

## STATE OF MAINE DEPARTMENT OF TRANSPORTATION 16 STATE HOUSE STATION AUGUSTA, MAINE 04333-0016

Bruce A. Van Note

March 6, 2023

Subject: Frank J. Wood Bridge Replacement

State WIN: 022603

Location: Brunswick and Topsham

Amendment No. 4

Dear Sir/Ms.:

Please make the following changes to the bid documents

In Amendment No. 3, the following question had been received but had an incorrect response:

**Question:** Seal cofferdam note 7 on sheet 83 indicates that "Where the bedrock surface slope exceeds 4H:1V, the bedrock surface shall be benched in level steps or made completely level." The contours shown on the interpretive subsurface profile, provided in the Geotechnical Design Report, indicate isolated areas within each pier seal where the bedrock may need to be benched or leveled because the surface slopes exceed the 4H:1V limit. Equipment access to perform this work is limited and benching or leveling of the bedrock will be costly. Can the Contractor drill, dowel, and grout reinforcement into the bedrock to anchor the seal into the bedrock in lieu of benching or leveling the bedrock within the pier seal areas? If this method is acceptable, please provide the bar size, spacing, and required embedment for these dowels.

Amendment No. 3 Response: Drilling, doweling and grouting reinforcement into the bedrock in lieu of benching or leveling the

bedrock is acceptable.

Rock dowels shall meet the following requirements:

- -Shall project into the footing a minimum of 2 feet
- -Shall be grouted into the bedrock of minimum of 3 feet
- Shall be stainless steel #9 deformed bars conforming to ASTM A95
- -Shall have a minimum yield strength of 75 ksi
- -Shall be installed in a minimum 3 inch diameter drilled hole and grouted

Grout shall have a minimum 28-day compressive strength of 5,000 psi and a maximum water cement ratio of

0.45.

The spacing and layout will be provided by the geotechnical engineer within 5 Working Days after the contractor

submits a surveyed contour plan of the bedrock surface within the cofferdam. All work associated with drilling,

doweling, and grouting reinforcement shall be considered incidental to the Contract.

**Corrected Response: :** Drilling, doweling and grouting reinforcement into the bedrock in lieu of benching or leveling the bedrock is acceptable.

Rock dowels shall meet the following requirements:

- Shall project into the footing a minimum of 2 feet
- Shall be grouted into the bedrock of minimum of 3 feet
- Shall be stainless steel #9 deformed bars conforming to ASTM A955
- Shall have a minimum yield strength of 75 ksi
- Shall be installed in a minimum 3 inch diameter drilled hole and grouted

Grout shall have a minimum 28-day compressive strength of 5,000 psi and a maximum water cement ratio of 0.45.

The spacing and layout will be provided by the geotechnical engineer within 5 Business Days after the contractor submits a surveyed contour plan of the bedrock surface within the cofferdam. All work associated with drilling, doweling, and grouting reinforcement shall be considered incidental to the Contract. The reinforcement itself will paid for by the related contract items

Consider these changes and information prior to submitting your bid on March 8, 2023

Sincerely,

George M. A. Macdougall P.E. Contracts & Specifications Engineer

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