

THE ILLINOIS STATE TOLL HIGHWAY AUTHORITY

August 15, 2022

CONSTRUCTION BULLETIN No. 22-04

SUBJECT: Overhead Sign Structure and ITS Gantry Frame Bolt Connections

Construction Bulletin No. 22-04 updates Sections 733 and 740 of the Illinois Tollway Supplemental Specifications for active construction contracts to include lock nut bolts and peening at splice locations on overhead sign structures and ITS gantry frames. The revision language is outlined below.

- Adds new requirement to Overhead Sign Structure: Article 733.05(a) of the Illinois Tollway Supplemental Specifications 2021 and prior.
“(7) Bolts at the field splices and anchor bolts at the foundation shall be tightened with the Turn-of-the-Nut Method as per the Standard Specification. Lock nuts shall be provided for the field splice bolts. Bolts at the field splices and anchor bolts shall be peened after completion of tightening process to prevent the backing off or loosening of the connection.”
- Modify requirement to ITS Gantry Frame (Steel): Article 740.02(f) of the Illinois Tollway Supplemental Specifications 2022 and prior.
Bolts and Washers-All bolts, except anchor bolts, shall conform to the requirements of ASTM A325, Type 1(AASHTO M164). Lock nuts shall conform to the requirements of ASTM A194 GR. 8F or ASTM A194 GR. 2H. Heavy hex nuts for high strength steel bolts and high strength anchor bolts shall conform to ASTM A563 (AASHTO M291). Grade DH with Supplementary Requirements “S1” and “S2”. Washers shall conform to ASTM F436 (AASHTO M293). All bolts and locknuts shall be hot dip galvanized per AASHTO M232, except stainless steel fasteners, hex nuts and washers.
- Modify requirement to ITS Gantry Frame (Steel): Article 740.05(4) of the Illinois Tollway Supplemental Specifications 2022 and prior.
(4) Splice flange bolts shall be tightened per IDOT Standard Specification Article 505.04(f)(2)d Turn-of-the-Nut Method. Installation and inspection shall comply with this specification. Tightening shall be performed in a star pattern. The inspection verification data shall be provided to the Engineer. All turned nuts or heads shall be paint marked for visual inspection. Lock nuts shall be provided for the splice flange bolts. Bolts at the splice flange bolts and anchor bolts shall be peened after completion of tightening process to prevent the backing off or loosening of the connection.

Effective immediately, all active construction contracts with overhead sign structures or ITS gantry frames (steel) that do not include the revisions listed, shall follow these modifications.



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08/15/2022

Date