

April 19, 2016

GOLDEN GATE BRIDGE PHYSICAL SUICIDE DETERRENT SYSTEM FEDERAL-AID PROJECT: BHLS-6003(051)

WIND RETROFIT

FEDERAL-AID PROJECT: BHLS-6003(052)

Contract No. 2016-B-1

To: Prospective Bidders

RE: Response to Bidders' Question No. 134 through 138

Ladies and Gentlemen:

The following is the response to questions submitted by prospective bidders and designated as Bid Question No. 134 through 138:

# **BID QUESTION No. 134:**

Drawing No. M453. Please clarify the design of the equalizing boggies, material & the size of the equalizing pin & describe the way these pins connect the traveler structure to the boggies.

### **RESPONSE:**

See Addendum 6 for revised Contract Drawings and Section 60-2. The Contractor is responsible for the final design details of the interior traveler drive machinery. The design must include providing an equalizing bogie at each of the interior traveler wheelsets. There must be a pin and bushing system connecting the equalizing bogie at each rail wheel The pin must be fixed in place to one portion of the bogie by positive means such as keys or bolted flanges and allowed to freely rotate within the bushings. Design must allow for replacement of the bushings in the future.

The Contract Drawings provide the general configuration and layout of the traveler drive machinery. The Contractor is responsible for the final design details of the traveler drive machinery. Materials and equipment must be standard catalog products from established manufacturers regularly engaged in production of such materials or equipment and must be the manufacturer's latest standard design that complies with the Contract requirements. See Contract Drawings and Section 60-2.02A, Design Criteria, for design requirements.

The equalizing pin must be forged steel conforming to ASTM A668, class and size as required by the Contractor's design.

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# BID QUESTION No. 135:

Ref. Drawing No. M456. Please provide details of the drum, its grooving, dimensions of the shell, hubs flanges, connections to the shaft, wire rope connections, etc. Please provide the size of the drum spherical roller bearings.

#### RESPONSE:

See Addendum 6 for revised Contract Drawings and Section 60-2. As shown on revised Contract Drawings M455 and M456, the drum is a 15" diameter spiral grooved drum with a minimum groove width of 5/8". The hub flanges must project above the outside diameter of the rim of the drum a minimum of 1 rope diameter. The drum must be fabricated as a weldment of structural steel and the structural steel must conform to ASTM A572 Grade 50. The drum must be positively keyed to its shaft to effectively transmit the drive torque. The spherical roller bearings must have a bore of 1 15/16". Requirements for wire rope connections to the drum are shown on revised Contract Drawings M455 and M456 and in Section 60-2.02A(3)(c).

The Contractor is responsible for the final design and details of the interior traveler mechanical components. See revised Contract Drawings M455 and M456 and Section 60-2.02A(3)(c), Interior Travelers, for design requirements.

# **BID QUESTION No. 136:**

Ref. Drawing No. M458. Please advise the brand for 7 ½ dia. Wheel trolleys & tractor. Is the diameter to be measured at thread or at flange?

#### **RESPONSE:**

See Addendum 6 for revised Contract Drawings and Section 60-2. The Contract Drawings depict a conceptual design for the traveler drive machinery. The Contractor is responsible for the final design details, development and implementation of working drive machinery systems for each of the maintenance travelers. Standard catalog products from established manufacturers were used as the basis of design for the wheel trolleys and tractor. The diameter is to be measured at the tread.

# **BID QUESTION No. 137:**

In reference to Sheet S333 and the bottom traveler trolley beam connection shown, the Contract Drawings do not provide any variable depth shims or other measures that would allow for any rail adjustment in the vertical or horizontal position. Can the District please review the details in the drawings and offer a means to make any required adjustments?

# **RESPONSE:**

See Addendum 6 for revised Contract Drawings and Section 60-2. Revised Contract Drawings S333, S333B, and S333C provide details for allowing horizontal and vertical adjustments to the bottom traveler trolley beam.

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# **BID QUESTION No. 138:**

S.D.S. 60-23 PAR 60-2.02A.8 Describes grated steel deck platforms as worded steel walkway grating. However, DWGS S362, S363, S390-S394, S419-S423, show bar grating. DWG S409 Note 1.C1.6 shows grated steel deck dead load as LO PSF. Please note that the ASTM A1011/A noted in the specification is for a carbon steel sheet up to the 3/8" thick and not for a bar grating. Please specify the decking surface. If this is a bar grating, please specify the construction size of the bearing bars, spacing, etc. If this is a sheet metal walkway plank grating please specify the style, depth, thickness of the material, etc.

#### **RESPONSE:**

See Addenda 5 and 6 for revised Contract Drawings. Note 6 on revised Contract Drawing Z005 has been revised to state:

Grated steel deck shall be heavy duty welded steel bar grating. Bars shall be from ASTM A36, with 1 1/4"x1/4" minimum bar size spaced at 1 3/8" on center and transverse bars at 4" on center unless otherwise noted. Grated steel deck shall be hot dipped galvanized according to ASTM A123 after fabrication and the walking surface shall be non-serrated, UON.

Contract Drawings S362, S363, S390-S393, and S419-S422 have been revised to show the changes to the grated steel deck details.

Sincerely,

John Eberle, P.E.

Deputy District Engineer