



STATE OF DELAWARE  
**DEPARTMENT OF TRANSPORTATION**  
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SECRETARY

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November 9, 2006

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. 3 to the RFP for the referenced contract consisting of the following:

1. Five (5) pages, Form RCF, Responses to Form CF, new, to be added the Scope of Services Package, ITP.
2. One (1) page, Instruction To Proposers, Appendix A – Technical Proposal Instructions, revised, to be substituted for the same pages in the Scope of Services Package, ITP.
3. Two (2) pages, Part 2 - DB Section 111, pages 2 and 3, revised, to be substituted for the same pages in the Scope of Services Package, Contract Documents.
4. Two (2) pages, Part 3 – Design Requirements and Performance Specs, Bridge Design Requirements, pages 3 of 17 and 5 of 17, revised, to be substituted for the same pages in the Scope of Services Package, Contract Documents. (Part 3 sequence pages 5 and 7.)
5. Forty (40) pages, Part 3 – Design Requirements and Performance Specs, Concrete for Structures (DRAFT), pages 1 of 40 through 40 of 40, deleted, to be removed from the Scope of Services Package, Contract Documents. (Part 3 sequence pages 40 through 79.)
6. Eighteen (18) pages, Part 3 – Design Requirements and Performance Specs, Concrete for Structures, pages 1 of 18 through 18 of 18, new, to be added to the Scope of Services Package, Contract Documents. (Part 3 sequence pages 40 through 57.)
7. Twenty two (22) pages, Part 3 – Design Requirements and Performance Specs, Sequencing Pages, pages 58 through 79, new, to be added to the Scope of Services Package, Contract Documents.

8. One (1) page, Part 3 - Design Requirements and Performance Specs, Engineering Requirements, page 4 of 4 revised, to be substituted for the same pages in the Scope of Services Package, Contract Documents. (Part 3 sequence page 83.)
9. Twenty Two (22) pages, Part 4 - DB Special Provisions, Cable Supported Bridge System Requirements, Pages 1 of 22 through 22 of 22, revised, to be substituted for the same pages in the Scope of Services Package, Contract Documents. (Part 4 sequence pages 45 through 66.)
10. Two (2) pages, Reference Documents, pages 1 and 2, revised, to be substituted for the same page in the Scope of Services Package, Reference Documents.
11. **Under Separate Cover, via Overnight Delivery** – One (1) CD, Adjacent Contract Drawings, Tensar MSE Wall Shop Drawing As-Built, new, to be added to the Reference Documents.

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.

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**FORM RCF**

**SCOPE OF SERVICES PACKAGE RESPONSE COMMENT FORM**

<b>Q No.</b>	<b>Part Number</b>	<b>Section Number</b>	<b>Comment(s)</b>	<b>Reserved for Response</b>
Q1	2	111-2.4 (G)	Section 111-2.4 states that the Design Manager can certify that the design satisfies G) Fitness for purpose and/or function as specified and/or implied in the Contract. We request the wording be changed to the following: G) Fitness for purpose and function to the requirements and environmental load return periods specified in the contract. Explanation: The Design Manager cannot assure that the structure will be fit for purpose under environmental events having a return period in excess of those specified in the Contract.	<a href="#">Wording modified in Addendum No. 3.</a>
Q2	2	108-3.1.1 (B), and 111-2.4	Section 3.1.1 (B) states that the Design Manager and Design QC Manager shall be present in the project vicinity throughout the completion of final design. We request that the wording be modified to allow these individuals to be available and present as necessary in the project vicinity to fulfill their project responsibilities, but to be located at the location where the engineering work is being performed so as to properly fulfill their design management responsibilities. Refer to Q4 from RFQ Addendum no. 3	<a href="#">Wording modified in Addendum No. 3.</a>
Q3	3-App. A, and 6-App. B	Bridge Design Requirements – 3.1 (F) (pg. 5), and Sheet no.	Section 3.1 (F) states that the minimum horizontal clearance from any stay-cable to the back of a median barrier shall be 1’-6” by 18’-0” vertical. Sheet B-001 details this dimension as 2’-6” horizontal by 16’-6” and 20’-0” vertical. Please clarify which dimension is correct.	<a href="#">Part 3, Appendix A – Bridge Design Requirements Section 3.1 (F) has been revised to read: “The minimum horizontal clearance from any stay cables to the back of an outside barrier or back of an inside median barrier shall be 2’-6” measured at all heights ranging from the roadway surface (or 0’-0”) to 20’-0”</a>

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		B-001		<i>above the roadway surface and measured normal to the deck.”</i>
Q4	3-App. A	Bridge Design Requirements - 3.5.3 (pg. 7) and 4.2 (B) (pg. 16)	Section 3.5.3 states that the minimum integral wearing surface shall be 0.5” plus an additional 25psf for a future wearing surface. Section 4.2 (B) requires a 1 5/8” overlay wearing surface. Please clarify the following: <ul style="list-style-type: none"> <li>- is the 0.5” integral wearing surface required?</li> <li>- is the 25psf wearing surface over and above the wearing surface specified in Section 4.2?</li> </ul>	The initial wearing surface should be the 1 5/8” overlay. No additional integral wearing surface is required, however, a minimum top concrete clear cover of 2” shall be provided throughout the bridge deck. The net result should be a minimum initial clear cover of 3 5/8” prior to Blanket Grinding of the overlay. The 25 psf future wearing surface load allowance specified in 4.2 (B) shall be over and above the initial overlay load and clear cover requirement. Section 3.5.3 (B) of the referenced specification has been revised.
Q5	3-App. A	Bridge Design Requirements – 4.2 (A) (pg. 15)	Section 4.2 (A) 1) states that no tension shall be allowed at the Service Limit State. Please clarify the following: <ul style="list-style-type: none"> <li>- the no tension requirement typically does not apply to superstructures that have bonded reinforcement through segment joints. Does no tension apply to this type of structure?</li> <li>- does the no tension requirement apply to stresses in the transverse direction of the deck?</li> </ul>	Section 4.2 (A) states “Stress limits for concrete members shall be in accordance with the AASHTO LRFD Bridge Design Specifications except that no tension shall be allowed at the Service Limit State after losses for effective prestress and permanent loads”. This applies to superstructures that have bonded reinforcement but only for a Service Limit State combination consisting of the sum of effective prestress and permanent loads. This requirement also applies to transverse stresses.

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Q6	3-App. A	Bridge Design Requirements – 4.2 (A) (pg. 15)	<p>Section 4.2 (A) 1) states that the superstructure shall be designed as fully prestressed. Please clarify the following:</p> <ul style="list-style-type: none"> <li>- for cable supported structures, can the compressive force in the longitudinal direction due to the stay cables be the sole source of prestressing in the superstructure at a particular cross section, provided all stress requirements are satisfied?</li> <li>- does this mean that the deck and floor beams of the superstructure must be prestressed in the transverse direction?</li> </ul>	<p>The compressive force in the longitudinal direction due to stay cables shall be considered when calculating superstructure stresses. This compressive force may be the only source of prestressing. The applicable stress limits for fully prestressed components as defined in Section 5.9 of the AASHTO LRFD Code shall be met in both longitudinal and transverse directions.</p> <p>Transverse prestressing is not required as long as the stress limits for fully prestressed components, the no tension requirement for prestress and permanent loads, and all other design requirements are met.</p>
Q7	3-App. A	Concrete for Structures (pg. 40)	The complete Performance Specification Concrete for Structures is marked draft. What is the anticipated date that this document will be finalized?	The Concrete for Structures Performance Specification has been revised and is included in this Addendum.
Q8	3-App. A	Engineering Requirements – 5.0 (pg. 83)	Section 5.0 requires that all computer based engineering calculations, checks and studies shall be performed with commercially available and documented engineering software. We request the wording be changed to the following: all computer based engineering calculations, checks and studies shall be performed with fully documented engineering software. Explanation: rigorous computer analysis of the design and construction of cable-stayed bridges requires features which are not found in typical, commercial structural engineering software packages. In	Wording modified in Addendum No. 3.

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			order to properly address these issues, our designers, have developed and successfully used over the last thirty years, a compatible suite of proprietary software devoted exclusively to cable-stayed bridge design and construction. A comprehensive list of cable-stayed structures where this software has been applied with supporting documentation can be provided upon request.	
Q9	4	Cable-Supported Bridge System Requirements – 4.3.1 (pg. 53)	Section 4.3.1 states that the vibration dampers shall provide a minimum supplemental damping ratio of 1%. Please clarify if this ratio is 1% of log-decrement or 1% of critical damping.	Part 4, Special Provisions – Cable-Supported Bridge System Requirements Section 4.3.1, 2 <sup>nd</sup> paragraph, 2 <sup>nd</sup> sentence has been revised to read: <i>“The vibration dampers shall provide a minimum supplemental damping ratio of 1% of critical damping over the temperature range from 0° F to 110° F.”</i>
Q10	3	Bridge Security Program – 1.0 thru 3.10.3 (pgs. 26 – 38)	Sections 1 through 3.10.3 describing document control may not be required for this project and should be deleted. Section 4 is believed to be adequate. Please confirm.	The Bridge Security Program requirements are being re-evaluated by the Department. Any changes will be incorporated into a future addendum.

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Q11	ITP and 4	Appendix A – A4.2.3 (pg A-6) and Project Control System Development (pg. 222)	Section A4.2.3 (A) (1) requires the use Primavera P3e software for the proposed baseline schedule. Part 4, Project Control System Development Plan, states CPM software shall be Primavera Project Planner, version 3.1 or later. We request to use industry standard software, P3 version 3.1, or later, for all schedule submittals. Please confirm.	P3 version 3.1, or later for all schedule submittals is acceptable.