Florida Department of Transportation

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ANANTH PRASAD
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STRUCTURES DESIGN BULLETIN 12-08

DATE: May 30, 2012

TO: District Directors of Operations, District Directors of Production, District Design Engineers, District Construction Engineers, District Structures Design Engineers

FROM: Robert V. Robertson, P. E., State Structures Design Engineer

COPIES: Ananth Prasad, Brian Blanchard, Tom Byron, David Sadler, Tim Lattner, Charles Boyd, Rudy Powell, Melissa Hollis, Marjorie Bixby, Fred Noble, Jeffrey Ger (FHWA)

SUBJECT: Clarified requirements for the use of Uncoated Weathering Steel and Coating Systems for Steel Bridges

This bulletin clarifies the requirements for the use of Uncoated Weathering Steel and Coating Systems for new Steel I-Girder and Box-Girder Bridges that were issued in Structures Design Bulletin C12-02 / Roadway Design Bulletin 12-04.

REQUIREMENTS

Delete Structures Design Guidelines 1.3.2.E from Structures Design Bulletin C12-02 / Roadway Design Bulletin 12-04 and insert the following:

E. Special conditions and requirements for the use of uncoated weathering steel superstructures are as follows:
   1. Uncoated weathering steel superstructures may be used if the structure is located 4.0 miles or more from the coast regardless of the superstructure environmental classification. Vertical and horizontal clearances to a body of water shall comply with the following requirements:
      a. For structures over a body of water, the minimum vertical clearance over mean or normal high water shall be at least 12 feet for a body of water with chloride concentrations less than 6000 ppm and at least 25 feet for a body of water with chloride concentrations equal to or greater than 6000 ppm.
      b. For structures adjacent to a body of water, the minimum horizontal clearance shall be at least 25 feet from a body of water with chloride concentrations less than 6000 ppm and at least 100 feet from a body of water with chloride concentrations equal to or greater than 6000 ppm.

2. For structures located within 4.0 miles of the coast, the use of uncoated weathering steel superstructures may be considered if site conditions, as determined by the State Materials Office, satisfy each of the following criteria:
   a. The maximum airborne salt deposition rate, as determined by ASTM Test G140, is less than 5 mg/m2/day (measured over a 30 day period).
   b. The maximum average concentration for SO2, as determined by ASTM Test G91, does not exceed 60 mg/m2/day (measured over a 30 day period).
   c. Yearly average Time of Wetness (TOW), as determined by ASTM Test G84, does not exceed 60%.

   Vertical and horizontal clearances to a body of water shall be site specific as determined by the State Materials Office. The minimum vertical clearance so determined will not be less than 12 feet above mean or normal high water.

COMMENTARY

See Structures Design Bulletin C12-02 / Roadway Design Bulletin 12-04.

BACKGROUND

See Structures Design Bulletin C12-02 / Roadway Design Bulletin 12-04.

IMPLEMENTATION

As stated in Structures Design Bulletin C12-02 / Roadway Design Bulletin 12-04, implement the requirements set forth herein on projects meeting the following criteria:

- All Design/Bid/Build Projects let after June 30, 2012
- All Design/Build projects for which the Final RFP has not been released as of the date of this Bulletin

Construction projects let before June 30, 2012 may incorporate these new requirements subject to the Cost Savings Initiative Proposal provisions of Subarticle 4-3.9.

Specifications are already in effect.

CONTACT

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