ORIGINATION FORM
Proposed Revisions to the Specifications

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

Date: September 29, 2016

Specification Section: 460

Originator: Cheryl Hudson

Articles/Subarticles: 460-6.4.1 & 460-6.4.2

Telephone: 850-414-5332

email: cheryl.hudson@dot.state.fl.us

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

Roadway Design staff contacted (name): Chester Henson

Structures Design staff contacted (name): Andre Pavlov

Will the proposed revision involve PPM changes? **Yes** ◉ **No** ○

Roadway Design staff contacted (name): Chester Henson

Will the proposed revision involve CPAM changes? **Yes** ○ **No** ◉

Construction staff contacted (name): John Westphal

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): Charles Boyd

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): Steve Duke

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?

AASHTO update to LRFD design criteria. Document changed from AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals to AAASHTO LRFD Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals

Summary of the changes:

460-6.4.1 Updated language to better match the LRFD STS code and to clarify welding inspection requirements. 460-6.4.2 Added Overhead to sub-title better describe the sign structures covered by this section.

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.

Dan Hurtado 850-414-4130 dan.hurtado@dot.state.fl.us Debbie Toole 850-414-4114 deborah.toole@dot.state.fl.us

Frances Thomas 850-414-4101 frances.thomas@dot.state.fl.us Olivia Townsend 850-414-4303 olivia.townsend@dot.state.fl.us

Florida Department of Transportation

RICK SCOTT
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

JIM BOXOLD
SECRETARY

M E M O R A N D U M

DATE: November 9, 2016

TO: Specification Review Distribution List

FROM: Dan Hurtado, P.E., State Specifications Engineer

SUBJECT: Proposed Specification: **4600604 Structural Steel and Miscellaneous Metals.**

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

These changes are proposed by Cheryl Hudson of the State Structures Design Office to update an industry reference.

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 **December 7, 2016,** may not be considered. Your input is encouraged.

DH/dt
Attachment

STRUCTURAL STEEL AND MISCELLANEOUS METALS.
(REV 9-~~19~~~~21~~29-16)

SUBARTICLE 460-6.4 is deleted and the following substituted:

460-6.4 Welding of Hollow Structural Steel Sections (Pipes and Tubes): Except as noted in the Contract Documents, perform all shop and field welding of Hollow Structural Shapes in accordance with the AWS D1.1, Structural Welding Code as amended herein.

460-6.4.1 Highway Sign ~~Structures~~, L~~uminaires~~ighting and Traffic Signal~~s~~ Support Structures: For structural steel supports for sign ~~structure~~s, lighting ~~poles~~, and traffic signal ~~pole~~s, comply with the AWS D1.1 Structural Welding Code~~.~~ as ~~well~~and the weld ~~inspection~~ as the additional requirements in Section 14.4.4.8 of the AASHTO Standard~~LRFD Specifications~~ for Structural Supports for Highway Signs, Luminaires and Traffic Signals, Section 5.15, Welded Connections~~amended by the following.

Unless otherwise shown in the Plans, perform ultrasonic testing (UT) or radiographic testing (RT) on full penetration groove welds at the following frequency (use the AWS D1.1 Tubular Connections Class R Criteria for UT and Cyclically Loaded Criteria for RT.

One hundred percent of each joint subject to tension or reversal of stress.

Twenty-five percent of each joint subject to only compression or shear. If discontinuities are found in the joint, the remainder of the joint shall be tested.

Perform Magnetic Particle Testing at the following frequencies:

A minimum of 25% of all fillet or partial penetration groove welds in main members (Use the AWS D1.1 Tubular Connections Criteria). If discontinuities are found, the remainder of the welds on the members shall be tested.

460-6.4.2 Tubular Bridge or Overhead Sign Structures: Comply with the requirements of the AWS D1.1 Structural Welding Code as amended by the following:

Unless otherwise shown in the Plans, perform ultrasonic testing (UT) or radiographic testing (RT) on full penetration groove welds at the following frequency (use the AWS D1.1 Tubular Connections Class R Criteria for UT and Cyclically Loaded Criteria for RT.

One hundred percent of each joint subject to tension or reversal of stress.

Twenty-five percent of each joint subject to only compression or shear. If discontinuities are found in the joint, the remainder of the joint shall be tested.

Perform Magnetic Particle Testing at the following frequencies:

A minimum of 25% of all fillet or partial penetration groove welds in main members (Use the AWS D1.1 Tubular Connections Criteria). If discontinuities are found, the remainder of the welds on the members shall be tested.