

2020 PROPOSED REVISIONS TO MAG SPECIFICATIONS AND DETAILS

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

September 29, 2020

Detailed information about each case is provided on the *2020 Specs and Details Cases Under Consideration* page on the MAG website. <https://www.azmag.gov/Committees/Technical-Committees/Standard-Specifications-Details-Committee/2020-Specs-and-Details-Cases-Under-Consideration>

Some 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 to past meetings can be found on the Standard Specifications & Details Committee page. <http://www.azmag.gov/Committees/Technical-Committees/Standard-Specifications-Details-Committee>

Final summary materials for review of the 2020 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. <https://www.azmag.gov/Event/26773>



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CASE	DESCRIPTION	PROPOSED BY	MEMBER	SUBMITTAL DATE Last Revision	VOTE DATE	VOTE	
	CARRY FORWARD CASES FROM 2019						
19-04	Revisions to Section 360 Telecommunications Installation	Chandler	Warren White	04/03/2019 06/09/2020	Approved: 08/05/2020	9 0 0	Yes No Abstain
Summary	<p>Section 360 was rewritten and updated to meet current standards and practices. In 360.1, it now references the National Electric Safety Code (NESC), and a sentence was added to have pothole repairs per Detail 212 or per Detail 200-1, since some agencies use this latter method for larger repairs. In 360.2, (Trenching, Backfill and Restoration) it adds a reference to Section 336. Several changes were made to Section 360.3 (Installation), most notably that the telecom cables are installed within conduits, which is the standard practice. The second paragraph of this section references Section 608 for trenchless technology. The specification places conduits at a minimum depth of 48” below grade on arterial and collector streets and 36” for residential streets. A subsection on Conduit Identification and Detection was added. The case was also sent out to the Arizona Utility Coordinating Committee and utility companies for review and comment.</p>						
19-09	New Section 626 Corrosion Coating of Sanitary Sewer Manholes	Avondale/ Water/Sewer WG	Jim Badowich	07/03/2019 06/18/2020	Approved: 07/01/2020	9 0 0	Yes No Abstain
Summary	<p>This is a new section added to MAG based on the City of Phoenix supplement. The case was developed and reviewed by the Water/Sewer working group. The case modified the Phoenix specifications to make them more general for all MAG members, and removed references to specific manufacturers. It now states that “all new concrete manholes on 15-inch and larger diameter sanitary sewers; plus extending to and including one upstream manhole regardless of lateral size, shall have an internal corrosion coating applied. Drop manholes and force main manholes on 8-inch or larger diameter lines shall also be coated.” The spec has a Quality Assurance specification that requires a certification letter and 5-year warranty. It also has information on the type of products allowed, the execution (including cleaning, installation and testing), as well as measurement and payment. Testing requirement include the Holiday “Spark” tests, film thickness measurement, and adhesion tests on 15% of the manholes coated on any given project.</p>						
19-11	Revisions to Section 611 Add Sanitary Sewer Manhole Vacuum Testing	Avondale/ Water/Sewer WG	Jim Badowich	07/03/2019 06/18/2020	Approved: 07/01/2020	9 0 0	Yes No Abstain
Summary	<p>This is a new subsection of 611 based on a City of Phoenix supplement. Similar to Case 19-09, it was developed and reviewed by the Water/Sewer working group. It adds Section 611.5 Sanitary Sewer Manhole Testing, which includes negative air pressure (vacuum) testing of manholes performed in accordance with ASTM C1244, but modified for the time frames defined in a table. The times are determined by the depth and diameter of the manhole, and were originally based on times in the Phoenix supplement. The case also added to the Payment section that, “there will be no separate measurement or payment for this testing.” The remaining subsections of 611 were renumbered as required.</p>						

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CASE	DESCRIPTION	PROPOSED BY	MEMBER	SUBMITTAL DATE Last Revision	VOTE DATE	VOTE	
19-12	Revisions to Detail 550 Spillway Inlet and Outlet: Clarify geometry/dimensions	MCDOT	Karl Rockwell	07/03/2019 06/25/2020	Approved: 07/01/2020	9 0 0	Yes No Abstain
Summary	<p>The case sponsor said MCDOT surveyors had difficulty laying out the spillway because the control points were not clear based on the detail geometry. Detail 550 was cleaned up and dimensions were added to be able to more easily locate corner points. The dimensions from the plan view and section view now match.</p> <p>To provide a more stable structure and help counter erosion, 12" x 6" cut-off walls were added on the spillway section. Shading was added to the detail to differentiate the inlet and spillway sections, rather than using horizontal and vertical lines.</p>						
NEW CASES FOR 2020							
20-01	<p>Case 20-01: Miscellaneous Corrections</p> <p>A. Change "PAYMENT AREA" note on Detail 251 to "PAY ITEM AREA" and shade the area to avoid confusion.</p> <p>B. Change "DRAFT" to "REVISED" on Detail 505 title block.</p> <p>C. Make Section 787 Gray Iron Castings match manhole frame cover details. (Revised to show ASTM 48 Class 35 and AASHTO M306.)</p> <p>D. Delete unneeded tests from Tables 714-2 and 715-2.</p> <p>E. Correct typographic error in Detail 220-1, Note 1, to reference Section 340 instead of 304.</p> <p>F. Update size of weld beads on Detail 393 to match previous detail and manufacturer drawings.</p> <p>G. Change all occurrences of highlighted "storm sewer" to "storm drain" for consistency.</p>	Chandler, Phoenix, Avondale, Mesa, Buckeye, Scottsdale	Warren White, Jose Rodriguez, Jim Badowich, Ryan Nichols, Craig Sharp, Roy Herrington	01/08/2020 09/01/2020	Approved: 09/02/2020	9 0 0	Yes No Abstain
Summary	<p>The miscellaneous corrections case is added each year and compiles minor edits and clarifications as well as typographic, spelling, and drafting corrections.</p> <p>A summary of the changes A-G is shown above.</p>						

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CASE	DESCRIPTION	PROPOSED BY	MEMBER	SUBMITTAL DATE Last Revision	VOTE DATE	VOTE	
20-02	Delete Detail 346 Fire Line Detector Check Vault	Chandler	Warren White	03/04/2020 03/04/2020	Withdrawn: 08/05/2020	0 0 0	Yes No Abstain
Summary	Initially this case was brought forward to delete Detail 346 because most agencies do not use it, and it was out-of-date, referencing manufacturers no longer in business. However, before voting on its deletion, the representative from the City of Phoenix said they still use the detail. Rather than deleting the detail, the committee decided it was best to leave it in for now, until either it can be updated, or the City of Phoenix can add it to their supplements. Based on the discussion, the sponsor withdrew the case, and the chair referred it to the Outside Right-of-Way working group for further review.						
20-03	Revisions to Section 725 Portland Cement Concrete	Concrete Working Group	Jeff Hearne	03/04/2020 08/05/2020	Approved: 08/05/2020	9 0 0	Yes No Abstain
Summary	<p>Several subsections of Section 725 Portland Cement Concrete were updated as noted below:</p> <p>725.2 – Revision of the Low Alkali designation ASTM recently eliminated the Low Alkali (LA) designation, so MAG added directly in the specification, “Portland cement shall not contain more than 0.60 percent total equivalent alkalis.”</p> <p>725.6 – Revise mix design submittal process to every two years The City of Phoenix has already changed their requirements to two years, and other types of mix designs in MAG have a two-year submittal process. This updates the Portland cement concrete section to be consistent.</p> <p>725.9 (A) (2) – Increasing the maximum temperature limit to 95 degrees ACI 305, Hot Weather Concrete, had extended the limit to 95 degrees several years ago based on industry data and advances in mix designs. The modern use of admixtures can compensate for the higher temperature limit. This 95 degree limit has been used on Phoenix projects, and ADOT projects such as the Loop 202 South Mountain Freeway.</p> <p>725.9 (A) (4) – Increasing the maximum time limit over 90 minutes with the use of a hydration stabilizer The revised specification adds, “The 1 1/2 hours (90 minute) time limit may also be waived if the mix design incorporates a hydration stabilizing admixture at the sufficient dosage to slow down hydration in order to permit additional transit/placement time. The dosage and associated additional time shall be noted on the delivery ticket. The additional discharge time shall not exceed the maximum additional time based on the dosage noted on the approved mix design or delivery ticket. It is the Contractor’s responsibility to obtain approval for additional discharge time from the Engineer prior to concrete placement.”</p>						

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CASE	DESCRIPTION	PROPOSED BY	MEMBER	SUBMITTAL DATE Last Revision	VOTE DATE	VOTE	
20-04	New Section 303 Pervious Concrete Base Coarse, Revisions to Section 323 Pervious Concrete, and a new Pervious Concrete Pavement Detail 228	Scottsdale, Outside ROW Group	Roy Herrington	07/01/2020 08/10/2020	Approved: 09/02/2020	9 0 0	Yes No Abstain
Summary	<p>This case adds a new Section 303 for the base coarse materials and installation specifications for pervious concrete projects as well as a new detail with construction section views. The case also makes minor updates to Section 323 Pervious Concrete including references to the new Section 303. The case was developed and reviewed by the Outside Right-of-Way and Concrete/Materials working groups. Although the base for pervious concrete projects is typically designed based on the drainage/water storage needs of the project, Section 303 provides typical materials used and construction methods based on pervious concrete projects done in the region including several park and ride lots. The specifications were reviewed, and input was provided by local contractors and industry representatives.</p> <p>Specifically, in Section 303, typical aggregate sizes, compaction requirements, and void content requirements were specified, which is important to provide for the drainage these systems require. The aggregates chosen were based on national standards, availability of materials, and those successfully used in local projects. In Section 323, there were some minor changes such as updating the ASTM reference from C140 to C1754. The Pervious Concrete Pavement Detail 228 was created to provide guidance for a generic construction application. The detail provides section views for projects designed for light traffic and pedestrian areas.</p>						