POST-TENSIONING BARS

POST-TENSIONING thread bars shall be one inch diameter, 10 ksi steel, and shall conform to AASHTO M275, Type II. Steel thread bars shall be designed to allow the use of heavy hex nuts and couplers that thread onto the end of the deforming, heavy hex nuts and couplers shall be of a design and material recommended by the bar manufacturer to develop the full tensile strength of the bar. Properly documented certified test reports shall be provided for each heat of steel thread bars.

ALL POST-TENSIONING thread bars, nuts, bearing plates, couplers, and ancillary hardware shall be hot-dipped galvanized in accordance with AASHTO M211. The galvanizing plant shall administer adequate quality control measures to safeguard against hydrogen embrittlement. Quality control measures shall include compliance with ASTM A108 (1045 C.D. Steel) or ASTM A108 (11L17 Steel) for nuts, couplers, and bolts, and ASTM A108 (1045 C.D. Steel) or ASTM A108 (11L17 Steel) for bolts.

ALL POST-TENSIONING bearing plates shall conform to AASHTO M23, Grade 36.

SHEAR KEY GROUT

Shear key grout shall be a grout that is recommended by the manufacturer in the application of shear key grout. The manufacturer will provide a grout mixture that will attain a minimum of 4500 psi compressive strength in 7 days. This material shall have a 3 day testing period within 3 days of delivery to the site. The manufacturer shall supply a representative of the Contractor prior to delivery with a test report showing the shear key grout for compressive strength of 4500 psi at 3 days. The test report shall include a photograph of the material, and the Contractor shall perform the test report prior to installation of the grout in the structure. The Contractor shall observe the test report in the structure. The test report shall be based on a pourable consistency with the same water/gallon mixture ratio to be used in the structure.

The Contractor shall be required to submit for each project the grout test results obtained in the testing of the grout. The Contractor shall be required to perform a new test and submission for approval under any of the following conditions:

1. A period of 18 months has elapsed since last pre-approval testing.
2. The grout manufacturer has revised or changed the grout specifications.
3. The Contractor changes the water/gallon ratio utilized.
4. The Contractor changes the grout manufacturer.
5. The Contractor changes the grout manufacturer.
6. The Contractor changes the grout manufacturer.

AASHTO M111

AASHTO M232

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