

## **2016 PROPOSED REVISIONS TO MAG SPECIFICATIONS AND DETAILS**

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### RECOMMENDATION SUMMARY OF THE MARICOPA ASSOCIATION OF GOVERNMENTS STANDARD SPECIFICATIONS AND DETAILS COMMITTEE

October 3, 2016

Detailed information about each case is provided on the 2016 Specs and Details Cases Under Consideration page on the MAG website.

<http://www.azmag.gov/Projects/Project.asp?CMSID=1055&CMSID2=8465>

Most case files include a cover memo listing the purpose of each case and proposed changes. The final version of the working cases are posted, which often include the strike-through changes and other discussion points.

Further discussion on the cases is available in the committee meeting minutes which are posted separately for each meeting. Links can be found on the Standard Specifications & Details Committee page.

<http://www.azmag.gov/Committees/Committee.asp?CMSID=1055>

Final summary materials for review of the 2017 Revision to the 2015 Edition of the MAG Specifications and Details for Public Works Construction manual including detailed attendance and voting records are posted on the Specifications & Details Public Works Directors Review Deadline page.

<http://www.azmag.gov/Events/Event.asp?CMSID=11564>



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CASE	DESCRIPTION	PROPOSED BY	MEMBER	SUBMITTAL DATE Last Revision	VOTE DATE	VOTE		
	<b>CARRY FORWARD CASES FROM 2015</b>							
15-05	Case 15-05: Proposed Revisions to Section 616 Reclaimed Water Line Construction and new Reclaimed Valve Box Detail 271. Update Detail 270.	Chandler	Warren White	03/04/2015 04/06/2016	Voted: 04/06/2016	10 0 2	Yes No Abstain	
Summary	The purpose of the case was to incorporate a square frame and cover intended for reclaimed water valve construction that meets ADEQ requirements. A new Detail 271 was drafted for Square Frame and Cover and Grade Adjustment. (See detail in packet.) The option for using a purple cover was included. The case also made minor changes to existing Detail 270, and to Section 616 Reclaimed Water Line Construction in 616.2 Materials adding, "Frame and cover shall be in accordance with Detail 271, or per Agency requirements."							
15-10	Case 15-10: Add subsection 321.10.5.3 "Rehabilitation Work" into the MAG Specifications.	Materials WG	Brain Gallimore	06/03/2015 07/23/2015	Withdrawn 02/03/2016	0 0 0	Yes No Abstain	
Summary	The purpose of this case was to introduce language in Section 321 Asphalt Concrete to handle issues with rehabilitation work where the subgrade is not replaced. Due to feedback from agency members in the working group and committee meetings, it was determined that these situations would be better handled on a per-case basis with the agencies rather than changing the specifications, so the case was withdrawn.							
15-13	Case 15-13: Add text to Section 725.6 to identify what to include in a concrete mix design submittal.	Concrete WG	Jeff Hearne	06/03/2015 04/21/2016	Voted: 07/06/2016	14 0 0	Yes No Abstain	
Summary	This case proposed adding language on what should be in a concrete mix design submittal, similar to what is required for asphalt mix designs. The following language was added as the second paragraph of 725.6 MIX DESIGN PROPORTIONING: "A concrete mix design submittal shall include the mix identification number and the applicable proportions, weights, and quantities of individual materials incorporated into the mix including the size and source of concrete aggregates, the type and source of cement and fly ash or SCM, and the brand and designation of chemical admixtures or other additives."							

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NEW CASES FOR 2016							
16-01	<p><b>Case 16-01: Miscellaneous Corrections:</b></p> <p>A. Revise Table 310-1 by deleting “or gradation deficiency” from the Deficiency column for Type IV.</p> <p>B. Correct arrow placement on Detail 507: Encased Concrete Pipe</p> <p>C. Add bullets back into Table 608-2 to make sure Item 3. Surface Survey is included in medium and large projects.</p> <p>D. Modify Section 415.2 Material of Section 415 Flexible Metal Guardrail to require Type IV, Class A railing. (From Case 16-07)</p> <p>E. Correct Chain Link Fence Post Discrepancy. The required diameter for a 6’ chain link fence line post is 2” per Table 772-1 and 1.5” per Detail 160.</p>	MCDOT	Bob Herz, Arvid Veidmark	01/06/2016 08/23/2016	Voted: 09/06/2016	13 0 0	Yes No Abstain
Summary	This case gathered minor corrections or changes including typographic, spelling, and drafting errors that did not require a separate case to explain. The list of corrections (A-E) is shown in the row above.						
16-02	<p>Case 16-02: Add requirements for certificate of compliance and certificate of analysis. Add Section 106.2.1 Certificate of Compliance, add Section 106.2.2 Certificate of Analysis, and modify Section 717.2.1.2 Crumb Rubber.</p>	MCDOT	Bob Herz	01/06/2016 07/06/2016	Voted: 09/06/2016	13 0 0	Yes No Abstain
Summary	The purpose of this case was to define the requirements for a Certificate of Compliance and a Certificate of Analysis referenced in Section 106.2 and also modify section 717.2.1.2 Crumb Rubber to delete references to ADOT specifications for certificates of compliance. MAG currently did not have a definition of these certificates, so language was added based on a modified version of ADOT’s requirements. The case added Section 106.2.1 Certificate of Compliance, and Section 106.2.2 Certificate of Analysis, modified Section 717.2.1.2 Crumb Rubber, and modified other various locations within the specifications to have the submission of certificates to the Engineer to be “upon request.” These included the following Sections: 309.2.3, 322.2, 331.2, 505.5.4.2, 505.6.3.3, 711.3, 725.2, 725.2.1, 727.1, 729.3, and 796.3.						
16-03	<p>Case 16-03: Revision to Detail 251 RETURN TYPE DRIVEWAYS.</p> <p>Adjust concrete thickness and concrete class for commercial and industrial driveways to match requirements shown on Detail 250.</p>	MCDOT	Bob Herz	01/06/2016 02/04/2016	Voted: 04/06/2016	12 0 0	Yes No Abstain
Summary	Detail 251 was revised to match changes previously made to Detail 250. The changes included the concrete thickness (5” residential and 9” commercial/industrial) and class of concrete (Type B for residential and Type A for commercial). See Detail 251 in draft update packet.						

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16-04	Case 16-04: Review and adjust Section 340.2.1 for withdrawn ASTM C1028 reference.	MCDOT	Bob Herz	02/03/2016 02/04/2016	Voted: 04/06/2016	12 0 0	Yes No Abstain
Summary	This case made revisions to Section 340.2.1 Detectable Warnings. ASTM C1028 (a test method for determining the static coefficient of friction) was withdrawn in 2014 without replacement. Section 340.2.1 was revised to remove the reference to C1028, and updated to clarify the language and meet current requirements.						
16-05	Case 16-05: Dual Curb Ramps. New Details 236-1, 236-2, 236-3, 237-1, 237-2, 237-3, and revise Section 340.3.9 Tolerances and 340.5 Measurement.	Chandler/ Curb Ramp WG	Warren White	03/02/2016 08/22/2016	Voted: 09/06/2016	12 0 1	Yes No Abstain
Summary	The case's purpose is to incorporate new standard details for dual curb ramps (radial and directional) meeting latest ADA requirements, and to make revisions to Section 340 for maximum grade allowances and measurement. The intention is for construction details to have the "build to" slopes/grades that will allow for tolerance while the specification provides the maximum limits for acceptance. The details include both radial and directional dual curb ramps for 25'-35' radius intersections with variations for both detached and attached sidewalks. Additional details for 20' radius intersections were also developed. See packet for Details 236-1, 236-2, 236-3, 237-1, 237-2, and 237-3.						
16-06	Case 16-06: Update Section 727 Steel Reinforcement to replace withdrawn ASTM A82 and A185 with ASTM A1064.	MCDOT	Bob Herz	04/06/2016	Voted: 05/04/2016	15 0 1	Yes No Abstain
Summary	The purpose of the case was to update to Section 727 Steel Reinforcement to use current ASTM references. ASTM A82 and ASTM A185 have been withdrawn and replaced by ASTM A1064. The case also deletes referenced ASTM B670 (Standard Specification for Precipitation-Hardening Nickel Alloy (UNS N07718) Plate, Sheet, and Strip for High-Temperature Service), it is spurious and does not apply. Other minor revisions to Section 727 were also made.						
16-07	Case 16-07: Add Atmospheric Corrosion Resistance Low-Alloy Steel (Corten steel) to the Material portion of Section 415 Flexible Metal Guardrail.	MCDOT	Bob Herz	04/06/2016 04/26/2016	Voted: 05/04/2016	15 0 1	Yes No Abstain
Summary	The purpose of this case was to update to Section 415 Flexible Metal Guardrail to add Atmospheric Corrosion Resistance Low-Alloy Steel (COR-TEN steel) to the materials portion of Section 415 Flexible Metal Guardrail. The following section was added to 415.2, "Guardrail specified to be constructed with weathering steel (sometimes called Corten steel) shall conform to the requirements of AASHTO M 180, Type IV, Class A and use ASTM A588 steel." (Case 16-01 modified the original Class A option to Class B due to material availability.)						

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16-08	Case 16-08: Separate Valve box Installation and Grade Adjustment. Revise Detail 391-2 to remove Valve Stem extension drawing. Create new Detail 393 for the Valve Stem Extension. Also revise Details 391-1 and 270.	Buckeye Water/Sewer WG	Craig Sharp	05/04/2016 08/15/2016	Voted: 09/06/2016	13 0 0	Yes No Abstain
Summary	The case created a new Detail 393 Water Valve Extension, and updated existing details. The valve adjustment and valve extension should be two separate details. This case separated and updated the two details. While separating the valve extension details from the valve adjustment detail, the committee decided to revise the other adjustment Details 391-1 and 391-2, as well as the original Detail 270. This was done to make them more consistent, and also standardized throughout such as including rebar in the concrete collars. Details are provided in the draft update packet.						
16-09	Case 16-09: Revisions to Section 710 to remove low volume Gyratory and Marshall mixes.	Asphalt WG	Greg Groneberg	05/04/2016 06/20/2016	Voted: 07/06/2016	14 0 0	Yes No Abstain
Summary	The case removes references to high and low volume mixes both for Gyratory and Marshall mixes in Section 710. Currently the mix design is the same for both high and low volume options, so separating them just creates confusion and increased paperwork. While updating this section, the committee also removed references to the superpave mix which is no longer used. The revision included several minor text changes as well as revisions to Tables 710-1, 710-2, 710-3, and 710-4.						
16-10	Case 16-10: Proposed new Sections 719 and 326. New POLYMER MODIFIED ASPHALT CONCRETE—Material and Placement Specifications.	Asphalt WG	Greg Groneberg	06/01/2016 08/23/2016	Voted: 09/06/2016	13 0 0	Yes No Abstain
Summary	This case created added materials and construction specifications for the use of Polymer Modified Asphalt Concrete. The new Section 719 is based on Section 710, but modified for this specific material. One example is the existing terminal blend rubber material. Some differences (for example) included in Table 719-1, the ½” band is proposed as 90-100 and the 3/8” band at 75-90. This was needed to free up some voids for the extra oil. Other modifications were made to reflect the properties of the Polymer Modified Asphalt as needed. Similarly, a new Section 326 was created based on existing Section 321, but modified for placing this material and removing unrelated language.						
16-11	Case 16-11: Update Section 309 Lime Stabilization or Modification of Subgrade	MCDOT	Bob Herz	06/01/2016 08/03/2016	Voted: 09/06/2016	13 0 0	Yes No Abstain
Summary	The purpose of the case was to update to Section 309 Lime Stabilization or Modification of Subgrade to eliminate reference to AASHTO T-26 which has been discontinued. This adjustment only affects Section 309.2 MATERIALS and Section 309.3 COMPOSITION. Without an AASHTO reference, new language for the pH testing of water was added: "The pH (hydrogen ion concentration) of water to be used during construction for mixing or curing shall be within the range of 6.0 to 8.5. The procedure for determining pH values shall be based on the test apparatus used, the test apparatus may use either an electrometric or colorimetric method. The testing procedure shall be in accordance with the methods and instructions furnished by the manufacturer of the apparatus."						

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16-12	Case 16-12: Revision to Alteration of Work Section 104.2.1	MCDOT	Bob Herz	06/01/2016	Withdrawn 07/06/2016	0 0 0	Yes No Abstain
Summary	This case was introduced to incorporate Maricopa County DOT language for alteration of work into Section 104.2.1 to provide stronger protection. This case was later withdrawn upon the request of the sponsor.						
16-13	Case 16-13: Proposed New Detail 115 Temporary Site Access with Trackout Pad	MCDOT	Bob Herz	06/01/2016 08/05/2016	Withdrawn 08/29/2016	0 0 0	Yes No Abstain
Summary	A new detail was developed with the goal of reducing the trackout of dust and gravel onto roads using a temporary track-out pad. There were concerns on when this detail would be required, and the additional cost for developers. This case was withdrawn upon the request of the sponsor.						
16-14	Case 16-14: Proposed revisions to water meter box and cover details. Revised Details 310-314, 320 and add new Detail 315 for polymer concrete meter box covers.	Chandler/ Water/Sewer WG	Warren White	06/01/2016 08/23/2016	Voted: 09/06/2016	13 0 0	Yes No Abstain
Summary	This case revised water meter box and cover Details 310, and 320, and created a new Detail 315 based on current practice and agency needs. It removed cast iron covers (311-314) which are no longer manufactured and added options for other materials to Detail 320 such as polymer concrete, sheet molded compound, bulk molded compound and polyethylene. (Covers, however, cannot be polyethylene or other plastics.) The dimensions and tolerances shall not vary more than 1/16 an inch to allow interchangeability of covers. The water meter box and covers now must meet a minimum load rating per tier 5 ANSI/SCTE77 testing standards. For load requirements above 5000 lbs, a new traffic rated box is required. (See case 16-15.) See details in packet.						
16-15	Case 16-15: Proposed new Detail 319 Traffic Rated Water Meter Box and Cover	Chandler/ Water/Sewer WG	Warren White	06/01/2016 08/29/2016	Voted: 09/06/2016	13 0 0	Yes No Abstain
Summary	This case created a new Detail 319 Traffic Rated Box and Cover due to the need for a box that can withstand continuous traffic, such as in streets, roads and alleys. It would also provide the option for driveways and other areas subject to heavy loads. The box and cover are provided together and must meet AASHTO H20 load rating. The boxes are stackable, and a concrete collar can be used if requested by the agency. The box sizes are based on current industry standards already being manufactured.						

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16-16	Case 16-16: Revision to Section 717. Change TSR method from AASHTO T-283 to ASTM D 4867 to be consistent with Section 710.	Asphalt WG	Greg Groneberg	07/06/2016 07/21/2016	Voted: 09/06/2016	13 0 0	Yes No Abstain
Summary	This case was introduced to change the TSR method from AASHTO T-283 to ASTM D4867 to make it consistent with Section 710. The only difference between the tests is the AASHTO test includes a freeze/thaw cycle which is unnecessary in this region. The changes were made in Table 717-5 and in Note 5 on the following page.						
16-17	Case 16-17: Revisions to Section 321: Address multiple concerns with testing for permit work.	Asphalt WG	Greg Groneberg	07/06/2016	Carry Forward	0 0 0	Yes No Abstain
Summary	This case was brought forward to address problems that have occurred with testing of permit work, and how retesting and the original test should be used to determine corrective actions if necessary. Additional work was needed, so this case was carried forward for additional discussion in 2017.						