

Design Standards Letter

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Section: 102, 108, 403, 413, 702, 712, 1018, 1045, 1061, 1080, 1081

Subject: Revised Supplement to the 2025 Standard Specifications

TO: All Central and District Offices

FROM: Gidget Koestner

DATE: July 14, 2025

SUBJECT: Standard Specifications Letter No. 4, 2025

The Supplemental Revisions to the *2025 Missouri Standard Specifications for Highway Construction*, effective October 1, 2025, are now available on MoDOT's [website](#).

Questions regarding the Supplemental Revisions to the Missouri Standard Specifications should be directed to Gretchen Hanks, Central Office, Engineering Policy Services, at 573-472-9019 or myself at 573-751-6905.

MAJOR REVISIONS:

SECTION 403 ASPHALTIC CONCRETE PAVEMENT

Sec 403.13.1 Uneven Lanes. Change section title from “Paving Widths” to “Uneven Lanes”. Delete the first four sentences. In the new first sentence, add “For roadways constructed under traffic” before “uneven pavement”, add “lanes” between “uneven pavement” and “shall”, add “not” between “shall” and “be left in place” and delete “no” between “in place for” and “more than seven days”. Delete the last sentence.

SECTION 702 LOAD-BEARING PILES

Sec 702.2 Material. In the eighth row of the table, delete “ASTM A 27, Grade 65-35 or” before “ASTM A 148, Grade 90-60” from the second column.

Sec 702.4.5 Pile Point Reinforcement. In the table, delete the second row.

SECTION 712 STRUCTURAL STEEL CONSTRUCTION

Sec 712.7.1 Bolted Parts. In the sixth sentence, add “galvanized” between “All” and “nuts”, change “for coated high strength bolts” to “used with heavy hex bolts” and add “in accordance with ASTM A563 S2 or S3” to the end of the sentence. In the last sentence, delete “high strength” between “uncoated” and “bolts” and change “that is oily to the touch” to “in accordance with ASTM A563 S1”.

Sec 712.7.2 Snug Tightness of Connections. Add new third sentence, “When using the Combined Method of pre-tensioning, snug tight shall be further defined as the application of the installation tool to achieve the snug tight condition, using the tool output as demonstrated during preinstallation verification testing.”

Sec 712.7.3 Bolt Tension. In the second sentence, delete “or” between “712.7.6” and “712.7.7” and add “or 712.7.8” after “712.7.7”. In the table, add new second column, heading, subheading and values for Minimum Initial Bolt Tension. In the last column, revise heading and subheading for Minimum Final Bolt Tension. Add footnote (a) to the bottom of the table, “Applies to preinstallation verification testing when using the Combined Method of Pre-tensioning”.

Sec 712.7.4 Washers. In the second sentence, add “heavy hex head” between “All” and “fasteners”. Add new third sentence, “Round heads meeting the minimum dimensional requirements of ASTM F3148 do not require a washer under the head for oversized or short slotted holes.” Add new last sentence, “Direct tension indicators (DTI) washers will not be permitted.”

Sec 712.7.7 Twist Off Tension Control Bolt Method. Change section title from “Load Indicating Bolt Method” to “Twist Off Tension Control Bolt Method”.

Sec 712.7.8 Combined Method. Insert new section 712.7.8 Combined Method and renumber subsequent sections 712.7.8 through 712.7.12 to 712.7.9 through 712.7.13.

Sec 712.7.10 Bolt Tension Calibration Device. In the third sentence, add “or ASTM F3148 Annex A1, Method 2 Short Bolt Test Procedure, as applicable” to the end of the sentence.

Sec 712.7.11 Rotational-Capacity Testing. In the first sentence, change “3” to “three (3)” and add “except ASTM F3148 Grade 144 fixed spline bolts shall have pre-installation verification testing performed on three (3) bolt assemblies of each lot in accordance with ASTM F3148 Appendix X2 in lieu of rotational-capacity testing” to the end of the sentence.

Sec 712.7.12 Weathered Bolts. In the first and second sentences, change “712.7.10” to “712.7.11”. Add new last sentence, “Relubrication shall be performed by or at the direction of the manufacturer for ASTM F3148 Grade 144 and ASTM F3125 Grade 144 bolts, Grade F1852 (A325TC) and F2280 (A490TC) twist-off tension control bolts.”

Sec 712.7.13 Inspection. In the third sentence in subpart (b), add “using” between “the device” and “the measuring torque”. In the fourth sentence in subpart (b) and the first sentence in subpart (c), change “712.7.12” to “712.7.13”. In the second sentence in subpart (d), change “adjustment” to “setting” and add “process” between “calibration” and “shall not”.

SECTION 1018 FLY ASH FOR CONCRETE

Sec 1018.1 Scope. Delete “Portland cement”.

Sec 1018.2 General. In the last sentence, change “Class C or F” to “Class C, F or N”.

Sec 1018.2.1 (a) Change “Portland cement” to “Type IL cement” and delete “at” between “shall be” and “a minimum of”.

Sec 1018.2.1.1 Change “Portland cement” to “Type IL cement”.

Sec 1018.2.3 Change “supplies” to “suppliers” and change “in fly ash” to “of fly ash”.

Sec 1018.2.5 Add “a Type IL” before “in accordance with” and change “AASHTO M85” to “AASHTO M240”.

Sec 1018.4.1 (f) Add “and number of units producing fly ash meeting the specified requirements herein” to the end of the sentence.

Sec 1018.4.1 (j) In the first sentence, delete “obtained from the autosampler over a minimum of one production day” and add “MoDOT will request where the sample shall be obtained for approval” to the end of the first sentence.

Sec 1018.6.3 Shipping. Delete “via autosamplers”.

SECTION 1045 PAINT FOR STRUCTURAL STEEL

Sec 1045.10.1 Description. In the fourth sentence, add “the latest edition of the RCSC *Specification for Structural Joints Using High-Strength Bolts*” after “in accordance with” and delete “ASTM A325” before “Class B requirements”.

Sec 1045.11 High Solids Inorganic Ethyl Silicate Coating. Add as new section.

Sec 1045.11.1 Description. Add as new section.

Sec 1045.11.2 Manufacturer and Brand Name Approval. Add as new section.

SECTION 1061 ELECTRICAL CONDUCTORS

Sec 1061.2 Conductors. In the first sentence, replace “NEMA WC70/ICEA A-95-658” with “ANSI/NEMA WC70/ICEA S-95-658”.

Sec 1061.4 Low Voltage Power Cable. In the first sentence, add “with a temperature rating of 90° C in wet and dry environments” after “single conductor cable”, delete “thermoplastic or” before “thermosetting cross-linked”, and add “(XLP)” between “polyethylene” and “insulated”. In the third sentence, delete “THHN/THWN-2 or”. Add new fourth sentence “Cable used for service entrances shall be USE-2 rated.” In the table, delete the first row (table headings), delete the next 7 rows of data, and delete THHN from the second column of the ninth row (table headings).

Sec 1061.6 Pole and Bracket Cable. In the third sentence, delete “THHN/THWN-2 or”.

SECTION 1080 STRUCTURAL STEEL FABRICATION

Sec 1080.2 Material. In the table, add new specifications to High Strength Bolts, Nuts and Washers in the second column.

Sec 1080.2.5 High Strength Fastener Assemblies. In the second sentence, change “certification” to “certified test report”, add “the” between “showing” and “results” and delete “of tests performed” at the end of the sentence.

Sec 1080.2.5.1 Bolts. In the first sentence, add “144 or” between “Grade” and “A490 bolts” and add “or ASTM F3148 assemblies” between “A490 bolts” and “are specified”. In the second sentence, change “load indicator” to “twist-off tension control” and add “ASTM F3125 Grade F1852 (A325TC) or ASTM F3125 Grade F2280 (A490TC)” between “bolts” and “only a hex head”.

Sec 1080.2.5.1.1 Proof Load Tests. In the last sentence, add “or ASTM F3148” after “ASTM F3125” and delete “Grade A325”.

Sec 1080.2.5.1.2 Wedge Tests. In the third sentence, add “or ASTM F3148” after “ASTM F3125” and delete “Grade A325”. Delete the last sentence.

Sec 1080.2.5.2.1 Nut Grades. In the first sentence, delete “2” between “shall be grades” and “C, D or C3” and delete “2H” between “heat-treated grades” and “DH or DH3”. In the second sentence, delete “2H” between “heat-treated grades” and “DH or DH3”. Add “for use with ASTM F3125 Grade A325 Type 3 and grade DH3 for use with ASTM F3125 Grade 144 Type 3, A490 Type 3 or ASTM F3148 Grade 144 Type 3” to the end of the last sentence.

Sec 1080.2.5.2.3 Nut Lubrication. In the first sentence, delete “including ASTM A194 nuts”. Delete the second sentence and replace with “Galvanized nuts used with heavy hex bolts shall be properly lubricated with a visible water-soluble lubricant in accordance with ASTM A563 S2 or S3”. Add a third sentence, “All nuts for uncoated bolts shall be properly lubricated with a water-soluble lubricant in accordance with ASTM A563 S1”.

Sec 1080.2.5.3 Washers. Add new last sentence, “Direct tension indicators (DTI) washers will not be permitted.”

Sec 1080.2.5.4.1 Test Methods. Add “or ASTM F3148, as applicable” after “ASTM F3125” and delete “Grade A325”.

Sec 1080.2.5.4.2 Test Lots. In the last sentence, change “two” to “two (2)”.

Sec 1080.2.5.4.4 Minimum Rotation. In the second column of the table, add “and Grade 144 ASTM-F3148 Grade 144” after “ASTM F3125 Grade A325” in the heading.

1080.2.5.4.5 Required Tension. In the last sentence, add “144” after “ASTM F3125 Grade A325”, delete “ASTM F3125 Grade” before “A490” and add “and ASTM F3148 Grade 144” before “bolts shall be”. In the sixth row of the table, change the heading “ASTM F3125 Grade A490” to “ASTM F3125 Grade 144 or A490 or ASTM F3148 Grade 144”.

Sec 1080.2.10 Steel Stamping. Add new last sentence, “Plasma etching will not be permitted.”

1080.3.1.5 Office Space. In the fifth sentence, change “dial up computer capabilities” to “Wi-Fi or Ethernet connection to the internet”.

1080.3.3.2 Holes. Add new last sentence, “Thermal cutting of holes will not be permitted”.

1080.3.3.5.3 AWS Sec 2.8 Paragraph 2.8.1.1. In the second sentence, change “will” to “shall”.

1080.3.3.5.7 AWS Sec 3.3 Paragraph 3.3.8. Change section title from “AWS Sec 3.3.8” to “AWS Sec 3.3 Paragraph 3.3.8”. In the first sentence, change “Sec” to “Paragraph”.

1080.3.3.5.15 AWS Sec 6.1 Paragraph 6.1.6. Delete “(Fabrication@modot.mo.gov)”.

1080.3.3.10 Pin Holes. In the fourth sentence, add “bored/milled” between “diameter of” and “pin holes”.

SECTION 1081 COATING OF STRUCTURAL STEEL

Sec 1081.10.2 Systems of Coatings. In the table, add 4 new rows for Paint System L between “System I (High Solids, Zinc-Polysiloxane)” and “Aluminum & Gray Epoxy-Mastic Primer”. In the first new row, add “System L (High Solids, Zinc-Inorganic Ethyl Silicate)” as the heading. Add “Coating” to the second new row first column, add “Section” to the second new row second column and add “Dry Film Thickness, mils” to the second new row third column. Add “Inorganic Zinc Prime Coat” to the third new row first column, add “1045.3” to the third new row second column and add “3.0 min. to 6.0 max” to the third new row third column. Add “Inorganic Ethyl Silicate” to the fourth new row first column, add “1045.11” to the fourth new row second column and add “3.0 min. to 6.0 max” to the fourth new row third column.

Sec 1081.10.3.4 Limits of Coating Application. Add “and L” between “System I” and “hereinafter”.

Sec 1081.10.3.4.1.6 Add as new section.

Sec 1081.10.3.4.2.5 Add as new section.

Sec 1081.10.3.10.1 Contact Surfaces. In the third sentence, change “AISC” to “RCSC” and change “ASTM A 325 or A 490” to “High Strength”.

Sec 1081.10.3.11.4 Partial Applications. In the last sentence, change “within” to “with”.

Sec 1081.10.4 Recoating of Structural Steel (System G, H, I or L). Change section title from “Recoating of Structural Steel (System G, H or I)” to “Recoating of Structural Steel (System G, H, I or L)”.

MINOR REVISIONS:

SECTION 102 BIDDING REQUIREMENTS AND CONDITIONS

Sec 102.2 Contractor Questionnaire. In the fourth sentence, change “annually” to “as described in **Title 7 CSR 10-15.010**”.

Sec 102.2.2 Delete the first sentence. In the new first sentence, change “execute the affidavit, stating” to “sign the contractor questionnaire acknowledging”.

Sec 102.2.3 Modify first sentence by splitting into two sentences and add/delete text. “The prospective bidder doing business in the State of Missouri, shall submit the charter number with the contractor questionnaire. The entity must be in good standing on file with the Corporation Division of the Missouri Secretary of State's Office to be approved and successfully awarded a bid.”

Sec 102.2.4 Delete section.

Sec 102.2.5 Renumber to accommodate deleted section.

SECTION 108 PROSECUTION AND PROGRESS

Sec 108.13.1 At the end of the last sentence, add “including participating in, or formulating, bids” after “contracting responsibilities”.

SECTION 413 SURFACE TREATMENTS

Sec 413.10.3 Job Mix Formula. In the fourth row of the first table, change “seconds” to “minutes” between “Wet Cohesion @ 30” and “Min. (Set)” in the first column.

GJK/GFH