

DETAILED SPECIFICATIONS

This section addresses the requirements of precast pre-stressed concrete bridge/culvert structural panels/box beams as listed in the following table. The material and workmanship requirements for these items shall be completed in conformance with the provisions of the most recent New York State Department of Transportation *Standard Specifications, Construction and Materials*. Any changes or modification to the above referenced specification or interim changes shall be addressed in this bid specification or with the additional guidance set forth in the New York State Department of Transportation *Prestressed Concrete Construction Manual (PCCM)* dated September 2000 and AASHTO LRFD Bridge Design Specifications, all addendum and in interim editions 7th Edition dated 2014.

Each panel must be designed to support an HL-93 load rating, with a future deck thickness to include a maximum of 5" bituminous overlays. Panels/box beams whose overall length exceeds 20 feet shall require a New York State Licensed Professional Engineer Stamp verifying a Level One load rating. The Level One rating shall be submitted with the Shop Drawings.

The dimensions of each precast, pre-stressed concrete panel/box beam shall be either 3' or 4' wide with various lengths ranging from 8 feet long to 104 feet long, in 2' increments. The length of the panel, whether straight or skewed, shall be the distance measured end to end along the centerline of the panel. All exposed bottom edges of each panel shall be provided with a ¼" chamfer. The thickness per panel shall be determined by the panel length and loading conditions. The panels shall be cast with a 2" diameter vertical PVC anchor dowel hole in each end for pinning to the bridge seat. The location of these dowel holes shall be customized to the conditions of the installation and submitted on shop drawings for approval by the Superintendent of Highways or his representative.

The listed bridge panels/box beams shall be supplied as either prestressed concrete or precast concrete panels with conventional (black bar) reinforcement meeting the requirements of NYSDoT 709-01 and/or wire reinforcement meeting the requirements of NYSDoT 709-02. The manufacturer/supplier shall provide 2 each sheets of NYSDoT approved bearing material for panels/box beams up to 104' in length. The material shall be neoprene grade 4, 50 duro bearing material. The material shall be sheets 1' wide and 3' and 4' long respectively and 1/2" thick minimum. The bid prices shall designate which method of construction. The price for furnishing the bearing material shall be separated and shown in a different column. Any bearing requiring reinforced steel sheets will be listed with an allowable 20% price differential upon ordering due to market fluctuations. The County may decide to re-bid the bearings through conventional means if it feels the price is not acceptable.

The panel mix design shall include an approved corrosion inhibitor at the rate of 5 gallons / cubic yard, or as recommended by the manufacturer. The panels shall be composed of High Performance (HP) concrete meeting the requirements of NYSDoT 718-06. The manufacturer shall apply a NYSDoT approved penetrating sealer as detailed in the PCCM section 6.2.3. Each panel shall be configured to be post tensioned as detailed in the PCCM section 8.5. The number of post tensioning conduits shall be determined in accordance with the PCCM, as determined by the Engineer of record. Additionally, the supplier shall provide post tensioning supplies, equipment (i.e. cable, couplers anchorages and jacks) and perform post tensioning operations for the panels with assistance from county personnel. The cost of post tensioning shall be included in the price of the panels. Tendons shall meet the requirements of section 8.5 of the PCCM. All grouting operations associated with the panels, if required, shall be completed by the Contractor.

The exterior panels shall be supplied with a smooth fascia on one side and a shear key or an approved gasketed key way system on the other. The panel shall also have guide rail plates and bolts cast into the panel as detailed in shop drawings per Bridge Detail Sheet BD-RL3E/BD-RL5E/BD-RS1E/BD-RS7E dated May 1, 2008 page 1 of 3 detail sections A-A and E-E. All interior panels shall have shear keys or an approved gasketed key way system on both sides. Sampling and Testing.

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Testing shall be performed by the manufacturer, using the latest ASTM methods and procedures for testing plastic concrete for compliance to the air content and for compressive strength determination required by this specification. Test cylinders used to determine compressive strength shall be cured with the units they represent. Should the Department so desire, the manufacturer shall also test the hardened concrete by drilling 4" diameter cores as directed by the Department's Representative.

The manufacturer shall provide certification of testing by a Department approved independent testing lab for specified air content and compressive strength of the hardened concrete.

REJECTION OF UNITS

Rejection of units and lots will be governed by the following:

- **Strength Requirements:** A lot represented by cylinders not meeting the required 28 day strength of concrete shall be rejected.
- **Exposed Reinforcing Steel:** Any unit that has exposed reinforcing steel shall be rejected.
- **Major Defect:** Any unit that has honey-combing or spalling to the extent that chipping away of the honey-combed concrete results in exposed reinforcement shall be rejected.
- **Cracks:** Any unit with a crack that is greater than 2" in depth and .025" in width shall be rejected.
- **Tolerances:** Any unit that does not conform to the tolerances outlined in the approved shop drawings shall be rejected.
- **Inspection:** Any unit that does not meet the approval of the Superintendent of Highways, or his project representative for quality or suitability of work shall be rejected.
Units that are rejected due to damage incurred during handling or shipping may be subject to labor and equipment re-mobilization back-charges.

SHIPPING

Each unit shall be clearly marked with each piece mark and date of fabrication. This mark shall be indelible and shall be placed on a surface which will not be exposed to view after construction is complete.

Units will be equipped with Swift lifter devices. Precaster shall supply lifting connections. Precaster shall be responsible for refilling any holes created by removing lifting devices.

Delivery delays, greater than 40 minutes from pre-determined delivery schedule, may be subject to labor and equipment mobilization back-charges.

QUALIFICATION OF CONTRACTOR

All material supplied shall be obtained from approved NYSDoT sources.

The unit price bid shall include the cost of furnishing and delivering to the jobsite each complete panel, including all rail anchor plates and bolts, reinforcements, tendons, pre- and post- tensioning cables and devices and all other materials of workmanship necessary to complete the work, in conformance with the specifications. Please list price per linear foot cost below:

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29b&29c

BID CHECKLIST

The documents required to complete this bid are indicated below.

(X) Insurance Certificates See Exhibit A, pages F-G

(X) Iran Notice See Pages 29f-29g

_____ We have reviewed and have submitted the items required under the Mandatory Submission Requirements.

_____ The Bid Page(s), Signature/Non-Collusive Page, and Iran Notice are completed and included.

_____ Deviations are noted and explained.

_____ Insurance Certificates are enclosed if required.

WAIVER OF IMMUNITY/NON-COLLUSIVE BIDDING CERTIFICATE PURSUANT TO SECTION 103-D OF THE NEW YORK STATE GENERAL MUNICIPAL LAW

- B. By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid, each party thereto certifies as to its own organizations, under penalty of perjury, that to the best of knowledge and belief:
 - B. The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor.
 - 2. Unless otherwise required by law, the prices which have been quoted in this bid have not knowingly been disclosed by the bidder and will not knowingly be disclosed by the bidder, directly or indirectly, prior to opening, to any bidder or to any competitor.
 - 3. No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.

A bid shall not be considered for award nor shall any award be made where 1, 2, and 3 above have not been complied with; provided, however, that in any case the bidder cannot make to foregoing certification, the bidder shall so state and shall furnish with the bid a signed statement which sets forth in detail the reasons thereof. Where 1, 2, and 3 above have not been complied with, the bid shall not be considered for any award nor shall any award be made unless the head of the Purchasing Unit to the political subdivision, public department, agency or official thereof to which the bid is made, or his designee, determines that such disclosure was not made for the purpose of restricting competition.

The fact that a bidder (a) has published price lists, rates, or tariffs covering items being procured, (b) has informed prospective customer of proposed or pending publications of new or revised price lists for such items, or (c) has sold the same items to other customers at the same prices being bid, does not constitute, without more, a disclosure within the meaning of paragraph "A" above.

- B. Any bid hereafter made to any political subdivision of the state or any public department, agency or official thereof by a corporate bidder for work or services performed or to be performed or goods sold or to be sold, where competitive bidding is required by statute, rule, regulation, local law, and where such bid contains the certification referred to in paragraph "A" of this section, shall be deemed to have been authorized by the Board of Directors of the bidder, and such authorization shall be deemed to include the submission of the bid and the inclusion therein of the certificate as to non-collusion as the act and deed of the corporation.

SIGNATURE PAGE ON REVERSE MUST BE SIGNED TO COMPLETE THE BID.

SIGNATURE PAGE

The undersigned proposes to furnish products or services to specifications included in this bid document, at the price(s) set forth, as required to meet the County's needs. Any deviation to the specifications must be noted on the bid form and fully explained or the deviations will not be considered part of the bid.

Deviations: Yes _____ No _____

By signing below I am certifying that I fully understand the complete requirements of the bid and agree to the non-collusive certification on the reverse of this page and additional documents as specified on the bid checklist. Bidder hereby acknowledges receipt of all addenda pertaining to this bid which are made part of the original bid specifications.

_____ COMPANY NAME

_____ ADDRESS (Principal Office)

_____ CITY, STATE, ZIP CODE

_____ AREA CODE/TELEPHONE NUMBER

_____ FAX NUMBER

_____ AUTHORIZED SIGNATURE

_____ PRINTED NAME

_____ TITLE

_____ DATE

_____ ADDRESS (Local Office)

_____ CITY, STATE, ZIP CODE

_____ AREA CODE/TELEPHONE NUMBER

_____ FAX NUMBER

_____ E-MAIL ADDRESS

Check One: Corporation _____ Partnership _____ Individual _____

Incorporated under the laws of the State of _____

Federal Identification # _____

State if authorized to do business in the State of New York: Yes _____ No _____

Names and Addresses of Partners:

Iranian Energy Sector Divestment

Contractor hereby represents that said Contractor is in compliance with New York State General Municipal Law Section 103-g entitled “Iranian Energy Sector Divestment”, in that said Contractor has not:

- a. Provided goods and services of \$20 Million or more in the energy sector of Iran including but not limited to the provision of oil or liquefied natural gas tankers or products used to construct or maintain pipelines used to transport oil or liquefied natural gas for the energy sector of Iran; or
- b. Acted as a financial institution and extended \$20 Million or more in credit to another person for forty-five days or more, if that person’s intent was to use the credit to provide goods or services in the energy sector in Iran.

Any Contractor who has undertaken any of the above and is identified on a list created pursuant to Section 165-a (3)(b) of the New York State Finance Law as a person engaging in investment activities in Iran, shall not be deemed a responsible Bidder pursuant to Section 103 of the New York State General Municipal Law.

Except as otherwise specifically provided herein, every Contractor submitting a bid in response to this Request for Bids must certify and affirm the following under penalties of perjury:

- a. “By submission of this bid, each Bidder and each person signing on behalf of any Bidder certifies, and in the case of a joint bid, each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief, that each Bidder is not on the list created pursuant to NYS Finance Law Section 165-a (3)(b).”

Jefferson County will accept this statement electronically in accordance with the provisions of Section 103 of the General Municipal Law.

Except as otherwise specifically provided herein, any Bid that is submitted without having complied with subdivision (a) above, shall not be considered for award. In any case where the Bidder cannot make the certification as set forth in subdivision (a) above, the Bidder shall so state and shall furnish with the bid a signed statement setting forth in detail the reasons therefore. The County reserves its rights, in accordance with General Municipal Law Section 103-g to award the Bid to any Bidder who cannot make certification, on a case-by-case basis under the following circumstances.

1. The investment activities in Iran were made before April 12, 2012, the investment activities in Iran have not been expanded or renewed after April 12, 2012, and the Bidder has adopted, publicized and is implementing a formal plan to cease the investment activities in Iran and to refrain from engaging in any new investments in Iran; or
2. The County of Jefferson has made a determination that the goods or services are necessary for the County to perform its functions and that, absent such an exemption, the County of Jefferson would be unable to obtain the goods or services for which the Bid is offered. Such a determination shall be made by the County in writing and shall be a public document.

Attachment
Certification Pursuant to Section 103-g
of the New York State
General Municipal Law

- A. By submission of this bid, each Bidder and each person signing on behalf of any Bidder certifies, and in the case of a joint bid, each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief that each Bidder is not on the list created pursuant to paragraph (b) of subdivision 3 of Section 165-a of the New York State Finance Law.
- B. A Bid shall not be considered for award, nor shall any award be made where the condition set forth in Paragraph A above has not been complied with; provided, however, that in any case the Bidder cannot make the foregoing certification set forth in Paragraph A above, the Bidder shall so state and shall furnish with the bid a signed statement which sets forth in detail the reasons therefore. Where Paragraph A above cannot be complied with, the Purchasing Unit to the political subdivision, public department, agency or official thereof to whom the bid is made, or his designee, may award a bid, on a case by case basis under the following circumstances:
1. The investment activities in Iran were made before April 12, 2012, the investment activities in Iran have not been expanded or renewed after April 12, 2012, and the Bidder has adopted, publicized and is implementing a formal plan to cease the investment activities in Iran and to refrain from engaging in any new investments in Iran; or
 2. The political subdivision makes a determination that the goods or services are necessary for the political subdivision to perform its functions and that, absent such an exemption, the political subdivision would be unable to obtain the goods and services for which the contract is offered. Such a determination shall be made in writing and shall be a public document.

Signature

Title

Date

Company Name