Florida Department of Transportation

JEB BUSH
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

DENVER J. STUTLER, JR.
SECRETARY

June 27, 2006

Mr. Greg Williams
Program Operations Engineer
Federal Highway Administration
545 John Knox Road, Suite 200
Tallahassee, Florida 32303

Re: Office of Design, Specifications
Section 700
Proposed Specification: 7000243 Overhead Sign Structures - Installation

Dear Mr. Williams:

We are submitting, for your approval, two copies of a proposed Supplemental Specification for the Installation of Overhead Sign Structures.

This change was proposed by Jeff Pouliotte of the State Office of Construction to specify bolt tightening and lubrication criteria for bolts used to construct Highway Signs.

Please review and transmit your comments, if any, within two weeks. Comments should be sent via Email to SP965DB or duane.brautigam@dot.state.fl.us.

If you have any questions relating to this specification change, please call Duane F. Brautigam, State Specifications Engineer at 414-4110.

Sincerely,

Signature on File

Duane F. Brautigam, P.E.
State Specifications Engineer

DFB/ft
Attachment
cc: General Counsel
Florida Transportation Builders' Assoc.
State Construction Engineer

OVERHEAD SIGN STRUCTURES

(REV ~~4-7-06~~*6-27-06*)

SUBARTICLE 700-2.4 (of the Supplemental Specifications) is expanded by the following new Subarticle:

700-2.4.3 Installation: *Install high strength ASTM A325 bolt, nut and washer assemblies for Span Sign Structure alternate splice connections in accordance with Section 460. Install nuts on anchor rod in accordance with ~~Section~~Article 649-5. Install all other bolt (ASTM A307 or substitute ASTM A325), nut and washer assemblies in accordance with the following: Use bolt, nut and washer assemblies that are free of rust and corrosion~~, and lubricate these assemblies prior to installation so that the nut moves freely by hand through the full length of the thread~~. Tighten nuts, as necessary, to bring the faying surfaces of the assembly into full contact from the interior of the connection outwards in a symmetrical pattern. After bringing the faying surfaces of the assembly into full contact, tighten nuts to achieve the minimum torque as specified in Table A. Within 24 hours after final tightening, the Engineer will witness a check of the minimum torque using a calibrated torque wrench for no less than 3 bolts and a minimum of 10% of the fastener assemblies for each connection.*

Table A	
Bolt Diameter (in.)	*Minimum Torque (ft.-lbs.)*
3/8	*15*
1/2	*37*
5/8	*74*
3/4	*120*
7/8	*190*
1	*275*
1 1/8	*375*
1 1/4	*525*

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Table A	
Bolt Diameter (in.)	Minimum Torque (ft.-lbs.)
3/8	15
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5/8	74
3/4	120
7/8	190
1	275
1 1/8	375
1 1/4	525