual Landscape Opportunity Plan, within the interchanges. The Drainage Engineer shall participate in discussion with the Design/Build Landscape Architect for the purposes of coordination and avoiding conflicts where possible between the preliminary and final drainage design efforts and the Conceptual Landscape Opportunity Plan areas. Full coordination with all permitting agencies, the District Environmental Management section and Drainage Design section will be required from the outset. Full documentation of all meetings and decisions are to be submitted to the Turnpike Drainage Design section. These activities and submittals should be coordinated through the Department's Design Project Manager.

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

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

1. Grading of areas where pavement is being removed to provide positive drainage while meeting safety requirements, water quality treatment and peak discharge attenuation for additional pavement areas, modification of existing storm sewer systems and cross drains - including safety improvements, extensions, removal or replacement, design calculations and permit application documentation, submittal and processing.

Providing final grading of all water retention ponds within the Project limits after all construction within the drainage area contributing to the storm water retention pond has been stabilized with pavement and sod and the storm water system has been desilted. The DB Firm shall remove the upper 6 inches of the interior side slopes and basin bottom and replacing it with A-3 material with less than five (5) percent passing the number 200 sieve. Over-excavation of the ponds is not

allowed.

2. Perform design and generate construction plans documenting the permitted systems function to criteria.
3. The Design-Build Firm shall verify that all existing cross drains and storm sewers that are to remain have adequate hydraulic capacity and design life. Flood flow requirements will be determined in accordance with the Department's procedures. If any of these existing cross drains or storm sewers are found to be hydraulically inadequate or found to have insufficient design life, they must be replaced or supplemented in accordance with the drainage requirements of this RFP. If any existing cross drains or storm sewers require repairs but otherwise would have sufficient remaining design life, repairs shall be made in accordance with the requirements of this RFP.
4. Perform optional culvert materials analysis in accordance with the Department's Drainage Manual Criteria. The pipe length and material ultimately installed is required to be labeled in the plan view.

The Design-Build Firm shall provide the Department's Drainage Engineer a signed and sealed Drainage Design Report. It shall be a record set of all drainage computations, both hydrologic and hydraulic. The Drainage Design Report shall include all necessary support data.

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

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

E. Geometric:

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

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

F. Design Documentation, Computations and Quantities:

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

The design notes and computation sheets shall be fully titled, numbered, dated, indexed, and signed by the designer and the checker. Computer output forms and other oversized sheets shall be folded to a

standard size 8½" x 11". The data shall be in a hard-back folder for submittal to the Department. At the Project completion, a final set of design notes and computations, signed by the Design-Build Firm, shall be submitted with the record set of plans and tracings.

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

1. Design standards used for the Project
2. Geometric design calculations for horizontal alignments
3. Vertical geometry calculations
4. Documentation of decisions reached resulting from meetings, telephone conversations or site visits
5. Final quantities list

G. Structure Plans:

1. Bridge Design Analysis:

- a. The Design-Build Firm shall "Load Rate" all bridges in accordance with the Department Procedure 850-010-035 and the Structures Manual. The as-bid load rating (based on the 90% design plans) shall be provided to the Department with the 90% superstructure submittal. The as-bid load rating shall be signed and sealed by a Professional Engineer licensed in the State of Florida. A final, signed and sealed copy of the Bridge Load Rating, updated for the as-built conditions shall be submitted to the Department's Project Representative and the Turnpike Structures Maintenance Engineer with the as-built bridge plans before any traffic is allowed on the bridge. As-Built load and resistance factor rating for HL 93 design load, FL 120 permit load, SU4, C5 and ST5 legal loads were performed for the existing bridge and provided as Attachment 29. As-Built load ratings for the existing Ramp A/C Bridge over SR 91 (Bridge No. 750624) indicated rating factors greater than one for all the above loads.
- b. The Engineer of Record for bridges shall analyze the effects of the construction related loads on the permanent structure. These effects include but are not limited to: construction equipment loads, change in segment length, change in construction sequence, etc. The Engineer of Record shall review all specialty engineer submittals (camber curves, falsework systems, etc.) to ensure compliance with the contract plan requirements and intent.

2. Criteria

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

- a. All plans and designs are to be prepared in accordance with AASHTO LRFD Bridge Design Specifications, Department Standard Specifications, Structures Manual, FDOT PPM, TPPP, Department Standard Drawings, Supplemental Specifications, Special Provisions, and directions from the State Structures Design Engineer, Temporary Design Bulletins and Structures Design Office and/or Turnpike Structures Design Engineer.
- b. Widening of Ramp A/C Bridge over SR 91 in general, shall match the existing as per the Structures Manual. Prestressed concrete beams shall be the used for the

superstructure elements. AASHTO girders will be allowed for this widening.

- c. Critical Temporary Retaining Walls: Whenever the construction of a component requires excavation that may endanger the public or an existing structure that is in use the Design-Build Firm must protect the existing facility and the public. If a critical temporary retaining wall is, therefore, required during the construction stage only, it may be removed and reused after completion of the work. Installation or removal of temporary walls shall not cause damage to already completed works or existing features such as MSE walls, existing buildings or utility lines. Limitations on vibration levels or settlement shall meet the requirements in the Contract documents or the utility owner whichever is more stringent. When steel sheet piling, soldier pile and lagging or other similar systems are commonly used the Design-Build Firm is responsible for designing and detailing the wall in the set of contract plans. The calculations and plans must be signed and sealed by the Structural Engineer in responsible charge of the wall design.
- d. Existing deck is grooved and proposed deck shall be grooved to match existing. This long bridge widening Project is selected to meet profilograph requirements and a minimum deck thickness of 8 ½" shall be provided for the widening.
- e. Retaining walls are shown in the Conceptual Roadway Plans. All permanent retaining walls shall have a concrete facing and coping. If steel wales are used, they shall be covered with concrete. Retaining walls shall have pea gravel finish to match existing Ramp A/C Bridge walls (Standard Index 5200, Type F finish). Retaining walls shall also have the following aesthetic treatments(also refer to Attachment 20 for Aesthetic Requirements):
 1. Existing Ramp A/C Bridge has MSE walls at end bent locations. Widening of this bridge shall also utilize MSE type walls. Type of new MSE walls and aesthetics, including the panel shape, shall match the existing MSE walls.
 2. Remaining MSE wall portion for existing Ramp A/C Bridge shall be cleaned and recoated together with the newly constructed portion of the MSE wall.
 3. MSE wall under existing bridge No. 755821 (Oak Ridge Road Bridge over SR 91) shall be cleaned and recoated.
 4. Existing Turnpike logo panels are attached to each MSE wall of existing Ramp A/C Bridge and Oak Ridge Road Bridge end bents. These existing logo panels shall be removed and new logo panels shall be installed. The new location of the logo panels shall be coordinated with Turnpike. Shop drawings for the logo panels are provided under Other Documents. Attachment details for the existing logo panels to the MSE walls at Ramp A/C Bridge and at Oak Ridge Road Bridge end bents is the responsibility of the Design-Build Firm and shall be submitted for review and approval.

- f. The proposed piers shall maintain the general aesthetics of the existing structure. New pier columns for Ramp A/C Bridge shall have pea gravel finish and pattern to match existing pier columns. Refer to Attachment 20 for aesthetic requirements of pier columns.
- g. A Class 5 applied finish coating shall be applied to all exposed concrete surfaces of traffic separators, end bents (except top of caps), traffic railing barriers, columns, pier caps (except top of pier caps) and underneath sides and surfaces of deck slab cantilever. Class 5 applied finish coating color for beams (outside and bottom of exterior beams only) shall be Federal Standard 595C, Color 34090, for pier column pea gravel finish Federal Standard 595C, Color 23717 and Federal Standard 595C, Color 20475 for all other surfaces. Traffic railing barriers alongside Turnpike Mainline and traffic separators shown in the Conceptual Roadway Plans do not require colored finish. These barriers and traffic separators shall have Class 5 applied finish coating as per Standards. Class 5 applied finish coating shall be applied to all exposed surfaces of retaining walls, retaining wall barrier and coping. These retaining walls are marked as RW-1 and RW-2 in the Conceptual Roadway Plans and begin wall and end wall locations are provided. Coping and retaining wall barrier color shall be Federal Standard 595C, Color 20475 and retaining wall face color shall be Federal Standard 595C, Color 23717. If Design-Build Firm's design requires additional retaining walls along Ramp A and Ramp K, same finish and aesthetic treatment shall be applied to these additional walls.
- h. Sign structures identified in this RFP shall be removed and replaced with new sign structures as per the Concept Plans. All sign structures that are removed as part of this Project shall become the property of the Design-Build Firm and disposed of properly at their own expense, unless otherwise directed in the RFP. Sign panels for overhead sign structure (Structure #75S852) spanning both eastbound and westbound lanes on I-4 at Sta. 643+32 shall be replaced as per concept signing plans. A structural analysis was performed for this structure for the proposed improvements and a Design Exception was approved by the Department for structural capacity of fillet weld sizes connecting horizontal plates to the uprights and provided under Attachment 32. If the Design-Build Firm deviates from the Concept Signing Plans for this structure, a new structural analysis shall be performed and the Design-Build Firm shall become the EOR of this analysis. If the Design-Build Firm's final analysis indicate that the structure is sufficient and no additional deficiency is noted, then no replacement of this sign structure is required.
- i. Potential reuse of existing light poles shall be as per the PPM. Existing Ramp A/C Bridge underdeck lighting shall be removed and replaced with new lighting as per concept lighting plans provided as Attachment 13. TPPP design criteria for lighting shall be met.
- j. An inspection was performed to discover any hazardous materials within the Project limits and the report is provided under Other Documents. Based on this report, there are no hazardous materials within the limits of this project.
- k. Unless the Design-Build Firm's geotechnical recommendations indicate a more aggressive environment, Environmental Classification for existing Ramp A/C Bridge shall be slightly aggressive for superstructure and moderately aggressive for

substructure (pH=6.32).

1. Existing Ramp A/C Bridge expansion joints shall be replaced. Any spalls adjacent to the existing expansion joints shall be repaired as necessary.

H. Specifications:

Department Specifications may not be modified or revised. The Design-Build Firm shall also include all Technical Special Provisions, which will apply to the work in the proposal. Technical Special Provisions shall be written only for items not addressed by Department Specifications, and shall not be used as a means of changing Department Specifications.

Before construction activities can begin, the Design-Build Firm shall prepare and submit a signed and sealed Construction Specifications Package for the Project, containing all applicable Division II and III Special Provisions and Supplement Specifications from the Specifications Workbook in effect at the time the Bid Price Proposals were due in the District Office. The Specifications Package shall be prepared, signed and sealed by the Design-Build Firms Engineer of Record who has successfully completed the mandatory Specifications Package Preparations Training.

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

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

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

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

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

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

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

I. Shop Drawings:

The Design-Build Contractor shall be responsible for the preparation and approval of all Shop Drawings. Shop Drawings shall be submitted to the Department and shall bear the stamp and signature of the Design-Build Architect of Record (AOR)/Engineer of Record (EOR), and Specialty Engineer, as appropriate. The Department shall review the Shop Drawing(s) to evaluate compliance with project requirements and provide any findings to the Design-Build Contractor. The Department's procedural review of shop drawings is to assure that the Design-Build Contractor and the Design-Build AOR/EOR

have both accepted and signed the drawing, the drawing has been independently reviewed and is in general conformance with the Released for Construction Set, Specifications and any Technical Special Provisions (TSPs). The Department's review is not meant to be a complete and detailed review. Upon review of the shop drawing, the Department's reviewer will stamp, sign and date shop drawing.

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.

The Design-Build Contractor shall submit shop drawings as depicted in the PPM Volume I and as modified by Attachment 28, Shop Drawing Review Process and Attachment 9, Division I Specifications for Design/Build Contracts.

Cost of furnishing original samples will be at the at Design-Build Contractor's expense.

Design-Build Contractor shall schedule the submissions of shop drawings to allow for a 15 calendar days (excluding weekends and Department observed holidays) Department review period. The Department's review period commences upon the Department's receipt of the valid submittal or re-submittal and terminates upon the submission back to the Design-Build Contractor. The 45 calendar days (excluding weekends and Department observed holidays) review may include FTE's 15 calendar day (excluding weekends and Department observed holidays) review period if the shop drawing has been reviewed by both the Design-Build Contractor and the Design-Build Architect of Record/Engineer of Record and transmitted to the Department within 30 calendar d days (excluding weekends and Department observed holidays) or less.

For shop drawing coordination, please contact Robin Hathaway, Shop Drawing Coordinator for Florida's Turnpike Enterprise, Headquarters, Ocoee, FL, 407-264-3426.

J. Sequence of Construction:

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

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

K. Stormwater Pollution Prevention Plans (SWPPP)

The Design-Build Firm shall prepare a Storm Water Pollution Prevention Plan (SWPPP) as required by the National Pollution Discharge Elimination System (NPDES). The Design-Build Firm shall refer to the PPM and Florida Department of Environmental Protection (FDEP) Rule 62-621.300(4)(a) for information in regard to the SWPPP. This SWPPP shall be submitted along with 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**) at least 15 calendar days (excluding Holidays as defined in Section 1-3 of the Specifications) prior to beginning construction activities.

L. Temporary Traffic Control Plan:

1. Traffic Control Analysis:

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

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

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

2. Traffic Control Analysis:

The DB Firm should be aware that there is a Turnpike Tandem staging lot within this interchange on the left at approximate station 221+00 baseline Ramp K. Turnpike Tandems are only permitted to travel on the Turnpike system and to break down and link up in approved staging areas only. They are not allowed on Interstate 4. These tandems require large turning areas due to their length which can consist of a tractor and two 48 foot trailers with a special coupling dolly. The DB Firm will take these tandems and their turning needs and length requirements into consideration with their TCP design. A storage length equal to the existing storage length for the left turn lane should be provided through out all phases of construction to avoid impacting the through traffic lanes. The DEPARTMENT intends to maintain access to this tandem staging area from all directions for tandems and trucks for as long as practical. Florida Administrative Code allows restrictions to be placed on staging due to safety reasons (FAC 14-61.0027 Staging). Should the tandem staging area need to be closed to access from certain directions due to traffic control needs, the DB Firm will be required to install traffic control to achieve that goal. The DEPARTMENT will be required to notify the permitted users of the Tandem Staging lot three weeks in advance of a change in access. Therefore proposed changes in traffic control will be reviewed with the Engineer for this concern four weeks in advance of implementing any change in the traffic pattern that would impact access to this lot. The DB Firm will assist the DEPARTMENT in the determination of safety concerns by providing engineering services included but not limited to turning and tracking evaluation and sight distance analysis. The DB Firm must provide a temporary traffic control plan that maintains a minimum weave distance of 545' from the convergence of the Turnpike southbound and northbound ramp to the tandem staging lot driveway except for the time required to complete the work in the area where the ramps come together and the two middle lanes of the Ramp K which are an extension of the left lane of the northbound off ramp and the right lane of southbound off ramp. The DB Firm must sequence that work such that the staging lot is closed and opened back up to traffic with the at least 545' of weave distance within a maximum time of 120 days. If the weave distance cannot be maintained, the DEPARTMENT will notify the Tandem Operators that left turns into the staging area must be made from the southbound interchange ramp only. The DB Firm will be required to construct a permanent tandem truck turnaround at the Turkey Lake Service Plaza as shown in Attachment No. 21 of this RFP document. The DB Firm will also be required to place two advance PCMS signs in the northbound direction prior to the interchange to notify tandem operators that access in the northbound direction will

be restricted. The DB Firm will be required to furnish additional northbound signage directing the tandems to the turnaround and southbound signage into the interchange.

3. **Hurricane Readiness Plan**

Refer to the Florida's Turnpike Enterprise Field Operations Guide (Attachment No. 16) for requirements of the Design-Build Firm as related to the implementation of Hurricane Operations on the FTE System.

4. **Temporary Traffic Control Plans:**

The Design-Build Firm shall utilize Index Series 600 of the Department's Design Standards where applicable. Should these standards be inadequate, a detailed Temporary Traffic Control Plan shall be developed. The Design-Build Firm shall prepare plan sheets, notes, and details to include the following: typical section sheet(s), general notes and construction sequence sheet(s), typical detail sheet(s), traffic control plan sheet(s) and temporary drainage features.

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

The Design-Build Firm shall design a safe and effective TCP to ensure that all vehicular traffic can be accommodated through the construction zones with minimum delay and exposure to unsafe conditions during all phases of construction. The work shall include, but not be limited to, overall phase planning, temporary static signs and portable changeable message signs (PCMS), utility relocation, temporary lighting, temporary drainage structures, ditches, front slopes, back slopes, drop offs within clear zone, traffic monitoring sites, and provide an open area for the staging of disabled vehicles.

Special consideration shall be given for temporary drainage for each construction phase. Positive drainage must be maintained at all times.

5. **Traffic Control Restrictions:**

There will be NO LANE CLOSURES ALLOWED between the hours of **5:00 AM to 1:00 AM**, all days. A lane may only be closed during active work periods. The number of lanes that can be closed in one direction at each location is to be determined by a lane closure analysis, performed by the Design-Build Firm in accordance with Department standard procedures and shall be approved by the Department. All lane closures, including ramp closures, must be reported to the local emergency agencies, the media and the Turnpike 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 or if the lane closure causes a driver delay greater than 20 minutes.

A MOT Concepts Plan (Attachment No. 22) was prepared for the project identifying the preferred MOT approach for critical construction sequences. The Design-Build firm is anticipated to adhere to the concepts proposed within the plan. Only one detour utilizing Portable Changeable Message Signs (PCMS) for the I-4 eastbound exit ramp closure will need to be developed by the Design-Build Firm for the erection of sign structures, with Department concurrence and approval by all roadway agencies affected along the detour routes. For this detour location, a possible detour route has been developed by the Department and this route is provided for information only under Maintenance of Traffic Concepts (Attachment No. 22) as part of this RFP. The Design-Build Firm shall be responsible for developing the

final detour route and gaining the approval of all local agencies affected along this detour. All weekday night ramp closures or delays shall require a minimum of seven (7) days of advance PCMS notifications to the users. The use of alternate routes via PCMS shall be required. The exact locations and messages of the PCMS are to be shown on the Traffic Control Plans (TCP) and coordinated with the Department's Construction Project Manager.

Critical Sections should be incorporated into the development of the MOT Phasing Concepts and these MOT Phasing Concepts should be provided as a deliverable by the Design-Build firm as part of their Technical Proposal and ATC process. All lane and shoulder closures and mobile operations proposed during construction of this project will require Florida Highway Patrol (FHP) onsite (Troop K only). The truck tandem lot located within the project vicinity will be restricted to permit vehicles only during critical construction phases of this project and will require coordination at least 30 days prior to closure and approval by FTE.

Maximum traffic pacing duration of 20 minutes is allowed along SR 91 (Turnpike) for setting up of the bridge beams. Pacing of traffic beyond this 20 minute construction time frame is not allowed. Maximum construction duration of 20 minutes is allowed for the placement of each overhead sign structure. Traffic delays defined as slowing of vehicles or stopping, similar to traffic pacing, while approaching the overhead sign structure construction zone are allowed for the installation of the overhead sign structure. Daytime traffic delays or traffic delays beyond the 20 minute construction time frame are not allowed. The Design-Build firm should stop the traffic delay process if the length of the delayed vehicles on the ramps spill back onto I-4. Nighttime traffic delay operation will be allowed along the connector road from 1:00 am to 5:00 am and requires the use of PCMS, FHP (Troop K only) and flagging operations on the ramp.

No Lane closures apart from the approved lane closure for the closure of one (1) inside lane along northbound and southbound SR 91 (Turnpike) for a maximum duration of 4 months are allowed. Any lane closures, traffic pacing or traffic delay operations on the interchange ramps and the mainline SR 91 (Turnpike) shall be between **1:00 a.m. to 5:00 a.m.** Monday through Thursday. The construction of the overhead sign trusses should be performed during the least possible night time traffic periods between **1:00 a.m. to 5:00 a.m.** Monday through Thursday. Friday and weekend closure of the ramps for construction is not allowed.

Any additional closures or closures exceeding or deviating from the times provided within this RFP shall require the Design-Build Firm to prepare a lane closure analysis for review and concurrence by the Department. The Department's acceptance to review a lane closure analysis does not constitute concurrence for any lane closure request. Violations to the closure times provided shall be subject to damage recovery. Typically, these closures will only occur during weeknights and must be coordinated with special events and holidays. Refer to the FTE Lane Closure Policy. The Design-Build Firm is responsible for coordinating lane closure requests and obtaining approval from the Department.

NO LANE CLOSURES are allowed on the Project during the Special Event times shown below so as to minimize potential traffic impacts:

- The Design-Build Firm shall allow for 21 work days (24 hour periods) for Special Events. The Special Events for Calendar Year 2013 are: 7/3/13, 7/5/13, 7/6/13, 7/7/13 and 11/27/13. The Special Events for Calendar Year 2014 are: 2/17/14, 3/2/14, 3/9/14, 3/16/14, 3/23/14, 3/30/14, 4/6/14, 4/13/14, 4/18/14, 4/19/14, 4/20/14, 4/27/14, 7/3/14, 7/5/14, 7/6/14 and 11/26/14

M. Environmental Services/Permits/Mitigation:

The Design-Build Firm will be responsible for preparing designs and proposing construction methods that meet the intent of the Concept Plans and approved ERP for this Project. The Design-Build Firm will be responsible for any modifications to the approved ERP and any required permit modification fees for approved changes to the Concept Plans provided in Attachment No.12 of this RFP. All other permits required for a particular construction activity will be the responsibility of the Design-Build Firm and shall be acquired prior to commencing the particular construction activity. Delays due to incomplete permit packages, agency rejection, agency denials, agency processing time, or any permit violations, except as provided in Section V.D.2 of this RFP, will be the responsibility of the Design-Build Firm, and will not be considered sufficient reason for time extension.

N. Signing and Pavement Marking Plans:

The Design-Build Firm shall prepare signing and pavement marking plans in accordance with Department criteria. Plans are to be prepared in accordance with the criteria listed in Section V.A of this RFP and shall be accurate, legible, complete in design, drawn to scale indicated in the Department's manuals and furnished in reproducible form.

The Signing and Pavement Marking Plans shall include notes, plan sheets, details, guide sign work sheets, cross sections, sign structure designs and report of core boring. The Department has developed a conceptual master signing plan, entitled "Concept Signing Plan", included as Attachment No.14 to this RFP. The attached Concept Signing Plan shall be the design concept for the Project and the finalized plans developed by the Design-Build Firm shall be in conformance with the attachment and be an engineering solution that adheres to the design criteria herein.

The Design-Build Firm shall take into consideration the I-4 Reconstruction from west of Kirkman Road to west of Orange Blossom Trail (FPID 242484-3) currently in design. The installation / design of sign structures shall be such that they are outside of the clearzone of the future I-4 widening.

The Design-Build Firm shall consider that the Concept Signing Plan shows replacement of existing signing panels with proposed signing panels on existing overhead sign structures. Structural analysis in these cases has not been completed by the Department except for overhead sign structure (Structure No. 75S852) spanning both eastbound and westbound lanes on I-4 at Station 643+32 (Ramp F Baseline), where a structural analysis was performed and a Design Exception was approved by the Department for structural capacity of fillet weld sizes connecting horizontal plates to the uprights. Refer to Section VI.G.2.h of this RFP for more information on this overhead sign structure. It is intended to utilize the existing overhead sign structure and except as noted in this RFP by PPM Section 25.4.26 and the TPPPH. Existing shop drawings and As-Builts for the existing sign panels may not be available. The potential use of existing structures shall be investigated by the Design-Build Firm and supporting design calculations shall be submitted for review by the Department. The provisions for the analysis of existing sign structures described in PPM Section 25.4.26 are applicable as noted below:

1. Design Variations as described in Section 25.4.26.1 will not be considered.
2. Design Variations as described in Section 25.4.26.2 will be considered.
3. Design Exceptions as described in Section 25.4.26.2 will not be considered unless otherwise noted in this RFP.

The Design-Build Firm shall be responsible for the design of all new or retrofit sign supports (post, overhead span, overhead cantilever, bridge mount and any applicable foundations). The Design-Build Firm shall show all details (anchor bolt size, bolt circle, bolt length, etc.) as well as all design assumptions (wind loads, support reactions, etc.) used in the analysis. The design criteria to be utilized for the analysis of existing structures and design of new structures shall be based upon the current TPPPH, PPM, AASHTO's Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals and FDOT Structures Manual. New overhead sign structure designs shall adhere to all TPPPH requirements including accommodating for 25 percent extra sign area. Retrofits or utilization of existing overhead sign structures are not required to be designed to accommodate 25 percent extra sign area. Mounting types for various signs shall not be changed by the Design-Build Firm (i.e. if the proposed or existing sign is shown as overhead it shall be overhead and not changed to ground mount) unless approved by the Department. The vertical clearance for retrofit structures should be 18 feet, per TPPPH, when structurally feasible, but in no case shall be less than 17'6" as required by the PPM. Any existing structure that is being removed shall not be relocated and reused.

The Signing and Pavement Marking Plans must clearly show those signs and pavement markings that are to remain, be removed and/or relocated. Final placement of signs shall be determined by the Design-Build Firm to account for actual site conditions including appropriate spacing between existing signs and proposed signs. The Design-Build Firm shall be responsible for removing and/or relocating existing signs that are in conflict with proposed signs. Placement as presented on the Concept Signing Plan (Attachment No. 14) may be adjusted minimally (i.e. up to 100 feet longitudinally) by the Design-Build Firm without approval; changes beyond 100 feet shall require approval by the Department. Existing sign assemblies removed shall become the property of the Design-Build Firm and disposed of properly at their own expense.

It shall be the Design-Build Firm's responsibility to field inventory and show all existing signs within the Project limits and address all regulatory, warning and signage along the Project, including but not limited to traffic control signs for maintenance access to the toll equipment facilities and associated parking areas, advisory speed signs for ramps/exits, lane control signs and destination signs near the toll plaza locations and regulatory/warning signage associated with the Turnpike Tandem Staging Lot access.

In addition to the Project limits discussed above, the Design-Build Firm is responsible for placing a Flashing "Your Speed" sign on the curve for the exit ramp from eastbound Interstate 4. This sign shall tie into the power and ITS location that will be impacted by the widening. See Intelligent Transportation System, Section P, for more detail.

The Design-Build Firm's Signing and Pavement Marking EOR shall be tasked with completing signed and sealed thermoplastic pavement marking plans. The plans shall consist of a key sheet, general notes, tabulation of quantities, details and pavement marking sheets. These plans shall be developed separately and let separately as an FTE maintenance contract.

O. Lighting Plans:

The Design-Build Firm shall prepare lighting plans in accordance with Department criteria. The Design-Build Firm shall provide all of the professional services and complete all of the associated tasks necessary to prepare the lighting portion of the construction plans and documents for all work within the limits of the Project.

Services shall include, but are not limited to: preparation of the lighting design analysis report, key sheet, general notes, legend, pole data, sign data, lighting plans for temporary and permanent facilities, load

center schematic one line diagram, power riser diagram, service point details, panel schedules, grounding details, and miscellaneous details. The Design-Build Firm shall identify all poles affected by the Project construction that require extra foundation depth and/or a non-standard design. Plans shall be accurate, legible, complete in design, and drawn to scale.

The lighting design analysis report shall include:

1. General Description
2. Roadway Lighting (Design Methodology, Photometric Analysis, Luminaire Cut sheets)
3. Underdeck Lighting Analysis
4. Sign Lighting (Design Methodology, Photometric Analysis, Luminaire Cut sheets)
5. Airspace Obstruction Analysis
6. Load Analysis
7. Voltage Drop Calculations
8. Short Circuit Analysis and Device Coordination
9. Power company coordination correspondence.
10. Conclusions

The Design-Build Firm shall provide the lighting design prepared in accordance with the Plans Preparation Manual, TPPPH, Department Standard Specifications, the Department's standards, FTE's design guides, and instructions issued by the Department to the Design-Build Firm.

The lighting design analysis report and lighting plans shall be submitted to ensure the proposed lighting design meets all current criteria over the existing and widened portions of the roadway, as well as, for all overhead signs affected by the Project construction. In addition, the proposed lighting design (pole layout – locations, roadway characteristics) shall meet all standards and criteria for the application and roadway classification.

New conventional roadway lighting shall follow TPPPH criteria and characteristics of the lighting standard used for existing adjacent areas to remain. Longer sections (greater than 4 poles affected) of new conventional roadway lighting shall follow TPPPH criteria. Minor replacements shall follow the lighting standard used for existing adjacent areas.

Where new conventional roadway lighting is required, new lighting shall be continuous. Intermixing new and existing pole types and luminaire types in an area is not allowed.

Longer sections (greater than 4 poles affected) of roadway shall be reviewed for compliance with current lighting criteria. All deficiencies within the Project scope of work shall be addressed and corrected. Deficiencies outside the Project scope of work shall be brought to the attention of the Department's Design Project Manager and Turnpike Electrical Engineer.

Shorter sections (4 poles or less) of roadway shall maintain the same lighting level as the existing adjacent roadway.

Work at all sites shall include, but is not limited to:

- a. The Design-Build Firm shall perform detailed field reviews of the each Project site prior to construction. Any damaged and/or non-functioning equipment shall be documented and forwarded to the Department's Design Project Manager and Turnpike Electrical Engineer. All damaged and/or non-functioning equipment and/or equipment which appear to be reaching the

end of its useful life shall be addressed on the contract documents. Field reviews take precedence over as-built plans.

- b. Review and document all lighting (poles/luminaires, sign luminaires, etc.), circuiting, load centers, service points, utility transformers, etc., within the scope of work. This includes circuits outside the scope of work that originate or touch this Project's scope of work.
- c. Review and evaluate all existing sign structures affected by the Project construction. This review includes: conductors, conduit, distribution equipment, grounding, luminaires, voltage, height, pullboxes, etc. New and modified sign structures shall comply with current code and all design criteria identified in Section V.A of this RFP.
- d. Review and evaluate all existing load centers. This review includes: conductors, conduit, distribution equipment, grounding, enclosure, voltage, height, pull boxes, etc. New and modified load centers shall comply with current code and all design criteria identified in Section V.A of this RFP.
- e. Where existing light circuit sources are being removed, the Design-Build Firm shall either:
 1. Provide a new load center per current codes and all design criteria identified in Section V.A of this RFP.
 2. Identify an existing load center capable of feeding the proposed lighting while meeting all current codes and all design criteria identified in Section V.A of this RFP.

P. Intelligent Transportation Plans (ITS):

The Design-Build Firm shall be responsible for the preparation of ITS plans in accordance with the RFP and the latest FDOT Standard Specifications for Road and Bridge Construction and the FDOT Design Standards including but not limited to the ITS Standard Specifications for all proposed work. The testing requirements of the FDOT Standard Specifications for Road and Bridge Construction as applicable shall be enforced for all ITS System components impacted as a result of the Design-Build Firm proposed scope of work. These plans shall include, but not be limited to, key sheet, general notes, ITS plan sheets, ITS device details, pull box and splice box details, splicing diagrams, test plan and maintenance of communications (MOC) plan.

This section includes the minimum requirements for the FTE ITS scope of work and requirements for conflicts of existing ITS components and power/communications connectivity owned and operated by other agencies such as FDOT District 5. The Design-Build Firm is responsible for field verification of all ITS components, power and communications connectivity within the Project limits.

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

1. Ensure the continuous normal operation of all existing ITS System components including the SR 91 Turnpike Mainline ITS fiber optic cable (FOC) communications backbone (backbone) and the FOC lateral drops (lateral drops) to all ITS System components and toll plazas within the Project limits.
2. Ensure the continuous normal operation of all FDOT District 5 existing ITS System components and ITS fiber optic cable (FOC) communications backbone along Interstate 4 (I-

- 4).
3. Design and installation of a new closed circuit television (CCTV) camera on the SR 91 Turnpike Mainline exit ramp to I-4 east.
4. Design and installation of power and communications connectivity for the new CCTV camera.
5. Design and installation of a new Radar Speed Display, “Your Speed” feedback sign.
6. Design and installation of power and communications connectivity for the new “Your Speed” sign.
7. Relocation of any ITS System components that are impacted by the Design-Build Firm’s scope of work as approved by the Department.
8. Testing of backbone and lateral drops relocated as a result of the Design-Build Firm’s scope of work.

1. Existing Conditions

This section is intended to provide a general overview of the existing conditions of the Department’s ITS System and its components such as fiber optic network (FON) communications infrastructure within the Project limits (Florida’s Turnpike Mainline at I-4 interchange vicinity). The Design-Build Firm shall refer to the ITS As-Built Plans provided with this RFP as Other Documents for additional information and shall be responsible for field verifying all existing site conditions within the Project limits.

The ITS System components along the Turnpike Mainline are owned, operated and maintained by the FTE. The ITS System components along Turnpike Mainline as well as the two ramp toll plazas within the interchange limits are connected to the backbone for communications with the FTE Operations Center in Pompano (Milepost 65), the Tolls Data Center in Boca Raton (Milepost 75), and FTE Headquarters in Ocoee (Milepost 263). The fiber backbone within the limits of this Project runs along the Westside of the Turnpike Mainline. The ITS components within the interchange modification limits consist of one CCTV camera and a microwave vehicle detector co-located on the same pole in the southbound travel direction just north of Exit 259. Although not in close proximity of the Project limits, it should be noted that there are microwave vehicle detector stations to the north and south of the interchange modifications work.

The ITS components along I-4 are owned and operated by FDOT District 5 and connect to the I-4 fiber optic backbone for communications with the District 5 Regional Transportation Management Center (TMC). The District 5 ITS components within the Project limits consist of one CCTV camera along I-4 eastbound travel direction before Exit 77.

The following is an overview of the existing ITS System components including communications infrastructure within the interchange modification limits.

The ITS components shall be defined as follows:

1. Closed Circuit Television (CCTV) Camera System: The CCTV Camera System consists of pan-tilt-zoom (PTZ) cameras along the Turnpike Mainline and I-4. The CCTV cameras are used by FTE and FDOT District 5 TMC staff for incident management and traffic monitoring. The cameras are integrated and communicate with their respective TMC facilities via fiber optic backbones on the Turnpike Mainline and I-4.
2. Microwave Vehicle Detection Systems (MVDS): The MVDS consists of non-intrusive,

- microwave technology sensors used to collect vehicle volume, speed and occupancy data from Turnpike Mainline travel lanes. The MVDS within the interchange modifications Project limits is also connected with the Turnpike Mainline fiber optic backbone and are used for incident detection by the FTE TMC's Operations staff.
3. Highway Advisory Radio (HAR) System: The HAR System along Turnpike Mainline/I-4 Interchange consists of one Highway Advisory Radio Transmitters (HART). The HAR System uses a Federal Communications Commission (FCC) licensed radio frequency to broadcast messages on a designated radio frequency when activated by TMC from the FTE Operations Center. During activation, the Highway Advisory Radio Beacons (HARB) flashes to advise motorists to tune-in to the designated radio station. Both HART and HARB components are connected to the FTE Operations Center via the Turnpike Mainline 96-count single mode Fiber Optic Cable (FOC) communications backbone running along the corridor.
 4. Fiber Optic Network (FON): The Turnpike Mainline FON infrastructure provides communications for FTE's ITS and Tolls components. The FON is composed of the FOC communications backbone, ITS lateral connections and communications equipment including but not limited to field Ethernet switches, port servers, routers, fiber patch panels installed at the various ITS device(s) and existing toll plazas along the Turnpike Mainline and ramp locations.
 5. For clarification purposes, the fiber optic cable between the backbone and a building (ramp toll plaza) shall be defined as the "Tolls lateral". The fiber optic cable between the backbone and ITS components shall be defined as the "ITS lateral".
 6. The FOC communications backbone consists of a 96-count single mode fiber optic cable and four (4), 1.25-inch HDPE conduit, locate tone wire, warning tape, fiber route markers, pull boxes, and splice boxes running along the corridor. Three (3) of the four (4), 1.25-inch HDPE conduits are spare conduits. The backbone provides access points for the various ITS and Toll System components along the corridor for network connectivity as previously described. Additionally, the FTE Pompano Operations Center is also connected with the FTE Headquarters in Ocoee via the Turnpike Mainline FOC communications backbone.
 7. The ITS components within the interchange limits are connected to the backbone through a lateral twelve (12) count single mode fiber optic cable inside a one (1), 1.25-inch HDPE conduit. The FTE Tolls Communications Network includes but is not limited to the fiber optic drops from the backbone to each ramp toll plaza and all other associated communications elements. The lateral drops for the existing ramp toll plaza consist of a twenty-four (24) count single mode fiber optic cable. The ramp toll plaza lateral drops typically run along with two (2), 1.25 inch conduits of which one is a spare. One (1), 2 inch conduit along with three (3), #6 AWG service wires is used for power connectivity between the two ram toll plazas.

2. Design Analysis

a. New CCTV Camera System

The Design-Build Firm shall develop plans for the installation of a new CCTV camera along the Connector Road from Turnpike Mainline Ramp 141 to I-4 East Ramp 138. The new CCTV camera shall provide one hundred percent (100%) coverage of Connector Road and respective ramps. The CCTV camera system shall consist of new pan-tilt-zoom (PTZ) camera, concrete pole, pole mounted cabinet and supporting hardware. The concept location of the new CCTV camera is shown in Interchange Modification Concept Plans (approximate STA 42+20) which is attached as an Exhibit to the RFP.

The CCTV camera height shall be a minimum of forty (40) feet from the camera to the roadway level.

A camera-lowering device (CLD) shall be provided to lower the camera during maintenance, repairs or replacement with all connections and lowering cable housed inside the concrete pole.

The CCTV camera system shall transmit digital images to the FTE TMC in Pompano and Ocoee facilities and receive control commands from the TMC staff. Camera images shall be viewable by the System Operator during dawn, daytime, dusk, and nighttime hours, free of distortion and vibration.

The CCTV camera shall be compatible with the latest version of the National Transportation Communications for ITS Protocol (NTCIP) and function with the SunGuide™ software platform.

The CCTV camera system shall include, but not be limited to, the following components:

1. A Pan-Tilt-Zoom (PTZ) CCTV camera with auto focus zoom lens and azimuth positioning capabilities
2. A domed, pressurized watertight environmental housing with dome mounting hardware of the vertical type with no exposed camera control wiring
3. CCTV camera pole with a Camera Lowering Device (CLD) System;
4. A pole-mounted, lockable, weather-resistant control cabinet
5. Camera control electronics and equipment (i.e., hardware and software)
6. Coaxial, power, and data/video cables for power supply, images, and camera controls;
7. Grounding and surge protective devices
8. Lightning protection devices installed up in the pole close to the camera, and inside the communication cabinet
9. Network communication cables

The CCTV camera shall be connected to the Turnpike Mainline fiber optic cable backbone via an existing fiber access point, e.g. existing splice box (splice point). No new cuts into the existing backbone shall be allowed to connect the new CCTV camera. The Design-Build Firm shall evaluate communications connectivity with the fiber backbone via the following options:

1. Connect the camera to the existing FTE ITS fiber optic backbone that extends along the west side of the Turnpike Mainline
2. Connect the camera to the existing fiber optic drop at the northbound entry ramp toll plaza
3. Connect the camera to the fiber optic drop at the existing highway advisory radio (HAR) transmitter located along the east side of the Turnpike Mainline

The CCTV camera system shall be on FDOT's Approved Products List (APL) and shall meet the requirements specified in Section 782 of the FDOT 2010 Standard Specifications for Road and Bridge Construction (online edition).

b. CCTV Camera Cabinet

The CCTV cabinet shall be pole mounted and provide the following provisions:

1. Convenient and accessible for maintenance personnel
2. Convenient to power sources and field devices

It is the Design-Build Firm's responsibility to size the cabinet appropriate to fit all the equipment installed within the cabinet. The cabinet shall be sized to space the equipment appropriately to ensure ease of access to the proposed equipment and to ensure proper ventilation for the proposed equipment to operate within the respective operating temperature range.

The CCTV pole mounted cabinet shall be designed and constructed as per FDOT's Design Standard latest edition.

All cabinets shall be equipped with:

1. Grounding;
2. Nineteen (19) inch rack system for mounting of all devices in the cabinet;
3. DIN rail;
4. Fluorescent lamp;
5. Fiber optic cable patch panel;
6. Fiber optic cable tray;
7. Pull-out shelf with document storage for laptop and maintenance use;
8. Maintenance access connections;
9. EIA-232 and Ethernet connections for laptop computers;
10. One hundred twenty (120) VAC power supply;
11. One hundred twenty (120) VAC GFI-protected duplex outlets;
12. Sun shields;
13. Gasketed for moisture and wind driven rain protection;
14. Grounding and surge protective devices;
15. Two hour back-up power Uninterruptible Power Supply (UPS) with built-in SNMP Card;
and,
16. Two (2) thermostatically controlled fans.

The cabinet shall be configured to allow maintenance access for both video and data channels. This access should provide a means to connect video feed and control data channels to a laptop computer. The connection of the laptop computer to video and data feeds shall not require disassembly or removal of any of the equipment or other components located inside the cabinet with the exception of patch cords for the data and video feeds.

The Design-Build Firm shall provide a communication cable for connection to a typical laptop and video board or monitor for future maintenance activities. The data cable shall consist of an integral RS-232 to RS-422 converter as may be required and shall be compatible with the CCTV camera assembly.

The data cable shall plug into the test point connector as provided in the cabinet and into a typical laptop

RS-232 serial port. The video cables shall interface with the CCTV camera cabinet test point connection and prepped for interconnection to a BNC receptacle. Two (2) sets of cables shall be provided, two (2) for data and two (2) for video.

c. Camera Pole and Lowering Device (CLD) System

The Design-Build Firm shall furnish and install a new camera pole for the CCTV site. The camera pole shall be pre-stressed concrete type poles. The camera assemblies shall be permanently mounted on a camera lowering device (CLD) that attaches the camera assembly to the camera pole and allows the camera to be mechanically raised and lowered to ground level for servicing.

The Design-Build Firm is responsible for determining the actual camera pole height and foundation requirements based on the final camera locations and to meet minimum CCTV camera to roadway level height requirement of the RFP. A leveled concrete pad shall be set around each CCTV camera pole. The pad shall provide sufficient surface area for a technician to access the pole mounted CCTV cabinet. The concrete pad shall have a minimum surface area of forty-two (42) square feet [(six) 6 feet by seven (7) feet typical] and minimum thickness of six (6) inches. Stainless steel handrails shall be installed for cabinets in area having a slope of 3 to 1 (3:1) or greater. Power and communication pull boxes shall be placed within the concrete pad area and flush to the concrete surface.

The poles must be designed and constructed in such a way that all wiring, lowering cable and grounding facilities are concealed within the pole. No external mount CLD shall be allowed. All hand-holes, couplings, through-bolt holes, and ground wires are to be cast into the pole during the manufacturing process.

All cable entry holes must be in accordance with the location selected based on the requirements as determined by the pole foundation, as shown on the FDOT Design Standards, and as approved by the Engineer. The cable entry holes sized as required and free from sharp edges for the passage of electrical wiring.

The pole shall be provided with a specially designed tenon bolted to the top of the pole for the installation of a CLD.

The camera pole and the CLD shall be designed to withstand sustained wind loads up to one hundred fifty (150) mph. The gust wind factor shall comply with the requirements of AASHTO as detailed in the LTS-4 standard, and as per the FDOT Structures Manual. The most stringent of these criteria shall apply.

The CLD shall support the camera assembly while in the locked position at the top of the pole and while lowering the camera to the ground. The CLD shall also provide the electrical connections between the control cabinet and the camera assembly without reducing the effectiveness of the camera or degrading the overall monitoring system in any way. The only cable permitted to move within the pole while the camera assembly is being lowered or raised shall be the stainless steel lowering cable. All other cables must remain stable and secure during lowering and raising operations. When in the locked position the stainless steel cable shall not be exposed to any tension.

The camera pole and camera lowering device installed as part of the Project shall be on FDOT's Approved Product List. The concrete pole manufacturer shall also have an approved QA/QC plan by FDOT.

d. Speed Monitoring System (SMS)

The Design-Build Firm shall furnish and install a radar technology based speed monitoring system to advise motorists of their speed and posted speed limit. The SMS shall consist of a static speed limit sign combined with a hybrid static sign "YOUR SPEED" legend and LED module which displays the motorist speed. Each digit on the LED module shall be a minimum height of eighteen (18) inches. The concept location of the "Your Speed" is shown in the Signing and Pavement Marking Concept Plans on Exit 77 from I-4 East to Turnpike (Ramp G, approximate Sta. 140+00).

The "Your Speed" sign also referred to as Radar Display Speed Unit shall be AC powered and shall be connected to the existing Turnpike Mainline fiber backbone via fiber optic lateral run to an existing access point. New cuts to the Turnpike Mainline fiber optic backbone are not allowed.

At a minimum, the Speed Monitoring shall include the following:

1. Power connectivity (AC power)
2. Communications connectivity (hard wire connection with Turnpike Mainline FOC cable)
3. Power and communications shall be run in separate conduits
4. Two speed settings of flashing LEDs to notify drivers that are exceeding the speed limit
5. LED life of 100,000 hours
6. NEMA 4R housing
7. Capability to store traffic data (Speed and Counts)
8. Built-In SNMP card for remote access and connectivity with TMCs
9. On/Off Timer Options
10. Capability to record traffic data when LED module is Off

The Design-Build Firm is responsible for ensuring that the SMS is compliant with MUTCD, Section 990 of the FDOT Standard Specifications for Road and Bridge Construction 2010 and the FDOT Speed Zoning for Highways, Roads and Streets Manual (March 2010).

The SMS shall be connected via a hardwire/fiber connection to the nearest access point along the FTE fiber optic backbone as approved by FTE. Wireless connectivity shall not be allowed.

The SMS power connectivity shall not use street lighting power drops. The Design-Build Firm is responsible for the design, construction of SMS and cost for communications and power connectivity.

e. Preservation of Existing ITS System

The existing ITS System components and Tolls Communications Network shall remain operational throughout the duration of the Project. The Design-Build Firm may propose minimal downtime of ITS components as result of new construction as defined in this RFP. The Design-Build Firm shall be responsible for developing engineering design and construction plans of new ITS construction and relocation of existing ITS components found to be in conflict with the proposed scope of work and for submitting the plans to the Department for review and approval. The Design-Build Firm shall be responsible for all labor and materials associated with the relocation of ITS components, and associated power and communications infrastructure. Any ITS components and/or supporting power and communications infrastructure damaged by the Design-Build Firm, shall be replaced by the Design-Build Firm with equal or better product at no additional cost to the Department.

Prior to the relocation or downtime of any ITS System component as approved by the Department, the Design-Build Firm shall submit a Method of Procedure (MOP) to the Department for review and

approval. The MOP shall be submitted for review seven (7) calendar days (excluding weekend and Department observed holidays) prior to the proposed outage and shall outline the anticipated field procedures to take place. After a proposed ITS component or backbone downtime MOP is approved, the Design-Build Firm shall provide a minimum of two (2) calendar days (excluding weekend and Department observed holidays) advance notice prior to disconnecting any ITS System component or relocation of the backbone.

The existing ITS System to be protected and remain operational includes, but is not limited to, the following:

1. Microwave Vehicle Detection Systems (MVDS)
2. Closed Circuit Television Cameras (CCTV)
3. Highway Advisory Radio (HAR) System - Highway Advisory Radio Transmitter (HART) and Highway Advisory Radio Beacon (HARB)
4. Fiber Optic Network (FON)
5. Fiber Optic Cable (FOC) – Turnpike Mainline FOC backbone and lateral FOC drops, pull boxes, splice boxes, route markers
6. Fiber Locate System (route markers and locate wire)
7. Miscellaneous ITS Components (Encoders, Switches, etc.)
8. Power run and service

The relocation of any of the above ITS components, as approved by the Department, shall provide at a minimum the same coverage, service and functionality currently being provided by the ITS component.

For any relocated ITS Component and associated power and communications, fiber backbone segment, new splices, new ITS lateral, new ITS components (CCTV and SMS), the Design-Build Firm shall submit hard copies and an electronic file of updated As-Built Plans as require in Section V.H of this RFP. The as-built plans shall be submitted to the Department for review and approval. The Design-Build Firm shall submit a shape file document containing Global Positioning System (GPS) coordinates acceptable for the Department's use for all ITS components and associated power and communications, relocated fiber backbone segments, ITS laterals and Tolls laterals affected by the scope of work. The GPS unit shall be provided by the Design-Build Firm and used to collect data with a sub-foot accuracy level.

f. Stationary Devices

All stationary ITS components determined to be in conflict and to be relocated as approved by the Department shall be placed outside the clear zone. All stationary devices located above ground level and within the clear zone must be protected with guardrail or barrier. The Department, before construction, must approve the location of all stationary devices. This approval will occur during the Phase III-90% plans review.

g. Utility Conflicts

The Design-Build Firm shall identify, evaluate, address, and mitigate any conflicts between existing FTE and District 5 ITS System components, including but not limited to the FON infrastructure, and proposed work. All conduit and utility adjustments shall be reviewed and approved by the Department. The Design-Build Firm shall be responsible for relocation of all existing utilities as per FTE Manuals, FDOT Standards and FDOT Utilities Accommodation Manual. Any segment of the FOC communications backbone determined to be in conflict and to be relocated as approved by the Department shall meet the requirements in the RFP. Any segment of the District 5 fiber optic backbone and ITS laterals for power

and communications along I-4 determined to require adjustment shall be coordinated with FDOT District 5.

h. Structure Conflicts

The Design-Build Firm shall investigate and show all potential conflicts of the existing ITS components and proposed work including but not limited to proposed widening, barrier walls, drainage structures, guardrail, sign structures including but not limited to full span overhead structures, half span overhead structures, cantilever overhead structures, light poles, post mount signs, sheet pile wall, barrier wall, retaining walls, etc.

i. Grade Change (+ or -)

The Design-Build Firm shall investigate and show all potentially conflicting changes in grade. The final elevation of underground ITS conduits shall be a minimum of 36 inches below final grade. When the ITS conduit is directionally bored, then the conduit duct bank depth shall be a minimum of 48 inches below final grade or ten (10) times the diameter of the casing, whichever is greater. If the ITS system will be affected by "fill section" conflicts, the Design-Build Firm shall be responsible for raising all ITS components including ITS poles and boxes to grade level. Raising pull boxes may also require the adjustment of conduits entering the boxes. Adjustment to conduits, pull boxes, splice boxes, locate wire and warning tape shall be performed as per manufacturer's recommended procedures. Any damaged pull boxes (power and communications) or fiber splice boxes during adjustment operations shall be replaced with a new equal or better product.

All concrete aprons around ITS device poles, cabinets, pull boxes and splices boxes impacted by the grade change shall be leveled to match the new grade. All concrete aprons damaged as a result of the work in the scope shall be replaced with a new concrete apron as per FDOT Design Standards.

j. Conduit and Interconnect System

The existing fiber and conduit systems to be impacted and relocated or replaced shall be replaced in kind including but not limited to the size, number, and color of the existing conduits. The Department must approve the location of any proposed conduit during the plans review phase. All spare conduits shall be continuous and tested prior to final acceptance of the Project. The following general criteria must be employed:

1. The installation and routing of the fiber optic conduit system at any specific location shall not damage trees and landscaping. The fiber optic drop conduit system shall maintain a minimum clearance from utilities as outlined in the FDOT Design Standards and Utilities Accommodation Manual.
2. Design criteria shall use the most feasible horizontal and vertical location of the conduit line.
3. All building, HUB and cabinet penetrations shall be sealed and waterproofed.
4. Avoid existing and proposed utilities
5. Avoid future roadway, ramp and toll plaza widening

6. Minimize clearing and grubbing
 7. Locate fiber outside the existing and future clear zone
 8. Maintain a straight conduit line
 9. The Turnpike Mainline and drop fiber line shall not be attached to bridge structures.
 10. All conduit installation and construction activity must take place within the Department right-of-way.
 11. All spare conduits shall have a pull tape installed and shall be capped with a waterproof seal approved by the conduit manufacturer immediately after testing. Ensure all conduit duct banks have a tone wire connection from end to end.
 12. All ITS conduit installed underground shall be high density polyethylene (HDPE).
 13. All conduit interconnect system, locate tone wire, fiber route markers, warning tape shall comply with the FDOT's Specifications for Road and Bridge Construction ITS specification 783 and applicable FDOT Design Standard indices.
- k. Fiber Optic Pull Boxes

Fiber optic pull boxes shall be installed at the following locations:

1. At all new or relocated ITS components
2. Both ends of directional bores
3. All building entrances
4. 90 degree turns in the conduit system
5. Include one (1) foot offset by six (6) inch deep concrete apron around the box

The spacing of the fiber optic pull boxes shall not compromise the maximum pulling tension of the fiber optic cable. Locations must be approved by the Department during the Phase III-90% review phase. All pull boxes must meet HS-20 loading if they are to be installed in the limited access right-of-way.

All fiber optic pull boxes shall comply with the FDOT's Specifications for Road and Bridge Construction ITS specification 783 and applicable FDOT Design Standard indices.

l. Electrical Utility Service to ITS Device Cabinets

If the Design-Build Firm designs for new or relocated power services, the Design-Build Firm shall be responsible to coordinate with the power service provider(s). The Design-Build Firm shall be responsible for any and all associated design, labor and material costs for new or relocated power services including but not limited to:

1. HDPE power conduit (sized to accommodate new service wire)
2. Electric power cable
3. Pull boxes
4. Grounding
5. Surge suppression
6. Disconnect switch
7. Transformers
8. Power distribution panels

m. Electrical Pull Boxes

Electrical pull boxes shall be installed at:

1. All ITS device locations
2. Over all grounding rods at power service points
3. Adjacent to existing building transformer / load center
4. 90 degree turns in the power conduit system
5. At both ends of directional bores crossing travel lanes
6. Include one (1) foot offset by six (6) inch deep concrete apron around the box

The spacing of the electrical pull boxes shall not exceed 500 feet. Locations must be approved by the Department during the Phase III-90% review phase. All pull boxes must meet HS-20 loading and shall comply with the applicable FDOT's Specifications for Road and Bridge Construction and applicable FDOT Design Standard indices.

n. Landscape Coordination

The Design-Build Firm shall coordinate with existing and on-going landscape projects for the installation of any new ITS devices or the relocation of existing ITS devices and supporting power and communications infrastructure. Delivering a fully operational Intelligent Transportation System (ITS) and BOLD landscapes at the same locations will require early and frequent coordination of ITS engineers and landscape architects. While procedures are being revised to facilitate this increased collaboration and cooperation, Turnpike ITS Managers and Turnpike Landscape Managers are asked to assure that the design and construction of each ITS project and each landscape project is entirely coordinated with existing and proposed ITS facilities and landscapes. Both programs have been determined to be important components of the state transportation system.

3. ITS Repair and Preservation

a. ITS System

This section establishes the requirements for the repair and preservation of the existing Florida's Turnpike Enterprise (FTE) Intelligent Transportation System (ITS) within the Turnpike Mainline/I-4 Modifications Project limits throughout the Project duration. The ITS System is defined to include FTE tolls communications, fiber optic communications networks, wireless communication networks, underground conduit, pullboxes, vaults, underground fiber optic cable, ITS field devices (i.e., cameras, vehicle detection, travel time, dynamic message signs, highway advisory radio), ITS field network devices, ITS device cabinets, power circuitry/systems, aboveground route markers and associated temporary or permanent ITS related infrastructure.

Whenever actions of the Contractor cause the ITS or related components to fail or disrupt normal operations, as determined by the Engineer, repair/restore the ITS and related components to their previous condition and normal operation within the allowable repair time in Table 3 at no expense to the Department. Tables 1 and 2 below represent the maximum allowable repair and response times; however, downtime should always be minimized whenever possible.

In the case of failure on the part of the Contractor to respond to damage, provide a repair plan or repair the ITS to normal operations, the Engineer may proceed to repair and enforce the provisions of FDOT Specifications 7-11. Lack of manpower or parts will not be considered as items beyond the Contractor's control. Repairs and responses must be performed by FDOT prequalified contractors in work class Intelligent Transportation Systems.

ITS failures and disruption of normal operation are defined to include, but are not limited to the

following:

1. Telecommunications - This item entails the failure, partial failure, or cutting of any telecommunications including but not limited to fiber optic cable, composite cable, wireless links, data lines, or leased telephone data lines that brings down the system in whole or any part of the system or its functions that include communication between the Master Hubs. Telecommunications failure also includes causing a system to fail over to a redundant path or the removal of a redundant path without written permission from the Engineer.
2. Camera System – This item includes the loss of Video or Pan, Tilt or Zoom from a specific camera site. This also includes any change in the height, angle, or location of the support structure of the camera caused by the contractor.
3. Vehicle Detection System / Travel Time System – This item includes the loss of correct data flow from the field device to the Department’s Software system located at FTE’s Traffic Management Centers (Turkey Lake and Pompano). This includes data for all lanes of travel. If a temporary detection system is used it shall maintain all standards that the existing system is currently using.
4. Highway Advisory Radio System (HAR) – This item entails the failure of a transmitter to produce radio waves or interruption of beacon signs associated with the HAR transmitter. This is to include the inability to send or receive data to a HAR and or the inability for the Operator at the TMC to have normal functionality maintained.
5. Power Systems – This item includes the complete or partial failure of power to all systems including but not limited to HUBs, LHUBs, cameras, vehicle detection or travel time systems, DMS, and HAR systems.

Table 1 – Allowable Repair Time

Item	Allowable Repair Time
Telecommunications	24 hours
Camera System	48 hours
Vehicle Detection / Travel Time System	48 hours
Dynamic Message System	48 hours
Highway Advisory Radio System	48 hours
Power Systems	24 hours

If damage to the system or disruption to normal operations occurs, notify the Engineer immediately for inspection. Respond to the site of damage with qualified personnel who have experience in repairing ITS within the allowable response times in Table 2 at no expense to the Department. For damaged telecommunication sites, respond to the site with a certified fiber optic technician that is trained and certified by a reputable organization (Corning Cable Systems, Lucent, The Light Brigade, or equal). At a minimum, the technician’s hands-on training must include fiber splicing, fiber termination, fiber testing, splice closures and patch panel terminations. For damaged power systems, respond to the site with an Electrical Journeyman. For damaged ITS field components, respond to the site with a Certified Electronics Technician.

Table 2 – Allowable Response Time and Required Response Personnel

Item	Allowable Response Time	Required Response Personnel
Telecommunications	4 hours	Certified Fiber Optic Technician
Camera System	4 hours	Certified Electronics Technician

Vehicle Detection / Travel Time System	4 hours	Certified Electronics Technician
Highway Advisory Radio System	4 hours	Certified Electronics Technician
Power Systems	4 hours	Electrical Journeyman

Temporary fusion splices may be used to temporarily reconnect any broken fibers. Mechanical splices are not permitted. After any temporary splices are added to the system and prior to final acceptance of the Project in accordance with FDOT Specifications Article 5-11 permanent repair to ITS fiber optic cable shall be completed. All temporary and permanent splicing shall be performed in accordance with the provisions of FDOT Specifications 783-1.

Submit an ITS repair plan to the Engineer at the pre-construction conference. The plan shall outline the procedures, resources and points of contact for a step-by-step guideline in the event the Contractor damages or disrupts normal operation.

Provide detailed plans to the Engineer which show how damage to any ITS facility will be remedied. These details will become part of the as-built plans package. Remediation plans must follow the same guidelines for development and presentation of the as-built plans. They must be approved by the Engineer before any remediation work proceeds.

b. Fiber Optic Cable Restoration and Repair

The Design-Build Firm shall protect the ITS System and the Tolls Communication Network within the limits of this Project. Any damage to the ITS System or the Tolls Communications Network caused by the Design-Build Firm shall be fixed within the allotted time specified below. The Design-Build Firm shall obtain approval for all repair or replacement procedures from the Turnpike's Traffic Operations and FTE Toll Operations staff before breaking ground.

Due to the sensitivity of the FTE's fiber optic infrastructure, the following additional requirements shall be met by the Design-Build Firm:

1. The Design-Build Firm shall conduct an initial fiber test of 12 fibers through the project limits from the nearest HUBs to the south and north of the construction limits, the Canoe Creek Toll Plaza Microwave Tower HUB and Turkey Lake Service Plaza respectively. The Design-Build Firm shall also perform the fiber test from the Tolls Administrative Building at the Turnpike Mainline/I-4 interchange toll plaza (Ramp D to NB Mainline) north to Turkey Lake Service Plaza. At the discretion of FTE, the Design-Build Firm may be directed to perform the fiber test from local ITS devices within the Mainline/I4 interchange vicinity to the HUBs previously identified.
2. The test shall be conducted at the start of the project before breaking ground using a test procedure approved by the Department with Turnpike Traffic Operations staff present. The fiber tests shall be uni-directional tests at a single wavelength using an Optical Time Domain Reflectometer (OTDR). The fibers to be tested shall be determined by the Department and shall not exceed 12. After substantial completion of the project but before final acceptance, the Design-Build Firm shall perform a final fiber test of the same 12 fibers using the same test procedure and repair any damage or excessive degradation (as defined below) found at no additional cost to the Department. This fiber optic testing shall include the fiber optic cable to the nearest master hub beyond the project limits in both directions.

3. The Design-Build Firm shall restore communication service to all fibers and associated infrastructure including but not limited to the conduit duct bank, tone wire, and warning tape as required by FTE and within the allowable response time described above.
4. The FTE ITS fiber optic network shall not experience communication degradation greater than 0.2 dB between any two master hub switches due to unnecessary splicing of the backbone fiber as a result of the work being performed by the Design-Build Firm and its sub-contractors. Any dB loss greater than 0.2 dB between any two master hub switches will result in the Design-Build Firm being required to replace a section of the 96 single mode fiber optic cable to remove unnecessary splices and bring the communication loss back within the tolerance identified above. The section of fiber to be replaced will be from and to the nearest butt end splice point on either side of the section experiencing high loss. This new cable shall be housed in the same color conduit as the existing cable and shall include the re-splicing of the fiber optic drop cables within the section. The Design-Build Firm shall be limited to installing only one new fiber optic splice between two existing fiber optic splice boxes.
5. The Design-Build Firm shall restore and repair damage to the FTE Tolls Communications Network following the same restoration time requirements as the FTE ITS Network. However, no splices will be allowed in the FTE Tolls Communications Network due to the short lengths of the runs.
6. If the restoration and repair are not performed as described above or within the specified time, the Department reserves the right to restore or repair the damage and will deduct the cost thereof from any monies due or which may become due to the Design-Build Firm under the Contract. In addition, the Design-Build Firm shall reimburse the Department for any toll revenue losses caused by Design-Build Firm damages to any of the communication items described herein.

A CD/DVD with all OTDR test results performed on this Project initially and after any fiber repairs shall be submitted to the Department's Construction Project Manager.

c. FDOT, District 5 ITS and Fiber Optic Backbone Protection

The Design-Build Firm shall protect the FDOT, District 5 ITS System and Fiber Optic Backbone within the limits of the Project including segments of I-4 as impacted by the construction. The Design-Build Firm is responsible for field verifying the existing conditions of the District 5 ITS, fiber backbone, ITS laterals for power and communications along I-4 prior to the start of any construction activities. The review of any District 5 ITS As-built plans provided with the RFP documents does not absolve the Design-Build Firm from verifying existing conditions.

The Design-Build Firm shall coordinate all construction activities with FDOT District 5 ITS Section prior to any construction activities and shall provide a minimum two (2) week advance notification. Any ITS components and/or portion of the fiber optic backbone damaged by the Design-Build Firm's construction activities shall be replaced with equal or better product at no additional cost to FTE or FDOT, District 5. All ITS components and fiber optic backbone segments replaced or relocated as a result of the Project work are subject to the installation and testing requirements in the RFP documents. Any portion of the fiber optic backbone determined to be in conflict with the proposed widening shall be field adjusted and protected during construction as approved by FDOT District 5 and FTE

4. ITS Testing

a. General

The testing requirements of the Department specifications shall apply to any and all ITS components affected by the construction of this Project including but not limited to proposed conduits, proposed and existing fiber optic cables within the Project areas, and ITS components that experience interruptions in communications, require relocation as a result of conflicts associated with this Project or new ITS component installations. ITS testing shall also include a Spare Conduit Test (SCT), Fiber Optic Cable Test (FOCT), Stand Alone Test (SAT), Operational System Acceptance Test (OSAT), and a Burn-In Period as described below. The Department reserves the right to have a representative witness all testing. The Design-Build Firm shall request in writing the Department's approval for each test procedure a minimum of 14 calendar days prior to the requested test date.

All testing for the ITS components and associated power and communications connectivity shall meet FDOT standard specifications.

b. Spare Conduit Test

The Design-Build Firm shall be responsible for completing a final conduit proofing test of all conduits that were relocated, adjusted and new installations that were within the limits of the Project. The Design-Build Firm shall be responsible for identifying and repairing any damage to the spare conduit regardless of whether the conduits were damaged before or during this Project. The conduit proof test method to be applied throughout the Project shall consist of blowing a proofing dart through the conduit system in at least one direction with a force pressure of 60 psi. The diameter of the proofing dart shall be a minimum of 80% of the actual duct inside diameter. The proofing dart shall have a minimum length of three (3) inches. The ability to successfully blow the pull string in the conduit for the proofing dart will satisfy the requirement for testing an airtight seal. The Design-Build Firm will not be permitted to blow ball bearings in empty conduits.

c. Fiber Optic Cable Test

The Design-Build Firm shall be responsible for completing a final test of proposed fiber optic cable within the Project limits per the Department's Specifications for Road and Bridge Construction ITS specification 783 including the use of an optical time domain reflectometer (OTDR) to ensure the specifications are met and to take responsibility for repairing any damage found at its own cost. Any segment of the FOC communications backbone to be relocated shall also meet the testing requirements described in this section of the RFP.

d. Stand Alone Test

The Design-Build Firm shall perform a complete SAT on all new ITS components and all ITS components affected in any way by this Project. The SAT shall demonstrate that all equipment and materials are in full compliance with all Project requirements and fully functional as installed and in final configuration. If a unit fails its stand-alone test, the Design-Build Firm shall correct the problem or replace the unit and retest it until satisfactory completion of the SAT. All equipment used to conduct the SAT shall be provided by the Design-Build Firm.

The SAT shall demonstrate full compliance with all operational and performance requirements of the Project including but not limited to full coverage of CCTV camera location to meet or exceed previous coverage, coverage at new CCTV camera locations, operation of new SMS, detection accuracy for VDS and reception coverage for HAR. SATs also include a visual inspection of the cabinets and all

construction elements at the site to ensure they are compliant with the specifications of this Project.

e. **Operational System Acceptance Test (OSAT)**

The Design-Build Firm shall perform a complete OSAT on all equipment and materials affected in any way by this Project including but not limited to relocated ITS Components and new ITS Components installed by the Design-Build Firm. The Design-Build Firm shall not request the OSAT test until all SATs have been satisfactorily completed. Prior to the official OSAT, the Design-Build Firm shall provide advance notice of and written test results documentation that the Design-Build Firm has performed a dry-run of the OSAT. The FTE ITS Office reserves the right to require the attendance of a dry run test session.

The Design-Build Firm shall test all Project systems simultaneously from the TMC in the FTE Operations Center in a manner equivalent to the normal day-to-day operation of the system. The OSAT shall demonstrate that all equipment and materials in the network are in full compliance with all Project requirements and fully functional as installed and in final configuration, communicating with and being controlled through the TMC.

The FTE ITS Office reserves the right to require, at no additional expense, the attendance of a qualified technical representative of the equipment and/or software manufacturers to attend any given OSAT.

5. ITS Burn-In Period

Following the FTE ITS Office's written notice of successful completion of the CSAT, the Burn-In Period for ITS will begin. The entire ITS system within the Project limits excluding toll equipment but including communication infrastructure to toll equipment must operate successfully for 30 days. The Design-Build Firm shall be responsible for the full maintenance of the ITS system components within the Project limits during the Burn-In Period and until Final Acceptance. Successful completion of the Burn-In Period will occur at the end of the 30 days of operation without a system failure due to failed ITS Component, hardware, software or communications components.

Each system failure during the Burn-In Period will require an additional 10 days of successful operation prior to being eligible for Final Acceptance. (i.e., if there are two system failures during the initial 30 day period, the burn-in period would be increased to 50 days). If the Department decides that any material used the installation of new CCTV camera, SMS or any other ITS component affected by roadway widening and the workmanship does not conform to the design or specifications of the Contract, the Design-Build Firm shall replace such defective parts and material at no cost to the Department.

6. Spare Parts

Spare parts for new ITS components or any relocated components as part of this Project are not required.

Q. Landscaping:

The "Conceptual Landscape Opportunity Plan" (Concept Plan), (Attachment No.26), is to be used as a guide in reserving future landscape areas that meet the intent of FDOT BOLD VISION initiative. The Concept Plan considered the conceptual roadway improvements, existing known utilities, and setbacks and clear zone dimensions in identifying future landscape planting areas. The Concept Plan depicts zones of critical future planting areas in levels of priority.

Landscape construction documents and installation are not included in this contract and shall be done by others. The contract does include preparation of a "Landscape Opportunity Plan" (Opportunity Plan) based on the Roadway Concept Plans (Attachment No. 12) of this RFP. It is not the intent of reserving future landscape area locations to restrict or conflict with necessary and required roadway and other related improvements but coordinate with other disciplines to verify these areas. It is also the intent to encourage innovative design ideas.

The Design-Build Firm, at the beginning of the design process, in conjunction with engineering disciplines shall participate in discussions with the Design-Build registered Landscape Architect (DBLA) for purposes of coordination and avoiding conflicts where ever possible between the other discipline design efforts and the Landscape Opportunity Plan areas. Other disciplines shall include, but not limited to, roadway, environmental, drainage, utilities, signing, lighting and ITS to identify potential conflicts relating to preserving these landscape areas. The DBLA is to provide suggested resolutions to preserve landscape opportunity areas. If conflicts exist, the Design-Build Firm and DBLA shall discuss with the Department's Project Manager and the Department's Landscape Architect for coordination and resolution.

The Outdoor Advertising billboard (ODA) approximate location is shown on the plans.

The DBLA shall conduct a visual survey of existing vegetation within and adjacent to the right-of-way where buffer strips are shown on the Concept Plan that have not been identified to be re-graded. The DBLA shall note general groupings of plant species, typical caliper sizes and general health conditions. DBLA shall identify proposed buffers that will fill visual gaps adjacent to the existing residential land use.

The DBLA shall prepare an Opportunity Plan indicating areas of future landscape opportunity areas resulting from coordination with other disciplines. The Opportunity Plan shall include the following:

1. Updated with proposed improvements and existing elements to remain associated with the project;
2. Existing vegetation groupings that will remain. Include vegetation information as identified above;
3. Wetland jurisdictional lines;
4. Final locations of landscape opportunity planting areas in a bubble format and priority;
5. Provide applicable clear zone, horizontal clearance, setback dimensions in chart form which reflect AASTO, FDOT guidelines for landscape installation and maintenance operations, including those that have been coordinated with other disciplines; and
6. Location of ODA signage.

The DBLA shall meet with the Department's Landscape Architect prior to beginning work to fully understand the intent of the plans they will be preparing.

Documentation of all landscaping meetings and decisions are to be submitted to the Department's Project Manager and the Department's Landscape Architect. These activities and submittals should be coordinated through the Department's Project Manager.

No proposed plantings areas indicated on the Opportunity Plan can occur in: obligate wetlands or and facultative wetland species within 25 feet of the seasonal high water of wetlands; within open water bodies; or in the bottom of stormwater management facilities. Limited plantings may occur on the slopes of stormwater management facilities once coordinated with the Department's Landscape Architect and

the Department's EMO office.

R. Improvements at Turkey Lake Service Plaza:

The Design-Build Firm shall design, permit and construct a permanent tandem truck turnaround at the Turkey Lake Service Plaza to accommodate U-Turn movements of tandem trucks from NB SR 91 to SB SR 91. A Concept Plan for the tandem truck turnaround has been provided in Attachment 21 of this RFP document that shows the general location of the proposed ramp improvements. The Design-Build Firm will be responsible for surveying, designing, permitting, and constructing the proposed tandem truck turnaround and shall include (but not limited to) the following:

1. Roadway Design:

The Design-Build Firm shall provide design and construction services necessary to modify the existing NB entrance ramp and SB exit ramps to the Turkey Lake Service Plaza and construct a new U-Turn ramp facility to accommodate a permanent tandem truck U-Turn at the south end of the service plaza. The horizontal and vertical geometry shall accommodate the turning movements associated with the appropriate tandem truck design vehicle as well as accommodate the existing passenger vehicle and semi-tractor trailer movements at the Plaza. The minimum pavement design for this improvement is included in the Pavement Requirements (Attachment No. 17) of this RFP. The proposed improvements shall include all required ramp, shoulder and guardrail necessary to meet all FDOT PPM and FTE TPPP criteria.

2. Drainage and Permitting:

The Design-Build Firm shall be responsible for all drainage and permitting of the proposed improvements necessary to design, permit and construct the proposed improvements. All permits required for improvements at the Turkey Lake Service Plaza and associated ramps shall be prepared and submitted for approval as a separate document from the approved permit provided for the SR 91 (Turnpike) at I-4 Interchange Improvements under FPID Nos. 429331-1-52-01 and 429332-1-52-01 unless otherwise directed by the Department. The Design-Build Firm shall be responsible for all associated permit fees permit modification fees (if applicable). It is anticipated that any water quality treatment can be provided onsite and may require modifications to the adjacent permitted pond located at the south end of the Turkey Lake Service Plaza.

3. Signing and Pavement Marking:

The Design-Build Firm shall be responsible for all required modifications to existing and new signing necessary to accommodate the proposed U-Turn Facility. The Design-Build Firm shall also be required to design and construct all necessary pavement striping including temporary striping for maintenance of traffic operations during construction and permanent markings.

4. Lighting and ITS :

The Design-Build Firm shall be responsible for all design, construction and utility adjustments of the existing lighting and ITS systems including but not limited to the following:

- a. Conduit
- b. Conductors
- c. Pull Boxes

- d. Light Poles and Fixtures
- e. Load Center Modifications
- f. ITS Poles

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 tabs labeled for each Section with the information, paper size and page limitation requirements as listed below.

A copy of the "Written Technical Proposal" must also be submitted in electronic format on a CD/DVD. The format shall be in Microsoft Word and the file saved in .html or .pdf format and must include Bookmarks for each Section. No macros will be allowed. Minimum font size of twelve (12) shall be used. Times New Roman shall be the required font type. Graphics, tables, charts and photographs not embedded as part of the text of the Technical Proposal shall be held to a maximum of 15 pages and will be considered as part of the total page count of the Technical Proposal. Internet loading of the Technical Proposal shall place in 15 seconds or less.

The maximum number of pages for the Technical Proposal shall be 20 typed pages. This page limitation does not include Section 4 Design Support Documents and Section 5 Preliminary Plans. Paper size shall be 8½" x 11", additional larger charts and graphs (maximum size of 11"x17") may be provided if folded neatly to 8½" x 11".

Submit 1 Original, 3 CD/DVD, and 6 hard copies of the Technical Proposal to:

Mr. Richard Nethercote
Turnpike Contract Administrator
Florida's Turnpike Enterprise
phone: (407) 264-3885
fax: (407) 264-3058

By Federal Express:

Florida's Turnpike Enterprise
Turkey Lake Service Plaza
M.P. (Mile Post) 263
Building 5315
Ocoee, Florida 32761

By Hand Delivery:

Florida's Turnpike Enterprise
Turkey Lake Service Plaza
Building 5315, Mile Post 263
Florida's Turnpike
Ocoee, Florida 32761

The minimum information to be included in the Technical Proposal:

Section 1: General

- a. Paper size: 8½" x 11" or larger (maximum size of 11"x17") if folded neatly to 8½" x 11"
- b. Maximum allowed pages: 15
- c. Describe the Design-Build Firms approach to the following:
 1. Maintainability
 2. Design and Geotechnical Services Investigation
 3. Maintenance of Traffic
 4. Context Sensitive Design and Construction
 5. Construction Methods

Section 2: Proposed Schedule

- a. Paper size: 8½" x 11" or larger (maximum size of 11"x17") if folded neatly to 8½" x 11"
- b. Maximum allowed pages: 3
- c. Identify if the Schedule is based on Calendar or Working Days
The minimum information to be included in the summary schedule of anticipated major milestones and their associated phasing as follows:
 1. Anticipated Award Date
 2. Design Schedule 45%, 90%, 100% Submittals
 3. Design Reviews by the Department
 4. Geotechnical Investigations
 5. Permitting
 6. Start of Construction
 7. Construction Milestones
 8. Construction Phasing and major MOT shifts
 9. Utility Relocations
 10. Structure Completion Date
 11. Final Completion Date for all Work

Section 3: Value Added

- a. Paper size: 8½" x 11"
- b. Maximum allowed pages: 2
- c. The Design-Build Firm shall submit the Value Added criteria, measureable standards and remedial work plan for features proposed.

Section 4: Design Support Documents

- a. Paper size: 8½" x 11"
- b. Technical Special Provisions which apply to the work in the Proposal shall be identified. Technical Special Provisions shall be written only for those items not addressed by the Department's Standard Specifications.

- c. The Design-Build firm shall be prepared to submit to the Department during the Technical Proposal Evaluation phase any calculations, studies and/or research to support features identified in the Technical Proposal and detailed in Section 5 (Preliminary Plans).

Section 5: Preliminary Plans

- a. Paper size: 11" x 17". Plan and Profile views of the proposed improvements may be submitted as roll-plot files saved on a CD/DVD.

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

Roadway

1. Project Limits
2. Horizontal alignment
3. Pier and abutment location
4. Major topographic features
5. Proposed vertical profile
6. Survey controls and bench marks
7. Stationing along Horizontal alignment
8. Connections to existing roadway
9. Utility provisions
10. Maintenance of traffic provisions
11. Roadway Typical Section
12. Technical Special Provisions
13. Proposed variations and documentation
14. Additional Geotechnical Investigations

Structures

1. General Notes
2. Plan and elevation
3. Begin and end bridge stations
4. Proposed Foundation Types and Location
5. Proposed Foundation Testing requirements
6. Span lengths
7. Minimum vertical and horizontal clearances
8. Location of expansion and fixed bearings
9. Basic material properties (concrete strengths, classifications)
10. Proposed variations and documentation
11. Additional Geotechnical Investigations
12. Typical pier(s) and abutment details
13. Cross section of proposed superstructure showing type, size and locations of structural elements
14. Proposed means and methods of construction
15. Proposed method of removal of the existing structure and approaches and final disposition
16. Technical special provisions
17. Proposed variations and documentation

C. Evaluation Criteria:

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

Phase I Scoring Recommendations for ELOI

- | | |
|---|----------------|
| 1) Past Performance Evaluations: | Total 4 Points |
| 2) Project Experience and Resources: | Total 6 Points |
| 3) Project Approach and Understanding of Critical Issues: | Total 8 Points |
| 4) Other content in the Expanded Letter of Interest: | Total 2 Points |

Phase II Scoring For RFP and Supporting Documents

Item	Value
1. Maintainability	5
2. Value Added	5
3. Schedule	10
4. Design Approach	20
5. Maintenance of Traffic	20
6. Construction Methods	20
Maximum Score	80

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

1. Maintainability (5 points)

Credit will be given for a design that minimizes periodic and routine maintenance and reduces costs associated with performing maintenance activities. The design should furnish ease of access to provide adequate inspections and maintenance of lighting systems, ITS system, drainage system, mowing, landscaping and other features. Access to right of way with obstacles such as wet ditches, roadside hardware should be addressed in the design. Furnishing a sustainable and maintainable design will be considered. Credit will be given for the most practical design, incorporating the use of quality construction materials and quality workmanship that results in the lower long term maintenance costs. Debris tolerant systems with easy access are encouraged. Access to maintain items with short service life should be achieved without lanes closures to the maximum extent practical.

2. Value Added (5 points)

Credit will be given for the extent of the Value Added coverage. Credit will be given for exceeding minimum material requirements to enhance durability of roadway, drainage and coating systems. Credit will be considered for reuse of existing landscaping material disturbed by construction and meeting or

exceeding the vegetation establishment period and an establishment maintenance plan. Identification, addressing and correcting existing deficiencies within the project improve the end product and provide value.

3. Schedule (10 points)

Credit will be given for developing a realistic, comprehensive and logical schedule that minimizes overall contract duration and demonstrates a firm understanding of the RFP. Utilization of realistic design, quality control review, review times, resubmittals, shop drawings, utility coordination and construction/inspection schedules will be graded higher than minimizing contract duration. It shall include a detailed Critical Path Method (CPM) project schedule of all tasks and events, both design and construction, from the effective date of the Notice to Proceed (NTP) through final completion and acceptance of the project by the Department. The schedule shall highlight the construction phasing and sequencing necessary to minimize interruption to roadway usage. The schedule shall include anticipated major milestones and their associated phasing with other activities and interaction with the project's utility needs.

4. Design Approach (20 points)

Credit will be given for demonstrating a design that adheres to the RFP requirements and gives consideration to practical design solutions. The design should limit the risk to the DEPARTMENT, minimize additional variations, optimize sight distance, provide for utility accommodation and be technically sound and be well coordinated between the various disciplines. The design should meet project aesthetic intent and preserve future landscaping opportunities within the project limits. Any innovations by the Proposers shall be clearly identified in the Proposal in both summary and in the plans. The conceptual drawings (and CADD files) included in the RFP, at the Proposer's option, may be used to develop sufficient drawings and other documentation to demonstrate to the Department the Proposer's complete comprehension of the design solution. Proposers shall identify in their Proposals and indicate by highlighting, "clouding" or other means and by annotated descriptions all modifications made to the RFP drawings. Modifications not identified and not brought to the attention of the Department by the Proposer are deemed to be Not Approved and, unless otherwise determined by the Department, will not be acceptable in the project. Regardless of any modifications made, the Design-Build Firm shall remain obligated to provide work complying with the requirements of the Design and Construction Criteria documentation. Proposers shall address, as a minimum, each of the elements listed below, identifying modifications as well as describing but not limited to materials, design parameters, permit conditions, and other criteria, as appropriate. Consideration will be given for the quality of plans furnished and the presentation of information within them and other submitted documentation, environmental protection and adherence to local and state environmental requirements. The quality and quantity of design staff and QA/QC staff should be presented. The role of the Design-Build Firm's Project Manager in the overall management of the design and role in the construction phase of the project should be described. An outline prepared by the Design-Build Firm's Project Manager of the activities the Design-Build Firm's Project Manager would be involved with and the basis for how the project will be directed through the design and construction phases should be provided. The approach on delivering the design and meeting the project's scheduling needs should be discussed.

5. Maintenance of Traffic (20 points)

Credit will be given for a MOT scheme that minimizes disruption of roadway traffic. Consideration factors include, but not be limited to, minimization of lane closures (except were long-term closures may be preapproved in the RFP) and detours, lane widths, visual obstructions, reductions in speed limits and

reductions in weave distances and merges. MOT should also consider accommodation of Tandem Lot access and tandem truck movements during the construction phases. The proposers shall submit Maintenance of Traffic Plans showing construction work area, ingress and egress and details including but not limited to phasing notes and plans detailing lane shifts, traffic shifts, detours, and incorporating FTE Toll Operations requirements for minimal interruption of operations. The maintenance of traffic plan will be reviewed and graded on the means by which it meets traffic, operation, toll operation, incident management goals, improves congestion and accommodates protection of utilities and the needs of utility work needs.

6. Construction Methods (20 points)

Credit will be given for construction methods that minimize impacts to the traveling public, tolling operations, property owners, impacting environment areas and improves worker safety, reduces traffic delays. The proposers shall include a narrative in the proposal clearly defining their understanding of those construction activities scheduled to be performed. Consideration will be given to minimizing vibrations, noise, dust, soil tracking and protection of existing utilities. The proposer should elaborate on potential cost effective innovations in Design/Build Firm's means and methods, use of new products, new uses for established products, etc. that do not include revisions to specifications, established Department policies or performance requirements are encouraged.

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

D. Final Selection Formula:

The Selection Committee 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 ELOI 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. Also, if PCT is greater than Maximum Allowable Contract Time (MCT) (500 calendar days) the proposal will be considered non-responsive.

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 bids. This meeting will be recorded. At this meeting, the Department will announce the score for each member of the Technical Review Committee for each Proposer and each Proposer's average Technical Score. Following announcement of the technical scores, the sealed bid proposals will be opened and the adjusted scores calculated. The Selection Committee should meet a minimum of two (2) calendar days (excluding weekends and Department observed

holidays) after the public opening of the Technical Scores and Price Proposals. The Department's Selection Committee will review the evaluation of the Technical Review Committee and the Price Proposal of each Proposer as to the apparent lowest adjusted score and make a final determination of the lowest adjusted score. The Selection Committee has the right to correct any errors in the evaluation and selection process that may have been made. The Department is not obligated to award the contract and the Selection Committee may decide to reject all proposals. If the Selection Committee decides not to reject all proposals, the contract will be awarded to the Proposer determined by the Selection Committee to have the lowest adjusted score.

F. Stipend Awards:

The Department has elected to pay a stipend to a limited number of 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 Request for Proposal. This Request for Proposal 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 \$30,000.00 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 execute with original signatures and have delivered to the Department no later than one (1) week after the Short-List has been posted, four (4) originals of 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 and the number of calendar days within which the Proposer will complete the Project. The lump sum price shall include all costs for all design, geotechnical surveys, architectural services, engineering services, Design-Build Firms quality plan, construction of that portion of the Project, and all other work necessary to fully and timely complete that portion of the Project in accordance with the Contract Documents, as well as all job site and home office overhead, and profit, it being understood that payment of that amount for that portion of the Project will be full, complete, and

final compensation for the work required to complete that portion of the Project. One (1) hard copy and two (2) digital copies of the Price Proposal shall be hand delivered in a separate sealed package to the following:

Mr. Richard Nethercote
Turnpike Contract Administrator
Florida's Turnpike Enterprise
Turkey Lake Service Plaza, MP 263
Ocoee, Florida 32761

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

The following Price Proposal Forms are included as attachments to this RFP:

1. Attachment No. 1 – Bid Blank (375-020-17)
2. Attachment No. 2 – Design-Build Proposal of Proposer (375-020-12)
3. Attachment No. 3 – Bid Price Proposal Summary
4. Attachment No. 4 – Bid or Proposal Bond (375-020-34)
5. Attachment No. 5 – DBE Forms (as applicable)