

Water/Sewer Working Group Meeting

Meeting Notes
April 16, 2015

Opening:

A meeting of the Specifications and Details Water/Sewer Working Group was called to order by Jim Badowich on April 16, 2015, at 1:35 p.m. in the MAG Cottonwood Room.

1. Introductions/Attendance

Jim Badowich (Avondale), Anthony Bussio (Geneva Polymer), Julie Christoph (Mesa), Will Fielder (SW Gas), Daniel Kiel (Peoria), Matt Ligouri (SW Gas), Robert McGee (SW Gas), Connie Peretz (AZUCA), Craig Sharp (Buckeye), Gordon Tyus (MAG), Arvid Veidmark (SSC Boring), Warren White (Chandler).

2. Presentation from Armorock – Polymer Manhole System

Jim Badowich asked Anthony Bussio to give a short presentation on polymer based manholes. Mr. Bussio provided several handouts including a presentation, sample specifications and details, and product data sheets. He then provided an overview of the product. Polymer concrete uses resin rather than cement as the binder holding the sand and aggregate together to make the entire manhole corrosion resistant. He explained how sulfide gas oxidizes to sulfuric acid which can deteriorate the cement and corrode typical manholes. The handouts showed typical failures of concrete manholes and coating and lining failures as well. The polymer manholes have greater strength and so the wall thickness can be 2" rather than 4"-5" but are still structurally sound at 4000 psi and are not flexible. He provided charts that illustrated how the extended life of the polymer product made it more economical over a 50 year period. He said their product was warranted for a full 50 years compared to a typical 5 year warranty. Mr. Bussio said the product has been approved in Clark County, the Twin Cities, and tests are underway in several Arizona agencies including Pima County, Queen Creek and tests in Pheonix.

Mr. White asked about insecticides. Mr. Bussio said the material was resistant to chemicals, and they should work fine. Craig Sharp asked when the material would be ASTM ready. Mr. Bussio said they are working with the ASTM committee and have a contributing member, but thought it may be 5-10 years. In the meantime, the product meets the ASTM standards for Polymer-based pipe, and standard manhole specifications for loading requirements. He said there are other manufactures in the U.S. of this type of manhole, and they have worked with other agencies including Pima County. Julie Christoph asked about handling the material. Mr. Bussio explained that since the material is pre-coated there were approved methods for installation (such as lifting vertical) to avoid damage. He said that if a crack or chip is made, they have a polymer grout (a chemical repair method) that hardened in about an hour and reached maximum strength in 24 hours. He noted installation time can also be quicker since a separate coating or lining operation is not needed. He said if a replacement is needed they have a 24 hour turnaround time with a plant in the Las Vegas area.

Jim Badowich thanked Mr. Bussio for the presentation and said it was just a matter of time before these products become used widely. Other products such as meter boxes are already being used due to the corrosion resistance. He said Avondale is planning to test these manholes. He said having ASTM approval, and making the pieces interchangeable would be beneficial.

3. Case 15-01 Misc. Bloopers

Gordon Tyus said Bob Herz brought to his attention an error in the existing specifications. Section 603 was to be deleted from the spec since flexible pipe is now included in Section 601, however, it was inadvertently left in the initial printing of the books. Mr. Tyus said the document posted online has been corrected, but the books already sold and printed still have those pages in them. He advised members to cross out those two pages (603-1 and 603-2), and that he would send out an email notice about the correction.

4. Case 15-03 Trench Compaction Requirements

Jim Badowich said that although Bob Herz was not in attendance his case is up for a vote at the next meeting. He noted a change removing the reference to “sheepsfoot” for the compaction wheel. Mr. Tyus said this change was suggested during the asphalt/concrete working group meetings since a “sheepsfoot” can also refer to a self-propelled or radio controlled compaction equipment. He suggested contacting Mr. Herz for clarification.

5. Case 15-04 Revisions to Section 602 Trenchless Installation of Steel Casing

This case was passed at the last committee meeting.

6. Case 15-05 Reclaimed Water Valve Boxes

Warren White provided handouts for his current case. One showed a detail of a square reclaimed water valve box produced by Old Castle. It included a 3D illustration to show the transition from round to square. He said Bob Herz noted the finish symbols should match the existing Detail 270. Ms. Christoph said Mesa uses round boxes for reclaimed water valves, but are labeled as such and painted purple. Daniel Kiel said Peoria typically uses C900 pipe, which you can get in the purple color. There was also discussion about which types are commonly used and how to avoid loads damaging the valves. Arvid Veidmark asked if we could get away from using key extensions Craig Sharp said he would prefer not to use extensions, but that Buckeye does use them. (Currently they are required over 5’ depths.)

Mr. White also passed out potential changes to the Valve Box Installation Details 391-1 and 391-2 and a proposed new Detail 391-3. The revised Detail 391-1 would show the standard collars for paved and unpaved areas. The different types (A-D) of installations were shown on 391-2. The type D installation added.

7. Horizontal Drilling Directional Drilling (New Section 608)

Attendees from Southwest Gas asked to provide comments on the proposed section before they had to leave. Sponsor Arvid Veidmark provided a new version #17 of Section 608. Will Fielder of Southwest Gas asked if the new section would apply to them. Mr. Badowich said that it would apply to any horizontal directional drilling. He explained that there currently is no spec governing this process, and agencies were concerned about such things as the clearance from other utilities in their right-of-way. Mr. Fielder expressed concerns that the proposed spec may be overlap with other requirements that they must currently meet from the ACC. He also thought the requirement to be trained by the manufacturer would not be feasible for their many contractors. Arvid Veidmark summarized the development of the current draft specification, and his work with ASU, AZUCA and the MAG working group. He said that they wanted input from the utilities such as SW Gas so that there aren’t conflicts. Mr. Fielder said things such as getting a PE stamp for fluids seemed unreasonable. Mr. Veidmark said agencies are concerned about all

the horizontal drilling, and there have been issues such as cross-boring through sewer laterals. Mr. Fielder acknowledged the problem, and said they were now doing in-house reviews and taking video of the project. Jim Badowich explained that the size of the project in the spec was dependent on the size and length of each bore, not the total length of the project, and that most were around 500' on average, that did not require all the additional reporting. Mr. Fielder said they typically use a 4" sleeve and then pull their 2" pipe through to avoid damage to their line. Mr. Badowich said MAG is trying to create a general spec that would cover all HDD including telecommunications, and ITS conduits used by the cities. There was also some discussion about welding joints. Arvid Veidmark said he would meet with representatives from SW Gas personally to review their suggestions on the proposed specification.

Mr. Badowich asked Connie Peretz of AZUCA how their membership has responded to the proposed spec. She said that although there was some initial pushback from contractors on additional regulation, overall their membership is on board, and believe it will even the playing field for contractors. She said that telecommunications providers, however, did not respond favorably. Mr. Veidmark said he thinks this is because utilities believe the requirements will increase their costs. Jim Badowich said he likes the idea of having contractors verify that adjacent utility lines were not breached. Ms. Peretz explained some of the problems locating utilities. She said after 2007 sewer laterals must be electronically locatable, but not before, so many are not correctly identified on existing maps. Members discussed the importance of getting feedback and taking into consideration the concerns of utilities.

8. Locating Utilities – Using Tracer Wire, etc.

Craig Sharp moved the group's discussion towards methods to better locate utilities including preferred methods. He handed out a matrix of agencies and their requirements, which included tracer wire, locating balls, tape and detectable mule tape. He also handed out supplements from the cities of Avondale, Buckeye, Flagstaff, Goodyear, Phoenix, Scottsdale and Surprise. He also provided information on the Arizona Statutes and Blue Stake Law. He discussed some of the options, including running tracer wire next to fire hydrants.

Julie Christoph said over the past couple years Mesa has been mapping potholing data on their GIS system. Members agreed that keeping a record of where utilities have previously been located was a good idea.

Due to the lateness of the meeting, discussion on this item was cut short. Mr. Sharp asked members to review the material he provided and consider a possible case to standardize electronic location methods.

9. Adjournment

The meeting was adjourned at 3:45 p.m.