

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

June 5, 2013

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

AGENCY MEMBERS

Jim Badowich, Avondale	Dan Nissen, Peoria
Craig Sharp, Buckeye (proxy)	Syd Anderson, Phoenix (St. Trans.)
Warren White, Chandler	* Jami Erickson, Phoenix (Water)
Antonio Hernandez, El Mirage	* Rodney Ramos, Scottsdale
Tom Condit, Gilbert	Jason Mahkovtz, Surprise
* Mark Ivanich, Glendale	Tom Wilhite, Tempe, Chair
Troy Tobiasson, Goodyear	Harvey Estrada, Valley Metro
Bob Herz, MCDOT	Gregory Arrington, Youngtown
Bob Draper, Mesa	

ADVISORY MEMBERS

Jeff Benedict, ARPA	Jeff Hearne, ARPA
Tony Braun, NUCA	Peter Kandarlis, Independent
Slade Ottney, NUCA	Paul R. Nebeker, Independent
Amanda McGennis, AGC (proxy)	Jacob Rodriguez, SRP
Adrian Green, AGC	

MAG ADMINISTRATIVE STAFF

Gordon Tyus

* Members not attending or represented by proxy.

GUESTS/VISITORS

Dan Currence, ADS
Bill Davis, ADS
Jared Dusha, Contech
Greg Groneberg, Southwest Asphalt
John Kanzleamar, Contech (Audio)
Matthew Houser, Contech
Mike Hook (ACPA)
Arvid Veidmark (Specialized Services Co.)

1. Call to Order

Chairman Thomas Wilhite called the meeting to order at 1:30 p.m. During the meeting the chair welcomed new member Gregory Arrington of Youngtown.

2. Call to the Audience

Chairman Wilhite opened the call to the audience. No members of the audience requested to speak.

3. Approval of Minutes

The members reviewed the May, 2013 meeting minutes. Syd Anderson introduced a motion to accept the minutes as written. Bob Herz seconded the motion. A voice vote of all ayes and no nays was recorded.

Review of 2012 Carry Forward Cases

4. Case 12-12: Steel Reinforced Polyethylene Pipe

Add new Section 739 for Steel Reinforced Polyethylene (SRPE) Pipe. Sponsor Rod Ramos was not in attendance, so the chair opened the floor for discussion. Mike Hook of the American Concrete Pipe Association asked the committee to reconsider the use of SRPE in sizes greater than 60 inches. He stated that AASHTO has approved it only up to 60 inches. Matthew Hauser of Contech, a manufacturer of SRPE pipe said that AASHTO has no limitations on the size in the material specification. He said the installation is approved up to 60” in 2013. Bob Herz said MCDOT limits the size of HDPE to 60” in the county specs and would likely do the same for SRPE. MCDOT would prefer to have MAG limit the size to 60” and let agencies allow larger diameters as desired. Mr. Herz commented that HDPE stiffness is reduced when temperatures increase. What effect will high temperatures caused by weather and direct sun exposure during installation have on the HDPE stiffness and pipe strength? Mr. Hauser said the stiffness is based on the steel reinforcing rings. Mr. Herz still had concerns about the potential for local buckling between steel rings and wanted to have more review of the impacts of high temperatures during construction on pipe strength and durability.

Jim Badowich said they discussed the case during the last water/sewer working group meeting. He said John Kanzlemer of Contech addressed the issues discussed during the last committee meeting in the revised draft. Mr. Badowich noted that currently in Section 738 MAG allows HDPE pipe up to 120”, and this spec was used to develop the proposed Section 739. He also said that it should have a complete pipe design. Bob Herz said MCDOT may require design calculations from the manufacturer to address project specific conditions. Mr. Badowich suggested that a vote be postponed since Rod Ramos was not present, and additional review by the county and agencies was requested. He noted it also would be discussed at the next water/sewer meeting. Chairman Wilhite agreed to postpone the vote to allow further review.

New 2013 Cases

5. Case 13-01 A-G: Miscellaneous Corrections

Two new corrections cases were added, J and K. The first added a missing superscript in Section 301.3 and corrected a typo in 321.14.3. The second recommended deleting two out-of-date ASTM references in Section 729.2 Pour Type Joint Fillers. Mr. Herz said that he discovered the remaining ASTM reference to D1850 also no longer existed, and questioned making it a corrections case if none of the ASTM references were still current. He did note that ADOT uses a silicon sealant with an ASTM D5893 reference. Jeff Herne, who said the concrete working group was reviewing Section 729, initially thought that it would make sense to remove the bad references as a stop gap measure until the section could be more thoroughly reviewed; however, he agreed with Mr. Herz that if none of them were applicable, then it would make more sense to remove this from the corrections case and prepare a separate case to update Section 729. He did add that he would need help from industry experts to match current practice.

6. Case 13-05: New Section 740 Polypropylene Pipe and Fittings for Gravity Storm Drain and Sanitary Sewer

Propose new material section for Polypropylene Pipe material. Sponsor Warren White said the updated version addressed comments voiced during the last meeting, and also made updates to make it consistent with the proposed SRPE case. This included updating the gasket info and removing the reference to “a cold, dark place.” Dan Currence, of ADS was present to answer questions. Mr. Herz asked whether the new material spec would work with the current Section 603 if it is not updated, or whether it should wait until the case updating Section 603 is approved. Warren White said previous discussions gave him the impression that it would be okay to approve the new materials prior to approval of revisions to Section 603 since the current HDPE pipe material (Section 738) is currently using it. Bill Davis said that the current 603 will work, and other committee members agreed, although they also believed that the case revising the installation standards would work better than the current spec. Mr. Herz suggested including a reference to not only MAG Section 603, but also the manufacturer’s recommendations for installation. Mr. White agreed to add this provision and moved to accept the case with this modification. Troy Tobiasson seconded the motion. A voice vote was taken. The case was approved, 12 yes, 0 no, 2 abstain, 2 not present.

7. Case 13-07: Revisions to Detail 201 ASPHALT PAVEMENT EDGE DETAILS

Correct miscellaneous errors and change the Type B thickened edge depth dimension from “8 inch minimum” to “8 inches”. Bob Herz asked if there were any questions or comments. Jeff Benedict said the case was reviewed by the asphalt working group and they had no additional comments. Seeing none, Mr. Herz moved and Harvey Estrada seconded a motion to accept Case 13-07 as presented. A voice vote was taken. The case was approved, 14 yes, 0 no, 0 abstain, 2 not present.

8. Case 13-08: Revision to Section 321.8.8 Thickened Edge

Eliminate references to 'base course' to clarify the surface being referenced. Bob Herz described the changes since the last meeting. This included changing the thickened edge to extend 4" instead of 2" below the bottom of the asphalt pavement. This was changed to make it easier to get compaction before placing the final lift. There was some discussion about what it means to have compactive "effort" and the inability to test the safety edge compaction. There was also discussion about the wording "may immediately follow compaction." Jim Badowich believed the contractor should complete the asphalt paving the same day. The meaning of "immediately" was discussed as far as what that meant for timing. Amanda McGennis suggested changing "may immediately" to "will" to make it more clear. Craig Sharp described one process used to construct a thickened edge using a boot on the asphalt paving machine. Mr. Herz said he would revise the case and bring it back for further discussion.

9. Case 13-09: Revision to Section 321 Asphalt Penalty Tables

Raise penalties in tables based on City of Mesa supplement. Bob Draper presented an updated version of the case that proposed new penalties based on analysis he did on the City of Mesa's maintenance costs. He reviewed the proposed penalty tables. For asphalt binder (Table 321-4) he proposed \$2 and \$6 penalties. For voids (Table 321-5) the penalties were increased more, from \$1 to \$5 and from \$2.50 to \$10. He also included corrective actions based on whether it was a local or major street. Penalties in pavement density (Table 321-8) were also raised. Syd Anderson asked how the penalties compared to the maintenance costs. Mr. Draper said for the binder table it was about 10 cents on the dollar, a cost recovery of .2 tons/sq yard. Mr. Draper said he did calculate costs to meet maintenance costs but felt the penalties would be prohibitively high. Jeff Benedict asked the members to also review the proposed corrective actions, such as overlays and provide feedback. They would be reviewing this case at the June 13th asphalt working group meeting and asked for comments and agency participation. Jim Badowich asked if the penalties were cumulative. Mr. Draper believed they would be, so the actual penalty would likely be higher since a deficiency in one area can affect the others.

Tom Wilhite asked if the costs should be indexed, such as using a CPI. Mr. Draper said they have not in the past, but agreed that it may be an option to consider. He mentioned that asphalt pricing is typically market driven and may not match the CPI. Bob Herz said ADOT uses an inflation adjustment for asphalt. Bob Draper asked members to review the case, analyze their costs and give him comments.

10. Case 13-10: Revision to Section 301.7 (Subgrade Preparation) MEASUREMENT

Add subgrade preparation measurement for graded non-surfaced driveways. Bob Herz said the first paragraph was slightly modified and asked for comments. The committee had no additional comments, so Mr. Herz proposed voting on the case at the next meeting.

11. Case 13-11: Delete Section 737 ASBESTOS-CEMENT PIPE AND FITTINGS FOR STORM DRAIN AND SANITARY SEWER

Delete Section 737 and references to it. Bob Herz said since asbestos-cement pipe and fittings for storm drain and sanitary sewer installations are not used, this case recommends deleting Section 737, and the reference to it in Section 604. Mr. Herz asked for further comments and discussion. Seeing none, he moved to accept Case 13-11 as presented. Syd Anderson seconded the motion. A voice vote was taken. The case was approved, 14 yes, 0 no, 0 abstain, 2 not present.

12. Case 13-12: Revisions to Section 340: Concrete Curb, Gutter, Sidewalk, Sidewalk Ramps, Driveway and Alley Entrance

Incorporate agency supplements and update Section 340 to current practice. Peter Kandarlis provided a new handout during the meeting that incorporated comments from the construction industry and Mr. Sharp. The cover letter summarized the revisions. Areas highlighted in yellow were changes; those highlighted in green were items that needed additional discussion. He noted the addition of referring to the project geotechnical report in Section 340.3.1 Subgrade Preparation. Bob Herz expressed the belief that when geotechnical report recommendations differ from MAG requirements then the project special provisions should make requirements those recommendations that are desired. Geotechnical reports should remain as recommendations for consideration during design and not be a part of the Construction Contract documents. Peter Kandarlis suggested that the committee may want to update the subgrade prep specifications in Section 301 and possibly refer to them rather than making changes in Sections 340 since these changes would likely apply for the street subgrade as well. Tom Wilhite said for their CIP projects there is a pay item allowance. Antonio Hernandez said the contractors should refer to a geotech report, and then design the subgrade. He said this was the process they used for their subdivisions. Jason Mahkovtz wondered if this was getting too much into the design aspects rather than construction. Warren White asked about the detectable warnings section. Mr. Kandarlis said there were no changes to it. Mr. White also recommended referring to Section 336 instead of 601 in 340.3 for cuts. When asked about the distance for expansion joint placement, members agreed to keep it at 50', rather than reducing it to 25' for cul-de-sacs.

Bob Draper and Troy Tobiasson suggested removing the green highlighted text in 340.3.6 about repairing ADA ramps with #4 dowels, since in practice this is problematic.

There was discussion about replacing the concrete curbs joint to joint. Paul Nebeker stated that he believes this creates a lot of wasted concrete. Mr. Hernandez says they place them at 5' instead of 10' to match the sidewalk joints. This way if a replacement is needed, it is for a smaller area, which contractors like. Jim Badowich said Avondale uses 5' joints also, and determined removal and replacement costs were reduced. Mr. Kandarlis said he would continue to work on the revisions as well as look at subgrade preparation specs in Section 301.

13. Case 13-13: Revisions to Section 415 Flexible Metal Guardrail

The purpose was to allow use of either 8"x8" or 6"x8" wood posts for continuous guardrails, and delete reference to manufacturer's recommendations. Bob Herz said the case made minor corrections to the guardrail posts and asked if there were any comments. Since there were none, he proposed to vote on the case during the July meeting.

14. Case 13-14: Revisions to Section 711 Paving Asphalt

Revise Section 711 to update AASHTO references and add a new polymer modified section. Jeff Benedict said the revised case fixed a typo, and that he received no additional comments. Bob Draper noticed a typo of a period after "a" in the second paragraph. Mr. Benedict said he would fix it and asked members to review the case and provide him feedback. He called for a vote on the case during the next meeting.

15. Case 13-15: Revisions to MAG Sections 603, 615 and 618 for Flexible Pipe.

Update pipe installation requirements to allow for flexible pipe types. Warren White said there were no changes at this time, but said the case was actively discussed during the last water/asphalt meeting and additional changes are expected. He reminded the committee the purpose was to split the rigid and flexible pipe installation specification to refer to either Section 601 or 603. Jim Badowich said working group discussions included the bedding and initial backfill requirements depending on the type of pipe. The committee discussed problems with different terminology for such things as foundation, bedding, haunching and backfill. The working group is planning to update Detail 200 to show the cross section with terminology that matches that in ASTM, and incorporate this more standardized terminology in the specifications. Mr. Badowich said they were considering addressing the installation to 1' above the pipe in the installation sections of 615 and 618, and the rest of the backfill in 601 and 603. Mr. Hernandez asked about using slurry up to the spring line. Jim Badowich said that is an option the working group is considering, but it currently is not in the MAG specs, but rather agency supplements. Mr. White said in addition to revising the currently submitted sections, the water/sewer working group are planning to present updates to Section 601 and Detail 200 as well.

16. Case 13-16: Revision to Section 602; Trenchless Installation of Steel Casing

Retitle and revise Section 602 to match current industry standards. Jim Badowich discussed the latest version of the proposed Section 602. He said the handout provided a history of the version changes, but that the latest is shown beginning on page 602-8. He reminded the group that the title was changes to "Trenchless Installation of Steel Casing." The other changes were addressing comments from the previous meeting. Tom Wilhite asked about end caps. Mr. Badowich said in the spec they are referred to as bulkheads and are constructed. Some members suggested adding the option of a mechanical water-tight seal for smaller diameter installations. Mr. Badowich asked for additional review and comments.

17. Case 13-17: Revision to Section 430.4 DECOMPOSED GRANITE AREA

Eliminate placement of polyethylene below decomposed granite. Bob Herz reviewed the case to delete reference to requiring polyethylene plastic in Section 430.4. He asked members for comments and proposed to put the case up for a vote on the next agenda.

18. Case 13-18: Revisions to Detail 250-1 Driveway Entrances with Detached Sidewalk.

Incorporate 2012 revisions made to Detail 250-2 into Detail 250-1. Bob Herz introduced a new case that made changes to Details 250-1 so it would match the changes made previously to Detail 250-2. This included changing “Driveway Width” to “Driveway Entrance Width”, removing “Bid” and using “Contract Unit Price” and added two new notes copied from Detail 250-2. He asked the committee to review the case and send him comments. Warren White asked if a 4’ walkway width at the 1½% cross slope instead of the full sidewalk width is acceptable. Mr. Herz said that a 4’ walkway will meet ADA requirements; however, the full sidewalk width should be at the 1½% cross slope to match the current 5’ sidewalk detail. Mr. Herz proposed to vote on the case next month if there were no additional concerns.

19. Case 13-19: Revisions to Section 345 - Adjusting Frames, Covers, Valve Boxes, and Water Meter Boxes.

Add the process of lowering and update the section for current practices. Brian Gallimore submitted the case from the materials working group. He was not in attendance to present the case. Jeff Benedict said it was addressing the issue brought up previously of having specifications on lowering utilities before milling operations. Paul Nebeker questioned the number of “shalls” he saw in the proposed case.

20. Case 13-20: Make Section 610 Hydrostatic Test Methods consistent with AWWA C600-10.

Update MAG Test Methods to match AWWA standards. Troy Tobiasson introduced a new case coming out of the water/sewer working group. It makes revisions to Section 610 to revise the hydrostatic testing methods to be more consistent with AWWA C600-10 (2010) for pressure testing and leakage. The case also removes references to asbestos-cement and cast iron pipe; suggests the addition of PVC (C900) pipe; removes references to specific manufacturers; and makes other minor corrections. Some of the changes Mr. Tobiasson highlighted included the allowable leakage to loss and changes to the formulas. He noted that MAG’s standards are several revisions out-of-date. Bob Herz questioned the addition of the PVC pipe and asked about its material and installation requirements. Mr. Tobiasson asked members to review the case and provide him comments.

21. Case 13-21: Create a new Section 742 Pre Cast Manhole Bases. Add detail drawings for construction and installation.

Create a new section and details for pre-cast manhole bases. Craig Sharp introduced a new case to allow the use of pre-cast manhole bases. The specifications and details were developed in Buckeye and have been used for 18 months. He said a main advantage was fast installation.

Mr. Sharp said that the base is excavated to undisturbed soil, with a foundation of #57 rock, grouted to the exact elevation. A member asked what type of pipe they could be used with. Mr. Sharp responded that they work with all types. This was not clear on the detail which labeled it as PVC pipe. He said he would make the label more generic. When asked about availability, he said that currently Olsen precast, Newcastle and Jensen make them for this region. Olsen uses a dry cast method, while the other two use a wet-cast method. He said another advantage of the pre-cast bases are they are manufactured in a controlled environment. He also explained that the bases can be cut to allow angles from 90 to 180 degrees. Paul Nebeker commented that they are much more contractor-friendly.

Mr. Herz asked if they had problems with settlement. Mr. Sharp said he has not run into problems with the bases, including about 300 installations done in the Flagstaff area. Mr. Herz asked about their use for storm drains. Mr. Sharp said typically companies manufacture a different, square, model for storm drain systems. Harvey Estrada said they used precast bases on the light rail project, and felt it allowed the work to be completed quicker since they were not waiting for the concrete cast-in-place bases to cure.

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

Update Sections 625 Manhole Construction to remove references to the use of bricks and manhole steps. Also remove these references in Section 775 Brick and Concrete Masonry Units. Craig Sharp introduced another case that included handouts with revisions for Sections 625 and 775. Jim Badowich said he was working on updating the manhole details 420-1 and 420-2 as well.

23. Potential Cases for 2013

Troy Tobiasson suggested that Section 738 for HDPE pipe should be reviewed to address the same concerns brought up in regards to the new proposed 739 and 740 specifications. This would include the allowed size and thermal resistance issues. He also mentioned testing, including additional testing before the one year warranty expires. Mr. Herz noted that testing active sanitary sewer lines while in use could pose problems.

24. Working Group Reports

Chairman Wilhite asked for reports from the working groups.

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

Jim Badowich said the group met May 21st at 1:30 p.m. in the MAG office. He said most of cases the group reviewed were already discussed. The group will continue to review active cases, as well as work on manhole details. The next meeting is scheduled for June 18th at 1:30 p.m. in the MAG office.

b. **Asphalt Working Group**

Jeff Benedict said the group met May 23rd at noon at the ARPA offices. (Notes included

in packet.) He reminded members that next meeting was moved up to June 13th at 12:00 p.m. at the ARPA office, due to a conflicting ARPA meeting the following week.

c. Materials Working Group

In Mr. Gallimore's absence, Mr. Hearne said the group looked at the lime stabilization specifications. Mr. Benedict said he needed to get a few industry representatives together to finalize the draft changes. The next meeting would follow the asphalt working group as usual.

d. Concrete Working Groups

Jeff Hearne said the meeting notes were included in the package. He said the group is planning to continue work revising the Portland Cement Concrete Paving (PCCP) section as well as changes to Section 340. He said they would continue to review Section 729 on Joint Materials, but doubted he would have a case ready this year. The next meeting of the working group is scheduled for June 13th at ARPA following the materials working group at 1:30 p.m.

e. Outside Right-of-Way Working Group

Peter Kandaris said he met with members before the committee meeting. He said he received comments from Jeff Benedict on the 300 sections. Jacob Rodriguez also reviewed the 300 sections and provided feedback. Mr. Kandaris said he planned to look at Section 301 Subgrade Preparation more thoroughly. He felt that if the specs in MAG were updated, fewer changes would need to be made in any outside right-of-way specifications. The next meeting will be on July 10th at 12:30 p.m. prior to the regular committee meeting.

25. General Discussion

Chairman Wilhite asked for general discussion items. Peter Kandaris said there is a land subsidence group that has been monitoring the issue. Some subsidence has been detected in the Mesa/Tempe border area due to increased groundwater pumping. He said he could provide more information at the next meeting.

Jim Badowich asked if other agencies have been approached by companies promoting the profiling of sidewalks for ADA compliance. He said Avondale has been, and they have been going directly to city managers, perhaps to try to provide assistance developing a transition plan.

26. Adjournment:

Seeing no further business, the chair adjourned the meeting at 3:47 p.m.