

April 4, 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. 95 through 106

Ladies and Gentlemen:

The following is the response to questions submitted by prospective bidders and designated as Bid Question No. 95 through 106:

## **BID QUESTION No. 95:**

Cotter pin ASTM designation

Drwg/Det. Reference: Z005

Materials: Note 4.c. states "All net and cable connection hardware including clevis, ferrules, and shackles shall be stainless steel AISI Type 316" and 7.e. states "Cotter pin: AISI Type 316 stainless steel"

Is there a specific ASTM designation required for these components? The Contractor assumes it will be able to consult the LCE and utilize the best practice or industry standard available materials. Please, confirm.

## **RESPONSE:**

See Addendum 5. The cotter pin for the Net Support Tension Rod System has been deleted. See revised Contract Drawings Z005 and S173. See revised Section 60-1 for SDNS component requirements.

Cotter pins where required must conform to ASMEB18.8.1, and must be made of half round stainless steel wire meeting ASTM A493 Type 316, and finished per ASTM A380. See Note 3d under Materials on revised Contract Drawing Z005 and revised Section 60-1.

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The Contractor may not consult with the LCE to determine component material designations. Materials must be in conformance with the Contract Documents.

## **BID QUESTIONS No. 96:**

Suspension Bridge Main Tower Truss Framing; 55; Plan/S230 S174

S230 Note 4. "Contractor can use bolted field splice shown on S174 as needed at tower net supports."

This note appears to be general to the overall sheet including the Tower Truss Frame and the more typical Net Support members. Please, verify the use of this splice option is can be used at the Contractor's discretion for splicing HSS members on this sheet, including truss sections.

### **RESPONSE:**

See Addendum 5 and revised Contract Drawings S230, S233 and S234. The optional bolted field splice may only be used at the Tower Truss Frame locations shown. This splice option may not be used at the Contractor's discretion for splicing HSS members on Drawing S230.

## **BID QUESTION No. 97:**

South Approach Viaduct End Panel at Bent 9 splice detail; 55; S112

S112 Leader w/ Note 2. "See welded end PL splice detail on S174."

S112 Leader w/ Note 3. "See bolted end PL splice detail on S174."

The splice detail shown on S174 appears to detail connection options for the Contractor. Please, confirm the Contractor can utilize this connection at these locations, but is not required to use where called for on S112 (or other similar sheets e.g. S111, S113, S230, etc.). Please, confirm these connection details on S174 can be used in other locations if necessary to facilitate installation purposes.

#### RESPONSE:

The welded end plate splice and the bolted end plate splice details shown on Contract Drawing S174 are for use at the specific locations shown, such as the HSS member shown on Contract Drawing S112. The bolted end plate splice detail may also be used at locations where a splice option is shown, such as on revised Contract Drawing S234. The splices may be eliminated but may not be used at other locations at the Contractor's discretion.

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### **BID QUESTION No. 98:**

Construction Sequence details 48, Z006, S119, S190

Z006 General Notes Construction sequence...For Type 1...calls out "temporary struts"

Are these "temporary struts" in reference to the Temporary Strut Detail on S190 or the Temporary Brace Detail on S119?

## **RESPONSE:**

See Addendum 5 and revised Contract Drawings Z006, S119, S190 and S191. For the Construction Sequence listed on Z006, the term "temporary struts" was changed to the term "temporary braces." Temporary braces are required when installing the SDNS. The temporary struts shown on Contract Drawings S190 and S191 are required when removing existing lacing bars or plates from the existing bridge elements.

# **BID QUESTION No. 99:**

Sheet 59/224, Note 5.: Initial tensile force of 21.5 lbs (96N) is specified. What are the tolerances? How to verify the values?

#### **RESPONSE:**

The note has been revised to allow a tolerance of plus or minus 10% for the internal tensile force of the SDNS mesh when the SDNS is installed and conforms to the configuration shown on Contract Drawing S180. The method of tensioning the SDNS mesh must be developed by you based on the SDNS Manufacturer's recommendations. The SDNS Installation Mock-Up must demonstrate the procedures to be used to install the SDNS and measure the internal tensile forces. See Addendum 5 for revisions to Section 60-1 and the requirements for the SDNS Installation and Mock-Up Work Plans.

## **BID QUESTION No. 100:**

Sheet 59/224, Note 6.: Cable internal tensile force adjustment +/-5%. No technical concept how to adjust the tensile force is given. Are there concepts for adjusting the cables forces available?

### **RESPONSE:**

The note allows a tolerance of plus or minus 5% of the border cable internal force. The method of tensioning the SDNS must be developed by you based on the SDNS Manufacturer's recommendations. See Addendum 5 for revisions to Section 60-1 and the requirements for the SDNS Installation Work Plans.

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## **BID QUESTION No. 101:**

SDS 60-1.01C (1)(e) Warranty: Submit a 25-year manufacturer's warranty of (...) and noticeable rusting of stainless steel material. What is the meaning of "noticeable rusting of stainless steel material"?

### **RESPONSE:**

See Addendum 5 and revised Section 60-1 for new Section 60-1.04, Warranty, that replaces Section 60-1.01C(1)(e).

# **BID QUESTION No. 102:**

SDS 60-1.03B Stainless-Steel Finishes: Finish of stainless steel must be annealed, pickled, and dull polished. Is it really mandatory to anneal and pickle stainless steel materials in general?

### **RESPONSE:**

See Addendum 5 and revised Section 60-1 for revisions to Section 60-1.03B, Stainless-Steel Finishes.

## **BID QUESTION No. 103:**

SDS 60-1.03C(5) Installation: Ensure mesh is clean, and without waves, kinks, or sags. Can the requirements "without waves", and "sags" be specified in detail?

#### RESPONSE:

See Addendum 5 and revised Section 60-1 for revisions to Section 60-1.03C(4), Installation. The installed SDNS must have the geometry and direction of mesh openings as shown. The installed SDNS mesh must not have waves or kinks or kink damage.

## **BID QUESTION No. 104:**

Under specification section 60-1.01D(1) — Qualifications, it is stated that the installer should have a minimum of 5 successful projects of similar construction in the past 3 years with the regard to the net system. If unable to locate an installer who meets these qualifications, can the GC install the net system after receiving proper training in the net installation from a certified supplier?

## **RESPONSE:**

See Addendum 5 and revised Section 60-1 for revisions to Section 60-1.01D(1), General, Section 60-1.01D(2), Manufacturer's Representative and Section 60-1.01D(3), Qualified Field Installer.

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# **BID QUESTION No. 105:**

We have been unable to find a tensile strength specification for the mesh cable. Is there a tensile strength requirement for this material?

## **RESPONSE:**

See Addendum 5 and revised Section 60-1 for the minimum breaking strength of the 4 mm 7x19 wire rope.

# **BID QUESTION No. 106:**

Another question on the cable net materials:

We have been unable to find the required ultimate sliding resistance for the ferrules and the ferrule breaking strength. Are these strength requirements determined for the ferrules?

### **RESPONSE:**

See Addendum 5 and revised Section 60-1 for the minimum slippage force and minimum breaking strength requirements of SDNS components or products that include a 4 mm ferrule as part of the component or product.

Sincerely,

John Eberle, P.E.

Deputy District Engineer