Florida Department of Transportation

RON DESANTIS
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

JARED W. PERDUE, P.E.
SECRETARY

August 20, 2026

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: 515
Proposed Specification: **5150100 Metal Pedestrian/Bicycle Railings, Guardrails, Handrails, and Bollards**
Associated Specification: **9560000 Incidental Products**

Dear Mr. Holt:

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

The changes are proposed by Ryan Gray to incorporate bollards into the standards.

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/am
Attachment
cc: Florida Transportation Builders' Assoc.
State Construction Engineer

METAL PEDESTRIAN/BICYCLE RAILINGS, GUIDERAILS, ~~AND~~ HANDRAILS AND BOLLARDS

(REV 6-11-26)

ARTICLE 515-1 is deleted and the following substituted:

515-1 Description.

Furnish and install metal pedestrian/bicycle railings, including bullet rails, guiderails and handrails in accordance with the Plans and Standard Plans.

Furnish metal bollards at the locations shown in the plans.

ARTICLE 515-2 is deleted and the following substituted:

515-2 Materials.

Meet the following requirements:

Structural Concrete	Section 346
Non-Structural Concrete	Section 347
Anchor Bolts, Rods, Nuts and Washers*	Section 962
Metal Bollards, Sleeves, and Bases*	956-1 and 956-4
Bollard Covers	956-1 and 956-5
Adhesive Anchors**	Section 937
Aluminum Railing **	Section 965
Bearing Pads**	932-5
Epoxy ~~Mortar~~Compounds**	Section 926
Steel Railing**	Section 962

*Do not use expansion anchors.

**Use products listed on the Department's Approved Product List (APL).

ARTICLE 515-3 is deleted and the following substituted:

515-3 Construction Requirements.

515-3.1 General: Space railing posts to clear obstacles without exceeding maximum post spacing and maintain a uniform spacing with reasonable consistency. Place splices in approximately the same place within a railing section.

~~Railings must be~~Install metals that are free of burrs and sharp edges and ~~all~~ground plug welds ~~ground~~ smooth.

Install bollards at locations shown in the Plans.

515-3.2 Welds: An American Welding Society certified welding inspector must visually inspect all welds for final approval. Nondestructive testing of welds is not required, unless otherwise shown in the Plans.

~~Prior to installation of the~~For railings, provide a certifying statement from the welding inspector ~~must be provided~~prior to installation. The document must identify the project information, date of inspection, welding inspector name, and inspector certification number.

515-3.2.1 Aluminum Railing: Welds must be in accordance with Section 965. Filler material for seal welds, plug welds and bend splices may be ER4303.

515-3.2.2 Steel Railing: Meet the requirements of Section 962, except weld connections must be in accordance with AWS D1.1, Structural Welding Code, using E70XX weld material, unless otherwise shown in the Plans.

515-3.3 Coatings:

515-3.3.1 Aluminum Railing: Coating is not required, unless otherwise shown in the Plans. Finished product must have a smooth uniform appearance.

When a colored coating is required, use a fluoropolymer based powder coating system complying with American Architectural Manufacturers Association (AAMA) Specification No. 2605.

515-3.3.2 Steel Railing: Components must be hot-dip galvanized after fabrication in accordance with Section 962, unless otherwise shown in the Plans. When a colored coating is required, meet the requirements of 649-4.

515-3.3.3 Steel Bollards: Galvanize, paint, or powder coat carbon steel bollards and components in accordance with 956-5. When a color coating on galvanized steel is called for, meet the requirements of 649-4. Stainless steel and galvanized bollards do not require a coating.

ARTICLE 515-4 is deleted and the following substituted:

515-4 Shop Drawings.

For railings, ~~S~~submit shop drawings and obtain approval prior to fabrication in accordance with Section 5. Show project specific geometry (line and grade), post type and locations, expansion joint and splice locations.

Include other project specific details such as tapered end transitions, continuity or transition details post and panel infill type, and anchor bolt general details.

SUBARTICLE 515-5.1 is deleted and the following substituted:

515-5.1 General: For pedestrian/bicycle railing bases on concrete, ~~P~~place a 1/8 inch thick bearing pad with dimensions matching the base plate between the base plate and concrete surface.

SUBARTICLE 515-5.4 is deleted and the following substituted:

515-5.4 Anchoring Railings:

515-5.4.1 General: Secure nuts to a snug tight condition. Tack weld nuts to stem or distort bolt threads to prevent nut loosening and removal. Coat damaged galvanizing on bolt stems, nuts, and tack welds in accordance with Section 562.

515-5.4.2 Adhesive Anchors: Install anchors in accordance with Section 416.

515-5.4.3 C-I-P and Thru-Bolt Anchors: Use galvanized hex head anchor bolts. When thru-bolting is used, coat cut reinforcing steel inside the drilled hole with a zinc galvanizing compound in accordance with Section 562 prior to installing bolts.

515-5.4.4 Embedded Guiderail Posts: Core holes into the foundation concrete, then clean holes, in accordance with the manufacturer's instructions. At a minimum, use oil free compressed air to remove loose particles, brush the inside surface to free loose particles, then use compressed air again to remove any remaining particles. Use a Type AB, or F epoxy compound to secure guiderail posts into the cored holes.

ARTICLE 515-5 is expanded by the following new Subarticle:

515-5.5 Metal Bollards: Install post/pipe, bases or sleeves, and components in accordance with the manufacturer's instructions and details shown in the Plans. When called for in the Plans, fill pipe bollards with concrete to a smooth, rounded dome that will not hold water.

ARTICLE 515-6 is deleted and the following substituted:

515-6 Method of Measurement.

The quantity of railing to be paid for will be the plan quantity, in linear feet, installed and accepted. The quantity will be measured along the centerline of the top rail.

The quantity of bollards to be paid for will be the plan quantity for the number of bollards, furnished, installed, and accepted. No separate payment will be made for the sleeve, base, concrete, or covers.

ARTICLE 515-7 is deleted and the following substituted:

515-7 Basis of Payment.

Price and payment will be full compensation for all work specified in this Section, including all materials, hardware, labor, and incidentals required to complete the installation.

For relocation of existing railing, price and payment will be full compensation for the removal and reinstallation, including all materials, hardware, labor, and incidentals required to complete the installation.

Payment will be made under the following:

Item No. 515-	1-	Pipe Handrail-Guiderail - per linear foot.
Item No. 515-	2-	Pedestrian/Bicycle Railing - per linear foot.
Item No. 515-	3-	Handrail - Retrofit to Existing Railing - per linear foot.
Item No. 515-	4-	Aluminum Bullet Railings - per linear foot.
Item No. 515-	6-	Bollards – per each.

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Meet the following requirements:

Structural Concrete	Section 346
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Install metals that are free of burrs and sharp edges and ground plug welds smooth.

Install bollards at locations shown in the Plans.

515-3.2 Welds: An American Welding Society certified welding inspector must visually inspect all welds for final approval. Nondestructive testing of welds is not required, unless otherwise shown in the Plans.

For railings, provide a certifying statement from the welding inspector prior to installation. The document must identify the project information, date of inspection, welding inspector name, and inspector certification number.

515-3.2.1 Aluminum Railing: Welds must be in accordance with Section 965. Filler material for seal welds, plug welds and bend splices may be ER4303.

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