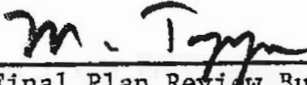


SUPERSEDED BY EI 87-038 EFFECTIVE 1/28/88	<h1>ENGINEERING INSTRUCTION</h1> <p>NEW YORK STATE DEPARTMENT OF TRANSPORTATION</p>	
	SUBJECT: SIGN STRUCTURES	
Subject Code: 644-1R1, 644-6R1		
Distribution:	31 Main Office 33 Regions 34 Special	Code: EI 85-4 Date: 1/11/85
APPROVED:  <u>M. Tezza, Final Plan Review Bureau, Civil Engr. V</u>		Supersedes: Supplements 83-4(1-19-83) & EI 84-044

Present policy detailed by the sign structure sheets distributed by EI 83-4 requires the use of double nuts on all flange bolts used in making the post-arm connections for overhead sign structures. This present policy covers both aluminum and galvanized steel arms. The Structures Division has recently reviewed this policy and has decided that it is unnecessary to double-nut high strength bolts when galvanized steel arms are being used. Therefore, Sheets SD644-1 and SD644-6 have been modified to incorporate these changes. Also S644-3.02, C-5 of the Standard Specifications of January 2, 1985 has been modified to reflect this change in the bolting specifications.

This Special Note will be added by the Final Plan Review Bureau as required beginning with the letting of June 27, 1985.

All Regions will be sent mylars to make reproducibles of these revised sheets.

PREL.	3
DESIGN	LANDSCAPE
FACILITY	DIVISION
JAN 1985	
CIRC.	FILE

SIGN STRUCTURES

Make the following changes to the Standard Specifications of January 2, 1985:

On page 6-77 under § 644-3.02C5 Bolting, delete paragraphs 1 and 2 and substitute the following:

"5. BOLTING. Steel-to-steel flange-bolted connections shall be made with bolts, nuts and washers meeting the material requirements of Article 715-14 and the galvanizing requirements of Article 719-01. Each bolt shall be furnished with two flat washers, one to be installed under the bolt head and one under the nut. The connections shall be made by first tightening all bolts to bring the components into full contact with each other. All bolts shall then be tightened to the "snug tight" value shown in TABLE 644-2. Finally, all nuts shall be rotated beyond "snug tight" by the value indicated in TABLE 1001.3b of the New York State Steel Construction Manual.

Aluminum-to-steel and aluminum-to-aluminum flange-bolted connections shall be made with bolts and nuts meeting the material requirements of Article 715-14 and the galvanizing requirements of Article 719-01. Each bolt shall be furnished with two stainless steel flat washers meeting the requirements of Article 715-16. One washer shall be installed under the bolt head and one under the nut. The connections shall be made by first tightening all bolts to bring the components into full contact with each other. All bolts shall then be tightened to the "snug tight" value shown in TABLE 644-2. Finally, all bolts shall have a second nut installed and sufficiently tightened against the first nut to lock the installation."