

# ORINATION FORM

## Proposed Revisions to the Specifications

(Please provide all information - incomplete forms will be returned)

Date: Specification Section:

Originator: Articles/Subarticles:

Telephone:

email:

Will the proposed revision involve Design Standard Index changes? Yes No

Roadway Design staff contacted (name):

Structures Design staff contacted (name):

Will the proposed revision involve PPM changes? Yes No

Roadway Design staff contacted (name):

Will the proposed revision involve CPAM changes? Yes No

Construction staff contacted (name):

Will the proposed revision involve Pay Item changes? Yes No

Estimates staff contacted (name):

Will the proposed revision involve SDG changes? Yes No

Structures staff contacted (name):

Will the proposed revision involve APL changes? Yes No

Product Evaluation staff contacted (name):

Will the proposed revision involve Material Manual changes? Yes No

State Materials Office staff contacted (name):

Will this revision necessitate any of the following:

Design Bulletin Construction Bulletin Estimates Bulletin Materials Bulletin

Are all references to external publications current? Yes No

If not, what references need to be updated? (Please include changes in the redline document.)

Why does the existing language need to be changed?

Summary of the changes:

Are these changes applicable to all Department jobs? Yes No

If not, what are the restrictions?

Contact the State Specifications Office for assistance in completing this form.

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**M E M O R A N D U M**

**DATE:** April 1, 2016

**TO:** Specification Review Distribution List

**FROM:** Mark Wilson, P.E., Acting Manager; Program Management Office

**SUBJECT:** Proposed Specification: **5150500 Metal Pedestrian/Bicycle Railings, Guiderails, and Handrails.**

In accordance with Specification Development Procedures, we are sending you a copy of a proposed specification change.

This change was proposed by Cheryl Hudson of the State Structures Design Office to modify the language for current Department practice.

Please share this proposal with others within your responsibility. Review comments are due within four weeks and should be sent to Mail Station 75 or online at

<http://www2.dot.state.fl.us/ProgramManagement/Development/IndustryReview.aspx> .

Comments received after **April 29, 2016**, may not be considered. Your input is encouraged.

MW/  
Attachment

**METAL PEDESTRIAN/BICYCLE RAILINGS, GUIDERAILS, AND HANDRAILS.**  
**(REV 3-24-16)**

ARTICLE 515-5 is deleted and the following substituted:

**515-5 Installation.**

**515-5.1 General:** Place a 1/8 inch thick bearing pad with dimensions matching the base plate between the base plate and concrete surface.

**515-5.2 Bullet Railings:** Install rail posts normal to the profile grade longitudinally and vertical transversely.

**515-5.3 Pedestrian /Bicycle Railings and Guiderails:** Fabricate and install posts on bridges normal to the profile grade line longitudinally and vertical transversely unless shown otherwise in the Plans. For other locations, fabricate and install posts plumb. Use aluminum shim plates to make necessary adjustments. Bond stacked shim plates with adhesive bonding material and field trim shim plates to match the foundation contours. Beveled shim plates may be used in lieu of trimmed flat shim plates.

If shims greater than 1/2 inch total thickness are required, provide longer anchor bolts. Bolts must be long enough to secure washers and nuts and meet the minimum embedment length.

Post tolerance from plumb is plus or minus one inch, measured at 42 inches above the foundation. Rails must form a smooth continuous line without hills or dips greater than 1/2 inch between any three posts or side sway greater than 1/2 inch between post assemblies.

**515-5.4 Anchoring:**

**515-5.4.1 General:** Secure nuts to a snug tight condition. Use self locking hex nuts or tack weld the top of each hex nut to the bolt to prevent loosening. For nuts that are not tack welded, nuts to stem or distort bolt stems or 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 A, B, or F epoxy mortar to secure guiderail posts into the cored holes.