



**REGIONAL WASTEWATER RECLAMATION DEPARTMENT  
PUBLIC MEETING ON PROPOSED REVISIONS TO THE DESIGN STANDARDS**

**Water & Energy Sustainability Center  
2955 W. Calle Agua Nueva  
Tucson, Arizona 85745**

**NOTICE and AGENDA  
Tuesday, January 5, 2016  
2:00 p.m.**

- A. Introduction**
- B. Pledge of Allegiance**
- C. Presentation on Proposed Revisions to Engineering Design Standards 2012, Standard Specifications and Details for Construction 2012, and Public Sewer Formatting Standards 2016**
- D. Public Comments**
- E. Adjournment**

Date of Notice: December 29, 2015

  
\_\_\_\_\_  
Carol A. Johnson, P.E., Sanitary Engineering Manager

Copies posted: County Administration Building: 1st and 5th Floors, "A" and "B" Levels

**NOTE:** Under the State Open Meeting Act Rules, no topics other than those listed above may be addressed or acted on at this meeting.

Persons with a disability may request a reasonable accommodation by contacting Kris Serrano at (520) 724-9851 or by email [kristina.serrano@pima.gov](mailto:kristina.serrano@pima.gov). Requests should be made at least 24 hours before the scheduled meeting to allow time to arrange the accommodation.



**REGIONAL WASTEWATER RECLAMATION DEPARTMENT  
PUBLIC MEETING ON PROPOSED DESIGN STANDARDS REVISIONS**

**Water & Energy Sustainability Center  
2955 West Calle Agua Nueva  
Tucson, Arizona 85745**

**PUBLIC MEETING SPEAKER REQUEST  
TUESDAY, JANUARY 5, 2016  
2:00 P.M.**

If you would like to address the Regional Wastewater Reclamation Department (RWRD), please complete the form below to ensure that correct and complete information is included in the official minutes of this proceeding. Please attach a written copy of your comments (if available). This form should be given to RWRD staff so you can be called upon to ask your questions or make your comments.

Please step forward to the podium when your name is called. Speak directly into the microphone when addressing RWRD staff so that your questions/comments will be on record. Please state your name and organization before you begin.

**SPEAKER INFORMATION**  
**(PLEASE PRINT)**

**NAME:** \_\_\_\_\_

**ORGANIZATION REPRESENTED:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_

**EMAIL ADDRESS:** \_\_\_\_\_ **PHONE #** \_\_\_\_\_

**COMMENTS/CONCERNS:**

BOOK*	PAGE/SECTION	COMMENT

*\*EDS = Engineering Design Standards; SSDC = Standard Specifications and Details for Construction;*

*PSFS = Public Sewer Formatting Standards*

**WRITTEN COMMENTS ATTACHED:** YES \_\_\_\_\_ NO \_\_\_\_\_

**Thank you for your consideration.**



Public Comments at the January 5, 2016 Public Meeting Related to the 2016 Engineering Design Standards & Standard Specifications and Details for Construction

No.	Book	Page	Section	Title	Comment	Date	By	Status	RWRD Response
1	N/A	N/A	N/A	N/A	RWRD should not feel slighted by the lack of participation as it speaks to what a good job was done to get to this point	1/5/16	Steve Oliverio, Rick Engineering		Acknowledged
2	N/A	N/A	N/A	N/A	Just received notice of the changes and do not have any comments at this time	1/5/16	Ed Lopez, Tucson Water		RWRD staff talked with Mr. Lopez after the meeting and he indicated that the update information had been previously sent to others at Tucson Water, but it had just been given to him prior to coming to the meeting.
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\*RWRD did not receive any written comments by the end of the public comment period closing date of January 12, 2016

## Proposed changes for 2016

### Engineering Design Standards & Standard Specifications and Details for Construction

No.	Book	Page	Section	Title	Comment	Disposition
1	EDS	0-i	0-Preface	New in the EDS 2012	Several errors in the Subsection reference numbers	Added to RWRD website as "Scrivner" errors/corrections section. Track changes on 8/22/13.
2	EDS	0-vi	0	Acronyms & Abbrev.	Regarding PE/FBE, delete FBE portion because not used in standards	Addressed by Standards Committee on 8/22/13
3	EDS	1-4	1.3	Definitions and Terms	I found another definition for drop manhole from other source: "A manhole having an inlet pipe connection that is located above the bench"	Completed
5	EDS	2-0	2	Cover Page	Remove "Draft" watermark	2016 still in DRAFT form
6	EDS	2-1	2.1.1	State Regulations	Add language: "When under AAC 4.01 general permit, it is the responsibility of the design engineer to process sewer submittals. The design engineer shall be responsible for making any required submittals to ADEQ or delegated authority. The design engineer and their client should never assume that RWRD is responsible for processing approvals from ADEQ."	Completed.
7	EDS	2-1	2.1.1	State Regulations	1st sentence, revise language to "sanitary sewer facilities for subsequent issuance of..."	Completed
13	EDS	5-1	5.1.1	Location and Alignment	Replace "Section 8 or Subsection 8.x" with "Section 7 or Subsection 7.x"	Added to RWRD website as "Scrivner" errors/corrections section. Document updated. Track changes on 8/22/13.
16	EDS	5-4	5.1.6	Cathodic Protection	at end of 1st sentence, add something like "or other buried sewer facilities with exposed metal surfaces."	Completed
21	EDS	5-6	5.1.10A	Drainage Culverts	Replace "Drainage Culverts" with "Drainage Facilities". This is a more general term that includes catch basins, etc. Also, add "or approved equal" after DIP	Addressed by Standards Committee on 8/23/13.
28	EDS	5-7	5.2.1	Placement of MHs	whenever possible and when there is no interfere with street manumantations, manhoels should be located..	Completed
31	EDS	5-8	5.2.3(A)	Curbs and Gutters	needs to be consistent with section 5.2.13	Addressed by Standards Committee on 8/22/13
32	EDS	5-10	5.2.7	Diameter	2nd Paragraph, 2nd bullet: RWRD 202 indicates that this detail shall only apply to 48" and 60" diameter manholes; EDS subsection 5.2.7 says to use RWRD 202 for manholes greater than 60" diameter.	Added:• Flow channel configuration; • Bench access per S.D. RWRD-202;
38	EDS	5-13	5.2.13	Watertight Frames & Covers	Last paragraph, should vent assemblies be limited to trunk and interceptor lines only? They don't seem appropriate in residential neighborhoods.	Addressed by Standards Committee on 8/23/13. (Approved in 10/16/13 Mtg)
42	EDS	5-14	5.2.16	Corrosion Protection for MHs	New criteria seems more restrictive than original criteria from Eng Dir 2006-15 (Item 1 & 2), what was the reasoning for this?	Comment discussed in 8/21/13 Standards Committee meeting, see minutes. Addressed by Standards Committee on 8/23/13. (Voted to leave the language the same on 9/18/13)
44	EDS	5-14	5.2.16	Corrosion Protection for MHs	Where did bullet #4 come from? Is this a new requirement?	see response to next comment
45	EDS	5-14	5.2.16	Corrosion Protection for MHs	4th bullet: shouldn't it state "velocity greater than 10 fps" per ADEQ requirements?	Error now realized by the editor, will fix according to this comment
46	EDS	5-15	5.3.1	Alignment of Serv. Lat.	First sentence, "That does not have an HCS installed"	Addressed by Standards Committee on 8/22/13
47	EDS	5-15	5.3.2	Connections to Public Sewer	3rd paragraph, 3rd bullet, reference to 5.3.4 indicates "shall be required" and conflicts with 1st sentence "may be required"	Addressed by Standards Committee on 8/22/13
48	EDS	5-15	5.3.2	Connections to Public Sewer	Third paragraph should be reworted to be consistent with item #2 from ENG-D-1 (3/1/1982) in the previous design standards. This paragraph should also include "private sewer systems" in addition to "service laterals".	Addressed by Standards Committee on 8/24/13.
56	EDS	5-17	5.4	Graphical Req. for Sewer Plans	With the revised Standards many of the General notes on the plans will need to be revised. Does PCRWRD have revised general notes that will need to be placed on the plans?	DLU posted Sewer Impr Plan Substantive Review Checklist on website, dated 3/14/13. No revisions required for this section.

## Proposed changes for 2016

### Engineering Design Standards & Standard Specifications and Details for Construction

No.	Book	Page	Section	Title	Comment	Disposition
57	EDS	5-17	5.4	Graphical Req. for Sewer Plans	I am currently working on a private sewer system for the U of A Facility Management and am using the new 2012 PCRWRD Standards and Details as a guideline. Along with the new standards and details, I assumed that there may be a new checklist. The best I could find on the internet was a 10-page "draft" copy, dated December 1, 2010. Can you please confirm that this is the latest checklist I should be using, or is there a more current list? If a new checklist is available, can you please provide it in PDF format, or give me a web address where I can download it?	DLU posted Sewer Impr Plan Substantive Review Checklist on website, dated 3/14/13. No revisions required for this section.
61	EDS	5-8	5.2.3A	Curbs and Gutters	Language in this section needs to be consistent with updated language in 5.2.13	Completed
62	EDS	6-3	6.4.1H	Site Requirements	Reword, too subjective: "Soils within the yard", "ground cover", "to within h-20 loadings". Need to specify per easement/stabilized surface requirements.	Driveways and drivable areas for equipment access shall be stabilized per Subsection 7.7.1 at a minimum.
63	EDS	6-4	6.5.1A	Pump - Gen. Reqs.	1,780 max rpm was intended as a general rule. Should add "unless otherwise approved by the Conveyance Dept. Pump Operations Manager"	Addressed by Standards Committee on 8/22/13.
64	EDS	6-5	6.6.1(B)	Wet Wells - General Requirements	"shall be coated or lined to protect it from corrosion" should be reworded as "shall have an Approved interior corrosion protection". Not all approved products are coatings or linings	Addressed by Standards Committee on 8/24/13.
67	EDS	6-10	6.10.1B	Electrical and Controls	shall be "intrinsically safe"	Completed
71	EDS	7-1	7.1.1	Horizontal & Vertical Alignment	7th bullet: add "be improved with stabilized surface as approved by the Dept.."	Completed
74	EDS	7-3	7.5	Maintenance Access and Encroachments w/in Public Swr Esmts	Per LA Fitness (n. Oracle Rd) project, 9% slopes in sewer easement is too steep and should be reduced to 6%. Previous design standards WWM-109 had maximum of 17%	Comment discussed in 8/21/13 Standards Committee meeting, see minutes. Track changes made to this section, section 7.1.1 and section 7.6 on 8/23/13.
80	EDS	7-5	7.6	Maintenance Access within ROW	Add flat surface at least 3' from edge of MH rim (WWM A-3). Add relatively flat area 20' diameter for proper maneuvering of maintenance trucks (WWM A-3)	See 10/16/13 Approved Changes
82	EDS	7-7	7.7	Landscaping and Planting Guidelines for Public Sewers	1st sentence, replace "shall not be allowed" with "are only allowed when DLU grants Special Approval"	Completed
84	EDS	7-7	7.7.2	Manholes in ROW	Where did language from WWM A-3(2b) regarding relatively level 6' diameter area provided around MH go?	Louie researched and could not find. A good catch
86	EDS	A-5	A-4.2.3	Low-Flow Thalweg	I found another oversight that Tetra Tech inadvertently made while preparing the scour procedures for the PCRWRD back in June 2011 (Final). The oversight was with equations 4.2.3.1 through 4.2.3.3. Attached is a corrected version of the procedures. Note that it has not been date-changed, so I indicated at the top of the document that errata changes were made in June 2013. I would ask that you please replace all previous versions in your department's possession with the attached (and send the attached to any other entities to whom you may have provided the document, as well). (see attached)	Added revisions by Tetra Tech to the "Scrivner" errors/corrections section on the website on 8/14/2013.
87	EDS	B-1	B2	Design Guidelines for Siphons	grammar edit: revise to "curvilinear and should allow..."	Completed
88	EDS	B-1	B7	Design Guidelines for Siphons	grammar edit: revise to "coated or lined in accordance with subsection xxx to protect..."	Completed
89	SSDC	0-v	0	Acronyms & Abbrev.	Regarding PE/FBE, delete FBE portion because not used in standards	Addressed by Standards Committee on 8/22/13.
92	SSDC	1-7	1.4.1	Permits and Fees	Last paragraph is missing some language that was in the original WWM A-3(19) and should be incorporated.	Addressed by Standards Committee on 8/22/13.

## Proposed changes for 2016

### Engineering Design Standards & Standard Specifications and Details for Construction

No.	Book	Page	Section	Title	Comment	Disposition
95	SSDC	1-10	1.4.7	As-Built Plans	PCRWRD as-built submittal requirements have been refined per 5/28/2013 and 3/10/2014 memos signed by Eric W. Need to revise last paragraph of this subsection.	Addressed by Standards Committee on 8/22/13.
97	SSDC	1-10	1.4.7	As-Built Plans	1st bullet, change "this drawing" to "this plan" or "these drawings"	Completed
101	SSDC	2-3	2.3	FMP Approval Proc.	Change "color portable document file" to "portable document format" as proper definition of "PDF"	Addressed by Standards Committee on 8/22/13.
102	SSDC	2-4	2.4.1	Flow Metering Method	Change "Flow Metering Group" to "Flow Monitoring Group" (several occurrences)	Addressed by Standards Committee on 8/22/13.
103	SSDC	2-8	2.6.2(B)	Stationary Bypass Pumping Systems	Found logical error in Example 2.2: change "PDWF flow" to "pumping flow rate" and change "obtained from flow metering results" to "(see Subsection 2.5)". Read subsection 2.5 to see logical error with using PDWF	Addressed by Standards Committee on 8/23/13.
104	SSDC	2-8	2.6.2(B)	Stationary Bypass Pumping Systems	Change "Two pumping discharge lines shall be required for rudundancy" to "Two pumping discharge lines may be required for redundancy".	Addressed by Standards Committee on 8/23/13.
113	SSDC	3-9	3.2.2(C)	PVC Pipe	Revise 7th paragraph to: "All fittings and couplings shall be compatible with the pipe to which they are attached and have an approved interior corrosion protection in accordance with xxx"	Completed
120	SSDC	3-16	3.2.3Bi	Construction Survey Stakes	Add language that sewer construction shall start at lowest downstream point and progress upstream, regardless of ....	New sewer system construction shall commence from the downstream point and progress upstream.
121	SSDC	3-16	3.2.3Bv	HDPE Pipe	last paragraph, add to the last sentence "and at a minimum of 50 psi for 2 hours per A.A.C. R18-9-E301(D)(4)(f)."	Completed
122	SSDC	3-22	3.2.3(C)	Service Lateral (HCS/BCS) Connections	3rd paragraph "With exception.." not clear	Completed
123	SSDC	3-26	3.2.3(D)(v)	Hydrostatic Pressure Testing	Please update Section 3.2.3, specifically the pressure testing methods referencing ASTM. I think we should be referencing ADEQ requirements, for pressure force mains R18-9-E301 (D)(4)(f).	Completed
126	SSDC	3-32	3.2.3H	Abandonment of Pipe	1st paragraph, last sentence: delete "Subsection 3.2.3(H) and" because this is a circular reference	Completed
127	SSDC	3-35	3.3.2H	Frames, Covers and Hatches	9th paragraph, fix font for "1/8-inch".	Completed
129	SSDC	3-37	3.3.3(B)(v)	Cast-in-Place MHs	7th paragraph grammar: Last sentence "Deformed, broken..." should be broken into 2 sentences. Also, insert "shall be" before "removed"	Deformed, broken, or defective forms shall not be used and shall be removed from the job site.
130	SSDC	3-39	3.3.3(B)(vi)	Grade Adjustment Rings	Are grade rings required for MHs in non-paved areas? Also, frame diameter should be the same as the grade ring diameter	Addressed by Standards Committee on 8/24/13. (Found in 8/21/13 meeting minutes PDF "EDS_SSDC-Updates-08-26-2013")
134	SSDC	3-42	3.3.3Di	Reset Frame & Cover	Add to last paragraph the following language used in general sewer notes: "Existing frames and covers shall be kept in matching order and stockpiled in an orderly fashion as not to cause damage. Extra frames and covers shall be turned into Convenience at the completion of the project."	Completed
135	SSDC	3-44	3.3.3(E)	Abandonment of Manholes	The delivery location : RWRD Conveyance Division, 3355 N Dodge Blvd., Tucson, AZ. 85716 (between the hours of 7:00 AM – 4:30 PM / Monday – Friday) Contacts: George O'Hagin – 724-3417 / direct office, Mike Redmond – 724-3437 / direct office	Putting names & numbers in a published document isn't the best idea as these items tend to change. This will remain unchanged.
138	SSDC	4	all	RWRD Std. Dets.	Will the standard details be available in a AutoCAD format?	Already addressed in 2013
139	SSDC	all SDs	all S.D.s	RWRD Std. Dets.	Per Carol, Amanda at LAN is requesting the Auto-CAD drawings of our Standard Details.	Already addressed in 2013

## Proposed changes for 2016

### Engineering Design Standards & Standard Specifications and Details for Construction

No.	Book	Page	Section	Title	Comment	Disposition
141	SSDC	SD 100		Casing for Swr Lines	The minimum distance between steel casing end and MH wall should be 3 to 4 LF +/- min based on pipe diameter to accommodate sand / concrete application. As long as they can install the pipe, fill the annular space and place the boot they should be good	A casing connection was added to a sectioned manhole in a new detail. The "3' MIN" was shown from outer barrel to casing.
142	SSDC	SD 100		Casing for Swr Lines	Need to add detail or language for welding joint between 2 sleeves so they are flush in on the interior surface. Also, according to casing wall thickness chart from UPRR, casing thickness increases for larger diameters (1/2" up to 34" diam, 9/16" for 34" to 42", 5/8" for 42" - 48"). Should update wall thickness requirements to match UPRR requirements.	a welded section was added to the casing with a note, "WELDED JOINT SHALL BE FLUSH ON INTERIOR SURFACE"
145	SSDC	SD 103		Coupling for Unlike Pipe Materials	Note 3: does "engineer" refer to field engineer, review engineer, county engineer, etc.?	changed "ENGINEER" to "FIELD ENGINEER"
146	SSDC	SD 103		Coupling for Unlike Pipe Materials	note 5: List of Approved products is not included in 3.2.3G	Changed Note 5 to reflect Section 3.4.3
147	SSDC	SD 108		Sewer/Water Crossing Details	"push-on" joints should be specified as restrained joints	The sentence for "PUSH-ON" joints was removed. Restrained joints are covered in the following sentence.
148	SSDC	SD 108		Sewer/Water Crossing Details	does this standard apply to HCS, BCS, storm drains, reclaimed water, etc.? No per AAC R-18-5-502(C)(4)	This comment was a question, not a change. <b>Nothing was changed for this item.</b>
149	SSDC	SD 109		Turning Radii for sewer easements	Use correct linetype for R/W, Fence, sewer line, etc. and label width of stabilized surface as 16' min. Also add legend for hatching used	Line types were changed to meet current formatting standards. A leader and descriptor were given for "CLEAR AREA FROM ALL OBSTRUCTIONS" and 16' Min and 20' dimensions were provided per FG
150	SSDC	SD 110		Right Angle Turn Around for Sewer Easements	Use correct linetype for R/W, Fence, sewer line, etc. and label width of stabilized surface as 16' min. Also add legend for hatching used	Line types were changed to meet current formatting standards. A leader and descriptor were given for "CLEAR AREA FROM ALL OBSTRUCTIONS" and 16' Min and 20' dimensions were provided per FG. Added "THE DESIGN STANDARDS" in Note 2.
152	SSDC	SD 111		Swr Easement Typ Section	replace "95% max density" with "95% min density"	Line types were changed to meet current formatting standards. Rendition 1 - "MAX" was changed to "MIN". Rendition 2 - MIN sewer dimensions ("16' MIN" + "6' MIN" x 2) Flow from house better Compact soil description. Roadway ditch for run-off. Rendition 3 - Rend 2 + Submit all testing note added to Note 3 per FG. Added "DESIGN STANDARDS" to Note 1
156	SSDC	SD 113		Scour Protection for Sewer Lines	can shotcrete provide 3000 psi in 28 days? Plan and profile contradict between shotcrete and concrete	Deleted "CONCRETE (3,000 psi)" replaced with "SHOTCRETE"
157	SSDC	SD 113		Scour Protection for Sewer Lines	upstream and downstream toe elevations per plan (min. ? ft. below scour depth)	This was left up to the engineer to decide. Not for us to direct. <b>Nothing was changed for this item.</b>
158	SSDC	SD 113		Scour Protection for Sewer Lines	note 2: What is "zone of influence" (refer to EDS, scour procedures 6.1, 6.2 & 6.5.6)	This comment was a question, not a change. <b>Nothing was changed for this item.</b>
159	SSDC	SD 200		Precast MH Base	fix minor drafting errors: section A-A has broken arrow and leader misalignment. Section B-B dimensional arrow is floating	Arrow, leader misalignment, and dimensional arrow were repaired
160	SSDC	SD 201		Cast-in-Place MH Base	Note 1 should be reworded (2,000 psi at 24 hrs) so it is not conflicting with industry standards. Also, how do you test for this?	Class 'S' concrete gives 28 day strength, without it, minimum strength is 2,000 PSI. <b>Nothing was changed for this item.</b>
161	SSDC	SD 201		Cast-in-Place MH Base	wrong line thickness for rebar	Rebar line thickness was changed. Section A-A and B-B: added dashed line for top of base
162	SSDC	SD 202		Manhole flow channels	refer to EDS 2012, sect. 5.2.7, it allows to use this standard detail	changed "BENCH ACCESS" to "BENCH ACCESS (ALL MANHOLES)" Reduced space between notes for extra room.
166	SSDC	SD 205		4' Diameter MH Configurations	Max height for flatop MH should be 5'-8" per RWRD 207 (not 5'-5")	Max height should be 5'-5", Detail 207 was changed. Added "; TYPE I" To Note 2. Added dashed line for top of MH base.



## Proposed changes for 2016

### Engineering Design Standards & Standard Specifications and Details for Construction

No.	Book	Page	Section	Title	Comment	Disposition
167	SSDC	SD 206		5' Dia. MH Config.	Bottom precast riser for 205 is 72" min. but detail 206 the min. is 48". Is this correct? I assume the extra 1' of width allows this.	Detail redlined on 8/23/2013, autoCAD files will be updated together at a later date.
168	SSDC	SD 206		5' Dia. MH Config.	note 2: 5.5" should be 5" per note 2 of RWRD 205	Added "; TYPE II" to Note 2. Added dashed line for top of MH base
170	SSDC	SD 207		Shallow MHs	Label "Type I, Type II and Type III" shallow MHs	Completed. Added dashed lines for top of MH bases. Changed Type 1 MH depth to 5'-7" should be 5'-5" (made change)
171	SSDC	SD 209		Reinforced MH Joints	in plan view, change "Reinforced Joints" to "plates", 2 locations	This change was made.
172	SSDC	SD 209		Reinforced MH Joints	Need to add note that this dtl. Is when MH is located in washes	Added to Note 1, ", AND IS TYPICALLY FOR USE WITH MANHOLES LOCATED IN WASH CROSSINGS"
173	SSDC	SD 209		Reinforced MH Joints	use for stabilized surface	This comment was a question, not a change. <b>Nothing was changed for this item.</b>
174	SSDC	SD 212		Concrete Collar for Unpaved Areas	We need a collar detail for existing cleanouts. Suggest 12" width and 8" depth.	Created a new detail, S.D. 307
176	SSDC	SD 226		Concrete Weir for Diversion MHs	section A-A: add dashed line for top of base	Done
180	SSDC	SD 305		Grade Adjustment for Ex. Precast MH	note 2: replace "above or the age," with "above, age of the existing MH," also replace ", as directed" with "and/or as directed"	Change was made and lost. Also changed, "WARRANTS" to "WARRANTING"
181	SSDC	SD 305		Grade Adjustment for Ex. Precast MH	We should make 32" max as the standard for all concrete manholes. Why change it for different scenarios? Can be tedious and confusing	
182	SSDC	SD 401		HCS Connection to Sewer Line	Add cap for testing HCS (see RWRD 404, type III)	CAP on top was a 'detectable marking cap', so it was changed. "TO HOUSE CONNECTION" was added with a leader
183	SSDC	SD 403		HCS Internal Drop MH Connection	this detail shall be limited to service laterals per EDS 5.3.3 & 5.2.15	Added to Note 1, ", DETAIL LIMITED TO SERVICE LATERALS SEE SUBSECTION 5.3.3 & 5.2.15 FOR MORE INFORMATION"
184	SSDC	SD 404		HCS Cleanouts	Note 3: add "for" before "more"	"FOR" was added
185	SSDC	SD 502		Force Main Connection to MH	Note 2, "MANHOLE" is mis-spelled	Correction was made. Deplauralized manholes/force mains





**PUBLIC MEETING ON PROPOSED REVISIONS TO THE DESIGN STANDARDS**

Water & Energy Sustainability Center  
2955 West Calle Agua Nueva  
Radon Conference Room

**MEETING MINUTES**

**Tuesday, January 5, 2016**

**PIMA COUNTY STAFF PRESENT:**

Carol Johnson  
David Logue  
Salam Kareem  
Kristina Serrano

Adam Bliven  
Francisco Galindo  
Dean Moulis

Louis Romero  
Rogelio Flores  
Lilian von Rago

**PUBLIC BODY PRESENT:**

Steve Oliverio  
Ed Lopez

- A. INTRODUCTION.** Carol Johnson called the public meeting to order at 2:00 p.m. Brief introductions by RWRD staff and guests were made.
- B. PLEDGE OF ALLEGIANCE.**
- C. PRESENTATION.** Carol Johnson made a PowerPoint presentation to summarize the proposed revisions.
- D. PUBLIC COMMENTS.** Steve Oliverio, Rick Engineering, stated RWRD should not feel slighted by the lack of participation as it speaks to what a good job was done to get to this point. Ed Lopez, Tucson Water, stated he just received notice of the changes and does not have any comments at this time.

Carol Johnson asked Francisco Galindo to speak briefly about the formatting standards. He provided some history and why they are being "updated".

- E. ADJOURNMENT.** The meeting was adjourned at 2:19 p.m.

Minutes prepared by Kristina Serrano

Attachment: PowerPoint presentation (Attachment A)

# Engineering Standards Public Meeting

January 5, 2016

Carol A. Johnson, P.E., *Sanitary Engineering Manager*  
Planning and Engineering Division



**PIMA COUNTY**

WASTEWATER RECLAMATION

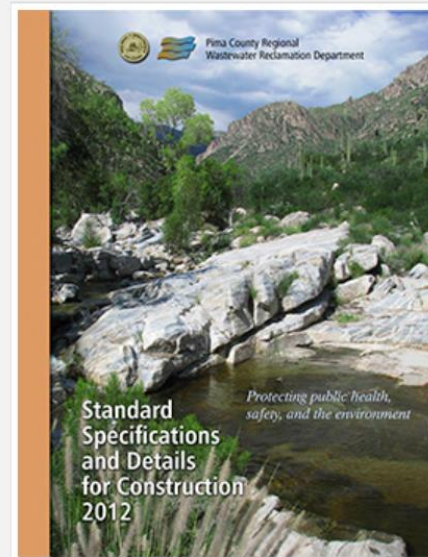
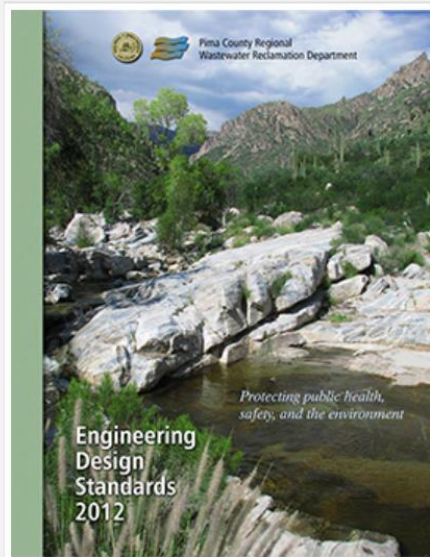
## Design Standards, Specifications & Details

The new 2012 Standards for Public Sanitary Sewers in Pima County were approved and adopted by the Pima County Board of Supervisors on December 18, 2012. These Standards are divided into two separate documents: Pima County Regional Wastewater Reclamation Department's Engineering Design Standards 2012 and the Pima County Regional Wastewater Reclamation Department's Standard Specifications and Details for Construction 2012.

Hard copies are **not** available through the Pima County Regional Wastewater Reclamation Department.

Please note that the new 2012 Design Standards do **not** include the requirements for how new public sanitary sewer facilities are to be shown on tentative plans and development plans, nor does it supersede the Preliminary Sewer Layout Requirements, March 1984 that was adopted by Resolution (1984-44) of the Pima County Board of Supervisors.

[List of Approved Products for Public Sanitary Sewer Conveyance Facilities](#) 



### RWRD Standards Committee

- [Procedure](#) 



Engineering Directives

Corrections

Previous Standards

Forms

Other Standards

- [ENG2015-01](#)  - Paved Private Roads, Common Areas: Public Sewer Easement Dedication Language
- [ENG2014-01](#)  - Public Sewer Formatting Standards

# Standards Committee Members

- ▶ Carol A. Johnson – Engineering
- ▶ Mike Redmond – Conveyance
- ▶ David Logue – Field Engineering
- ▶ Lorenzo Hernandez – Development Liaison Unit
- ▶ Bill Baker – Baker & Associates
- ▶ Craig Cannizzaro – Westland Resources

## Back-ups for External Members

- ▶ Regina Beem – PSOMAS
- ▶ Warren Thompson – Stantec



# Accomplishments of the Committee:

- ▶ ENG 2014-01 Public Sewer Formatting Standards
- ▶ ENG 2015-01 Paved Private Roads, Common Areas; Public Sewer Easement Dedication Language
- ▶ Cleanouts at the Property Line – Ongoing effort
- ▶ Proposed revisions to the 2012 Standards

# Comments Received on 2012 Standards

- ▶ To date, 186 comments received from Engineering community

Staff has reviewed each comment and have ranked them on a scale of 1 to 5

Revisions addressing 86 comments

Clarifications and Enhancements

# Significant Changes

- ▶ 1. Removed the word “Exclusive” from sewer easement dedication language and inserted “specific” (Section 7.1.1)
- ▶ 2. Changed RWRD Detail No. 111 to reflect Section 7.1.1
- ▶ 3. Revised Formatting Standards based on stakeholder input
  - Still allow NGVCD 29 on a case by case basis



# Significant Changes

- ▶ Want to clarify separate sewer improvement plan not necessary
- ▶ There will be no more Engineering Directives issued without going through a more formal public hearing process.

# Meeting Schedule

Presentations Discussions	Date
RWRAC	Thursday, October 15, 2015
RWRD Standards Committee	Wednesday, October 21, 2015
RWRD Standards Committee	Wednesday, November 18, 2015
Public Meeting on Revisions/ Formatting Standards	Tuesday, January 5, 2016
BOS Meeting	Tuesday, February 16, 2016

# Public Hearing Comments

Call to the Audience