

December 19, 2012

TO: Members of the MAG Standard Specifications and Details Committee

FROM: Tom Wilhite, City of Tempe, Chair

SUBJECT: MEETING NOTIFICATION AND TRANSMITTAL OF TENTATIVE AGENDA

Wednesday, January 2, 2013 at 1:30 p.m.
MAG Office, Suite 200 (Second Floor), Ironwood Room
302 North 1st Avenue, Phoenix

A meeting of the MAG Specifications and Details Committee has been scheduled for the time and place noted above. Members of the MAG Specifications and Details Committee may attend the meeting either in person, by videoconference or by telephone conference call. If you have any questions regarding the meeting, please contact Committee Chair Tom Wilhite at 480-350-2921 or Gordon Tyus, MAG staff at 602-254-6300.

In 1996, the Regional Council approved a simple majority quorum for all MAG advisory committees. If the MAG Specifications and Details Committee does not meet the quorum requirement, no action can be taken. Attendance at the meeting is strongly encouraged.

Pursuant to Title II of the Americans with Disabilities Act (ADA), MAG does not discriminate on the basis of disability in admissions to or participation in its public meetings. Persons with a disability may request a reasonable accommodation, such as a sign language interpreter, by contacting Gordon Tyus at the MAG office. Requests should be made as early as possible to allow time to arrange the accommodation.

It is requested (not required) that written comments on active cases be prepared in advance for distribution at the meeting.

MAG Standard Specifications and Details Committee
TENTATIVE AGENDA
January 2, 2013

COMMITTEE ACTION REQUESTED

- | | |
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| 1. <u>Call to Order and Introductions</u> | |
| 2. <u>Call to the Audience</u>
An opportunity is provided to the public to address the MAG Specifications and Details Committee on items that are not on the agenda that are within the jurisdiction of MAG, or non-action agenda items that are on the agenda for discussion or information only. Citizens will be requested not to exceed a three minute time period for their comments. A total of 15 minutes will be provided for the Call to the Audience agenda item, unless the committee requests an exception to this limit. Please note that those wishing to comment on agenda items posted for action will be provided the opportunity at the time the item is heard. | 2. Information. |
| 3. <u>Outgoing Chair Recognition</u> | 3. Information and discussion. |
| 4. <u>Approval of September 5, 2012, Meeting Minutes</u> | 4. Review and approve minutes of the September 5, 2012 meeting. |
| 5. <u>2013 Revision to the 2012 Edition Report</u> | 5. Information and discussion.
Staff report from Gordon Tyus |

Cases Carried Forward from 2012

- | | |
|---|--|
| 6. <u>Case 12-12:</u>
New Section 789: Steel Reinforced Polyethylene Pipe (SRPE) | 6. Information and discussion.
Sponsor: Rod Ramos, Scottsdale |
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New Cases for 2013

- | | |
|--|--------------------------------|
| 7. <u>Case 13-01 Miscellaneous Corrections:</u> | 7. Information and discussion. |
| 8. <u>Case 13-02:</u>
Reserved for any new case to be introduced. | 8. Information and discussion. |
| 9. <u>Potential Cases for 2013:</u> | 9. Information and discussion. |

General Discussion

- | | |
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| 10. <u>Working Group Reports</u> | 10. Information and discussion.

Water/Sewer Chair: Jim Badowich, Avondale
Asphalt Chair: Jeff Benedict
Materials Chair: Brian Gallimore
Concrete Chair: Jeff Hearne
Outside ROW: Peter Kandaris |
| 11. <u>General Discussion</u> | 11. Information and discussion. |
| 12. <u>Request for Future Agenda Items</u>
Discussion of possible October meeting if necessary | 12. Information and discussion. |

Adjournment

**2013 MAG Specifications and Details Committee
Ironwood, 2nd Floor**

January 2, 2013	1:30 pm	
February 6, 2013	1:30 pm	
March 6, 2013	1:30 pm	
April 3, 2013	1:30 pm	
May 1, 2013	1:30 pm	
June 5, 2013	1:30 pm	
July 3, 2013	1:30 pm	
August 7, 2013	1:30 pm	
September 4, 2013	1:30 pm	
October 2, 2013	1:30 pm	(if necessary)

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

September 5, 2012

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

AGENCY MEMBERS

Jim Badowich, Avondale	* Javier Setovich, Peoria
Craig Sharp, Buckeye (proxy)	Syd Anderson, Phoenix (St. Trans.)
Warren White, Chandler	Jami Erickson, Phoenix (Water)
* Greg Crossman, Gilbert	Rodney Ramos, Scottsdale
Mark Ivanich, Glendale	Jason Mahkovtz, Surprise
Troy Tobiasson, Goodyear, Chair	Tom Wilhite, Tempe, Vice Chair
Bob Herz, MCDOT	* Jim Fox, Youngtown
Bob Draper, Mesa	

ADVISORY MEMBERS

Jeff Benedict, ARPA	Jeff Hearne, ARPA
* Tony Braun, NUCA	Peter Kandarlis, Independent
Bill Davis, NUCA (proxy)	Paul R. Nebeker, Independent
Brian Gallimore, AGC	* Jacob Rodriguez, SRP
* Adrian Green, AGC	

MAG ADMINISTRATIVE STAFF

Gordon Tyus

* Members not attending or represented by proxy.

GUESTS/VISITORS

Mike Hook, ACPA
John Kanzlemaz, Contech
Tom Kennedy
Kelly Kokesh, ADS
John Shi, MCDOT

1. Call to Order

Chairman Troy Tobiasson called the meeting to order at 1:36 p.m.

2. Call to the Audience

No members of the audience requested to speak.

3. Approval of Minutes

The members reviewed the August 1, 2012 meeting minutes. Bob Herz introduced a motion to accept the minutes as written. Bob Draper seconded the motion. A voice vote of all ayes and no nays was recorded.

4. 2013 Chair and Vice Chair

Chairman Tobiasson announced that Jim Badowich has thrown in his name as a candidate for vice chair beginning next year, pending approval of his manager, and official appointment. Warren White moved and Tom Wilhite seconded a motion for the committee to recommend Mr. Badowich serve as vice chair beginning in 2013. A voice vote of all ayes and no nays was recorded.

Review of 2011 Carry Forward Cases

5. Case 11-02 – Safety Edge Detail

Add an Asphalt Pavement Safety Edge option to Detail 201, update Section 321.8. Bob Herz said the final update was included in the agenda packet, and asked if there were any comments. Rod Ramos questioned the 8” plus or minus dimension on the safety edge section, thinking it may be unclear how much leeway is allowed. Mr. Herz explained that the dimension varies depending on the roadway, but is based on achieving a 30 degree angle for the safety edge. Brian Gallimore suggested putting the 30 degree angle on detail drawing to match the written specifications. It was also suggested to make the 5” safety edge depth 5” min. Mr. Herz agreed to these changes, and moved to accept Case 11-02 with the changes noted. Mark Ivanich seconded the motion as amended. A roll call vote was taken. The motion passed. 11 yes, 0 no, 0 abstain, 3 not present.

6. Case 11-03 – Replace Cadmium Plated Bolts.

Replace cadmium plated bolts referenced in Section 610.13 with zinc plated bolts as described in ASTM-B633. Jim Badowich provided a final version of the case before the meeting. It was updated to reflect the changes noted at the last meeting by Maricopa County, with the exception of leaving in the reference to AWWA C111. He discussed this with Jami Erikson of Phoenix to make sure it met their needs as well. Mr. Herz noted that the comments he provided in August included removing the reference to cadmium bolts in

Section 505.6.3.3 (5). Since it was not in the handout provided during the meeting, he wanted to make sure it was included. Mr. Badowich agreed and moved to accept Case 12-03 based on the final handout, plus the change to Section 505 that was in the packet. Jami Erickson seconded the motion. A roll call vote was taken. The motion passed, 11 yes, 0 no, 0 abstain, 3 not present.

7. Case 11-12 – Modifications to Regulatory Requirements, MAG 107

Update references to state statutes and regulatory requirements. Peter Kandaris said the final version included minor changes requested by MCDOT and Phoenix in the permit section. He read the final language for the committee. Mr. White noticed a typo in the second to last sentence where the word “closed” should read “close.” Mr. Herz moved to accept Case 11-12 with the spelling correction noted. The motion was seconded by Jami Erickson. A roll call vote was taken. The motion passed, 11 yes, 0 no, 0 abstain, 3 not present.

8. Case 11-16: Modify Section 415: Steel Flexible Metal Guardrail

Update Section 415 based on the Maricopa County Supplement. Reference MCDOT Details. Peter Kandaris said he worked with Bob Herz to make the case consistent with the latest revisions done by the county. Mr. Herz asked for the reference to specific national standards for temporary protective end treatments (Section 415.3.1) be removed and make it at the discretion of the engineer. Mr. Kandaris said he put those standards in based on comments from the last meeting, but that he was willing to take them back out if that was the consensus of the committee. Rod Ramos asked about the guardrail detail drawings. Mr. Kandaris said it currently is referencing MCDOT details. Mr. Ramos said that MAG typically doesn't reference other agency supplements and asked about adding them to the MAG document. Mr. Kandaris said that this option was discussed, but it was decided to allow MCDOT to finalize changes to the guardrail details. Next year there could be a new case if it was decided that it was preferable to include them in the MAG book. Mr. Ramos moved to accept Case 11-16, with the strike-out revision requested by Mr. Herz. Jim Badowich seconded the motion. A roll call vote was taken. The motion passed, 11 yes, 0 no, 0 abstain, 3 not present.

9. Case 11-18: Update Section 350: Removal of Existing Improvements

Add language in Section 350.2 for utility removal, and payment requirements. Mr. Kandaris noted that Bob Herz helped him clean-up the final version included in the packet. He reviewed the changes with the committee, including revised wording in the second paragraph of Section 350.2.1 Utilities. Also the second paragraph of 350.2.2 was removed, and the third paragraph of Section 350.2.2 was revised. Brian Gallimore had a question on Section 350.4 PAYMENT. He thought it was unclear if payment was for all misc. items together, or each one separately, since it said “for each removal items.” To clarify that it was for all items together, the committee agreed to remove the aforementioned text. Warren White moved and Bob Herz seconded the motion to accept Case 11-18 with the changes noted. A roll call vote was taken. The motion passed, 11 yes, 0 no, 0 abstain, 3 not present.

New 2012 Cases

10. Case 12-01A-D: Miscellaneous Corrections

Mr. Tobiasson asked if there were any updates or new corrections. Seeing none, Bob Draper moved and Warren White seconded the motion to accept Case 12-01 as presented. A roll call vote was taken. The motion passed, 11 yes, 0 no, 0 abstain, 3 not present.

11. Case 12-03: Revisions to Detail 250-2 DRIVEWAY ENTRANCES

Update Sidewalk Widths to 4' in Detail 250-2 Driveway Entrances. Bob Herz provided an revised detail drawing in the packet that updated the note to read "DRIVEWAY ENTRANCE WIDTH." Members questioned why the note for the sidewalk showed 1.5% slope on the section view but 2% max on the plan view. Mr. Herz explained that he didn't want to change the sidewalk detail requirement, which is 1.5%, but that a greater slope was needed to get the angled sections to match up from the curb to the sidewalk behind the ramp. To make it consistent, it was suggested to change Section A-A to note the slope as: 1.5% desirable, 2% max. Jim Badowich described a problem where ramps sloping down below street grade created a water run-off problem. To address this potential problem it was suggested to add note 14. "Elevation of top of driveway ramp shall be equal to or greater than normal curb elevation." Jim Badowich moved and Craig Sharp seconded the motion to accept Detail 250-2 with the revisions noted. A roll call vote was taken. The motion passed, 11 yes, 0 no, 0 abstain, 3 not present.

12. Case 12-04: Revisions to Section 317: Asphalt Milling

Revise Asphalt Milling to address dust control measures on milled surfaces open to traffic. Jeff Benedict said the final version reflected changes suggested by Mr. Wilhite at the last meeting. A minor edit to the revision was made during the meeting to add commas before and after the text "when authorized by the engineer" in the second paragraph of the revision. Mr. Benedict said the font was changed to highlight the revision, but would be the same in the final format. Bob Herz moved and Syd Anderson seconded the motion to accept Case 12-04 with the minor correction of adding the two commas. A roll call vote was taken. The motion passed, 11 yes, 0 no, 0 abstain, 3 not present.

13. Case 12-06: New Detail 249: Modified Entrance

Create a new entrance detail meeting ADA requirements for straight sidewalks. Warren White provided an updated Alley Entrance Detail that incorporated many changes suggested by MCDOT. Mr. Herz noted that Section A-A shows the thickness at 8", but does not show the same thickness for the curb and gutter. Tom Wilhite said that since the concrete thickness on the previous detail discussed was 9", he thought it should be 9" on this detail as well to be consistent. There was some discussion as to whether it should also be changed to class A concrete rather than class B, but it was decided to tackle that issue at a later date. Bob Herz said he would like to add a note 7, which is the same as note 1 on Detail 250-2: "Depressed curb shall be paid for at the contract unit price for the type of curb used at that location."

Brian Gallimore asked about payment the additional thickness required. Mr. Herz responded that he wanted the bid unit price to be the same to make it easier for agencies. Rod Ramos asked about labeling construction/control joints, to make sure cracking did not occur at the edge. It was suggested to add a note 8 to label the control joints. Several members had questions regarding the material used beyond the entrance. Mr. Herz said it could be asphalt, gravel, or other materials and not necessarily concrete. To make that more clear, he suggested removing the line and earth fill on the left side of Section A-A. Bob Draper moved and Rod Ramos seconded the motion to accept Case 12-06 with all the modifications to Detail 260 discussed. A roll call vote was taken. The motion passed, 11 yes, 0 no, 0 abstain, 3 not present.

14. Case 12-10: Revisions to Section 505.6.3 Bridge Deck Joint Assemblies

Revise Section 505.6.3 and add updated welding requirements in part (7). Bob Herz handed out a final version of the case during the meeting. The changes were highlighted in yellow and included changing the word “by” to “in the presence of” in Section 505.6.3.3 (1), and deleting the second paragraph under Section 505.6.3.3 (6) regarding deck joint assemblies. Mr. Herz said the purpose of the case was to update the welding standards on the second page because the codes have changed. Mr. Wilhite noted that since Case 11-03 passed earlier and removed the reference to cadmium bolts in Section 505.6.3.3 (5), it should be struck here as well. Mr. Herz agreed and moved to accept Case 12-10 with the revisions noted. Bob Draper seconded the motion. A roll call vote was taken. The motion passed, 11 yes, 0 no, 0 abstain, 3 not present.

15. Case 12-11: Reclaimed/Recycled Materials

Address the use of reclaimed and/or recycled materials along with proper reference adjustments to their respective corresponding sections. Final updates to the case were provided based on feedback from the August 1 committee meeting and the Asphalt/Materials working group meetings. The committee decided to discuss and vote on each of the individual components A) for materials, B) for asphalt and C) for CLSM separately.

Jeff Hearne discussed the changes to Case 12-11A first. He said updates were made to add “uniformly blended” and “prior approval of engineer.” Bob Draper said the ‘d’ should be removed from the word “recovered” in the first sentence of 701.5. Peter Kandaris suggested moving the second paragraph of 701.2 under the General Section 701.1. Another typographic error was to add a missing period at the end of 701.2.4.

For Section 702 Mr. Hearne said “uniform blend” was added again, and other minor corrections discussed during the working group meeting. Another change brought to his attention before the meeting was to change the word “shall” to “may” in the 4th and 5th paragraphs of 702.1 so that users would not be confused thinking they must use RAP. Bob Herz also suggested changing the language “shall be used” to “is primarily used” in 702.1.1 and 702.1.2. Bob Draper asked what was meant by “deep lifts” in this same sentence. To clarify meaning, the end of 702.1.2 was changed by striking “or deep lifts for backfill” and replacing it with “for fill.” There was discussion about the use of recycled materials as select

material. Brian Gallimore said they have used it for fill below ABC. Members agreed it was not to be used for backfill around pipes. When asked about compaction, Brian Gallimore explained that you typically need more water, but the lifts are still the same – typically 4”-6”. He said recycled materials would still have the same testing and installation requirements.

Jeff Hearne pointed out the new line for recycled concrete materials in Section 725.3. Bob Draper said he wanted a limit to the amount of recycled materials used in concrete. Jeff Hearne explained how it was limited by meeting the requirements for aggregates in Section 701. Finally, Mr. Hearne said no changes were made to Section 310 since the last meeting.

Bob Draper moved and Rod Ramos seconded the motion to approve Case 12-11A with the revisions noted during the meeting. A roll call vote was taken. The motion passed, 10 yes, 0 no, 1 abstain, 3 not present.

Jeff Benedict discussed the changes to Case 12-11B for recycled asphalt. He said minor changes were made to Section 710 based on feedback. These included formatting in the tables including making the fractions the same font size, and adding to Section 710.3.1 (5) “The percentage of RAP and RAP binder being contributed to the total mix shall be included in the mix design report.” Bob Draper asked that language be added to Section 710.2.3 to make it clear that RAP cannot be used unless it is expressly allowed by the engineer. The wording “When allowed by the Engineer” was added to the beginning sentence in Section 710.2.3.

Rod Ramos commented that the percentages of RAP contributions seemed high and asked about the use in actual projects. Jeff Benedict said the 15% was based on AASHTO recommended amounts. Brian Gallimore said he used 25% in the base and 20% on the surface of the U.S. 60 project they did, and are using 30% for shoulders on a Sky Harbor project specified by the City of Phoenix. Mr. Benedict said the technology for using 30% works fine, although the actual amount used would be determined by the mix design requirements. Mr. Benedict noted that it has additional testing requirements. Syd Anderson suggested agencies work closely with suppliers and get info from the industry if they begin projects using RAP. Jeff Hearne reminded members that this case just adds the framework to allow the use of recycled materials. Brian Gallimore said ARPA/AGC is planning to put together a tour of a plant producing RAP the agency representatives are welcome to attend.

Rod Ramos moved and Mark Ivanich seconded the motion to approve Case 12-11B with the revisions noted during the meeting. A roll call vote was taken. The motion passed, 10 yes, 0 no, 1 abstain, 3 not present.

Mr. Hearne said that no changes were made to Case 12-11C, the CLSM section, since the last meeting. This case would allow materials other than #57 aggregate to be used but he also noted the new text in 728.2 does include the requirement that it “is approved by the engineer.” Peter Kandarlis asked if it still had to meet gradation requirements, because a CLSM mix with all fines such as sand will not work. Mr. Hearne assured him that it still had to have the minimum of 40% of coarse aggregate, and that any recycled aggregate would need to meet the same gradation requirements. With that question resolved, Mark Ivanich

moved and Syd Anderson seconded the motion to approve Case 12-11C as presented. A roll call vote was taken. The motion passed, 11 yes, 0 no, 0 abstain, 3 not present.

16. Case 12-12: Steel Reinforced Polyethylene Pipe

Add new Section 739 for Steel Reinforced Polyethylene (SRPE) Pipe. Sponsor Rod Ramos said a cleaned up, final version incorporated feedback from the water/sewer working group. Syd Anderson asked about the installation specifications for the pipe. Mr. Ramos said the current case was just for the material, and that several other sections referring to HDPE pipe would need to be updated. He said if approved as-is, the pipe material could be specified in MAG, but the installation requirements would have to be part of the special provisions. Jim Badowich said the installation requirements were discussed at the working group, and it was thought that the requirements should be part of a larger revision to the specifications grouping rigid and flexible pipe separately so their installation procedures are correct for each material. Bob Herz noted that there were several installation requirements listed in Section 739 including the last paragraph of 739.1 and 739.3.2. Mr. Herz also noted that 739.6 Dimensions and Tolerances could be removed because the material is already specified. In Section 739.5 Mr. Herz said he wanted the contractor to deliver the certification, not the manufacturer. Syd Anderson said Phoenix requires independent testing rather than testing by the manufacturer.

John Kanzlemaz, of Contech, who helped develop the specification, said that the format and items included within followed the current HDPE material section 738. Rod Ramos said references to HDPE also are in Sections 601, 610 and 615. Jim Badowich said Section 603 for HDPE installation will likely be revised to be more inclusive for all flexible piping.

Due to the many issues brought up by committee members, and the on-going work for the installation specifications being done through the water/sewer working group process, Mr. Ramos suggested carrying forward this case to 2013. A consensus of members agreed.

17. Working Group Reports

Chair Tobiasson asked for reports from the working groups.

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

Jim Badowich said the group did not meet in August but do have the next meeting scheduled for September 18th at 1:30 at the MAG office. He says they will continue to work on Case 12-12 and the installation requirements that go along with both rigid and flexible pipe.

b. **Asphalt, Materials and Concrete Working Groups**

Jeff Benedict said meeting topics were covered in the written report. He said future topics will include the penalty table in Section 310, but noted the next working group meeting would likely not be until November. Jeff Hearne said he would begin looking at potential cases that were set aside, and planned to coordinate the meeting date in

November with the asphalt working group. Brian Gallimore said he would do the same but also wants to tackle the manhole adjustment details.

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

Peter Kandaris said he plans to get the group back to its original mandate of preparing specifications for the outside ROW area, now that the main MAG specifications have been more thoroughly updated.

18. General Discussion

Paul Nebeker complimented the committee on the good work done over the past couple years, and said he was impressed that the committee is taking a more progressive and forward looking view of the specifications. He was glad to see the committee was able to come together and unanimously approve so many cases.

Brian Gallimore thanked Troy Tobiasson for his service as chair, and for pressuring the working groups to complete their work on time.

Chair Tobiasson announced that an October meeting would not be necessary, and asked the committee about possible future agenda items for next year.

Warren White said that SRP is planning to give up their street lighting infrastructure, so agencies may have to take these over if they haven't already.

Mr. Tyus reminded case sponsors to please make the final changes to their cases as discussed in the meeting and get them to him as soon as possible so that he can begin making the updates to the MAG document. He also said that the next step in the review process was to submit a summary of cases and the update packet to the public works directors for review. He asked any members whose directors may have changed to please send him the updated contact information.

Seeing no further business, Mr. Tobiasson thanked the committee for their hard work during the year.

19. Adjournment:

The chair adjourned the meeting at 4:36 p.m.

LIST OF MEMBERS
For
MAG Standard Specifications and Details Committee

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December 2012

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LIST OF MEMBERS
For
MAG Standard Specifications and Details Committee

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LIST OF MEMBERS
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MAG Specification & Detail Committee – ATTENDANCE for 2013

Quorum - 9 Agency Representatives

Member	Representative	January 2, 2013	February 6, 2013	March 6, 2013	April 3, 2013	May 1, 2013	June 5, 2013	July 3, 2013	August 7, 2013	Sept. 4, 2013	October 2, 2013	Total
Agency Members:												
Avondale	Jim Badowich											
Buckeye	Scott Zipprich											
Chandler	Warren White											
El Mirage	Antonio Hernandez											
Gilbert	Tom Condit											
Glendale	Mark Ivanich											
Goodyear	Troy Tobiasson											
Maricopa Co.	Bob Herz (Transportation)											
Mesa	Bob Draper											
Peoria	Javier Setovich											
Phoenix	Syd Anderson (Street Trans)											
	Jami Erickson (Water)											
Scottsdale	Rodney Ramos											
Surprise	Jason Mahkovtz											
Tempe	Thomas Wilhite											
Valley Metro	Harvey Estrada											
Youngtown	Jim Fox											
Advisory Members:												
AZ Rock Products Association	Jeff Benedict											
	Jeff Hearne											
Associated General Contractors	Brian Gallimore											
	Adrian Green											
S.R.P.	Jacob Rodriguez											
Independent	Paul Nebeker											
	Peter Kandar											
National Utility Contractors Assoc	Dan Hernandez or Bill Davis (Alternate)											
	Tony Braun											
MAG Admin.	Gordon Tyus											

Attendance: √: Attended meeting; (Blank): Not attended meeting; S: Designated substitute attended
P: Attended a portion of the meeting; A: Attended via audio conferencing.

2013 PROPOSED REVISIONS TO MAG SPECIFICATIONS AND DETAILS

(Updated information can be found on the website: <http://www.azmag.gov/Committees/Committee.asp?CMSID=1055>)

CASE	DESCRIPTION	PROPOSED BY	MEMBER	SUBMITTAL DATE Last Revision	VOTE DATE	VOTE	
	CARRY FORWARD CASES FROM 2012						
12-12	Case 12-12: New Section 789 – Steel Reinforced Polyethylene Pipe (SRPE)	Scottsdale	Rod Ramos	07/11/2012 08/09/2012		0 0 0	Yes No Abstain
	NEW CASES FOR 2013						
13-01	Case 13-01:					0 0 0	Yes No Abstain
13-02	Case 13-02:					0 0 0	Yes No Abstain
13-03	Case 13-03:					0 0 0	Yes No Abstain

SECTION 739 (Proposed)

STEEL REINFORCED POLYETHYLENE PIPE & FITTINGS FOR STORM DRAIN, SANITARY SEWER & IRRIGATION

739.1 GENERAL:

This specification covers the requirements of Steel Reinforced Polyethylene Pipe (SRPE) pipe manufactured per ASTM F2562 for storm drains, irrigation and sanitary sewer systems. When noted on the plans or in the special provisions, storm drains, irrigation and sanitary sewers may be constructed using SRPE pipe. The SRPE pipe will be of the sizes 24 inch diameter through 120 inch diameter.

Gasketed watertight pipe joints shall meet a laboratory test pressure of 15.0 psi or 34.5 feet of water when tested in accordance with ASTM D3212.

Optional electrofusion watertight pipe joints shall meet a laboratory test pressure of 30.0 psi or 69 feet of water when tested in accordance with ASTM D3212.

The size and stiffness class of the SRPE pipe per ASTM F2562 to be furnished shall be specified by the Engineer and shown on the plans or in the project specifications.

When specified, SRPE pipe shall be tested in accordance with 615.11 and ASTM C828

739.2 MATERIALS:

739.2.1 Base Steel Materials: Continuous high strength galvanized ribs shall be cold rolled steel meeting the requirements of either ASTM A1008 or ASTM A1011 with minimum yield strength of 80,000 psi. Steel ribs shall be completely encased within the HDPE profile.

739.2.2 HDPE Material Composition: SRPE pipe HDPE material and fittings shall, in accordance with ASTM 2562, be made from HDPE plastic compound meeting the minimum requirements of cell classification 335464C or higher cell classification, in accordance with ASTM D3350.

739.2.3 Gaskets: Rubber gaskets shall be manufactured from a natural rubber, synthetic elastomer or a blend of both and shall comply in all respects with the physical requirements in ASTM F477.

739.2.4 Water Stops: Water stops shall be manufactured from a natural or synthetic rubber and shall conform to the requirements of ASTM C923. The water stop shall have expansion rings, a tension band, or a take-up device used for mechanically compressing the water stop against the pipe.

739.2.5 Thermal Welding Material: The material used for thermally welding the pipe material shall be compatible with the base material.

739.2.6 Lubricant: The lubricant used for assembly shall comply with manufacturer's recommendations and have no detrimental effect on the gasket or pipe.

739.2.7 Other Materials: Materials other than those specified above shall comply with ASTM F2562.

739.3 JOINING SYSTEMS:

738.3.1 Gasket Type: Steel reinforced bell and spigot joints for the piping system and fittings shall consist of an integrally formed bell and spigot gasketed joint. The joint shall be designed so that when assembled, the elastomeric gasket is compressed radially on the pipe or fitting bell to form a water tight seal. The joint shall be designed so to prevent displacement of the gasket from the joint during assembly and when in service. The elastomeric gasket shall meet the provision of ASTM F477.

All pipes shall have a home mark on the spigot end to indicate proper penetration when the joint is made.

SECTION 739 (Proposed)

The bell and spigot configurations for the fittings shall be compatible to those used for the pipe.

Joints shall provide a seal against exfiltration and infiltration. All surfaces of the joint upon which the gasket may bear, shall be smooth and free of any imperfections, which would adversely affect seal ability. The assembly of the gasketed joints shall be in accordance with the pipe manufacturer's recommendations.

739.3.2 Thermal Weld Type: Electro fusion (EF) joints, when specified, shall utilize plain ended pipe welded together by internal pressure testable couplers. The internal couplers shall have a minimum wall thickness equal to or greater than the pipe wall thickness as defined in pipe specification, ASTM F2562. The assembly of the welded joints shall be in accordance with the manufacturer's recommendations.

739.4 FITTINGS:

Fittings for SRPE pipe may include tees, elbows, manhole adapter rings, plugs, caps, adapters and increasers. Fittings shall be joined by gasket type or thermal weld type joints in accordance with Subsection [739.3](#).

A clamp gasket or approved method shall be provided at manhole entry or connection to reduce infiltration and exfiltration. Where precast manholes are used, entrance holes must be large enough to allow for proper grouting around the manhole gasket. A non-shrink grout shall be used for grouting.

739.5 CERTIFICATION:

The manufacturer shall furnish an affidavit (certification) that all materials delivered shall comply with the requirements of ASTM F2562.

739.6 DIMENSIONS AND TOLERANCES:

SRPE pipe dimensions shall comply with dimensions given in Table 2 of ASTM F2562. The "inside diameter" of profile wall SRPE pipe shall not deviate from its published inside diameter by more than as specified in Section 6.2.3 of ASTM F2562.

739.7 MARKINGS:

Markings on pipe shall be per ASTM F2562. These markings shall be clearly shown on the pipe at intervals of approximately 12 feet and include but not limited to the following: the manufacturer's name or trademark, nominal size, the specification designation, plant designation code, date of manufacture or an appropriate code. All fittings shall be marked with the designation number of the specification and with the manufacturer's identification symbol.

739.8 CARE OF PIPE AND MATERIALS:

All pipe and materials shall be manufactured, handled, loaded, shipped and unloaded in such a manner as to be undamaged and in sound condition, in the completed work. Particular effort shall be exercised to protect the ends of the pipe. Repairs on damaged pipe shall be made to the satisfaction of the Engineer otherwise they shall not be used in the work and shall be replaced with an equal pipe or special in an acceptance condition. At all times, rubber gaskets shall be covered in a factory applied protective wrap or stored in a cool, dark place until ready for use.

- End of Section -

Water/Sewer Working Group Meeting

Meeting Notes
September 18, 2012

Opening:

A meeting of the Specifications and Details Water/Sewer Working Group was called to order by chair Jim Badowich on September 18, 2012, at 1:35 p.m. in the MAG Cholla Room.

1. Participants

Jim Badowich (Avondale), Bill Davis (ADS), Mike Hook (ACPA), John Kanzleamar (Contech), Kelly Kokesh (ADS), Jason Jackson (Old Castle), Adrian Leon (Contech), Matt Savage (Ferguson), Craig Sharp (Buckeye), Gordon Tyus (MAG), Scott Zipprich (Buckeye).

2. Cadmium Plated Bolts (Case 11-03)

The case was approved by the committee at the last meeting.

3. Wet Barrel Fire Hydrant Spec and Detail Update (Case 11-14)

The case was approved at the committee during the August meeting. Mr. Badowich thanked Craig Sharp for his assistance on the case.

4. Manhole Details and Pre-Cast Manhole Bases

Jim Badowich said he wanted to begin updating the manhole details such as 420 and 520, as well as add options for pre-cast bases. Mr. Jackson asked if cast in place bases would require reinforcement. Mr. Badowich said for deeper manholes they probably will. He noted Avondale had some failures. Mr. Jackson was asked what depth their pre-cast bases could be installed. He said they meet ASTM C478 and have been designed to up to a 45' depth. He was asked to explain the casting process Old Castle uses and differences between dry and wet casting. He explained their strength of concrete was about 5000 psi in the plant, and that holes could be bored in the precast units to match the angles needed to 1/10 of a degree. He said they worked with Buckeye, who Mr. Badowich noted, will be the base specs and details for developing a MAG case.

Jim Kanzleamar said that in Ohio, where he worked previously, all manholes were precast. Jim Badowich said they wanted precast bases as an option, but that it may take time to be adopted by municipalities. He said concern about the base being compacted and stabilized to correct tolerances was one issue. Mr. Sharp said he installed precast bases in Flagstaff and found an advantage in quicker installation, since you didn't have to wait for the concrete to cure, which is also an advantage if you have weather issues.

There was discussion about the advantages and disadvantages of different kinds of connectors, such as the rubber boot or A-lock systems. Mr. Zipprich said the holes must be coated to seal any exposed steel reinforcement. Mr. Badowich also thought different types of manhole lining should be added to the MAG specs. The issue of maximum pipe size where the MAG detail was applicable was discussed. Mr. Zipprich described a project that used larger manhole structures designed by Old Castle, and up to 60" HDPE pipe, that was encased in concrete.

Mr. Badowich said Phoenix allows a maximum 45 degree turn per manhole, so a 90 degree turn would require two manholes. Mr. Tyus asked if 24" manholes should still be an option since Glendale no longer uses them. Mr. Badowich noted the difficulty of using them, since harness and other equipment are used to enter through the opening; however, he thought they should still be an option. Mr. Jackson said they sell quite a few 24" models, especially for smaller systems. He also recommended keeping the adjustment rings to 1' or less.

5. Special Bedding for Mainline Storm Drain Pipe (Case 11-21)

Phoenix withdrew their case due to issues that were likely not to be resolved by the end of the year. This will allow a new case (or cases) to be introduced next year. Mr. Hook said they planned to reintroduce it. Mr. Badowich said this case opened up the discussion to more revisions to both rigid and flexible pipe installation. (To be discussed below.)

6. Steel Reinforced Polyethylene Pipe (Case 12-12)

This case was carried forward to 2013. The committee wanted installation requirements included that will be wrapped into the large issue of flexible/rigid pipe installation revisions.

7. Flexible and Rigid Pipe Installation Revisions

The discussion began with discussion of some of the proposed revisions based on Case 12-12 that were handed out by Mr. Kanzlemer. He should were additional changes were needed to accommodate the SRPE materials in existing specifications (such as Sections 601 and 603). Jim Badowich and Gordon Tyus both thought there should be some thought as to how these sections should be organized overall. Mr. Tyus suggested making 601 the excavation and installation of rigid pipe, and 603 for flexible. Users wouldn't have to jump around as much in the document. However, installation instructions for the use are in separate sections such as 610 Water Line Construction and 615 Sewer Line Construction.

For the trench widths, Mr. Kanzlemer suggested the table shows the outside diameter plus the number of inches on each side of the pipe as a minimum. Mr. Zipprich asked about the bell. He agreed it was an issue, and also discussed if a maximum was necessary. He thought it may have been added to keep a maximum for pavement replacement purposes. Mr. Kanzlemer also discussed terminology and drew a schematic diagram on the whiteboard of a section view labeling the foundation, bedding, haunching, initial backfill and final backfill. He said it was based on ASTM standards, but even they are not consistent in terminology, nor does it match that in MAG currently. Mr. Tyus noted that details (such as 202-2) show bedding and foundation differently. He thought a new or updated detail with the agreed upon terminology may be needed first, so the terminology used in the specifications was consistent.

Mr. Kanzlemer listed what types of pipe he thought fell under the categories for rigid and flexible. Flexible included: profile HDPE, HDPE, SRPE, PVC, Polypropylene, Fiberglass (FRP), composites and corrugated metal. Rigid would include: concrete, reinforced concrete, vitrified clay, concrete-asbestos, and probably iron – although it could also be considered flexible.

Mr. Zipprich brought up the fill materials for flexible pipe. The ASTM tables allow different materials that don't match up to MAG rock types. Adding the table from ASTM with references

to matching MAG standards could help make them more understandable. He recommended using only class 1 or class 2 materials. Jim Badowich said native fill is often used. Mr. Davis said he doesn't see it that much, but agreed that proper fill material should be used.

Finally there was discussion about the best way to proceed. Mr. Tyus thought that proceeding with the rigid/flexible spec revisions would help make it easier to approve new materials such as the SRPE (and others) in the future. He explained the process of sponsoring the case at the committee and getting feedback. Mr. Tyus thought that cases could be developed by the working group, and early next year could get feedback from the committee. He described the recycled materials case passed by the committee as an example of how to proceed successfully.

Matt Savage said he would bring updated info for revisions to the poly-wrap specifications to the next meeting.

8. Next Meeting Date

Members agreed to tentatively schedule the next meeting of the Water/Sewer working group on Tuesday, October 23rd, 2012 at 1:30 p.m. at the MAG office.

Water/Sewer Working Group Meeting

Meeting Notes
October 23, 2012

Opening:

A meeting of the Specifications and Details Water/Sewer Working Group was called to order by chair Jim Badowich on October 23, 2012, at 1:35 p.m. in the MAG Cholla Room.

1. Participants

Jim Badowich (Avondale), John Kanzleamar (Contech), Matt Savage (Ferguson), Gordon Tyus (MAG), Mike Weinberg (Contech).

2. Steel Reinforced Polyethylene Pipe (Case 12-12)

John Kanzleamar and Mike Weinberg of Contech were present to represent industry on Case 12-12. Mr. Kanzleamar said he had not done any additional work on the case since the last meeting. Mr. Tyus filled in Mr. Weinberg on some of the issues raised by committee members on the case and the feedback they provided for including installation specifications as part of the case, which led to participation in the working group's task of updating installation requirements for both flexible and rigid pipe.

3. Flexible and Rigid Pipe Installation Revisions

Mr. Badowich explained that he hoped to outline a plan for what sections should be where, such as trenching, water line installation, sewer line installation and so on. It may require moving sections around. The group also discussed how by organizing and compartmentalizing them may make it easier to add materials in the future. Mr. Kanzleamar discussed his efforts to come up with standardized trench widths. Mr. Tyus said trenching, differing terminology, and CLSM requirements for pipe installation were issues brought up by an engineer at a recent ASHE meeting he attended.

4. Manhole Details and Pre-Cast Manhole Bases

Jim Badowich said he wanted to begin updating the manhole details and add options for pre-cast bases. He passed out MAG details 420-1, 420-2, 421 and 422. The group first discussed Detail 422. Most agreed that the brick manhole probably could be deleted and the cover frame adjustment should be updated and possibly included as part of Detail 270. The rationale was that different contractors and plans were used when making the final adjustments, than the initial installation, and that these were more common due to street reconstruction and repaving. Next the group discussed the exiting manhole details 420-1 and 420-2. Mr. Badowich said there would probably need to be a couple more details to incorporate the pre-cast bases based on the details he's seen adopted by Buckeye. He hoped to work with them, and their drafter to make updates. Mr. Badowich also said the steps should be removed, the titles should include the word SANITARY before sewer since storm drain details are in the 520's. Mr. Tyus asked if they should be rearranged showing a sheet with base options (precast or cast-in-place), main manhole construction (rings), and different tops (like existing Type A or Type B). Members discussed how to get direction and feedback from the main committee and plans for how to proceed with revisions.

5. Polywrap Table Revisions

Matt Savage brought in information about revising Section 610.6 Polyethylene Corrosion Protection to match product sizes currently on the market. This included updating Table 610-1 with sizes based on a table from the AWWA standards. Mr. Tyus asked whether the entire table should be included, or the existing one updated. Mr. Savage said he thinks updating the table based on actual the actual sizes of polywrap would make sense. Mr. Badowich questioned whether using polywrap was effective in our climate based on examples he has seen in the field. Mr. Savage agreed to make revisions and prepare materials for a possible case.

6. Next Meeting Date

Members agreed to tentatively schedule the next meeting of the Water/Sewer working group on Tuesday, December 11th, 2012 at 1:30 p.m. at the MAG office.