

RON DESANTIS GOVERNOR 605 Suwannee Street Tallahassee, FL 32399-0450 JARED W. PERDUE, P.E. SECRETARY

August 21, 2025

Daniel Holt, PE, PTOE
Director, Project Delivery
Director, Technical Services
FHWA
400 West Washington Street, Suite 4200
Orlando, FL 32801

Re: State Specifications Office

Section: 415

Proposed Specification: 4150100 Reinforcing For Concrete

Dear Mr. Holt:

We are submitting, for your approval, two copies of the above referenced Supplemental Specification.

The changes are proposed by Alexander Lewis to correct internal reference, change FRP UV exposure limit from a prescriptive day amount to manufacturer recommendation, and allow nonmetallic fasteners for both metal and FRP reinforcement, provided that they are an approved product.

Please review and transmit your comments, if any, within two weeks (10 business days). Comments should be sent via email <a href="mailto:daniel.strickland@dot.state.fl.us">daniel.strickland@dot.state.fl.us</a>.

If you have any questions relating to this specification change, please call me at (850) 414-4130.

Sincerely,

Signature on File

Daniel Strickland, P.E. State Specifications Engineer

DS/jb

Attachment

cc: Florida Transportation Builders' Assoc.

State Construction Engineer

## REINFORCING FOR CONCRETE

(REV 6-5-25)

ARTICLE 415-1 is deleted and the following substituted:

## 415-1 Description.

Furnish and place steel and or fiber reinforced polymer (FRP) reinforcementing of the quality, type, size, and quantity designated. Obtain all FRP reinforcing bars from a producer on the Department's Production Facility Listing.

ARTICLE 415-2 is deleted and the following substituted:

#### 415-2 Materials.

Meet the following requirements:

Steel Bar Reinforcement Steel	931-1.1
Steel Welded Wire Reinforcement	931-1.2
FRP Bar Reinforcement	932-4

ARTICLE 415-3 is deleted and the following substituted:

#### 415-3 Protection of Material.

415-3.1 Steel Reinforcing: Store steel reinforcement above the surface of the ground, upon platforms, skids, or other supports, and protect it from mechanical injury and surface deterioration. Ensure that the steel reinforcement is free from loose rust, scale, dirt, paint, oil, and other foreign material prior to incorporation into the work. Protect FRP against UV exposure and extreme ambient storage temperatures as required by the FRP manufacturer. If the manufacturer does not provide any requirements, limit FRP sun exposure to 4 months and maximum ambient storage temperature to 120°F.

415-3.2 Fiber Reinforcing Polymer (FRP) Reinforcing: Store FRP reinforcement above the surface of the ground, in boxes or upon platforms, skids, or other supports, and protect it from mechanical injury and direct exposure to UV light. Ensure that the FRP reinforcement is free from dirt, paint, oil, and other foreign material prior to incorporation into the work.

ARTICLE 415-4 is deleted and the following substituted:

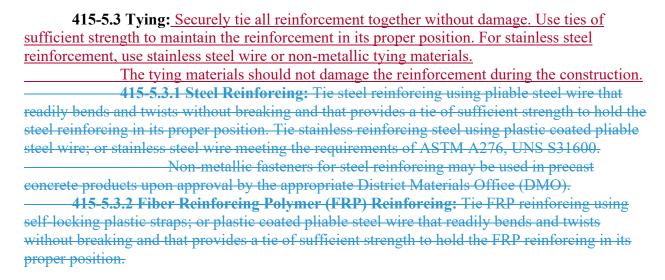
# 415-4 Bending, Splicing, and Cutting.

**415-4.1 Steel Reinforcementing:** Fabricate reinforcing bars as prescribed in the CRSI Manual of Standard Practice. Shop bend the reinforcement cold to the shapes indicated in the Plans. Do not bend the reinforcement to shape in the field. Minor bending adjustments may be performed in the field with the approval of the Engineer.

Do not hot bend or straighten, weld, or thermal cut reinforcing steel.

415-4.2 Fiber Reinforcing Polymer (FRP) Reinforcementing: No field fabrication of FRP reinforcing bars is permitted except tying and field cutting per ACI 440.5. Do not bend or straighten, couple, thermal cut, or shear cut FRP reinforcing bars.

SUBARTICLE 415-5.3 is deleted and the following substituted:



#### REINFORCING FOR CONCRETE

(REV 6-5-25)

ARTICLE 415-1 is deleted and the following substituted:

## 415-1 Description.

Furnish and place steel or fiber reinforced polymer (FRP) reinforcement of the quality, type, size, and quantity designated. Obtain all reinforcing from a producer on the Department's Production Facility Listing.

ARTICLE 415-2 is deleted and the following substituted:

## 415-2 Materials.

Meet the following requirements:

Reinforcement Steel	931-1.1
Wire Reinforcement	931-1.2
FRP Bar Reinforcement	932-4

ARTICLE 415-3 is deleted and the following substituted:

#### 415-3 Protection of Material.

Store reinforcement above the surface of the ground, upon platforms, skids, or other supports, and protect it from mechanical injury and surface deterioration. Ensure that the reinforcement is free from loose rust, scale, dirt, paint, oil, and other foreign material prior to incorporation into the work. Protect FRP against UV exposure and extreme ambient storage temperatures as required by the FRP manufacturer. If the manufacturer does not provide any requirements, limit FRP sun exposure to 4 months and maximum ambient storage temperature to 120°F.

ARTICLE 415-4 is deleted and the following substituted:

## 415-4 Bending, Splicing, and Cutting.

415-4.1 Steel Reinforcement: Fabricate reinforcing bars as prescribed in the CRSI Manual of Standard Practice. Shop bend the reinforcement cold to the shapes indicated in the Plans. Do not bend the reinforcement to shape in the field. Minor bending adjustments may be performed in the field with the approval of the Engineer.

Do not hot bend or straighten, weld, or thermal cut reinforcing steel.

**415-4.2 Fiber Reinforcing Polymer (FRP) Reinforcement:** No field fabrication of FRP reinforcing bars is permitted except tying and field cutting per ACI 440.5. Do not bend or straighten, couple, thermal cut, or shear cut FRP reinforcing bars.

# SUBARTICLE 415-5.3 is deleted and the following substituted:

**415-5.3 Tying:** Securely tie all reinforcement together without damage. Use ties of sufficient strength to maintain the reinforcement in its proper position. For stainless steel reinforcement, use stainless steel wire or non-metallic tying materials.

The tying materials should not damage the reinforcement during the construction.