**Design Standards Letter**

**Letter Number: S-2022-03**

**Letter Date: 04/19/2022**

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**Section: 109, 304, 403, 608, 612, 616, 617, 801, 802, 805, 806, 903, 1044, 1063, 1064, 1080**

**Subject: New Publication of the 2022 Standard Specifications**

**TO:** All Central and District Offices

**FROM:** Sarah Kleinschmit

**DATE:** April 19, 2022

**SUBJECT:** Standard Specifications Letter No. 3, 2022

The Supplemental Revisions to the *2021 Missouri Standard Specifications for Highway Construction* are now included in the new publication of the *2022 Missouri Standard Specification for Highway Construction* along with the following additional revisions listed below. The *2022 Missouri Standard Specifications for Highway Construction* effective July 1, 2022 is now available on MoDOT’s website.

Questions regarding the Supplemental Revisions to the Missouri Standard Specification should be directed to Jen Haller, Central Office, Engineering Policy Services, at 573-526-2918 or myself at 573-751-7412.

**MAJOR REVISIONS:**

**SECTION 304 AGGREGATE BASE COURSE**

*Sec 304.4.3 Small Quantities.* Add as new section.

**SECTION 403 ASPHALTIC CONCRETE PAVEMENT**

*Sec 403.19.2 Lots.* Add “and no more than 28 sublots” to the end of the first sentence. Change the second sentence from “of” to read “shall be” 1,000 tons. Add “totaling less than 4,000 tons” behind “incomplete lots” in the third sentence.

**SECTION 612 IMPACT ATTENUATORS**

*Sec 612.3 Safety Requirements.* Add sunset dates for Non MASH 2016 devices. Add the following as a new third sentence “All impact attenuators manufactured after January 1, 2023 shall meet MASH 2016 Test Level 3 crash test requirements”. In the last sentence change “and have received FHWA acceptance” to “or MASH 2016 Test Level 3”.

**SECTION 616 TEMPORARY TRAFFIC CONTROL**

*Sec 616.3.2* Add sunset dates for Non MASH 2016 devices. Add requirements for Category 2 and Category 3 temporary traffic control devices and appurtenances manufactured after January 1, 2023.

**SECTION 617 CONCRETE TRAFFIC BARRIER**

*Sec 617.20.1* Add “three-loop” between Type F and concrete of the last sentence. Remove “and has FHWA acceptance” from the last sentence.

*Sec 617.20.2.2* Change to “Use of two-loop temporary Type F concrete traffic barrier shall not be allowed after January 1, 2023”.

*Sec 617.20.2.2.1- 617.20.2.2.2* Delete Sections.

*Sec 617.20.3 Certification.*  Add sunset dates for Non MASH 2016 temporary barriers. Add crash test requirements for barrier manufactured after January 1, 2023.

**SECTION 801 LIME AND FERTILIZER**

*Sec 801.2.3* Add “Missouri Standard Plans for Highway Construction” as a place of reference.

*Sec 801.4 Construction Requirements.* Updated section to modern practices and provided guidance on new regions established statewide.

*Sec 801.5-801.6* Change method to no direct payment for lime or fertilizer.

**SECTION 802 MULCHING**

Add new construction requirements. Add Method of Measurement and Basis of Payment parameters.

**SECTION 805 SEEDING**

*Sec 805.2* Add additional types of seed requirement and wildflowers.

*Sec 805.2.3* Delete last sentence.

*Sec 805.2.3.2* Add as new section.

*Sec 805.3 Construction Requirements.* Add language to include cool season and warm season grass parameters.

*Sec 805.3 Acceptance.* Further defined cool season versus warm season acceptance.

*Sec 805.5 Time Exception.* Add as new section.

*Sec 805.5-805.8* Renumber to accommodate new section.

*Sec 805.9 Basis of Payment.* Add the following two sentences at the end of the section “The cost of lime and fertilizer will be considered included in the cost of seeding. Payment for mulch will be made separately in accordance with Sec 802.”

**SECTION 806 POLLUTION, EROSION AND SEDIMENT CONTROL**

*Sec 806.50* Delete “And Mulching” from the name. Section rewritten to exclude mulching as it was added as a new pay item in Sec 802.

**SECTION 903 HIGHWAY SIGNING**

*Sec 903.2.1* Add “Perforated Square Steel Tube Posts” as a new item with reference to Section 1044 in the table.

*Sec 903.3.1.1* Add “Bolt-down footings and end supports are those in which anchor bolts are cast into the footing, such as for overhead sign trusses and tubular steel sign supports” as new first sentence. In the second sentence replace “all footings and end supports for overhead sign trusses, tubular steel sign supports and posts with bolt-down bases” with “bolt-down footings”.

*Sec 903.3.1.2* Add “Embedded installations are defined as footings for pipe posts and structural steel posts only” as new first sentence. In the second sentence, add “or prepackaged dry commercial concrete mixture meeting the requirements of Sec 903.3.1.2.1” after the Sec 501 reference. Remove “except as otherwise allowed herein” from the end of the second sentence.

*Sec 903.3.1.2.1* Remove “In lieu of concrete material requirements in Sec 903.3.1.2., the contractor may use a” and start sentence with “Pre-packaged”. Replace “that has” with “used for embedded footings shall have” after “concrete mixture” in the second sentence.

*Sec 903.3.1.2.2* Delete Section.

*Sec 903.3.1.3* Add as new section.

*Sec 903.3.1.3.1* Add as new section.

*Sec 903.3.1.3 Optional Footings.* Renumber section and subsections to reference *Sec 903.3.1.4* due to adding new 903.3.1.3 section.

*Sec 903.3.2.2.3* Add “(PSST)” as the acronym in the first sentence. Add “A six foot 2.25” PSST insert shall be installed inside the 2.5” PSST post, above the breakaway assembly, when required per the plans” as the last sentence.

*Sec 903.3.2.3* Remove “three copies of” from the first sentence.

*Sec 903.3.3.2* Remove “three copies of” from the first sentence.

*Sec 903.5 Method of Measurement* In the second paragraph, further defined the payment for bolt-down and embedded footings. Add “No measurement will be made for concrete of polyurethane foam used in footings for perforated square steel tube posts (PSST)” as the last sentence.

*Sec 903.5.4* Add as new section.

*Sec 903.6.4*Add (PSST) in the first sentence. Add “PSST post anchor installations will be paid for separately for each anchor type. All costs for PSST footing installations shall be considered included in the cost of the post anchor” to the end of the section.

*Sec 903.6.5* Add “for bolt-down and embedded installations” in the first sentence behind concrete footings. Add details on what is considered included in the payment.

**SECTION 1044 POSTS FOR MARKERS AND DELINEATORS**

*Sec 1044.1* Delete “signs” following the word markers.

*Sec 1044.4* Renamed section to current terminology “Perforated Square Steel Tube”

*Sec 1044.4.2.3* Renamed table to current terminology “Perforated Square Steel Tube”

*Sec 1044.4.6 Bases.* Delete Section.

*Sec 1044.4.7* Renumber to Sec 1044.4.6.

*Sec 1044.4.8* Renumber to Sec 1044.4.7.

**SECTION 1063 TEMPORARY TRAFFIC CONTROL DEVICES**

*Sec 1063.2* Add sunset dates for Non MASH 2016 devices. Add requirements for Category 2 and Category 3 temporary traffic control devices and appurtenances manufactured after January 1, 2023.

*Sec 1063.11 Truck or Trail Mounted Attenuators.* Delete the first sentence.

**SECTION 1064 TEMPORARY TRAFFIC BARRIER**

*Sec 1064.2.1.2* Change to “Use of two-loop temporary Type F concrete traffic barrier shall not be allowed after January 1, 2023”.

*Sec 1064.3.1 Approval.*  Change “manufacturer” to “contractor” in the first sentence. Remove “a copy of the FHWA acceptance letter” from the last sentence.

**MINOR REVISIONS:**

**SECTION 109 measurement and payment**

*Sec 109.14.* Add the following sentence to the end of the section “Price adjustment for fuel shall only apply to items that are defined in the table below and listed in the Listing of Bid Items for Highway Construction at the time of bid. Non-standard bid items shall not be subject to price adjustment for fuel unless specified elsewhere in the contract”.

**SECTION 608 CONCRETE MEDIAN, MEDIAN STRIP, SIDEWALK, CURB RAMPS, STEPS AND PAVED APPROACHES**

*Sec 608.2.1.* Add the inadvertently omitted “Pavement concrete or” as an option of construction material.

*Sec 608.2.2.* In the last sentence, change “Class B” concrete to “Class B-1” to coincide with the strength requirements in 608.3.7.

**SECTION 1080 STRUCTURAL STEEL FABRICATION**

*Sec 1080.3.3.5.12* Add “or ultrasonic” in the first sentence between radiographic and quality.

*Sec 1080.3.3.5.16* Define Radiographic inspection as “(RT)” and add the following reference “with RT acceptance or rejection criteria based on 2002 AWS D1.5 Table 6.8 Tension Welds”. Add the definition of ultrasonic testing “(UT)” and add “with UT acceptance or rejection criteria based on 2002 AWS D1.5 Table 6.3 Tension Stress.” Add “on expansion devices” following the connection brackets. Format the last paragraph as the last bullet “(d)”.

SKK/JNH