

MEETING MINUTES FROM THE
MARICOPA ASSOCIATION OF GOVERNMENTS
STANDARD SPECIFICATIONS AND DETAILS COMMITTEE

September 3, 2014

Maricopa Association of Governments Office, Ironwood Room
302 North First Avenue
Phoenix, Arizona

AGENCY MEMBERS

Jim Badowich, Avondale, Vice Chair	Julie Christoph, Mesa
Al Gonzales, Buckeye (proxy)	Dan Nissen, Peoria
Warren White, Chandler	Syd Anderson, Phoenix (St. Trans.)
Antonio Hernandez, El Mirage	Jami Erickson, Phoenix (Water)
* Wayne Costa, Florence	Rod Ramos, Scottsdale
* Tom Condit, Gilbert	Dan Shaffer, Surprise
Mark Ivanich, Glendale	Tom Wilhite, Tempe, Chair
* Tom Vassalo, Goodyear	Harvey Estrada, Valley Metro (audio)
Bob Herz, MCDOT	Gregory Arrington, Youngtown

ADVISORY MEMBERS

Jeff Benedict, ARPA	Jeff Hearne, ARPA
* Arvid Veidmark, AZUCA	Peter Kandarlis, Independent
Mike Sanders, AZUCA	* Paul R. Nebeker, Independent
* Adrian Green, AGC	Jacob Rodriguez, SRP
Brian Gallimore, AGC	

MAG ADMINISTRATIVE STAFF

Gordon Tyus

* Members not attending or represented by proxy.

GUESTS/VISITORS

Stew Waller, Rinker
Mike S. Molina, Oldcastle Precast

1. Call to Order

Chair Tom Wilhite called the meeting to order at 1:34 p.m.

2. Call to the Audience

Chair Wilhite introduced Al Gonzales from the City of Buckeye, filling in for Craig Sharp. Mr. Wilhite then opened the call to the audience. No members of the audience requested to speak.

3. Approval of Minutes

The members reviewed the August 6, 2014 meeting minutes. Rod Ramos moved to accept the minutes as written. Warren White seconded the motion. A voice vote of all ayes and no nays was recorded.

Carry Forward 2013 Cases

4. Case 13-15: Revisions to MAG Sections 101, 601, 603, 615 and 618 for Rigid and Flexible Pipe. Updates to Details 200-1, 200-2 and 212.

Update pipe installation requirements. Chair Wilhite announced that he would like to move this item to be the last case discussed during the meeting, so that the committee could take action on cases ready for a vote. The case sponsor and members agreed.

5. Case 13-21: Create a new Section 742 Pre Cast Manholes. Add detail drawings for construction and installation. Update existing manhole details.

Update specifications and details for pre-cast manhole bases and other corrections.

Al Gonzales said Craig Sharp mentioned to him that an update to Detail 420-2 was made to add filter fabric when using #57 rock in wet conditions. (*Shown in the red box and related to Note 5.*) Bob Herz suggested deleting the reference to #57 rock from the detail, and make the default ABC. Jim Badowich said the rock was designed to create a leveling course so the inlets are correctly aligned. Mark Ivanich asked if the #57 rock was only to be used for wet conditions. Jim Badowich stated that if you had wet conditions the Engineer could modify the requirements. After some discussion, the committee agreed to delete the note in the red box and change Note 5 to read: ALL PRECAST MANHOLE BASES SHALL BE PLACED ON 8" MINIMUM OF ABC PER SECTION 702 COMPACTED TO 100% MAXIMUM DENSITY.

Rod Ramos asked if a dimension was needed to show how far the rock extended. Mr. Badowich said that it was typically whatever size the excavation for the base was. Mr. Ramos suggested showing the line of the trench with earth hatching extending up the sides of the ABC to make that clear. Members agreed to this modification.

On Detail 422 a note was added at the request of Phoenix to label the spacer requirements. This was added to the detail as shown in the red box on the handout. Tom Wilhite suggested

clarifying the note by using a table to specify the type of spacer based on the required thickness. The note would then look like the table below:

SPACER TYPE	REQUIRED THICKNESS
BRICK	GREATER THAN 2"
4"x2" STEEL SPACER	½" TO 2"
GROUT	LESS THAN ½"

Mr. Tyus suggested removing the concrete hatch pattern from the plan view, since it is not a section. Bob Herz moved to accept Case 13-21 with the reversions of Section 742, Details 420-1 and 421 provided in the packet, and the revised Details 420-2 as amended and 422 as amended, based on the discussions noted above. The motion was seconded by Jim Badowich. A roll call vote was taken and the case was approved: 14 yes, 0 no, 0 abstaining and 3 not present.

6. Case 13-22: Update Sections 625 and 775 to remove references to the use of bricks in manholes and remove references to manhole steps.

A final version of the case was provided in the agenda packet and included revisions based on input from Maricopa County, and the deletion of Detail 428 – Manhole Steps, as discussed at the prior meeting. Al Gonzales did not have any additional input on the case. Bob Herz had a few minor corrections to Section 625. In the fifth paragraph under 625.2 Materials, he requested to add “sanitary sewer” in front of the word “manholes.” He said this was needed because manholes are also used for storm sewers, and this specification should not apply in this case. In the next sentence he suggested clarifying it to read, “Manhole frame **and cover per** Section 787...” (*The bold words were added.*) Mr. Herz also noted that a stray comma before the second sentence in 625.3.1 should be deleted, and the stray letter “e” should be deleted from the second paragraph of this section. Finally he asked to modify the fourth paragraph in Section 625.3.1 to read, “A **cast-in-place** concrete foundation of Class A concrete shall be **constructed** in accordance with the standard details and Section 505.”

Warren White moved to accept Case 13-22 with the revisions to Section 625 as described by Mr. Herz (shown above). Mark Ivanich seconded the motion. A roll call vote was taken and the case was approved: 14 yes, 0 no, 0 abstaining and 3 not present.

New Cases for 2014

7. Case 14-01: Miscellaneous Corrections.

- A. Change "transverse" to "longitudinal" in Section 321.8.2.
- B. In section 739.1, delete the extra occurrence of the word ‘Pipe’.
- C. Delete “OR BRICK” from the title of Section 342.
- D. Change “forecast” to “for cast” in Section 750.3 JOINT REQUIREMENTS.
- E. Revise working in Section 107.11 to match “careful and prudent manner” in Section 101.2.

Since it was clear that the committee would need to meet in October to finish business on some other cases, Chair Wilhite suggested that voting on the case be postponed until October, so if any additional corrections are found in the next month, they can be added.

8. Case 14-03: Updates to Guardrail Details.

Make revisions to Section 415 and/or include guardrail details in MAG. Bob Herz said this case will carry over to 2015.

9. Case 14-06: Revisions to Section 718 Preservative Seal for Asphalt Concrete.

Update the specifications for the Type C preservative seal. Jeff Benedict said this case will be carried forward to next year.

10. Case 14-11: Delete the use of Asbestos-Cement Pipe in Valve Box Installations.

Replace ACP with PVC C900 pipe in Detail 391-2 and make associated drawing changes to Details 391-1 and 392. Also update Section 610.7. Bob Herz said the current version that was distributed has the final revised drawings which removed references to 12” riser pipe as discussed at a previous meeting. Other revisions were noted on the case cover sheet, including revising Note 1 on Detail 392. Seeing no additional comments, Mr. Herz moved to accept Case 14-11 as presented. Antonio Hernandez seconded the motion. A roll call vote was taken and the case was approved: 14 yes, 0 no, 0 abstaining and 3 not present.

11. Case 14-12: Proposed Revisions to Sections 336.3 and 336.4.

Add pavement removal criteria to prevent full depth pavement cuts from being located within a lane wheel path and to prevent creation of narrow pavement edge strips. Bob Herz said that the case would be carried forward to next year.

12. Case 14-13: Revisions to Section 321. Incorporate MCDOT Supplements.

Incorporate MCDOT enhancements to Section 321 PLACEMENT AND CONSTRUCTION OF ASPHALT CONCRETE PAVEMENT into the MAG Specifications. Mr. Herz said that the final revisions are shown in yellow (*if you have a color copy from the MAG website*). He highlighted changes including the first paragraph in 321.8 Placement which had been rewritten. Other changes were made to clarify acceptance requirements. The sentence “The contracting agency shall provide an appropriately accredited laboratory or laboratories to perform the acceptance testing” was added to Section 321.10.1. A few other minor corrections were also made to this paragraph.

Section 321.10.4 Asphalt Pavement Thickness Mr. Herz discussed testing the thickness of each layer vs. testing the total thickness, and how this related to assessed penalties for deficiencies. If the first course was a little shy, the contractor can make it up on the next layer. Mr. Hernandez asked about different material types for the different layers could affect the strength and payment. Brian Gallimore said there was not much difference in cost from the base course

and the surface course. Mr. Hernandez stated that it was the contractor's job to make sure the thicknesses were correct, and that the 1/4" tolerance currently in the MAG spec was sufficient allowance for thickness variation and the thickness penalties should apply to each individual lift not the total of all lifts. Bob Herz said that the structural number did not change with different asphalt mix designs and if the total pavement thickness is obtained, the pavement design strength is achieved and no penalty based on thickness should be assessed. In any case, he said the assessment of penalties for pavement thickness needs to be clarified as to whether it is applied to each individual course or to the overall final thickness. Jeff Benedict noted that the agency still has full control over the issue.

Mr. Herz also noted that Table 321-9 updated the penalties for air voids. This was an oversight that was missed from a previous case (13-09) that adjusted the asphalt penalties in Tables 321-5 and 321-8. Julie Christoph asked if this effected rubber asphalt. Jeff Benedict said no, asphalt-rubber was covered in Section 325. Warren White asked about adding the date to note when penalty tables were updated. Mr. Benedict preferred not to include a date.

Due to the difference in opinion during the discussion concerning how the thickness penalties should be applied, Mr. Herz suggested postponing the vote on this case until October to allow time for each agency to have internal discussions to determine the preferred method for applying the thickness penalty and to complete a final review of this case. MCDOT believes and has adjusted the text such that the thickness of each lift will be determined but the penalty is only applied to the final total thickness of all layers of the asphalt pavement.

13. Case 14-14: Consolidate all testing requirements in a new Section 611.

Create a new Section 611 and update existing specifications to delete testing specs and refer to the appropriate information in new Section 611. Jami Erickson handed out the final revised version of the case in color so members could see what final changes were highlighted. This was the same version provided in the packet. Ms. Erickson noted the final revisions highlighted in blue that included a revision to the language on Deflection Test of HDPE and PVC Pipe. Instead of just saying that if the pipe fails the deflection test it shall be corrected, the word "corrected" was deleted and replaced with "evaluated and an appropriate remedy, if any, shall be performed." This would give agencies more latitude to determine corrective measures. This same language was added to the section on Video Inspection testing as well. Jami Erickson moved to accept the case as presented. Mr. Tyus asked to clarify that this included removing and referencing all the affected text in other sections that were moved. Ms. Erickson agreed that the case included this as well. Jim Badowich seconded the motion. A roll call vote was taken and the case was approved: 14 yes, 0 no, 0 abstaining and 3 not present.

14. Case 14-15: Updates and revisions to Section 610.

Move Hydrostatic Testing from Section 610 to Section 611, update Table 610-1 to be consistent with AWWA, place Section 610 into sequential order. Jim Badowich highlighted major changes to Section 610. He said that items in red were changes, items in green just moved from another part to make the section flow more naturally. In addition to moving the testing sections into Section 611, the case made a few minor corrections and updated the polywrap table sizes. He

said the case was discussed at the last Water/Sewer Working Group meeting, where they determined to remove the text “without the appropriate use of bends or offsets” from the first sentence of 610.4.2 Laying Pipe.

Rod Ramos asked who uses C900 pipe. Antonio Hernandez said it is used by private developments. Al Gonzales said Buckeye has private water companies that have used C900 in part of the Verado development. Rod Ramos said Scottsdale has had problems with it, and is spending more than a million dollars a year to replace it. Most agencies require ductile iron pipe. Jim Badowich said Avondale has used it, but they are trying to phase it out. Seeing no further discussion, Jim Badowich moved and Bob Herz seconded a motion to accept Case 14-15 as presented. A roll call vote was taken and the case was approved: 14 yes, 0 no, 0 abstaining and 3 not present.

15. Case 14-16: Revision to Section 310 - Placement and Construction of Aggregate Base Course.

Change rock correction method to be consistent with Section 301. Brian Gallimore said he has not received any comments on the case to change the rock correction method in 310.3 to ARIZ-227C to be consistent with Section 301. Brian Gallimore moved and Bob Herz seconded a motion to accept case 14-16 as presented. A roll call vote was taken and the case was approved: 14 yes, 0 no, 0 abstaining and 3 not present.

16. Case 14-17: Create New Section 322 - Asphalt Stamping.

Provide specifications for materials and methods of Asphalt Stamping. Brian Gallimore said that he reached out to industry regarding the question of a warranty on the work done. He was also researching more information on paint and grooves. Mr. Gallimore proposed carrying the case forward to next year for additional review.

17. Case 14-18: Revise Terminology in Section 340.

Change all occurrences of the term “sidewalk ramp” in section 340 to “curb ramp” to prevent confusion. Bob Herz said this case uses terminology consistent with ADA. Other earlier proposed revisions were deleted from this case. Mr. Herz moved and Mr. White seconded the motion to accept Case 14-18 as presented. A roll call vote was taken and the case was approved: 14 yes, 0 no, 0 abstaining and 3 not present.

18. Case 14-19: Revisions to Section 325 and 717.

Add provisions for terminal-blended asphalt-rubber binder (ARB). Brian Gallimore handed out a color copy version of the case showing the changes. He said the case was discussed at the last Asphalt/Materials Working Group meeting. Essentially the case provides the provisions to conduct on-grade testing of asphalt rubber, rather than only at the facility, since only Mesa, Phoenix and MCDOT have this capability. A summary of the changes were provided on the case cover sheet. Mr. Gallimore asked members to review these proposed changes and prepare for a possible vote at the next committee meeting.

19. Case 13-15: Revisions to MAG Sections 101, 601, 603, 615, 618, and 735 for Rigid and Flexible Pipe. Updates to Details 200-1, 200-2 and 212.

Update pipe installation requirements. Warren White said that several handouts were provided at the meeting including a redlined version, a final version and a copy of comments provided by Bob Herz. Mr. White began discussion by summarizing some of the changes made based on comments from Maricopa County and the working group meeting. One of the major changes in the version handed out was to combine Sections 601 and 603 as suggested by Mr. Herz. Since much of the two sections were identical, combining them was rather straight-forward, only the trench widths, type of backfill and depth requirements were different for rigid and flexible pipe types. Mr. White said combining them would also make it easier to update in the future rather than to keep two sections in sync. Mr. Herz noted that he provided a separate handout (with a black clip) that outlined all his comments and proposed changes.

Next, Mr. White referred to the changes to a couple definitions in Section 101. He agreed with Mr. Herz to delete the Native Material listing (since native backfill material was defined in Section 601) and revise the definition of Springline so it would be valid for non-circular shaped conduits. Warren White said he also included minor revisions to Section 615 and changes to Sections 618 and 735 to take into account previously passed cases.

Warren White then discussed updates to the detail drawings based on feedback during the working group meeting and MCDOT comments. For Detail 200-1 he wanted to change the symbol for the Type “D” trench repair and correct the terminology to match by changing “Bedding” to “Initial Backfill” in Note 3. It would also delete the reference to Section 603 since it would be combined with 601. For Detail 200-2 Note 1 was revised to also only refer to Section 601 and not 603. Mr. Herz suggested removing the text (IF REQUIRED) from under the FOUNDATION note, since there would always be a foundation. Revisions to Detail 212 were also added to the case due to the changes in backfill terminology and exact Section number references.

Mr. White then continued detailed discussion on revisions to Section 601. Under Section 601.1 Description, members discussed clarifying what was considered rigid and flexible pipe types. Warren White said he could add back in the specific list of pipe types. Under 601.4.1 Foundation, Bob Herz suggested removing the word graded from the first sentence. Mr. White said the Bedding section (601.4.2) referred back to the trenching area for depth and grading requirements. Mr. Tyus suggested changing the first sentence back as it was previously because it currently was an incomplete sentence.

Next was a lengthy discussion on the default fill material for the haunching area and initial backfill. Two options were presented. The first was to use MAG ABC per Section 702 as the default fill. This is what the working group recommended, and what the majority of agencies specify. Another option was to use granular materials as it currently is defined in MAG. Bob Herz suggested this be the default, because it would be more economical if contractors could use native fill materials meeting the granular spec, rather than requiring ABC. Jim Badowich felt that the granular fill spec was too loosely defined. He also worried that the testing of the native materials may not be sufficient to assure the fill continues to meet the granular fill

requirement as soil conditions change. Brian Gallimore said typically the material is stockpiled where it can be tested. Antonio Hernandez said that native material can still be used for the final backfill material.

Mr. Tyus asked if the granular fill definition would exclude the use of recycled materials if ABC was used as the fill material. Julie Christoph was concerned about the use of recycled concrete because Mesa had problems with recycled concrete that was infused with hazardous material. Peter Kandarlis said this issue could be addressed with a separate case focused on the material spec. Jeff Hearne said Section 701.4 says any recycled material must not have any hazardous material, and 702 states that base materials must be uniformly blended. Ms. Christoph said you have to rely on the information from the plant, and said Mesa will not allow recycled materials in ABC. Jim Badowich suggested that a specification for a cleaner type of ABC could be developed for trench backfill. He said the bottom line was that most agencies currently specify MAG ABC in the pipe zone.

Next Mr. White said changes to Section 735 and Detail 212 were impacted by the RCP pipe case. Mr. Badowich, said he would schedule a Water/Sewer working group that Mr. White and Mr. Herz could attend, to discuss outstanding issues. They decided to meet on Thursday, September 11th at 1:30 p.m. Warren White said he believed they could finish a complete and agreed upon package ready for a vote at the October 1st meeting.

20. Working Group Reports

Due to the lateness of the meeting, Chair Wilhite proposed skipping the working group reports since written notes were provided in the packet.

a. **Water/Sewer Issues Working Group**

The next meeting is scheduled for Thursday, September 11, at 1:30 p.m. in the MAG office.

b. **Asphalt/Materials Working Groups**

c. **Concrete Working Group**

d. **Outside Right-of-Way Working Group**

21. General Discussion

Public Works Directors Mail List. Gordon Tyus asked agency members to review the contact list of public works director and provide any updates to him. Contacts on the mail list will receive copies of the final update packets to review prior to printing next year's edition.

22. Adjournment:

Seeing no further business the meeting was adjourned at 3:55 p.m.