

Design Standards Letter

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Section: 108, 302, 304, 401, 402, 403, 501, 616, 806.30, 1005, 1017, 1019, 1026, 1033, 1041, 1042, 1049, 1060

Subject: Revised Supplement to the 2023 Standard Specifications

TO: All Central and District Offices

FROM: Amy Crawford

DATE: July 12, 2023

SUBJECT: Standard Specifications Letter No. 4, 2023

The Supplemental Revisions to the 2023 *Missouri Standard Specifications for Highway Construction*, effective October 1, 2023, are now available on MoDOT's [website](#).

Questions regarding the Supplemental Revisions to the Missouri Standard Specifications should be directed to Jen Haller, Central Office, Engineering Policy Services, at 573-526-2918 or myself at 573-751-6905.

MAJOR REVISIONS:

SECTION 108 PROSECUTION AND PROGRESS

Sec 108.1.1 Subletting of Contract. In the third sentence, change “40” to “30”, “total” to “original”, and change “cost” to “price”.

SECTION 304 AGGREGATE BASE COURSE

Sec 304.4.2 Quality Assurance. From the table in (c) remove the 1 ½, ¾, No. 8, No. 10, No. 40 and No. 100 Sieve and Tolerances. Increase the tolerance to “6.0” for the 1-inch, ½ inch and No. 4 sieve. Increase No. 30 and No. 200 tolerances to “4.0” and “3.0”, respectively.

SECTION 401 PLANT MIX BITUMINOUS BASE AND PAVEMENT

Sec 401.7.1 Weather Limitations. Change terminology from “bituminous mixture” to “no mixtures” and add “the below 40 F temperature” limitation clause.

SECTION 402 PLANT MIX BITUMINOUS SURFACE LEVELING

Sec 402.10.1 Weather Limitations. Change terminology from “bituminous mixture” to “no mixtures” to coincide with Sec 401 changes.

SECTION 403 ASPHALTIC CONCRETE PAVEMENT

Sec 402.10.1 Weather Limitations. Add “the below 40 F temperature” limitation clause to coincide with Sec 401 changes.

SECTION 1005 AGGREGATE FOR CONCRETE

Sec 1005.2.1 In the second sentence, change “Items 5 and 6” to “the material passing No. 200 sieve (Gradations D and E), and thin or elongated materials”.

Sec 1005.2.1.2 In the second sentence, add “source samples, and production samples” between approval and shall. Also, change “be in accordance with the criteria below” to “meet the requirements below for Los Angeles abrasion, absorption and soundness”. Change the last sentence from “Source Approval and production samples shall also meet the following criteria” to “The absorption and soundness test results may be waived provided a durability factor of 75 percent or higher is achieved”. Modify table to add lower limits to the values, add a second superscript to the Durability Factor.

Sec 1005.2.4 Add as new section.

Sec 1005.2.4 and Sec 1005.2.5 Increase Sec numbering by one to accommodate for new Sec 1005.2.4.

MINOR REVISIONS:

SECTION 302 STABILIZED PERMEABLE BASE

Sec 302.2 Material. Add “Type IL or” in front of Portland Cement in the table.

Sec 302.2.3 Cement Stabilized Permeable Base. Change “ground granulated blast furnace slag” to “slag cement” to coincide with Sec 1017 changes.

SECTION 501 CONCRETE

Sec 501.2, 501.3.6, 501.14, 501.14.2, 501.14.5, 501.14.8, 501.14.12, 501.15.1 Change all referenced from “Ground Granulated Blast Furnace Slag (GGBFS)” to “Slag cement” to coincide with Sec 1017 changes.

Sec 501.2.1 Aggregate Acceptance. Add “Type IL or” in front of “Portland cement”.

Sec 501.3.1 Required Information. Add “Type IL or” in front of “Portland cement”.

Sec 501.3.6 Cement Factors. Add “Type IL or” in front of “Portland cement”.

Sec 501.3.10 Air Content. Add as new section.

Sec 501.14 Supplementary Cementitious Materials in Concrete.. Add “Type IL or” in front of “Portland cement”.

Sec 501.14.2 Slag Cement. Add “Type IL or” in front of “Portland cement”.

Sec 501.14.3 Silica Fume. Add “Type IL or” in front of “Portland cement”.

Sec 501.14.4 Metakaolin. Add “Type IL or” in front of “Portland cement”.

SECTION 616 TEMPORARY TRAFFIC CONTROL

Sec 616.5.1 Amber or Amber and White Warning Lights. From the first sentence delete “having 360 degrees of total coverage”. Add new bullet “Lighting shall be visible to approaching traffic from front, rear and sides.” Combine previous first bullet with second bullet. Add third bullet “Lighting display will be high intensity rotating, flashing, oscillating or strobe lights”.

SECTION 806.30 TEMPORARY DITCH AND INLET CHECKS

Sec 806.30.2.2.1 Add as new section.

Sec 806.30.2.2.1 Renumber to accommodate new section.

Sec 806.30.2.4 Curb Inlet Checks. Add “Compost filter socks used for curb inlet checks shall meet the requirements of AASHTO R51.” as new third sentence.

SECTION 806.70 SILT FENCE

Sec 806.70.3.2 Alternate Fence Types. Expand the section to further clarify what is allowed and how acceptance is achieved.

SECTION 1017 GROUND GRANULATED BLAST FURNACE SLAG

Sec 1017. Change all references of “ground granulated blast furnace slag” or “GGBFS” to “slag cement” including the Section title.

Sec 1017.1 Scope. Delete “Portland cement” from the sentence.

Sec 1017.2.1 Change “use with” to “utilized as a blend according to” and change “M85, Type I or Type II Portland cement, unless otherwise directed by the engineer” to “240 and Sec 1019”.

Sec 1017.3.1.2 (b) Delete “and percent sulfate ion (SO₃)” from the second sentence.

SECTION 1019 CEMENT

Sec 1019.2.1 Portland Cement. Delete “with the following modifications” and subpart (a) from the section.

Sec 1019.2.4 Other Cements. Delete section title and first sentence. Add “manufacturers and/or” in front of types in both parts of the sentence.

Sec 1019.2.5 Sack or Bag. Change “will be considered to be” to “equals”.

SECTION 1026 REINFORCED CONCRETE CULVERT PIPE

Sec 1026.3.2 Cement. Change “GGBFS” to “slag cement” to coincide with Sec 1017 changes. Change “Type I” to “Type IL” and change “II” to “Portland”. In the last sentence, delete “steel” and add “cement” after slag.

SECTION 1033 PRECAST DRAINAGE UNITS

Sec 1033.3.1 Cement. Change “GGBFS” to “slag cement” to coincide with Sec 1017 changes.

Sec 1033.3.3 Slag Cement. Change “GGBFS” to “slag cement” to coincide with Sec 1017 changes.

SECTION 1041 POLYPROPYLENE CULVERT PIPE

Sec 1041.3 Material. Change the ASTM references to “AASHTO M330, Type S or Type D”

Sec 1041.3.1 Add “Type S” under Double Wall and “Type D” under Triple Wall in the table descriptions.

Sec 1041.4.1 Application for Placement on Qualified List. Update content throughout *Sec 1041.5 MoDOT Identification Number* on how to be in accordance with the NTPEP process.

SECTION 1042 HIGHWAY SIGN MATERIAL

Sec 1042.2.7 Retroreflective Sheeting. Delete the second sentence, “Color and luminance values for all MoDOT types of reflective sheeting shall be in accordance with ASTM D 4956.”

Sec 1042.2.7.2 Sign Sheeting. Delete the specific fluorescent references in the second sentence. Delete the last sentence regarding “high intensity”. Add “fluorescent sheeting in accordance with” in front of “ASTM D 4956” in the second sentence.

Sec 1042.2.7.3 Channelizers. In the first sentence, change “channelizers” to “trim-like”, and change “IX or XI” to “IV”. Add “and white” behind orange, and in front of sheeting in the first sentence. Delete “and in accordance with ASTM D 4956 Type IV for orange or white sheeting” at the end of the first sentence.

Sec 1042.2.7.6 Delete the last sentence, “Retroreflective sheeting shall be an unmetallized cube corner microprismatic reflective material”.

SECTION 1049 PRECAST CONCRETE BOX CULVERTS

Sec 1049.3.3 Slag Cement. Update title and content from “ground granulated blast furnace” to “slag cement” to coincide with Sec 1017 updates.

SECTION 1060 ELECTRICAL CONDUIT

Sec 1060.3.2.2 High Density Polyethylene Conduit. Change ASTM reference from “D 3035” to “F 2160”.

Sec 1060.3.2.4 Fittings for High Density Polyethylene Conduit. Change ASTM reference from “D 2683” to “D 3350”.

ABC/JNH