

ORIGINATION FORM

THE INFORMATION BELOW IS TO BE PROVIDED BY THE ORIGINATOR (The person who receives or originates the issue and needs to forward the issue for action.)

Specification: 962-8.4

Subject: Structural Tubing

Origination date: 10/29/08

Originator: Garry J. Roufa

Office/Phone: Structures Design Office / 850-414-4273

Problem statement: The current specification limits use of ASTM A500 to Grade B (42 ksi yield). ASTM A 500 Grade C (50 ksi yield) will allow increased capacity without increased material and dead load for pedestrian truss bridges. A500 Grade C is also currently specified by some proprietary truss manufacturers.

The current specification also does not adequately provide for Charpy V-Notch testing of steel tubing used in pedestrian truss bridges. Testing is desired to ensure the quality of steel used in fabrication of the Department's pedestrian truss bridges. Section 962-8.4.2 references section 962-2.2 for testing requirements which is incorrect. Section 962-2.2 addresses castings with no testing requirements provided. Changing the reference to Section 962-1.2 does not correct the problem because, although it does address Charpy V-Notch testing by ASTM A 709, ASTM A 709 does not provide test levels for ASTM A 500 material in its requirements.

Proposed solution: Revise Section 962-8.4.1 to allow the use of ASTM A 500 Grade C. Revise Section 962-8.4.2 to provide reference to ASTM A 709 for Charpy V-Notch testing and to provide the minimum energy test requirements.

Information source: Any contacts through industry, or Department staff who may have information, or who provided information on the issue.

Recommended Usage Note:

Estimated fiscal impact, if implemented: None

Implementation of these changes, if and when approved, will begin with the July 2009 letting.

For State Specifications Office Use Only

Begin date: November 6, 2008

File Number: 9620804

Scheduled completion date: February 3, 2009

Implementation date: July 2009

Implementation team member: Frances

Usage Note: All jobs

Notes:

1. This is a revision to a supplemental.



Florida Department of Transportation

CHARLIE CRIST
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

STEPHANIE KOPELOUSOS
SECRETARY

M E M O R A N D U M

DATE: November 24, 2008

TO: Specification Review Distribution List

FROM: Rudy Powell, Jr., P.E., State Specifications Engineer

SUBJECT: Proposed Specification: 9620804 Structural Steel and Miscellaneous Metal Items
(other than Aluminum) – Structural Tubing

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

This change was proposed by Garry Roufa of the State Office of Construction to allow the use of ASTM A 500 Grade C and to provide reference to ASTM A 709 for Charpy V-Notch testing and to provide the minimum energy test requirements.

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 to my attention via e-mail at ST986RP or rudy.powell@dot.state.fl.us. Comments received after December 22, 2008 may not be considered. Your input is encouraged.

RP/ft
Attachment

STRUCTURAL STEEL AND MISCELLANEOUS METAL ITEMS (OTHER THAN ALUMINUM) – STRUCTURAL TUBING.

(REV ~~4-24-08~~~~11-6-08~~) (~~FA 7-24-08~~) (~~1-09~~)

SUBARTICLE 962-8.4 (of the Supplemental Specification) is deleted and the following substituted:

962-8.4 Structural Tubing:

962-8.4.1 Materials: Provide steel structural tubing as one of the following:
Cold-formed, welded or seamless conforming to the requirements of ASTM A 500, Grade B *or* C, coated in accordance with the Contract Documents;

Hot-formed, welded or seamless tubing conforming to the requirements of ASTM A 501, coated in accordance with the Contract Documents;

ASTM A 847 when weathering characteristics are required; or

As indicated elsewhere in the Contract Documents.

962-8.4.2 Testing: ~~Meet the requirements of 962-2.2.~~ *Structural steel tubing subjected to tensile stresses used in main load carrying members or components (as defined in Section 460) shall meet the requirements of ASTM A 709 Table 9 (Non-Fracture Critical Members) or Table 10 (Fracture Critical Members) for Zone 1. Minimum Average energy shall be: 15 ft-lbf at 70°F (Table 9); or 25 ft-lbf at 70°F (Table 10).*