

**SECTION 00566 - CARBON FIBER REINFORCED POLYMER STRENGTHENING -
NEAR SURFACE MOUNTED**

(Follow all instructions and make all edits with "Track Changes" turned on. If there are no instructions [purple text] above a subsection, paragraph, sentence, or bullet, then include it in the project. Delete all purple text before preparing the final document. All other modifications to this Section will require ODOT Technical Resource and State Specifications Engineer approval.)

Comply with Section 00566 of the Standard Specifications modified as follows:

00566.03 Required Submittals - Replace the title of this subsection with "**Submittals**"**00566.03(b) Test Results** - Replace this subsection, except for the subsection number and title, with the following:

At least 21 Calendar Days before starting Work, conduct longitudinal tensile property testing on five samples of the CFRP bar according to Part 2 of ACI 440.3R, ASTM D7205, or ASTM D3039 and submit test results. Furnish sample CFRP bars having the same physical properties as and be from the same manufacturer as the bars that are installed in permanent Work.

00566.10 Pre-Approved CFRP Manufacturers and Material List - Replace the paragraph that begins "Furnish all bars having a ..." with the following paragraph:

Furnish all bars having a textured, deformed, or roughly sanded surface and marked at regular intervals along the length, spaced not more than 6 feet, showing the manufacturer's mark, size designation and production lot number.

00566.12 Material Sampling - Replace this subsection, except for the subsection number and title, with the following:

Provide five samples per lot of CFRP bar materials for testing by the Agency. Provide samples from the same lot(s) used in the permanent work. Provide the samples at least 21 Calendar Days before starting CFRP installation work. Prepare samples' length and end anchors according to ASTM D7205 or ASTM D3039.

Allow the Engineer to select six additional samples per lot of CFRP bar materials delivered to the site for testing by the Agency. Provide samples a minimum of 8 feet in length.

00566.42(a) Surface Cleaning - Replace this subsection, except for the subsection number and title, with the following:

Clean the groove according to the manufacturer's recommendations. If the manufacturer has not provided recommendations, thoroughly clean the groove with high-pressure water and a non-metallic brush. Before the groove dries out, blow it free of water and debris with

compressed air. Ensure that all dust, sand, laitance, grease, curing compounds, and any other bond-inhibiting matter is removed from the groove. Ensure the concrete surface of grooves is clean and structurally sound prior to installing CFRP bars.

00566.44 CFRP Bar Installation - Replace the paragraph that begins "Center the CFRP bar ..." with the following paragraph:

Center the CFRP bar in the groove using approved centering devices at one-third points along the CFRP. Provide centering devices having not less than 1/8-inch resin cover when installed. Place nylon or polyethylene spacer material between the CFRP bars and exposed, existing steel reinforcing.

00566.80 Measurement - Add the following to the end of this subsection:

The estimated length of required CFRP bars is shown below.

(Obtain structure number and quantities from the Bridge Designer.)

| Structure | Quantity (Feet) |
|------------------|--------------------|
| Bridge No. _____ | |
| Bridge No. _____ | |

00566.90 Payment - Replace the paragraph that begins "Payment will be payment ..." with the following paragraph:

Payment will be payment in full for furnishing and placing all Materials, and for providing all Equipment, labor, and Incidentals necessary to complete the Work as specified.