



## Florida Department of Transportation

RICK SCOTT  
GOVERNOR

605 Suwannee Street  
Tallahassee, FL 32399-0450

ANANTH PRASAD, P.E.  
SECRETARY

February 16, 2012

Monica Gourdine  
Program Operations Engineer  
Federal Highway Administration  
545 John Knox Road, Suite 200  
Tallahassee, Florida 32303

Re: Office of Design, Specifications  
Section **460**  
Proposed Specification: **4600501 Structural and Miscellaneous Metals.**

Dear Ms. Gourdine:

We are submitting, for your approval, two copies of the above referenced Supplemental Specification.

These changes were proposed by Charles Boyd of the State Structures Design Office to revise the language for consistency with Structures Design Bulletin C12-02.

Please review and transmit your comments, if any, within two weeks. Comments should be sent via Email to SP965RP or rudy.powell@dot.state.fl.us.

If you have any questions relating to this specification change, please call Rudy Powell, State Specifications Engineer at 414-4280.

Sincerely,

Signature on file

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

RP/dt

Attachment

cc: Calvin Johnson, Chief Civil Litigation  
Florida Transportation Builders' Assoc.  
State Construction Engineer

**STRUCTURAL STEEL AND MISCELLANEOUS METALS.****(REV ~~11-21-11~~-16-12)**

SUBARTICLE 460-5.1 (Pages 614 and 615) is deleted and the following substituted:

**460-5.1 General:** Use *bolts as follows:*

*1. Use galvanized ASTM A 325 Type 1 bolts in all field installed bolted structural steel connections ~~that are primed before installation of the bolts for painted steel.~~*

*2. Use either black or galvanized ASTM A 325 Type 1 bolts in all shop installed bolted structural steel connections ~~that are to be primed after installation of the bolts will be shop painted.~~*

*3. Use black ASTM 325 Type 3 bolts in all bolted structural steel connections for weathering steel that is to remain unpainted.*

*4. Use the bolts as specified for, ~~unless the~~ connected assemblies or parts that are designated as miscellaneous components ~~and where~~ the fastener ~~assembly~~type is specified elsewhere in the Contract Documents.*

-Tighten ASTM A 325 bolts in accordance with the procedures specified below for turn-of-nut or direct-tension-indicator (DTI) tightening.

Lubricate and maintain consistency in lubrication of fastener assembly during Rotational Capacity (RC) testing and installation. Assemblies that exhibit a loss of lubrication, as determined by the Engineer, may be relubricated and retested prior to installation.

Use ASTM A 490 bolts only with the approval of the Engineer. Provide procedures in accordance with for the handling, lubrication, installation, tightening and testing of ASTM A 490 bolts. Do not install ASTM A 490 bolts without prior approval of the procedures by the Engineer.

When the Engineer approves ASTM A 307 bolts for use in miscellaneous components, tighten them such that the plies of the joint are in firm contact. Use three to five impacts of an impact wrench or the full effort of a person using an ordinary spud wrench to obtain a snug connection.

Fasten aluminum, other materials or assemblies of dissimilar materials in accordance with the Contract Documents.

Install ordinary rough or machine bolts and nuts in accordance with the Contract Documents.

**STRUCTURAL STEEL AND MISCELLANEOUS METALS.**  
**(REV 2-16-12)**

SUBARTICLE 460-5.1 (Pages 614 and 615) is deleted and the following substituted:

**460-5.1 General:** Use bolts as follows:

1. Use galvanized ASTM A 325 Type 1 bolts in all field installed bolted structural steel connections for painted steel.
2. Use either black or galvanized ASTM A 325 Type 1 bolts in all shop installed bolted structural steel connections that will be shop painted.
3. Use black ASTM 325 Type 3 bolts in all bolted structural steel connections for weathering steel that is to remain unpainted.
4. Use the bolts as specified for connected assemblies or parts that are designated as miscellaneous components where the fastener type is specified elsewhere in the Contract Documents.

Tighten ASTM A 325 bolts in accordance with the procedures specified below for turn-of-nut or direct-tension-indicator (DTI) tightening.

Lubricate and maintain consistency in lubrication of fastener assembly during Rotational Capacity (RC) testing and installation. Assemblies that exhibit a loss of lubrication, as determined by the Engineer, may be relubricated and retested prior to installation.

Use ASTM A 490 bolts only with the approval of the Engineer. Provide procedures in accordance with for the handling, lubrication, installation, tightening and testing of ASTM A 490 bolts. Do not install ASTM A 490 bolts without prior approval of the procedures by the Engineer.

When the Engineer approves ASTM A 307 bolts for use in miscellaneous components, tighten them such that the plies of the joint are in firm contact. Use three to five impacts of an impact wrench or the full effort of a person using an ordinary spud wrench to obtain a snug connection.

Fasten aluminum, other materials or assemblies of dissimilar materials in accordance with the Contract Documents.

Install ordinary rough or machine bolts and nuts in accordance with the Contract Documents.