

AGENDA MESA WATER DISTRICT BOARD OF DIRECTORS

Dedicated to
Satisfying our Community's
Water Needs

Tuesday, April 17, 2018 1965 Placentia Avenue, Costa Mesa, CA 92627 3:30 p.m. Special Board Meeting

ENGINEERING AND OPERATIONS COMMITTEE MEETING Tuesday, April 17, 2018 at 3:30 p.m.

CALL TO ORDER

PLEDGE OF ALLEGIANCE

PUBLIC COMMENTS

<u>Items Not on the Agenda</u>: Members of the public are invited to address the Board on items which are not on the agenda. Each speaker is limited to three minutes. The Board will set aside 30 minutes for public comments.

<u>Items on the Agenda</u>: Members of the public may comment on agenda items before action is taken, or after the Board has discussed the item. Each speaker is limited to three minutes. The Board will set aside 60 minutes for public comments.

CONSENT CALENDAR ITEMS:

Approve all matters under the Consent Calendar by one motion unless a Board member, staff, or a member of the public requests a separate action.

- Developer Project Status Report
- Mesa Water and Other Agency Projects Status Report
- 3. Water Quality Call Report
- 4. Committee Policy & Resolution Review or Development
- Water Operations Status Report

ACTION ITEMS:

Standard Specifications and Standard Drawings

PRESENTATION AND DISCUSSION ITEMS:

Items recommended for approval at this meeting may be agendized for approval at a future Board meeting.

None

REPORTS:

- Report of the General Manager
- 8. Directors' Reports and Comments



INFORMATION ITEMS:

- 9. Chandler and Croddy Properties Leasing
- 10. Environmental Health and Safety Support Services

In compliance with California law and the Americans with Disabilities Act, if you need disability-related modifications or accommodations, including auxiliary aids or services in order to participate in the meeting, or if you need the agenda provided in an alternative format, please contact the District Secretary at (949) 631-1206. Notification 48 hours prior to the meeting will enable Mesa Water District (Mesa Water) to make reasonable arrangements to accommodate your requests.

Members of the public desiring to make verbal comments utilizing a translator to present their comments into English shall be provided reasonable time accommodations that are consistent with California law.

Agenda materials that are public records, which have been distributed to a majority of the Mesa Water Board of Directors (Board), will be available for public inspection at the District Boardroom, 1965 Placentia Avenue, Costa Mesa, CA and on Mesa Water's website at **www.MesaWater.org**. If materials are distributed to the Board less than 72 hours prior or during the meeting, the materials will be available at the time of the meeting.

ADJOURNMENT

	PR	OJECT STATUS - DE	VELOPER PROJECTS
FILE NO.	PROJECT ADDRESS	PROJECT DESCRIPTION	PROJECT NOTES/STATUS
MC 2149	1620-1644 Whittier Ave and 970 16th St	89 Single Family Homes	Plans received and plan check fees paid 2/2/14. Permit issued on 7/23/15. Pre-con meeting held on 7/27/15. Pipeline installation on 10/21/15. Pressure test and chlorination on 11/5/15. Bac-T testing completed on 11/24/15 and 11/25/15. Waterline tied-in at Whittier, Newhall, and West 16th Street and angle-stops locked on 12/14/15. 4-1" meters installed on model homes on 2/25/16. 1-1.5" irrigation meter and 1 - 1" domestic meter installed and locked on 4/5/16. Inspected rock base on 7/11/16. Installed 7 - 1" meters on 7/13/16. Flow-thru tested on 8/25/16 and 9/8/16. Rock base and meters installed on 11/3/16. Flow-thru check on 12/1/16. Flow-thru check on 4/5/17. Meters installed on 8/21/17. Meter box placement on 10/5/17. Meters installed on 3/1/18. (4/9/18)
MC 2196	580 Anton Ave	250 Unit Apartment Complex	Plans received and plan check fees paid on 7/28/15. Plan check comments returned 8/28/15, requesting information to complete a hydraulic model. Requested information provided on 10/25/15. Hydraulic model initiated on 11/5/15. Hydraulic model completed on 2/1/16. Mesa Water system improvements are not required. Fees paid and permit issued on 2/9/16. Pre-con held on 2/29/16. Abandoned waterline on 3/15/16. Shutdown test on 7/19/16. Valve replaced on 10/3/16 to allow for abandonment. Pressure test and backflow placement on 3/6/17. Bac-t test on 3/18/17. Site visit and abandonment coordination on 10/3/17. Pressure test on 11/9/17. Bac-t on 11/16/17. Service abandonment on 12/26/17. Fireline turn-on on 1/30/18. Complex is currently under construction with an expected completion of December 2018. (4/9/18)
MC 2204	1672 Placentia	31 Single Family Homes	Plans received and plan check fees paid on 8/26/15. Plan check picked up by customer on 10/6/15. Second plan check submitted on 2/11/16 and returned on 2/26/16. Mylars submitted, fees paid, and permit issued on 5/5/16. Tee cut-ins on 6/22/16. Pressure Test and Bac-T test on 7/7/16. Water main turned on 7/21/16. Services installed and locked off on 9/6/16. Meter installation on 10/28/16. Backflows tested on 11/16/16. Backflow tested on 12/9/16. Rock base on 2/1/17. Service placement on 2/16/17. Meters installed on 3/28/17. Backflows tested on 3/30/17. Meters installed on 2/7/18. (4/9/18)

	PR	OJECT STATUS - DE	VELOPER PROJECTS
FILE NO.	PROJECT ADDRESS	PROJECT DESCRIPTION	PROJECT NOTES/STATUS
MC 2233	1560 Placentia	81 Single Family Homes	Plans received and plan check fees paid on 1/20/16. Request for additional information requested on 1/28/16. Requested information submitted on 2/24/16. Plan check picked up on 4/18/16. Second plan check submitted on 5/18/16. Mylar drawings and fee payment received on 7/5/16. Permit issued on 7/11/16. Mainline installed on 8/24/16. Hydrant laterals installed on 8/25/16. Services installed on 9/1/16. Mainline installed on 9/20/16. Pressure and Bac-T test on 9/28/16. Laterals installed on 9/29/16 and 10/5/16. Mainline charged on 10/17/16. Angle stop adjusted on 12/6/16. Meter and meter box placement on 1/5/17. Services adjusted to grade on 3/2/17. Meter installation on 5/3/17. Site coordination meeting on 7/26/17. Service placement on 9/6/17. Meter box placement on 2/9/18. Meters installed on 2/27/18. (4/9/18)
MC 2235	671 W 17th Street	177 Condos	Plans received and plan check fees paid on 1/21/16. Hydraulic model initiated 2/24/16. Second plan check submitted on 3/24/16 and picked up 4/17/16. Mylar drawings and fee payment received on 7/5/16. Permit issued on 7/11/16. Demolition of existing services on 8/16/16. Mainline installation on 12/6/16. Service laterals installed on 1/9/17. Pressure test on 2/6/17. Bac-t test on 2/15/17. Bedding and service line placement on 4/3/17. Meter box placement on 5/8/17. Follow-up site visit on 5/17/17. Service abandonment on 8/30/17. Valve cans raised on 9/22/17. Meter box placement on 10/19/17. Gravel base on 12/5/17. Meter box placement on 2/14/18. Meters installed on 3/21/18. (4/9/18)
MC 2236	527-531 Bernard Street	10 Single Family Homes	Plans received and plan check fees paid on 2/8/16. Plan check returned on 2/12/16. Second plan check received on 4/21/16. Fees paid and permit issued on 6/13/16. Manifold installed on 7/19/16. Meter placement on 5/18/17. Meter boxes cleared of construction debris on 10/30/17. Site visit on 2/7/18 homes currently under construction. (4/9/18)
MC 2245	522-526 Bernard Street	10 Single Family Homes	Plans received and plan check fees paid on 5/11/16. Second plan check received on 6/10/16. Second plan check returned on 6/22/16. Permit issued on 7/11/16. Manifold installed on 7/19/16. Regular inspection site visit on 11/4/16 with no progress to report. Site visit on 2/7/18 homes currently under construction. (4/9/18)

PROJECT STATUS - DEVELOPER PROJECTS						
FILE NO.						
	ADDRESS	DESCRIPTION	1 116526 1 116 126/61/1166			
C003-16-01	788 Center Street	2 Single Family	Plans received and plan check fees paid on			
		Homes	6/28/16. Plans returned on 7/14/16. Fees paid and			
			permit issued on 1/6/17. Pre-con held on 1/16/18.			
			Service installed on 3/8/18. Meters installed on			
			3/13/18. (4/9/18)			
C0012-17-	929 Baker Street	55 Detached Condos	Plans received and plan check fees paid on			
02			9/27/16. Plans picked up on 10/18/16. Plans			
			submitted on 2/22/17. Plans returned on 3/6/17.			
			Fees paid and permit issued on 3/21/17. Precon			
			held on 6/1/17. Services installed on 8/31/17.			
			Mainline turned on 9/14/17. Meters installed on			
C0013-17-	2803 Royal Palm	Fire Station	2/26/18. (4/9/18) Plans received and plan check fees paid on			
01	Drive	The Station	8/25/16. Plans picked up on 10/4/16. Plans			
	Diivo		resubmitted on 3/1/17. Fees paid and permit			
			issued on 5/5/17.Bedding and service line			
			placement on 2/6/18. Fireline turn-on on 2/23/18.			
			Backflow test on 3/28/18. (4/9/18)			
C0024-17-	1989 Orange	Meter Upgrade	Plans received and plan check fees paid on			
01			3/27/17. Fees paid and permit issued on 4/25/17.			
			Site visit on 10/30/17, and again on 1/9/18; homes			
			currently under construction. (4/9/18)			
00007.47	004 51 04 4	NA 4 11 1	5			
C0027-17-	231 Flower Street	Meter Upgrade	Plans received and plan check fees paid on			
01			3/23/17. Fees paid and permit issued on 4/21/17.			
			Site visit on 10/30/17, and again on 1/9/18; no			
C0029-17-	127 23rd St.	4 Single Family	progress to report. (4/9/18) Plans received and plan check fees paid on			
01	127 2014 01.	Homes	5/12/17. Fees paid and permit issued on 8/3/17.			
		11011100	Awaiting call for initial inspections. Service			
			installed on 2/8/18. Meters installed on 2/15/18.			
			(4/9/18)			
C0030-17-	208 Camella	New Home	Plans received and plan check fees paid on			
01	Lane		5/12/17. Fees paid and permit issued on 5/25/17.			
			Service installation on 6/8/17. Meter box			
			placement on 9/8/17. Awaiting call for inspection of			
00000 10	050 5 400 00	4.0: 1. = "	flow thru tests. (4/9/18)			
C0033-18-	353 E 18th Street	4 Single Family	Plans received and plan check fees paid on			
01		Homes	7/5/17. Fees paid and permit issued on 7/27/17.			
C0034-17-	350 E 17th Stroot	Commercial Building	Meter placed on 3/26/18. (4/9/18) Plans received and plan check fees paid on			
01	330 L 17111 SHEEL	Commercial Dulluling	7/18/17. Plans returned on 7/27/17. Fees paid and			
			permit issued on 9/27/17. Fireline installation on			
			11/15/17. Concrete pad and bollards installed on			
			1/8/18. Meters placed on 3/28/18. (4/9/18)			
C0035-18-	146 18th Street	2 Single Family	Plans received and plan check fees paid on			
01		Homes	8/8/17. Fees paid and permit issued on 9/21/17.			
			Meters installed on 10/20/17. Site visit on 1/9/18;			
			Awaiting call for backflow testing to complete			
			project. (4/9/18)			
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	PR	OJECT STATUS - DEV	VELOPER PROJECTS
FILE NO.	PROJECT ADDRESS	PROJECT DESCRIPTION	PROJECT NOTES/STATUS
C0037-18- 01	2850 Mesa Verde Drive East	11 Single Family Homes	Plans received and plan check fees paid on 8/17/17. Fees paid and permit issued on 10/18/17. Manifold installation on 12/6/17. Meters installed on 12/29/17. Irrigation meter installed on 3/28/18. (4/9/18)
C0039-18- 01	172/174 Costa Mesa Street	2 Single Family Homes	Plans received and plan check fees paid on 8/22/17. Fees paid and permit issued on 8/29/17. Awaiting call for initial inspections. (4/9/18)
C0040-18- 01	365 Costa Mesa Street	Meter Upgrade	Plans received and plan check fees paid on 8/22/17. Awaiting final fee payment. (4/9/18)
C0041-18- 01	160 & 162 E. 18TH ST.	2 Single Family Homes	Plans received and plan check fees paid on 9/27/17. Fees paid and permit issued on 11/2/17. Meter placement on 3/26/18. (4/9/18)
C0042-18- 01	335 & 337 16th Place	2 Single Family Homes	Plans received and plan check fees paid on 10/26/17. Awaiting final fee payment. (4/9/18)
C0044-18- 01	276 E 19th Street	Meter Upgrade	Plans received and plan check fees paid on 1/21/18. Awaiting final fee payment. (4/9/18)
C0046-18- 01	1620 Adams Ave	Commercial Building	Plans received and plan check fees paid on 1/22/18. Fees paid and permit issued on 3/5/18. Fineline installation on 3/20/18. (4/9/18)
C0047-18- 01	3505 Cadillac Ave	,	Plans received and plan check fees paid on 1/22/18. Awaiting final fee payment. (4/9/18)
C0048-18- 01	235 Baker	Commercial Building	Plans received and plan check fees paid on 2/15/18. Awaiting final fee payment. (4/9/18)
C0049-18- 01	428 E 17th	Restaurant	Plans received and plan check fees paid on 1/26/18. Comments returned on 3/12/18. Revised submittal received on 3/29/18 and currently under review. (4/9/18)
C0050-18- 01	920 W 20th Street		Plans received and plan check fees paid on 2/15/18. Fees paid and permit issued on 3/28/18. (4/9/18)
C0051-18- 01	1650 Monrovia	Senior Living Complex	Plans received and plan check fees paid on 2/15/18. Comments returned on 3/12/18. (4/9/18)
C0052-18- 01	302 Cabrillo	2 Single Family Homes	Plans received and plan check fees paid on 2/26/18. Awaiting final fee payment. (4/9/18)

Project Title: OC-44 Replacement and Rehabilitation Evaluation and Cathodic

Protection Study

File No.: M 2034

Description: Evaluate potential repair and replacement options

Status: The Habitat Mitigation and Monitoring Plan (HMMP) has been updated by Michael Baker (former RBF) to reflect the USACE's process and submitted to Mesa Water for review on 1/8/16. Once the HMMP is revised and approved (1/19/16) it will be forward to all agencies, including Coastal Commission. Draft 1602 Streambed Permit obtained on 12/18/15. Final 1602 Streambed Permit pending CDFW will be issued while HMMP is accepted. U.S. Army Corps of Engineers' 404 permit received on 2/10/16. Revised HMMP sent to CCC for review and approval. Project is pending CCC's approval at an upcoming hearing. On 2/29/16 a meeting with Fletcher Jones Motorcars, City of Newport Beach, MBI (former RBF), and City of Huntington Beach was held to discuss issues associated with proposed construction activities. Traffic Plan prepared and submitted to the City of Newport Beach for approval on 6/29/16. Per request of CCC a dewatering plan was prepared and submitted for approval. Mesa Water staff, MBI and CCC met on 10/6/16 and discussed mitigation conditions. Project approved at CCC Public Hearing on 12/7/16. MBI is working on finalizing the HMMP and construction plans and will submit them to CCC. Staff met with MBI on 5/1/17 and discussed comments after reviewing the draft final HMMP. New proposed mitigation criteria received from CCC on 7/5/17 reducing mitigation requirements from 1.6 acres to 0.66 acres. Coastal Development Permit for Construction is anticipated in December, 2017. The project re-start meeting was held on 9/7/17. On 10/30/17 met with City of Newport Beach and City of HB to discuss permit requirements and project access. Met w/Fletcher Jones, Skender Construction, City of HB, MBI to discuss access to the site and scheduling on November 21, 2017. Reviewing the 100% Design Plans & Specs (received on 11/28/17) along with the Pipeline Design Schedule, Construction Monitoring Treatment Plan (CMTP), and proposal for Natural Resources/Regulatory Services during construction activities. Bid solicitation is scheduled for late January 2018. Project sent out to bid on January 30, 2018. Pre-bid meeting held on 2/15/18. Construction bid solicitation was cancelled due to ongoing coordination issues for the final Coastal Development permit. Project will be deferred to FY20.

Project Title: Well Automation and Rehabilitation

File No.: MC 2101

Description: Rehabilitate all clear water wells and add remote control SCADA

capabilities

Status: Construction activities began at Well 5 on October 3, 2016 with demolition and well rehabilitation beginning in the first week. Video of Well 5 showed scale on the

louvers, and potential failure of an unused sounding tube and a small area of the louvers potentially requiring swage patches. Repair completed on November 29, 2016. Well 5 rehabilitation resumed on December 3, 2016. Well 5 chemical facility pad has been constructed and is awaiting a weather forecast of 8 days with no predicted rain to apply the chemical-resistant coatings to the concrete. Well 5 pumping development began on January 4, 2017, and produced fine sand at pumping rates above 1100 gpm. Repairs were made to Well 5, and test pumping performed in February showed acceptable well production over 2500 gpm with manageable sand. Construction is substantially complete at the Well 5 site. A start up planning meeting was held on March 29, 2017. Well 5 is running as needed and producing good quality water. Well 7 rehabilitation is complete, The Well 7 pump was installed the week of August 28, 2017, and Well 7 is operational and good quality water. Construction of the Well 3 chemical facilities was begun in July 2017. The concrete for the Well 3 chemical facilities is cured and coated, and the chemical tanks and canopy are currently being installed. Well 3 rehabilitation is complete and test pumping achieved over 1600 gpm. Construction at Well 9 began in October with relocation of the backup generator and chemical facilities construction. Coating of the Well 9 chemical facilities was completed in December, and the chemical tanks and canopy are installed. Witness testing for the new pumps for Wells 3 and 9 was completed January 2018. Underground electrical work is in process at Wells 3 and 9. Variable Frequency Drive (VFD) deliveries are expected in May 2018. Work at Wells 3 and 9 is expected to be completed in June 2018.

Project Title: MWRF Parking Project

File No.: M 2052

Description: Conduct parking layout design

Status: Parking study prepared by Onward Engineering in November 2013. The Board approved alternative # 3 Parking Along the MWRF Frontage on Gisler Ave. on 3/15/2014. RFP for the parking design in consultants' review (11/6/14). RFP sent out to consultants 11/25/14. Proposals due 12/19/14. Interview with three consultants held on 1/7/15. Recommendation brought to January E and O for consideration of approval and will be brought to the Board on 2/12/15 for approval. Project approved 2/12/15. Kick-off meeting held on 2/19/15. Design in progress. 30% design submitted 3/23/15. Staff met with C.J. Segerstrom and discussed concept and details of the proposed parking layout. Segerstrom verbally approved the project. City of Costa Mesa approved the concept and currently consultant is evaluating the landscape requirements with the City of Costa Mesa. E and O Committee accepted the conceptual design and provided comments on 5/19/15. The condition approval from Segerstrom received on 6/29/15. Staff is working with the designer (CivilSource), Mesa Water's attorney, and City of Costa Mesa on addressing Segerstrom's comments. Staff is reviewing the Initial Study/Summary of Findings Report received on 8/3/15. Staff has addressed all Segerstrom's requests included in their 6/29/15 letter and

prepared a response letter. Approved construction plans were received from the City of Costa Mesa on 12/29/15. The final bid package completed 3/15/16. Encroachment Permit Application submitted to the City on 3/6/16. Hold Harmless Agreement for the Installation of Off-Site Parking Improvements within Public Right-of-Way received on 5/4/16. Staff reviewed the Agreement and sent comments to the City of Costa Mesa on 5/27/16. City approved all revisions as proposed by Mesa Water and sent the agreement for signature on 6/24/16. The Engineering and Operations Committee reviewed the Agreement at July 19, 2016 meeting and recommended Board approval. Board approval obtained on August 11, 2016. Agreement sent to the City for execution and recording on 9/7/16. Recorded Agreement received from the City on 10/19/16.

Project Title: Pipeline Testing Program

File No.: MC 2141

Description: Implement Resolution No. 1442 Replacement of Assets to annually perform non-destructive testing of 1% of the distribution system, and destructive testing of segments that are shown to have less than 70% of original wall thickness by non-destructive testing.

Status: Extraction of six sections of ACP and two sections of CIP are in process for 2017 destructive testing. ACP samples were sent to WSP Canada for destructive testing. Results were received on August 1, 2017. CIP samples will be sent to McWane Ductile's lab in Ohio for destructive testing. Results were received on June 30, 2017. A Request for Qualifications for consulting services for the Pipeline Integrity Testing Program was released in May 2017. Four Statements of Qualifications were received and a recommendation for contract award to HDR was approved by the Committee on July 20, 2017. ACP test results were received on July 31, 2017. Results have been analyzed, and were presented at the November Committee meeting. Average ACP total useful life is expected to be approximately 142 years. A process for determining when a pipeline has reached the end of its useful life and how much of the pipeline to replace was implemented. One 8" ACP line in Harbor Boulevard from Wilson to 19th Street was recommended for replacement. Cathodic protection station testing is being planned. Kickoff meeting for a close interval survey of the 12" Cast Iron Pipe in 19th Street was held on December 28, 2017, and the Consultant has completed the field work. The report is expected in April 2018. Operations staff has collected four ACP pipe samples during valve replacement projects, and one during an AC mainline repair. The samples have been sent to a laboratory for remaining wall thickness measurements, and the reports show that while they have lost structural thickness, the remaining useful life is still 35 - 53 years. The mainline break sample showed the smallest remaining useful life and shortest total useful life of any AC sample. . Additional AC pipe samples from valve replacements are being collected. Echologics performed three miles of nondestructive wall thickness measurements during the week of February 12, 2018. A report of the results was received in March 2018, and shows that 23 of the 34 segments tested have less than 40% remaining wall thickness compared to the

assumed original thickness. Two of these segments coincided with ACP samples from the valve replacements, and the e-Pulse wall thickness measurement and the laboratory measured wall thickness were within 10%.

Project Title: MWRF Outreach Center

File No.: MC 2147

Description: Report on the feasibility of reconfiguring and potentially expanding the functional uses of the MWRF Operations and Administration Building to include a multipurpose room and educational forum.

Status: Mesa Water is coordinating with IBI Group (designer) on the feasibility of implementing an education and outreach center at the MWRF. Kick-off meeting was held on 6/1/2015. Program Requirement Questionnaire meetings were held on 6/9/2015 and 6/17/15. Program Report delivered to Mesa Water for review on 7/7/2015. 60% design concepts are scheduled for submittal on 08/14/15. 100% concept design received on 09/29/15. Virtual rendering received on 10/6/15. Concept designs presented at the October Board Workshop. A follow-up planning session was held at the November Engineering and Operations Committee Meeting to capture the Board's input on evaluating reduced cost options and to revisit the existing Boardroom improvements. Board directed staff to develop a scope of work to evaluate scaled down layouts of the MWRF Outreach Center and revisit expanded layouts of the main Boardroom. Engineering and Operations Committee approved a contract amendment with IBI Group to reflect the revised scope of work. Item was approved by the Board February 11, 2016. IBI Group performed an inspection of the existing Boardroom on February 25, 2016 and are in the process of developing conceptual layouts. Staff review and meeting occurred on April 11, 2016. Conceptual layout work has been completed. Revised MWRF Outreach Center Layouts and Conceptual Boardroom Layouts will be presented at a future Engineering and Operations Committee meeting.

Project Title: Mesa Water Main Office HVAC Study

File No.: MC 2171

Description: Evaluate the existing HVAC system and provide recommendations for improved efficiency and operations of the system.

Status: Mesa Water has contracted with Goss Engineering Inc. to perform this study. Kick off meeting was held January 13, 2016. Goss Engineering performed a field survey of both main campus buildings over the course of three days. Draft report with results and recommendations was reviewed by staff. The final report was delivered on June 30, 2016 and was reviewed by staff for completeness. Staff presented the findings and recommendation to the Board of Directors at the July E&O Committee Meeting. Board approved contract to move forward with the design of a complete Variable Refrigerant Flow system. Contract has been executed and returned to Goss

Engineering. Project kick-off and notice to proceed was issued on November 30, 2016. 50% drawings have been delivered for review and comments returned. Stakeholder meeting was held on February 2, 2017 to provide comments for the new VRF system 50% design. 90% design drawings and specifications were submitted for Mesa Water review on March 10, 2017. Mesa Water managers met with the Consultant to discuss construction phasing. Roof design is currently being reviewed by Mesa Water and the prime consultant. Bid set documents are complete.

Project Title: Mesa Water Valve Replacements Project

File No.: M18-104

Description: Replacement of water main and hydrant valves in various locations in the

City of Costa Mesa.

Status: The Request for Proposals (RFP) for the Mesa Water District Valve Replacements Project was completed and put out to bid in September 2017. The RFP consisted of the Base bid that included replacement of 17 valves and two Alternative bids consisting of replacement additional 3 and 5 valves, respectively. Three bids were received on October 4, 2017. Staff has recommended that the construction contract be awarded to Paulus Engineering, Inc., as the lowest responsive bidder. Board approved awarding contract to Paulus Engineering on November 2, 2017. The contract was finalized (11/7/17) and signed on 11/17/17. Working w/City of CM, MWH, and Paulus Eng. on the project schedule. Start of construction in mid-January, 2018. Notice to Proceed issued on January 16, 2018. Valve replacement has been completed at 7 locations. Paulus Engineering is currently replacing the valves at the intersection of Bristol and Baker St.

Project Title: Other Agency Project Coordination

File No.:

Description: Median construction in Placentia Ave. between Wilson St. and Adams

Ave.

Status: Mesa Water 16" main runs 5' East of the street center line. Mesa Water is coordinating with designer and City on design of necessary protection and root barrier for the water main. 85% design plans received on (12/22/14). Plan review in progress 1/8/15. Plan review comments sent to the City 2/6/15. Mesa Water provided update comments to landscaping plans on 6/17/15. Mesa Water continuing to coordinate with the City, Stivers and Associates, Inc., and City Designer on layout of project. Revised final plans submitted for Mesa Water review on 11/19/15. Staff reviewed the submittal in cooperation with Mesa Water landscape consultant (Stivers Associates) and submitted comments to the City Designer on 12/28/15. The comments have been accepted by the Designer and Final Plans were submitted on 2/9/16. New comments sent to the Designer on 2/18/16. The revised final plans received on 3/21/16 and

approved by Mesa Water on 3/31/16. On May 24, 2017 the City Designer notified Mesa Water that the City was planning to advertise the project in the first half of June, 2017. City received bids at the end of June, 2017 and is taking the project to the City Council for approval on 7/18/17. The project kicked off on 7/28/17 and construction started on October 11, 2017. Mesa Water inspected the root barrier installations and planting of the trees. Project completed on 3/31/18. (4/9/18)

Project Title: Chandler and Croddy Wells and Pipeline Project

File No.: M18-113

Description: Design, documentation, and permitting for two new wells located on Chandler Avenue and Croddy Way in the City of Santa Ana and the distribution pipeline connecting the wells to Mesa Water's supply system.

Status: Tetra Tech has been contracted to complete the design, documentation, and permitting for the Chandler and Croddy Wells and Pipeline Project. Initial data request sent to Tetra Tech on September 7, 2017. Met with Division of Drinking Water regarding well locations on September 20, 2017. Preliminary hydrological evaluation received on September 29, 2017. Board approved demolition of existing structures and dedicated well facility with option to evaluate long-term lease potential as market conditions dictate at both sites at November 2017 E&O. Butier Engineering has been contracted to provide Construction Management Services. Preliminary Design Report for the distribution pipeline was reviewed and returned on March 6, 2018. Well site layouts are currently under review.

Project Title: Santa Ana Pressure Reducing Station Refurbishment Project

File No.: M17-002A

Description: The work will involve replacement of three (3) butterfly valves, one (1) existing pressure relief valve, the precast concrete discharge structure, reconfiguring four (4) Cla-Val control valves, general refurbishments to the vault interior, and site work.

Status: Mesa Water has contracted with Michael Baker International to perform the design of the project. The design was completed on in late January 2018 and the bid package was sent out to bid on February 8, 2018. Pre-bid meetings and site walk were held on 2/20/18 and 3/6/18, respectively. Three bids were received on March 13, 2018. Staff has recommended that the construction contract be awarded to J.R. Filanc, Inc., as the lowest bidder. E&O Committee approved awarding contract to Paulus Engineering on March 20, 2018 and recommended Board approval. (4/9/18)

Water Quality Call Report March 2018

Date: 3/2/2018 Source: Phone

Address: Not Provided

Description: Customer inquired about what type of water softener Mesa Water®

recommends.

Outcome: Explained to customer that the water meets all state and federal drinking

water standards and Mesa Water does not make recommendations on water softeners. Provided customer with the state's website on residential

home treatment devices.

Date: 3/8/2018 Source: Phone

Address: 903 W 17th St

Description: Customer wants to know if we test the water for TCE and PCE, information

on spills near her home, map of aquifers & aquifer WQ data, etc.

Outcome: Explained to customer about Mesa Water's extensive WQ testing program

and assure that TCE and PCE are not detected in the drinking water. A list of local state certified laboratories was sent to customer per her request. Customer was also referred to the Santa Ana Regional Water Quality Control Board and Orange County Water District for her inquiries on land

spills/contamination/aquifer information.

Date: 3/9/2018
Source: Phone/Visit
Address: 611 Knowell Pl

Description: Customer reported seeing charcoal coming from the faucet (hot side).

Outcome: Collected samples from outside hose bib and kitchen faucets and both

samples were clear and no sediment was observed. Customer stated that sediment seem to be coming from hot water. Recommended that customer

have the water heater inspected or maintained per manufacturer's

instructions.

Date: 3/14/2018
Source: Phone
Address: Not Provided

Description: Customer called to check if water softeners are allowed in Costa Mesa.

Outcome: Told customers that water softeners are allowed in Costa Mesa and is up

to the customer's preference to have one installed.

April 6, 2018 Page **1** of **3**

Date: 3/20/2018 Source: Phone

Address: 1985 Kornat Dr

Description: Customer wanted to know the hardness levels for residential water

treatment system.

Outcome: Provided customer with range and average level of hardness in both

mg/L and grains/gal units.

Date: 3/21/2018 Source: Phone

Address: 174 Broadway

Description: Customer had questions regarding hardness levels, the Annual Water

Quality Report, and home treatment devices.

Outcome: Customer stated that "Home Depot was testing customer's water for

hardness and offered to sell a water treatment device". Explained to customer that the water meets state and federal drinking water standards and Mesa Water does not make recommendations on residential treatment

devices. It is the homeowner's decision to put in residential treatment

device and maintain it.

Date: 3/27/2018 **Source:** Phone

Address: 991 Azalea Dr

Description: Customer wanted to know the hardness levels for residential water

treatment system.

Outcome: Provided customer with range and average level of hardness in both mg/L

and grains/gal units.

Date: 3/28/2018 **Source:** Phone

Address: 2818 Loreto Ave.

Description: Customer concerned about the water tasting bad even after home filter

system. She wants to get the water tested.

Outcome: Explained to customer about the water quality testing program and that the

water meets all state and federal drinking water standards. Taste concerns

after the water has gone through home treatment devices should be addressed with the treatment device manufacturer. Customer was sent a

list of state certified drinking water laboratories per her request.

April 6, 2018 Page **2** of **3**

Date: 3/28/2018 Source: Phone

Address: 429 Magnolia St

Description: Customer inquired about pH in the water.

Outcome: Provided pH average and range to the customer. Also guided customer

through the Annual Water Quality Report available online and showed her

where to find the pH data.

April 6, 2018 Page **3** of **3**

MESA WATER DISTRICT COMMITTEE POLICY & RESOLUTION REVIEW OR DEVELOPMENT

ENGINEERING & OPERATIONS COMMITTEE

Policy Assignments for 2018

Policy Name	Resolution	Date Adopted	Revision Schedule	Last Reviewed
Standard Specifications and Standard Drawings		1/12/17	Review and update as needed	1/12/17
			*Scheduled for the 4/17/18 meeting	
Rules and Regulations for Water Services	Resolution No. 1470	2/09/16	Review and update as needed	2/9/16
			*Scheduled for the 5/15/18 meeting	
Urban Water Management Plan	Resolution No. 1477	6/09/16	Review and update as required every 5 years	6/09/16

Water Operations Status Report July 1, 2017 - March 31, 2018

Operations Department Status Report	Wk Unit	Plan Days	Act Days	Plan Qty	Act Qty	Plan Cost	Actual Cost
01 - HYDRANTS							
WD-0101 - HYDRANT MAINTENANCE	HYDRANTS	127	82	2537	1553	\$100,771	\$60,198
WD-0102 - HYDRANT PAINTING	HYDRANTS	12	29	317	847	\$8,994	\$19,657
WD-0103 - HYDRANT REPAIR	HYDRANTS	39	33	45	32	\$25,057	\$28,782
Program 01 TOT	AL	178	144			\$134,822	\$108,637
02 - VALVES							
WD-0201 - DISTRIBUTION VALVE MAINTENANCE	VALVES	84	78	1804		\$66,462	
WD-0202 - NIGHT VALVE MAINTENANCE	VALVES	8	0	82	0	\$6,487	\$0
Program 02 TOTA	AL	92	78			\$72,949	\$60,831
03 - METERS							
WD-0301 - NEW METER INSTALLATION	METERS	12	24	90			
WD-0302 - RAISE REPLACE METER BOX	BOXES	17	13	76			
WD-0303 - METER LEAK INVESTIGATION/REPAIR	INV/REP	19	31	150	226	\$11,663	\$29,280
WD-0305 - ANGLE STOP/BALL VALVE REPLACE	REPLACE	50	54	100	114	\$46,802	\$40,378
WD-0306 - LARGE METER TEST/REPAIR - C	TESTS	18	11	88	39	\$13,463	\$8,129
Program 03 TOTA	AL	116	133			\$124,988	\$172,767
04 - MAIN LINES							
WD-0401 - MAIN LINE REPAIR	REPAIRS	90	105	15	18	\$74,397	\$277,210
WD-0402 - AIR VAC MAINTENANCE/REPAIR	REPAIRS	20	15	119	116	\$14,848	\$9,701
WD-0403 - UNIDIRECTIONAL FLUSHING	FEET			277,089	0	\$0	\$0
Program 04 TOTA	AL	110	120			\$89,245	\$286,911
05 - SERVICE LINES							
WD-0501 - SERVICE LINE REPAIR	REPAIRS	42	64	15	39	\$32,919	\$48,601
Program 05 TOTA	AL .	42	64			\$32,919	\$48,601
06 - CAPITAL						,	, ,
CAP AV - CAPITAL AIR VACUUM REPLACE	AIR VACS	30	9	5	4	\$23,398	\$7,229
CAP BI - CAPITAL BYPASS & METER INSTALL	REPLACE	22	0	1	0	\$19,641	\$0
CAP FH - CAPITAL HYDRANT UPGRADE	HYDRANTS	154	136	23	19		\$150,289
CAP LM - CAPITAL LARGE METERS	METERS	38	10	103	27	\$118,284	\$19,783
CAP MV - CAPITAL MAINLINE VALVE REPLACE	VALVES	112	105	23	19	\$123,040	
CAP SL - CAPITAL SERVICE LINE REPLACE	SERVICES	18	15	7	4	\$15,070	\$11,139
CAP SM - CAPITAL SMALL METERS	METERS	83	66	1037	756		
CAP SS - CAPITAL SAMPLE STATION REPLACE	STATIONS	5	8	5	8	\$3,972	\$5,382
Program 06 TOTA	AL	462	349			\$605,781	\$417,445
VACANT POSITIONS							\$0
ТОТ/	AL					\$1,060,704	\$1,095,192

MEMORANDUM



TO: Engineering and Operations Committee

FROM: Phil Lauri, P.E., Assistant General Manager

Dedicated to DATE: April 17, 2018

Satisfying our Community's SUBJECT: Standard Specifications and Standard Drawings

Water Needs

RECOMMENDATION

Recommend that the Board of Directors approve the update to Mesa Water's Standard Specifications and Standard Drawings.

STRATEGIC PLAN

Goal #1: Provide a safe, abundant, and reliable water supply.

Goal #2: Practice continuous infrastructure renewal and improvement.

PRIOR BOARD ACTION/DISCUSSION

At its January 12, 2017 meeting, the Board of Directors (Board) approved updated sections to Mesa Water District's Standard Specifications and Standard Drawings.

At its August 14, 2014 meeting, the Board approved the updated Mesa Water District's Standard Specifications and Standard Drawings.

BACKGROUND

The recent drought throughout California put a high emphasis on water conservation and the process of accountability by retail agencies for lost and stolen water. The State Water Resources Control Board (SWRCB) adopted the American Water Works Association (AWWA) M36 Water Audits and Loss Control Programs Manual as the standard in which all agencies are responsible for water loss reporting and compliance. While the M36 Manual is fairly comprehensive in its auditing process, areas of evaluation continue to be less specific and open to interpretation. As such, the industry trend and guidance provided in the area of water theft monitoring encouraged the adoption of a metered fireline standard to maximize the water loss audit score and M36 compliance.

DISCUSSION

In August 2014, Mesa Water adopted a fully metered fireline Standard Drawing 22A in an effort to comply with the M36 Manual. Recent discussions with SWRCB representatives conducting the water loss audits have indicated that firelines with a tattle-tale meter would be sufficient to qualify as a metered connection within the M36 Manual. Reverting back to the original tattle-tale/backflow approach reduces cost for Mesa Water rate payers, continues to provide a mechanism to monitor for stolen water, and complies with the M36 Manual. Thus, it is recommended to remove Drawing 22A and restore the previously approved backflow standard drawings.

This project provides an update to Mesa Water's Standard Specifications and Standard Drawings. Mesa Water's last update was in January 2017.



Mesa Water's Standard Specifications and Standard Drawings is divided into four main sections as follows:

- I. Procedural Guide and Design Requirements
- II. General Conditions for Construction of Water Facilities
- III. Technical Specifications for Construction of Water Facilities
- IV. Standard Drawings

No changes are proposed to Sections I, II, and III. The following are proposed changes to Section IV:

Standard Drawings (Refer to Attachment A for suggested changes)

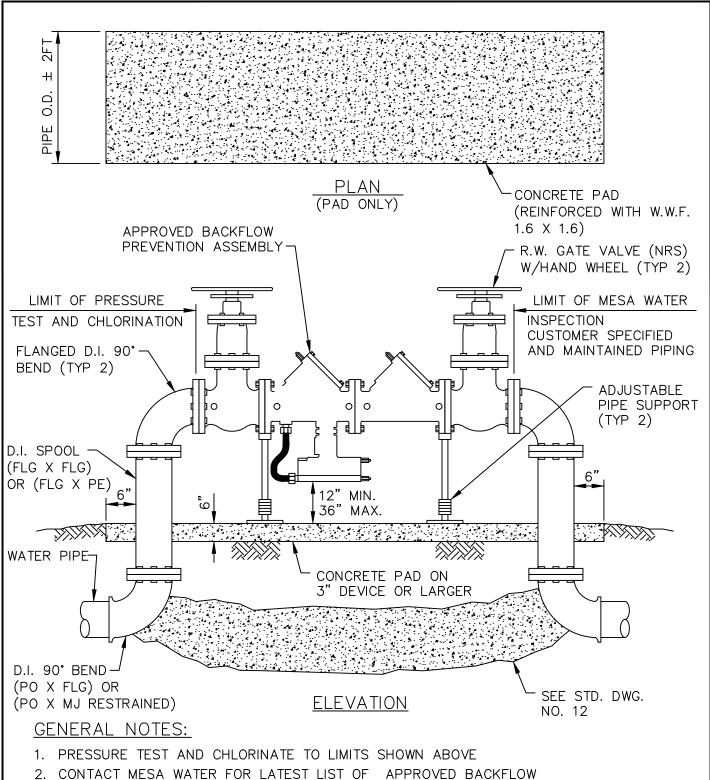
- Drawing 16 With the proposed deletion of Drawing 22A, the 2014 Drawing 16 is applicable again. Staff proposes to reinstitute Drawing 16.
- Drawing 16N With the proposed deletion of Drawing 22A, the 2014 Drawing 16N is applicable again. Staff proposes to reinstitute Drawing 16N.
- Drawing 17 With the proposed deletion of Drawing 22A, the 2014 Drawing 17 is applicable again. Staff proposes to reinstitute Drawing 17.
- Drawing 17N With the proposed deletion of Drawing 22A, the 2014 Drawing 17N is applicable again. Staff proposes to reinstitute Drawing 17N.
- Drawing 21 With the proposed deletion of Drawing 22A, the 2014 Drawing 21 is applicable again. Staff proposes to reinstitute Drawing 21.
- Drawing 21N With the proposed deletion of Drawing 22A, the 2014 Drawing 21N is applicable again. Staff proposes to reinstitute Drawing 21N.
- Drawing 22A Through meetings with the City of Costa Mesa and the Water Loss Audit Consultant, it has been determined that a tattle-tale meter qualifies as a metered connection for firelines. The large meter assembly is not required to achieve a high score in the Water Loss Audit and staff proposes to delete the standard.

FINANCIAL IMPACT

None.

ATTACHMENTS

Attachment A: Proposed Changes to Standard Drawings 16, 16N, 17, 17N, 21, 21N



- 2. CONTACT MESA WATER FOR LATEST LIST OF APPROVED BACKFLOW PREVENTION ASSEMBLIES.
- 3. BACKFLOW ASSEMBLY SHALL BE A MINIMUM OF 36" FROM ANY STRUCTURE, CURB OR SIDEWALK.
- 4. BACKFLOW ASSEMBLY MUST BE EASILY ACCESSIBLE TO FACILITATE TESTING AND SERVICING.

"FOR DOMESTIC USE ONLY"

HEALTH HAZARD (CONTAMINANT) BACKFLOW PREVENTION DEVICE

MESA WATER DISTRICT

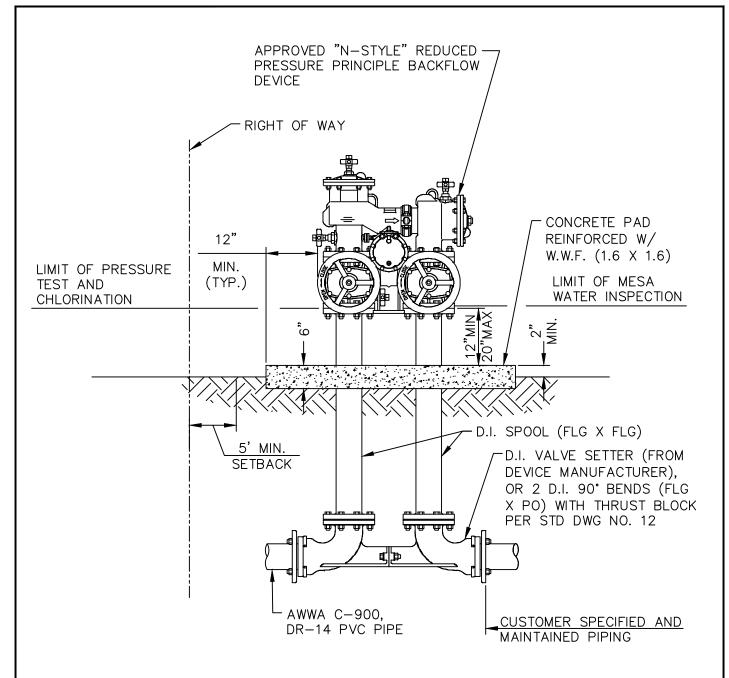
REDUCED PRESSURE PRINCIPLE ASSEMBLY (3" OR LARGER)

DATE:
APR 2018

APR 2018

APR 2018

APR 2018



FRONT ELEVATION VIEW

GENERAL NOTES:

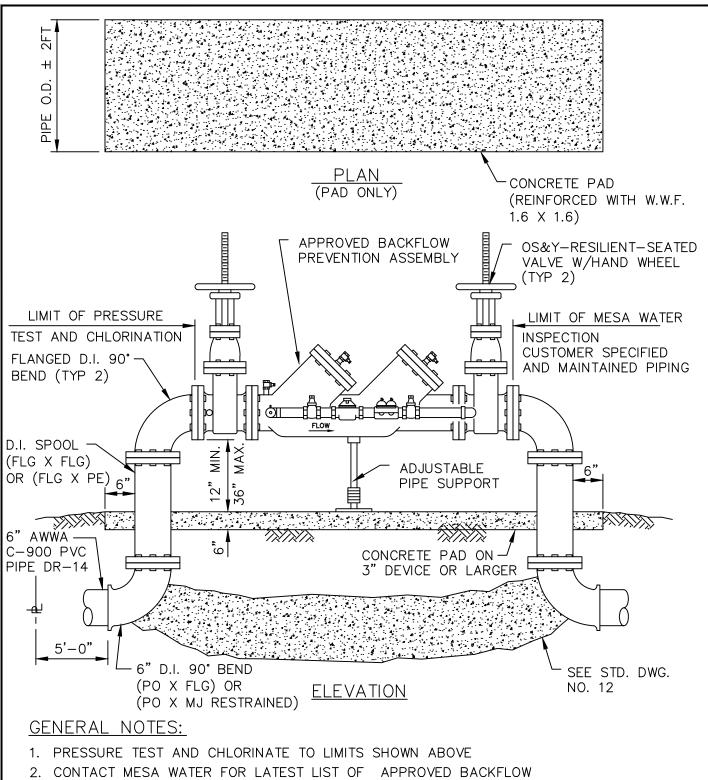
- 1. PRESSURE TEST AND CHLORINATE TO LIMITS SHOWN ABOVE.
- 2. CONTACT MESA WATER FOR LATEST LIST OF APPROVED BACKFLOW PREVENTION ASSEMBLIES.
- 3. BACKFLOW ASSEMBLY SHALL BE A MINIMUM OF 36" FROM ANY STRUCTURE, CURB OR SIDEWALK.
- 4. BACKFLOW ASSEMBLY MUST BE EASILY ACCESSIBLE TO FACILITATE TESTING AND SERVICING.

MESA WATER **DISTRICT**

COMPACT REDUCED PRESSURE PRINCIPLE ASSEMBLY FOR LARGE SERVICES

STANDARD DRAWING RJW APR 2018

16N

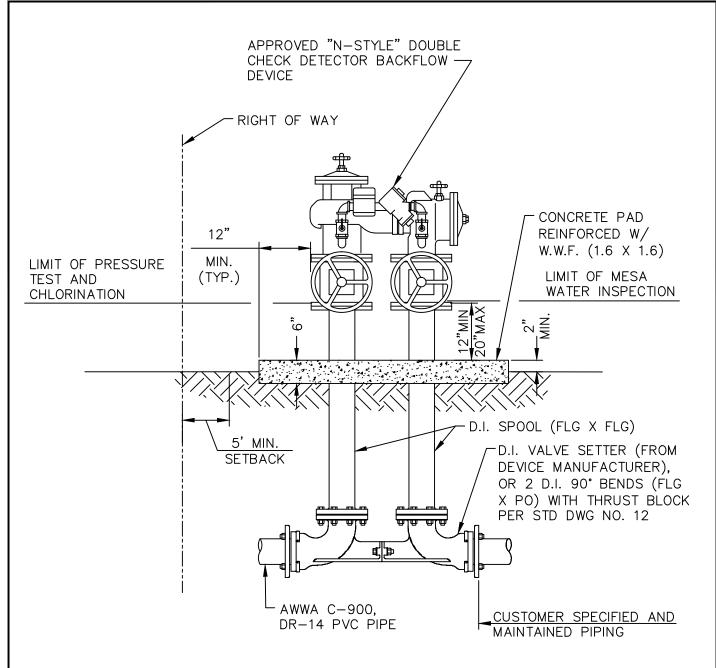


- PREVENTION ASSEMBLIES.
- 3. BY-PASS DETECTOR METER IN CUBIC FEET
- 4. BACKFLOW ASSEMBLY SHALL BE A MINIMUM OF 36" FROM ANY STRUCTURE, CURB OR SIDEWALK.
- 5. BACKFLOW ASSEMBLY MUST BE EASILY ACCESSIBLE TO FACILITATE TESTING AND SERVICING.

"FOR FIRE USE ONLY"

NON-HEALTH HAZARD (POLLUTANT) BACKFLOW PREVENTION DEVICE

STANDARD DRAWING **MESA WATER** RJWDOUBLE CHECK 17 DISTRICT DETECTOR ASSEMBLY APR 2018



FRONT ELEVATION VIEW

GENERAL NOTES:

- 1. PRESSURE TEST AND CHLORINATE TO LIMITS SHOWN ABOVE.
- 2. CONTACT MESA WATER FOR LATEST LIST OF APPROVED BACKFLOW PREVENTION ASSEMBLIES.
- 3. BACKFLOW ASSEMBLY SHALL BE A MINIMUM OF 36" FROM ANY STRUCTURE, CURB OR SIDEWALK.
- 4. BACKFLOW ASSEMBLY MUST BE EASILY ACCESSIBLE TO FACILITATE TESTING AND SERVICING.

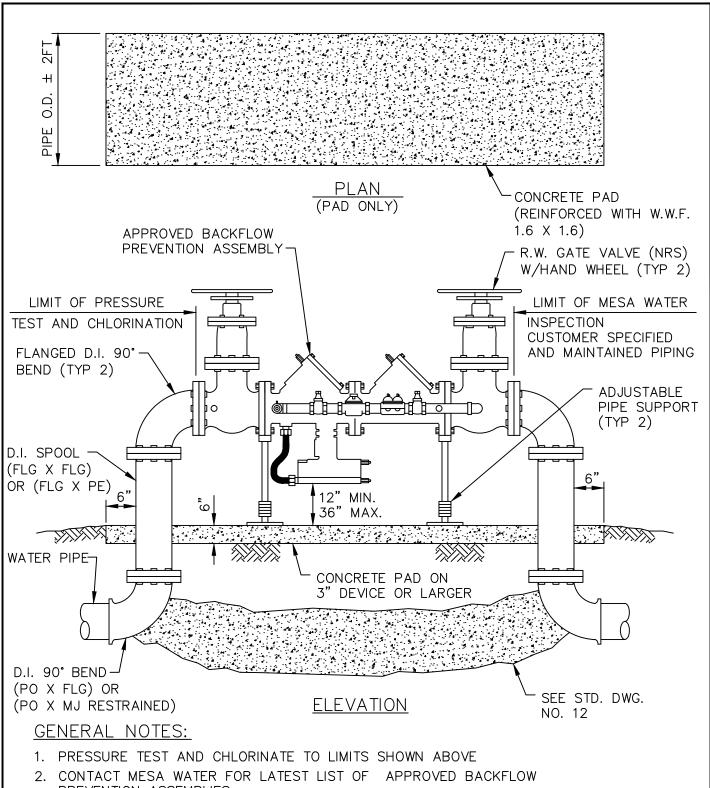
MESA WATER DISTRICT

COMPACT DOUBLE CHECK DETECTOR ASSEMBLY

DRAWN BY:
RJW

DATE:
APR 2018

STANDARD DRAWING



- PREVENTION ASSEMBLIES.
- 3. BACKFLOW ASSEMBLY SHALL BE A MINIMUM OF 36" FROM ANY STRUCTURE, CURB OR SIDEWALK.
- 4. BACKFLOW ASSEMBLY MUST BE EASILY ACCESSIBLE TO FACILITATE TESTING AND SERVICING.

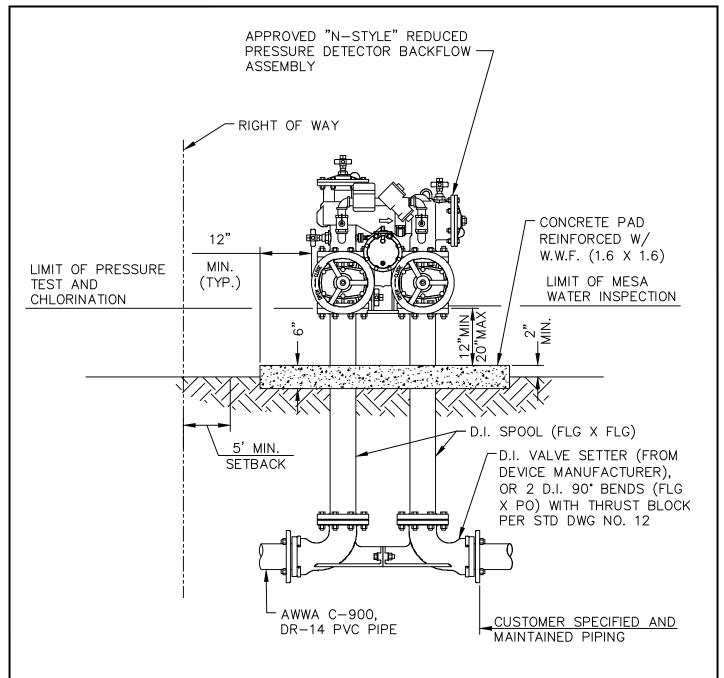
"FOR DOMESTIC USE ONLY"

HEALTH HAZARD (CONTAMINANT) BACKFLOW PREVENTION DEVICE

MESA WATER DISTRICT

REDUCED PRESSURE DETECTOR ASSEMBLY (3" OR LARGER)

STANDARD DRAWING RJW21 APR 2018



FRONT ELEVATION VIEW

GENERAL NOTES:

- 1. PRESSURE TEST AND CHLORINATE TO LIMITS SHOWN ABOVE.
- 2. CONTACT MESA WATER FOR LATEST LIST OF APPROVED BACKFLOW PREVENTION ASSEMBLIES.
- 3. BACKFLOW ASSEMBLY SHALL BE A MINIMUM OF 36" FROM ANY STRUCTURE, CURB OR SIDEWALK.
- 4. BACKFLOW ASSEMBLY MUST BE EASILY ACCESSIBLE TO FACILITATE TESTING AND SERVICING.

MESA WATER DISTRICT

COMPACT REDUCED PRESSURE DETECTOR ASSEMBLY FOR LARGE SERVICES

STANDARD DRAWING RJW APR 2018

21N

REPORTS:

7. REPORT OF THE GENERAL MANAGER:

REPORTS:

8. DIRECTORS' REPORTS AND COMMENTS:

MEMORANDUM



TO: Engineering and Operations Committee

FROM: Phil Lauri, P.E., Assistant General Manager

Dedicated to DATE: April 17, 2018

Satisfying our Community's SUBJECT: Chandler and Croddy Properties Leasing

Water Needs

RECOMMENDATION

This item is provided for information only.

STRATEGIC PLAN

Goal #1: Provide a safe, abundant, and reliable water supply.

Goal #2: Practice perpetual infrastructure renewal and improvement.

PRIOR BOARD ACTION/DISCUSSION

At its March 26, 2018 workshop, the Board of Directors (Board) directed staff to evaluate the potential of short-term leasing of the Chandler Avenue and Croddy Way properties.

BACKGROUND

Mesa Water recently purchased properties at 4011 W. Chandler Avenue and 3120 S. Croddy Way in the City of Santa Ana. These properties were purchased with the intent to design and construct new well production facilities and pipeline to enhance Mesa Water's supply reliability.

Both properties were purchased with lease-back conditions allowing the original owners time to relocate their businesses. The tenant at 4011 W. Chandler Avenue has provided notice that they will be vacating the property on or before July 31, 2018. The tenant at 3120 S. Croddy Way has provided notice that they will be vacating the property on or before June 30, 2018.

DISCUSSION

The design and permitting for the new well facilities and associated pipeline is in process and is scheduled to be complete in mid-2019. Construction is scheduled to start in January 2020. Mesa Water has evaluated the potential to place short-term tenants in both facilities through the end of 2019 and believe this to be viable based on guidance received from Mesa Water's property consultants. Short-term tenancy of both properties will allow Mesa Water to generate revenue from these properties until the start of construction of the new well facilities to offset Mesa Water operating expenses.

Mesa Water will be working with its tenant leasing consultant on a commission basis to find suitable tenants for the aforementioned duration.

FINANCIAL IMPACT

None.



ATTACHMENTS

None.

MEMORANDUM



TO: Engineering and Operations Committee

FROM: Tracy E. Manning, Water Operations Manager

Dedicated to DATE: April 17, 2018

Satisfying our Community's SUBJECT: Environmental Health and Safety Support Services

Water Needs

RECOMMENDATION

This item is provided for information only.

STRATEGIC PLAN

Goal #1: Provide a safe, abundant, and reliable water supply.

Goal #3: Be financially responsible and transparent.

Goal #5: Attract and retain skilled employees.

PRIOR BOARD ACTION/DISCUSSION

None.

BACKGROUND

Since 2013, the environmental health and safety (EHS) function has been filled on a part-time basis by an on-site representative of a professional EHS company. Utilizing a professional EHS company provides Mesa Water staff with a team of professionals with expertise in all areas of environmental health and safety, as well as emergency preparedness. Mesa Water maintains a robust safety program and has developed and implemented comprehensive training on emergency operations. The contract with the current consultant expires June 30, 2018.

DISCUSSION

Mesa Water is requesting proposals from qualified full-service professional Environmental Health and Safety firms to provide part-time on-site support and as-needed services.

The scope of work provided under the EHS Support Services Request for Proposals is summarized as follows:

- Training: Training has been developed and provided for 24 core EHS programs and emergency operations. New-hire and annual refresher trainings are provided, as required. Weekly tailgate meetings are provided to field staff.
- 2. Evaluation: Monthly on-site inspections are conducted to ensure staff are following training and guidelines and are using proper techniques and personal protective equipment. Quarterly site inspections are conducted to identify and mitigate potential safety issues and ensure compliance with site-specific environmental regulations. Investigations are performed for accidents and close-calls and reviewed with the Safety Ambassador Committee.



- 3. **Regulatory Review:** New and changing safety and environmental regulations are identified early to ensure Mesa Water maintains compliance. Safety procedures and policies are created or updated when needed.
- 4. **Testing:** Periodic table-top exercises are conducted in the Mesa Water Emergency Operations Center to ensure staff is prepared to provide continuous service to Mesa Water customers in the event of an emergency and are able to restore the water system to normal operations as quickly as possible.

A request for proposals was issued on March 1, 2018. Proposals are scheduled for receipt on April 2, 2018. Results of the selection process and recommendation will be brought to a future Engineering and Operations Committee meeting.

FINANCIAL IMPACT

Funds will be budgeted in Fiscal Year 2019 for Environmental Health and Safety Support Services.

ATTACHMENTS

None.