Florida Department of Transportation

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JARED W. PERDUE, P.E.
SECRETARY

September 6, 2024

Cathy Kendall
Director, Office of Technical Services
Federal Highway Administration
3500 Financial Plaza, Suite 400
Tallahassee, Florida 32312

Re: State Specifications Office
Section: 415
Proposed Specification: **4150505 Reinforcing For Concrete**

Dear Ms. Kendall:

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

The changes are proposed by Ben Goldsberry to change to cube dimensions equal to the Plan concrete cover will provide more stability and prevent toppling of the blocks.

Please review and transmit your comments, if any, within two weeks (10 business days). Comments should be sent via email daniel.strickland@dot.state.fl.us.

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 9-5-24)

SUBARTICLE 415-5.2 is deleted and the following substituted:

415-5.2 Concrete Blocks for Spacing: Use precast concrete blocks to space and support the reinforcing bars. Use concrete blocks with a concrete class~~strength~~ equal to or greater than the concrete in which they are to be placed and have wires cast into them for fastening to the reinforcing bars. When the concrete mix design requires highly reactive pozzolans or minimum surface resistivity, use blocks from concrete of the same mix design. Moist-cure the blocks for at least three days.

Submit a certification verifying the class of concrete used to fabricate the concrete blocks, and identifying the batch and load of concrete from which the concrete blocks were cast.

SUBARTICLE 415-5.5 is deleted and the following substituted:

415-5.5 Footings:

415-5.5.1 Supports: Support footing mat reinforcing with approved bolsters or concrete blocks having cube dimensions equal to the Plan concrete cover~~not greater than 4 by 4 inches by plan clearance~~. Stagger the location of blocks with an offset of 12 inches or greater and do not stack them. Fasten concrete blocks to the reinforcing~~steel~~ using the cast-in wires.

415-5.5.2 Tolerances: Place footing mat reinforcing within 1/2 inch vertically from the plan bottom clearance and within 1 inch from the plan side clearance.

415-5.5.3 Tying: Tie footing mat reinforcing with a double-strand single tie at all intersections on the periphery and at alternate intersections within the mat.

SUBARTICLE 415-5.7.1 is deleted and the following substituted:

415-5.7.1 Spacing-off from Side Forms: Space column reinforcing bars from the side forms with~~by~~ concrete blocks having cube~~of~~ dimensions equal to the Plan concrete cover~~not exceeding 2 inches by 2 inches by clearance dimension~~. Stagger the location of blocks with an offset of 12 inches or greater and do not stack them. ~~Securely f~~Fasten concrete~~each~~ block~~s~~ to the reinforcing using the cast-in wires.

SUBARTICLE 415-5.8.1 is deleted and the following substituted:

415-5.8.1 Supports: Space wall reinforcing bars from the side forms with~~by~~ concrete blocks having cube~~of~~ dimensions equal to the Plan concrete cover~~not greater than 2 inches by 2 inches by clearance dimensions~~. Stagger the location of blocks with an offset of 12 inches or greater and do not stack them. Fasten concrete blocks to the reinforcing using the cast-in wires. Fix the spacing between wall mats by means satisfactory to the Engineer.

ARTICLE 415-5.9 is deleted and the following substituted:

415-5.9 ~~Beams~~Pier and Bent Caps:

415-5.9.1 Supports: Support~~Maintain~~ bottom reinforcing with~~clearances by~~ approved ~~heavy beam~~ bolsters or concrete blocks. ~~Support additional layers of main longitudinal reinforcing bars from the lower layers by heavy upper-beam bolsters, placed directly over low supports.~~

Begin the spacing of ~~beam~~ bolsters or concrete blocks at not more than 2 feet from the end of the ~~beams or~~ caps and space the additionally required bolsters at not more than 4 feet.

Space side reinforcing from the side forms by concrete blocks. Stagger the location of blocks with an offset of 12 inches or greater and do not stack them Use concrete blocks with cube~~, having~~ dimensions equal to the Plan concrete cover~~not greater than 2 inches by 2 inches by specified clearance~~, fastened to the reinforcing using~~bars by~~ the cast-in wires~~, for spacing the upper main longitudinal bars below the top bars. Maintain the side clearance by concrete blocks, having dimensions not greater than 2 inches by 2 inches by required clearance, fastened to the reinforcing bars by the cast-in wires~~.

415-5.9.2 Tolerances: Place the main longitudinal reinforcing bars so as to provide a bottom and top clearance within 1/4 inch of the plan vertical dimensions for all layers. Space the bars from side forms within 1/2 inch of the specified spacing.

Place stirrups within 1 inch of the plan position for each individual stirrup and do not allow the tolerance to accumulate.

415-5.9.3 Tying: Tie all intersecting bars with a double-strand single tie.

REINFORCING FOR CONCRETE
(REV 9-5-24)

SUBARTICLE 415-5.2 is deleted and the following substituted:

415-5.2 Concrete Blocks for Spacing: Use precast concrete blocks to space and support the reinforcing bars. Use concrete blocks with a concrete class equal to or greater than the concrete in which they are to be placed and have wires cast into them for fastening to the reinforcing bars. When the concrete mix design requires highly reactive pozzolans or minimum surface resistivity, use blocks from concrete of the same mix design. Moist-cure the blocks for at least three days.

Submit a certification verifying the class of concrete used to fabricate the concrete blocks, and identifying the batch and load of concrete from which the concrete blocks were cast.

SUBARTICLE 415-5.5 is deleted and the following substituted:

415-5.5 Footings:

415-5.5.1 Supports: Support footing mat reinforcing with approved bolsters or concrete blocks having cube dimensions equal to the Plan concrete cover. Stagger the location of blocks with an offset of 12 inches or greater and do not stack them. Fasten concrete blocks to the reinforcing using the cast-in wires.

415-5.5.2 Tolerances: Place footing mat reinforcing within 1/2 inch vertically from the plan bottom clearance and within 1 inch from the plan side clearance.

415-5.5.3 Tying: Tie footing mat reinforcing with a double-strand single tie at all intersections on the periphery and at alternate intersections within the mat.

SUBARTICLE 415-5.7.1 is deleted and the following substituted:

415-5.7.1 Spacing-off from Side Forms: Space column reinforcing bars from the side forms with concrete blocks having cube dimensions equal to the Plan concrete cover. Stagger the location of blocks with an offset of 12 inches or greater and do not stack them. Fasten concrete blocks to the reinforcing using the cast-in wires.

SUBARTICLE 415-5.8.1 is deleted and the following substituted:

415-5.8.1 Supports: Space wall reinforcing bars from the side forms with concrete blocks having cube dimensions equal to the Plan concrete cover. Stagger the location of blocks with an offset of 12 inches or greater and do not stack them. Fasten concrete blocks to the reinforcing using the cast-in wires. Fix the spacing between wall mats by means satisfactory to the Engineer.

ARTICLE 415-5.9 is deleted and the following substituted:

415-5.9 Pier and Bent Caps:

415-5.9.1 Supports: Support bottom reinforcing with approved bolsters or concrete blocks. Begin the spacing of bolsters or concrete blocks at not more than 2 feet from the end of the caps and space the additionally required bolsters at not more than 4 feet. Space side reinforcing from the side forms by concrete blocks. Stagger the location of blocks with an offset of 12 inches or greater and do not stack them Use concrete blocks with cube dimensions equal to the Plan concrete cover, fastened to the reinforcing using the cast-in wires.

415-5.9.2 Tolerances: Place the main longitudinal reinforcing bars so as to provide a bottom and top clearance within 1/4 inch of the plan vertical dimensions for all layers. Space the bars from side forms within 1/2 inch of the specified spacing.

Place stirrups within 1 inch of the plan position for each individual stirrup and do not allow the tolerance to accumulate.

415-5.9.3 Tying: Tie all intersecting bars with a double-strand single tie.