

#### STATE OF DELAWARE

#### DEPARTMENT OF TRANSPORTATION

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SECRETARY

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January 24, 2007

#### **Interested Design Builders:**

RE: Contract No. 26-073-03
Federal Aid Project No. BRN-S050(14)
Replacement of Bridge 3-156 on SR-1 over Indian River Inlet
Sussex County

Attached is Addendum No. 7 to the RFP for the referenced contract consisting of the following:

- 1. Three (3) pages, Form RCF, Responses to Form CF, Q35 through Q45, new, to be added the Scope of Services Package, ITP. (Corrected)
- 2. Two (2) pages, Instruction To Proposers, pages 6 and 9, revised, to be substituted for the same pages in the Scope of Services Package, ITP.
- 3. Six (6) pages, Part 1 Agreement, Appendix A Project Scope, pages A-1 through A-6, revised, to be substituted for the same pages in the Scope of Services Package, Contract Documents.
- 4. One (1) page, Part 2 DB Section 108 Progress and Prosecution, page 6, revised, to be substituted for the same page in the Scope of Services Package, Contract Documents.
- 5. One (1) page, Part 2 DB Section 111, page 15, revised, to be substituted for the same page in the Scope of Services Package, Contract Documents.
- 6. Eighteen (18) pages, Part 3 Design Requirements and Performance Specs, Bridge Design Requirements, pages 1 of 18 through 17 of 18, revised, to be substituted for the same pages in the Scope of Services Package, Contract Documents, page 18 of 18, new, to be added to the Scope of Services Package, Contract Documents. (Part 3 sequence pages 3 through 19A)

- 7. Ten (10) pages, Part 3 Design Requirements and Performance Specs, Bridge Security System, pages 1 of 6 through 6 of 6, revised, to be substituted for the same pages in the Scope of Services Package, Contract Documents. (Part 3 sequence pages 26 through 31.)
- 8. Four (4) pages, Part 3 Design Requirements and Performance Specs, Sequencing Pages, pages 32 through 35, new, to be added to the Scope of Services Package, Contract Documents.
- 9. Eight (8) pages, Part 3 Design Requirements and Performance Specs, Inspection, Maintenance and Construction Requirements, pages 5 of 13 through 12 of 13, revised, to be substituted for the same pages in the Scope of Services Package, Contract Documents. (Part 3 sequence pages 101 through 108.)
- 10. Two (2) pages, Part 3 Design Requirements and Performance Specs, Warranty Requirements, pages 1 and 2, revised, to be substituted for the same pages in the Scope of Services Package, Contract Documents. (Part 3 sequence pages 129 and 130.)
- 11. One (1) page, Part 4 DB Special Provisions, Section 108C Key Personnel Qualifications and Requirements, page 1 of 2, revised, to be substituted for the same page in the Scope of Services Package, Contract Documents. (Part 4 Sequence page 2)
- 12. Twenty Two (22) pages, Part 4 DB Special Provisions, Cable Supported Bridge System Requirements, Pages 1 of 20 through 20 of 20, and two sequencing pages, revised, to be substituted for the same pages in the Scope of Services Package, Contract Documents. (Part 4 sequence pages 45 through 66.)
- 13. Two (2) pages, Part 4 DB Special Provisions, 763508/763509 Project Control System Development Plan (CPM Schedule), pages 10 of 11 through 11 of 11, revised, to be substituted for the same pages in the Scope of Services Package, Contract Documents. (Part 4 Sequence pages 222 through 223)
- 14. Seven (7) pages, Part 5 Utility Requirements, pages 1 through 7, revised, to be substituted for the same pages in the Scope of Services Package, Contract Documents.
- 15. One (1) page, Reference Documents, page 2, revised, to be substituted for the same page in the Scope of Services Package, Reference Documents.
- 16. **Under Separate Cover, via Overnight Delivery –** One (1) CD, with *Embankment Monitoring Data for Contract #23-073-03 (Roadway Approaches) Updated January 22, 2007*
- NOTE: The date for the receipt of Final Proposals has been extended until Wednesday, February 7, 2007. Proposals will be received until 2:00 P.M., Local Time, in the Bidder's Room (B1.11.01), in the DelDOT Transportation Administration Center, 800 Bay Road, Dover, DE.

Addendum No. 7 January 24, 2007 Page 3 of 3

Please note the revisions listed above and submit your Proposal based upon this information.

Very truly yours,

John V. Eustis, Jr.

Contract Services Administrator

:jve, jr. attach.

Q No.	Part Number	Section Number	Comment(s)	Reserved for Response
Q35	2	101	Section DB 101-3 provides project definitions that include the requirement of a Retainage Bond. Is a Retainage Bond required?	No retainage bond is required for this project.
Q36	1	Appendix A, 2.1	Section 2.1 provides the western lateral limits for the project and states that permanents above ground structures and/or fill shall not extend beyond the front (west) face of Retaining Walls 1 and 7. We request that the limits be extended to provide greater flexibility for improved design solutions and aesthetics.	Additional clarification of the permissible Project Limits and the associated roles and responsibilities are included in Part 1, Appendix A, Section 2.1 of Addendum No. 7.
Q37	2	DB 109- 1.1.1	Section DB 109-1.1.1 B) states that each section, B, C, D and so on, for construction PC's should always begin with PC-6 with multiple PC-6's for the project. For organizing and filtering the schedule it is preferred to number each PC sequentially beginning with PC-6. Please confirm that this is acceptable.  Is an individual PC form (similar to Forms PC 1-5) required to be created for each PC (above PC-5) listed on Form PCD, or is the description column on this form sufficient?	The referenced designations are intended to apply to the Project Component Titles. If the Project Sections are limited to Sections 'A' and 'B' as defined in Part 2 – DB Section 109-1.1.1.B., the Project Component Titles may be numbered sequentially. Also, the Proposer has complete latitude in assigning Project Component Codes and Activity Codes on Form PCD.  A separate Project Component Form (Form PC) shall be completed for each Project Component listed on Form PCD.

Q No.	Part Number	Section Number	Comment(s)	Reserved for Response
Q38	4	605500 – Cable Supported Bridge System Requireme nts	Section 3.3 provides the material requirements for the cable sheathing. Where HDPE stay pipe is provided, conventional galvanized guide pipes, anti-vandalism pipes, anchorage assembly caps and hardware with a minimum of 120µm zinc coating will meet the contract requirements and will provide an overall cost savings benefit to the project. Please confirm that all of the above components are acceptable as galvanized. With few exceptions, the use of conventional galvanized components and hardware is the standard in the industry.	The use of galvanized coatings for HDPE stay pipe components is not acceptable to the Department. The requirements for stainless steel components noted in Sections 2.1.B and 3.3.1.B of the <i>Cable Supported Bridge System Requirements</i> Special Provision shall apply.
Q39	3	Bridge Security Program – 1.0 thru 3.10.3 (pgs. 26 – 38)	We believe sections 1 through 3.10.3 describing document control are not be required for a project of this nature and should be deleted. This procedure generates an unnecessary and costly task on all of the team including DelDOT. Section 4 is believed to be adequate with the exception that consideration to removing 4.3 A) 1) and 4). Please confirm.	The Bridge Security Program Performance Specification has been revised and is included as part of Addendum No. 7.

Q No.	Part Number	Section Number	Comment(s)		Reserved for Response
Q40	3	Design Requireme nts and Performanc e Specs, Section 3.5.4	<ol> <li>It is our understanding that the DelDOT standard rating trucks shown in Figure 4-5 of the DelDOT Bridge Design Manual represent all Delaware legal loads and, where appropriate, will govern the live load over and above the HL-93 loading. Please confirm</li> <li>Are the DelDOT standard rating trucks shown in Figure 4-5 of the DelDOT Bridge Design Manual subject to the same Multiple Presence Factors, Dynamic Load Allowance and Design Lane Load as are applied in the AASHTO HL-93 vehicular live loading?</li> <li>Please confirm that a live load factor of 1.2, typical value for a controlled permitted load, would be appropriate for the UBIV. The maximum live load factor of 1.75 specified in AASHTO is not appropriate for the well known and controlled loads applied by the UBIV.</li> </ol>	2.	In addition to the Delaware legal loads specified in Figure 4-5 of the DelDOT Bridge Design Manual, the bridge shall be rated for the HS20 truck (with lane loading) in accordance with the AASHTO Guide Manual for Condition Evaluation of Bridges(LRFR). The design must provide for an inventory load rating of 1.0 or greater for all legal loads as well as the special HS20 truck loading specified above.  For the purpose of performing inventory and operating load rating analyses, the multiple presence factors, dynamic load allowance and design lane loads shall be applied in accordance with the AASHTO Guide Manual for Condition Evaluation of Bridges(LRFR).  The UBIV loadings specified in Section 3.5.4.C of the Bridge Design Requirements Performance Specification shall be considered an "Owner-specified Special Design Vehicle" with the applicable AASHTO Strength II limit state load factor of 1.35 applied.

Q No.	Part Number	Section Number	Comment(s)	Reserved for Response
Q41	Part 1	Sec 2.1 Add. #4	Based upon the response in question #17, we request further clarification of the limits of work for the bridge railing which we as bridge contractor are responsible for design, construction, inspection and quality control. The response to Q17 directs us to Addendum #4, Part 1, section 2.1, which states, in the first paragraph "the Design/Builder shall be responsible for performing all work within the proposed Project Limits including, but not limited to, all associated design, construction, inspection, and quality control.  Further, the response to question #17 states that the limits for the railing may extend beyond the bridge if any modifications to the approach roadway, MSE Walls or approach embankments are proposed. We note that the previous design included all of the approach railings in the bridge design contract, meaning that the furnishing and installation of the approach railings are not included in the current roadway contract.  Are we correct in interpreting Addendum #4 to mean we are only responsible for furnishing and installing the necessary barrier and/or railings within our proposed project limits, provided we are not proposing any significant modifications to the approach roadway, MSE Walls or approach embankments?	The Design-Builder shall only be responsible for furnishing and installing barrier and/or railing within the proposed Project Limits. At a minimum, the proposed longitudinal Project Limits shall include the bridge approach slabs in accordance with Part 1 – Appendix A, Section 2.1. Any special barrier and/or railing transitions required to be furnished by the Department outside the proposed Design-Build Project Limits shall be identified and discussed in the proposal. The Design-Builder shall demonstrate that any necessary transitions and tie-ins are feasible.

Q No.	Part Number	Section Number	Comment(s)	Reserved for Response
Q42	Part 3 Appendix A	Section 4.6.2 on page 10 of 13 of Addendum #4	Please define the physical, functional, and performance requirements for the GPS system specified in Part 3 Appendix A - Performance Specification for "Inspection, Maintenance, and Construction Requirements", section 4.6.2 on page 10 of 13 of Addendum #4. Some of the specific questions we have are as follows:	The referenced requirement for a GPS system to be provided by the Design-Builder is deleted in Addendum No. 7.
			What data is required to be captured? Horizontal movement of tops of towers? Horizontal movement of foundations?  3D movement of foundations?  3D movement of tops of towers? 3D displacement of bridge deck?  How much data is required to be stored?  How is the data to be presented? Spreadsheet, graph, 2D animation, perspective animation?  Where is the system to be monitored? On-site or off-site? If off-site, please specify the location?  If system is to be monitored off-site, please specify how data is to be transmitted? Leased line, microwave, radio telemetry, or internet?  What level of accuracy is required? cm or mm?	
			It appears that the University of Delaware Bridge Monitoring System may have overlapping requirements. We suggest that it may be more appropriate to handle the GPS in a similar manner as the University of Delaware Bridge Monitoring System, in accordance with the end of the first	

Q No.	Part Number	Section Number	Comment(s)	Reserved for Response
			section under specification 746574 of Addendum No. 2, wherein the work " shall be considered extra work and will be negotiated between the Design-Builder and the Department upon award of the Contract." Please advise.	
Q43			<ul> <li>Geotechnical Capacity Evaluation: We would like to confirm the following</li> <li>Tabulated pile capacities on the Figg drawings and in the MacTec report are in fact factored capacities at the strength limit state, not "Allowable". Please confirm or clarify this issue as it could have significant implications if a bidder misinterpreted these capacities as working loads.</li> <li>The Department would like all bidders to base their foundation design on the current LRFD specification with interims.</li> </ul>	Proposers are requested to disregard pile capacity information presented in the original bridge design Reference Documents. The design methodologies used in the original design are no longer applicable.  The LRFD Bridge Design Specifications w/ Interims shall have precedence over all Reference Documents, as indicated in Section 2.0 of the <i>Geotechnical Requirements</i> Performance Specification. The foundation design shall be developed accordingly.

Q No.	Part Number	Section Number	Comment(s)	Reserved for Response
Q44	Part 5		The utility statement in Part 5 states that the existing aerial Delmarva 69kV transmission line will be relocated underground in a new manhole/duct system, and that this work will begin in Fall 2007, and be complete by Spring of 2008. Please confirm this work will be complete by Spring 2008, or as noted recently, we should assume it will be there indefinitely during our proposed contract period.	The Utility Statement will be revised in Addendum No. 7 requiring the Design-Builder to account for the presence of the Delmarva transmission line throughout construction.
Q45	ITP Appendix A and DB Section 107	A 6.2.3 and DB 107-5	The instructions for the preparation of the Technical Proposal and the requirements in Section 107-5 seem to indicate that the Safety Plan counts towards the overall 150 page limit for the Technical Proposal. A well executed Safety Plan can be a voluminous document to thoroughly cover all possible eventualities and the areas required under Section 107-5. Would DelDOT consider exempting the Safety Plan from the overall page count or changing the requirement from submittal of a Safety Plan to a discussion on the Team's approach to safety?	The Department would prefer that the Safety Plan stand on it's own apart from the 150 page limit. Within the 150 page limit the Proposer may include an overview of the Safety Plan.