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Case 12-09

DATE: April 3, 2012

TO: MAG Specifications and Details Committee Members

FROM: Peter Kandarlis, SRP Representative
Outside of Right-of-Way Working Group

RE: **Section 770: ASTM Updates for Structural Steel**

Purpose: Section 770.2 references various ASTM steel standards that have been removed or replaced. Update and simplify this subsection to be more consistent with general steel standards. This is a default specification and does not need to cover all types of steel for all types of uses.

Revisions:

- a) High-Strength, Low-Allow Structural Steel: Federal guideline standards recommend three types of high-strength, low-allow structural steels; (1) ASTM A572 is the most common and available in Grades 42, 50, 55, 60 and 65 ksi; (2) ASTM A992 for W shapes (rolled wide flange shapes); and (3) ASTM A709 structural shapes, plates, and bars and quenched and tempered alloy steel for structural plates intended for use in bridges. Delete reference to A242, A606, A607 (withdrawn) and A653 (this material is typically used with galvanized chain link fence construction, not structural steel).
- b) Standard Structural Steel: Change the title to be more generic since the copper content is useful for non-marine corrosion protection, but not the primary reason for use of the standard. ASTM A36 is a general purpose structural grade steel with a minimum yield strength of 36 ksi. Delete reference to A570 (withdrawn), A611 (withdrawn) and A653 (see above).

SECTION 770**STRUCTURAL AND RIVET STEEL, RIVETS, BOLTS, PINS, AND ANCHOR BOLTS****770.2 STRUCTURAL STEEL:**

Stock Materials: The Contractor shall select the material he wishes to use from stock. The Contractor shall furnish 3 certified mill reports for each of the heat numbers. Two samples shall be taken by a representative of the Engineer from each heat number, one for the tension test and one for the coldbend test. If the heat numbers cannot be identified, the representative of the Engineer shall select random test specimens from the unidentifiable heats. The number of such test specimens shall be at the discretion of the Engineer. The cost of all tests on stock material shall be borne by the Contractor.

High Strength Low-Alloy Structural Steel: The material shall conform to the requirements of ASTM ~~A242, A572, A709 or A992/A572M, A606, A607 or A653 Grades C, D, or E~~ as specified in the special provisions.

~~Copper Bearing General Purpose~~ Structural Steel: ~~Copper bearing s~~Structural steel shall conform to the requirements of ASTM A36 with a minimum of 0.2 percent copper., ~~A570, A611, or A653 as specified in the special provisions.~~