Addendum #4 RFP

Interstate 4 Widening
From SR 44 to east of I-95
Volusia County

Financial Projects Number(s): 408464-1-52-01

Federal Aid Project Number(s): 0042-250-I

Contract Number: E5R16

November 23, 2011

The Request for Proposal for the above referenced project is amended as follows:

1. **Under Other Documents added subdirectory: Design Files for Project 408463-2-52-01**
2. **Under Section VI Design and Construction Criteria, subsection H. Structures Plans, 2. Criteria added:**

    m. The Bear Bridge, animal crossing over I-4 should be design for all the appropriate dead loads and pedestrian loading including maintenance vehicle load as specified in LRFD Guide Specification for the Design of Pedestrian Bridges.

3. **Under Section VI Design and Construction Criteria, subsection M. Temporary Traffic control Plans the following paragraph:**

    The Design/Build Firm shall provide wrecker service within the project limits while construction workers are at the project site. A minimum of two wrecker trucks shall be present and available within the project limits at all times wrecker service is required.

    Is revised to read:

    The Design/Build Firm shall provide wrecker service at all times throughout the project limits and the project's duration in accordance with all the criteria listed below.

4. **Under Section VI Design and Construction Criteria, subsection D. Roadway Plans, entire Pavement Design Package is revised to read:**

    Pavement Design Package:

    The Department has developed approved minimum pavement designs for both concrete and asphalt pavements for use on this project. The minimum pavement designs are included as an Attachment to this RFP. Any modification of the pavement designs provided must be approved by the Department and FHWA. Any modification is a change to the requirements of the RFP. The I-4 mainline lanes and ramp pavement (including the gore areas) shall be concrete from Sta. 1204+14 (stationing from As Built Plans for FIN 408463-1 and 408463-2) to Sta. 1421+07 (Baseline of Survey for I-4 stationing). Any acceleration or deceleration lanes located adjacent to concrete pavement mainline lanes shall be concrete pavement. The shoulder pavement type may be either asphalt or concrete pavement at the discretion of the Design/Build Firm; however, only one type of shoulder pavement (asphalt or concrete) shall be selected and used on any given roadway cross section. Inside and outside shoulders of different pavement types within the same roadway cross sections shall not be allowed. For the concrete paved main line, a reduction in thickness or elimination or alternate replacement of any layer of the specified concrete pavement, base and sub-base system shall not be allowed, with the following exceptions:

    a. The required milling depths of the existing asphalt pavement shown in the Rigid Pavement Design attached to this RFP, are considered to be "Maximum" milling depths and under no circumstance shall the remaining milled asphalt surface (working platform) be less than 3 (three) inches thick.
    b. The "Minimum" required milling depth of the existing asphalt surface (working platform) shall not be less than 1 (one) inch in depth.

c. Should the Design/Build Firm elect to use asphalt shoulders in the concrete pavement areas, the pavement design included in as an Attachment to this RFP outlines specific requirements.

The Design/Build Firm shall provide the appropriate transitions between the asphalt pavement and the concrete pavement on both the I-4 mainline and all ramp tie-ins, if applicable. The pavement in the transition areas shall accommodate the same Equivalent Single Axle Loadings (ESALs) as used in the pavement designs provided as an attachment to the RFP. The Design/Build Firm shall submit the transitions pavement designs to the Department for review and acceptance prior to construction of these locations. In the concrete pavement areas, the Design/Build Firm shall clearly designate the use of asphalt or concrete shoulder pavement for the I-4 shoulders in their Technical Proposal and is assumed to be used for the full length of the concrete pavement portion of the project unless otherwise documented.

There are specific criteria for the ramp pavement for the US 92 ramps to/from I-4 as follows. The ramp pavement on the eastbound I-4 to eastbound US 92 shall be concrete pavement from Sta. 163+26.43 to Sta. 167+69.36 (begin bridge). From Sta. 201+72 (end bridge) to Sta. 211+65 the pavement shall be asphalt. The Design/Build Firm shall mill and resurface from Sta. 211+65 to the US 92 mainline pavement. The ramp for westbound US 92 to westbound I-4 ramps shall be concrete pavement from US 92 to the new bridge. From the end of the new bridge to approximately Sta. 294+80, the pavement shall be asphalt. From approximately Sta. 294+80 to the I-4 mainline (the remainder of the ramp), the pavement shall be concrete.

Automated dowel inserters are not permitted on this project.

If the Design/Build Firm proposes the use of baskets for dowel bar or tie bar placement for concrete pavement, the Design/Build Firm shall provide a specific Quality Control Plan in the Technical Proposal that clearly describes the means and methods to be used to ensure that the dowel bars are placed in accordance with the specifications, including details of how the baskets are to be anchored. In addition, the specific Quality Control Plan shall address how the Design/Build Firm shall verify the location of the dowel bars after the placement of the concrete. The Department reserves the right to have the Design/Build Firm conduct destructive and non-destructive testing. Each destructive test shall be limited to one (1) four-inch core and shall not exceed three (3) tests per lane-mile.

The Design/Build Firm shall grind all concrete travel way surfaces per the specifications.

Within the limits of the project where milling and resurfacing of the flexible pavement along the mainline and ramps is required as per the previously provided pavement design – the existing adjacent paved shoulders shall be milled 1 inch and resurfaced with 1 inch of Superpave Structural Course (Traffic Level ‘C’).

5. Under Section VI Design and Construction Criteria, subsection H. Structures Plans, 2. Criteria the following sentence is deleted:

Bridge No. 79028 shall have single hammerhead piers.

And the following is added:

Bridges at I-4 and US 92 Interchange (both ramp bridges: 790015 and 79028) shall be designed to meet level II aesthetic requirements as defined in Plan Preparation Manual.

6. **Under Section Technical Proposal Requirements, subsection B. Submittal Requirements: Section 1: Written Technical Proposal, second bullet;**

   The maximum allowed number of pages (excluding graphics and charts, proposed plan sheets) is revised from 10 to 15.

7. **Under Section VI Design and Construction Criteria, subsection H. Structures Plans, 2. Criteria the following sentence is deleted:**

   Small animal crossings shall be provided as outlined in the *Supplemental Recommendations for Improving Habitat Connectivity and Wildlife Movement across the I-4 Transportation Corridor,* included as an attachment to this RFP.

   And the following is added:

   Small animal crossings shall be provided as outlined below:
   - At the location of box culverts 5, 6, 12, 13, 16, 17, 32, 33, 47, and 48 provide minimum 2-foot wide shelves on the inside of both exterior vertical walls for the entire box culvert length.
   - Locate shelves for maximum overhead clearance while keeping the top of shelf above normal high water elevation. Overhead clearance must not be less than two (2) feet above the shelf; however, if two (2) feet clearance cannot be maintained above normal high water elevation without raising the profile of main line I-4, then the shelves may be located below normal high water elevation.
   - As an option , in lieu of culvert shelves provide one independent animal crossing located in the vicinity of the culvert, not further than 100 feet from it, with minimum inside dimensions of:
     - 54 inches wide by 36 inches high
     - 48 inches in diameter

     The bottom of the crossing should be located above normal high water elevation.
   - Shelves must connect to the adjacent natural ground. The maximum slope for connection shall be 1:4.

   Justification is provided in the *"Supplemental Recommendation for Improving Habitat Connectivity and Wildlife Movement across the I-4 Transportation Corridor"* included as an attachment to this RFP

8. **Under Section VI Design and Construction Criteria, subsection S. Intelligent Transportation System (ITS) Plans, 4. Design and Engineering Services, the following is revised as follow:**

   Delete:

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

   And the following is added:

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

9. **Under Section VI Design and Construction Criteria, subsection S. Intelligent Transportation System (ITS) Plans, 5. ITS Construction Criteria, v. Fiber Optic Network (FON) System Requirement the following is revised as follow:**

   Delete:

   The existing 72-strand fiber optic cable (FOC) shall be replaced with two (2) 144-strand, 12-fiber buffer, single mode fiber optic cables with one on each side of Interstate 4.

   And the following is added:

   The existing 72-strand fiber optic cable (FOC) may be reuse. Install redundant line 144-strand, 12-fiber buffer, single mode fiber optic cables one the other side of Interstate 4 than the location of the existing72-strand FOC.

10. **Under Section VI Design and Construction Criteria, subsection S. Intelligent Transportation System (ITS) Plans, 5. ITS Construction Criteria, iv. Dynamic Message Sign (DMS) Requirements, 3. DMS Enclosure:**

    Delete:

    The sign enclosure shall be mounted on a sign support structure with the left most edge of the DMS over the Edge of Travel Lane and shall not require the placement of additional guardrail or other protective device. The DMS structure shall not be located within clear zone. It is the Department's wishes that the new DMS structures be installed within 100 feet of the existing DMS structures.

Replace with the following:

The sign enclosure shall be mounted on a sign support structure with the right most edge of the DMS between the Edge of Travel Lane and the Edge of Pavement and shall not require the placement of additional guardrail or other protective device. The DMS structure shall not be located within clear zone.

11. **Under Section VI Design and Construction Criteria, subsection S. Intelligent Transportation System (ITS) Plans, 5. ITS Construction Criteria, vi. Conduit, 1. Underground Conduit:**

Delete:

Fiber Optic conduit shall be HDPE conduit. The conduit shall be a minimum of four (4) two-inch (2") in diameter conduit with a minimum of four (4) conduits installed (one for fiber, one for electrical and the other two (2) for spare use) for FOC trunkline installation and one (1) conduit for drop cable installation. The color designation for the conduit shall be orange, white, red and yellow with the orange conduit used for FOC installation and red for power. Conduit shall be run straight through pull boxes at a depth of 30 inches. There shall be a minimum of 6 inches between the conduit and the bottom of the pull box.

Replace with the following:

Fiber Optic conduit shall be HDPE conduit. The conduit shall be a minimum of four (4) one and a quarter-inch (1.25") in diameter conduit with a minimum of four (4) conduits installed (one for fiber, one for electrical and the other two (2) for spare use) for all FOC trunklines installation and one (1) conduit for drop cable installation. The color designation for the conduit shall be orange, white, red and yellow with the orange conduit used for FOC installation and red for power. Conduit shall be run straight through pull boxes at a depth of 30 inches. There shall be a minimum of 6 inches between the conduit and the bottom of the pull box.

12. **Under Section VI Design and Construction Criteria, subsection S. Intelligent Transportation System (ITS) Plans, 5. ITS Construction Criteria, vi. Conduit, 4. Existing Conduit:**

Delete:

No existing conduit may be utilized. The Design/Build Firm shall be responsible for removal and disposal of all existing conduit.

Replace with the following:

Existing spare conduit may be utilized where useable and within the constraints of FDOT standards for cable routing. Each existing conduit shall be individually proofed by the use of a mandrel ¼" inch smaller in diameter than existing conduit, or larger. Any obstruction or other defect preventing the passage of the mandrel shall constitute a failure. Once the mandrel test has been passed the existing conduit shall also pass a pressurization test. Conduit shall be plugged and pressurized to 100 psi. The conduit shall maintain this pressure for 10 minutes. If the pressure falls by more than 2 psi, this shall constitute a failure. Conduit not meeting this standard shall be fixed and the test shall be repeated starting with the mandrel test until the conduit passes the mandrel and pressurization tests. Additional fiber and/or tone wire may not be placed inside the conduit until the conduit passes both tests. Replacement conduit must be placed within a 10 foot offset of the existing conduit unless otherwise approved by the FDOT PM