



Yucaipa Valley Water District

12770 Second Street, Yucaipa, California 92399 Phone: (909) 797-5117

Notice and Agenda of a Regular Meeting of the Board of Directors

Tuesday, October 1, 2019 at 6:00 p.m.

- I. **CALL TO ORDER** - Pledge of Allegiance
- II. **ROLL CALL**
- III. **PUBLIC COMMENTS** - At this time, members of the public may address the Board of Directors on matters within its jurisdiction. To provide comments on specific agenda items, please complete a speaker's request form and provide the completed form to the Board Secretary prior to the board meeting.
- IV. **CONSENT CALENDAR** - All consent calendar matters are routine and will be acted upon in one motion. There will be no discussion of these items unless board members, administrative staff, or members of the public request specific items to be discussed and/or removed prior to the vote for approval.
 - A. Minutes of Meetings
 - 1. Regular Board Meeting - September 17, 2019
 - 2. Board Workshop - September 24, 2019
- V. **STAFF REPORT**
- VI. **DISCUSSION ITEMS**
 - A. Consideration of Change Order No. 1 and Filing of a Notice of Completion for the Construction of Wildwood Canyon Road Sewer Pipeline - Yucaipa [[Director Memorandum No. 19-108 - Page 18 of 203](#)]
RECOMMENDED ACTION: That the Board authorize the General Manager to execute Change Order No.1 and file the Notice of Completion for the Wildwood Canyon Road Sewer Pipeline Project.
 - B. Consideration of Resolution No. 2019-19 Adopting the Standard Specifications for the Design and Processing, Furnishing of Material, and Construction of Drinking Water, Recycled Water and Sewer Facilities [[Director Memorandum No. 19-109 - Page 24 of 203](#)]
RECOMMENDED ACTION: That the Board adopt Resolution No. 2019-19.
 - C. Appointment of an Ad Hoc Committee for Policy Collaboration and Resolution of Institutional Constraints between San Bernardino Valley Municipal Water District, San Geronio Pass Water Agency, and the Yucaipa Valley Water District [[Director Memorandum No. 19-110 - Page 183 of 203](#)]
RECOMMENDED ACTION: That the Board appoint two members as the ad hoc Regional Collaboration Committee.

Any person who requires accommodation to participate in this meeting should contact the District office at (909) 797-5117, at least 48 hours prior to the meeting to request a disability-related modification or accommodation.

Materials that are provided to the Board of Directors after the meeting packet is compiled and distributed will be made available for public review during normal business hours at the District office located at 12770 Second Street, Yucaipa. Meeting materials are also available on the District's website at www.yvwd.dst.ca.us

VII. BOARD REPORTS & DIRECTOR COMMENTS

VIII. ANNOUNCEMENTS

- A. October 8, 2019 at 4:00 p.m. - Board Workshop
- B. October 15, 2019 at 6:00 p.m. - Board Meeting
- C. October 29, 2019 at 4:00 p.m. - Board Workshop
- D. November 5, 2019 at 6:00 p.m. - Board Meeting
- E. November 12, 2019 at 4:00 p.m. - Board Workshop
- F. November 19, 2019 at 6:00 p.m. - Board Meeting
- G. November 26, 2019 at 4:00 p.m. - Board Workshop
- H. December 3, 2019 at 6:00 p.m. - Board Meeting
- I. December 10, 2019 at 4:00 p.m. - Board Workshop
- J. December 17, 2019 at 6:00 p.m. - Board Meeting
- K. **December 31, 2019 at 4:00 p.m. - Board Workshop - Cancelled**
- L. **January 7, 2020 at 6:00 p.m. - Board Meeting - Cancelled**
- M. January 14, 2020 at 4:00 p.m. - Board Workshop
- N. January 21, 2020 at 6:00 p.m. - Board Meeting
- O. January 28, 2020 at 4:00 p.m. - Board Workshop

IX. Closed Session

- A. Conference with Real Property Negotiator(s) - Government Code 54956.8
Property: Assessor's Parcel Number: 473-070-020
Agency Negotiator: Joseph Zoba, General Manager
Negotiating Parties: Hector Erami and Alexandra Rodriguez
Under Negotiation: Terms of Payment and Price
- B. Conference with Legal Counsel - Anticipated Litigation (Government Code 54956.9) - Two Cases

X. ADJOURNMENT

Consent Calendar



Yucaipa Valley Water District

MINUTES OF A REGULAR BOARD MEETING

September 17, 2019 at 6:00 P.M.

Directors Present:

Chris Mann, President
Bruce Granlund, Vice President
Director Lonni Granlund
Director Joyce McIntire

Staff Present:

Jennifer Ares, Water Resource Manager
Allison Edmisten, Chief Financial Officer
Matthew Porras, Implementation Manager
John Wrobel, Operations Manager
Joseph Zoba, General Manager

Directors Absent:

Jay Bogh, Director

Consulting Staff Present:

David Wysocki, Legal Counsel

Registered Guests and Others Present:

Linda Shelton
Mike Turner, Argent Management

CALL TO ORDER

The regular meeting of the Board of Directors of the Yucaipa Valley Water District was called to order by Chris Mann at 6:00 p.m. at the Administrative Office Building, 12770 Second Street, Yucaipa, California.

FLAG SALUTE

Director Chris Mann led the pledge of allegiance.

ROLL CALL

The roll was called with Director Bruce Granlund, Director Lonni Granlund, Director Chris Mann, and Director Joyce McIntire present.

Director Jay Bogh was absent.

PUBLIC COMMENTS

None

CONSENT CALENDAR

Director Jay Bogh moved to approve the consent calendar and Director Bruce Granlund seconded the motion.

- A. Minutes of Meetings
 - 1. Regular Board Meeting - September 3, 2019
 - 2. Board Workshop - September 10, 2019
- B. Payment of Bills
 - 1. Approve/Ratify Invoices for Board Awarded Contracts

The motion was approved by the following vote:
Director Jay Bogh - Absent

Director Bruce Granlund - Yes
Director Lonni Granlund - Yes
Director Chris Mann - Yes
Director Joyce McIntire - Yes

STAFF REPORT

General Manager Joseph Zoba discussed the following items:

- The ASCE Civil Engineering News completed an article about the Yucaipa Valley Water District's dual-plumbed homes. A copy of the article, "California Housing Development will Rely Heavily on Recycled Water" was distributed at the meeting.
- The Yucaipa Valley Water District was recognized by the City of Calimesa at their regular council meeting on September 16, 2019 for assisting with a fire near Calimesa Boulevard.

DISCUSSION ITEMS:

DM 19-103

STATUS REPORT ON
THE GEOTECHNICAL
INVESTIGATION FOR
THE ARTIFICIAL
GROUNDWATER
RECHARGE PROJECT
IN THE BEAUMONT
GROUNDWATER BASIN

General Manager Joseph Zoba provided an update on the status of the geological investigation for the Calimesa Lake and Recharge Facility.

The District staff will continue to study the geotechnical information, while working with Geoscience to explore the installation of injection wells to recharge the westerly portion of the Beaumont Storage Unit.

Additional information will be provided at future meetings.

DM 19-104

AUTHORIZATION TO
PARTICIPATE IN THE
FACILITATION OF A
POSSIBLE
AMENDMENT TO THE
SANTA ANA RIVER -
MILL CREEK
COOPERATIVE WATER
PROJECT AGREEMENT

General Manager Joseph Zoba provided an overview of the consultant contract related to the Santa Ana River - Mill Creek Cooperative Water Project Agreement.

Director Lonni Granlund moved that the Board authorize participation in the review of the Santa Ana River - Mill Creek Cooperative Water Project Agreement for a sum not to exceed \$5,556.

Director Bruce Granlund seconded the motion.

The motion was approved by the following vote:

Director Jay Bogh - Absent
Director Bruce Granlund - Yes
Director Lonni Granlund - Yes

Director Chris Mann - Yes
Director Joyce McIntire - Yes

DM 19-105

AUTHORIZATION TO
PROCEED WITH THE
FINAL DESIGN OF
SEWER LIFT
STATIONS, SEWER
FORCE MAINLINES,
AND SEWER
COLLECTION SYSTEM
UPGRADES

General Manager Joseph Zoba presented information about the final design for lift stations and force mainlines for the Oak Valley Project.

Director Bruce Granlund moved that the Board authorize Krieger and Stewart to initiate the design of sewer infrastructure for a sum not to exceed \$598,500.

Director Lonni Granlund seconded the motion.

The motion was approved by the following vote:

Director Jay Bogh - Absent
Director Bruce Granlund - Yes
Director Lonni Granlund - Yes
Director Chris Mann - Yes
Director Joyce McIntire - Yes

DM 19-106

AUTHORIZATION TO
UPDATE THE
PRELIMINARY
ENGINEERING DESIGN
STUDY FOR THE
SALINITY AND
GROUNDWATER
ENHANCEMENT
(SAGE) PROJECT AT
THE WOCHHOLZ
REGIONAL WATER
RECYCLING FACILITY

General Manager Joseph Zoba provided information about the Salinity and Groundwater Enhancement (SAGE) Project.

Director Lonni Granlund moved that the Board authorize Separation Processes to update the preliminary design of the Salinity and Groundwater Enhancement (SAGE) Project for a sum not to exceed \$32,260.

Director Bruce Granlund seconded the motion.

The motion was approved by the following vote:

Director Jay Bogh - Absent
Director Bruce Granlund - Yes
Director Lonni Granlund - Yes
Director Chris Mann - Yes
Director Joyce McIntire - Yes

DM 19-107

CONSIDERATION OF A CLAIM FOR REPAIR COSTS RELATED TO WATER LINE LEAKS ON THIRD STREET - ALFREDO RODRIGUEZ

General Manager Joseph Zoba presented the claim from Alfredo Rodriguez.

Director Lonni Granlund moved that the Board deny the claim for damages and notify the District's insurance carrier of the denied claim for damages.

Director Joyce McIntire seconded the motion.

The motion was approved by the following vote:

Director Jay Bogh - Absent
Director Bruce Granlund - Yes
Director Lonni Granlund - Yes
Director Chris Mann - Yes
Director Joyce McIntire - Yes

BOARD REPORTS AND DIRECTOR COMMENTS

Director Joyce McIntire reported on the City of Calimesa council meeting held on September 16, 2019.

Director Joyce McIntire reported on the San Geronio Pass Water Agency engineering workshop held on September 9, 2019.

Director Bruce Granlund, Director Lonni Granlund and Director Joyce McIntire reported on the District workshop at the Webster Ranch on September 4, 2019.

Director Bruce Granlund and Director Lonni Granlund reported on the City of Yucaipa Economic Development Advisory Committee held on September 5, 2019.

Director Bruce Granlund, Director Lonni Granlund and Director Chris Mann reported on the Association of San Bernardino County Special District meeting held on September 16, 2019.

ANNOUNCEMENTS

Director Chris Mann called attention to the announcements listed on the agenda.

CLOSED SESSION

Director Bruce Granlund, Director Lonni Granlund, Director Chris Mann, and Director Joyce McIntire were present in closed session with Legal Counsel David Wysocki, Chief Financial Officer Allison Edmisten, and General Manager Joseph Zoba to discuss the following item.

- B. Conference with Real Property Negotiator(s) - Government Code 54956.8
Property: Assessor's Parcel Number: 473-070-020

Agency Negotiator: Joseph Zoba, General Manager
Negotiating Parties: Hector Erami and Alexandra
Rodriguez
Under Negotiation: Terms of Payment and Price

C. Conference with Legal Counsel - Anticipated Litigation
(Government Code 54956.9) - One Case

After reconvening out of closed session, Legal Counsel David
Wysocki reported that direction was provided to the General
Manager and that there were no other reportable actions taken.

ADJOURNMENT

The meeting was adjourned at 7:00 p.m.

Respectfully submitted,

Joseph B. Zoba, Secretary

(Seal)

MINUTES OF A BOARD WORKSHOP

September 24, 2019 at 4:00 P.M.

Directors Present:

Chris Mann, President
Bruce Granlund, Vice President
Lonni Granlund, Director
Joyce McIntire, Director

Staff Present:

Jennifer Ares, Water Resource Manager
Madeline Blua, Water Resource Specialist
Allison Edmisten, Chief Financial Officer
Chelsie Fogus, Engineering Technician I
Ashley Gibson, Regulatory Compliance Manager
Kathryn Hallberg, Implementation Manager
Dustin Hochreiter, Senior Engineering Technician
Mike Kostelecky, Operations Manager
Tim Mackamul, Operations Manager
Matt Porras, Implementation Manager
Mike Rivera, Public Works Supervisor
John Wrobel, Public Works Manager
Joseph Zoba, General Manager

Directors Absent:

Jay Bogh, Director

Consulting Staff Present:

David Wysocki, Legal Counsel

Guests and Others Present:

Linda Shelton
Claire Teeters
Paul Kielhold, San Bernardino Valley Municipal Water District
John Ohanian, Oak Valley Partners

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- I. Call to Order - 4:00 p.m. - The workshop of the Board of Directors of the Yucaipa Valley Water District was called to order by Chris Mann at 4:00 p.m. at the Administrative Office Building, 12770 Second Street, Yucaipa, California.
 - II. Public Comments - None
 - III. Staff Report - General Manager Joseph Zoba presented information on the following topics:
 - Southern California Edison has initiated Public Safety Power Shutoffs which are related to weather conditions that create the potential for elevated fire risk. The District will monitor these events and determine their impact to our water and sewer operations.
 - The Yucaipa Valley Water District was featured in the ASCE Civil Engineering Magazine in September 2019. The article, California Housing Development Will Rely Heavily on Recycled Water discussed the use of recycled water for the Summerwind Trails Development.
 - On September 20, 2019, the News-Mirror published a letter to the editor from Leonard Stephenson, San Gorgonio Pass Water Agency, Director - Division 5. The letter had several misstatements about the ownership of recycled water and how recycled water should be divided between Yucaipa and Calimesa. A brief

overview of Water Code Section 1210 was provided which clearly states that the Yucaipa Valley Water District is the owner of recycled water in the Yucaipa Valley.

- The Yucaipa Sustainable Groundwater Management Agency will be meeting on September 25, 2019 at 10:00 am.
- A joint board meeting between the San Bernardino Valley Municipal Water District, San Gorgonio Pass Water Agency, and Yucaipa Valley Water District will be held on September 25, 2019 at 1:30 pm.
- The San Gorgonio Pass Regional Water Alliance will be meeting on September 25, 2019 at 5:00 pm.

IV. Presentation

- A. Overview of a Site Visit of the Monte Vista Water District Aquifer Storage and Recovery Facility [Workshop Memorandum No. 19-201] - Implementation Manager Matt Porras provided information about the Aquifer Storage and Recovery Program implemented by the Monte Vista Water District. The District staff will look into the development of a similar program for the Yucaipa Valley Water District for both drinking water and recycled water.

V. Capital Improvement Projects

- A. Review of Change Order No. 1 and Filing of a Notice of Completion for the Construction of Wildwood Canyon Road Sewer Pipeline - Yucaipa [Workshop Memorandum No. 19-202] - Implementation Manager Matt Porras presented Change Order No. 1 and the Notice of Completion for the Wildwood Canyon Road Sewer Pipeline Project.
- B. Status Report on the Geotechnical Investigation for the Artificial Groundwater Recharge Project in the Beaumont Groundwater Basin [Workshop Memorandum No. 19-203] - General Manager Joseph Zoba provided an update on the status of the Artificial Groundwater Recharge Project in Calimesa. The next steps for this project include drilling three more bore holes and a test of permeability in the existing bore holes.

VI. Administrative Issues

- A. Overview of 2019 District Standard Design Drawings and Specifications [Workshop Memorandum No. 19-204] - Senior Engineering Technician Dustin Hochreiter provided an overview of the 2019 District Standard Design Drawings and Specifications.
- B. Overview of the Draft Financial Rate Model for the Drinking Water, Sewer, and Recycled Water Enterprises [Workshop Memorandum No. 19-205] - General Manager Joseph Zoba provided information about the Comprehensive Rate Model. This item will be presented again at the next board workshop.
- C. Overview of the Draft Memorandum of Agreement for the San Timoteo Groundwater Sustainability Agency [Workshop Memorandum No. 19-206] - General Manager Joseph Zoba provided information about the draft agreement to revise the original Groundwater Sustainability Agency memorandum for the San Timoteo Basin.
- D. Overview of the Proposed Design and Concepts for a Permanent Boardroom Dais [Workshop Memorandum No. 19-207] - Implementation Manager Matt Porras provided information about the proposed dais in the boardroom. This item will be presented again at the next board workshop.

VII. Director Comments

A. None

VIII. Announcements - The future meetings were referenced on the workshop agenda.

IX. Closed Session

Director Bruce Granlund, Director Lonni Granlund, Director Chris Mann, and Director Joyce McIntire were present in closed session with Legal Counsel David Wysocki, General Manager Joseph Zoba, and Chief Financial Officer Allison Edmisten to discuss the following items.

B. Conference with Real Property Negotiator(s) - Government Code 54956.8
Property: Assessor's Parcel Number: 473-070-020

Agency Negotiator: Joseph Zoba, General Manager

Negotiating Parties: Hector Erami and Alexandra Rodriguez

Under Negotiation: Terms of Payment and Price

C. Conference with Legal Counsel - Anticipated Litigation (Government Code 54956.9) - Two Cases

After reconvening out of closed session, Legal Counsel David Wysocki reported that direction was provided to the General Manager and that there were no other reportable actions taken.

X. Adjournment - The meeting was adjourned at 5:45 p.m.

Respectfully submitted,

Joseph B. Zoba, Secretary

Staff Report



Yucaipa Valley Water District



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

September 26, 2019

THE ADMINISTRATOR

The Honorable Gavin C. Newsom
1303 10th Street, Suite 1173
Sacramento, California 95814

Dear Governor Newsom:

The U.S. Environmental Protection Agency and California Environmental Protection Agency are responsible for working together to protect public health and the environment in your state. As a result of the authorization of state laws and the delegation of federal authority, California administers and implements the federal *Clean Water Act* and *Safe Drinking Water Act* among other federal programs.¹ Congress designed these statutory frameworks for the states to take the lead role in implementation, with the EPA overseeing state actions.

Based on data and reports, the EPA is concerned that California's implementation of federal environmental laws is failing to meet its obligations required under delegated federal programs. The cost of this failure will be paid by those Californians exposed to unhealthy air and degraded water. The purpose of this letter is to outline the deficiencies that have led to significant public health concerns in California and to outline steps the state must take to address them. To ensure that appropriate steps are being taken to protect Californians, the EPA would like a remedial plan from the state detailing the steps it is taking to address the issues raised below.

The EPA is aware of the growing homelessness crisis developing in major California cities, including Los Angeles and San Francisco, and the impact of this crisis on the environment. Indeed, press reports indicate that "piles of human feces" on sidewalks and streets in these cities are becoming all too common.² The EPA is concerned about the potential water quality impacts from pathogens and other contaminants from untreated human waste entering nearby waters.³ San

¹ The EPA first authorized California's base *Clean Water Act* program in 1973. The EPA subsequently approved the state to regulate discharges from federal facilities in 1978, administer the pretreatment program in 1989 and issue general permits in 1989. California also has received primacy to exercise *Safe Drinking Water Act* responsibilities in the state.

² See, e.g., Raphelson, Samantha. "San Francisco Squalor: City Streets Strewn With Trash, Needles And Human Feces," *NPR* (Aug. 1, 2018) available at <https://www.npr.org/2018/08/01/634626538/san-francisco-squalor-city-streets-strewn-with-trash-needles-and-human-feces> (last accessed Sept. 22, 2019).

³ Human waste from homeless populations is a recognized source of bacteria in water bodies. See American Society of Civil Engineers, "Pathogens in Urban Stormwater Systems" (Aug. 2014); "The California Microbial Source Identification Manual: A Tiered Approach to Identifying Fecal Pollution Sources to Beaches" (Dec. 2013); Tools for Tracking Human Fecal Pollution in Urban Storm Drains, Streams, and Beaches (Sept. 2012). These reports are

Francisco, Los Angeles and the state do not appear to be acting with urgency to mitigate the risks to human health and the environment that may result from the homelessness crisis. California is responsible for implementing appropriate municipal storm water management and waste treatment requirements as part of its assumed federal program. The state is failing to properly implement these programs.

San Francisco is also one of the few major cities with sewers that combine stormwater and sewage flows that is not under a federal consent decree to meet the requirements of federal law. The EPA is committed to helping the state address this problem. In fact, the EPA provided the San Francisco Public Utility Commission a loan of \$699 million under favorable terms pursuant to authority under the *Water Infrastructure Finance and Innovation Act* in July 2018 for biosolid digestors and other related projects. However, these projects will not bring the city into compliance. San Francisco must invest billions of dollars to modernize its sewer system to meet CWA standards, avoid dumping untreated and partially treated sewage into the San Francisco Bay and Pacific Ocean where it can wash up on beaches and keep raw sewage inside pipes instead of in homes and businesses.

Even more troubling is the City of San Francisco's years-long practice – allowed by CalEPA – of routinely discharging more than one billion gallons of combined sewage and stormwater into San Francisco Bay and the Pacific Ocean on an annual basis. The CWA requires municipal sewage be treated to certain levels and to meet water quality standards. Nonetheless, although San Francisco's combined sewer outfalls discharge to sensitive waters, these discharges do not receive biological treatment. Instead, San Francisco's combined sewer overflows are designed to remove floatables and settleable solids only and do not always achieve even that low level of treatment. These discharges may be contributing to the state's failure to meet water quality standards. By failing to maintain its sewer infrastructure, the city allowed raw sewage to back up into homes and businesses.

Overall, significant deficiencies are present, and the state has not acted with a sense of urgency to abate this public health and environmental problem. Among the other issues identified, the state's years-long approval of the discharges referenced above under its authorized CWA program raises serious questions as to whether it is administering a program consistent with federal law.⁴ The city's practices endanger public health, and the EPA is prepared to take the necessary steps to ensure CWA compliance. Given the magnitude of the issues, I have asked EPA staff to consider all options available to bring the city into compliance.

The state's lack of action in response to the homelessness crisis and San Francisco's discharges of inadequately treated sewage prompted the EPA to review other programs

available on the website for the San Francisco Bay Beaches Bacteria TMDL *available at* https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/SFbaybeachesbacteria.html (last accessed September 22, 2019).

⁴ The EPA's current data also indicates that 15 major Publicly Owned Treatment Works are in significant noncompliance and 11 non-major POTWs are currently in significant noncompliance. These data are publicly available. See U.S. EPA, Enforcement and Compliance History Online water facility public search tool (<https://echo.epa.gov/facilities/facility-search?mediaSelected=cwa>).

administered by CalEPA for similar concerns. What we discovered after a preliminary review suggests the need for more formal and in-depth EPA oversight. For example, we are aware of numerous exceedances of state-issued National Pollutant Discharge Elimination System permits under section 402 of the CWA. Just in this past quarter, we identified 23 significant instances of discharges into waters of the United States in exceedance of permit limits. By way of example, the City of Los Angeles exceeded its permit limit for Indeno[1,2,3-cd]pyrene (a contaminant which is reasonably anticipated to be a human carcinogen) by 442 percent; the University of Southern California exceeded its permit limit for copper (a metal which can adversely affect human health and the health of aquatic life) by 420 percent; and Sanitary District Number 5 of Marin County exceeded its permit limit for total cyanide by 5,194 percent. These are serious matters that warrant a strong review by California.

California has the resources to address these problems. Apart from the state's significant tax base, California received more than \$1.16 billion of federal funds to implement CWA programs just in the last five years, including \$253.5 million in FY2018 and \$247 million in FY2019. In addition, California received more than \$152 million in categorical grants over this time to improve compliance with the CWA.

The EPA also has concerns about CalEPA's administration and oversight of SDWA programs and public water systems within the state. Indeed, we are aware of numerous recent health-based exceedances: in just the most recent reporting quarter of 2019, California had 202 Community Water Systems with 665 health-based exceedances that put the drinking water of nearly 800,000 residents at risk. These exceedances include:

- 67 systems with 194 serious health-based exceedances of arsenic levels, impacting more than 101,000 residents;
- 210 lead action level exceedances in just the most recent 3-year interval at 168 PWSs, impacting more than 10,000 residents;
- two systems with serious Ground Water Rule⁵ compliance issues,⁶ impacting more than 250,000 residents;
- 44 systems with 154 exceedances of the Stage 1 and 2 disinfection byproduct regulations, impacting almost 255,000 residents; and
- 25 systems with 69 violations of radiological standards, impacting almost 12,000 residents.

These exceedances call into question the state's ability to protect the public and administer its SDWA programs in a manner consistent with federal requirements.

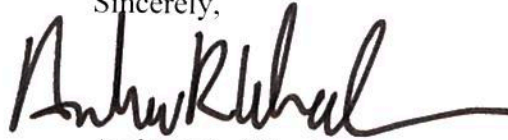
Under this Administration, the EPA stands ready to assist California and CalEPA to protect the health and environment of Californians. However, it is time for the state to act decisively under

⁵ The 2006 Ground Water Rule is a National Primary Drinking Water Regulation under the SDWA aimed at providing increased protection against microbial pathogens in public water systems that use ground water sources. *See* 71 FR 65574.

⁶ These health-based concerns are associated with unaddressed "significant deficiencies" identified via an audit of the system, called a "sanitary survey," and include, for example, an opening through which bacteria could enter a well head that the system has not repaired.

its authorities to address the problems identified in this letter. For each of the delegated or assumed programs discussed in this letter, I request a written response within 30 days outlining in detail how California intends to address the concerns and violations identified herein. This response should include a demonstration that the state has the adequate authority and capability to address these issues and specific anticipated milestones for correcting these problems. I look forward to hearing from you.

Sincerely,

A handwritten signature in black ink, appearing to read "Andrew Wheeler", with a long horizontal flourish extending to the right.

Andrew R. Wheeler

Discussion Items



Yucaipa Valley Water District



Date: October 1, 2019

Prepared By: Chelsie Fogus, Engineering Technician I

Subject: Consideration of Change Order No. 1 and Filing of a Notice of Completion for the Construction of Wildwood Canyon Road Sewer Pipeline - Yucaipa

Recommendation: That the Board authorize the General Manager to execute Change Order No.1 and file the Notice of Completion for the Wildwood Canyon Road Sewer Pipeline Project.

On June 18, 2019, the Board of Directors awarded a construction project to Borden Excavating for the construction of Wildwood Canyon Road Sewer Pipeline - Holmes Street, North of Wildwood Creek Basins [Director Memorandum No.19-067].

Change Order No. 1 reflects the reduction in paving overlay from 15,000 sq. ft. to 10,800 sq. ft. This change will reduce the original contract amount by \$14,532 from \$422,555 to \$408,023. The District will be soliciting bids from paving contractors to complete the slurry seal paving on Wildwood Canyon Road.

	Contract Changes	Contract Amount	Percentage Change from Original Bid Amount	Reference
Original Bid Amount		\$422,555	--	DM 19-067
Change Order No. 1	(\$14,532)	\$408,023	(3.44%)	DM 19-108

The construction of approximately 1,300± linear feet of 10-inch vitrified clay pipe, including 5 manholes, 1 lateral and appurtenances is now complete.

Financial Consideration:

District staff is continuing to work with California Governor’s Office of Emergency Services to pursue reimbursement as a result of the storm damage. This contract will be funding from Sewer Fund, Infrastructure Reserves [GL Account #03-000-10311]. There is sufficient funding available for this project.

C.O. NO. 1

PAGE 1 OF 2

CONTRACT CHANGE ORDER NO. 1

CONTRACT Wildwood Canyon Road Sewer Pipeline DATED June 18, 2019
 BY AND BETWEEN Yucaipa Valley Water District (OWNER), AND Borden Excavating, Inc.
 (CONTRACTOR), is hereby directed to make the following change(s) in Contract Work:

ITEM NO.	DESCRIPTION OF CHANGE	DECREASE \$	INCREASE \$
1	Reduce paving overlay from 15,000 sq. ft. to 10,800 sq. ft. to 10,800 sq. ft.	\$14,532.00	\$0

Total DECREASE in Contract Amount	<u>(\$14,532.00)</u>
Total INCREASE in Contract Amount	<u>\$0.00</u>
Net change in Contract Amount	<u>(\$14,532.00)</u>
Contract Amount Prior to Change	<u>\$422,555.00</u>
Contract Amount Adjusted for Change	<u>\$408,023.00</u>

Rev 0614
 Wildwood Canyon Road Sewer Pipeline

Change Order Form S-1


CONTRACT CHANGE ORDER NO. 1

PAGE 2 OF 2

By reason of Change Order No. 1, time of completion shall be adjusted as follows:

0 Working Days. Adjusted Contract Completion Date shall be: August 17, 2019.

All provisions of the Contract shall apply hereto, and shall become effective when fully executed (signed and dated) by both parties.

Recommended by (Engineer)  Date: 8-26-19

Accepted by (Contractor) _____ Date: _____

Approved by (Owner) _____ Date: _____

Remarks _____



August 26, 2019

818-125.6 F/C

Matthew Porras
 Yucaipa Valley Water District
 P.O. Box 730
 Yucaipa, CA 92399

Subject: Wildwood Canyon Road Sewer Pipeline
 Recommendation of Acceptance of Contract Work

Dear Mr. Porras:

All work required to be performed by Borden Excavating for the Wildwood Canyon Road Sewer Pipeline Project is essentially complete and the final Contract Amount for same is set forth as follows:

Original Contract Amount:	\$422,555.00
Contract Change Orders:	<u>(\$14,532.00)</u>
Final Contract Amount:	\$408,023.00

Since the Contract Work has been essentially completed in accordance with the Contract Documents, we recommend the District accept said Work. Subsequent to Board acceptance, a Notice of Completion should be filed and thereafter, following the lien period, the District should make final payment (i.e. release retained amount), provided no Stop Notices have been filed.

If you have any questions, please call.

Sincerely,

KRIEGER & STEWART

A handwritten signature in blue ink that reads 'Patrick M. Watson'.

Patrick M. Watson

PMW/
 818-125-RECACCEPT

Record Without Fee
Per Govt. Code 6103

Recording Requested By:
Yucaipa Valley Water District

And When Recorded Mail To:
Yucaipa Valley Water District
P.O. Box 730
Yucaipa, CA 92399

SPACE ABOVE THIS LINE FOR RECORDERS USE

NOTICE OF COMPLETION

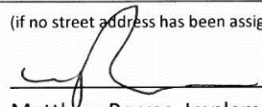
Project Number/CMMS Number: WO 03-33949
Director Memorandum Number for Authorization: DM 19-067
Director Memorandum Number for Notice of Completion: DM 19-

Notice pursuant to Civil Code Section 3093, must be filed within 10 days after completion.
Notice is hereby given that:

1. The undersigned is owner or corporate officer of the owner of the interest in the property hereinafter described:
2. The full name of the owner is Yucaipa Valley Water District
3. The full address of the owner is 12770 Second Street, Yucaipa, CA 92399
4. The Nature of the Interest or Estate of the Undersigned is: In Fee
5. A work performed hereinafter described was completed on August 26, 2019. The work done was: Wildwood Canyon Road Sewer Pipeline from Holmes Street to north of Wildwood Creek Basins
6. The name of the contractor for such work was: Borden Excavating, Inc.
June 18, 2019
(Date of Contract)
7. The property on which said work was complete in the City of Yucaipa
County of San Bernardino, State of CA, and is described as APN: None
8. The street address of said property is None

(if no street address has been assigned, insert "none")

Dated September 25, 2019


Matthew Porras, Implementation Manager
Yucaipa Valley Water District

Verification

I, the undersigned, say: I am the General Manager of the Declarant of the foregoing Notice of Completion; I have read said Notice of Completion and know the comments thereof; the same is true to my knowledge. I declare under penalty of perjury that the foregoing is true and correct.

Executed on October 1, 2019 at Yucaipa, CA.

Joseph B. Zoba, General Manager
Yucaipa Valley Water District



Date: October 1, 2019

Prepared By: Dustin Hochreiter, Senior Engineering Technician

Subject: Consideration of Resolution No. 2019-19 Adopting the Standard Specifications for the Design and Processing, Furnishing of Material, and Construction of Drinking Water, Recycled Water and Sewer Facilities

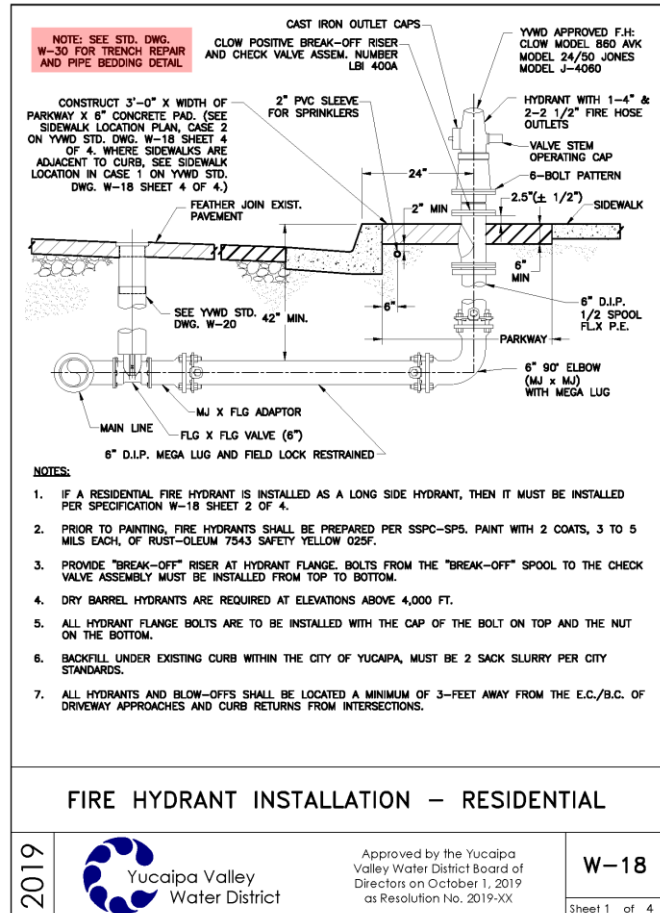
Recommendation: That the Board adopt Resolution No. 2019-19.

The District staff has completed the update to the Yucaipa Valley Water District 2017 standard specifications for Drinking Water, Sewer, and Recycled Water facilities.



Changes to the document include the new fire hydrant standard utilizing a Clow Fire Hydrant model 860 and a new note referring to trench repair and pipe bedding detail.

The 2019 Yucaipa Valley Water District standard specifications are attached for your review and consideration.



RESOLUTION NO. 2019-19

**A RESOLUTION OF THE YUCAIPA VALLEY WATER DISTRICT
ADOPTING THE STANDARD SPECIFICATIONS FOR THE DESIGN AND
PROCESSING, FURNISHING OF MATERIALS, AND CONSTRUCTION OF
DRINKING WATER, RECYCLED WATER, AND SEWER FACILITIES**

WHEREAS, the Yucaipa Valley Water District's Board of Directors desires to adopt revised and updated comprehensive drinking water, recycled water, and sewer standard specifications that reflect technological advances, product, and material availability, regulatory requirements, and District policies.

NOW, THEREFORE, BE IT HEREBY RESOLVED AND ORDERED, by the Board of Directors of the Yucaipa Valley Water District, that the 2019 Standard Specifications are hereby approved.

This resolution supersedes Resolution No. 2017-24.

PASSED AND ADOPTED this 1st day of October 2019.

YUCAIPA VALLEY WATER DISTRICT

Chris Mann, President Board of Directors

ATTEST:

Joseph B. Zoba, General Manager



Yucaipa Valley Water District

2019

STANDARD SPECIFICATIONS
FOR THE
DESIGN AND PROCESSING,
FURNISHING OF MATERIALS,
AND
CONSTRUCTION OF WATER FACILITIES

YVWD WATER FACILITY STANDARDS
DRAWING INDEX (NUMERICAL)

W-1	STANDARD DESIGN REQUIREMENTS AND LEGEND
W-2	DRINKING WATER PIPELINE LOCATION
W-3	UTILITY LOCATIONS - SECTIONS
W-4	1" DRINKING WATER SERVICE WITH FIRE SPRINKLERS FOR DUAL PLUMBED RESIDENCE
W-5	1" DRINKING WATER SERVICE WITH FIRE SPRINKLERS
W-6	3/4" AND 1" DRINKING WATER SERVICES ON MANIFOLD ASSEMBLY
W-7	1 1/2" AND 2" DRINKING WATER SERVICE
W-8	3" AND 4" DRINKING WATER SERVICE
W-9	6" AND 8" DRINKING WATER SERVICE
W-10	DOUBLE CHECK BACKFLOW ASSEMBLY
W-11	REDUCED PRESSURE BACKFLOW ASSEMBLY
W-12	REDUCED PRESSURE BACKFLOW ASSEMBLY WITH BYPASS
W-13	DOUBLE CHECK OR REDUCED PRESSURE DETECTOR ASSEMBLY ABOVE GROUND FIRE LINE
W-14	DOUBLE CHECK ASSEMBLY AND BELOW GROUND FIRE LINE
W-15	1" AND 2" AIR AND VACUUM VALVE ASSEMBLY
W-16	DRINKING WATER QUALITY SAMPLING STATION
W-17	NOT IN USE
W-18	FIRE HYDRANT INSTALLATIONS
W-19	BLOW-OFF ASSEMBLY
W-20	VALVE AND VALVE BOX INSTALLATION
W-21	VALVE STEM EXTENSION
W-22	THRUST BLOCK DETAILS FOR RETROFIT ONLY
W-23	PRESSURE REDUCING STATION DETAILS
W-24	PREFABRICATED VAULT WITH LID AND VENT ASSEMBLY
W-25	ADJUSTABLE PIPE SUPPORT
W-26	STEEL CASING PIPE
W-27	MORTAR LINED AND COATED STEEL PIPE JOINT DETAILS
W-28	MORTAR LINED AND COATED STEEL PIPE CLOSURE DETAILS
W-29	NOT IN USE
W-30	TRENCH REPAIR AND PIPE BEDDING DETAIL
W-31	WATER PIPELINE PROTECTION DETAIL
W-32	RETROFIT FOR EXISTING 3/4 AND 1 INCH DRINKING WATER SERVICE
W-33	TYPICAL DISTRICT EASEMENT

WATER STANDARD INDEX

2019



Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX

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Sheet 1 of 2

STANDARD DESIGN REQUIREMENTS:

PLAN SCALE SIZES ARE REQUIRED TO BE DESIGNED AT 1"=40', PROFILE AT 1"=4'. SPECIAL CONSTRUCTION DETAILS MAY BE ADJUSTED AS NECESSARY FOR DESIGN AND CONSTRUCTION PURPOSES.

ALL PLAN SHEETS SHALL BE ON 24-INCH BY 36-INCH ARCHITECTURAL SHEET SIZE D.

ALL PROJECTS SHALL BE SUBMITTED TO THE DISTRICT ON MYLAR PRIOR TO CONSTRUCTION.

ALL PROJECTS, UPON COMPLETION, SHALL UPDATE THE MYLAR PLANS AND PROVIDE AUTOCAD FILES FOR DISTRICT USE AND RECORDS UPON COMPLETION.

STANDARD LEGEND

	RIGHT OF WAY (R.O.W.)		
	CENTERLINE		
	EXISTING DRINKING WATER LINE		
	PROPOSED DRINKING WATER LINE		
	EXISTING RECYCLED WATER LINE		
	PROPOSED RECYCLED WATER LINE		
	EXISTING SEWER LINE		
	PROPOSED SEWER LINE		
	EXISTING GAS LINE		
	PROPOSED GAS LINE		
	SERVICE LATERAL		
	ENCASEMENT		
	EXISTING ELECTRICAL CONDUIT		
	PROPOSED ELECTRICAL CONDUIT		
	EXISTING TELEPHONE CONDUIT		
	PROPOSED TELEPHONE CONDUIT		
	EXISTING FIBER OPTIC CABLE		
	PROPOSED FIBER OPTIC CABLE		
	PORTLAND CEMENT CONCRETE IN SECTION		
	PORTLAND CEMENT CONCRETE IN PLAN		

	POWER POLE AND GUY LINE		CLEAN-OUT
	TRAFFIC SIGNAL EXISTING		HOUSE CONNECTION SEWER
	WATER WELL		WYE BRANCH
	BUTTERFLY VALVE		CUT-OFF WALL
	GATE VALVE	C.O.	CLEAN-OUT
	FIRE HYDRANT	D.I.P.	DUCTILE IRON PIPE
	BLOW-OFF	D.M.H.	DROP MANHOLE
	AIR & VACUUM VALVE ASSEMBLY (SIZE PER PLAN)	J.M.H.	JUNCTION MANHOLE
	DRINKING WATER QUALITY SAMPLE STATION	M.H.	MANHOLE
	RECYCLED WATER QUALITY SAMPLE STATION	V.C.P.	VITRIFIED CLAY PIPE

STANDARD DESIGN REQUIREMENTS AND LEGEND

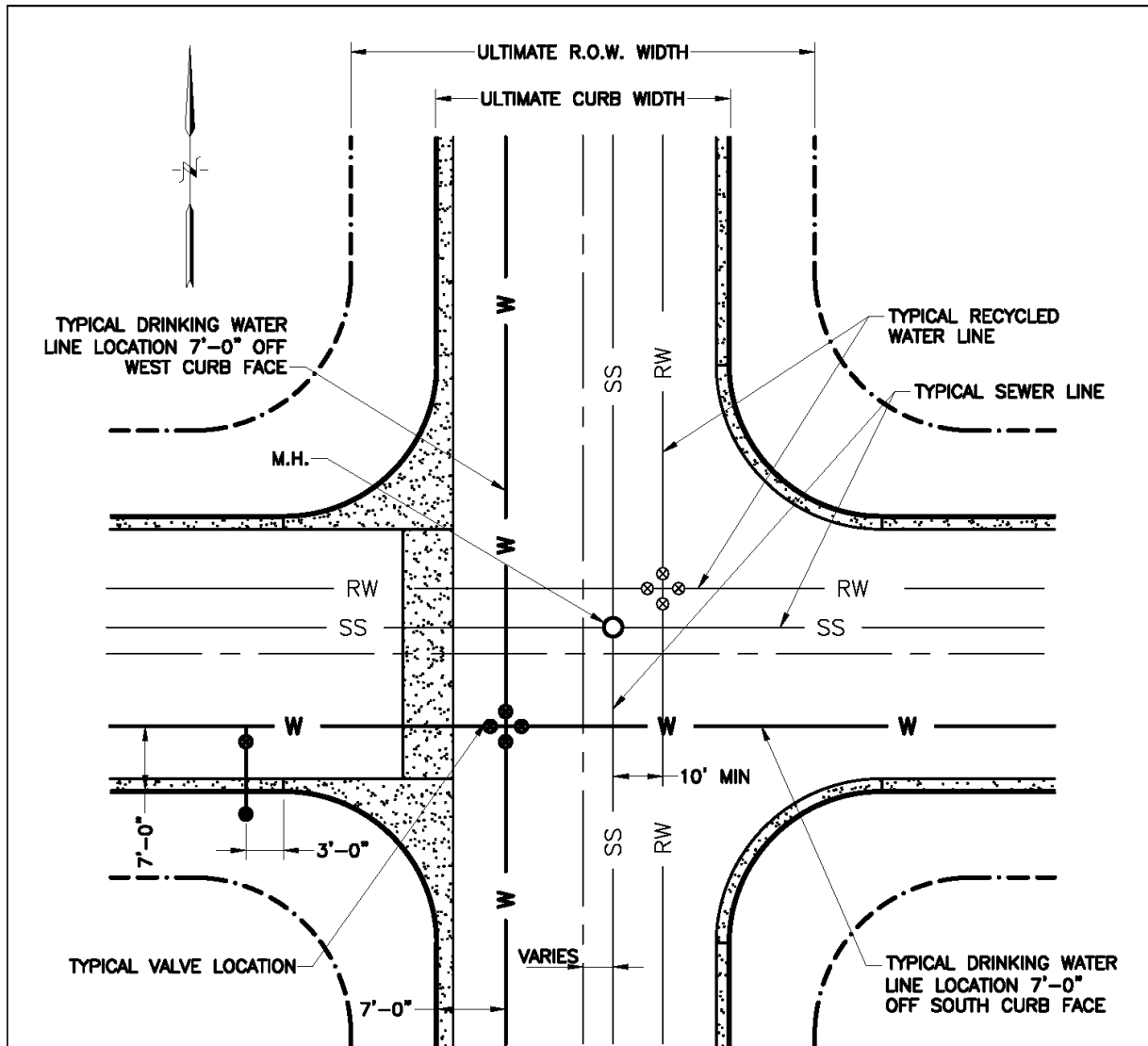
2019



Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX

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Sheet 1 of 1



NOTES:

DRINKING WATER LINE SIZE TO BE DETERMINED BY Y.V.W.D.

PLAN SCALE SIZES ARE REQUIRED TO BE DESIGNED AT 1"=40', PROFILE AT 1'=4'. SPECIAL CONSTRUCTION DETAILS MAY BE ADJUSTED AS NECESSARY FOR DESIGN AND CONSTRUCTION PURPOSES.

ALL PLAN SHEETS SHALL BE ON 24-INCH BY 36-INCH ARCHITECTURAL SHEET SIZE D.

ALL PROJECTS SHALL BE SUBMITTED TO THE DISTRICT ON MYLAR PRIOR TO CONSTRUCTION.

ALL PROJECTS, UPON COMPLETION, SHALL UPDATE THE MYLAR PLANS AND PROVIDE AUTOCAD FILES FOR DISTRICT USE AND RECORDS UPON COMPLETION.

DRINKING WATER PIPELINE LOCATION

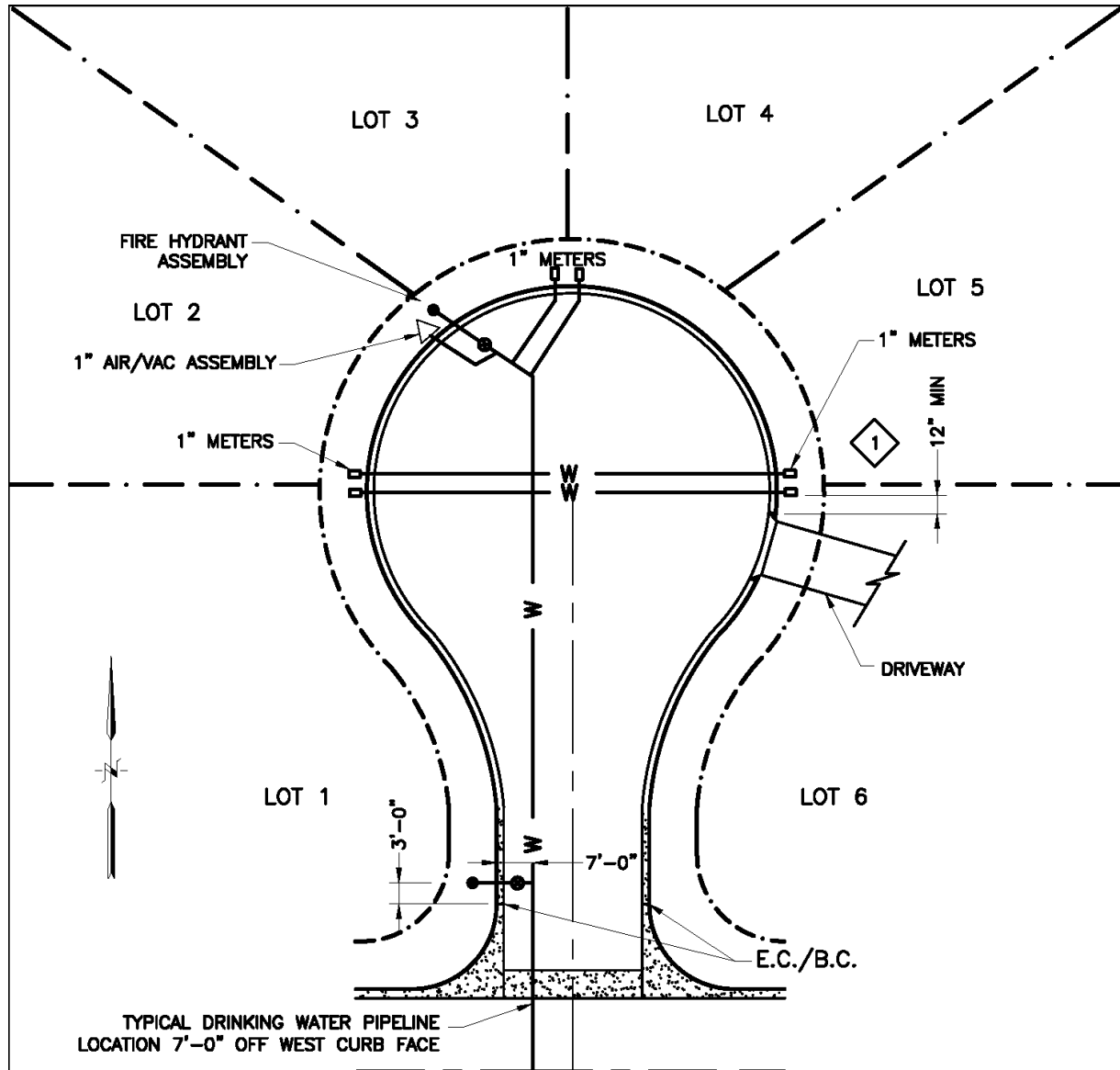
2019



Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX

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Sheet 1 of 2



NOTE:

- 1 METERS, AIR/VAC ASSEMBLIES, FIRE HYDRANTS, AND BLOW OFFS SHALL NOT BE LOCATED WITHIN 12" OF DRIVEWAY APPROACH OR OTHER UTILITIES.

DRINKING WATER PIPELINE LOCATION

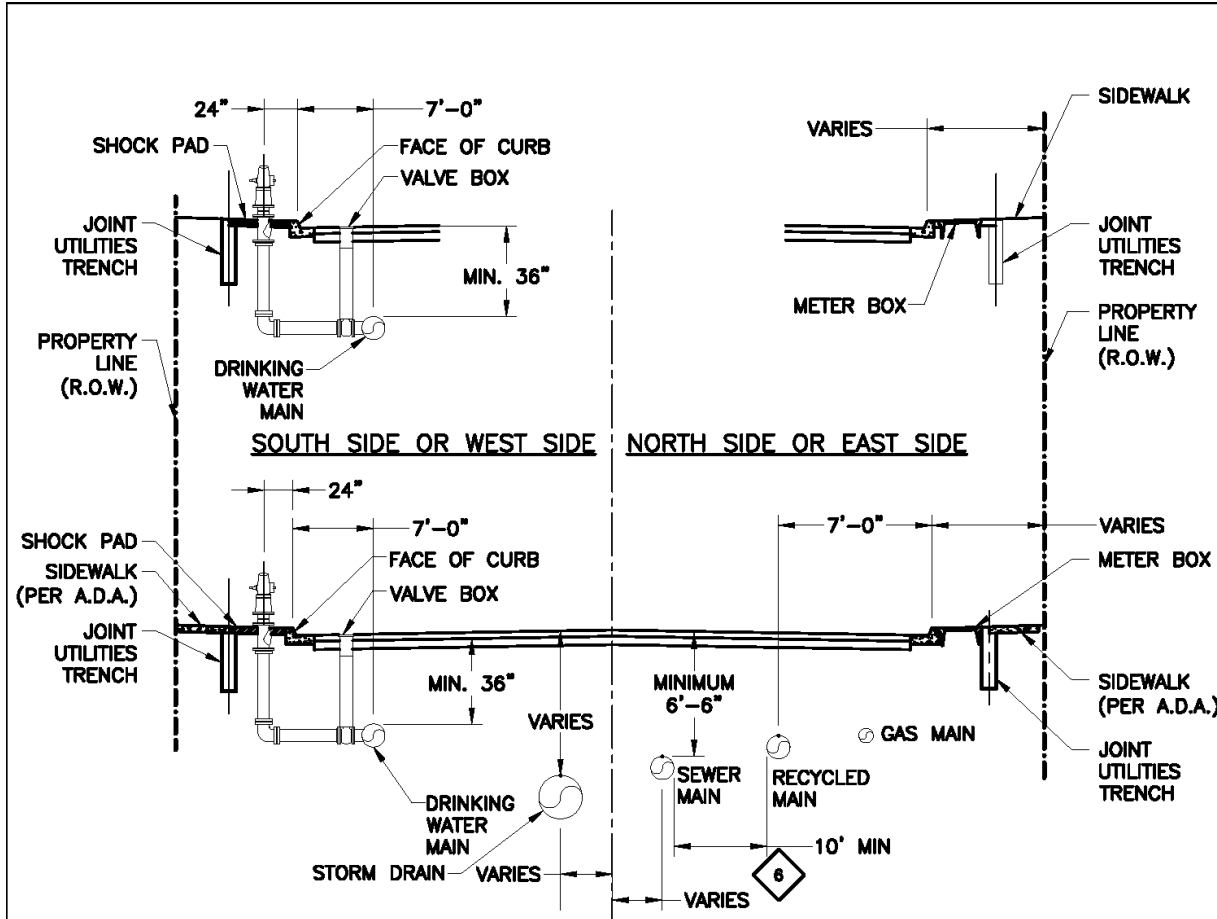
2019



Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX

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Sheet 2 of 2




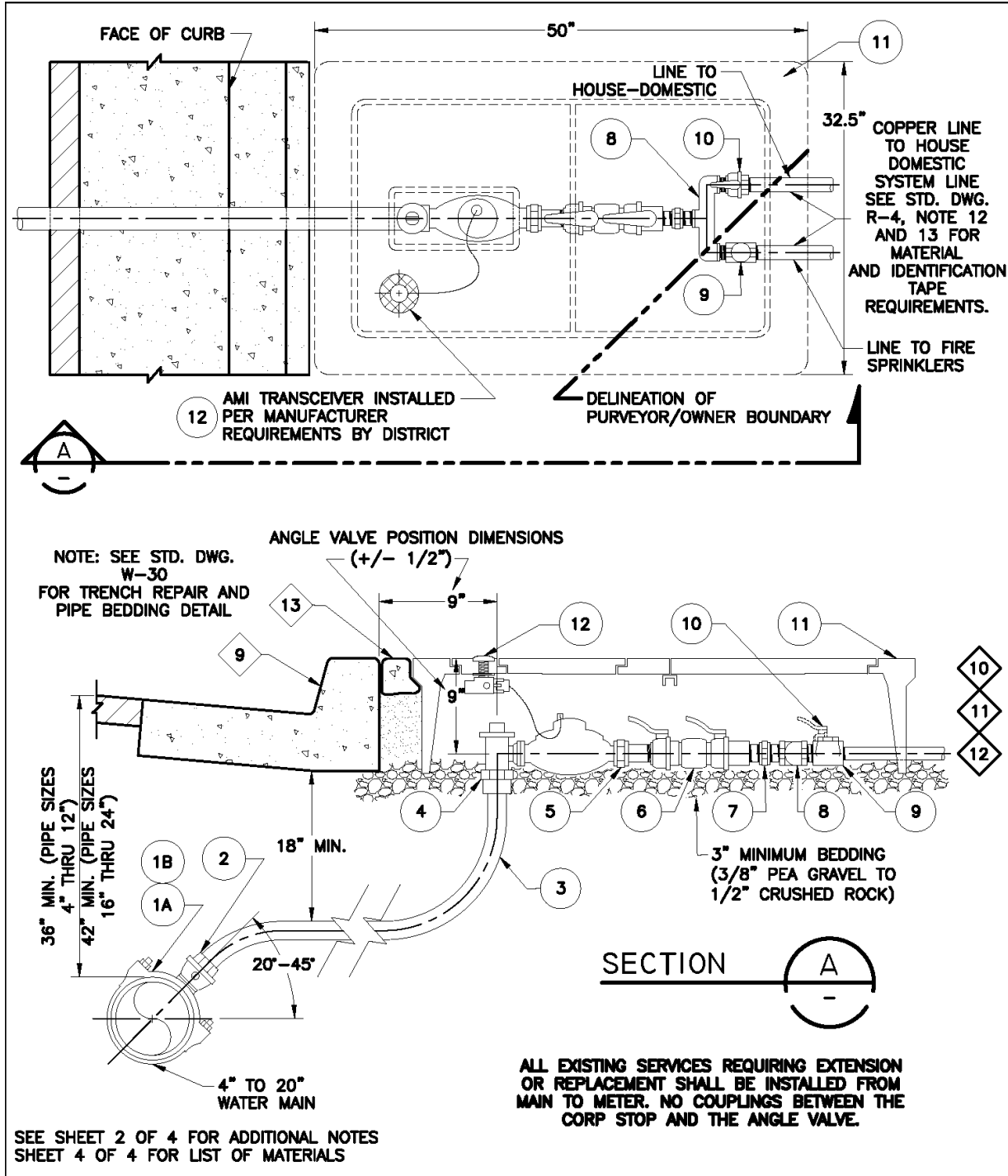
NOTES:

1. LOCATION AND DEPTH OF EXISTING AND PROPOSED UTILITIES MUST BE PROVIDED BY THE SUBDIVIDER AND SHOWN ON ANY PLANS SUBMITTED TO Y.V.W.D. FOR APPROVAL.
2. FIRE HYDRANTS SHALL BE PLACED WITHIN THE SIDEWALK 2'-0" TO CENTER LINE OF BARREL BEHIND FACE OF CURB. SEE STD. DWG. W-18.
3. CHANGES MAY BE PERMITTED BY Y.V.W.D. IN CASES OF CONFLICTING FACILITIES.
4. CONFLICTS BETWEEN UTILITY COMPANIES FACILITIES, EXISTING AND PROPOSED, MUST BE MUTUALLY RESOLVED BY THE UTILITY COMPANIES.
5. BACKFILL UNDER EXISTING CURB WITHIN THE CITY OF YUCAIPA, MUST BE 2 SACK SLURRY PER CITY STANDARDS.

6 PIPING SHOULD BE LOCATED 6'-0" TO ROAD CENTERLINE WHEN POSSIBLE, EXCEPT IN DIVDED ROADWAYS.

UTILITY LOCATIONS – SECTIONS

2019	 <p>Yucaipa Valley Water District</p>	<p>Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX</p>	W-3
			Sheet 1 of 1



1" DRINKING WATER SERVICE WITH FIRE SPRINKLERS FOR DUAL PLUMBED RESIDENCE

2019



Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX

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Sheet 1 of 4

NOTES:

1. SERVICE SADDLE SHALL NOT BE INSTALLED WITHIN 12" OF VALVE, COUPLING, JOINT OR FITTING.
2. IF PRIOR APPROVED BY DISTRICT IN PLACE OF BLUE PLASTIC COATED COPPER TUBING, BLUE POLY-SLEEVE SHALL BE SECURED AT THE CORP. AND THE ANGLE VALVE WITH 10 MIL. TAPE.
3. SET TOP OF METER BOX FLUSH WITH DRIVEWAY, SIDEWALK OR CURB, AS SHOWN.
4. THE CORPORATION STOP TAP SHALL BE MADE AT A 20°-45° DEGREE ANGLE FROM THE SPRINGLINE OF THE PIPE.
5. THE WATER SERVICE SHALL EXTEND PERPENDICULAR TO THE CENTERLINE OF THE STREET FROM THE WATER MAIN TO THE METER STOP.
6. ALL CONNECTIONS TO COPPER TUBING SHALL BE COMPRESSION FITTINGS.
7. RECYCLED SERVICES WILL BE LOCATED ON THE PROPERTY LINES IN PAIRS. MINIMUM SEPARATION FROM POTABLE TO RECYCLED SERVICES IS (10').
8. METERS AND BACKFLOW BRANCH ASSEMBLY TO BE CENTERED IN METER BOXES TO ALLOW FOR ACCESS, TESTING, AND MAINTENANCE.
9. LOCATE SERVICE WITH 1-1/2" HIGH "W" ETCHED IN FACE OF CURB WHERE THE SERVICE CROSSES UNDER THE CURB.
10. WATER METER AND MATERIAL ITEMS 5 TO 10 AND 12 ARE PROVIDED AND SET BY DISTRICT CREWS AT THE DEVELOPERS EXPENSE.
11. ALL DUAL PLUMBED SERVICES WITH A FIRE SERVICE ARE REQUIRED TO HAVE A DOUBLE CHECK BACKFLOW PREVENTION ASSEMBLY INSTALLED AND TESTED PRIOR TO SERVICES BEING TURNED ON.
12. SUBJECT TO PURVEYOR REVIEW AND APPROVAL, THE METER AND METER BOX INCLUDING THE BRANCH ASSEMBLY MAY BE INSTALLED PARALLEL TO THE CURB IF NECESSARY.
13. 4-INCH SPACING ON BACK OF CURB TO FACE OF METER BOX. IN APPLICATIONS NOT REQUIRING SIDEWALK, METER BOX IS FLUSH TO BACK OF CURB.

**1" DRINKING WATER SERVICE WITH FIRE
SPRINKLERS FOR DUAL PLUMBED RESIDENCE**

2019

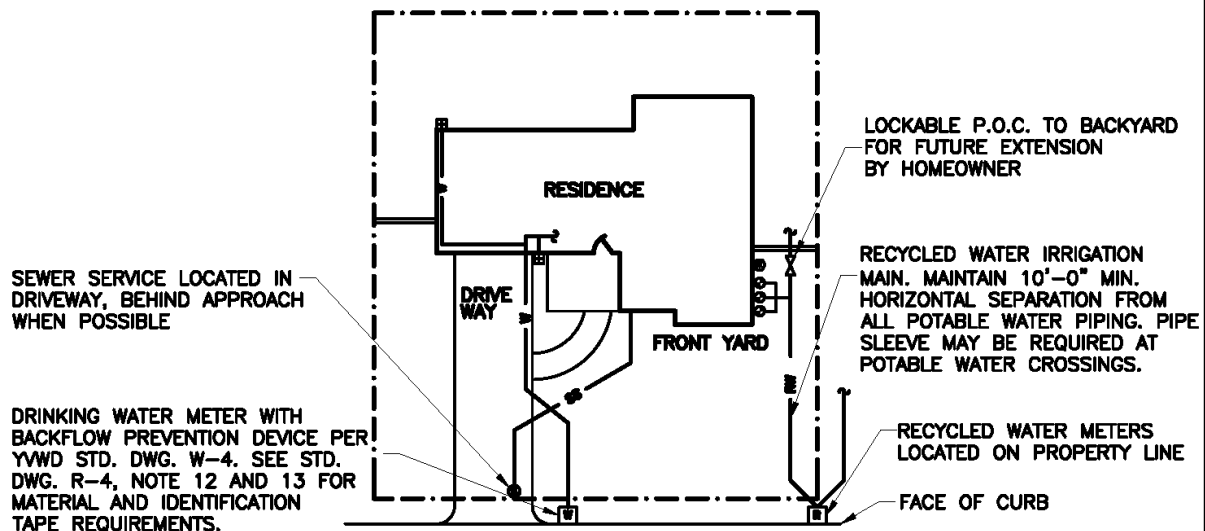


Approved by the Yucaipa
Valley Water District Board of
Directors on October 1, 2019
as Resolution No. 2019-XX

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Sheet 2 of 4

TYPICAL LAYOUT



*DRINKING WATER METER SHALL BE LOCATED A MINIMUM OF 10- FEET AWAY FROM THE RECYCLED WATER SERVICE AND SEWER LATERAL, AND 3- FEET AWAY FROM THE E.C./B.C. OF THE DRIVEWAY APPROACH. IF THESE SEPARATIONS ARE NOT POSSIBLE, THE DRINKING WATER METER MAY BE LOCATED WITHIN THE DRIVEWAY BEHIND THE APPROACH BY SPECIAL PERMISSION ONLY.

1" DRINKING WATER SERVICE WITH FIRE SPRINKLERS FOR DUAL PLUMBED RESIDENCE

2019



Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX

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Sheet 3 of 4

LIST OF MATERIALS			
ITEM NO.	SIZE & DESCRIPTION	MANUFACTURER	SPEC. NO.
1A	DOUBLE STRAP SERVICE SADDLE 1" I.P. OUTLET (FOR D.I.P. MAINS)	JONES ROMAC MUELLER	J-979-PIPE O.D. -1" I.P. 202BS-PIPE O.D. -1" I.P. BR2B-PIPE O.D. -I.P. 100
1B	CAST SERVICE SADDLE WITH 1" I.P. OUTLET (FOR D.I.P. MAINS)	ROMAC MUELLER	202S-PIPE O.D.-1" I.P. DR2A-PIPE O.D.-I.P. 100
2	1" BRONZE BALL CORPORATION STOP (M.I.P.T. X COMPRESSION)	JONES MULLER McDONALD	E-1935SG B-2502BN 74704BQ
3	1" BLUE PLASTIC COATED COPPER TUBING		COPPER TYPE "K" SOFT
4	BRONZE BALL ANGLE METER STOP W/LOCKWING (1" COMPRESSION X METER)	JONES MUELLER McDONALD	1963WSG H-14258N 74602BQ
5	1" METER x 3" "METER SPUD"	JONES	J-130
6	1" MINIMUM - DOUBLE CHECK BACKFLOW ASSEMBLY	AMES FEBCO WILKINS	2000SS 850 950XL
7	1" BRASS UNION		
8	1" "U"-BRANCH (M.I.P.T. X M.I.P.T.)	McDONALD	AYM-708UMM
9	1" INLINE DUAL CHECK - FNPT X FNPT	McDONALD	711-4FE 44
10	BALL VALVE WITH LOCKWING (F.I.P. X F.I.P.)	JONES MUELLER McDONALD	E-1900W B20283 N AYM76101W
11	METER BOX AND COVER WITH READING LID	ARMOR CAST	A6001430PCX12 W/ CHANNEL FOR BOLT DOWN (1)-A6001470 (1)-A6001470DZ-H7 (1)-A6000482
12	AMI TRANSCEIVER (INSTALLED BY DISTRICT)	SENSUS	SMARTPOINT M2 - MODEL 520M (DUAL PORT) - PIT SET

**1" DRINKING WATER SERVICE WITH FIRE
SPRINKLERS FOR DUAL PLUMBED RESIDENCE**

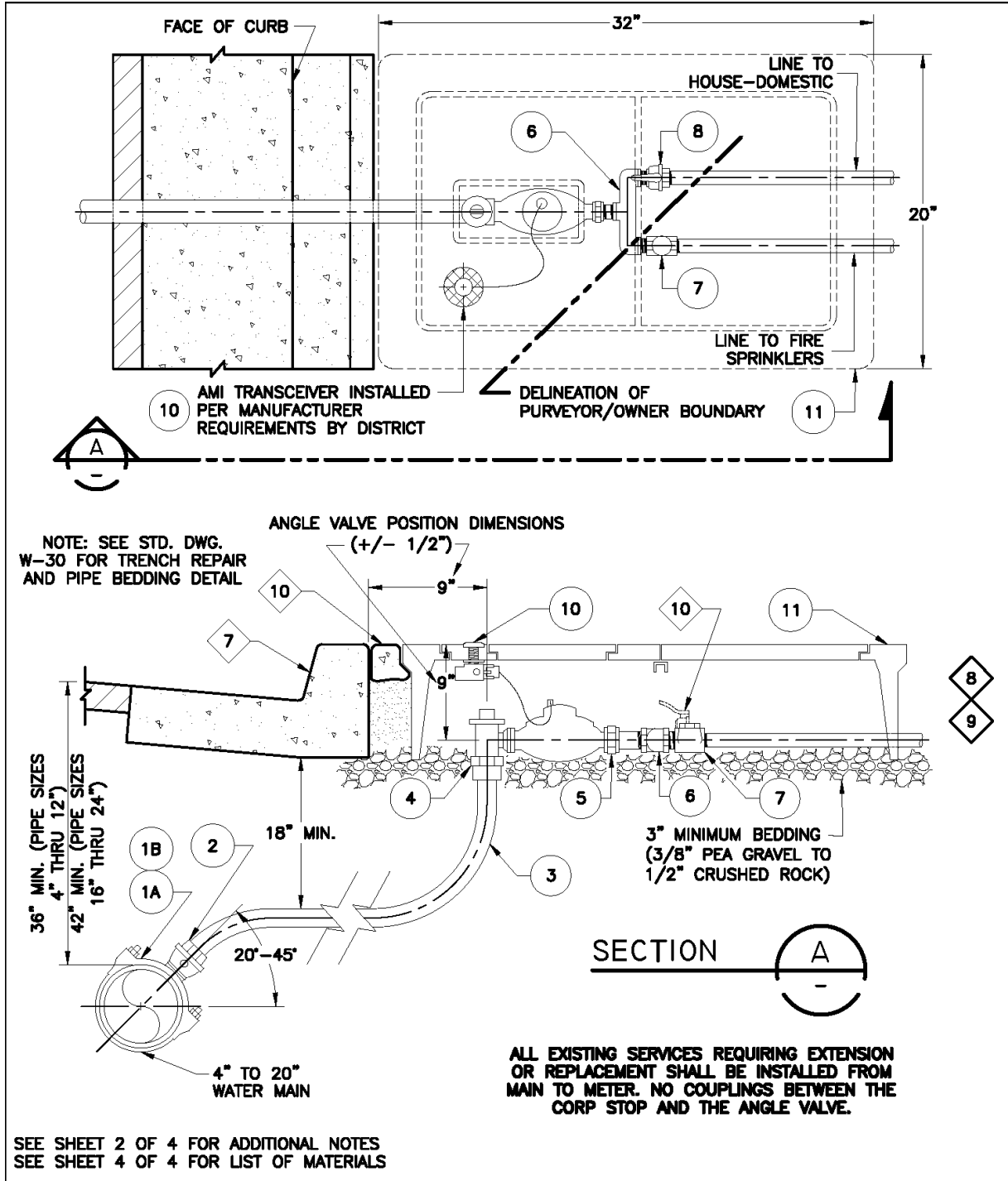
2019



Approved by the Yucaipa
Valley Water District Board of
Directors on October 1, 2019
as Resolution No. 2019-XX

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Sheet 4 of 4



1" DRINKING WATER SERVICE WITH FIRE SPRINKLERS

2019



Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX

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Sheet 1 of 4

NOTES:

1. SERVICE SADDLE SHALL NOT BE INSTALLED WITHIN 12" OF VALVE, COUPLING, JOINT OR FITTING.
2. SET TOP OF METER BOX FLUSH WITH DRIVEWAY, SIDEWALK OR CURB, AS SHOWN.
3. THE CORPORATION STOP TAP SHALL BE MADE AT A 20°-45° DEGREE ANGLE FROM THE SPRINGLINE OF THE PIPE.
4. THE WATER SERVICE SHALL EXTEND PERPENDICULAR TO THE CENTERLINE OF THE STREET FROM THE WATER MAIN TO THE METER STOP.
5. ALL CONNECTIONS TO COPPER TUBING SHALL BE COMPRESSION FITTINGS.
6. METERS AND BRANCH ASSEMBLY TO BE CENTERED IN METER BOXES TO ALLOW FOR ACCESS AND MAINTENANCE.



LOCATE SERVICE WITH 1-1/2" HIGH "W" ETCHED IN FACE OF CURB WHERE THE SERVICE CROSSES UNDER THE CURB



WATER METER AND MATERIAL ITEMS 5 TO 8 AND 10 ARE PROVIDED AND SET BY DISTRICT CREWS AT THE DEVELOPERS EXPENSE.



SUBJECT TO PURVEYOR REVIEW AND APPROVAL, THE METER AND METER BOX INCLUDING THE BRANCH ASSEMBLY MAY BE INSTALLED PARALLEL TO THE CURB IF NECESSARY.



4-INCH SPACING ON BACK OF CURB TO FACE OF METER BOX, METER BOX IS FLUSH TO BACK OF CURB.

**1" DRINKING WATER SERVICE WITH
FIRE SPRINKLERS**

2019



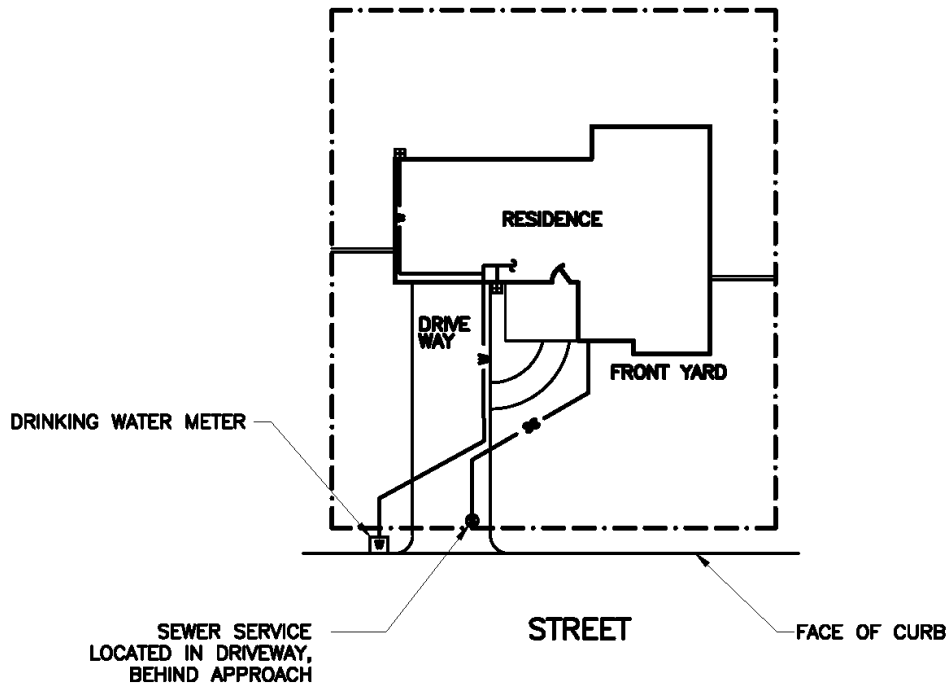
Yucaipa Valley
Water District

Approved by the Yucaipa
Valley Water District Board of
Directors on October 1, 2019
as Resolution No. 2019-XX

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Sheet 2 of 4

TYPICAL LAYOUT



**1" DRINKING WATER SERVICE WITH
FIRE SPRINKLERS**

2019



Yucaipa Valley
Water District

Approved by the Yucaipa
Valley Water District Board of
Directors on October 1, 2019
as Resolution No. 2019-XX

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Sheet 3 of 4

LIST OF MATERIALS			
ITEM NO.	SIZE & DESCRIPTION	MANUFACTURER	SPEC. NO.
1A	DOUBLE STRAP SERVICE SADDLE 1" I.P. OUTLET (FOR D.I.P. MAINS)	JONES ROMAC MUELLER	J-979-PIPE O.D. -1" I.P. 202BS-PIPE O.D. -1" I.P. BR2B-PIPE O.D. -I.P. 100
1B	CAST SERVICE SADDLE WITH 1" I.P. OUTLET (FOR D.I.P. MAINS)	ROMAC MUELLER	202S-PIPE O.D.-1" I.P. DR2A-PIPE O.D.-I.P. 100
2	1" BRONZE BALL CORPORATION STOP (M.I.P.T. X COMPRESSION)	JONES MULLER McDONALD	E-1935SG B-25028N 74704BQ
3	1" BLUE PLASTIC COATED COPPER TUBING		COPPER TYPE "K" SOFT
4	BRONZE BALL ANGLE METER STOP W/LOCKWING (1" COMPRESSION X METER)	JONES MUELLER McDONALD	1963WSG H-14258N 74602BQ
5	1" METER x 3" "METER SPUD"	JONES	J-130
6	1" "U"-BRANCH (M.I.P.T. X M.I.P.T.)	McDONALD	AYM-708UMM
7	1" INLINE DUAL CHECK - FNPT X FNPT	McDONALD	711-4FE 44
8	BALL VALVE WITH LOCKWING (F.I.P. X F.I.P.)	JONES MUELLER McDONALD	E-1900W B20283 N AYM76101W
9	METER BOX AND COVER WITH READING LID	ARMOR CAST	BOX-A6001640PCX12 W/ CHANNEL FOR BOLT DOWN COVER-A600482-H7 LID-A6001643DZ
10	AMI TRANSCEIVER (INSTALLED BY DISTRICT)	SENSUS	SMARTPOINT M2 - MODEL 520M (DUAL PORT) - PIT SET

1" DRINKING WATER SERVICE WITH FIRE SPRINKLERS

2019



Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX

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Sheet 4 of 4

LIST OF MATERIALS			
ITEM NO.	SIZE & DESCRIPTION	MANUFACTURER	SPEC. NO.
1A	DOUBLE STRAP SERVICE SADDLE 1" I.P. OUTLET (FOR D.I.P. MAINS)	JONES ROMAC MUELLER	J-979-PIPE O.D. -1" I.P. 202BS-PIPE O.D. -1" I.P. BR2B-PIPE O.D. -I.P. 100
1B	CAST SERVICE SADDLE WITH 1" I.P. OUTLET (FOR D.I.P. MAINS)	ROMAC MUELLER	202S-PIPE O.D.-1" I.P. DR2A-PIPE O.D.-I.P. 100
2	1" BRONZE BALL CORPORATION STOP (M.I.P.T. X COMPRESSION)	JONES MULLER McDONALD	E-1935SG B-25028N 74704BQ
3	1" BLUE PLASTIC COATED COPPER TUBING		COPPER TYPE "K" SOFT
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5	1" METER x 3" "METER SPUD"	JONES	J-130
6	1" "U"-BRANCH (M.I.P.T. X M.I.P.T.)	McDONALD	AYM-708UMM
7	1" INLINE DUAL CHECK - FNPT X FNPT	McDONALD	711-4FE 44
8	BALL VALVE WITH LOCKWING (F.I.P. X F.I.P.)	JONES MUELLER McDONALD	E-1900W B20283 N AYM76101W
9	METER BOX AND COVER WITH READING LID	ARMOR CAST	BOX-A6001640PCX12 W/ CHANNEL FOR BOLT DOWN COVER-A600482-H7 LID-A6001643DZ
10	AMI TRANSCEIVER (INSTALLED BY DISTRICT)	SENSUS	SMARTPOINT M2 - MODEL 520M (DUAL PORT) - PIT SET

1" DRINKING WATER SERVICE WITH FIRE SPRINKLERS

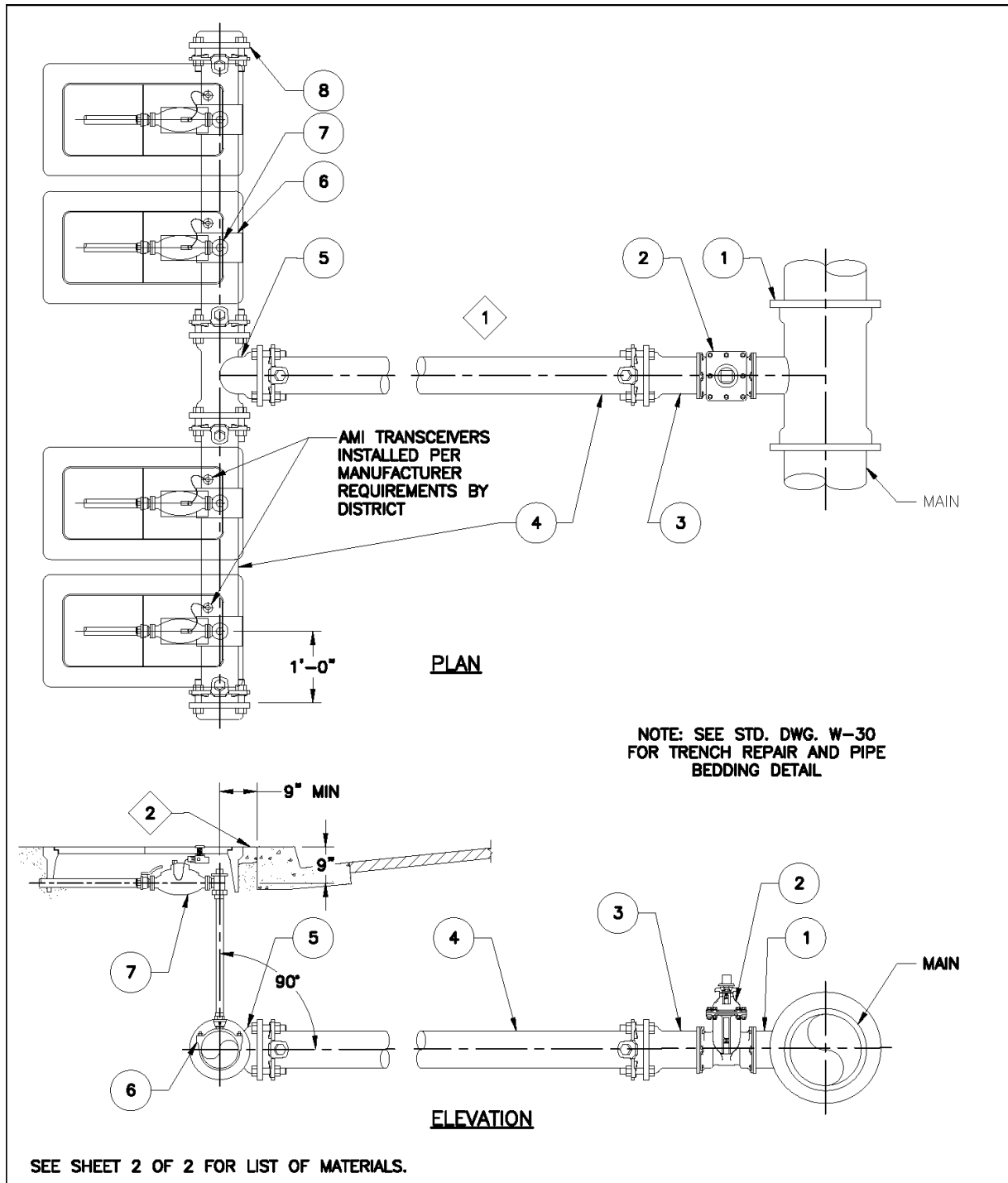
2019




Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX

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Sheet 4 of 4



3/4" AND 1" DRINKING WATER SERVICES ON MANIFOLD ASSEMBLY

2019	 <p style="font-size: 18pt; font-weight: bold;">Yucaipa Valley Water District</p>	Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX	W-6
			Sheet 1 of 2

LIST OF MATERIALS	
ITEM NUMBER	DESCRIPTION
1	D.I. TEE, MJ X MJ X FLG, RESTRAINED
2	4" FLG X FLG VALVE
3	MJ X FLG ADAPTOR, RESTRAINED
4	4" D.I.P. RESTRAINED
5	D.I. TEE, MJ X MJ X MJ, RESTRAINED WITH MEGA LUGS (SHORT BODY MAY BE USED)
6	CAST SERVICE SADDLE WITH I.P. OUTLET
7	1" COPPER SERVICE INSTALLATION – SEE YVWD STD. DWG. W-5
8	RESTRAINED MECHANICAL JOINT END CAP WITH MEGA LUG RESTRAINT

NOTES:

1. D.I. MANIFOLD ASSEMBLY USED FOR FOUR TO TEN 3/4-INCH AND 1-INCH SERVICES ONLY. ADDITIONAL SERVICES OR LARGER SERVICE SIZES WILL REQUIRE A LARGER DIAMETER D.I. MANIFOLD ASSEMBLY.
2. 4-INCH SPACING ON BACK OF CURB TO FACE OF METER BOX. IN APPLICATIONS NOT REQUIRING SIDEWALK, METER BOX IS FLUSH TO BACK OF CURB.
3. BACKFILL UNDER EXISTING CURB WITHIN CITY OF YUCAIPA, MUST BE 2 SACK SLURRY PER CITY STANDARDS.

3/4" AND 1" DRINKING WATER SERVICES ON MANIFOLD ASSEMBLIES

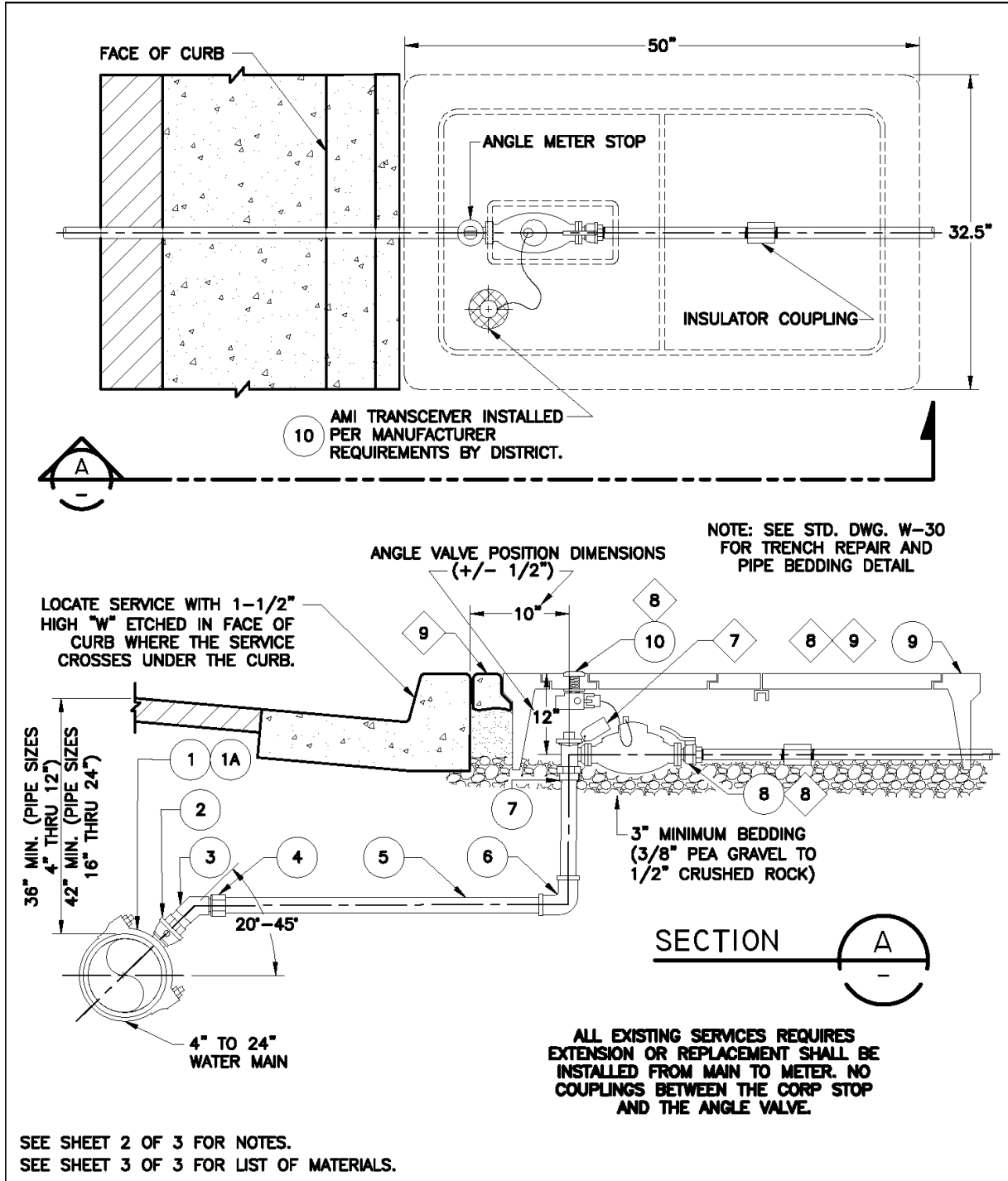
2019




Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX

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Sheet 2 of 2



1-1/2" AND 2" DRINKING WATER SERVICE

2019	 <p>Yucaipa Valley Water District</p>	<p>Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX</p>	<p>W-7</p> <p>Sheet 1 of 3</p>
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NOTES:

1. SERVICE SADDLE SHALL NOT BE INSTALLED WITHIN 12" OF VALVE, COUPLING, JOINT OR FITTING.
2. POLY-SLEEVE (BLUE FOR POTABLE WATER, PURPLE FOR RECYCLED/IRRIGATION) SHALL BE SECURED AT THE CORP. AND THE ANGLE VALVE WITH 10 MIL TAPE.
3. SET TOP OF METER BOX FLUSH WITH SIDEWALK OR CURB AS SHOWN.
4. THE CORPORATION STOP TAP SHALL BE MADE AT A 20°-45° DEGREE ANGLE FROM THE SPRINGLINE OF THE PIPE.
5. THE WATER SERVICE SHALL EXTEND PERPENDICULAR TO THE CENTERLINE OF THE STREET FROM THE WATER MAIN TO THE METER STOP.
6. METER BOX SHALL BE SET BEHIND CURB WHERE SIDEWALK IS ADJACENT TO CURB, OR IN PARKWAY BETWEEN CURB AND SIDEWALK.
7. A 1" BYPASS LINE WITH LOCKING CURB STOP MAY BE REQUIRED FOR INSTALLATIONS NEEDING CONTINUOUS SERVICE.



WATER METER AND MATERIAL ITEMS 8 AND 10 ARE PROVIDED AND SET BY DISTRICT CREWS AT THE DEVELOPERS EXPENSE.



4-INCH SPACING ON BACK OF CURB TO FACE OF METER BOX. IN APPLICATIONS NOT REQUIRING SIDEWALK, METER BOX IS FLUSH TO BACK OF CURB.

1-1/2" AND 2" DRINKING WATER SERVICE

2019



Yucaipa Valley
Water District

Approved by the Yucaipa
Valley Water District Board of
Directors on October 1, 2019
as Resolution No. 2019-XX

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Sheet 2 of 3

LIST OF MATERIALS			
ITEM NO.	SIZE & DESCRIPTION	MANUFACTURER	SPEC. NO.
1	DOUBLE STRAP SERVICE SADDLE I.P. OUTLET (FOR D.I.P. MAINS)	JONES ROMAC MUELLER	J-979-PIPE O.D.-2" I.P. 202BS-PIPE O.D.-2" I.P. BR2B-PIPE O.D.-I.P. 200
1A	CAST SERVICE SADDLE WITH I.P. OUTLET (FOR D.I.P. MAINS)	ROMAC MUELLER	202S-PIPE O.D.-2" I.P. DR2A-PIPE O.D.-I.P. 200
2	BRONZE CORPORATION STOP MIPT X MIPT	JONES MUELLER	E-1943 B-2969-N
3	BRASS 45° ELBOW 2" X 2" F.I.P.T. X F.I.P.T.	-	-
4	M.I.P.T. X COMPRESSION ADAPTOR	JONES MUELLER	E-2605SG H-15428N
5	2" COPPER PIPE/POLY SLEEVED	-	-
6	BRASS 90° ELBOW 2" X 2" COMPRESSION X COMPRESSION.	JONES MUELLER	E-2611SG H-15526N
7	BRONZE ANGLE METER STOP W/LOCKWING COMP. X FLANGE 1 1/2" THRU 2" COMBO ANGLE VALVE.	JONES MUELLER	E-1975W B-24276N
8	BRONZE CUSTOMER SERVICE VALVE-METER FLANGE X F.I.P.	JONES MUELLER	E-1913F B-24337N
9	METER BOX AND COVER WITH READING LID	ARMORCAST	BOX-A6001640PCX12 W/ CHANNEL FOR BOLT DOWN COVER-A600482-H7 LID-A6001643DZ
10	AMI TRANSCEIVER (INSTALLED BY DISTRICT)	SENSUS	SMARTPOINT M2 - MODEL 520M (DUAL PORT) - PIT SET

1-1/2" AND 2" DRINKING WATER SERVICE

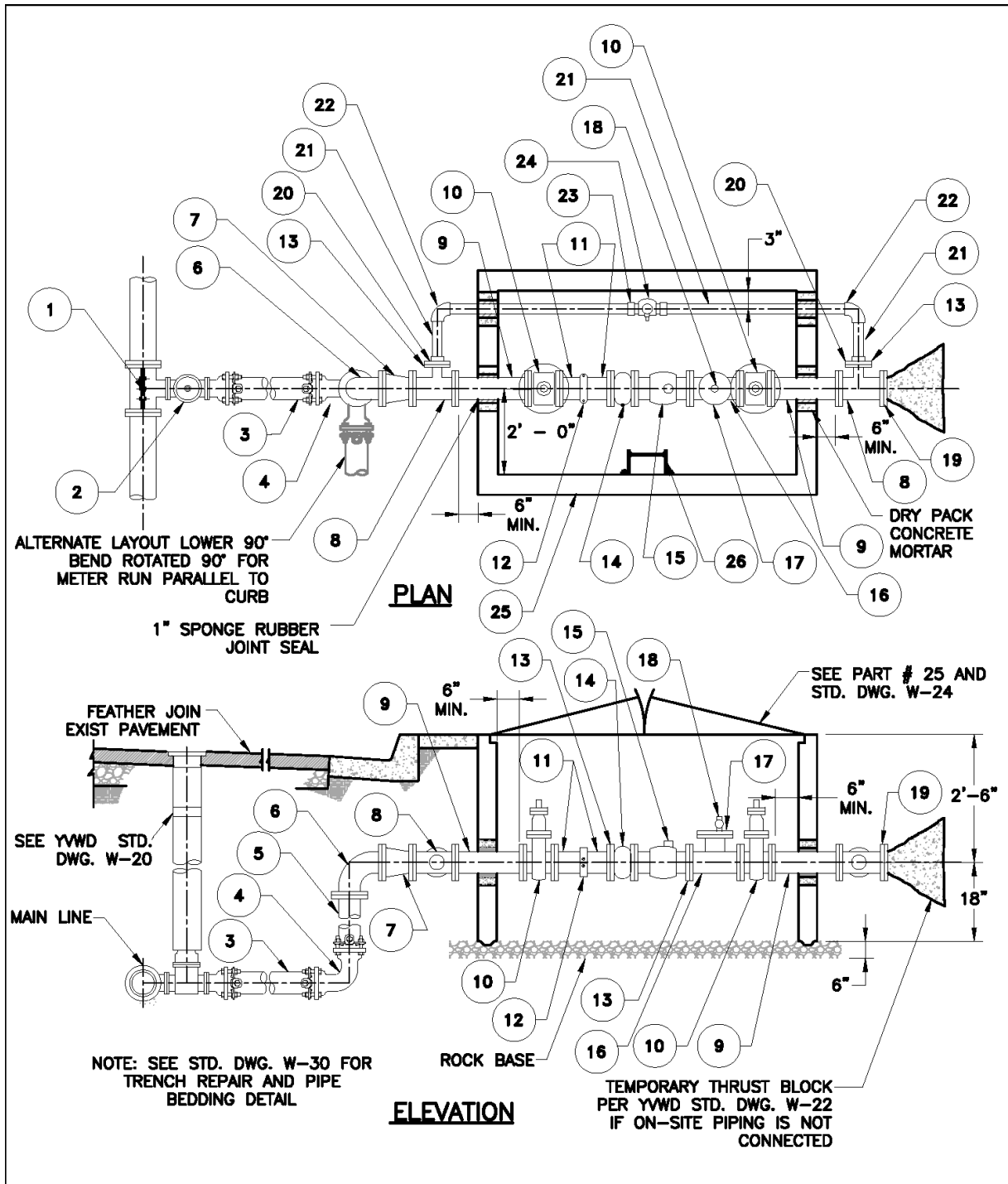
2019



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Sheet 3 of 3



3" AND 4" DRINKING WATER SERVICE

2019



Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX

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Sheet 1 of 2

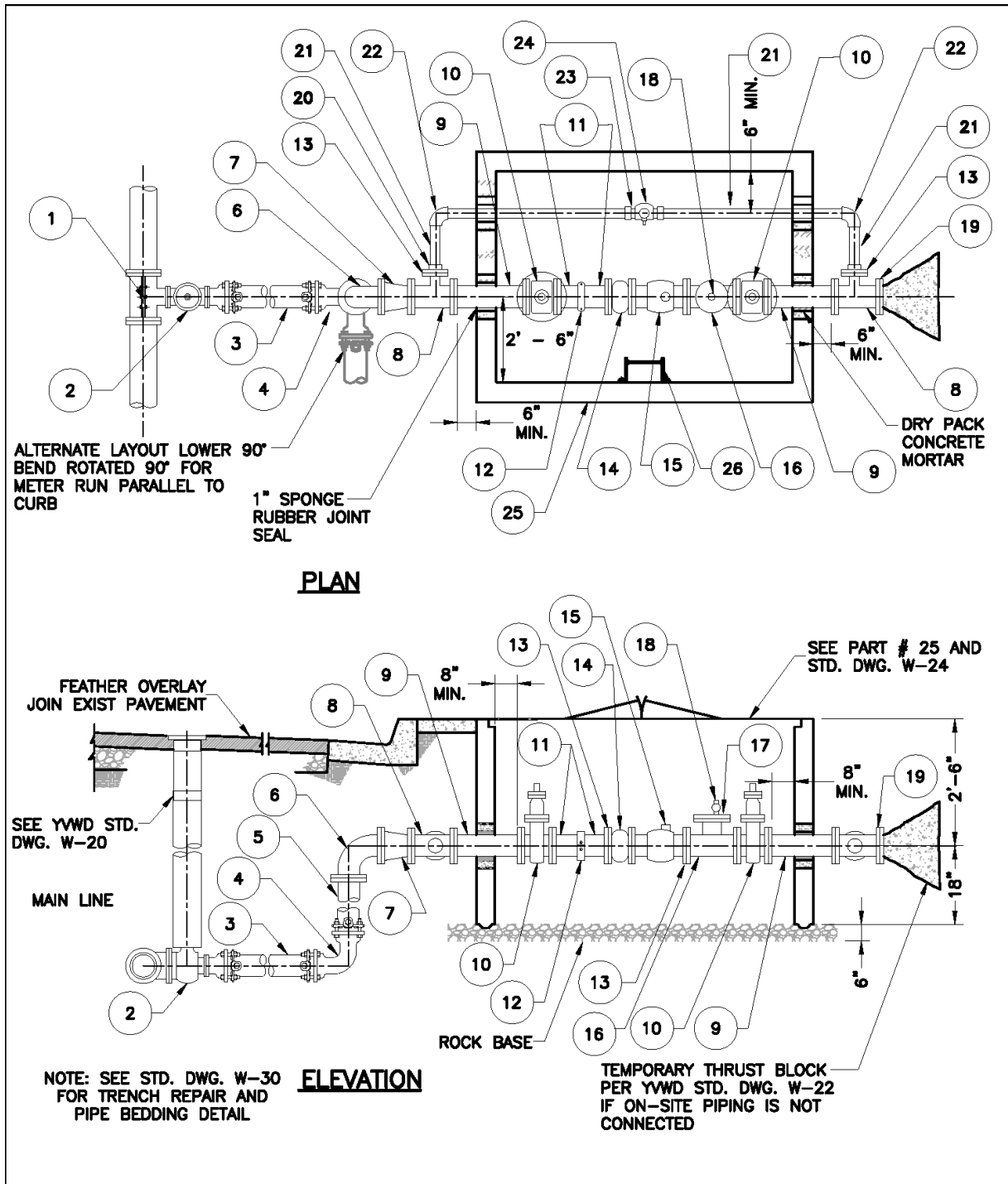
LIST OF MATERIALS		
ITEM	QUANTITY	DESCRIPTION
1	1 EA	SIZE X 4" TAPPING SLEEVE (USE MJ X FLG. TEE IF HOT TAP IS NOT REQUIRED).
2	1 EA	4" FLG. X FLG. TAPPING VALVE (USE RW OR GATE VALVE IF HOT TAP IS NOT REQUIRED)
3	AS REQ'D	4" D.I. PIPE LATERAL, RESTRAINED JOINTS
4	1 EA	4" D.I. 90° ELL, MJ. X MJ (IF REQUIRED).
5	2 EA	4" D.I. HALF SPOOL – FLG. X PLAIN END (IF REQUIRED)
6	1 EA	4" D.I. 90° ELL, FLG. X FLG (IF REQUIRED).
7	1 EA	4" X 3" D.I. REDUCER FLG. X FLG. (FOR 3" SERVICE ONLY)
8	2 EA	METER SIZE FLANGED D.I. TEE
9	2 EA	FLG x FLG. D.I. SPOOL – METER SIZE X 2'-6"
10	2 EA	RW OR GATE VALVE FLG. X FLG.
11	2 EA	D.I.P. HALF SPOOL, VICTAULIC X FLG., 6" LENGTH
12	1 EA	GROOVED-END COUPLING (VICTAULIC)
13	4 EA	BOLT AND FLANGE INSULATING KIT
14	1 EA	STRAINER (BY DISTRICT)
15	1 EA	AMI COMPATIBLE METER (BY DISTRICT)
16	1 EA	METER SIZE D.I. TEE – FLANGED
17	2 EA	METER-SIZE D.I. COMPANION FLANGE TAPPED FOR 2" I.P.
18	1 EA	2" CORPORATION STOP – MIP X MIP
19	1 EA	D.I. BLIND FLANGE
20	2 EA	METER SIZE COMPANION FLANGE WITH 2" THREADED I.P. OUTLET
21	AS REQ'D	2" GALVANIZED PIPE
22	2 EA	2" 90° ELBOW
23	1 EA	2" UNION
24	1 EA	2" BALL VALVE WITH LOCKING WING – F.I.P. X F.I.P.
25	1 EACH	PRECAST CONCRETE VAULT WITH SPRING ASSIST HINGED DIAMOND PLATE ALUMINUM COVER AND RECESSED LOCKING HASP. PROVIDE 6" x 12" HINGED READING LID INSTALLED OVER METER REGISTER. (REFER TO YWWD STD. DWG. W-24)
26	1 EA	GALV. STEEL LADDER (ALHAMBRA FOUNDRY A3400) W/LADDER – UP AND S.S. ANCHOR BOLTS.

NOTES:

1. VAULT SHOWN IS FOR PARKWAY USE ONLY. FOR TRAFFIC LOADING AND OTHER REQUIREMENTS, CONTACT DISTRICT REPRESENTATIVE.
2. VAULT COVER TO BE SET TO CONFORM TO PARKWAY GRADE.
3. WHEN A BY-PASS LINE IS NOT REQUIRED, DO NOT INSTALL ITEMS 21 TO 24.
4. BACKFILL UNDER EXISTING CURB WITHIN THE CITY OF YUCAIPA, MUST BE 2 SACK SLURRY PER CITY STANDARDS.
5. LIDS MUST SUPPORT AMI WITH MXU CAPABILITY.

3" AND 4" DRINKING WATER SERVICE

2019	 <p style="font-size: 18pt; font-weight: bold;">Yucaipa Valley Water District</p>	<p style="font-size: 10pt;">Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX</p>	W-8
			Sheet 2 of 2



6" AND 8" DRINKING WATER SERVICE

2019



Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX

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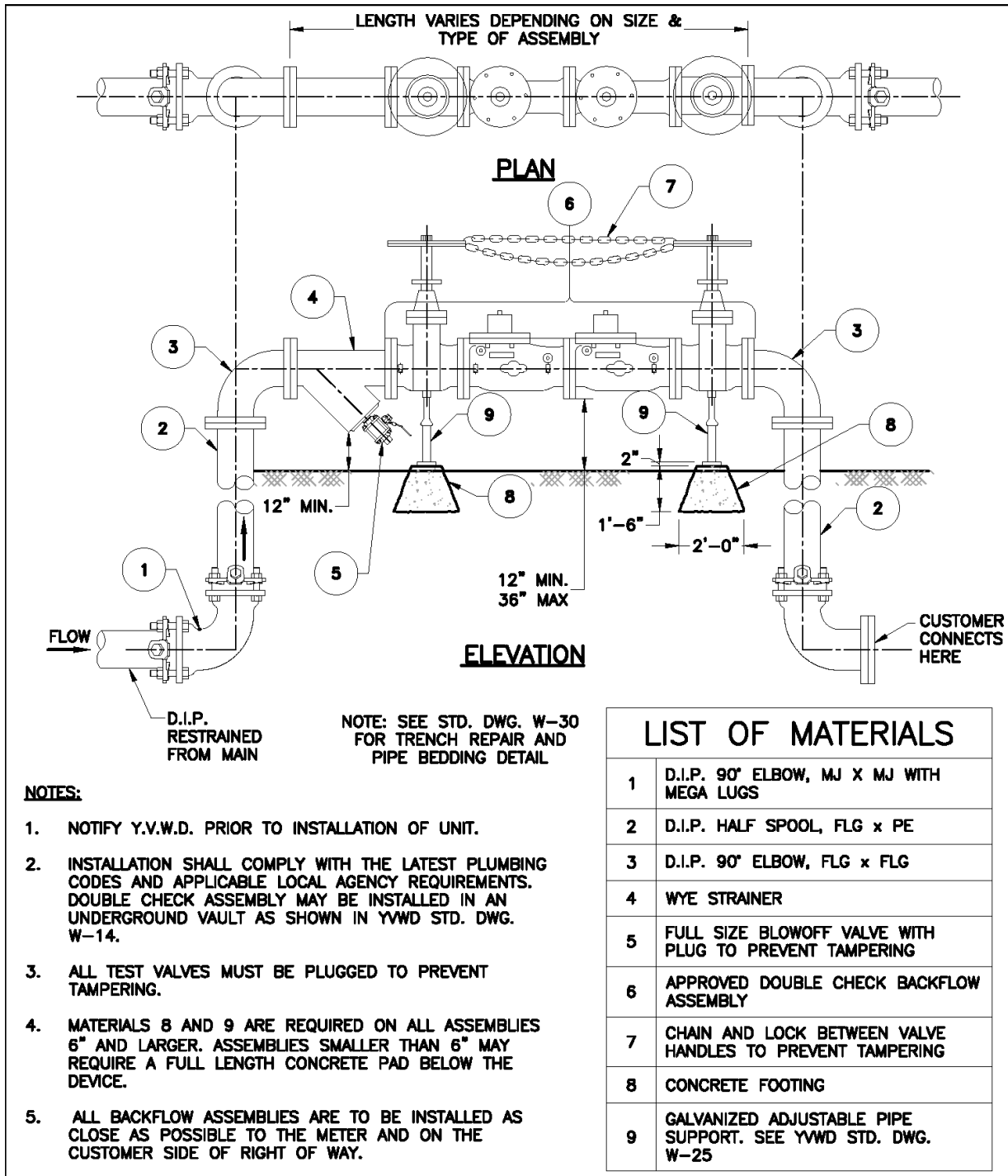
LIST OF MATERIALS		
ITEM	QUANTITY	DESCRIPTION
1	1 EA	SIZE X 8" TAPPING SLEEVE (USE MJ X FLG. TEE IF HOT TAP IS NOT REQUIRED).
2	1 EA	8" FLG. X FLG. TAPPING VALVE (USE RW OR GATE VALVE IF HOT TAP IS NOT REQUIRED).
3	AS REQ'D	8" D.I. PIPE LATERAL, RESTRAINED JOINTS
4	1 EA	8" D.I. 90° ELL, MJ. X MJ (IF REQUIRED).
5	2 EA	8" D.I. HALF SPOOL – FLG. X PLAIN END (IF REQUIRED)
6	1 EA	8" D.I. 90° ELL, FLG. X FLG (IF REQUIRED).
7	1 EA	8" X 6" D.I. REDUCER FLG. X FLG. (FOR 6" SERVICE ONLY)
8	2 EA	METER SIZE FLANGED D.I. TEE
9	2 EA	FLG x FLG. D.I. SPOOL – METER SIZE X 2'-6"
10	2 EA	RW OR GATE VALVE FLG. X FLG.
11	2 EA	D.I.P. HALF SPOOL, VICTAULIC X FLG., 6" LENGTH
12	1 EA	GROOVED-END COUPLING (VICTAULIC)
13	4 EA	BOLT AND FLANGE INSULATING KIT
14	1 EA	STRAINER (BY DISTRICT)
15	1 EA	AMI COMPATIBLE METER (BY DISTRICT)
16	1 EA	METER SIZE D.I. TEE – FLANGED
17	2 EA	METER-SIZE D.I. COMPANION FLANGE TAPPED FOR 2" I.P.
18	1 EA	2" CORPORATION STOP – MIP X MIP
19	1 EA	D.I. BLIND FLANGE
20	2 EA	METER SIZE COMPANION FLANGE WITH 2" THREADED I.P. OUTLET
21	AS REQ'D	2" GALVANIZED PIPE
22	2 EA	2" 90° ELBOW
23	1 EA	2" UNION
24	1 EA	2" BALL VALVE WITH LOCKING WING – F.I.P. X F.I.P.
25	1 EACH	PRECAST CONCRETE VAULT WITH SPRING ASSIST HINGED DIAMOND PLATE ALUMINUM COVER AND RECESSED LOCKING HASP. PROVIDE 6" x 12" HINGED READING LID INSTALLED OVER METER REGISTER. (REFER TO YVWD STD. DWG. W-24)
26	1 EA	GALV. STEEL LADDER (ALHAMBRA FOUNDRY A3400) W/LADDER – UP AND S.S. ANCHOR BOLTS.

NOTES:

1. VAULT SHOWN IS FOR PARKWAY USE ONLY. FOR TRAFFIC LOADING AND OTHER REQUIREMENTS, CONTACT DISTRICT REPRESENTATIVE.
2. VAULT COVER TO BE SET TO CONFORM TO PARKWAY GRADE.
3. WHEN A BY-PASS LINE IS NOT REQUIRED, DO NOT INSTALL ITEMS 21 TO 24.
4. BACKFILL UNDER EXISTING CURB WITHIN THE CITY OF YUCAIPA, MUST BE 2 SACK SLURRY PER CITY STANDARDS.
5. LIDS MUST SUPPORT AMI WITH MXU CAPABILITY.

6" AND 8" DRINKING WATER SERVICE

2019	 <p>Yucaipa Valley Water District</p>	Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX	W-9
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NOTES:

1. NOTIFY Y.V.W.D. PRIOR TO INSTALLATION OF UNIT.
2. INSTALLATION SHALL COMPLY WITH THE LATEST PLUMBING CODES AND APPLICABLE LOCAL AGENCY REQUIREMENTS. DOUBLE CHECK ASSEMBLY MAY BE INSTALLED IN AN UNDERGROUND VAULT AS SHOWN IN YVWD STD. DWG. W-14.
3. ALL TEST VALVES MUST BE PLUGGED TO PREVENT TAMPERING.
4. MATERIALS 8 AND 9 ARE REQUIRED ON ALL ASSEMBLIES 6" AND LARGER. ASSEMBLIES SMALLER THAN 6" MAY REQUIRE A FULL LENGTH CONCRETE PAD BELOW THE DEVICE.
5. ALL BACKFLOW ASSEMBLIES ARE TO BE INSTALLED AS CLOSE AS POSSIBLE TO THE METER AND ON THE CUSTOMER SIDE OF RIGHT OF WAY.

LIST OF MATERIALS

1	D.I.P. 90° ELBOW, MJ X MJ WITH MEGA LUGS
2	D.I.P. HALF SPOOL, FLG x PE
3	D.I.P. 90° ELBOW, FLG x FLG
4	WYE STRAINER
5	FULL SIZE BLOWOFF VALVE WITH PLUG TO PREVENT TAMPERING
6	APPROVED DOUBLE CHECK BACKFLOW ASSEMBLY
7	CHAIN AND LOCK BETWEEN VALVE HANDLES TO PREVENT TAMPERING
8	CONCRETE FOOTING
9	GALVANIZED ADJUSTABLE PIPE SUPPORT. SEE YVWD STD. DWG. W-25

DOUBLE CHECK BACKFLOW ASSEMBLY

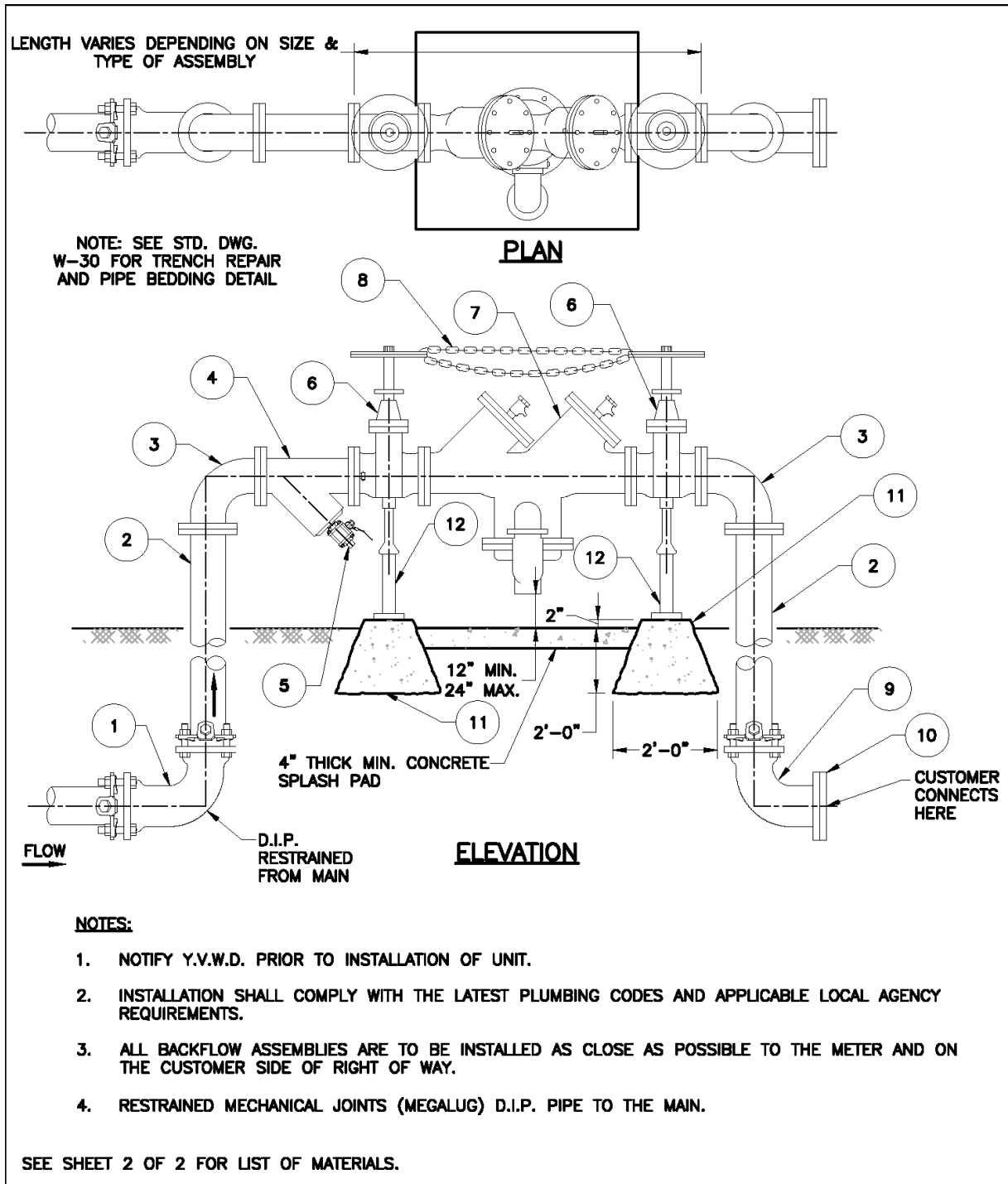
2019



Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX

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REDUCED PRESSURE BACKFLOW ASSEMBLY

2019



Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX

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Sheet 1 of 2

LIST OF MATERIALS	
1	D.I.P. 90° ELBOW, MJ X MJ WITH MEGA LUGS
2	D.I.P. HALF SPOOL, FLG X PE
3	D.I.P. 90° ELBOW, FLG x FLG
4	WYE STRAINER
5	FULL SIZE BLOWOFF VALVE WITH PLUG TO PREVENT TAMPERING
6	U.S.C.-APPROVED SHUT-OFF VALVES. SEE SPECIFICATIONS FOR ASSEMBLY
7	APPROVED REDUCED PRESSURE BACKFLOW ASSEMBLY (SIZE PER REQUIREMENT)
8	CHAIN AND LOCK BETWEEN VALVE HANDLES TO PREVENT TAMPERING
9	D.I.P. 90° ELBOW, MJ X FLG WITH MEGA LUG
10	BLIND FLANGE IF NOT CONNECTING IMMEDIATELY AFTER INSTALL OF DEVICE
11	CONCRETE FOOTING
12	GALVANIZED ADJUSTABLE PIPE SUPPORT. SEE YVWD STD. DWG. W-25

REDUCED PRESSURE BACKFLOW ASSEMBLY

2019

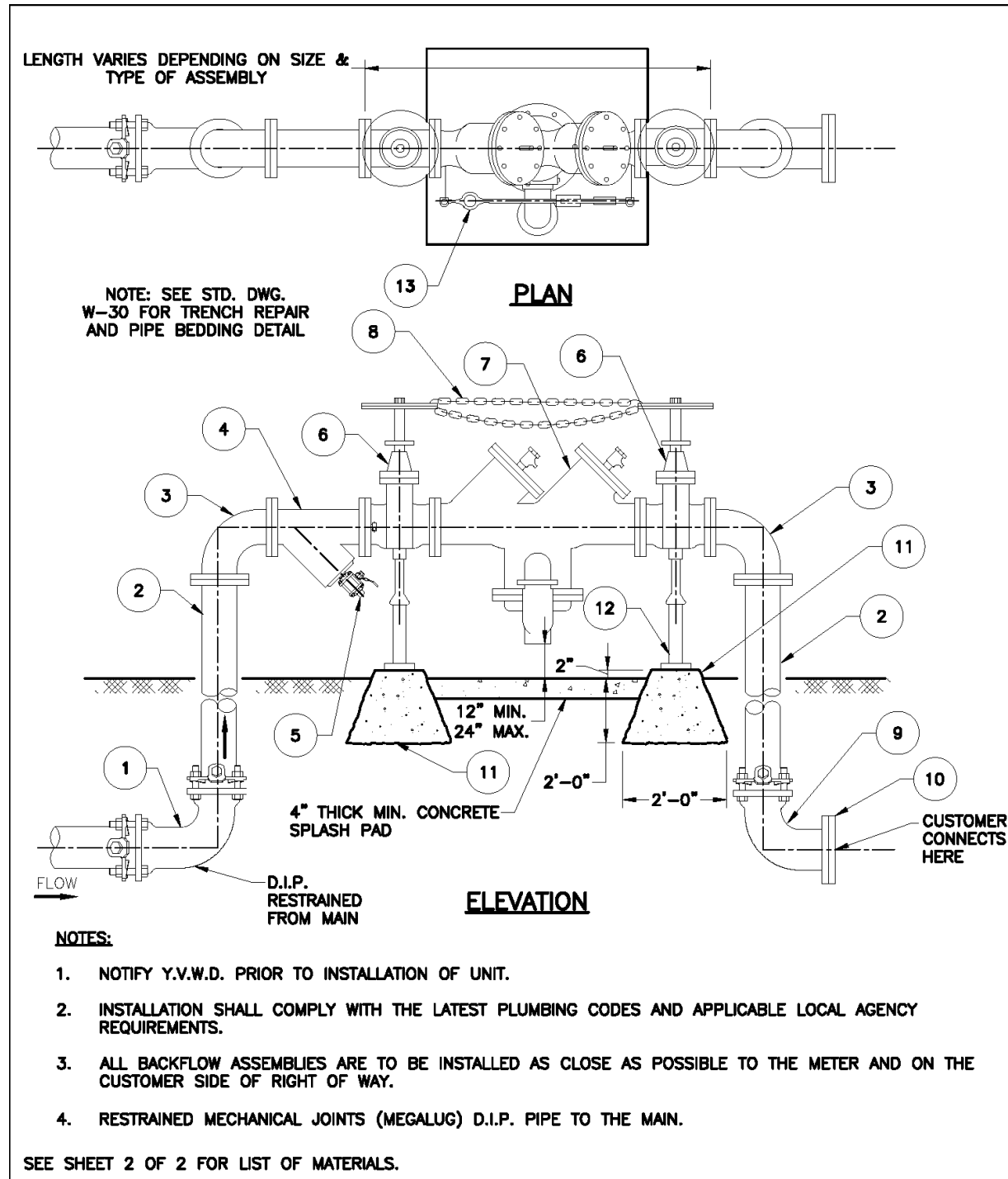


Yucaipa Valley
Water District


Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX

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REDUCED PRESSURE BACKFLOW ASSEMBLY WITH BYPASS

2019	 <p style="font-size: 1.2em; margin: 0;">Yucaipa Valley Water District</p>	<p style="font-size: 0.9em; margin: 0;">Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX</p>	W-12
			Sheet 1 of 2

LIST OF MATERIALS	
1	D.I.P. 90° ELBOW, MJ X MJ WITH MEGA LUGS
2	D.I.P. HALF SPOOL, FLG X PE
3	D.I.P. 90° ELBOW, FLG x FLG
4	WYE STRAINER
5	FULL SIZE BLOWOFF VALVE WITH PLUG TO PREVENT TAMPERING
6	U.S.C.-APPROVED SHUT-OFF VALVES. SEE SPECIFICATIONS FOR ASSEMBLY
7	APPROVED REDUCED PRESSURE BACKFLOW ASSEMBLY (SIZE PER REQUIREMENT)
8	CHAIN AND LOCK BETWEEN VALVE HANDLES TO PREVENT TAMPERING
9	D.I.P. 90° ELBOW, MJ X FLG WITH MEGA LUG
10	BLIND FLANGE IF NOT CONNECTING IMMEDIATELY AFTER INSTALL OF DEVICE
11	CONCRETE FOOTING
12	GALVANIZED ADJUSTABLE PIPE SUPPORT. SEE YVWD STD. DWG. W-25
13	AMI COMPATIBLE FACTORY INSTALLED BY-PASS METER ASSEMBLY CONSISTING OF APPROVED POSITIVE DISPLACEMENT METER, DOUBLE CHECK VALVE AND ASSOCIATED PIPING. BY-PASS METER TO BE SUPPLIED BY THE DISTRICT.

REDUCED PRESSURE BACKFLOW ASSEMBLY WITH BYPASS

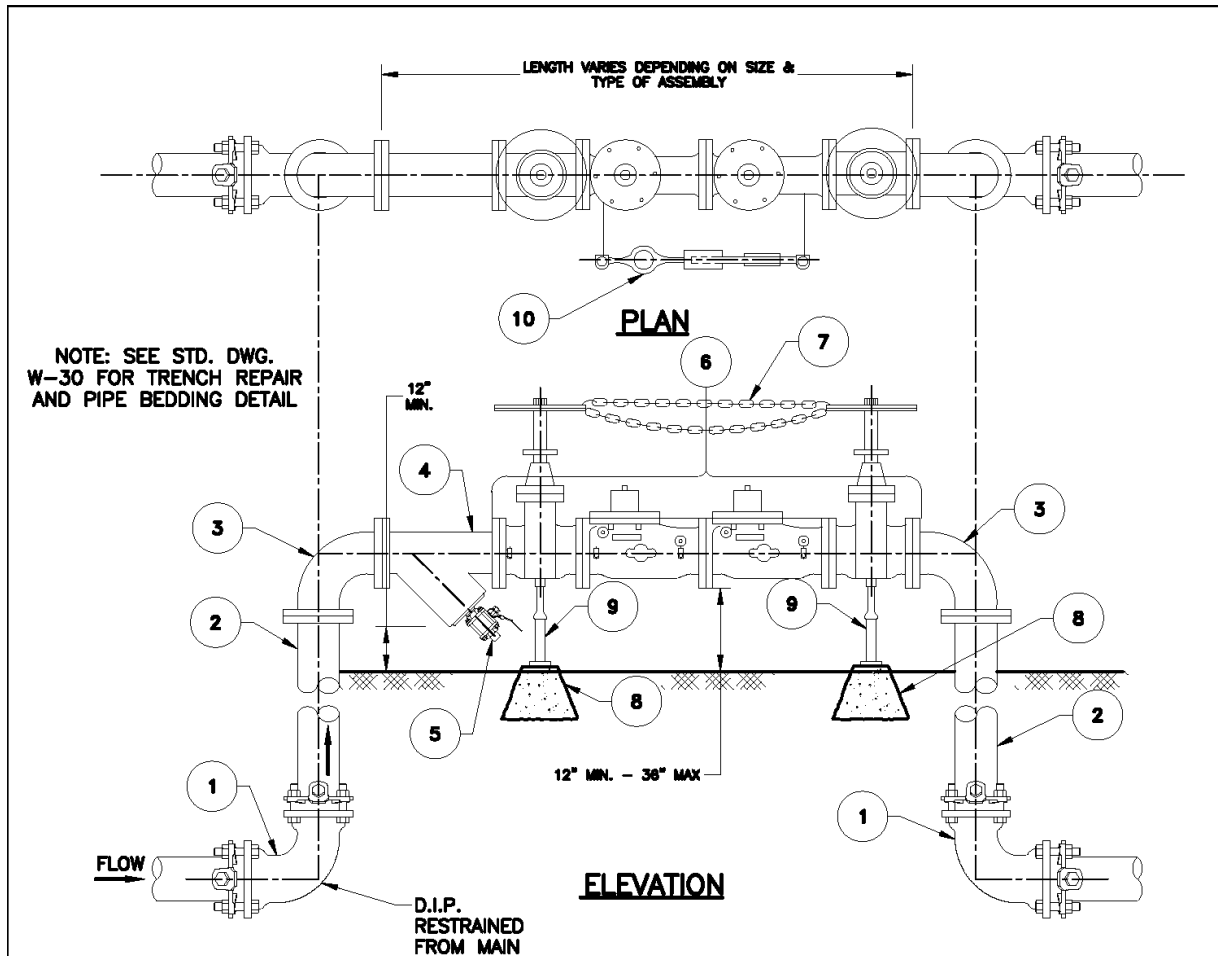
2019



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NOTE: SEE STD. DWG. W-30 FOR TRENCH REPAIR AND PIPE BEDDING DETAIL

NOTES:

1. NOTIFY Y.V.W.D. PRIOR TO INSTALLATION OF UNIT.
2. INSTALLATION SHALL COMPLY WITH THE LATEST PLUMBING CODES AND APPLICABLE LOCAL AGENCY REQUIREMENTS.
3. DOUBLE CHECK ASSEMBLIES MAY BE INSTALLED UNDERGROUND AS SHOWN IN STANDARD DRAWING W-14. RP ASSEMBLIES MAY NOT BE INSTALLED WITHIN A VAULT. ABOVE GROUND ONLY.
4. ALL TEST VALVES MUST BE PLUGGED TO PREVENT TAMPERING.
5. MATERIALS 8 AND 9 ARE REQUIRED ON ALL ASSEMBLIES 6" AND LARGER. ASSEMBLIES SMALLER THAN 6" MAY REQUIRE A FULL LENGTH CONCRETE PAD BELOW THE DEVICE.
6. ALL BACKFLOW ASSEMBLIES ARE TO BE INSTALLED AS CLOSE AS POSSIBLE TO THE METER AND ON THE CUSTOMER SIDE OF RIGHT OF WAY.

SEE SHEET 2 OF 2 FOR LIST OF MATERIALS.

DOUBLE CHECK OR REDUCED PRESSURE DETECTOR ASSEMBLY ABOVE GROUND FIRE LINE

2019	 <p style="font-size: 1.2em;">Yucaipa Valley Water District</p>	<p style="font-size: 0.9em;">Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX</p>	W-13
			Sheet 1 of 2

LIST OF MATERIALS	
1	D.I.P. 90° ELBOW, MJ X MJ WITH MEGA LUGS
2	D.I.P. HALF SPOOL, FLG x PE
3	D.I.P. 90° ELBOW, FLG x FLG
4	WYE STRAINER
5	FULL SIZE BLOWOFF VALVE WITH PLUG TO PREVENT TAMPERING
6	APPROVED DOUBLE CHECK BACKFLOW ASSEMBLY
7	CHAIN AND LOCK BETWEEN VALVE HANDLES TO PREVENT TAMPERING
8	CONCRETE FOOTING
9	GALVANIZED ADJUSTABLE PIPE SUPPORT. SEE YWD STD. DWG. W-25.
10	AMI COMPATIBLE FACTORY INSTALLED BY-PASS METER ASSEMBLY CONSISTING OF APPROVED POSITIVE DISPLACEMENT METER, DOUBLE CHECK VALVE AND ASSOCIATED PIPING. BY-PASS METER TO BE SUPPLIED BY THE DISTRICT.

DOUBLE CHECK OR REDUCED PRESSURE DETECTOR ASSEMBLY ABOVE GROUND FIRE LINE

2019

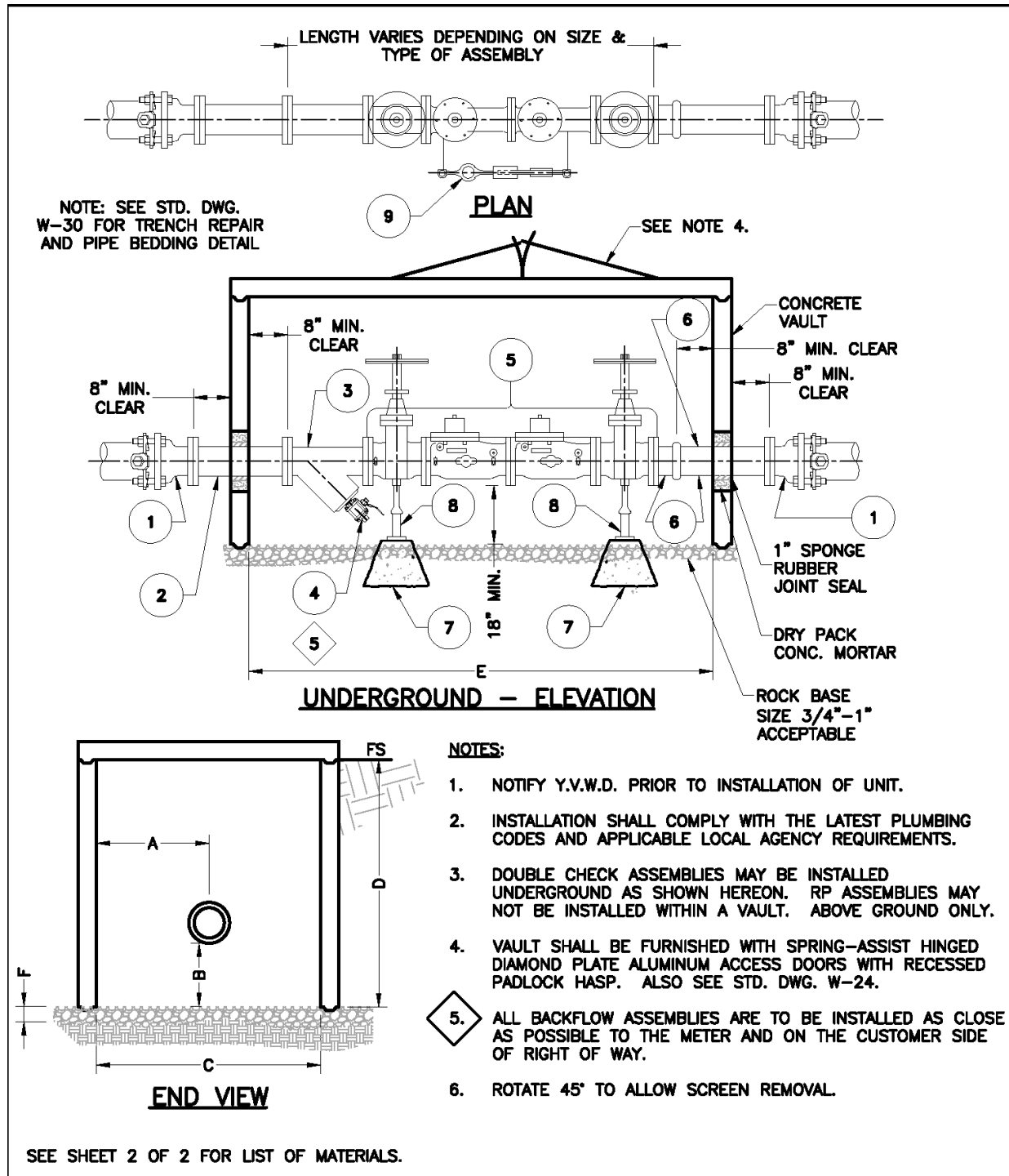


Yucaipa Valley
Water District

Approved by the Yucaipa
Valley Water District Board of
Directors on October 1, 2019
as Resolution No. 2019-XX

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Sheet 2 of 2



SEE SHEET 2 OF 2 FOR LIST OF MATERIALS.

DOUBLE CHECK ASSEMBLY AND BELOW GROUND FIRE LINE

2019



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Valley Water District Board of
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Sheet 1 of 2

LIST OF MATERIALS	
1	MJ X FLG ADAPTOR WITH MEGA LUG
2	D.I.P. SPOOL, FLG X FLG
3	WYE STRAINER
4	FULL SIZE BLOWOFF VALVE WITH PLUG TO PREVENT TAMPERING
5	APPROVED DOUBLE CHECK BACKFLOW ASSEMBLY
6	D.I.P. HALF SPOOL, VICTAULIC X FLG
7	CONCRETE FOOTING
8	GALVANIZED ADJUSTABLE PIPE SUPPORT, SEE YVWD STD. DWG. W-25
9	AMI COMPATIBLE FACTORY INSTALLED BY-PASS METER ASSEMBLY CONSISTING OF APPROVED POSITIVE DISPLACEMENT METER, DOUBLE CHECK VALVE AND ASSOCIATED PIPING. BY-PASS METER TO BE SUPPLIED BY THE DISTRICT

UNDERGROUND INSTALLATIONS							
PIPE SIZE	A	B	C	D	E	F	VAULT DIM
2"	24"	18"	4'	5'	4'	6"	4'x4'
4"	24"	18"	4'	5'	6"	6"	4'x6'
6"	24"	18"	4'	5'	8"	6"	4'x8'
8"	24"	18"	4'	5'	12'	6"	4'x12'
10"	24"	8"	4'	5'	12'	6"	4'x12'

DOUBLE CHECK ASSEMBLY AND BELOW GROUND FIRE LINE

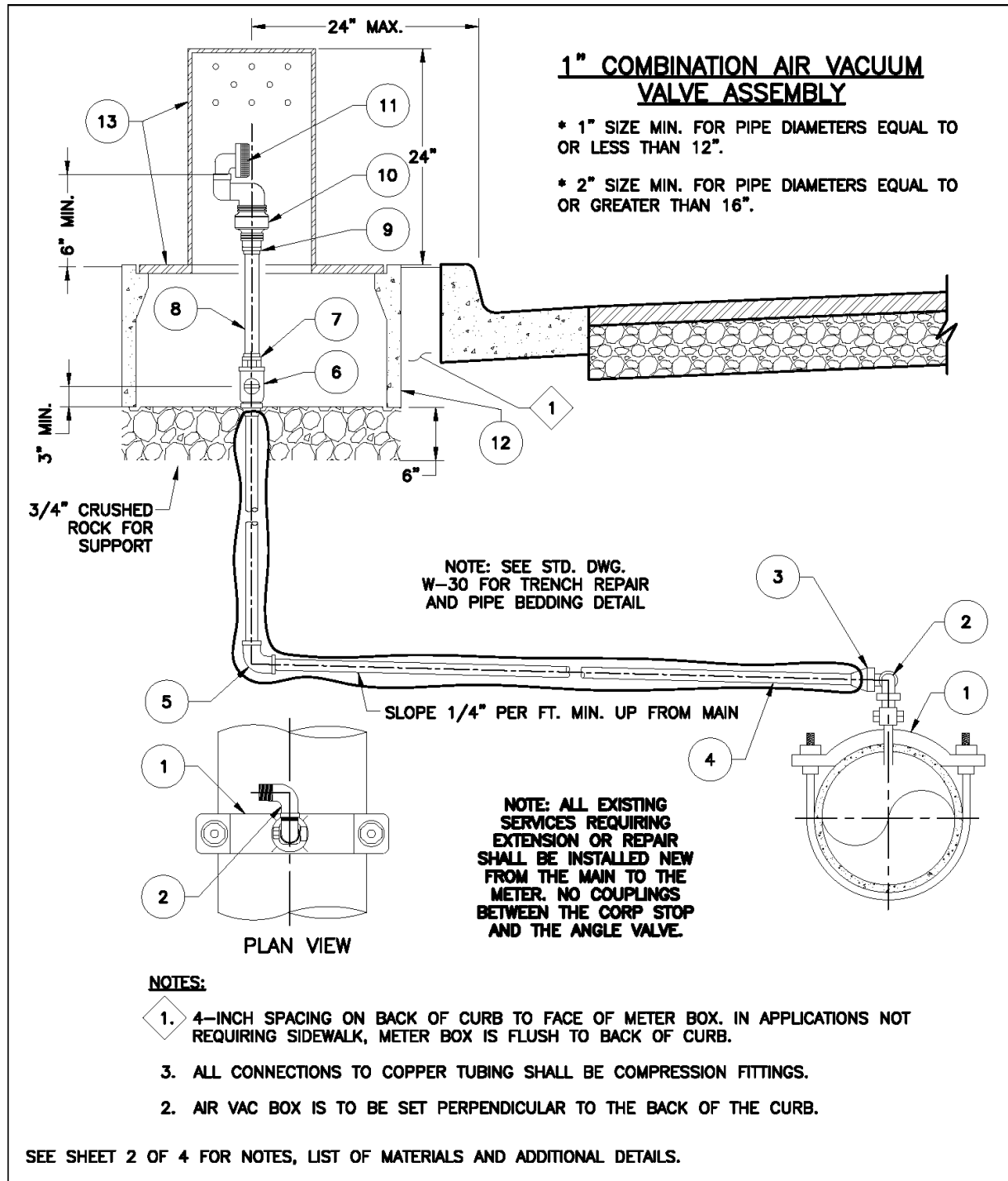
2019




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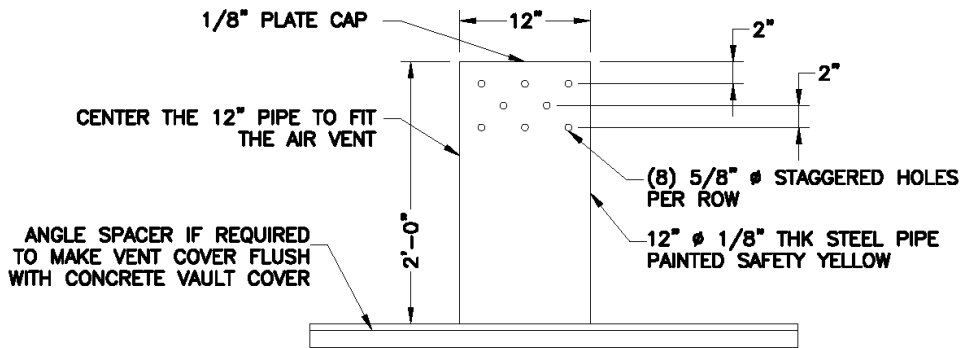
W-14

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1" AND 2" AIR AND VACUUM VALVE ASSEMBLY

2019	 <p>Yucaipa Valley Water District</p>	Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX	W-15 Sheet 1 of 4
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**VAULT COVER DETAIL
FOR 1" AND 2" AIR VENT.**

LIST OF MATERIAL

ITEM NO.	SIZE & DESCRIPTION	MANUFACTURER	SPEC. NO.
1	CONNECTION PER YVWD STD. DWG W-4 OFF THE TOP	-	-
2	CORPORATION STOP WITH 2-90° ELBOW SWING JOINTS, BRASS	-	-
3	F.I.P. X COMPRESSION ADAPTOR BY SIZE	JONES MUELLER	J-2607 H-15451
4	TYPE "K" COPPER TUBING, POLY SLEEVED		
5	COMPRESSION X COMPRESSION 90° ELBOW BY SIZE	JONES MUELLER	J-2611 H-15526
6	CURB VALVE-SHUT OFF PARALLEL WITH CURB	JONES MUELLER	J-1921 B-25172
7	1" MPT X 1" SL SCH. 40 ADAPTOR	-	-
8	12" X 1" SCH. 35 PVC	-	-
9	1" FPT X 1" SL SCH. 40 ADAPTOR	-	-
10	COMBINATION AIR VACUUM VALVE - 1"	A.R.I.	D-040
11	BUG SCREEN	A.R.I.	-
12	METER VAULT	ARMORCAST	A6001640PCX12
13	VAULT COVER - SEE DETAIL ABOVE	-	-

1" AND 2" AIR AND VACUUM VALVE ASSEMBLY

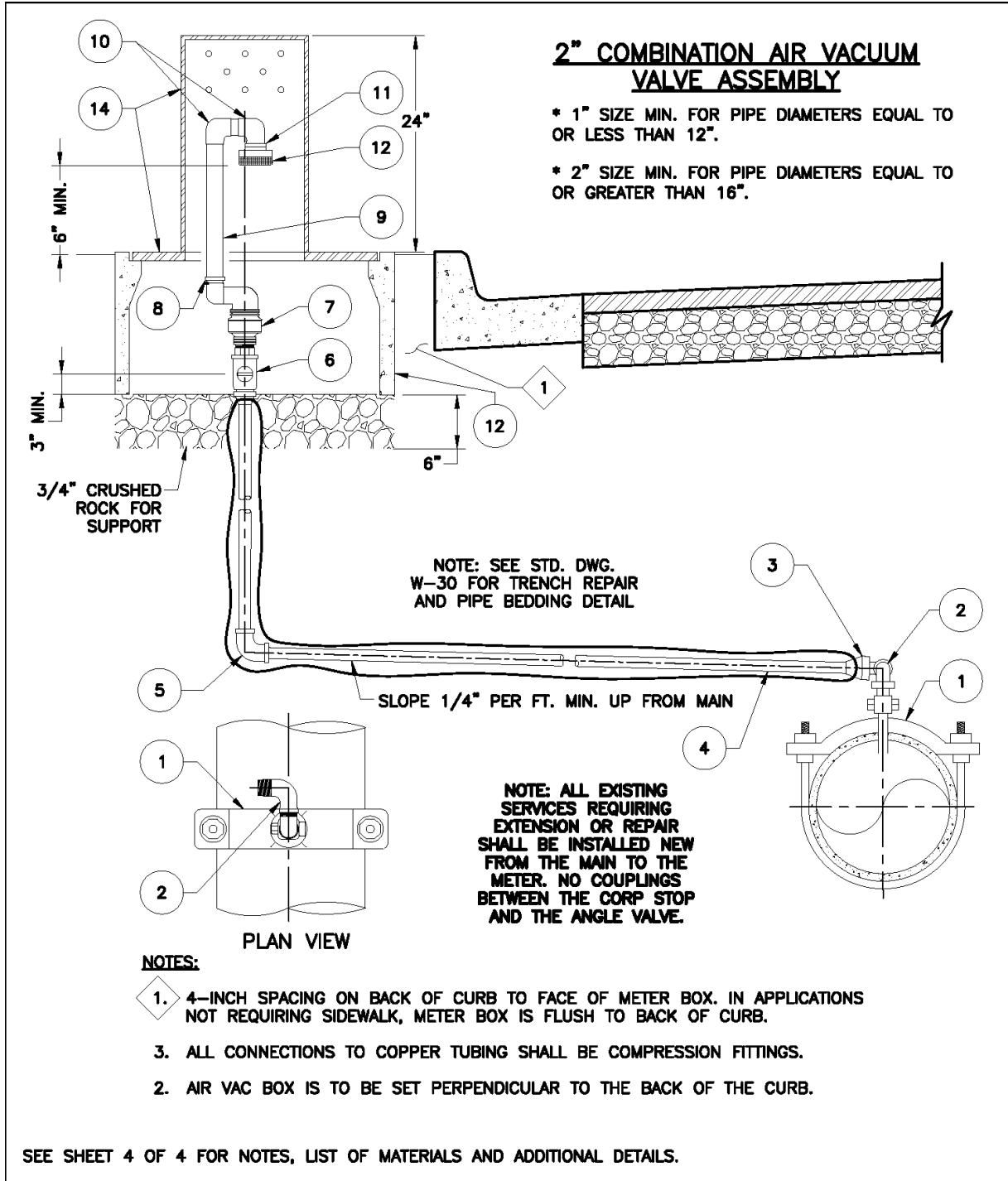
2019



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1" AND 2" AIR AND VACUUM VALVE ASSEMBLY

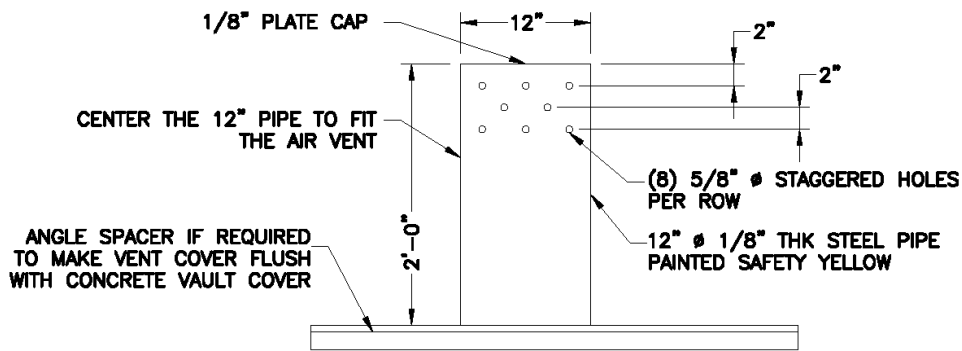
2019



Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX

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**VAULT COVER DETAIL
FOR 1" AND 2" AIR VENT.**

LIST OF MATERIAL

ITEM NO.	SIZE & DESCRIPTION	MANUFACTURER	SPEC. NO.
1	CONNECTION BY SIZE PER YVWD STD. DWG W-7 - OFF THE TOP	-	-
2	CORPORATION STOP WITH 2-90° ELBOW SWING JOINTS, BRASS BY SIZE	-	-
3	F.I.P. X COMPRESSION ADAPTOR BY SIZE	JONES MUELLER	J-2807 H-15451
4	TYPE "K" COPPER TUBING, POLY SLEEVED BY SIZE		
5	COMPRESSION X COMPRESSION 90° ELBOW BY SIZE	JONES MUELLER	J-2611 H-15526
6	CURB VALVE--SHUT OFF PARALLEL WITH CURB BY SIZE	JONES MUELLER	J-1921 B-25172
7	COMBINATION AIR VACUUM VALVE - 2"	A.R.I.	D-040
8	1-1/2" MPT X 1-1/2" SL SCH. 40 ADAPTOR	-	-
9	12" X 1-1/2" SCH. 35 PVC		
10	1-1/2" SCH. 40 90°	-	-
11	1-1/2" MALE SL X 1-1/2" FPT SCH. 40 COUPLING	-	-
12	BUG SCREEN	A.R.I.	-
13	METER VAULT	ARMORCAST	A8001640PCX12
14	VAULT COVER - SEE DETAIL ABOVE	-	-

1" AND 2" AIR AND VACUUM VALVE ASSEMBLY

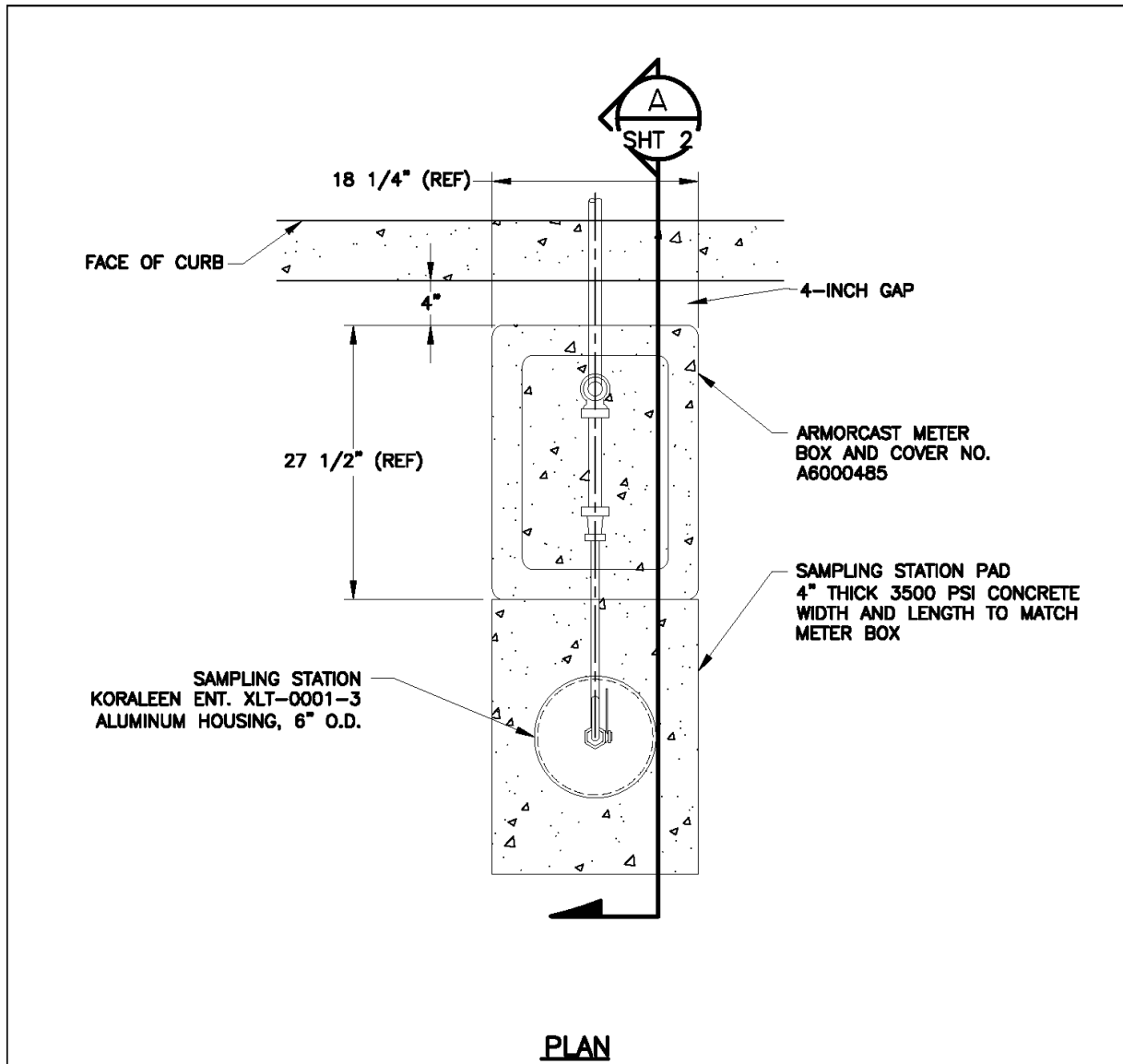
2019



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NOTE:

1. BACKFILL UNDER EXISTING CURB WITHIN THE CITY OF YUCAIPA, MUST BE 2 SACK SLURRY PER CITY STANDARDS.

DRINKING WATER QUALITY SAMPLING STATION

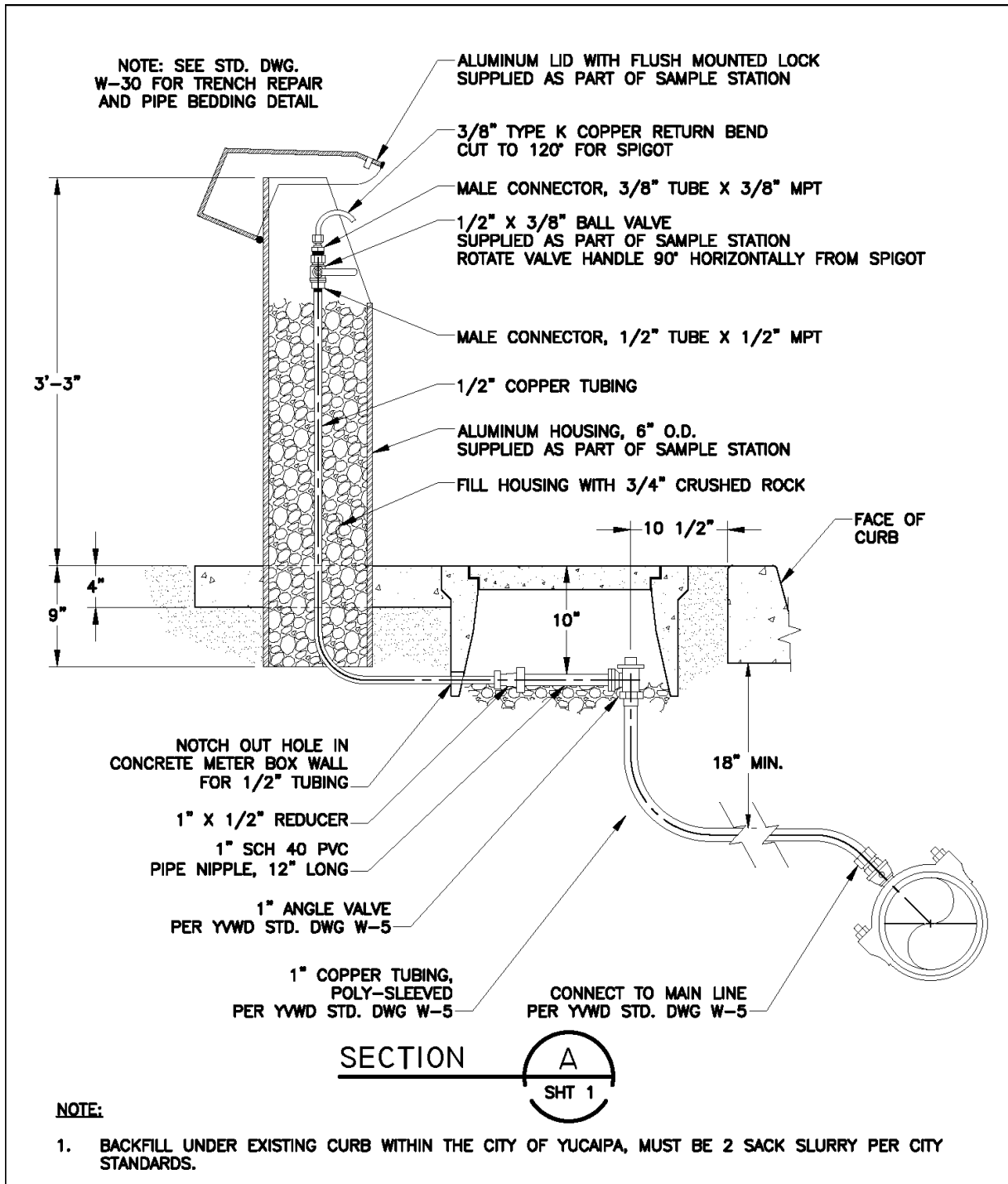
2019



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Valley Water District Board of
Directors on October 1, 2019
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DRINKING WATER QUALITY SAMPLING STATION

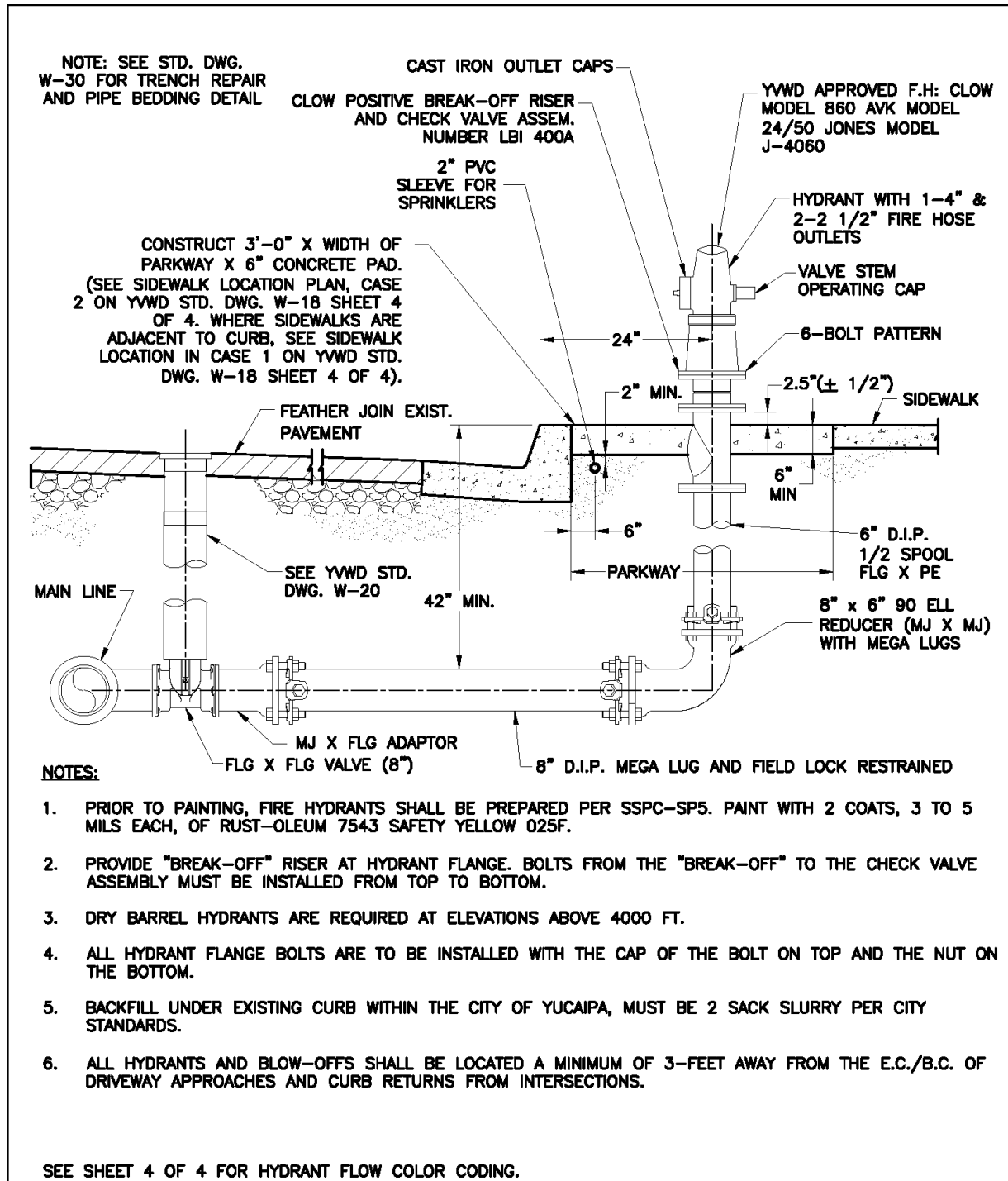
2019



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FIRE HYDRANT INSTALLATION – COMMERCIAL

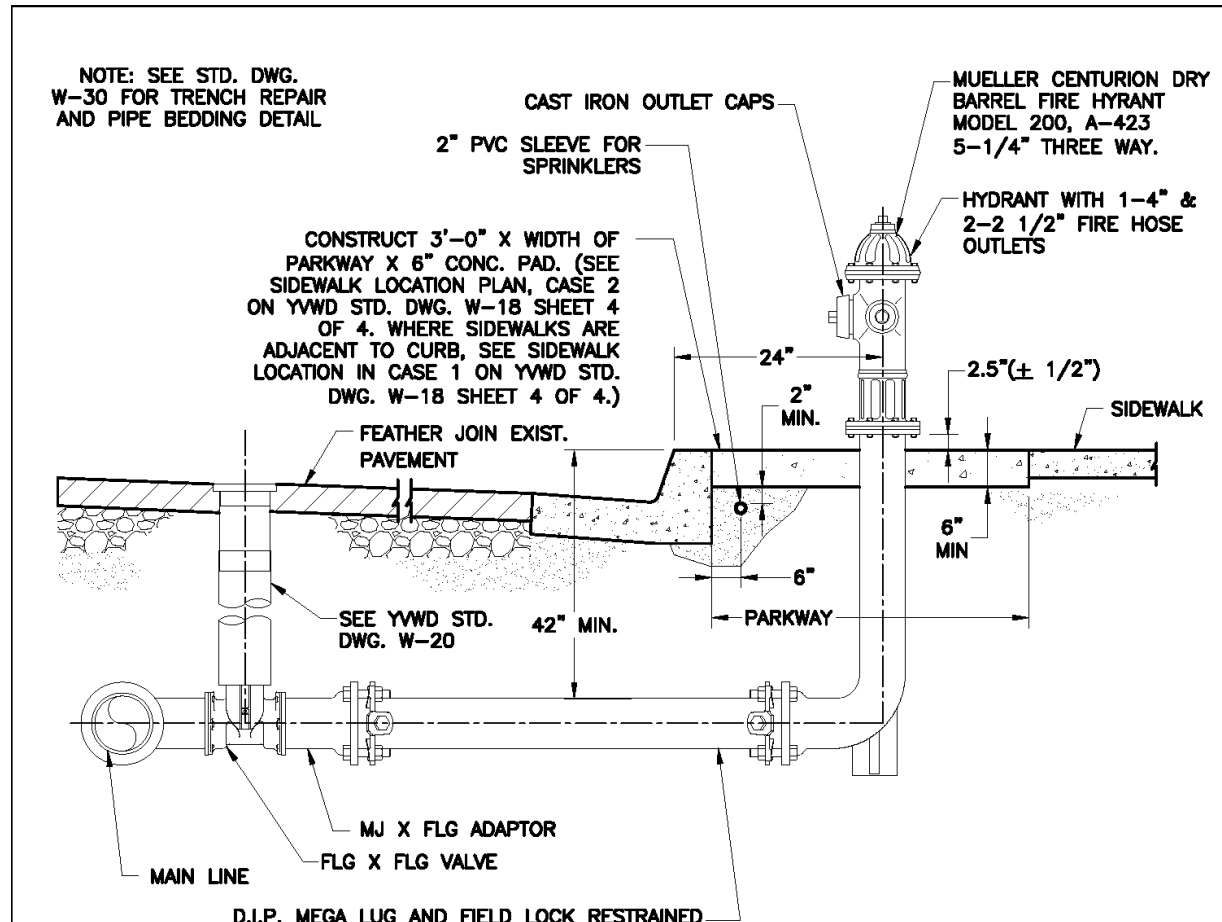
2019



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NOTES:

1. PRIOR TO PAINTING, FIRE HYDRANTS SHALL BE PREPARED PER SSPC-SP5. PAINT WITH 2 COATS, 3 TO 5 MILS EACH, OF RUST-OLEUM 7543 SAFETY YELLOW 025F.
2. DRY BARREL HYDRANTS ARE REQUIRED AT ELEVATIONS ABOVE 4,000 FT.
3. ALL HYDRANT FLANGE BOLTS ARE TO BE INSTALLED WITH THE CAP OF THE BOLT ON TOP AND THE NUT ON THE BOTTOM.
4. BACKFILL UNDER EXISTING CURB WITHIN THE CITY OF YUCAIPA, MUST BE 2 SACK SLURRY PER CITY STANDARDS.
5. ALL HYDRANTS AND BLOW-OFFS SHALL BE LOCATED A MINIMUM OF 3- FEET AWAY FROM THE E.C./B.C. OF DRIVEWAY APPROACHES AND CURB RETURNS FROM INTERSECTIONS.

SEE SHEET 4 OF 4 FOR HYDRANT FLOW COLOR CODING.

FIRE HYDRANT INSTALLATION – DRY BARREL

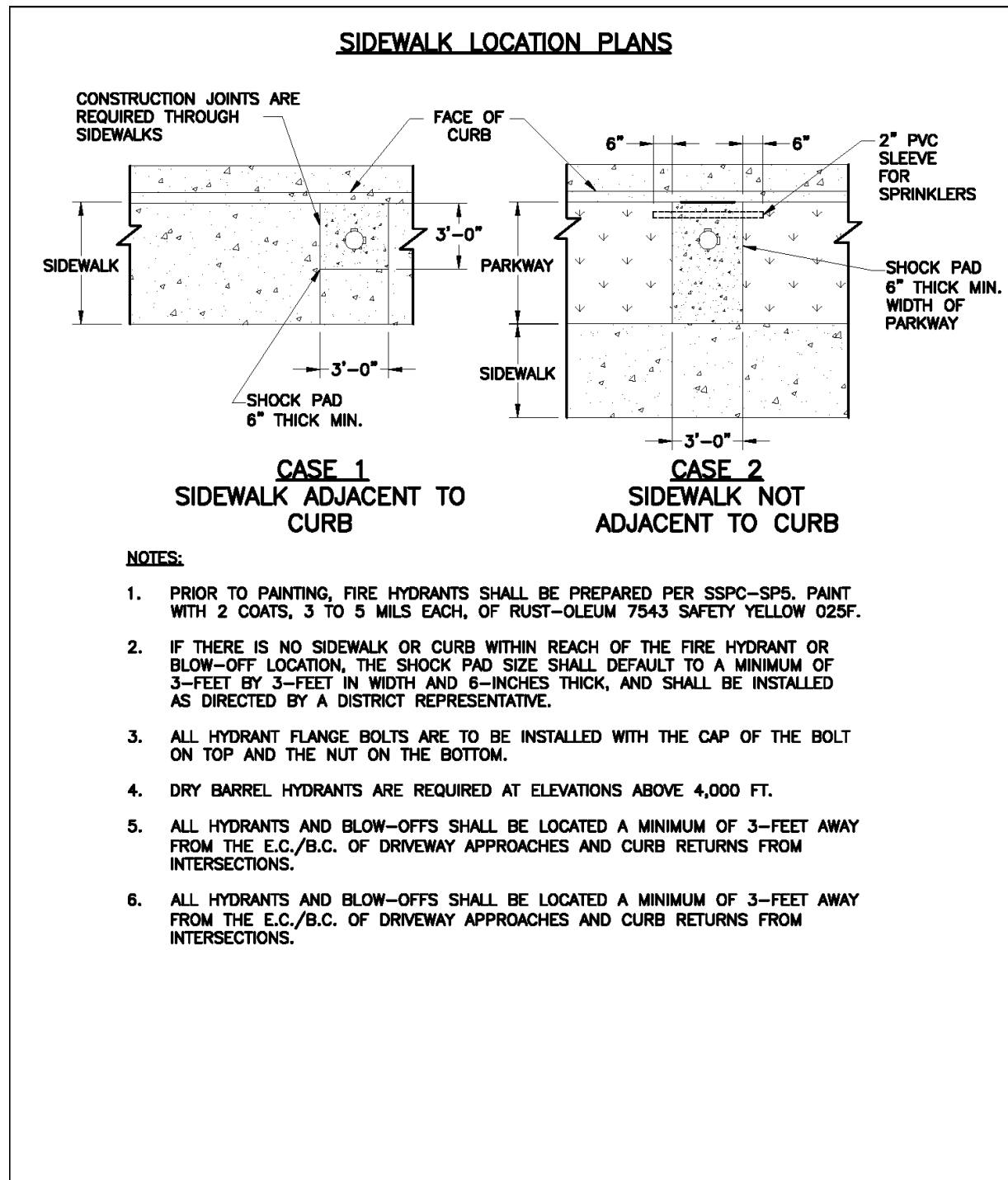
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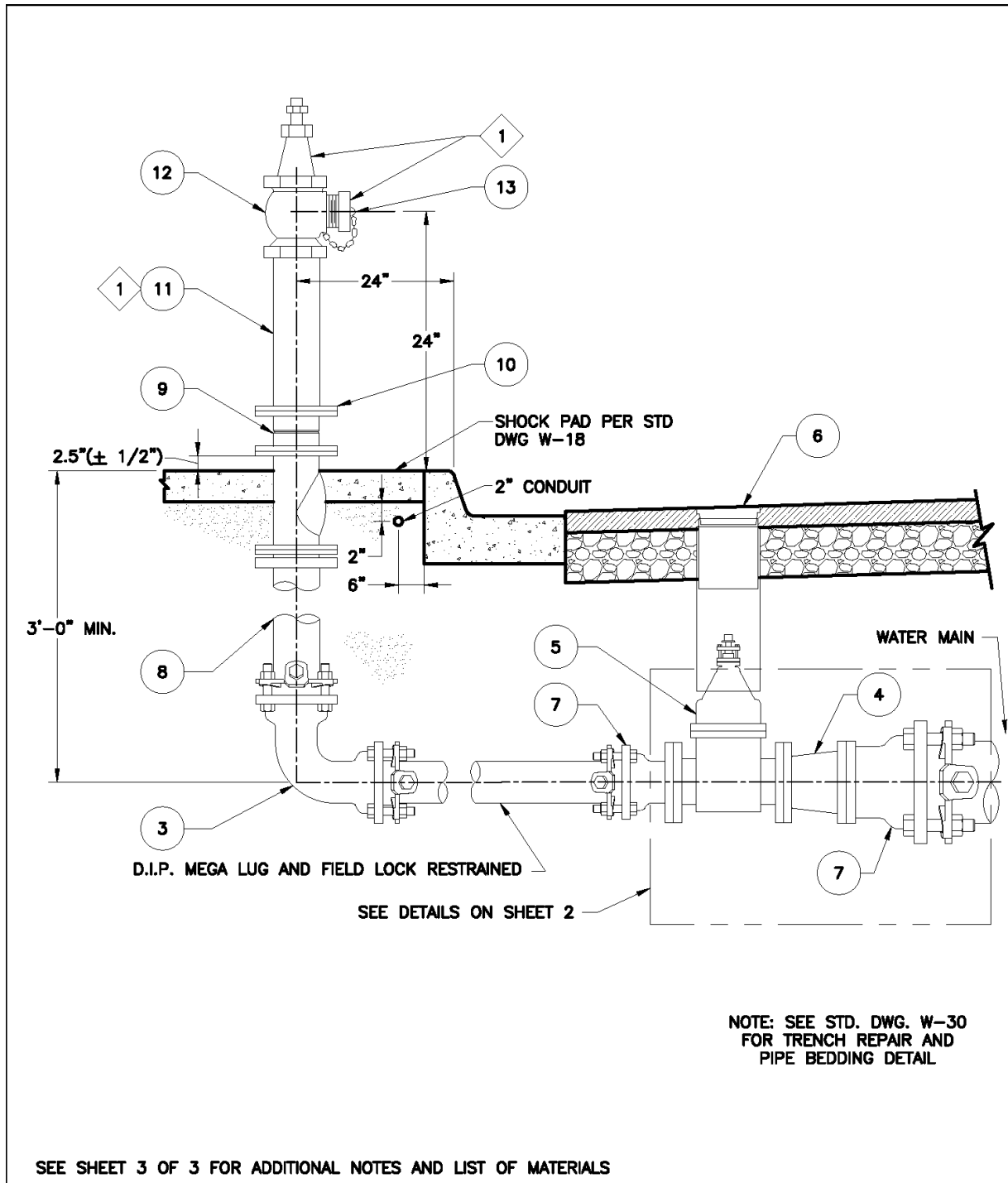


NOTES:

1. PRIOR TO PAINTING, FIRE HYDRANTS SHALL BE PREPARED PER SSPC-SP5. PAINT WITH 2 COATS, 3 TO 5 MILS EACH, OF RUST-OLEUM 7543 SAFETY YELLOW 025F.
2. IF THERE IS NO SIDEWALK OR CURB WITHIN REACH OF THE FIRE HYDRANT OR BLOW-OFF LOCATION, THE SHOCK PAD SIZE SHALL DEFAULT TO A MINIMUM OF 3- FEET BY 3- FEET IN WIDTH AND 6- INCHES THICK, AND SHALL BE INSTALLED AS DIRECTED BY A DISTRICT REPRESENTATIVE.
3. ALL HYDRANT FLANGE BOLTS ARE TO BE INSTALLED WITH THE CAP OF THE BOLT ON TOP AND THE NUT ON THE BOTTOM.
4. DRY BARREL HYDRANTS ARE REQUIRED AT ELEVATIONS ABOVE 4,000 FT.
5. ALL HYDRANTS AND BLOW-OFFS SHALL BE LOCATED A MINIMUM OF 3- FEET AWAY FROM THE E.C./B.C. OF DRIVEWAY APPROACHES AND CURB RETURNS FROM INTERSECTIONS.
6. ALL HYDRANTS AND BLOW-OFFS SHALL BE LOCATED A MINIMUM OF 3- FEET AWAY FROM THE E.C./B.C. OF DRIVEWAY APPROACHES AND CURB RETURNS FROM INTERSECTIONS.

FIRE HYDRANT INSTALLATION – SHOCK PAD DESIGN

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BLOW-OFF ASSEMBLY

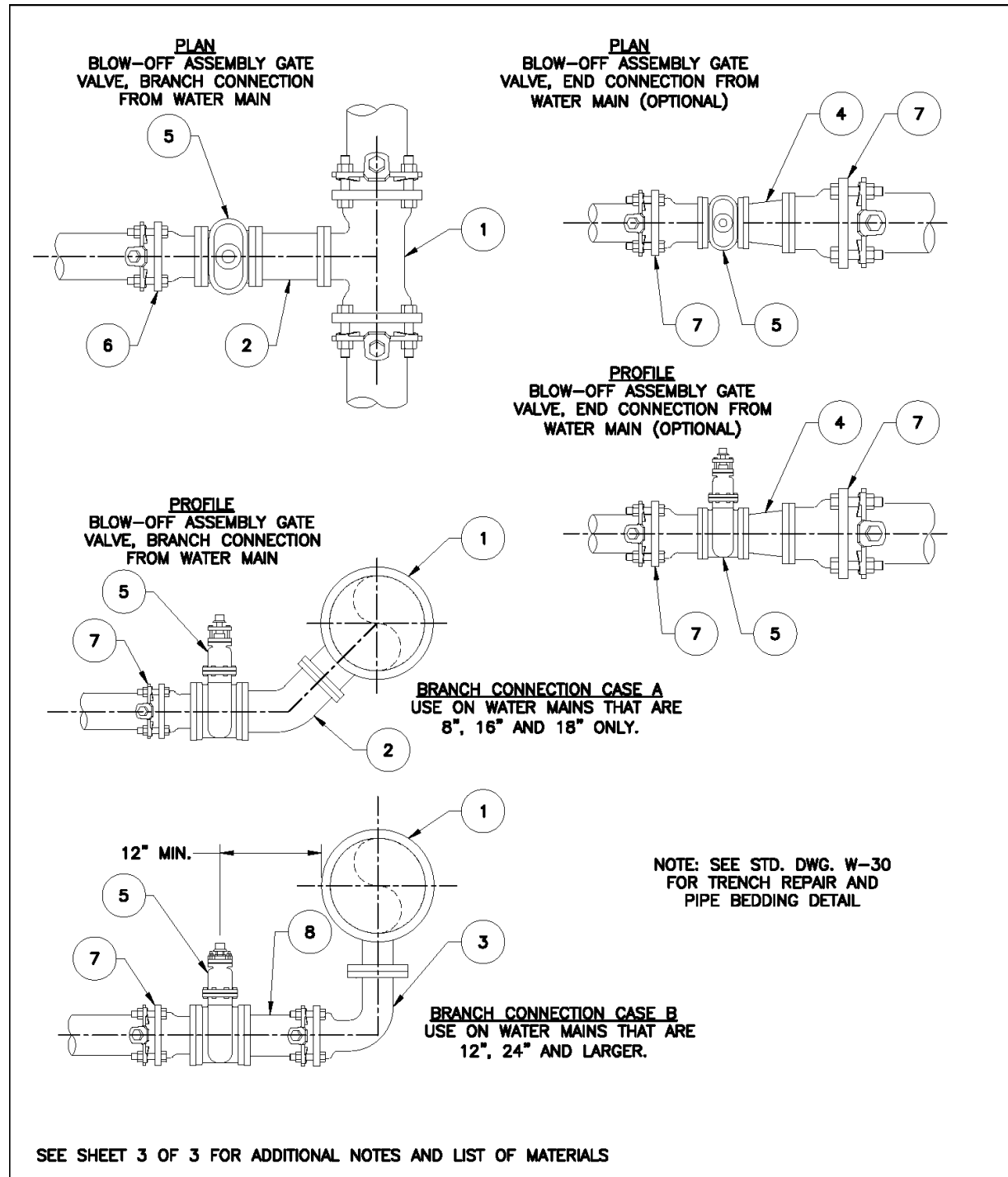
2019



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BLOW-OFF ASSEMBLY

2019




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LIST OF MATERIAL			
ITEM NO.	SIZE & DESCRIPTION	MANUFACTURER	SPEC. NO.
1	DIP TEE – MJ X MJ X FLG	–	–
2	DIP 45° ELBOW – FLG X MJ WITH MEGA LUG RESTRAINTS	–	–
3	DIP 90° ELBOW – FLG X MJ WITH MEGA LUG RESTRAINTS	–	–
4	DIP FLG X FLG REDUCER	–	–
5	GATE VALVE – FLG X FLG	–	–
6	VALVE BOX PER STD. DWG. W-20	–	–
7	DIP MJ X FLG ADAPTOR	–	–
8	DIP HALF SPOOL – FLG X PE	–	–
9	BREAK OFF VALVE – 8-HOLE	CLOW VALVE CO.	LBI-400A
10	DIP COMPANION FLANGE – 6" (8-HOLE) X 4" THREAD	–	–
11	12" X 4" THREADED GALV. NIPPLE	–	–
12	FIRE PLUG VALVE – 4" X 2-1/2"	JONES	J-344HP
13	CAST IRON HYDRANT CAP WITH CHAIN	–	–

NOTES:

1.  PRIOR TO PAINTING, BLOW-OFFS SHALL BE PREPARED PER SSPC-SP5. PAINT WITH 2 COATS, 3 TO 5 MILS EACH, OF RUST-OLEUM 7543 SAFETY YELLOW 025F. ENTIRE HEAD SHALL BE PAINTED RED.
2. PROVIDE "BREAK-OFF" RISER AT COMPANION FLANGE. BOLTS FROM THE "BREAK-OFF" TO THE CHECK VALVE ASSEMBLY MUST BE INSTALLED FROM TOP TO BOTTOM.
3. BLOW-OFFS LOCATED HIGHER THEN 3,500 FT ABOVE SEA LEVEL SHOULD BE A DRY BARREL FIRE HYDRANT.
4. BOTTOM FLUSH INSTALLATION WHERE REQUIRED BY YVWD.
5. BACKFILL UNDER EXISTING CURB WITHIN THE CITY OF YUCAIPA, MUST BE 2 SACK SLURRY PER CITY STANDARDS.
6. ALL HYDRANTS AND BLOW-OFFS SHALL BE LOCATED A MINIMUM OF 3-FEET AWAY FROM THE E.C./B.C. OF DRIVEWAY APPROACHES AND CURB RETURNS FROM INTERSECTIONS.

BLOW-OFF ASSEMBLY

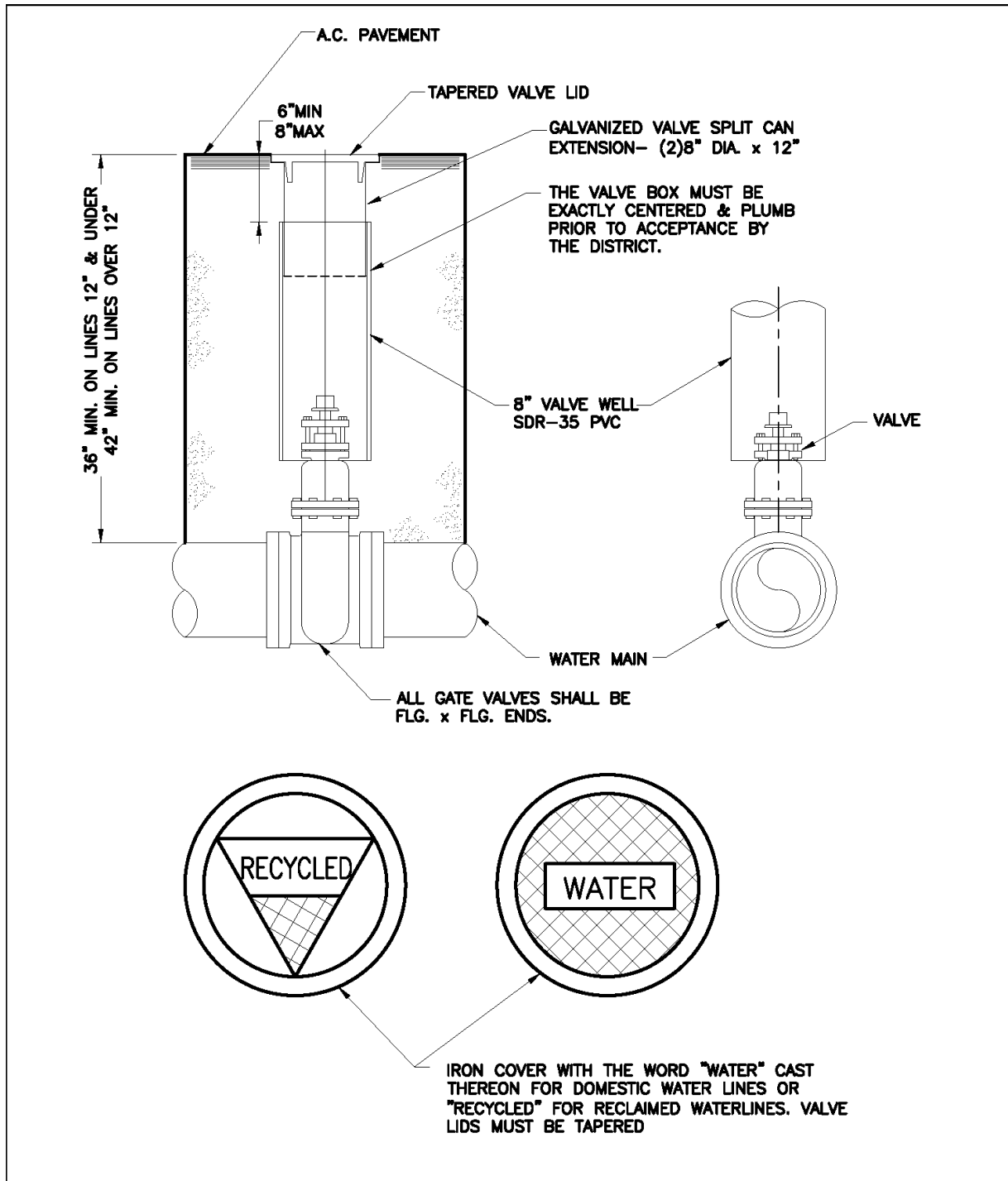
2019



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VALVE AND VALVE BOX INSTALLATION

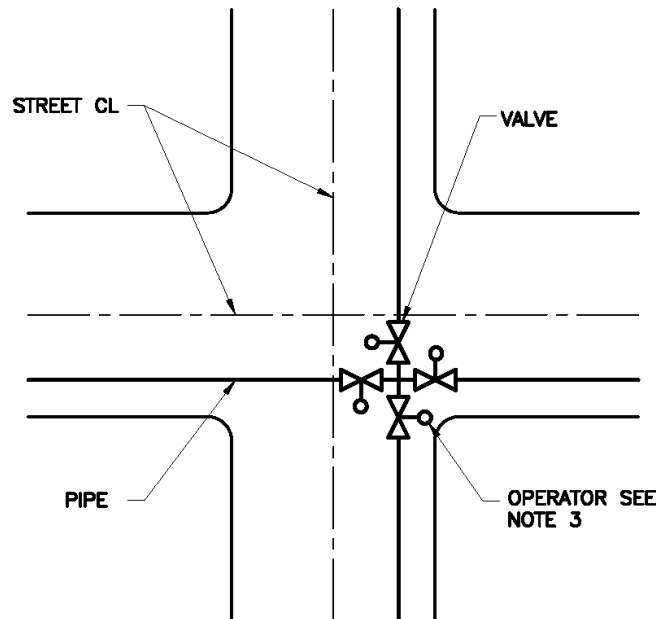
2019



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**TYPICAL BUTTERFLY
VALVE OPERATOR
POSITION**

NOTES:

1. PROVIDE VALVE STEM EXTENSION IF DEPTH TO VALVE NUT EXCEEDS 5 FEET. SEE YVWD STD. DWG. W-21.
2. IN NEW TRACT DEVELOPMENTS EXTEND VALVE WELL PIPE 2' ABOVE GROUND ON "KEY VALVES" FOR EMERGENCY SHUTOFFS.
3. BUTTERFLY VALVE OPERATORS SHALL BE LOCATED ON THE LEFT-HAND SIDE OF THE VALVE (AT THE TEE OR CROSS), LOOKING THROUGH THE VALVE TOWARD THE PIPE END.
4. WHERE CONCRETE CROSS GUTTERS AT STREET INTERSECTIONS WILL INTERFERE WITH VALVE BOXES, THE PIPELINE SHALL BE MOVED TO A POSITION 7 FEET OFF THE CURB FACE TO CLEAR THE CROSS GUTTER.
5. VALVES TO BE LOCATED ADJACENT TO FITTINGS WHEREVER POSSIBLE.
6. VALVES BOLTED TO FITTINGS WILL NOT REQUIRE ANCHOR BLOCKS.
7. ALL GATE VALVES SHALL BE MUELLER, RESILIENT WEDGE, EPOXY COATED, FLG. X FLG. ENDS.
8. ALL BURRIED METALIC SURFACES SHALL BE PROTECTED BY AN ASPHALTIC OR BITUMINUOS COATING IN ACCORDANCE WITH AWWA C151 (ANSI A21.51).

VALVE AND VALVE BOX INSTALLATION

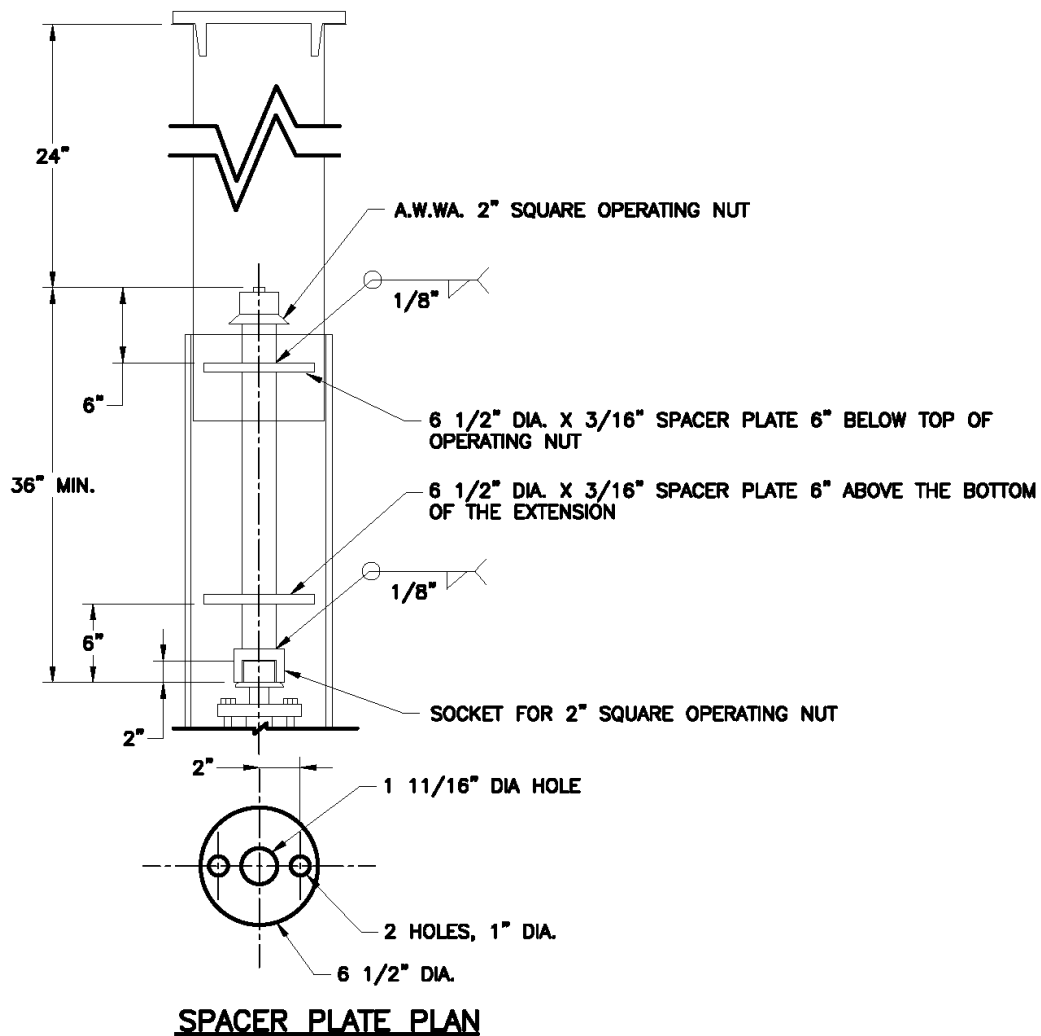
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NOTES:

1. PROVIDE VALVE STEM EXTENSION WHEN DEPTH TO OPERATING NUT EXCEEDS 60" (FABRICATE EXTENSION TO FIELD MEASUREMENT - SEE NOTE 2)
2. NO VALVE STEM EXTENSION SHALL BE LESS THAN 3 FEET IN LENGTH UNLESS APPROVED BY DISTRICT ENGINEER.
3. PROVIDE TWO SPACER PLATES. FIRST PLATE IS 6" DOWN FROM TOP OF EXTENSION. SECOND PLATE IS 6" UP FROM BOTTOM OF EXTENSION

VALVE STEM EXTENSION

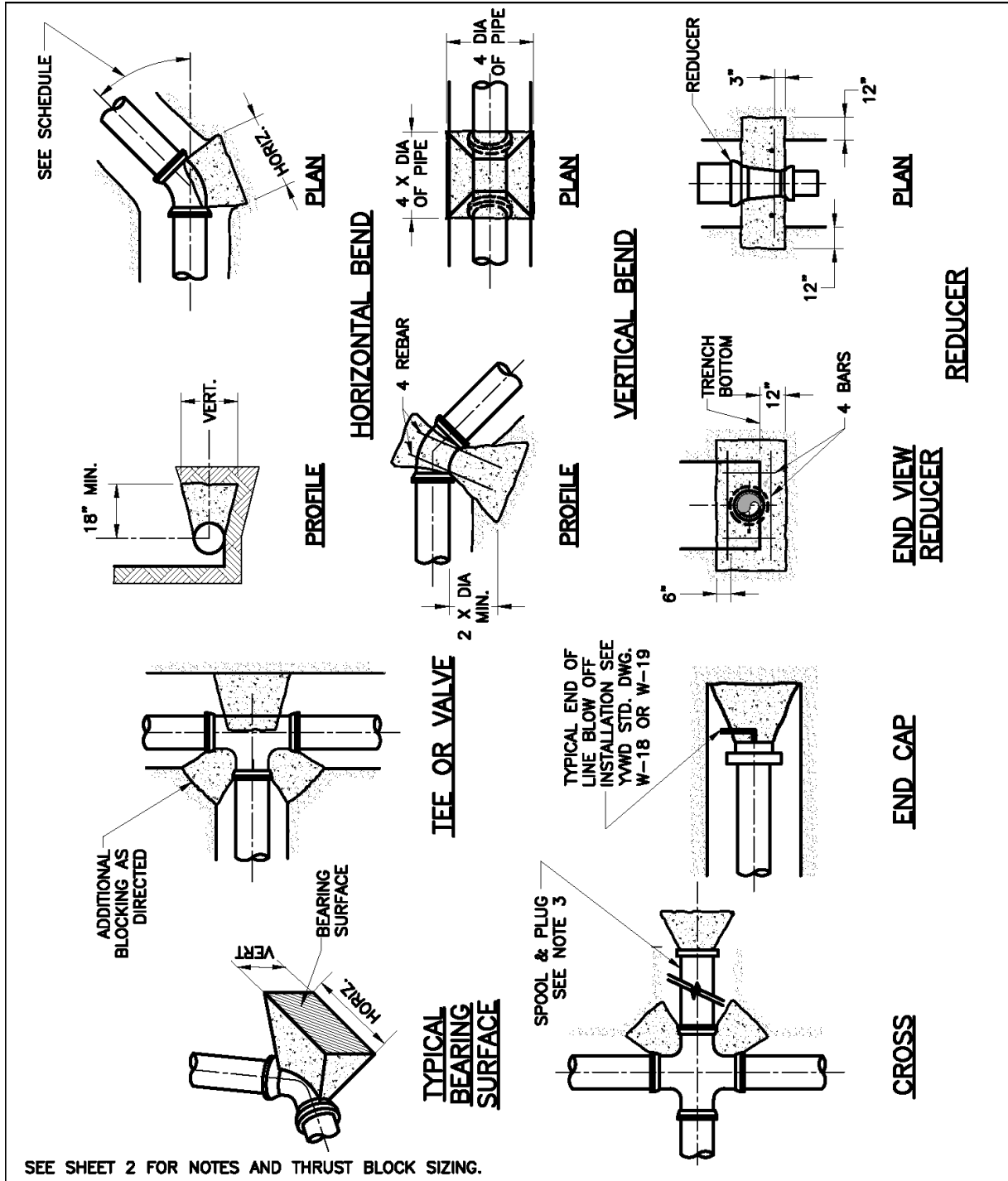
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SEE SHEET 2 FOR NOTES AND THRUST BLOCK SIZING.

THRUST BLOCK DETAILS FOR RETROFIT ONLY

2019



Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX

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MINIMUM SIZE OF THRUST BLOCK BEARING SURFACE							
PIPE SIZE	END CAP.		TEE	90° BEND	45° BEND	22 1/2" BEND	11 1/4" BEND
	HORIZ.	VERT.	HORIZ. VERT.	HORIZ. VERT.	HORIZ. VERT.	HORIZ. VERT.	HORIZ. VERT.
4"	1'-6"	1'-6"	1'-6" 1'-0"	2'-3" 1'-3"	1'-6" 1'-0"	1'-6" 0'-9"	1'-6" 0'-9"
6"	2'-6"	1'-9"	4'-0" 2'-0"	4'-6" 2'-3"	3'-6" 1'-6"	2'-6" 1'-0"	2'-6" 1'-0"
8"	3'-9"	2'-0"	5'-0" 2'-6"	5'-6" 3'-0"	4'-3" 2'-3"	3'-0" 1'-6"	3'-0" 1'-6"
10"	4'-6"	2'-6"	5'-6" 3'-3"	7'-0" 3'-6"	5'-0" 2'-9"	3'-9" 1'-9"	3'-9" 1'-9"
12"	5'-3"	3'-0"	7'-0" 3'-6"	8'-3" 4'-0"	5'-6" 3'-6"	4'-3" 2'-3"	4'-3" 2'-3"

NOTES:

- THRUST BLOCK BEARING AREA BASED ON ALLOWABLE SOIL BEARING VALUE OF 1500 psf PRESSURE AND 225 psi LINE PRESSURE WITH 3'-0" COVER MINIMUM.
FOR BEARING = 1000 psf, 1.5 X AREA SHOWN
FOR BEARING = 500 psf, 3.0 X AREA SHOWN
- ALL THRUST BLOCKS SHALL BE 3,250 PSI CONCRETE AND PLACED AGAINST UNDISTURBED SOIL. DESIGN ENGINEER SHALL DETERMINE SIZES NOT SHOWN.
- THRUST BLOCKS ON CROSSES SHALL BE USED ONLY WHEN THERE IS A STUB-OUT ON ONE OR MORE SIDES.
- REINFORCING STEEL SHALL CONFORM TO ASTM A15 AND A305 INTERMEDIATE GRADE.
- CONCRETE SHALL NOT EXTEND ONTO FLANGE OR ADJOINING PIPE.
- ALL FITTINGS SHALL BE WRAPPED WITH 10 MIL PLASTIC.
- ALL FITTINGS SHALL BE MECHANICALLY RESTRAINED UNLESS APPROVED BY YVWD.

THRUST BLOCK DETAILS FOR RETROFIT ONLY

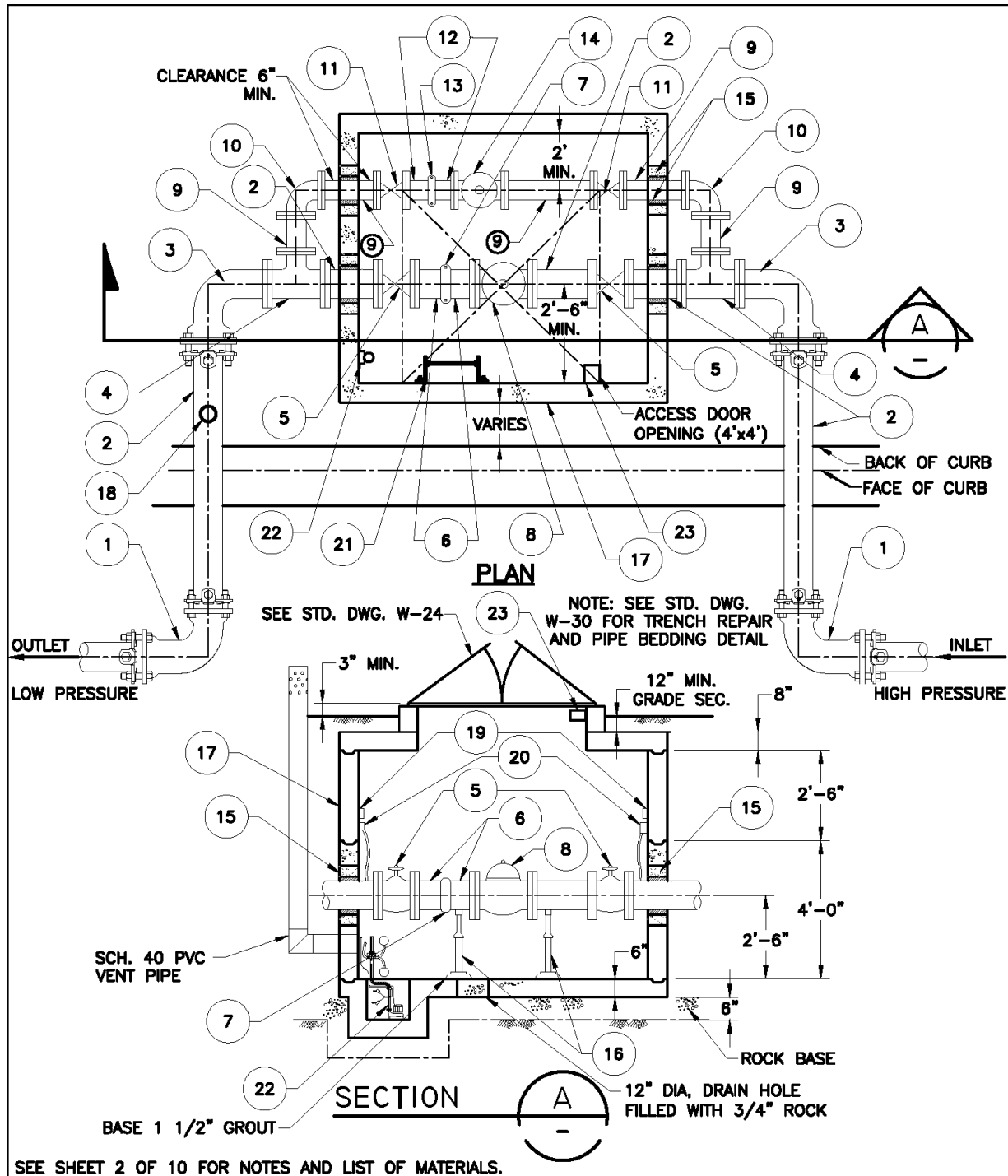
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SEE SHEET 2 OF 10 FOR NOTES AND LIST OF MATERIALS.

PRESSURE REDUCING STATION TYPICAL ASSEMBLY – FINAL DESIGN BY ENGINEER


2019	 <p style="font-size: 1.2em;">Yucaipa Valley Water District</p>	<p style="font-size: 0.9em;">Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX</p>	W-23
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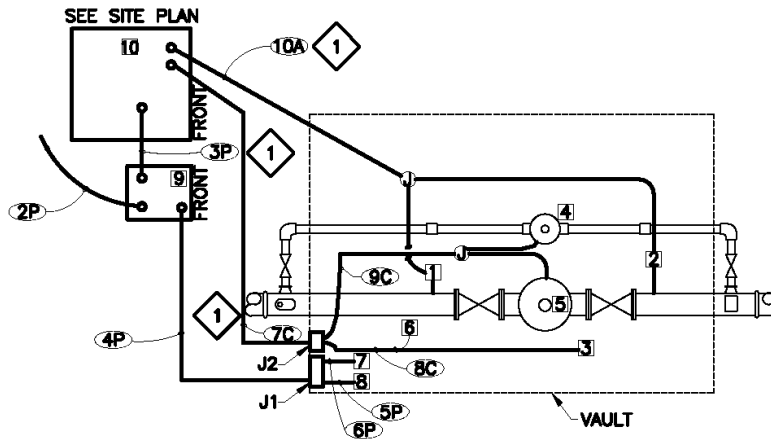
LIST OF MATERIALS		
ITEM	QUANTITY	DESCRIPTION
MAIN LINE		
1	2 EA	D.I.P. 90° ELBOW, MJ X MJ, RESTRAINED
2	5 EA	D.I.P. SPOOL, LENGTH AS REQUIRED, RESTRAINED
3	2 EA	D.I.P. 90° ELBOW, MJ X FLG
4	2 EA	FLANGED TEE D.I.
5	2 EA	RESILIENT SEAT GATE VALVE
6	2 EA	FLG x GROOVED-END SPOOL, VICTAULIC
7	1 EA	GROOVED-END COUPLING, VICTAULIC
8	1 EA	PRESSURE REDUCING VALVE, W/FULL CLOSED POSITION SWITCH. MANUFACTURED BY CLA-VAL COMPANY ONLY.
15	4 EA	1" SPONGE RUBBER SEAL AROUND PIPE. DRYPACK WITH CONCRETE MORTAR
16	4 EA	ADJUSTABLE PIPE SUPPORT. SEE YVWD STD. DWG. W-25
BY-PASS LINE		
9	5 EA	D.I. SPOOL, LENGTH AS REQUIRED, FLG'D ENDS
10	2 EA	FLG x FLG D.I. 90° ELL
11	2 EA	RESILIENT SEATED GATE VALVE
12	2 EA	FLG x GROOVED-END SPOOL, VICTAULIC
13	1 EA	GROOVED-END COUPLING, VICTAULIC
14	1 EA	PRESSURE REDUCING VALVE, W/FULL CLOSED POSITION SWITCH.
MISCELLANEOUS		
17	1 EA	PRECAST CONCRETE VAULT 6'-0"x8'-0" OR 6'-0"x10'-0" WITH 4'x4" HATCH. PROVIDE DIAMOND PLATE ALUMINUM ACCESS DOORS WITH RECESSED PADLOCK HASP.
18	1 EA	1" AIR VAC DOWNSTREAM OR LOW PRESSURE SIDE OF CLAY-VAL STATION PER YVWD STD. DWG. W-15
19	2 EA	PRESSURE GAUGE (ASHCROFT 0-150 PSI)
20	2 EA	PRESSURE TRANSMITTER, PER W-23 SHEET 10 OF 10
21	1 EA	GALV. STEEL LADDER (ALHAMBRA FOUNDRY) W/LADDER UP AND SS ANCHOR BOLTS
22	1 EA	FLOOD LEVEL SWITCH & SUMP PUMP. NO SUMP PUMP REQUIRED IF A POSITIVE CONNECTION TO STORM DRAIN IS PROVIDED.
23	1 EA	DOOR ENTRY SWITCH, PER W-23 SHEET 9 OF 10

NOTE:

1. THESE DRAWINGS ARE GENERAL IN NATURE AND MAY NEED TO BE MODIFIED TO FIT SPECIFIC SITE REQUIREMENTS.

PRESSURE REDUCING STATION TYPICAL ASSEMBLY – FINAL DESIGN BY ENGINEER

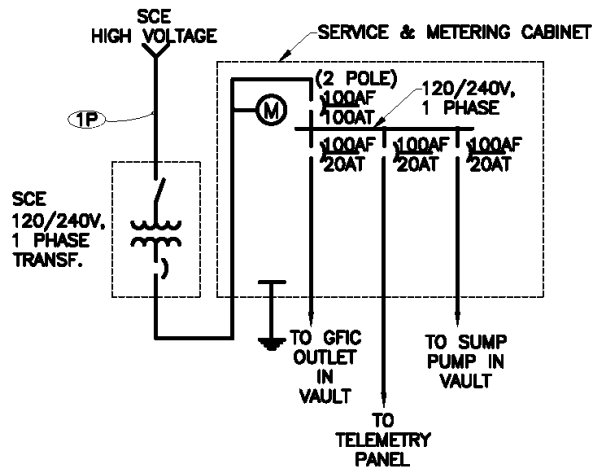
2019	 <p style="margin: 0;">Yucaipa Valley Water District</p>	<p style="margin: 0; font-size: 0.9em;">Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX</p>	W-23
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PRESSURE REDUCING STATION ELECTRICAL PLAN

NOT TO SCALE

SEE SITE PLAN FOR LOCATION OF POWER AND TELEPHONE SERVICES



SINGLE LINE DIAGRAM

SEE SHEET 5 OF 10 FOR CONDUIT SCHEDULE AND SHEET 6 OF 10 FOR LIST OF ELECTRICAL COMPONENTS AND NOTES.

PRESSURE REDUCING STATION ELECTRICAL DIAGRAM AND DETAILS

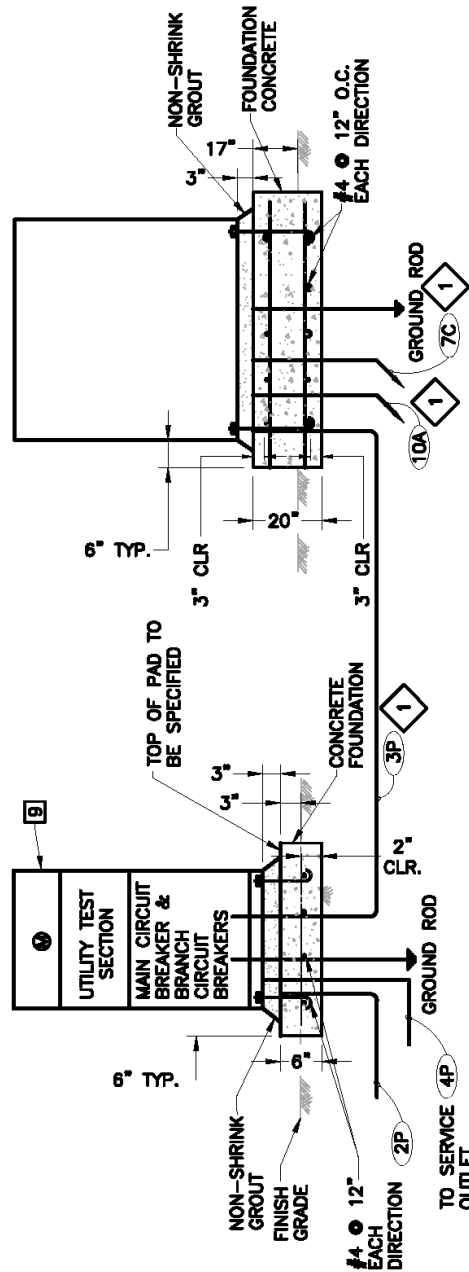
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TELEMETRY CABINET - ELEVATION
SCALE: NONE

**SERVICE & METERING CABINET
ELEVATION**
SCALE: NONE

**PRESSURE REDUCING STATION
ELECTRICAL DIAGRAM AND DETAILS**

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CONDUIT SCHEDULE

SYMBOL	CONDUIT		WIRE	DESCRIPTION	LOCATION		REMARKS
	QTY.	SIZE			FROM	TO	
1P	1	4"	C.O.	POWER	SCE XFMR	EXISTING SCE POWER	IF REQ'D
2P	1	2"	C.O.	POWER	SCE XFMR	SYS & MTR CAB	120/240 SVS FDR
3P	1	3/4"	2#12&1#12 GND	POWER	SYS & MTR CAB	TELEMETRY CAB	SEE NOTE
4P	1	3/4"	4#12&1#12 GND	POWER	SYS & MTR CAB	PULL BOX J1	SUMP PUMP & OUTLET
5P	1	3/4"	2#12&1#12 GND	POWER	PULL BOX J1	OUTLET W/GFI	
6P	1	3/4"	2#12&1#12 GND	POWER	PULL BOX J1	SUMP PUMP & CONTROLS	
7C	1	1"	8#14&1#12 GND	CONTROL	TELEMETRY CAB	PULL BOX J2	SEE NOTE
8C	1	3/4"	4#14&1#12 GND	CONTROL	PULL BOX J2	XS-1,LS-1	
9C	1	3/4"	4#14&1#12 GND	CONTROL	PULL BOX J2	XS-2,XS-3	
10A	1	1"	2,2/C#18 SH.&1#12GND	CONTROL	TELEMETRY CAB	PT-1,PT-2	SEE NOTE

**PRESSURE REDUCING STATION
ELECTRICAL DIAGRAM AND DETAILS**

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ELECTRICAL COMPONENTS					
ITEM NO.	DEVICE ID.	DESCRIPTION	MANUFACTURE	MODEL NUMBER	REMARKS
1	PT-1	DOWNSTREAM PRESS. XMTR	ROSE MOUNT	#3051CG-X-A22 AU-M6210-S-140	150/250 PSI
2	PT-2	UPSTREAM PRESS. XMTR	ROSE MOUNT	#3051CG-X-A22 AU-M6210-S-140	150/250 PSI
3	XS-1	HATCH ENTRY SWITCH	ALLEN BRADLEY	ESODRI	W/CUTLER HAMMER ROLLER #E50KLS46
4	XS-2	STEM POS. SWITCH (CLOSED)			SUP. W/VALVE
5	XS-3	STEM POS. SWITCH (CLOSED)			SUP. W/VALVE
6	LS-1	VAULT FLOODED SWITCH	GEMS	LS270	
7	P-1	SUMP PUMP AND CONTROLS	ZOELLER	GRANGER CAT. #2P547	
8	NA	SERVICE OUTLET WITH GFI	NA		20A
9	NA	SERVICE AND METERING CAB	MEYERS	MEUCQ100	120/240 V, 100A
10	NA	TELEMETRY CABINET			SEE YWID SDT DWG W-23D, DETAIL A

NOTE:
 COIL 3" OF CONDUCTORS 3P, 7C, AND 10A IN TELEMETRY PANEL.

PRESSURE REDUCING STATION ELECTRICAL DIAGRAM AND DETAILS

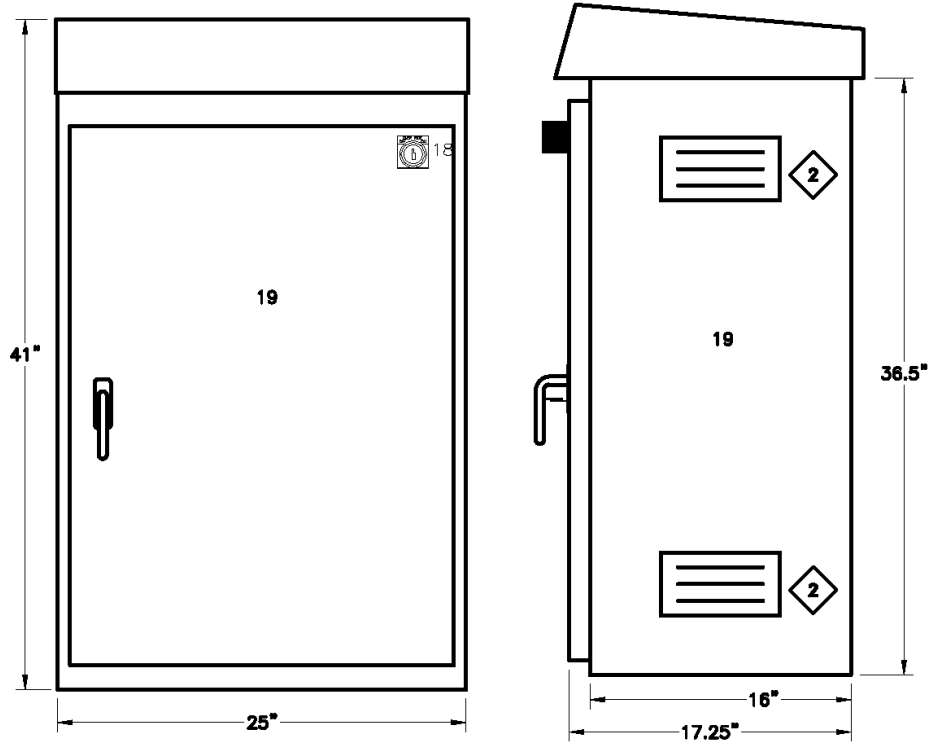
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NOTES:

- 1** PROVIDE CABINET WITH SUB BACK PANEL.
- 2** PROVIDE VENTILATION WITH LOUVERS TOP AND BOTTOM.
- 3** CREATE POSITIVE PRESSURE WITH SUPPLY FAN ON THERMOSTAT.

**PRESSURE REDUCING STATION
TELEMETRY DETAILS**

2019



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LIST OF TELEMETRY CABINET COMPONENTS					
ITEM NO.	QTY.	DESCRIPTION	PART NUMBER	MANUFACTURER	TYPE
1	1				
1	2	MULTIPLEXER	245-19	BIF/AQUA	FREQ. T.B.D.
1	1	TRANSMITTER	245-05	BIF/AQUA	FREQ. T.B.D.
1	1	RECEIVER	245-09	BIF/AQUA	FREQ. T.B.D.
1	1	DEMULTIPLEXER	245-20	BIF/AQUA	FREQ. T.B.D.
2	1	DC POWER SUPPLY	HC-28-2-A	POWER-ONE	28VDC, 2A
3	3	CONTROL RELAYS	RR2P-UL-120	IDEC	2PDT
4	1	TIME DELAY RELAY	TCB-115-2-10	R-K	ON DELAY
4	2	TIME DELAY RELAY	TFB-115-2-180	R-K	OFF DELAY
5	1	LOW VOLTAGE PROTECTOR	258-40	BIF/AQUA	ELECTRONIC
6	8	POWER/SIGNAL TERM.	1492-CA1	ALLEN-BRADLEY	600V, 55A
7	1	LINE SURGE PROTECTOR	245-23	BIF/AQUA	ELECTRONIC
8	1	POWER TRANSFER UNIT	258-36	BIF/AQUA	ELECTRONIC
9	8	POWER/SIGNAL TERM.	1492-CA1	ALLEN-BRADLEY	600V, 55A
10	48	TELEMETRY TERMINALS	UK4	PHOENIX	600V, 20A
11	1	UTILITY RECEPTACLE	1591FI	PASS & SEYMOUR	GFI 15A
12	1	TELEPHONE CO. RECPT.	GE5251-2	G.E.	SIMPLEX 15A
13	1	SPACE HEATER	D-AH4001B	HOFFMAN	400 WATT
14	4	GELL CELL BATTERY	NP24-12	YUASA-EXIDE	12V 24AH
15	1	PLYWOOD BAT. SUPPORT	N/A		
16	1	FLUORESCENT LIGHT	2V687/1V173	GRAINGER	15 WATT
17	1	INTRUSION LIGHT SWITCH	10316H2042	CUTLER-HAMMER	LIMIT SWITCH
18	1	INTRUSION AL. OVERRIDE	10250T15113	CUTLER-HAMMER	2 POS. SEL SW.
19	1	TELEMETRY CABINET. THREE POINT PAD LOCKABLE DOOR HANDLE. SOLID BOTTOM.	LS412516AL	HENNESSY	NEMA 4X 5052-H32 ALUMINUM ALLOY 0.125" THICK
20	1	CIRCUIT BREAKER	1492-CB1H20	ALLEN-BRADLEY	20A ONE POLE

PRESSURE REDUCING STATION TELEMETRY DETAILS

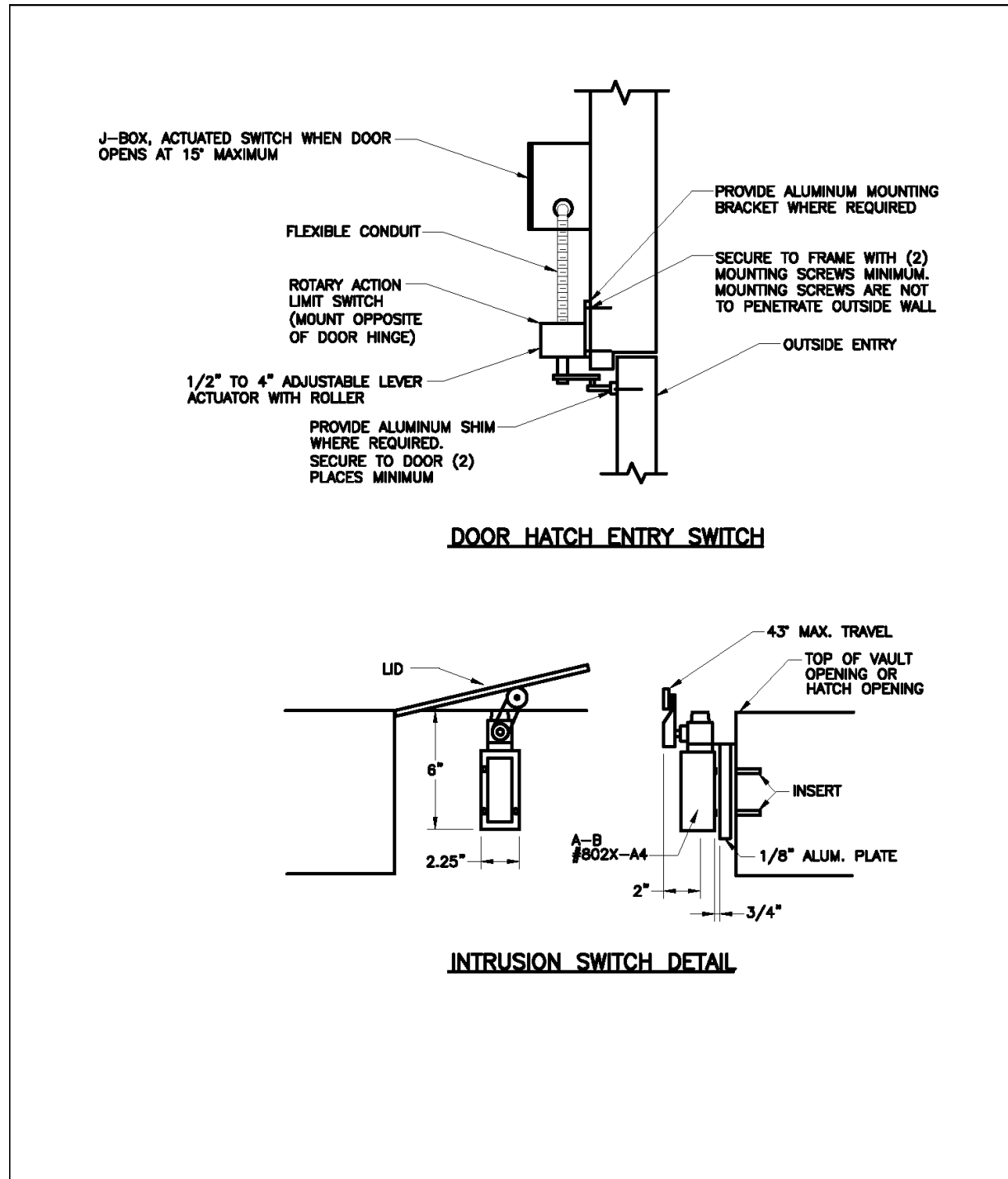
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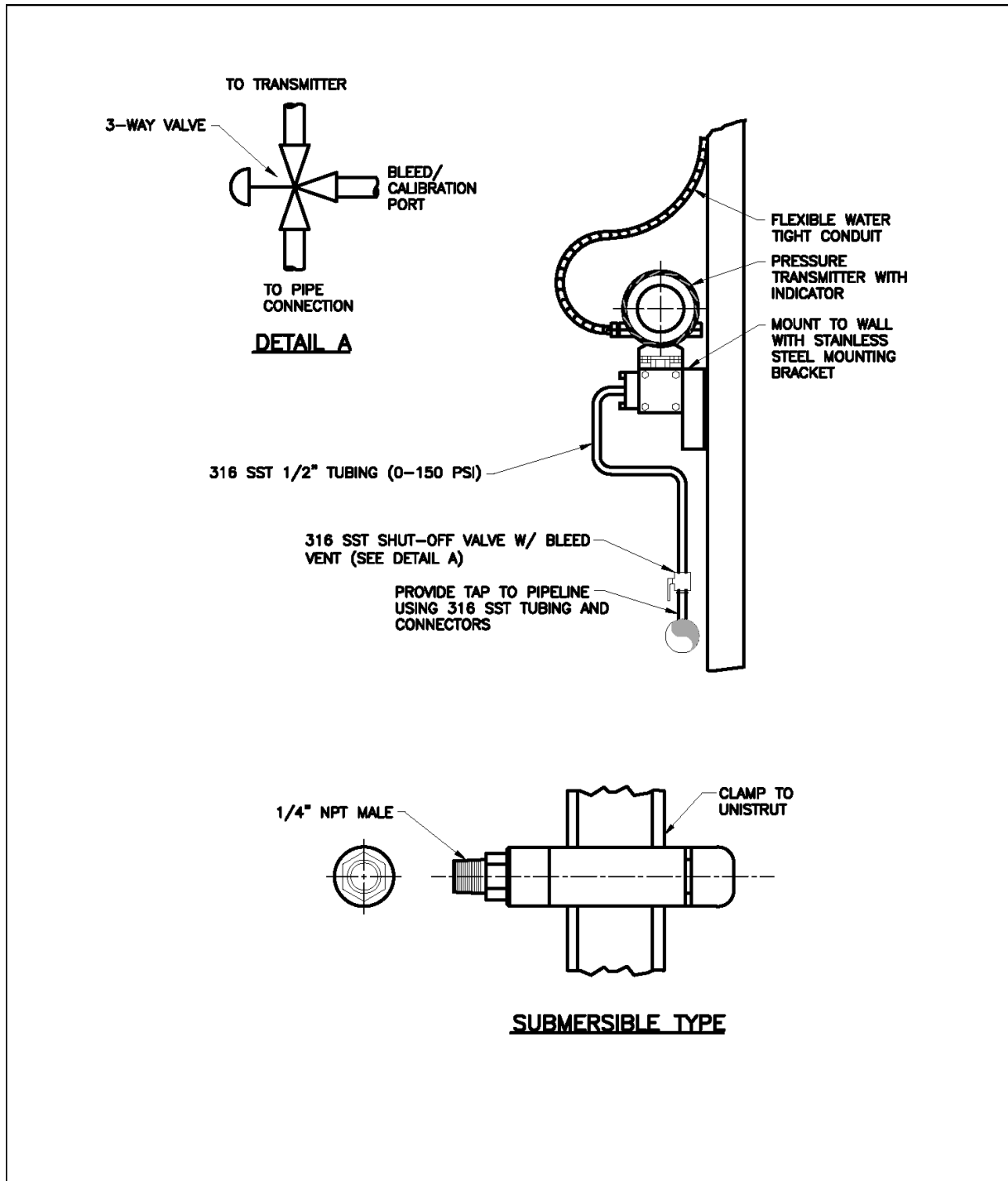
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PRESSURE REDUCING STATION ENTRY SWITCH DETAILS

<p>2019</p>	 <p>Yucaipa Valley Water District</p> <p>Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX</p>	<p>W-23</p> <p>Sheet 9 of 10</p>
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**PRESSURE REDUCING STATION
PRESSURE TRANSMITTER INSTALLATION DETAILS**

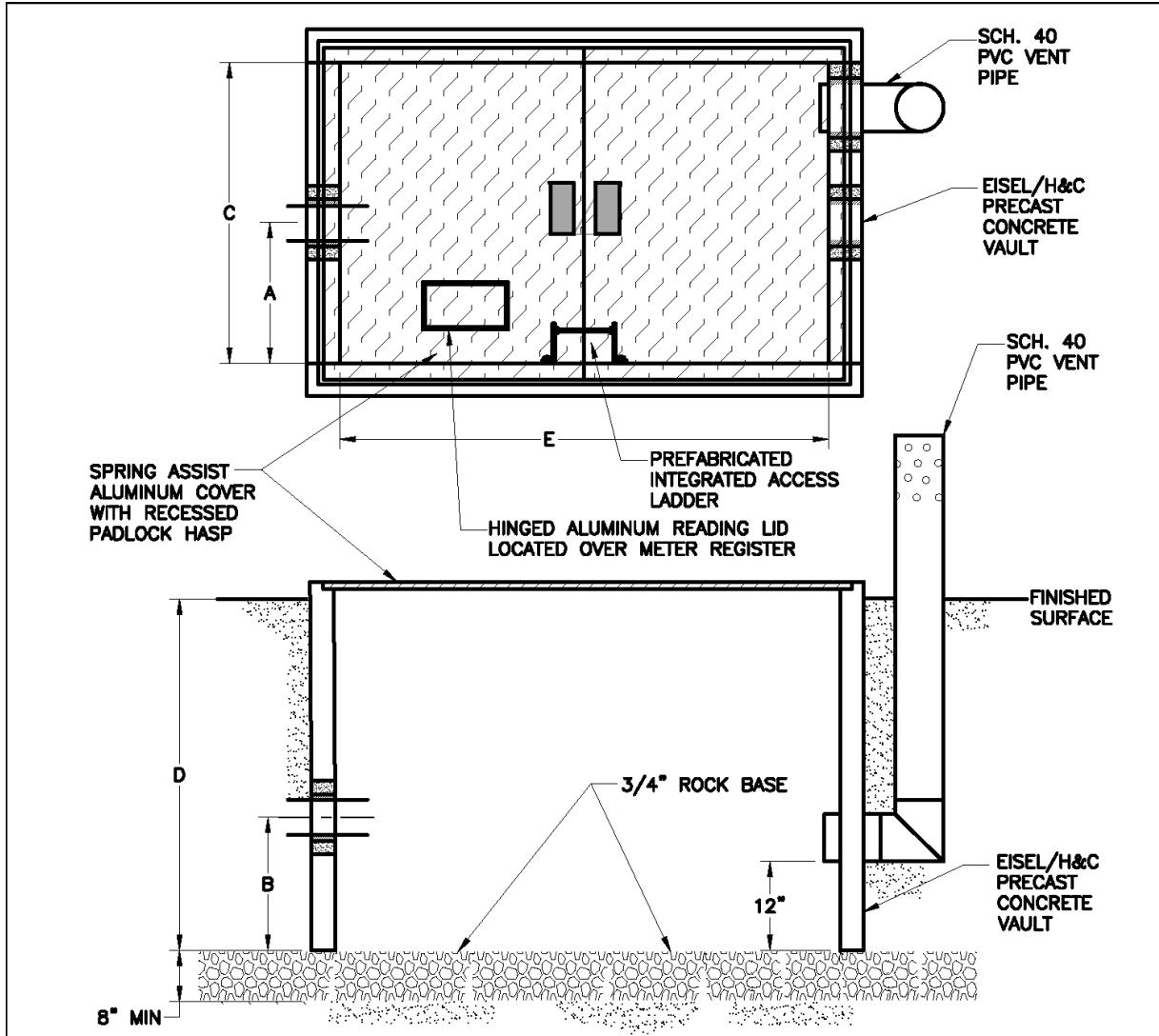
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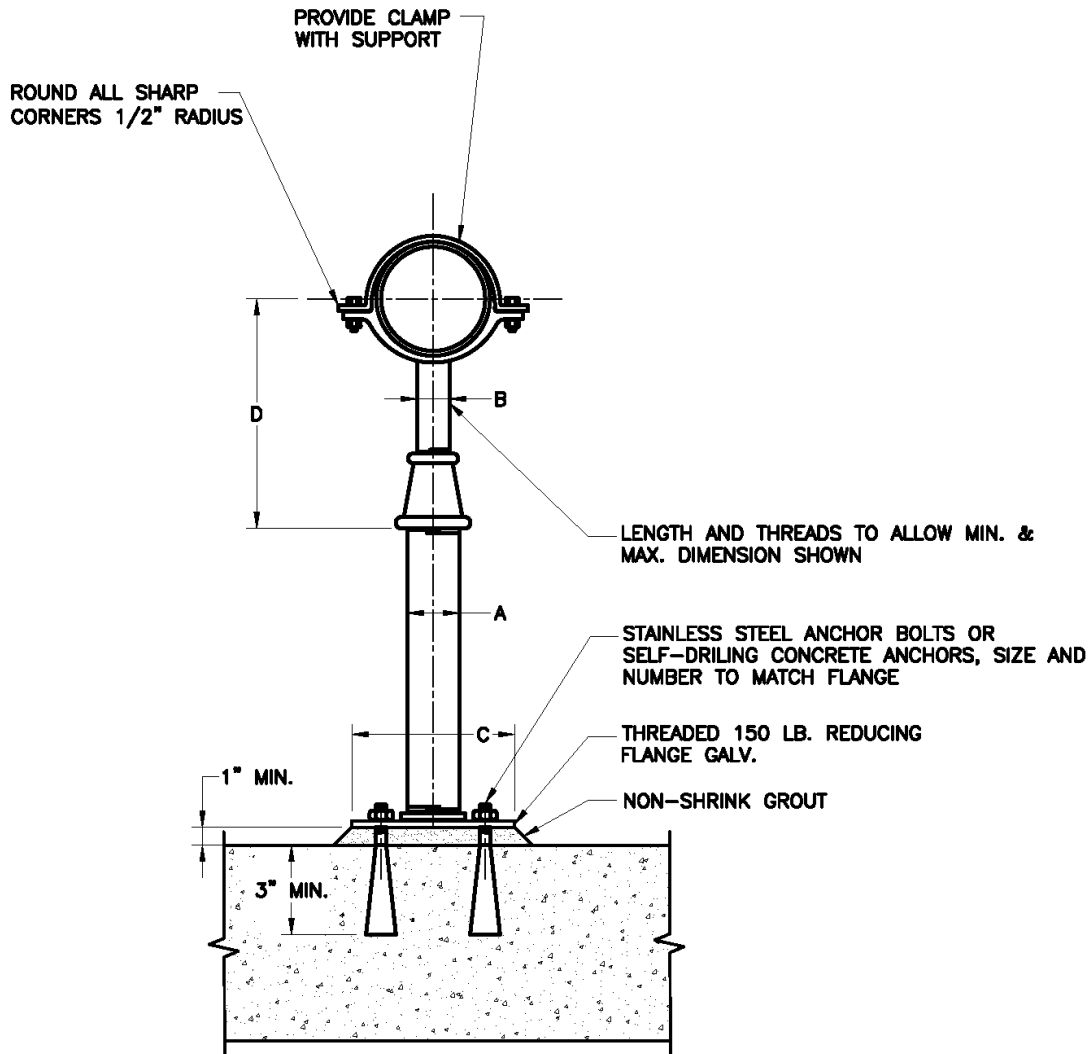
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UNDERGROUND INSTALLATIONS						
PIPE SIZE	A	B	C	D	E	VAULT DIM
3"	24"	18"	4'	5'	6'	4'x6'
4"	24"	18"	4'	5'	6'	4'x6'
6"	24"	18"	4'	5'	8'	4'x8'
8"	24"	18"	4'	5'	12'	4'x12'
12"	36"	18"	6'	5'	12'	6'x12'

PREFABRICATED VAULT WITH LID AND VENT ASSEMBLY

2019	 <p style="margin: 0;">Yucaipa Valley Water District</p>	Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX	W-24
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NOTE:

1. PIPE SUPPORT SHALL BE GRINNEL FIG. 264, ELCEN FIG. 50, OR EQUAL.

ADJUSTABLE PIPE SUPPORT

2019



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Valley Water District Board of
Directors on October 1, 2019
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ADJUSTABLE PIPE SADDLE SUPPORT SCHEDULE DIMENSIONS IN INCHES					
PIPE SIZE	A	B	C	D	
				MINIMUM	MINIMUM
2 1/2	2 1/2	1 1/2	9	8	13
3	2 1/2	1 1/2	9	8 1/2	13 1/2
3 1/2	2 1/2	1 1/2	9	8 1/2	13 1/2
4	3	2 1/2	9	9 1/2	14
6	3	2 1/2	9	10 1/2	15 1/2
8	3	2 1/2	9	11 1/2	16 1/2
10	3	2 1/2	9	13 1/2	18 1/2
12	3	2 1/2	9	15	19 1/2
14	4	3	11	16 1/2	20 1/2
16	4	3	11	17 1/2	22 1/2
18	6	3 1/2	13 1/2	19 1/2	24
20	6	3 1/2	13 1/2	21	25 1/2
24	6	4	13 1/2	23 1/2	28 1/2
30	6	4	13 1/2	27	31 1/2
32	6	4	13 1/2	28 1/2	32 1/2
36	6	4	13 1/2	30 1/2	34 1/2

ADJUSTABLE PIPE SUPPORT

2019



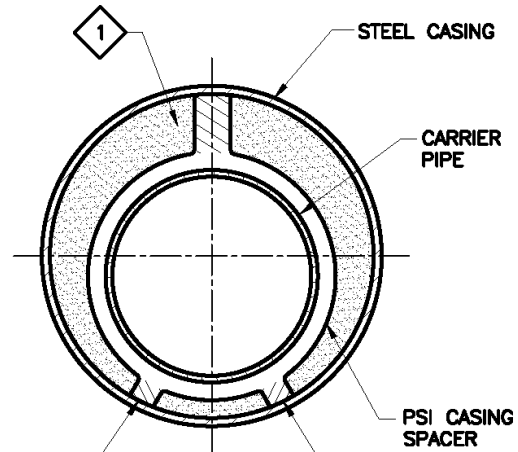
Yucaipa Valley
Water District

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Valley Water District Board of
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SCHEDULE STEEL CASING		
NOMINAL CARRIER PIPE SIZE	MINIMUM CASING SIZE	MIN. WALL THICK.
4"	10 3/4 O.D.	1/4"
6"	12 3/4 O.D.	1/4"
8"	16" O.D.	5/16"
12"	24" O.D.	3/8"
16"	30" O.D.	3/8"
20"	36" O.D.	3/8"
24"	36" O.D.	3/8"
30"	42" O.D.	3/8"



NOTES:

- 1 THE ANNULAR SPACE BETWEEN THE CASING AND THE CARRIER PIPE SHALL BE FILLED WITH AIR-BLOWN SAND.
2. CASING SHALL BE INSTALLED BY THE BORE, JACK AND/OR TUNNEL METHOD.
3. SIZE AND THICKNESS OF CASING SHALL BE AS SHOWN IN SCHEDULE. FOR LONG BORES OR SPECIAL SITUATIONS, GREATER WALL THICKNESS THAN SHOWN IN THE SCHEDULE MAY BE REQUIRED.
4. ALL STEEL CASING PIPE FIELD JOINTS SHALL BE WELDED FULL-CIRCUMFERENCE.
5. PSI CASING SPACERS SHALL BE PROVIDED PER DETAIL ABOVE.
6. CARRIER PIPE SHALL BE PRESSURE TESTED PRIOR TO FILLING CASING.
7. EACH END OF CASING SHALL BE SEALED WITH CONCRETE.
8. CONTRACTOR SHALL FURNISH ALL NECESSARY THRUST RESTRAINT DEVICES.
9. BACK FILL FOR CASING IN OPEN CUT SHALL BE IN ACCORDANCE WITH YWWD STD. DWG. W-30.
10. PSI CASING SPACERS REQUIRED, SIZE PER PLAN.

STEEL CASING PIPE

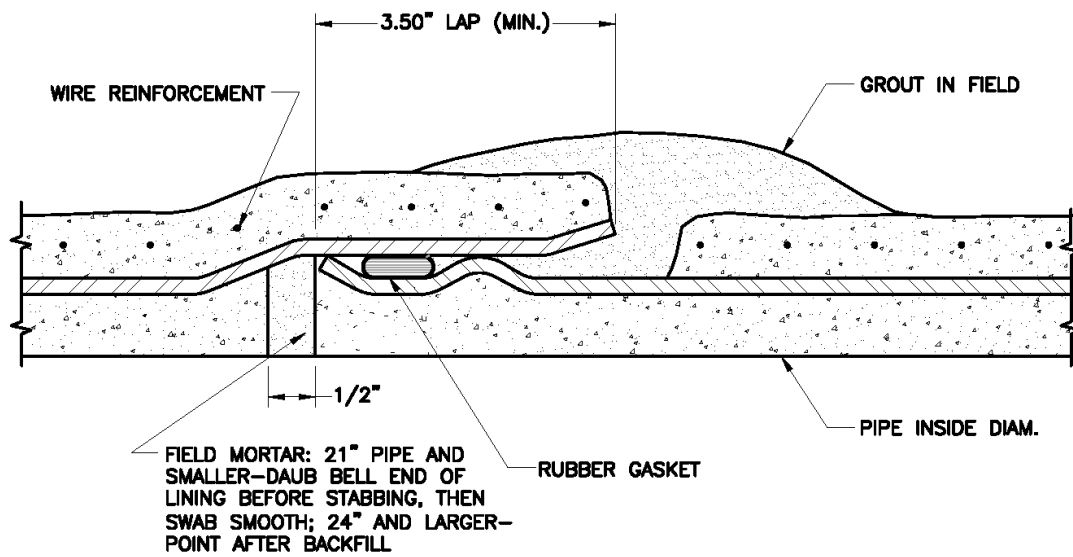
2019



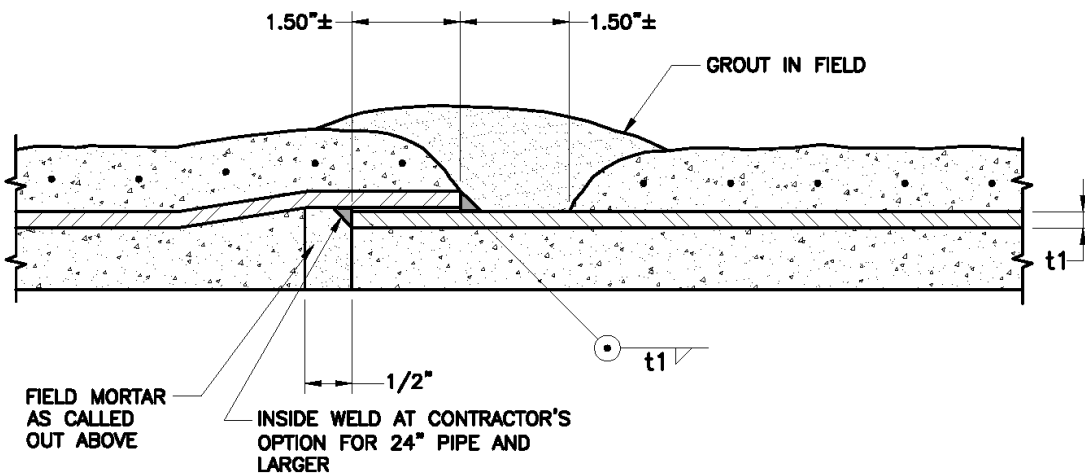
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BELL AND SPIGOT RUBBER GASKET JOINT



LAP WELDED SLIP JOINT

NOTES:

1. SEE SPECIFICATIONS FOR STEEL PIPE SHELL THICKNESS AND FOR MORTAR LINING AND COATING THICKNESS.
2. ALL WELDS 2 PASSES MINIMUM.

MORTAR LINED AND COATED STEEL PIPE JOINT DETAILS

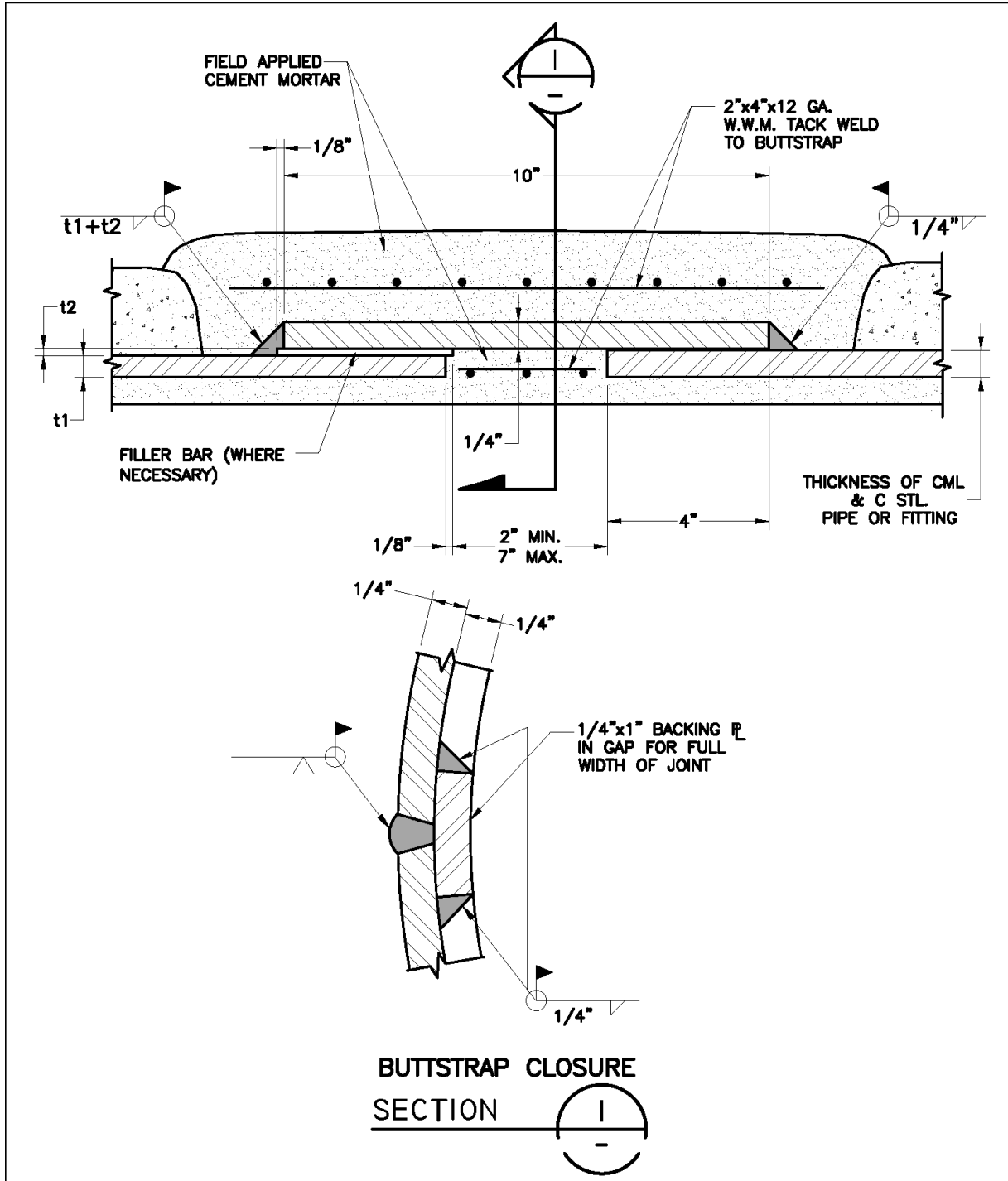
2019



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MORTAR LINED AND COATED STEEL PIPE CLOSURE DETAILS

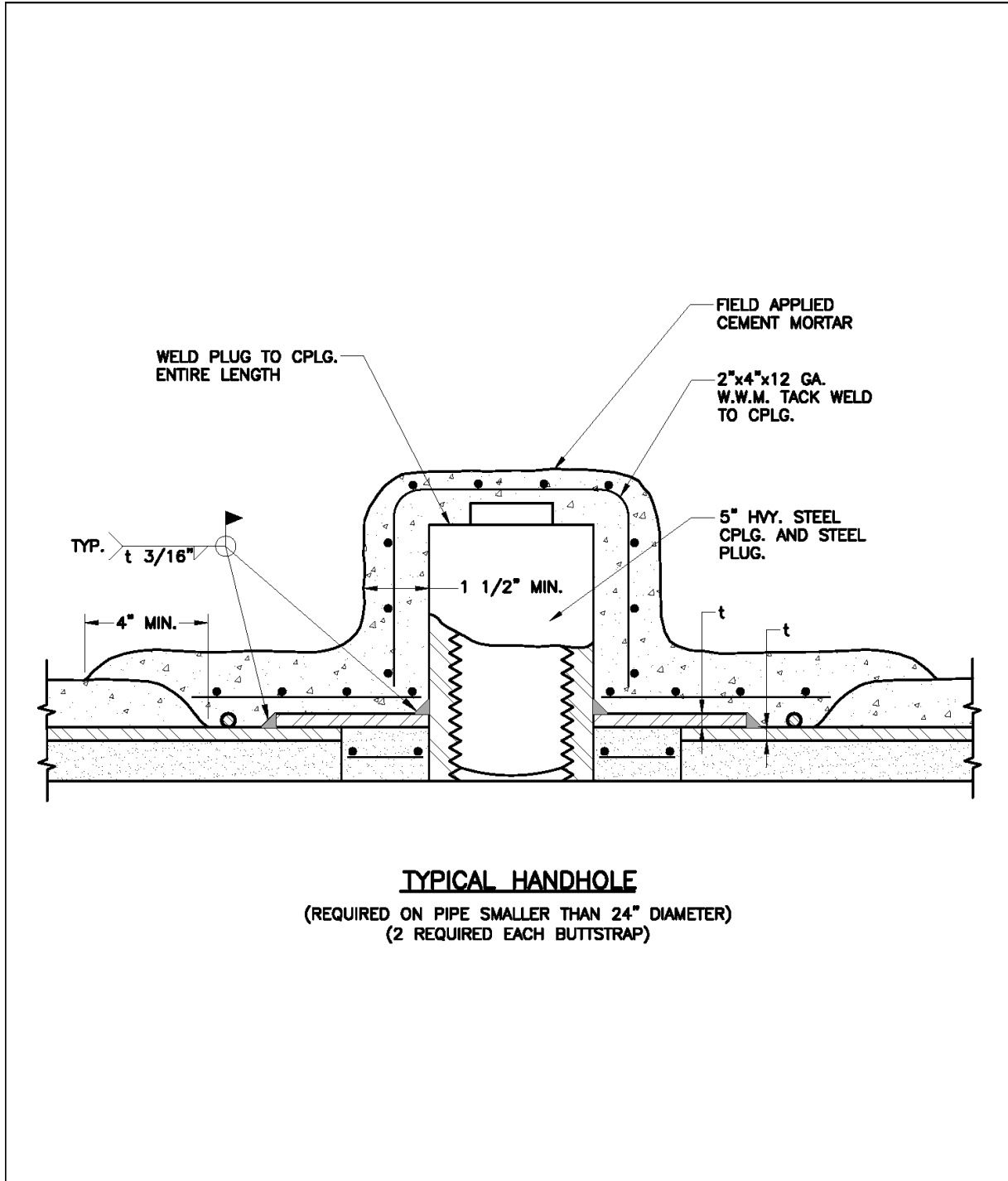
2019



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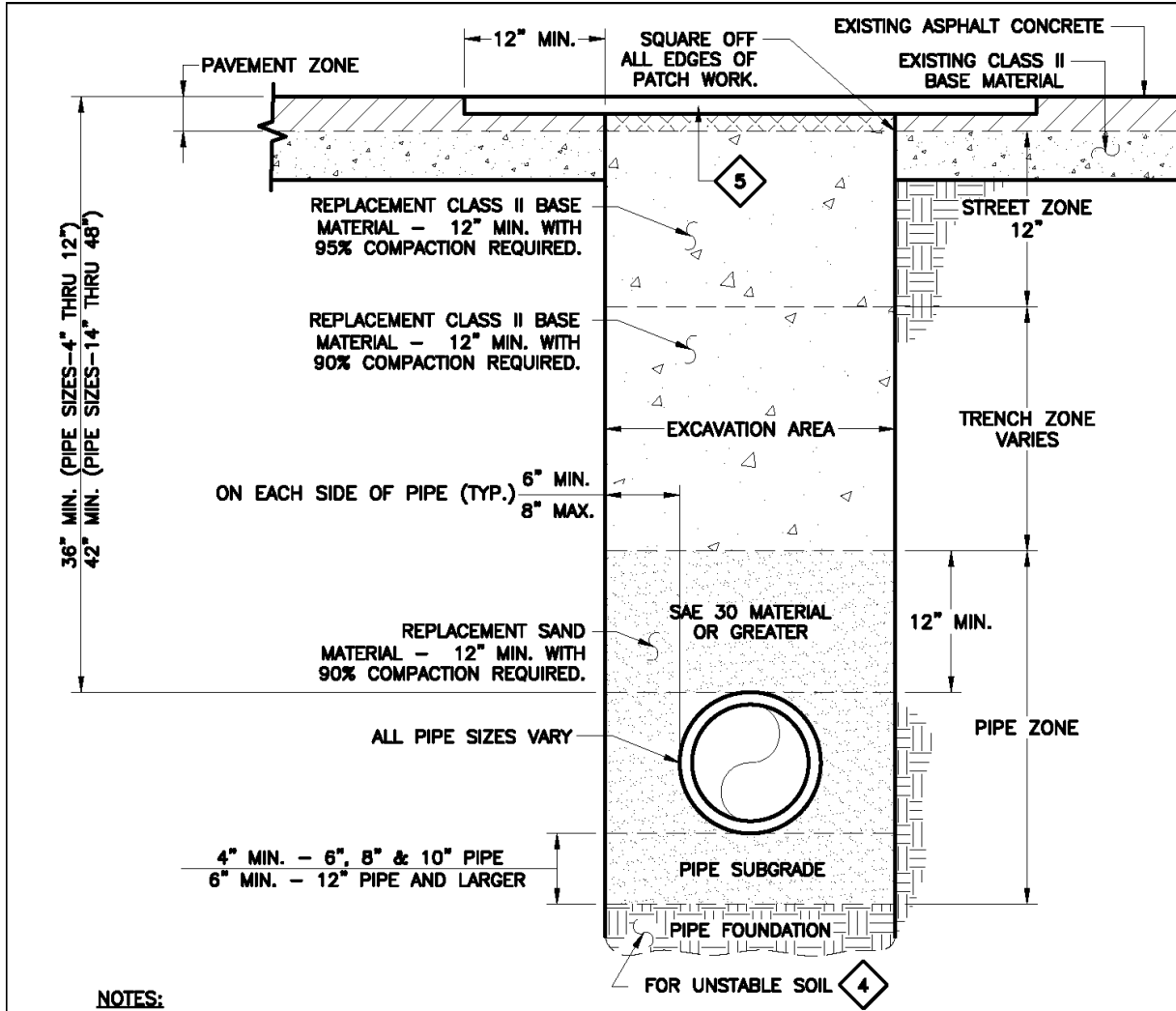
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TYPICAL HANDHOLE
 (REQUIRED ON PIPE SMALLER THAN 24" DIAMETER)
 (2 REQUIRED EACH BUTTSTRAP)

**MORTAR LINED AND COATED STEEL
 PIPE CLOSURE DETAILS**

<p>2019</p>	 <p>Yucaipa Valley Water District</p>	<p>Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX</p>	<p>W-28</p> <hr/> <p>Sheet 2 of 2</p>
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NOTES:

1. PLANT-MANUFACTURED SAND MATERIAL WITH AN SAE OF 30 OR GREATER SHALL BE USED FOR PIPE ZONE BACK FILL. REMAINING BACK FILL WILL BE IN ACCORDANCE WITH CITY/YVWD REQUIREMENTS (WHICH EVER IS GREATER)
2. BACKFILL UNDER EXISTING CURB WITHIN THE CITY OF YUCAIPA, MUST BE 2 SACK SLURRY PER CITY STANDARDS.
3. ADDITIONAL ARTERIAL STREET BACKFILL MAY BE REQUIRED BY APPROPRIATE CITY JURISDICTION.
4. IF UNSTABLE SOIL IS ENCOUNTERED, DISTRICT REPRESENTATIVE SHALL DETERMINE DEPTH OF REMOVAL AND SIZE OF FOUNDATION ROCK REFILL MATERIAL.
5. 1 1/4" THK MILL & CAP FOR PERMANENT PAVING REQUIREMENTS REFER TO STANDARD SPECIFICATIONS FOR THE APPROPRIATE CITY OR COUNTY OF JURISDICTION

SEE SHEET 2 OF 2 FOR PIPE VS. TRENCH SIZES.

TRENCH REPAIR AND PIPE BEDDING DETAIL

2019



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Sheet 1 of 2

TRENCH REPAIR—PIPE SIZE VS TRENCH SIZE		
PIPE SIZE—INCHES (INSIDE DIAMETER)	TRENCH WIDTH—INCHES	
	MINIMUM	MAXIMUM
4	18	24
6	20	30
8	24	32
10	24	36
12	30	36
14	32	42
16	34	42
24	38	46
29	42	46
30	46	48
36	-	-
48	-	-

TRENCH REPAIR DETAIL

2019

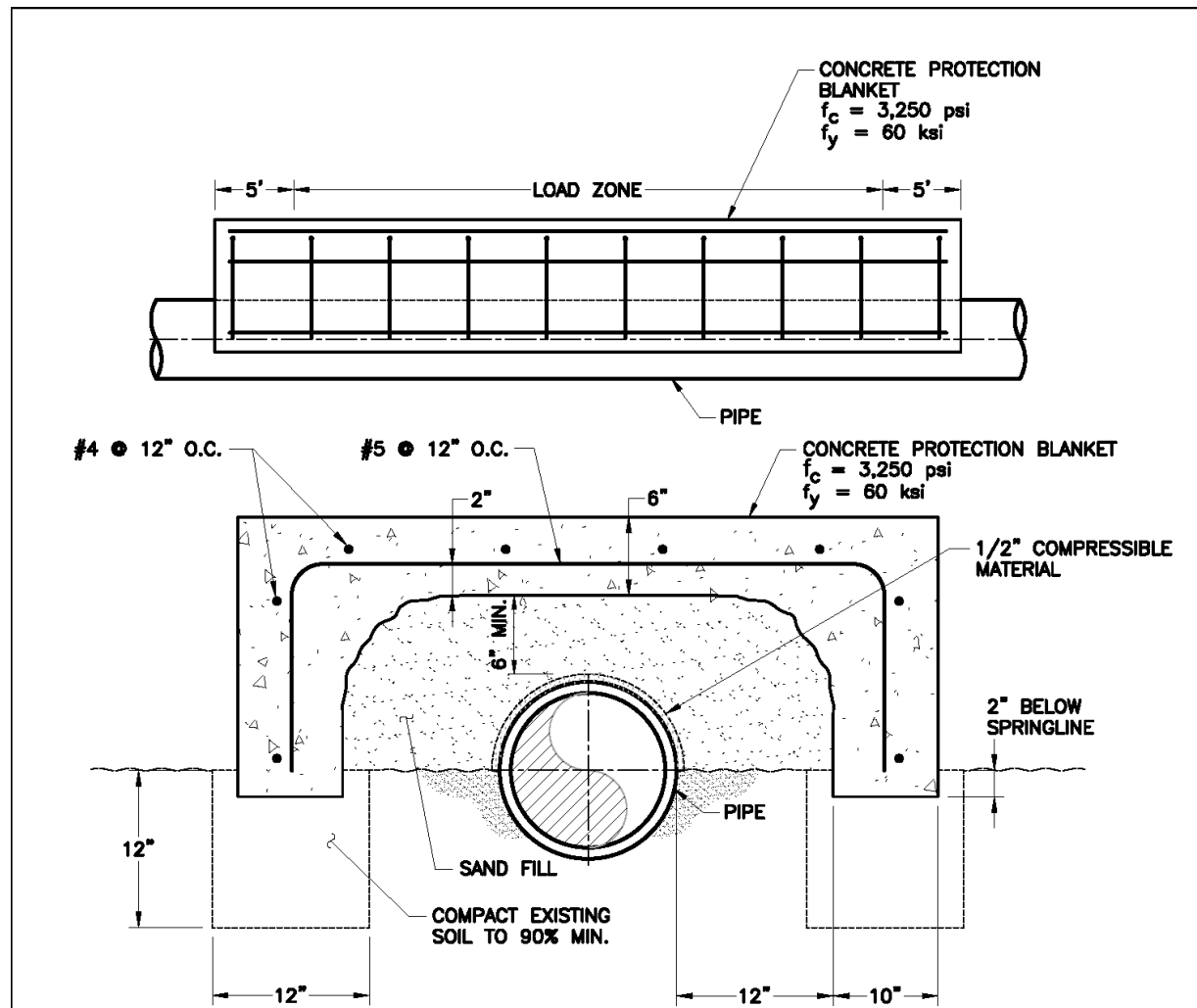


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Water District

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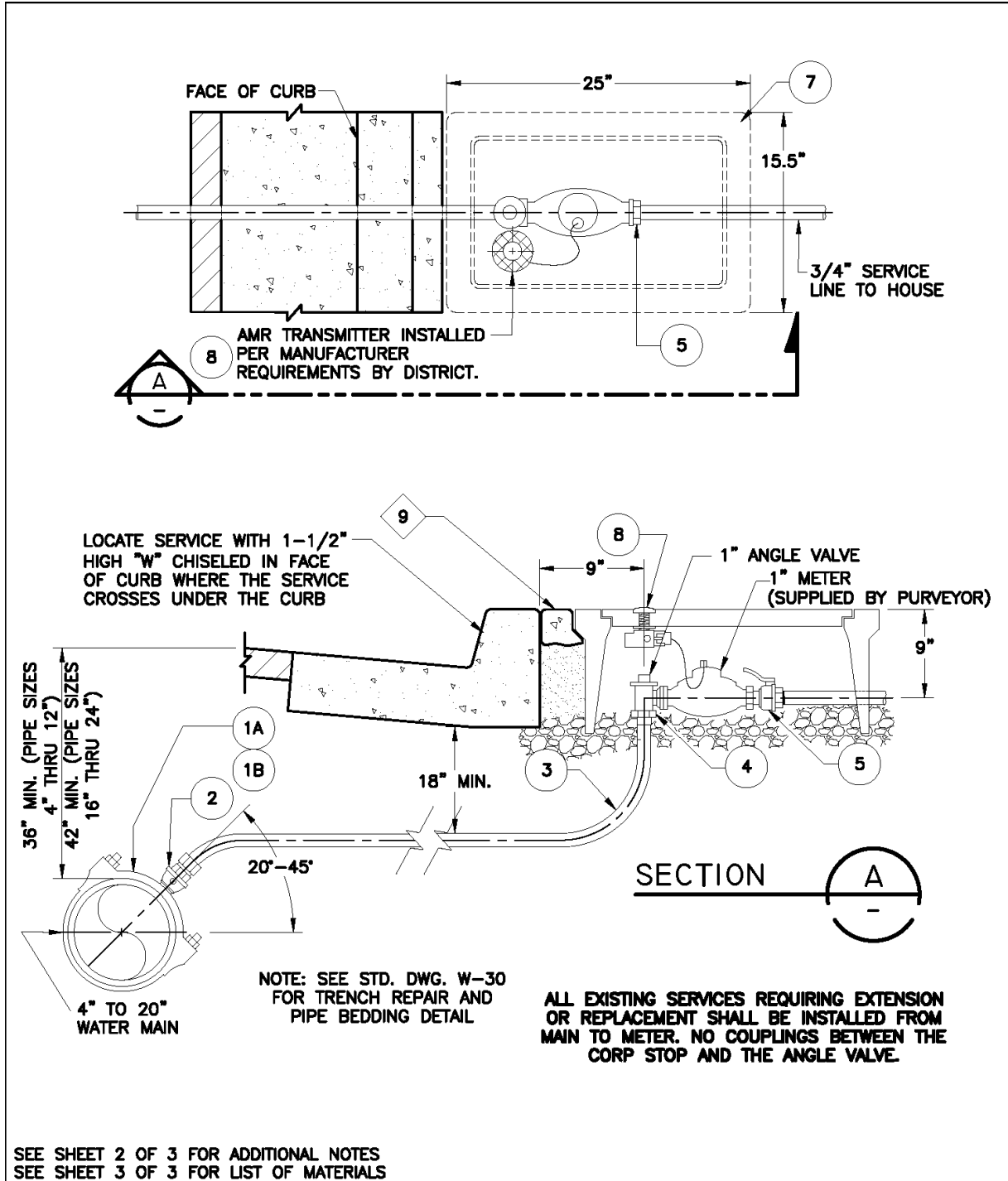


NOTES:

1. CONCRETE ENCASEMENT SHALL BE USED WHEN COVER IS LESS THAN 36".
2. ENCASEMENT TO BE PLACED AGAINST UNDISTURBED NATURAL GROUND OR FILL COMPACTED TO 90% RELATIVE DENSITY.
3. NO.4 AND NO.5 STEEL REINFORCING BARS SHALL BE USED AS SPECIFIED.
4. TYPE OF CONCRETE ENCASEMENT TO BE USED WILL BE SHOWN ON PLANS OR AS SPECIFIED BY DISTRICT REPRESENTATIVE TO MEET UNFORESEEN FIELD CONDITIONS. UNLESS NOTED OTHERWISE, ENCASEMENT SHALL BE 3,250 PSI CONCRETE.
5. WHERE SLOPED TRENCHES ARE USED, WALLS WILL NOT BEGIN TO SLOPE CLOSER THAN 12" FROM THE TOP OF THE PIPE.

WATER PIPELINE PROTECTION DETAIL

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RETROFIT FOR EXISTING 3/4 AND 1 INCH DRINKING WATER SERVICE

2019



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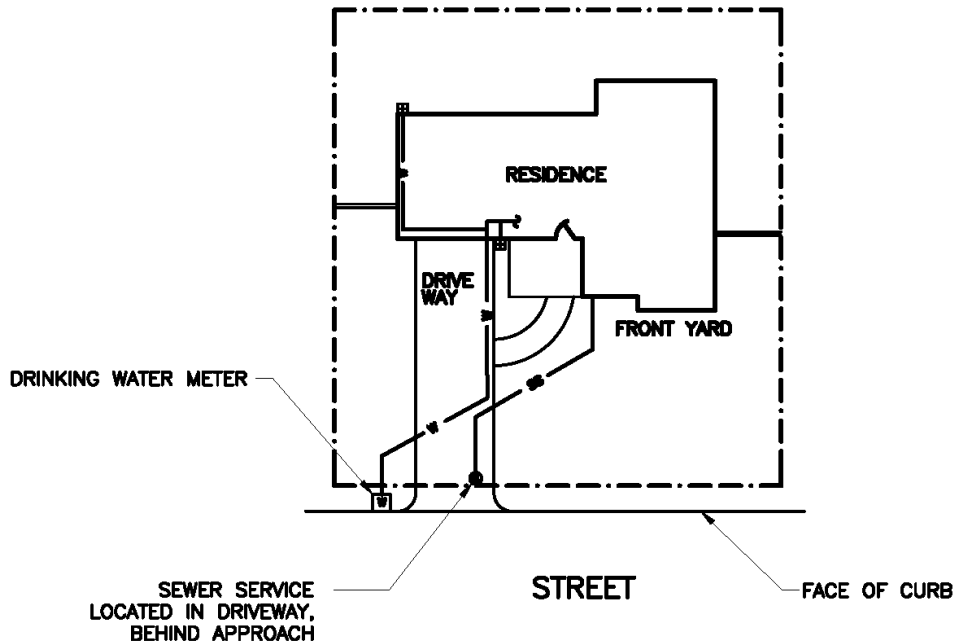
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NOTES:

1. SERVICE SADDLE SHALL NOT BE INSTALLED WITHIN 12" OF VALVE, COUPLING, JOINT OR FITTING.
2. SET TOP OF METER BOX FLUSH WITH DRIVEWAY, SIDEWALK OR CURB, AS SHOWN.
3. THE CORPORATION STOP TAP SHALL BE MADE AT A 20°-45° DEGREE ANGLE FROM THE SPRINGLINE OF THE PIPE.
4. THE WATER SERVICE SHALL EXTEND PERPENDICULAR TO THE CENTERLINE OF THE STREET FROM THE WATER MAIN TO THE METER STOP.
5. ALL CONNECTIONS TO COPPER TUBING SHALL BE COMPRESSION FITTINGS.
6. METERS TO BE CENTERED IN METER BOXES TO ALLOW FOR ACCESS AND MAINTENANCE

- 7. WATER METER AND MATERIAL ITEMS 5, 6 AND 8 ARE PROVIDED AND SET BY DISTRICT CREWS AT THE DEVELOPERS EXPENSE.
- 8. SUBJECT TO PURVEYOR REVIEW AND APPROVAL, THE METER AND METER BOX MAY BE INSTALLED PARALLEL TO THE CURB IF NECESSARY.
- 9. 4-INCH SPACING ON BACK OF CURB TO FACE OF METER BOX. IN APPLICATIONS NOT REQUIRING SIDEWALK, METER BOX IS FLUSH TO BACK OF CURB.



RETROFIT FOR EXISTING 3/4 AND 1 INCH DRINKING WATER SERVICE

2019



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LIST OF MATERIALS			
ITEM NO.	SIZE & DESCRIPTION	MANUFACTURER	SPEC. NO.
1A	DOUBLE STRAP SERVICE SADDLE 1" I.P. OUTLET (FOR D.I.P. MAINS)	JONES ROMAC MUELLER	J-979-PIPE O.D. -1" I.P. 202BS-PIPE O.D. -1" I.P. BR2B-PIPE O.D. -I.P. 100
1B	CAST SERVICE SADDLE WITH 1" I.P. OUTLET (FOR D.I.P. MAINS)	ROMAC MUELLER	202S-PIPE O.D.-1" I.P. DR2A-PIPE O.D.-I.P. 100
2	1" BRONZE BALL CORPORATION STOP (M.I.P.T. X COMPRESSION)	JONES MULLER McDONALD	E-1935SG B-2502BN 74704BQ
3	1" BLUE PLASTIC COATED COPPER TUBING		COPPER TYPE "K" SOFT
4	BRONZE BALL ANGLE METER STOP W/LOCKWING (1" COMPRESSION X METER)	JONES MUELLER McDONALD	1963WSG H-14258N 74602BQ
5	1" METER x 3" "METER SPUD" AND COUPLING	JONES	J-130
6	BALL VALVE WITH LOCKWING (F.I.P. X F.I.P.)	JONES MUELLER McDONALD	E-1900W B20283 N AYM76101W
7	METER BOX AND COVER WITH READING LID	ARMOR CAST	BOX-A6001946PCX12 COVER-A600482-H7 LID-A6001866-H7
8	AMI TRANSCEIVER (INSTALLED BY DISTRICT)	SENSUS	SMARTPOINT M2 - MODEL 520M (DUAL PORT) - PIT SET

**RETROFIT FOR EXISTING 3/4 AND 1 INCH
DRINKING WATER SERVICE**

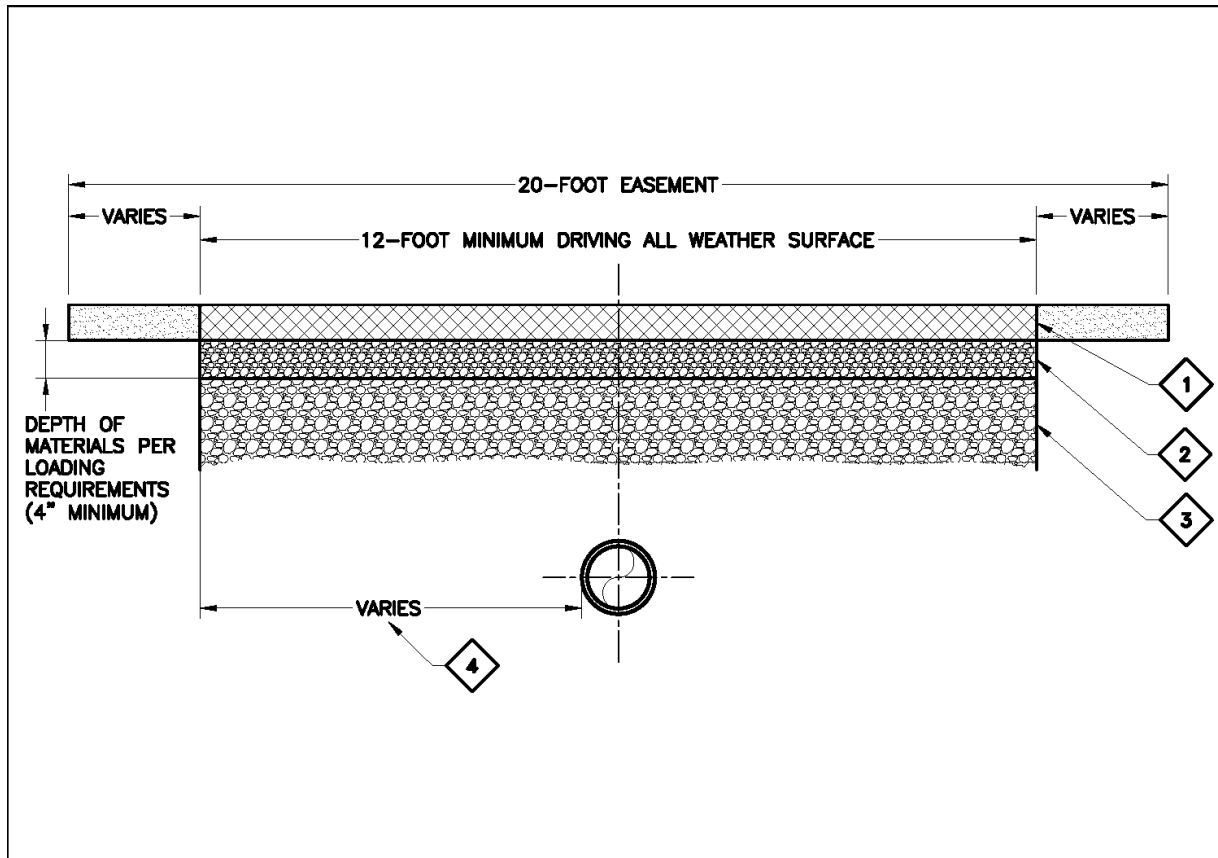
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NOTES:

- 1 ALL WEATHER SURFACE APPROVED MATERIALS INCLUDE ASPHALT, 3250 PSI CONCRETE, SOIL CEMENT OR OTHER APPROVED DRIVING SURFACE CAPABLE OF SUPPORTING AT LEAST 60,000 POUND VEHICLE ACCESS OVER 2 AXLE OR AS OTHERWISE DETERMINED BY THE DISTRICT.
- 2 SUBGRADE MATERIALS COMPACTED TO 95% MINIMUM UNLESS OTHERWISE APPROVED.
- 3 NATIVE OR IMPORTED BACKFILL, COMPACTED TO ENGINEERS SPECIFICATIONS FOR MATERIAL USED AS DRIVING SURFACE.
- 4 4-FOOT MINIMUM FROM EDGE OF ALL WEATHER SURFACE WHEN OVER DISTRICT UTILITY LINES.
- 5. EASEMENTS THAT HAVE ANGLES WILL REQUIRE A TURNING RADIUS. RADIUS POINT WILL BE DETERMINED BY THE DISTRICT.
- 6. NO PERMANENT WALL, FENCE, VEGETATION, OR STRUCTURE MAY BE CONSTRUCTED ACROSS OR WITHIN THE DISTRICT EASEMENT WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DISTRICT.
- 7. SLOPE ELEVATION DESIGN WILL BE REVIEWED AND APPROVED BY THE DISTRICT.

TYPICAL DISTRICT EASEMENT

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Yucaipa Valley Water District

2019

STANDARD SPECIFICATIONS
FOR THE
DESIGN AND PROCESSING,
FURNISHING OF MATERIALS,
AND
CONSTRUCTION OF SEWER FACILITIES

YVWD SEWER FACILITY STANDARDS
DRAWING INDEX (NUMERICAL)

S-1	STANDARD LEGEND
S-2	SEWER MAINLINE LOCATION
S-3	MANHOLE DETAIL
S-4	CONCRETE BASE AND JOINT DETAIL
S-5	ADJUSTING EXISTING MANHOLE TO GRADE
S-6	MANHOLE SHAFT LOCATION DETAILS
S-7	TRAFFIC MANHOLE FRAME AND COVER
S-8	SPECIAL MANHOLE (20'-0" TO 30'-0" DEEP)
S-9	SPECIAL MANHOLE (30'+ DEEP)
S-10	DROP MANHOLE DETAIL (SPECIAL ACCEPTANCE ONLY)
S-11	GUARD POST DETAILS
S-12	TERMINAL OR MAINLINE CLEANOUT DETAIL (SPECIAL ACCEPTANCE ONLY)
S-13	TERMINUS (CUL-DE-SAC) MANHOLE
S-14	SMARTMANHOLE SYSTEM INSTALLATION
S-15	VITRIFIED CLAY PIPELINE BEDDING DETAIL
S-16	SPECIAL MANHOLE DETAILS
S-17	TRENCH REPAIR DETAIL
S-18	SEWER MAINLINE PROTECTION DETAIL
S-19	CONCRETE SLOPE ANCHORS
S-20	STEEL CASING PIPE
S-21	4" AND 6" SEWER SADDLE CONNECTION TO EXISTING MAINLINE
S-22	TYPICAL SEWER LATERAL
S-23	DEEP SEWER LATERAL DETAIL
S-24	BACKWATER VALVE DETAIL
S-25	BACKWATER VALVE INSTALLATION DETAIL
S-26	SEWER SAMPLING BOX
S-27	SEWER LATERAL CUTOFF WALL DETAIL
S-28	EROSION CONTROL CUTOFF WALL DETAIL
S-29	TYPICAL DISTRICT EASEMENT

SEWER STANDARD INDEX

2019



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YVWD SEWER FACILITY STANDARDS
DRAWING INDEX (SUBJECT)

STANDARDS

- S-1 STANDARD LEGEND
- S-2 SEWER MAINLINE LOCATION

MANHOLES

- S-3 MANHOLE DETAIL
- S-4 CONCRETE BASE AND JOINT DETAIL
- S-5 ADJUSTING EXISTING MANHOLE TO GRADE
- S-6 MANHOLE SHAFT LOCATION DETAILS
- S-7 TRAFFIC MANHOLE FRAME AND COVER
- S-8 SPECIAL MANHOLE (20'-0" TO 30'-0" DEEP)
- S-9 SPECIAL MANHOLE (30'+ DEEP)
- S-10 DROP MANHOLE DETAIL (SPECIAL ACCEPTANCE ONLY)
- S-11 GUARD POST DETAILS
- S-12 TERMINAL OR MAIN CLEANOUT DETAIL (SPECIAL ACCEPTANCE ONLY)
- S-13 TERMINUS (CUL-DE-SAC) MANHOLE
- S-14 SMARTMANHOLE SYSTEM INSTALLATION

PIPE AND CASING DETAILS

- S-15 VITRIFIED CLAY PIPELINE BEDDING DETAIL
- S-16 SPECIAL MANHOLE DETAILS
- S-17 TRENCH REPAIR DETAIL
- S-18 SEWER MAINLINE PROTECTION DETAIL
- S-19 CONCRETE SLOPE ANCHORS
- S-20 STEEL CASING PIPE

LATERALS

- S-21 4" AND 6" SEWER SADDLE CONNECTION TO EXISTING MAINLINE
- S-22 TYPICAL SEWER LATERAL
- S-23 DEEP SEWER LATERAL DETAIL
- S-24 BACKWATER VALVE DETAIL
- S-25 BACKWATER VALVE INSTALLATION DETAIL
- S-26 SEWER SAMPLING BOX
- S-27 SEWER LATERAL CUTOFF WALL DETAIL
- S-28 EROSION CONTROL CUTOFF WALL DETAIL

SEWER STANDARD INDEX

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STANDARD DESIGN REQUIREMENTS:

PLAN SCALE SIZES ARE REQUIRED TO BE DESIGNED AT 1:40. SPECIAL CONSTRUCTION DETAILS MAY BE ADJUSTED AS NECESSARY FOR DESIGN AND CONSTRUCTION PURPOSES.

ALL PLAN SHEETS SHALL BE ON 24-INCH BY 36-INCH ARCHITECTURAL SHEET SIZE D.

ALL PROJECTS SHALL BE SUBMITTED TO THE DISTRICT ON MYLAR PRIOR TO CONSTRUCTION.

ALL PROJECTS, UPON COMPLETION, SHALL UPDATE THE MYLAR PLANS AND PROVIDE AUTOCAD FILES FOR DISTRICT USE AND RECORDS UPON COMPLETION.

STANDARD LEGEND

	RIGHT OF WAY (R.O.W.)		
	CENTERLINE		
	EXISTING DRINKING WATER LINE		
	PROPOSED DRINKING WATER LINE		
	EXISTING RECYCLED WATER LINE		
	PROPOSED RECYCLED WATER LINE		
	EXISTING SEWER LINE		
	PROPOSED SEWER LINE		
	EXISTING GAS LINE		
	PROPOSED GAS LINE		
	SERVICE LATERAL		
	ENCASEMENT		
	EXISTING ELECTRICAL CONDUIT		
	PROPOSED ELECTRICAL CONDUIT		
	EXISTING TELEPHONE CONDUIT		
	PROPOSED TELEPHONE CONDUIT		
	EXISTING FIBER OPTIC CABLE		
	PROPOSED FIBER OPTIC CABLE		
	PORTLAND CEMENT CONCRETE IN SECTION		
	PORTLAND CEMENT CONCRETE IN PLAN		

	POWER POLE AND GUY LINE		CLEAN-OUT
	TRAFFIC SIGNAL EXISTING		HOUSE CONNECTION SEWER
	WATER WELL		WYE BRANCH
	BUTTERFLY VALVE		CUT-OFF WALL
	GATE VALVE	C.O.	CLEAN-OUT
	FIRE HYDRANT	D.I.P.	DUCTILE IRON PIPE
	BLOW-OFF	D.M.H.	DROP MANHOLE
	AIR & VACUUM VALVE ASSEMBLY (SIZE PER PLAN)	J.M.H.	JUNCTION MANHOLE
	DRINKING WATER QUALITY SAMPLE STATION	M.H.	MANHOLE
	RECYCLED WATER QUALITY SAMPLE STATION	V.C.P.	VITRIFIED CLAY PIPE

STANDARD DESIGN REQUIREMENTS AND LEGEND

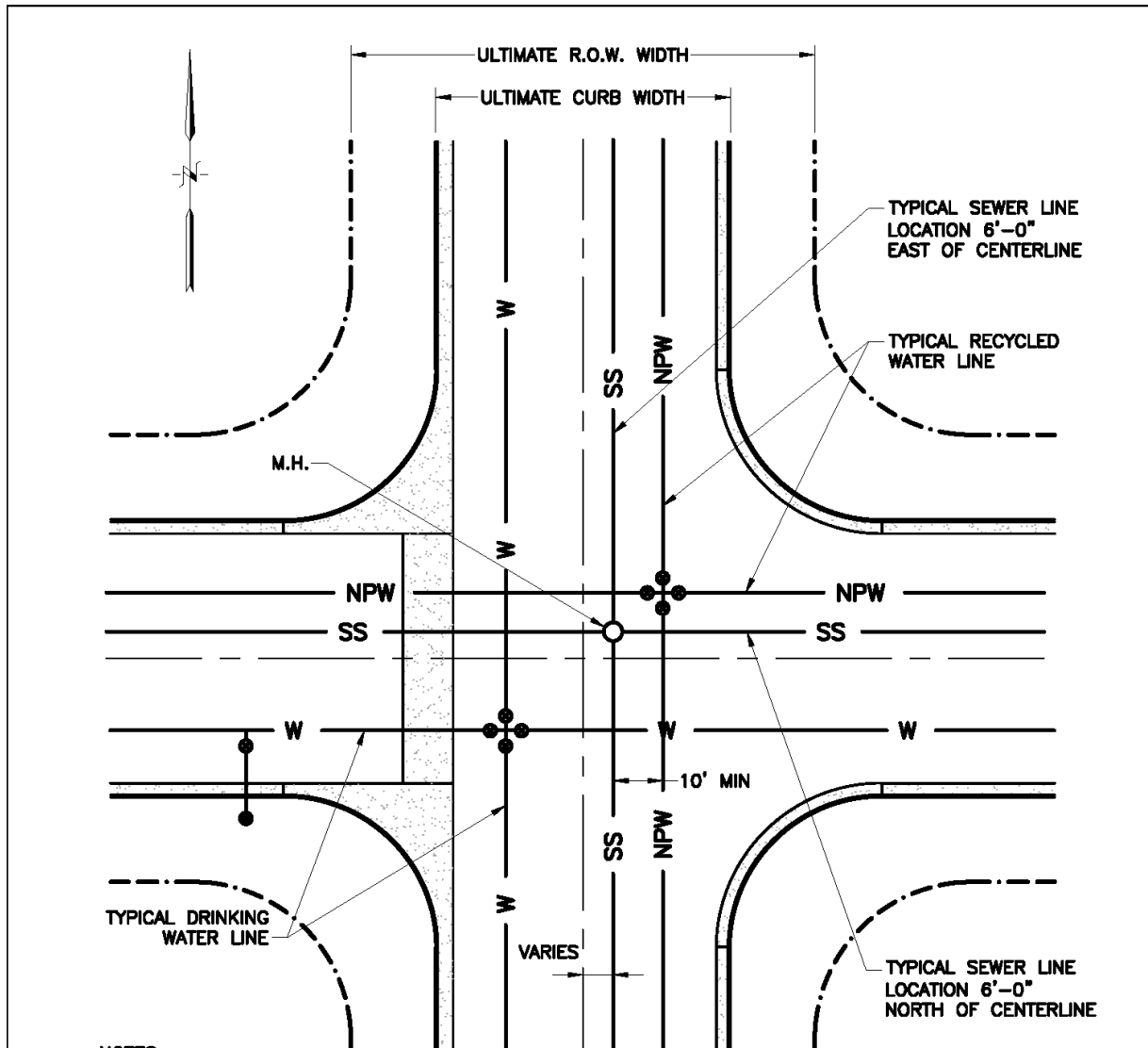
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NOTES:

SEWER PIPELINE SIZE TO BE DETERMINED BY Y.V.W.D.

PLAN SCALE SIZES ARE REQUIRED TO BE DESIGNED AT 1"=40', 1"=4' PROFILE. SPECIAL CONSTRUCTION DETAILS MAY BE ADJUSTED AS NECESSARY FOR DESIGN AND CONSTRUCTION PURPOSES.

ALL PLAN SHEETS SHALL BE ON 24-INCH BY 36-INCH ARCHITECTURAL SHEET SIZE D.

ALL PROJECTS SHALL BE SUBMITTED TO THE DISTRICT ON MYLAR PRIOR TO CONSTRUCTION.

ALL PROJECTS, UPON COMPLETION, SHALL UPDATE THE MYLAR PLANS AND PROVIDE AUTOCAD FILES FOR DISTRICT USE AND RECORDS UPON COMPLETION.

SEWER MAINLINE LOCATION

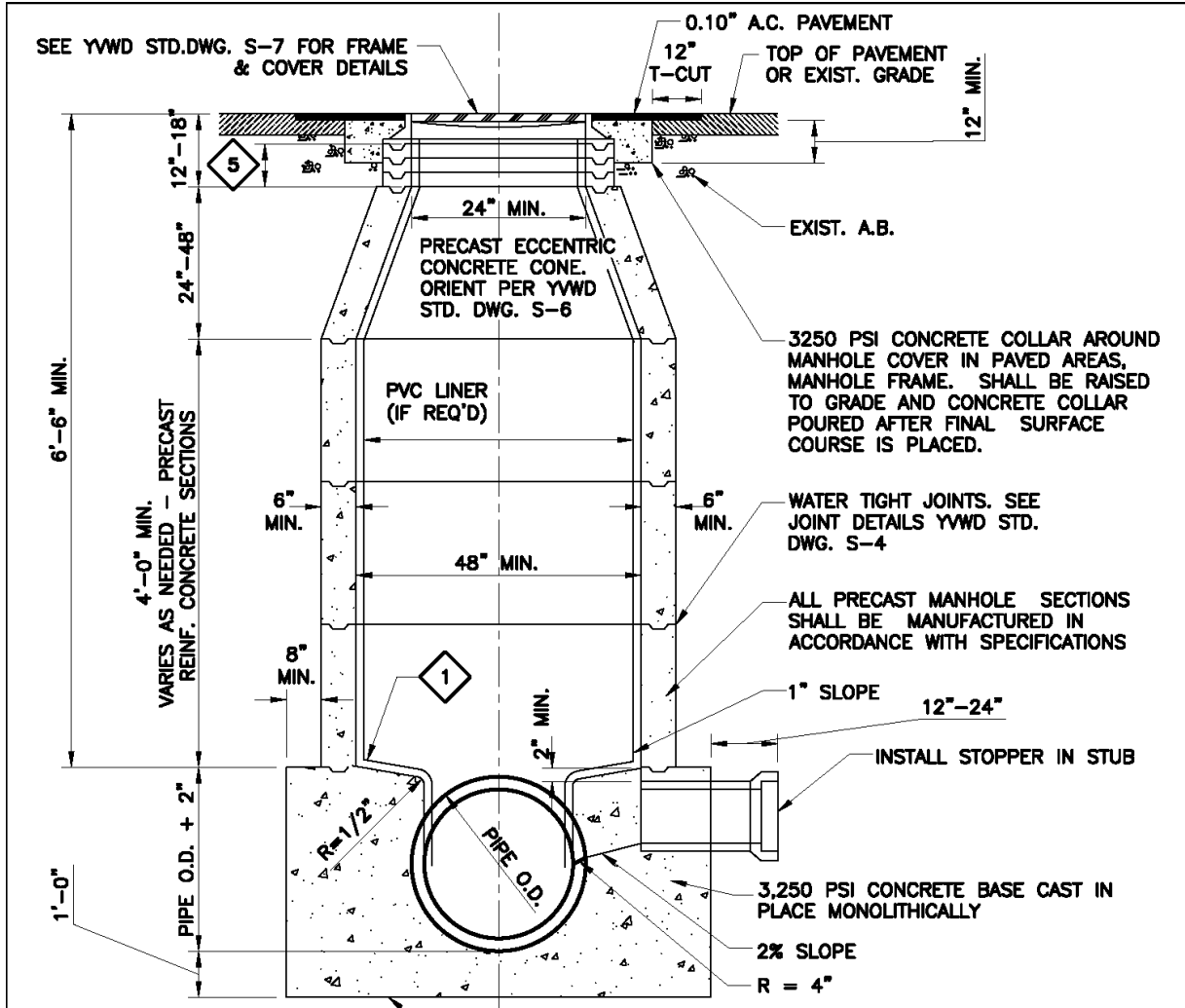
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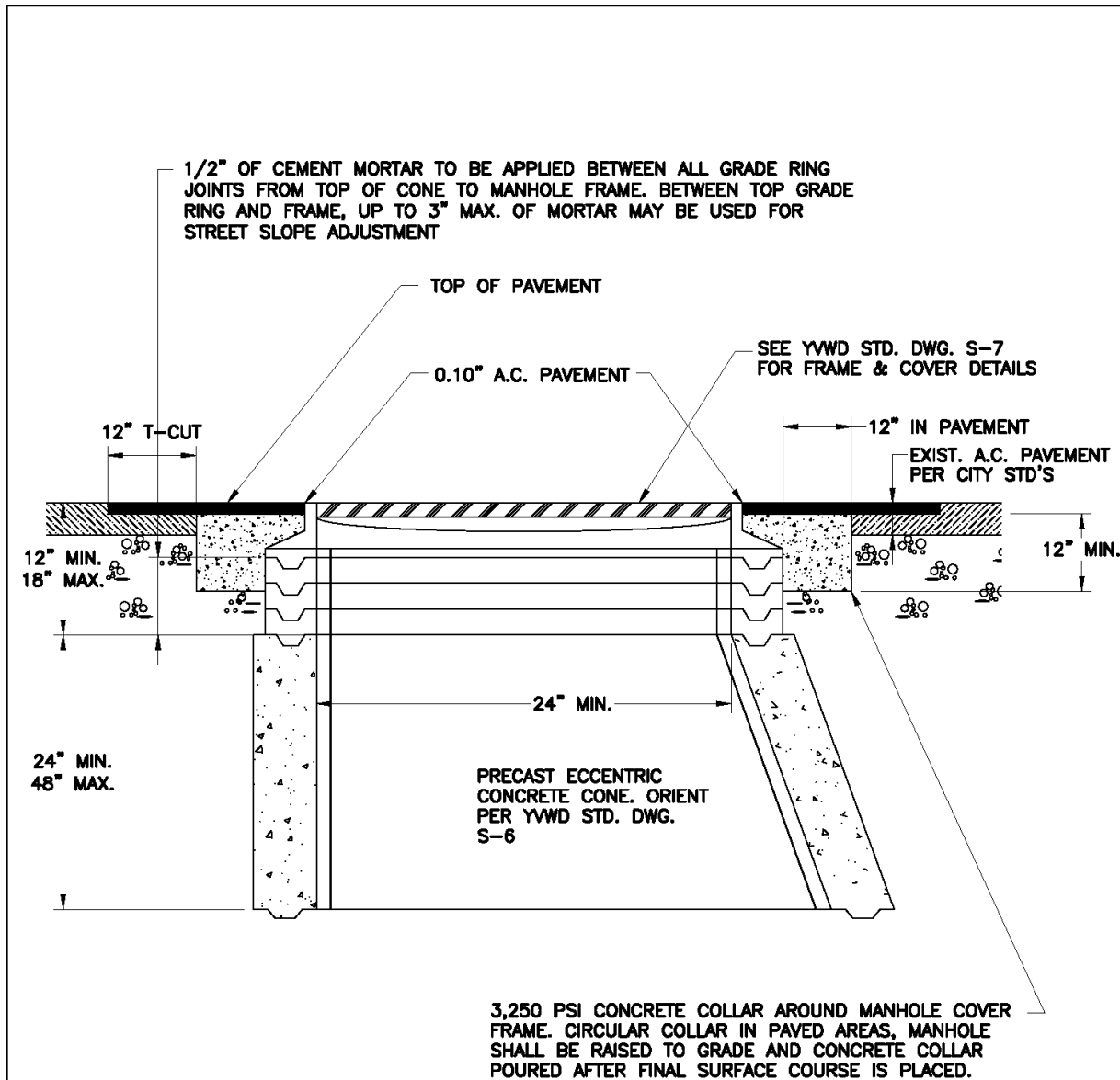


NOTES:

- 1. PLACE TWO HALF MOON SHAPED PLYWOOD COVERS (5/8" THICK MINIMUM) IN BOTTOM OF MANHOLE AFTER SHAFTS HAVE BEEN SET TO KEEP DEBRIS FROM ENTERING SEWER.
- 2. FOR DROP MANHOLE DETAIL SEE YVWD STD. DWG. S-10. (SPECIAL ACCEPTANCE BY DISTRICT ENGINEER ONLY).
- 3. FOR MANHOLES LOCATED OUTSIDE PAVED AREAS THE FRAME AND COVER SHOULD BE SET A MINIMUM OF 0.1 FT. ABOVE FINISH GRADE IN SHOULDER AREAS, UNPAVED ROADS OR LANDSCAPED AREAS, AND 18" IN UNFINISHED AREAS.
- 4. ALL INLETS AND OUTLETS SHALL BE SUPPORTED WITH CONCRETE SUPPORTS PRIOR TO POURING MANHOLE BASE.
- 5. 1/2" OF CEMENT MORTAR TO BE APPLIED BETWEEN ALL GRADE RING JOINTS FROM TOP OF CONE TO MANHOLE FRAME. BETWEEN TOP GRADE RING AND FRAME, UP TO 3" MAX. OF MORTAR MAY BE USED FOR STREET SLOPE ADJUSTMENT. SEE STD. DWG. S-5.

MANHOLE DETAIL


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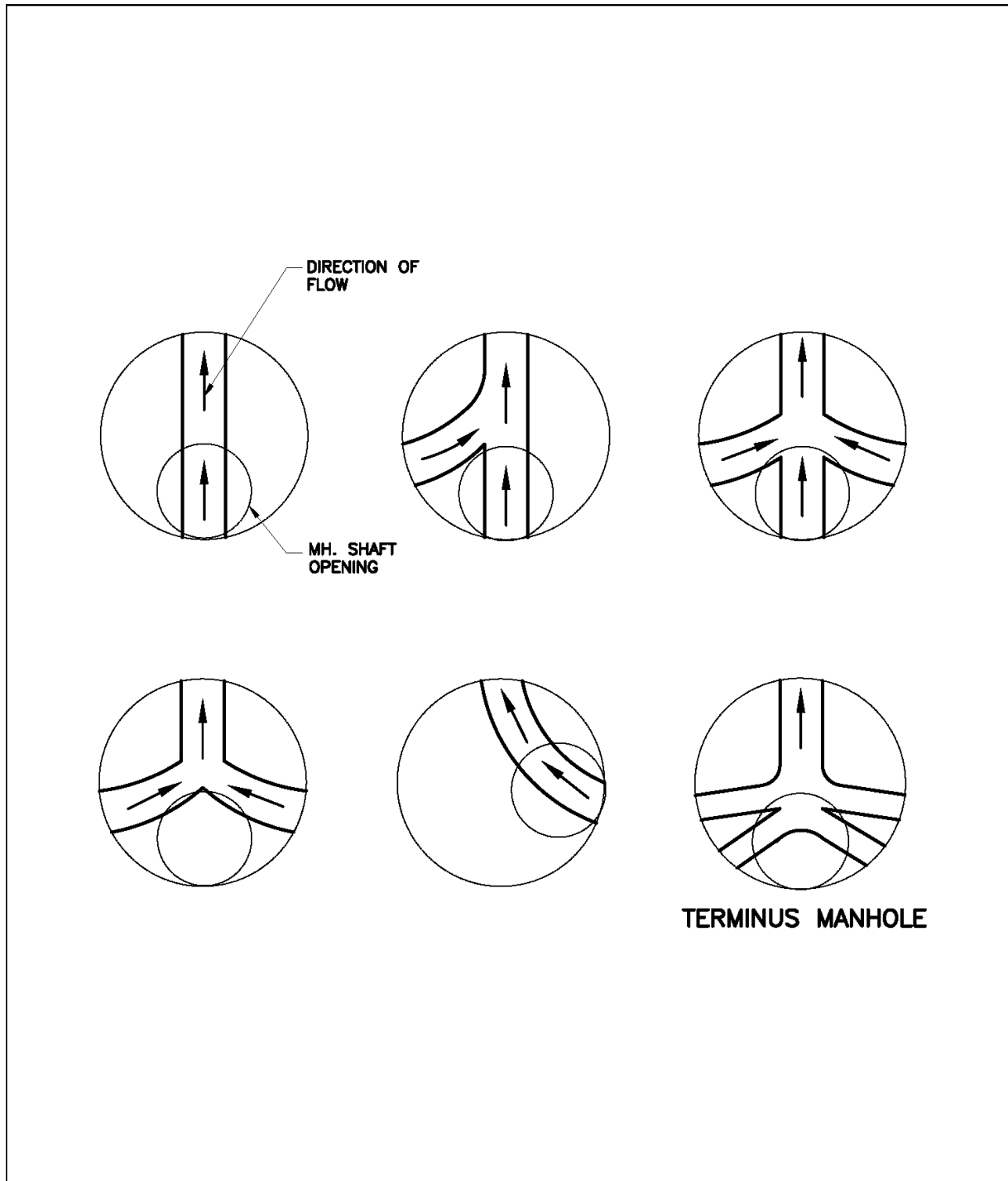


NOTES:

1. **MORTAR JOINTS** - SUFFICIENT MORTAR SHALL BE APPLIED ACROSS ENTIRE FACE OF JOINT SO THAT WHEN PRECAST UNITS ARE PLACED ON TOP OF ONE ANOTHER, THE MORTAR WILL SQUEEZE OUT BOTH THE INSIDE AND OUTSIDE WALL FACES. JOINTS SHALL BE "POINTED UP" AFTER SETTING PRECAST UNITS EXCLUDING GRADE RINGS.
2. ALL MORTARED JOINTS MUST HAVE A TOOLED FINISH ON INSIDE OF MANHOLES. EXCESS MORTAR SHALL BE CLEANED OFF OF PRE-CAST CONCRETE SECTIONS.

ADJUST EXISTING MANHOLE TO GRADE

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MANHOLE SHAFT LOCATION DETAILS

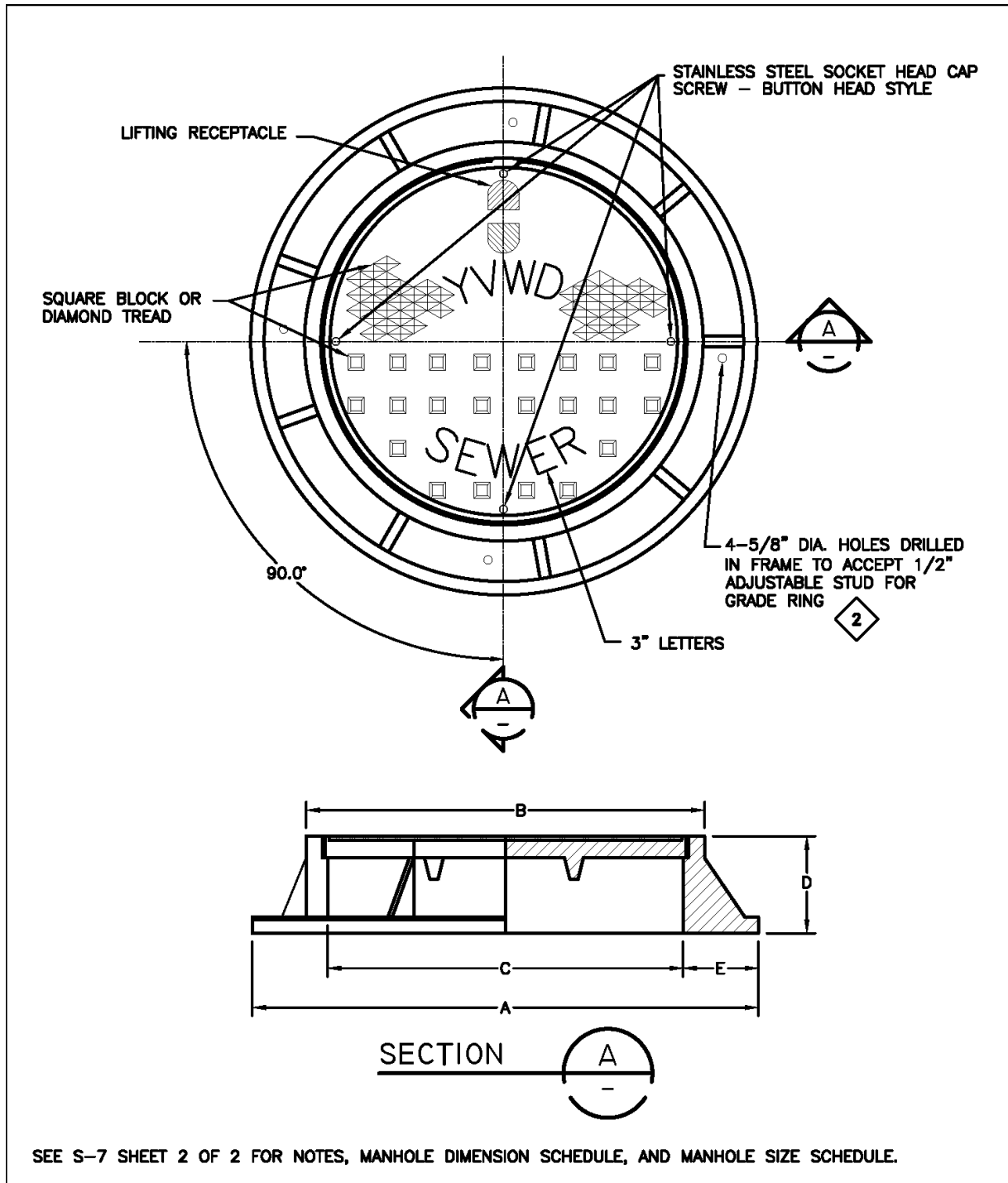
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TRAFFIC MANHOLE FRAME AND COVER

2019



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Sheet 1 of 2

NOTES:

1. 48" AND 60" MANHOLES SHALL HAVE 24" COVERS. 72" MANHOLES SHALL HAVE 30" COVERS.
2. WHERE FRAME AND COVER ARE SET 18" ABOVE GRADE, 4 1/2" DIA. INSERTS FOR ADJUSTABLE STUDS SHALL BE CAST IN TOP GRADE RING, ALIGNED AS DETAILED ON SHEET 1 OF 2. FRAME SHALL BE BOLTED TO GRADE RING.
3. WHERE MANHOLE IS LOCATED WITHIN AN EASEMENT, BOLT DOWN FRAME AND COVER SHALL BE REQUIRED.

MANHOLE DIMENSIONS		
SIZE	24"	30"
A	32"	38"
B	27 1/4"	33"
C	24"	30"
D	3.5"	6"
E	4"	4"

MANHOLE SIZES			
SEWER MAIN	MAX BRANCH SIZE	MANHOLE SIZE	FRAME AND COVER
8" - 15"	10"	48"	24"
18" - 21"	12"	60"	24"
24" - 36"	15"	72"	30"

TRAFFIC MANHOLE FRAME AND COVER

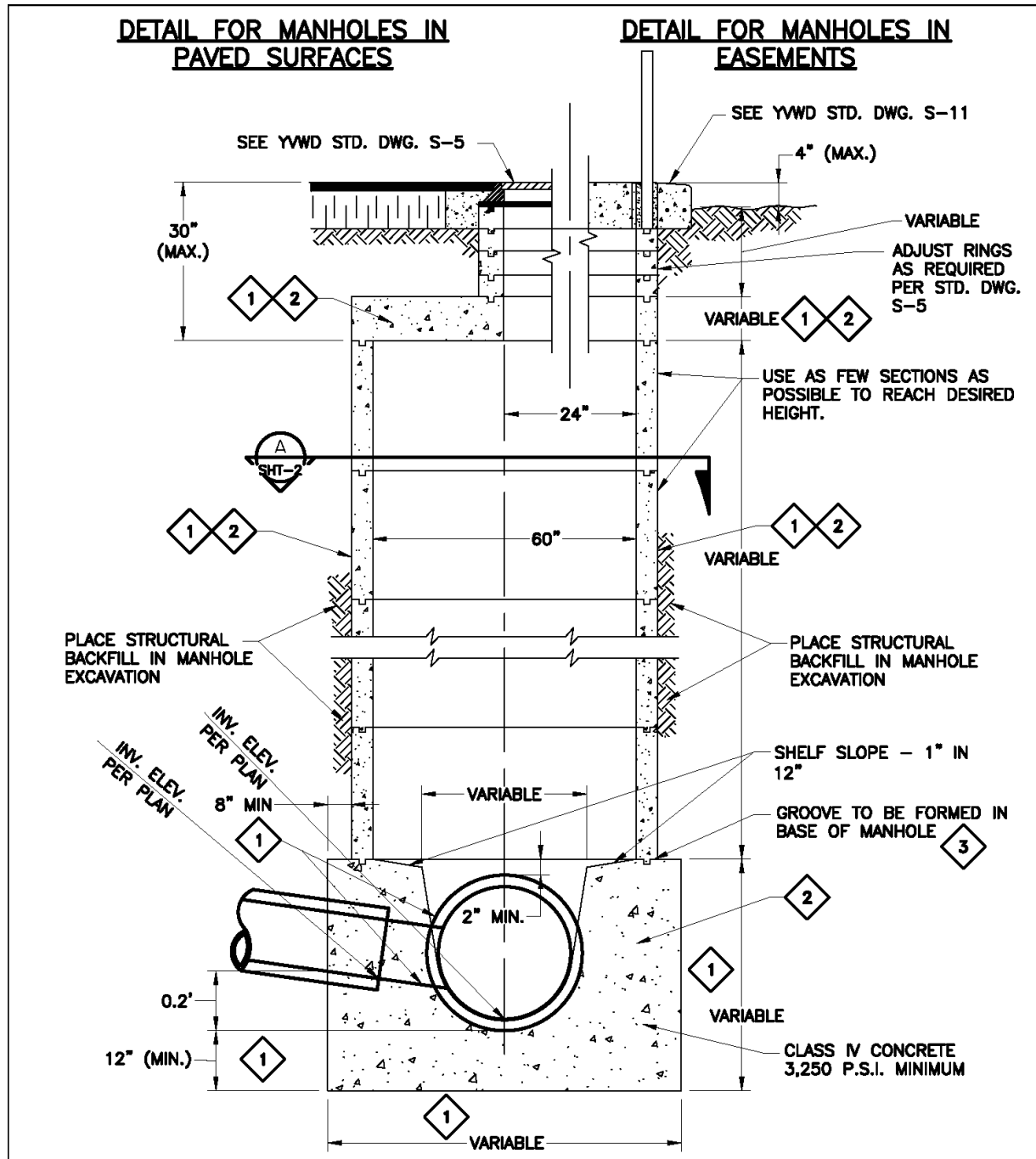
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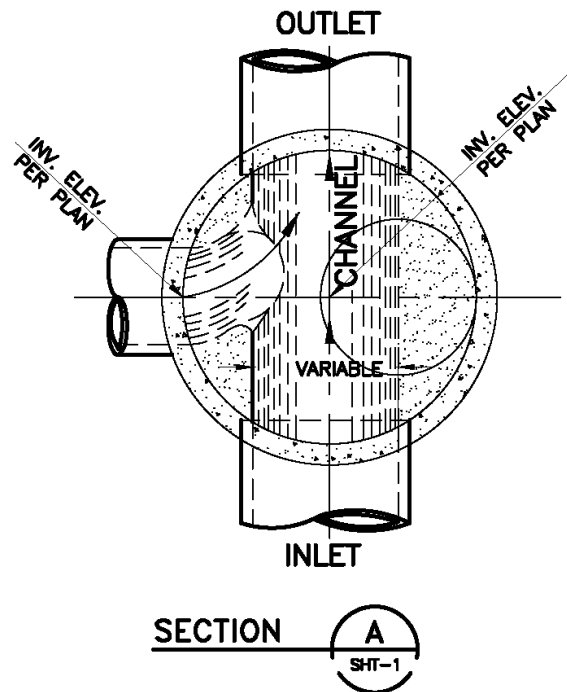
Sheet 2 of 2



SEE YWVD STD. DWG. S-8 SHEET 2 OF 2 FOR SECTION AND NOTES.

SPECIAL MANHOLE (20' TO 30' DEEP)

2019	 <p style="margin: 0;">Yucaipa Valley Water District</p>	<p style="margin: 0;">Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX</p>	S-8
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NOTES:

1. DIMENSIONS PER MANHOLE MANUFACTURER'S SPEC.
2. STEEL REINFORCEMENT PER MANHOLE MANUFACTURER'S SPECIFICATIONS.
3. INVERT CHANNELS, SHELF AND GROOVE SHALL BE FORMED MONOLITHICALLY WITH THE MANHOLE BASE, NO REWORKING OF CONCRETE WHICH HAS PARTIALLY HARDENED.
4. ALL SECTIONS TO BE WASHED, TO REMOVE ANY LOOSE MATERIAL AND WHILE STILL WET, THEY ARE TO BE SET IN 1:3 MORTAR TRIMMED SMOOTH INSIDE AND OUTSIDE AT TIME OF SETTING, INCLUDING FRAME. INSIDE MORTARED JOINTS MUST HAVE A TOOLED FINISH. EXCESS MORTAR SHALL BE CLEANED OFF PRE-CAST CONCRETE SECTIONS.
5. CONCRETE FOR MANHOLE SECTION 3,250 P.S.I. MIN.
6. PROVIDE FLEXIBLE JOINT IN ALL SEWER PIPES OUTSIDE MANHOLE BUT WITHIN 12"-24" OF CONCRETE BASE. NO BELLS, USE MISSION CLAY STAINLESS STEEL BAND REPAIR COUPLINGS OR EQUAL.
7. ADJUSTMENT OF FRAME AND COVER AFTER FINAL PAVING OPERATIONS. FRAME AND COVER SHALL BE SET 1/4" BELOW PAVING TO ALLOW FOR PAVING SETTLEMENT.
8. PRECAST MANHOLE SUPPLIER TO SUBMIT STRUCTURAL CALCULATION TO ENGINEER FOR APPROVAL PRIOR TO FABRICATION.
 USE: SOIL ACTIVE PRESSURE = 49 P.C.F.
 SOIL BEARING PRESSURE = 1,500 P.S.F. (OR VALUES PER APPROVED SOIL REPORT)

SPECIAL MANHOLE (20' TO 30' DEEP)

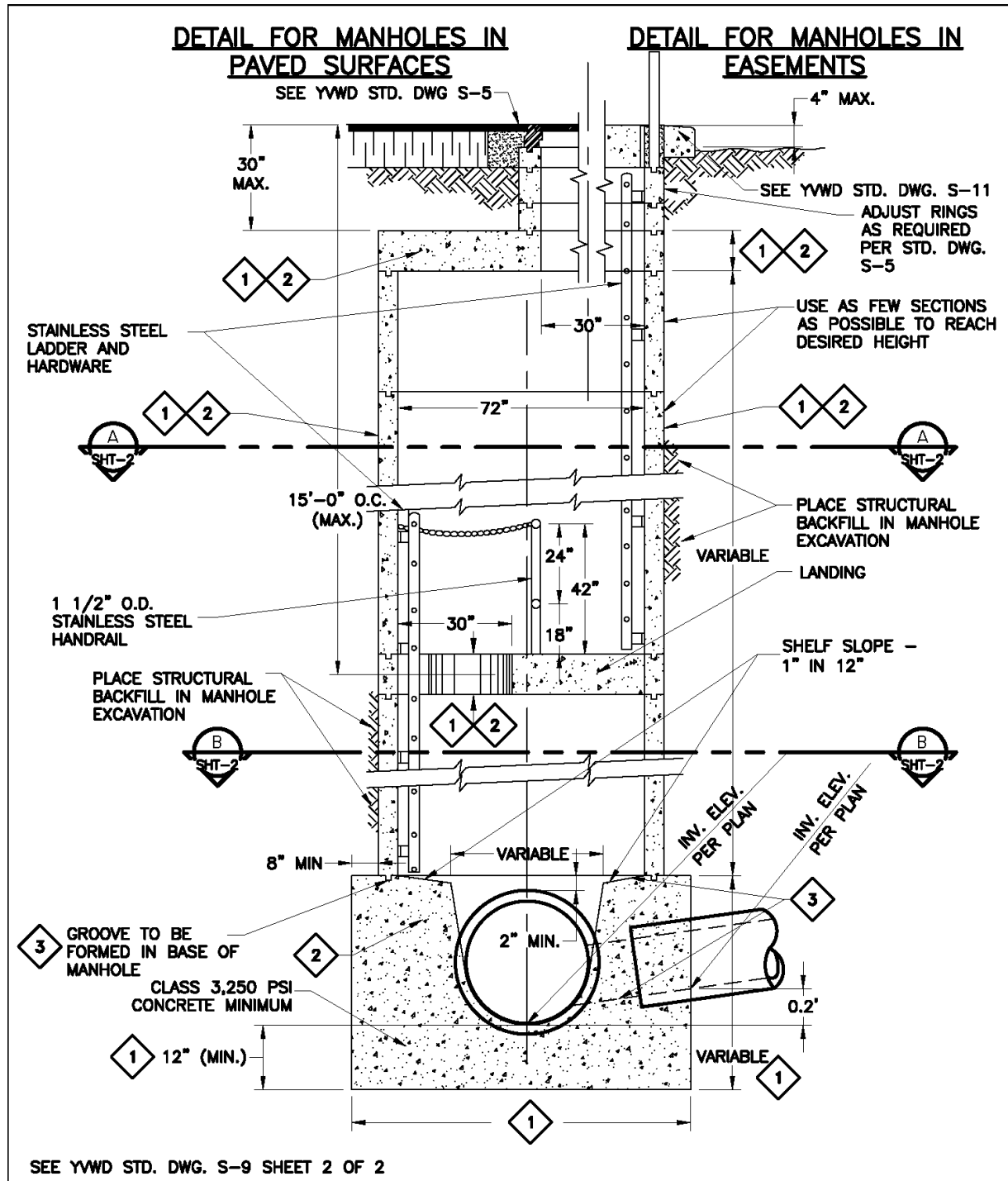
2019



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SPECIAL MANHOLE (30'+ DEEP)

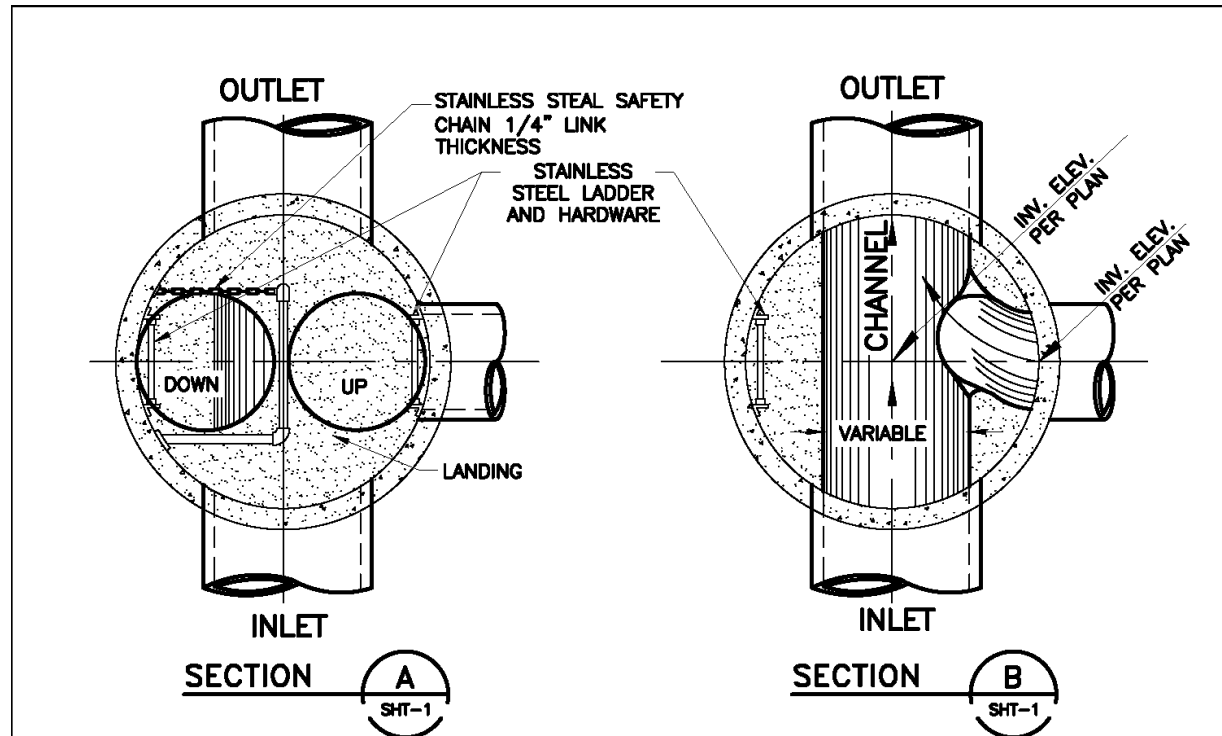
2019



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NOTES:

1. DIMENSIONS PER MANHOLE MANUFACTURER'S SPEC.
2. STEEL REINFORCEMENT PER MANHOLE MANUFACTURER'S SPECIFICATIONS.
3. INVERT CHANNELS, SHELF AND GROOVE SHALL BE FORMED MONOLITHICALLY WITH THE MANHOLE BASE, NO REWORKING OF CONCRETE WHICH HAS PARTIALLY HARDENED.
4. ALL SECTIONS TO BE WASHED, TO REMOVE ANY LOOSE MATERIAL AND WHILE STILL WET, THEY ARE TO BE SET IN 1:3 MORTAR TRIMMED SMOOTH INSIDE AND OUTSIDE AT TIME OF SETTING, INCLUDING FRAME. INSIDE MORTARED JOINTS MUST HAVE A TOOLED FINISH. EXCESS MORTAR SHALL BE CLEANED OFF PRE-CAST CONCRETE SECTIONS.
5. CONCRETE FOR MANHOLE SECTION 3,250 PSI MIN.
6. PROVIDE FLEXIBLE JOINT IN ALL SEWER PIPES OUTSIDE MANHOLE BUT WITHIN 12"-24" OF CONCRETE BASE. NO BELLS, USE MISSION CLAY STAINLESS STEEL BAND REPAIR COUPLINGS OR EQUAL.
7. ADJUSTMENT OF FRAME AND COVER AFTER FINAL PAVING OPERATIONS. FRAME AND COVER SHALL BE SET 1/4" BELOW PAVING TO ALLOW FOR PAVEMENT SETTLEMENT.
8. PRECAST MANHOLE SUPPLIER TO SUBMIT STRUCTURAL CALCULATION TO ENGINEER FOR APPROVAL PRIOR TO FABRICATION.
 USE: SOIL ACTIVE PRESSURE = 49 P.C.F.
 SOIL BEARING PRESSURE = 1,500 P.S.F. (OR VALUES PER APPROVED SOIL REPORT)

SEE YWWD STD. DWG. S-9 SHEET 1 OF 2

SPECIAL MANHOLE (30'+ DEEP)

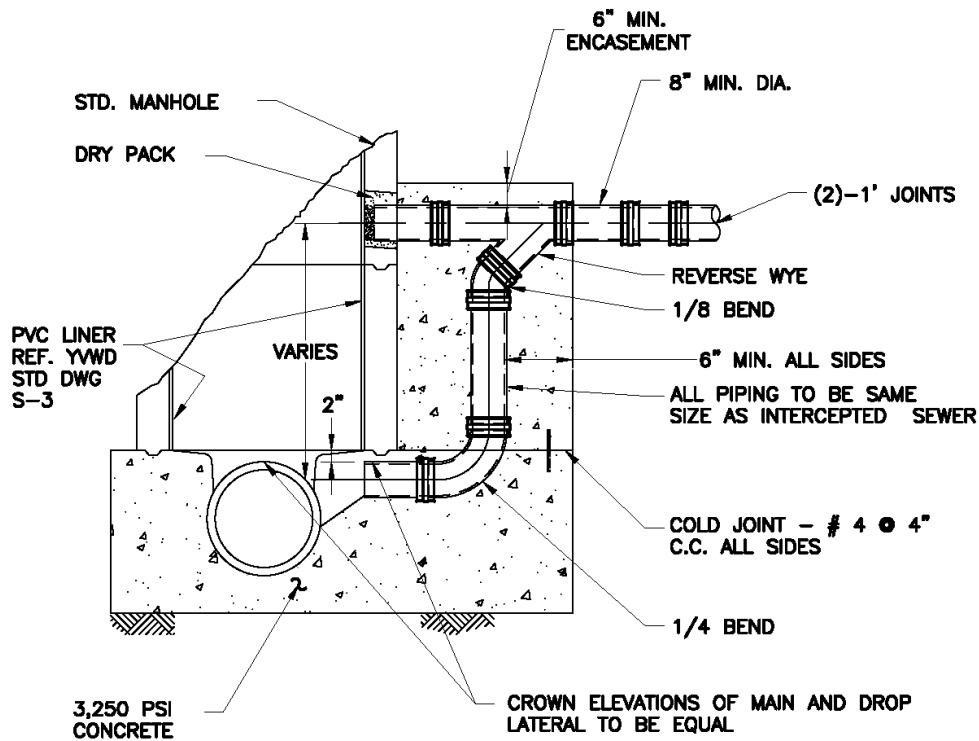
2019



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SECTION

NOTES:

1. DROP MANHOLE ONLY TO BE USED FOR SPECIAL SITUATIONS, AND SHALL NOT BE CONSTRUCTED WITHOUT PRIOR APPROVAL.
2. ALL NEW OPENINGS CONSTRUCTED INTO MANHOLE SHALL BE DONE BY CORE DRILLING.
3. INTERIOR WALL OF MANHOLE TO BE LINED WITH PVC LINER PER SPECIFICATIONS.

**DROP MANHOLE DETAIL
(SPECIAL ACCEPTANCE ONLY)**

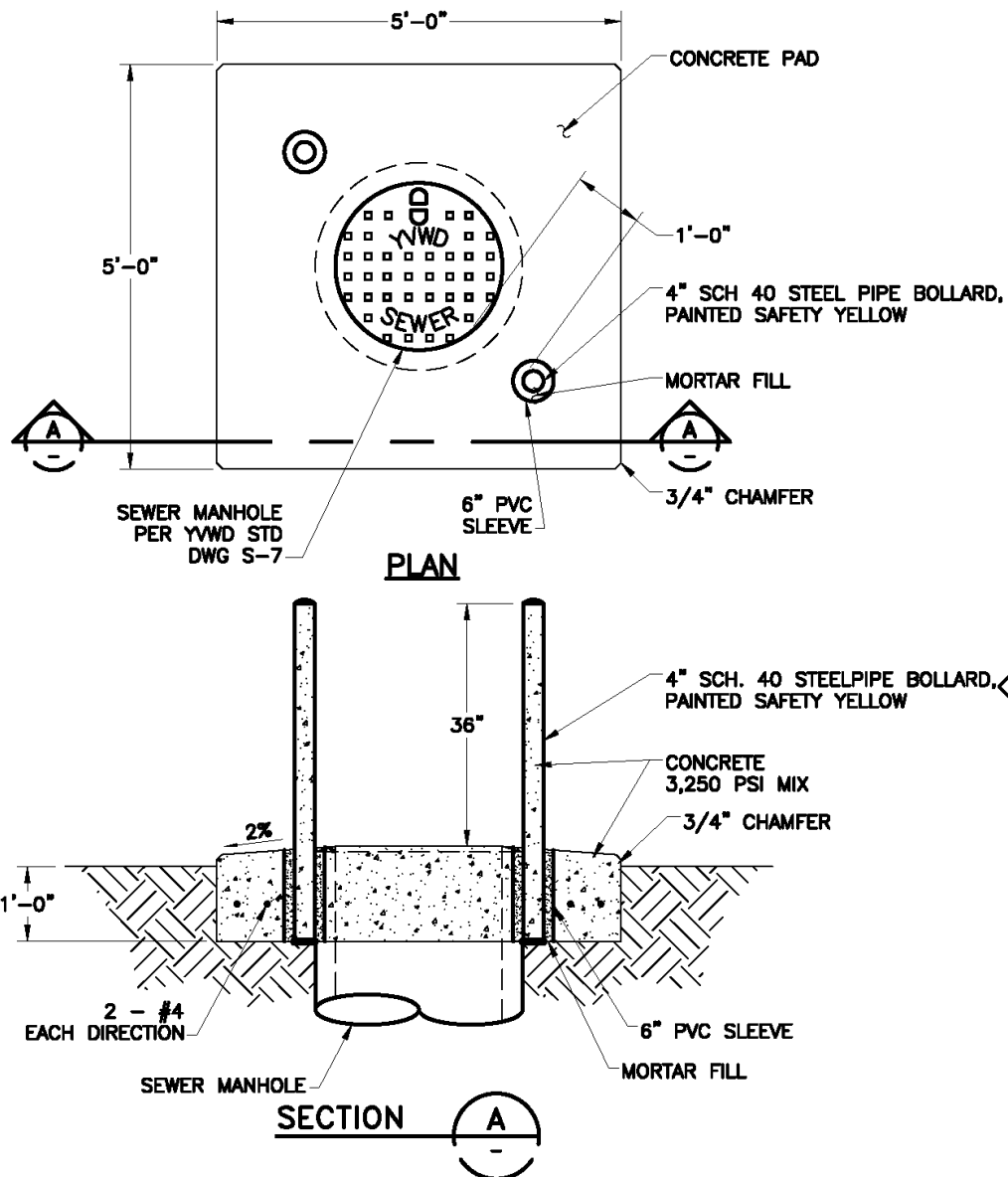
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SEE SHEET 2 OF 2 FOR NOTES

GUARD POST DETAILS

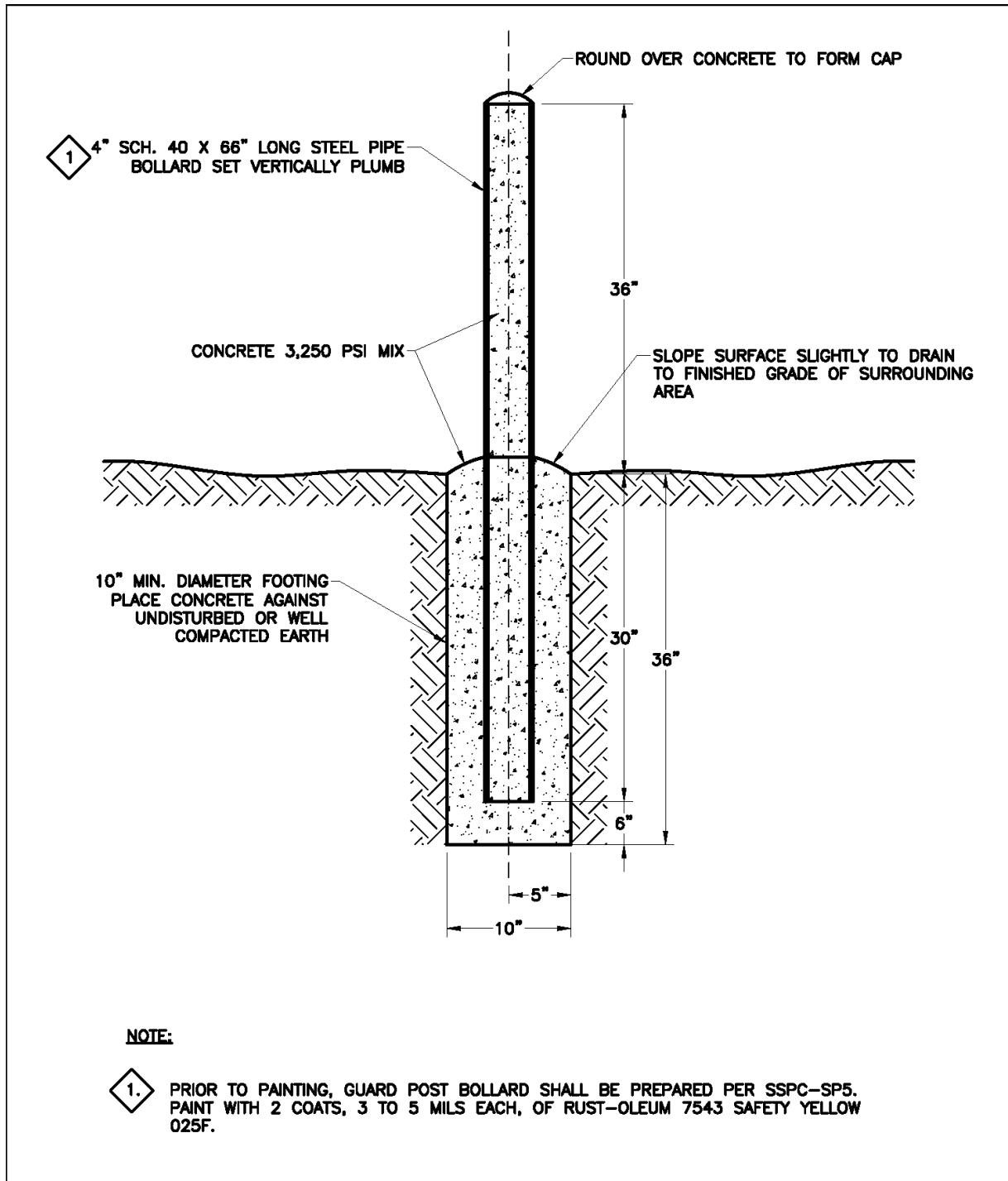
2019




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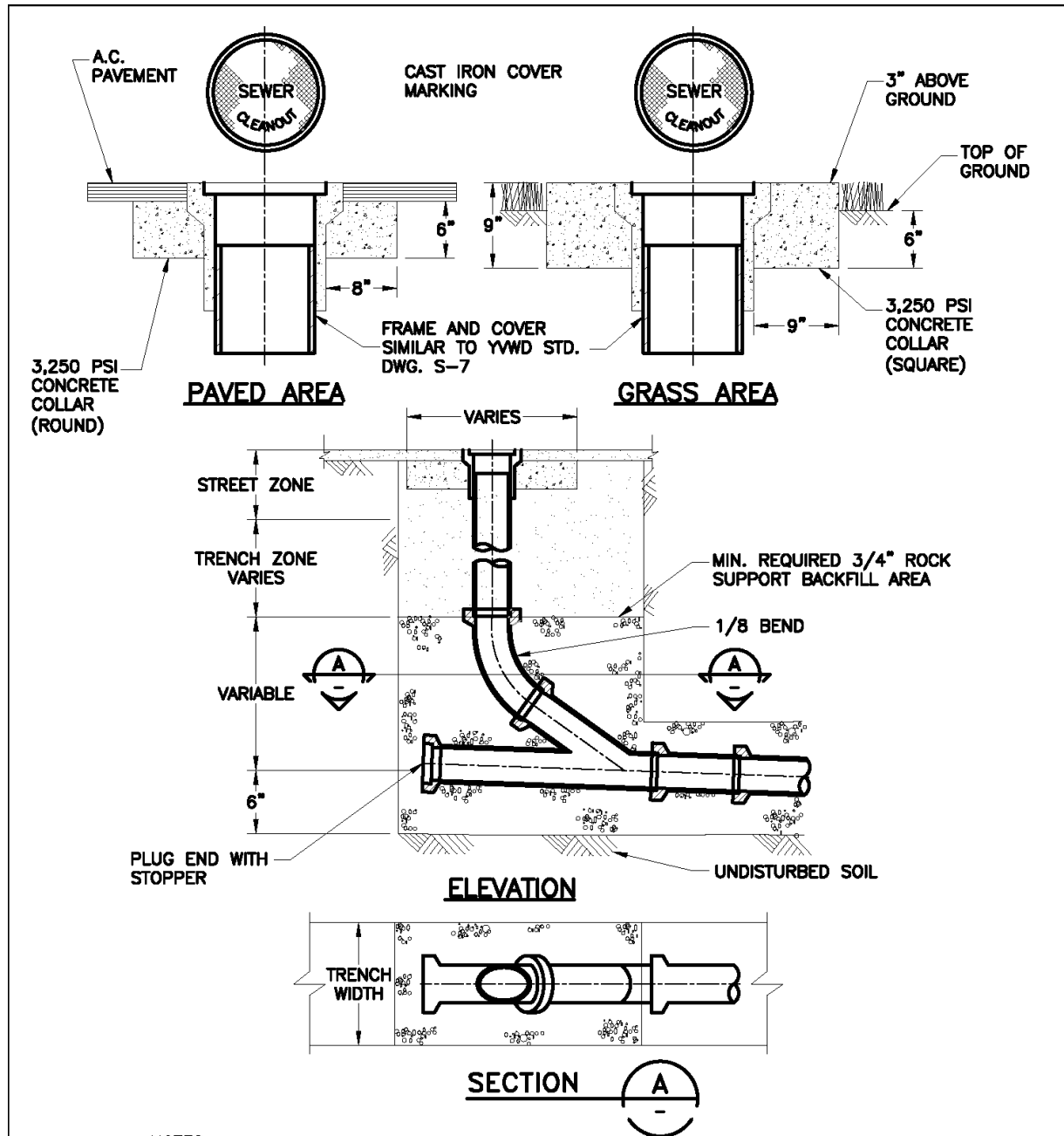
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GUARD POST DETAILS

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NOTES:

1. CLEANOUT SHALL NOT BE CONSTRUCTED WITHOUT PRIOR APPROVAL FROM DISTRICT
2. CLEANOUT PIPE TO BE SAME SIZE AND KIND OF MATERIAL AS MAIN.

**TERMINAL OR MAINLINE CLEANOUT DETAIL
(SPECIAL ACCEPTANCE ONLY)**

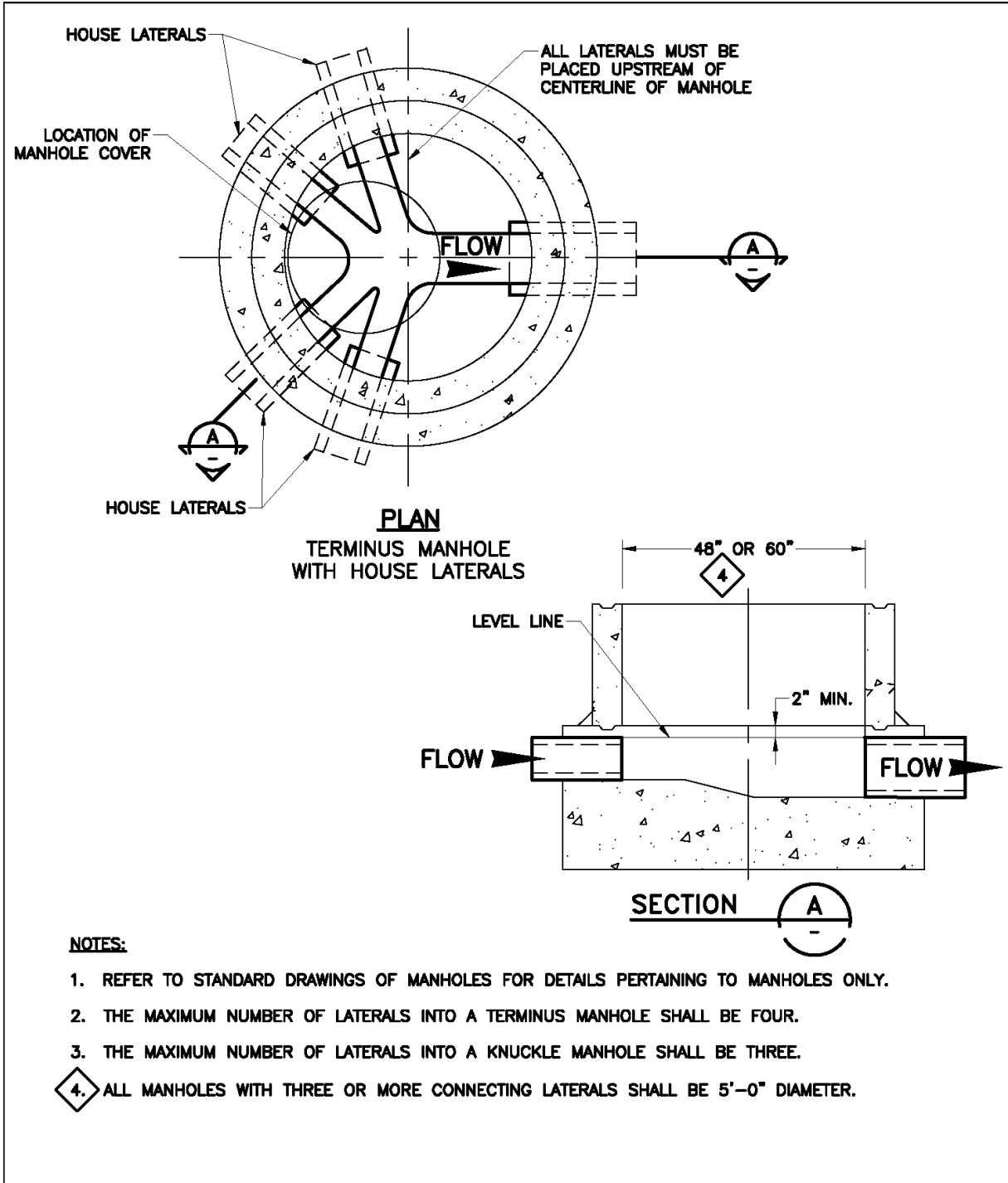
2019



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TERMINUS (CUL-DE-SAC) MANHOLE

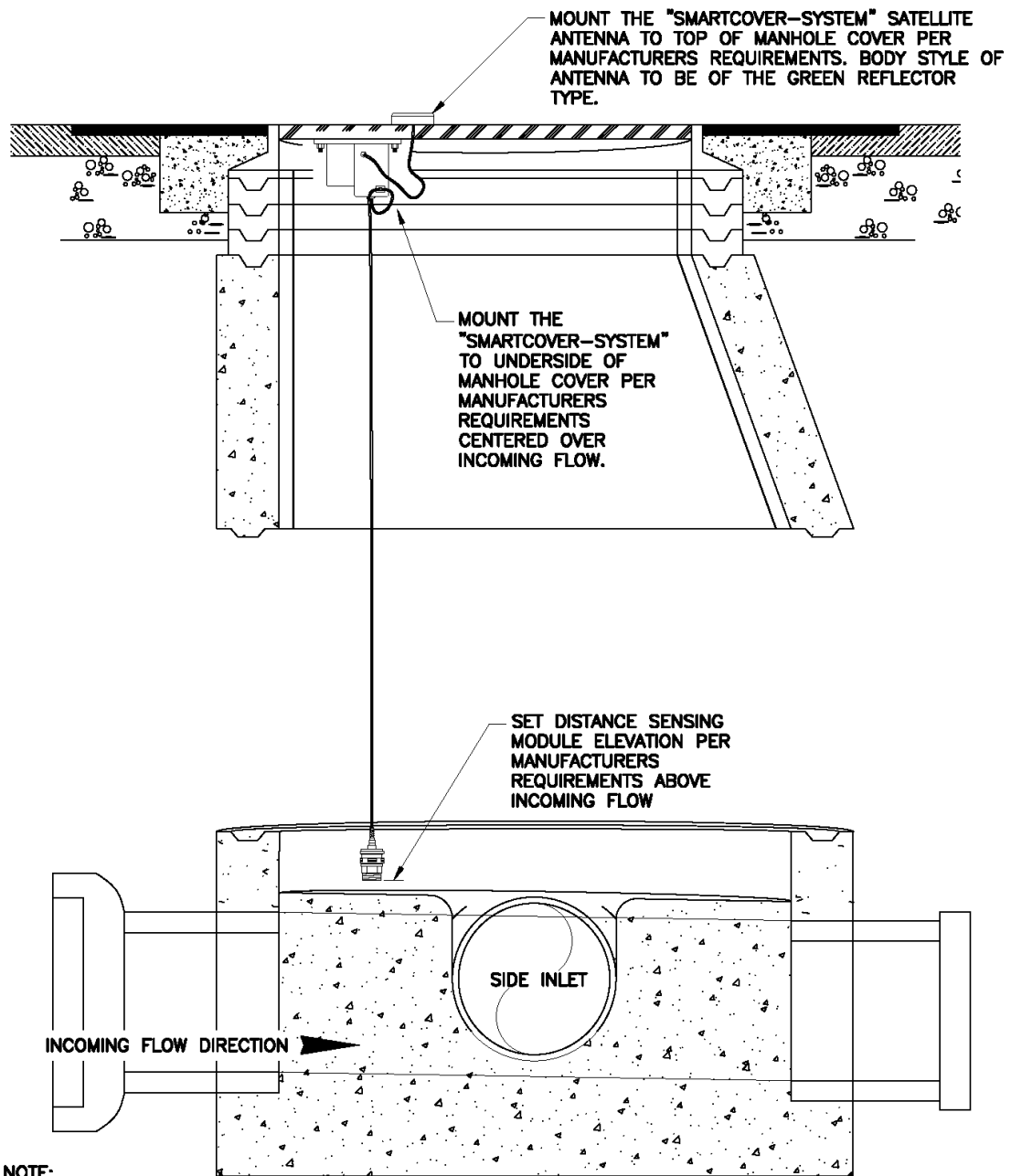
2019



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NOTE:

1. THE "SMARTMANHOLE SYSTEM" IS A PRODUCT OF SMART COVER SYSTEMS, INC. (WWW.SMARTCOVERSYSTEMS.COM)

SMARTMANHOLE SYSTEM INSTALLATION

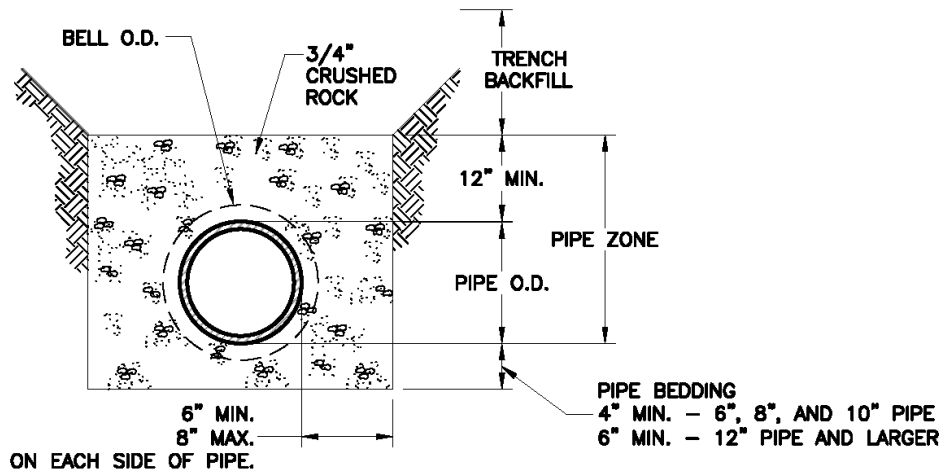
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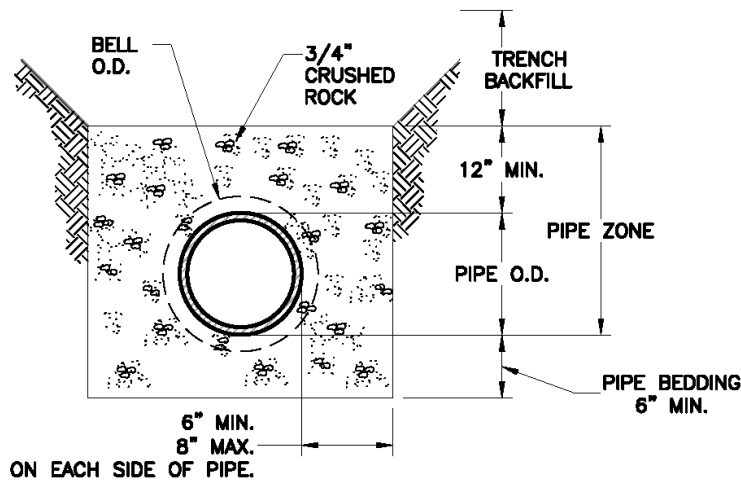
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LOAD FACTOR=1.1



LOAD FACTOR=2.2

NOTES:

1. IF UNSTABLE SOIL IS ENCOUNTERED, DISTRICT REPRESENTATIVE SHALL DETERMINE DEPTH OF REMOVAL AND SIZE OF FOUNDATION ROCK REFILL MATERIAL.

VITRIFIED CLAY PIPELINE BEDDING DETAIL

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MINIMUM LOAD FACTOR – UNLIMITED TRENCH WIDTH							
SEWER DIAMETER	DEPTH OF COVER						
	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"
8"	1.1	1.1	1.1	2.2	2.2	2.2	2.2
10"	1.1	1.1	2.2	2.2	2.2	2.2	-
12"	1.1	2.2	2.2	2.2	2.2	-	-
15"	1.1	2.2	2.2	2.2	-	-	-

NOTES:

1. 3/4" CRUSHED ROCK SHALL BE PER STANDARD SPECIFICATIONS, WITH THE FOLLOWING GRADATIONS:

SIEVE	% PASSING
1"	100 %
3/4"	90 - 100%
1/2"	20 - 55%
3/8"	0 - 15%
NO. 4	0 - 5%

2. FOR SEWER DIAMETERS DIFFERENT THAN SHOWN AND FOR DEPTHS OF COVER DIFFERENT THAN SHOWN, DISTRICT SHALL APPROVE PIPE BEDDING AND PIPE ZONE BACKFILL PRIOR TO CONSTRUCTION.
3. WHEN DEPTH REACHES 10'-0", ALL PIPE ZONE BEDDING SHALL BE 3/4" CRUSHED ROCK WITH A MINIMUM DEPTH OF 6" BELOW PIPE UNLESS OTHERWISE NOTED ON PLANS.

VITRIFIED CLAY PIPELINE BEDDING DETAIL

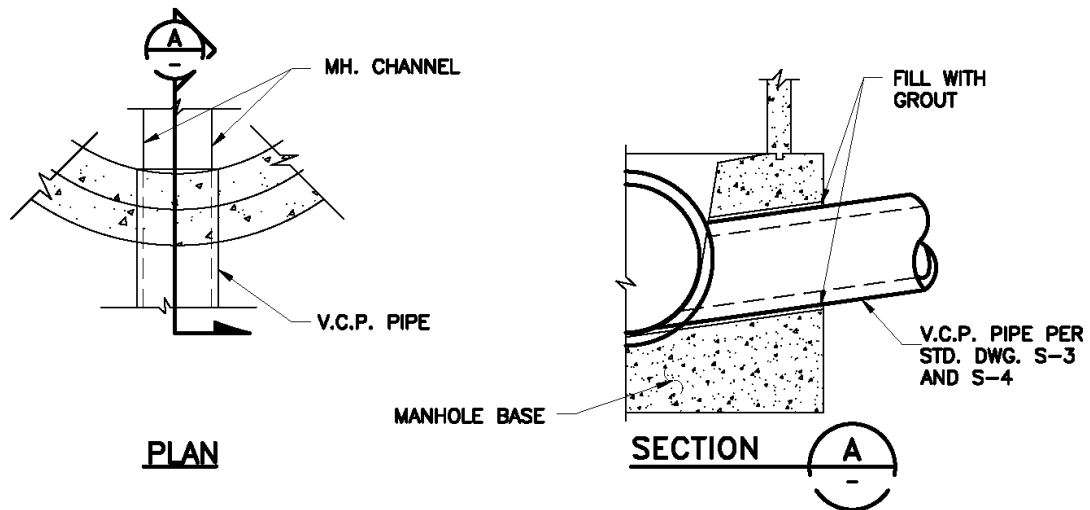
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MANHOLE CONNECTION DETAILS

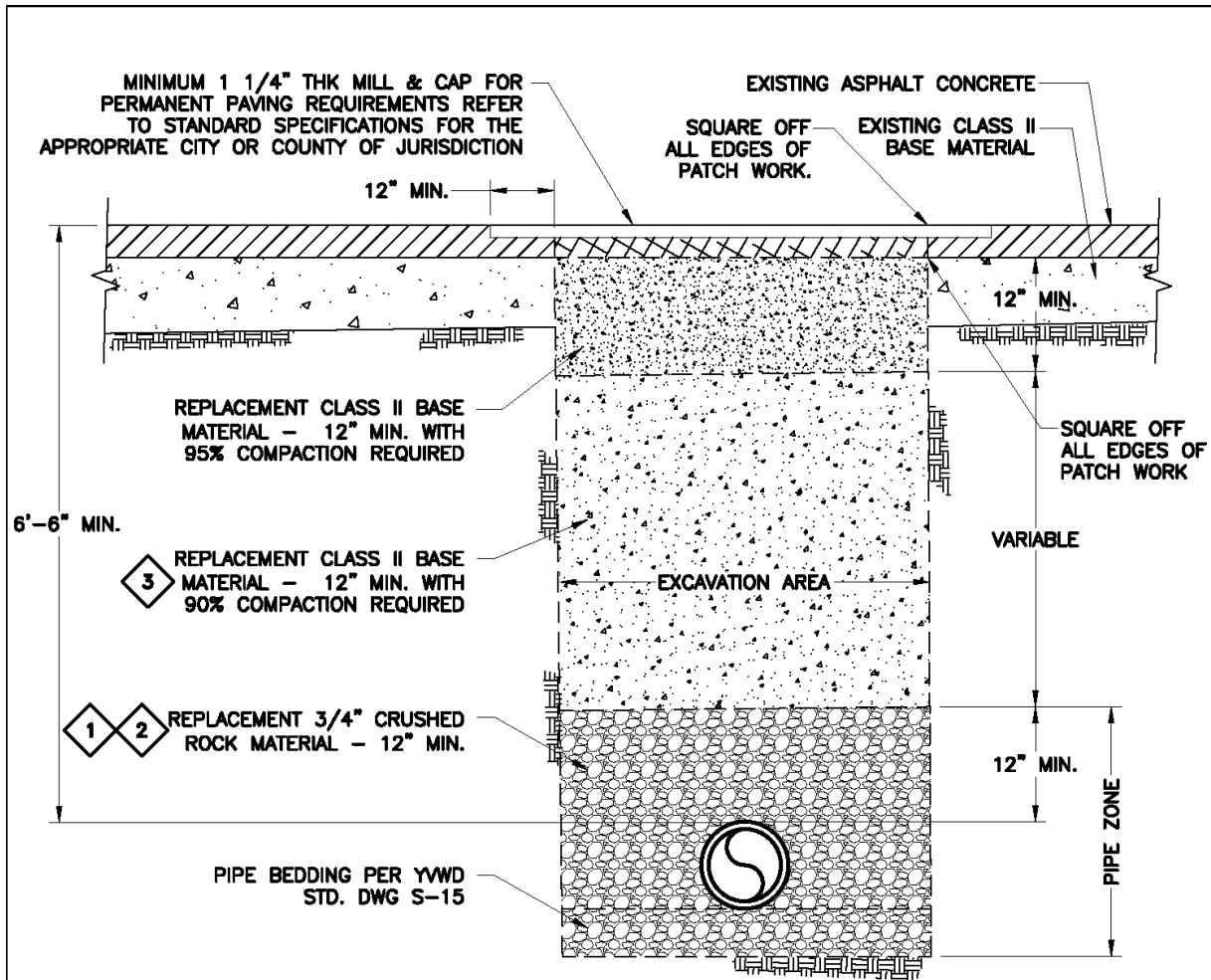
NOTES:

1. CONCRETE ENCASEMENT PER YVWD STD. DWG. S-18 SHALL BE USED WHERE THE TRENCH WIDTH AT THE UPPER LIMIT OF THE PIPE ZONE EXCEEDS THE MAX. WIDTH SPECIFIED ABOVE.
2. IF UNSTABLE SOIL IS ENCOUNTERED, DISTRICT REPRESENTATIVE SHALL DETERMINE DEPTH OF REMOVAL AND SIZE OF FOUNDATION ROCK REFILL MATERIAL.

SEE YVWD STD. DWGS. S-3, S-4, AND S-5 FOR MANHOLE DETAILS.

SPECIAL MANHOLE DETAILS

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NOTES:

- 1. 3/4" CRUSHED ROCK MATERIAL SHALL BE USED FOR PIPE ZONE BACK FILL. REMAINING BACK FILL WILL BE IN ACCORDANCE WITH DISTRICT REQUIREMENTS.
- 2. WHEN DEPTH REACHES 10'-0", ALL PIPE ZONE BEDDING SHALL BE 3/4" CRUSHED ROCK WITH A MINIMUM DEPTH OF 6" BELOW PIPE UNLESS OTHERWISE NOTED ON PLANS.
- 3. OUTSIDE OF STREET RIGHT OF WAY, COMPACTION SHALL BE 90%.
- 4. ADDITIONAL ARTERIAL STREET BACKFILL MAY BE REQUIRED BY APPROPRIATE CITY JURISDICTION.

SEE SHEET 2 OF 2 FOR PIPE VS. TRENCH SIZES.

TRENCH REPAIR DETAIL

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TRENCH REPAIR—PIPE SIZE VS TRENCH SIZE		
PIPE SIZE—INCHES (INSIDE DIAMETER)	TRENCH WIDTH—INCHES	
	MINIMUM	MAXIMUM
4	20	28
6	22	32
8	24	32
10	26	36
12	30	36
14	32	42
16	34	42

TRENCH REPAIR DETAIL

2019

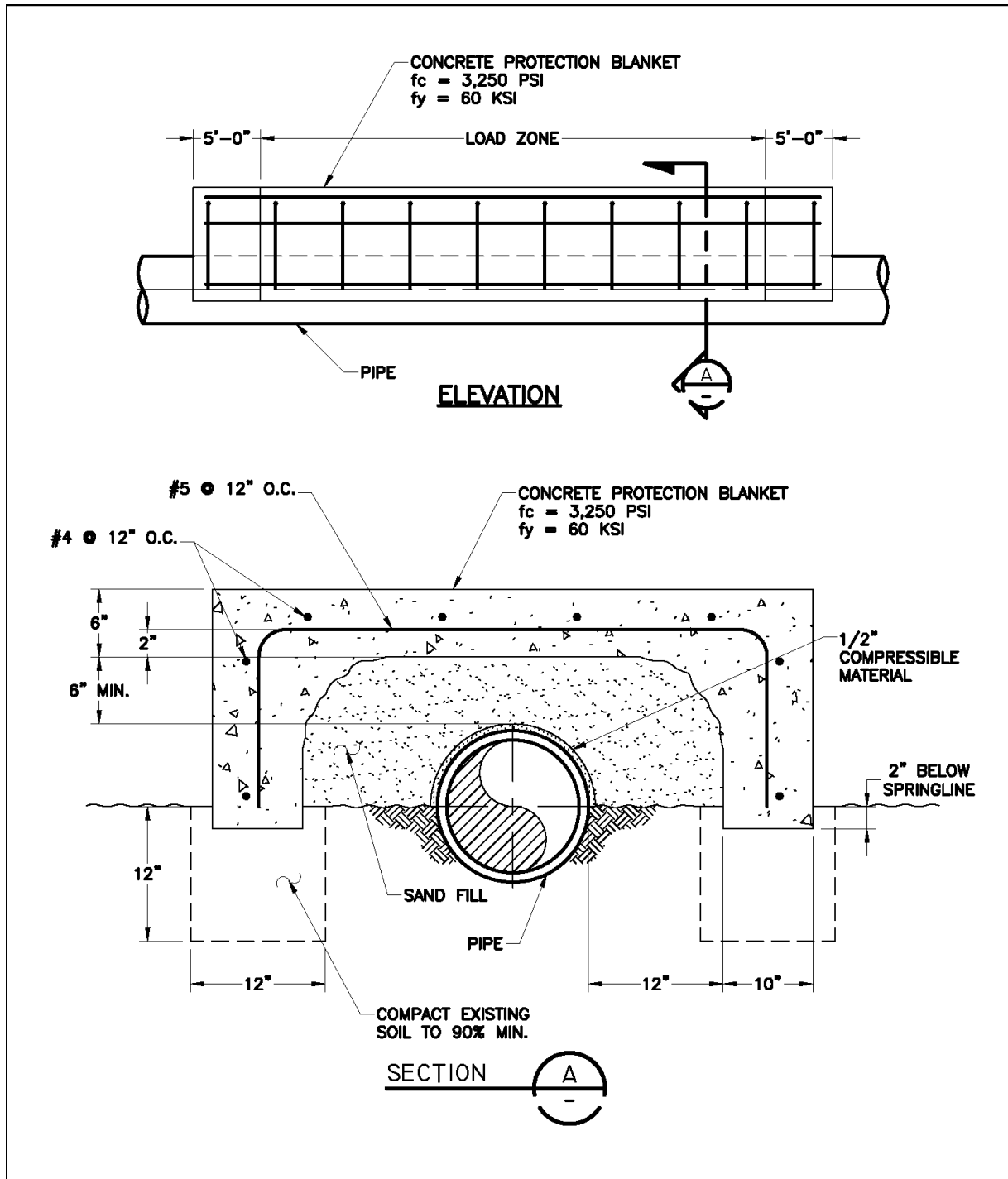


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SEWER MAINLINE PROTECTION DETAIL

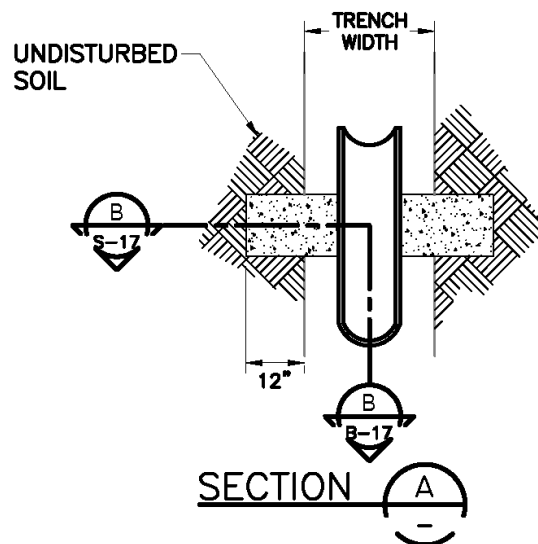
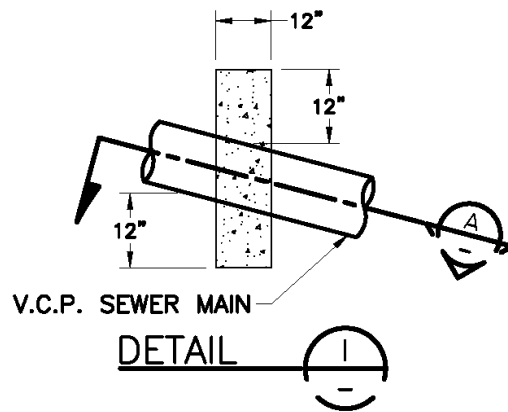
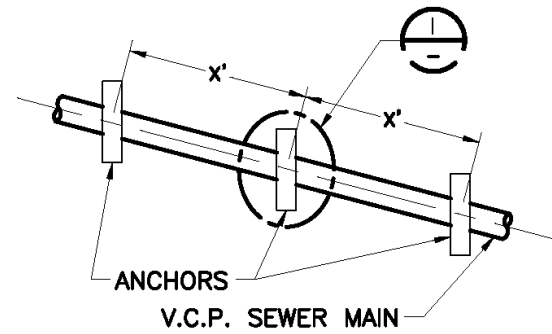
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SEE YWV. STD. DWG. S-17 SHEET 2 OF 2 FOR SECTION B, REINFORCING STEEL PATTERN, PIPE SLOPE SCHEDULE, AND NOTES.

CONCRETE SLOPE ANCHORS

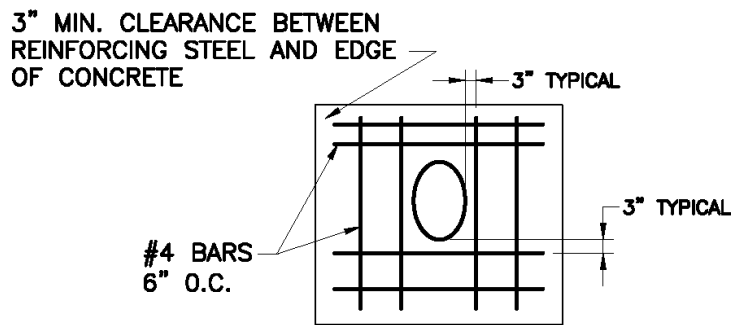
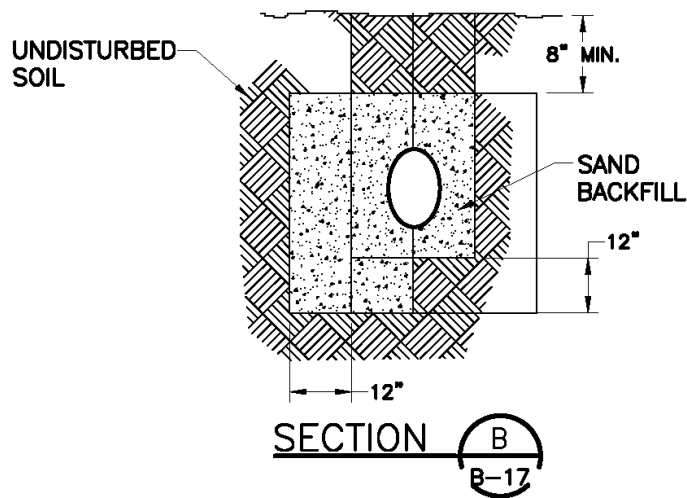
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REINFORCING STEEL PATTERN

PIPE SLOPE	PIPE SLOPE	X DISTANCE
100%	1:1	12'-0"
66.6%	1-1/2:1	14'-0"
50%	2:1	16'-0"
40%	2-1/2:1	18'-0"
33.3%	3:1	20'-0"

NOTES:

1. PIPE ANCHORS REQUIRED ON ALL SLOPES OF 3:1 OR STEEPER.
2. ANCHOR SHALL EXTEND 12" INTO NATURAL UNDISTURBED SOIL.
3. CONCRETE SHALL BE 3250 PSI MINIMUM.
4. ANCHORS FOR TRAPEZOIDAL TRENCH SECTIONS WILL CONFORM TO TRENCH CROSS SECTION AND EXTEND 12" INTO UNDISTURBED SOIL.

CONCRETE SLOPE ANCHORS

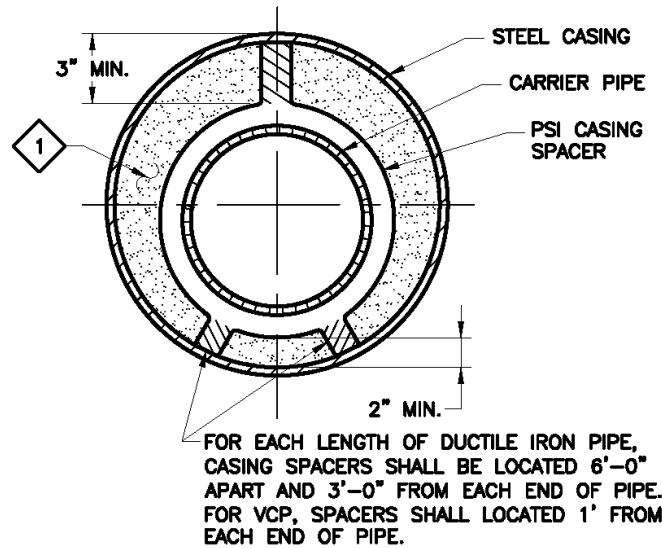
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STEEL CASING SCHEDULE

V.C.P. SIZE	MINIMUM CASING SIZE	MIN. WALL THICK.
6"	16" I.D.	1/4"
8"	18" I.D.	1/4"
10"	21" I.D.	5/16"
12"	24" I.D.	5/16"

NOTES:

1. THE ANNULAR SPACE BETWEEN THE CASING AND THE CARRIER PIPE SHALL BE FILLED WITH AIR BLOWN SAND.
2. UNLESS OTHERWISE NOTED, CASING SHALL BE INSTALLED BY THE BORE, JACK AND/OR TUNNEL METHOD. IF OPEN-CUT INSTALLATION OF CASING IS ALLOWED, BACKFILL SHALL BE IN ACCORDANCE WITH YWD STD. DWG S-17.
3. SIZE AND THICKNESS OF CASING SHALL BE AS SHOWN IN SCHEDULE.
4. ALL STEEL CASING PIPE FIELD JOINTS SHALL BE WELDED FULL-CIRCUMFERENCE.
5. PSI CASING SPACERS SHALL BE PROVIDED PER DETAIL ABOVE.
6. CARRIER PIPE SHALL BE AIR PRESSURE TESTED PRIOR TO FILLING CASING AND AGAIN WITH ENTIRE ENTIER PIPLINE
7. UPSTREAM AND DOWNSTREAM ELEVATIONS OF CARRIER PIPE TO BE VERIFIED PRIOR TO FILLING.
8. EACH END OF CASING SHALL BE SEALED WITH CONCRETE MORTAR.

STEEL CASING PIPE

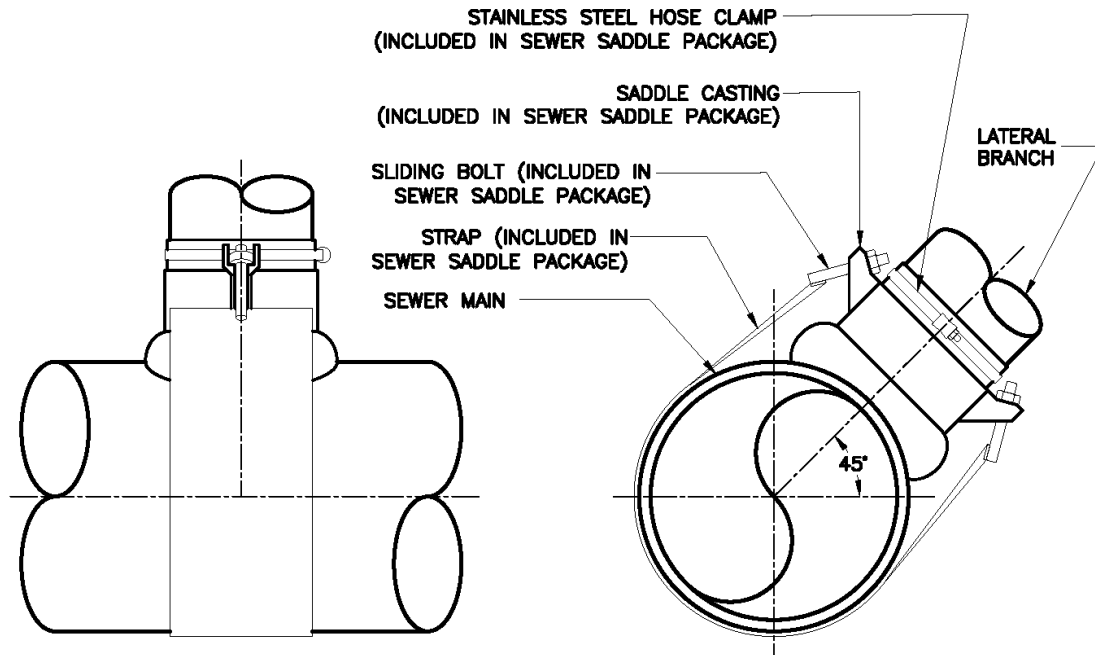
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SEWER SADDLE FOR 4" – 6" CLAY PIPE LATERAL CONNECTION

SEWER DIAMETER	ROMAC INDUSTRIES, INC. PART NUMBER	
	4" LATERAL BRANCH	6" LATERAL BRANCH
8" – 12"	CB-5.38	CB-7.56
14" – 24"	CB-5.38LS	CB-7.56LS
24" – 48"	CB-5.38XLS	CB-7.56XLS

NOTES:

1. LATERAL CONNECTION BY SADDLE METHOD SHALL BE USED ON PIPES 8" IN DIAMETER AND LARGER.
2. THE HOLE FOR THE COLLAR WYE FITTING FOR A SEWER SADDLE SHALL BE MADE WITH A TAPPING MACHINE. THE HOLE SHALL BE CLEANLY MACHINED, AND IF NECESSARY, WORKED BY HAND WITH A RASP OR SANDED TO ACCOMPLISH A TRUE AND NEAT OPENING FOR THE COLLAR WYE.
3. THE COLLAR WYE SADDLE SHALL BE SECURED TO THE SEWER MECHANICALLY.
4. DAMAGED PIPE SHALL BE REPAIRED AS DIRECTED BY THE DISTRICT REPRESENTATIVE.

4" AND 6" SEWER SADDLE CONNECTION TO EXISTING MAINLINE

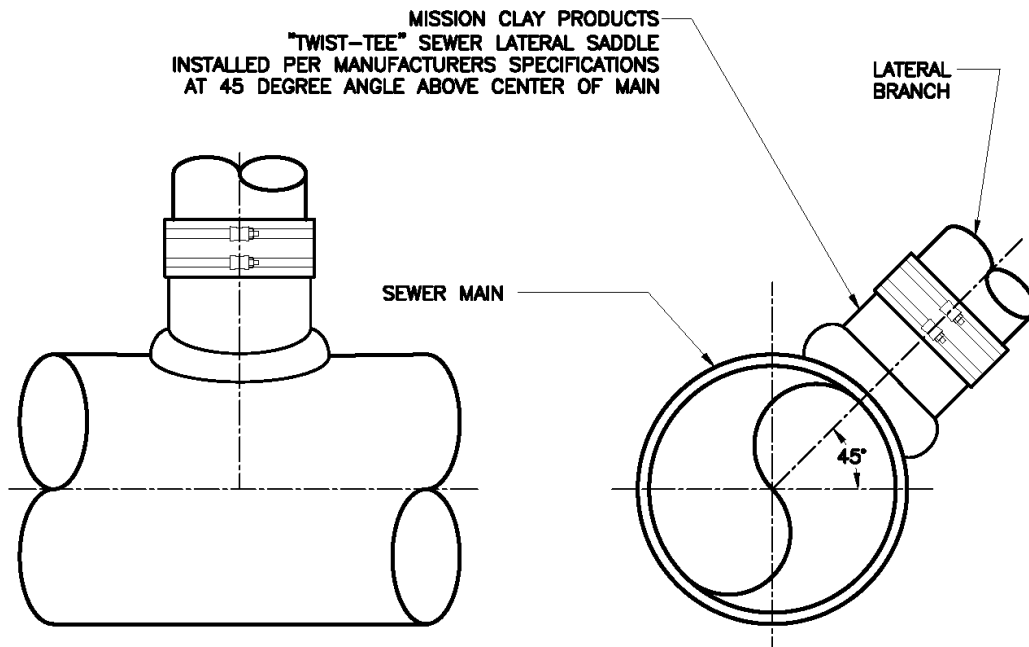
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SEWER SADDLE FOR 4" – 6" CLAY PIPE LATERAL CONNECTION

SEWER DIAMETER	MISSION CLAY PRODUCTS, LLC TWIST-TEE SEWER SADDLE			
	4" LATERAL BRANCH		6" LATERAL BRANCH	
	PRODUCT NUMBER	PRODUCT NAME	PRODUCT NUMBER	PRODUCT NAME
8" – 10"	1404632	TT4-0810	-	-
12" – 15"	1404634	TT4-1215	1406641	TT6-1215
16" – 27"	1404636	TT4-1627	1406643	TT6-1624

4" AND 6" SEWER SADDLE CONNECTION TO EXISTING MAINLINE

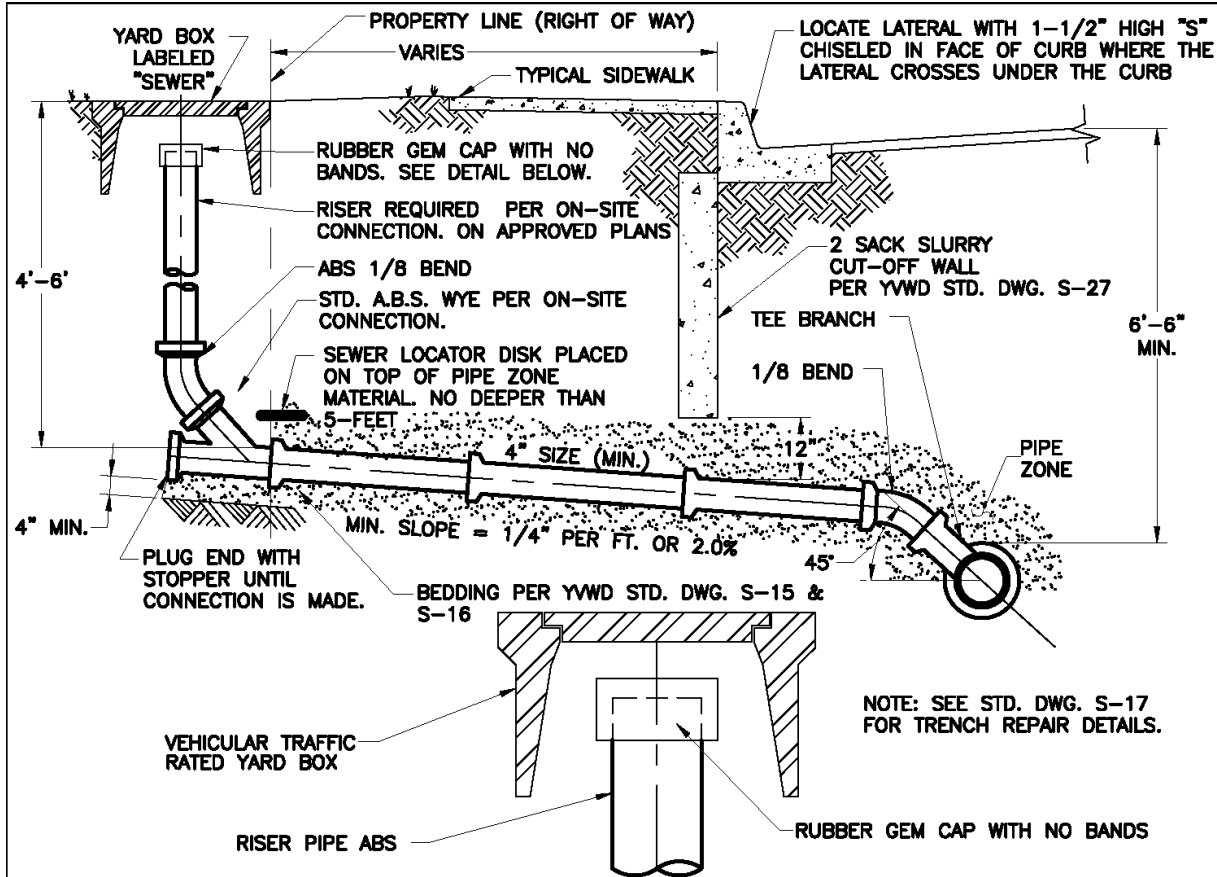
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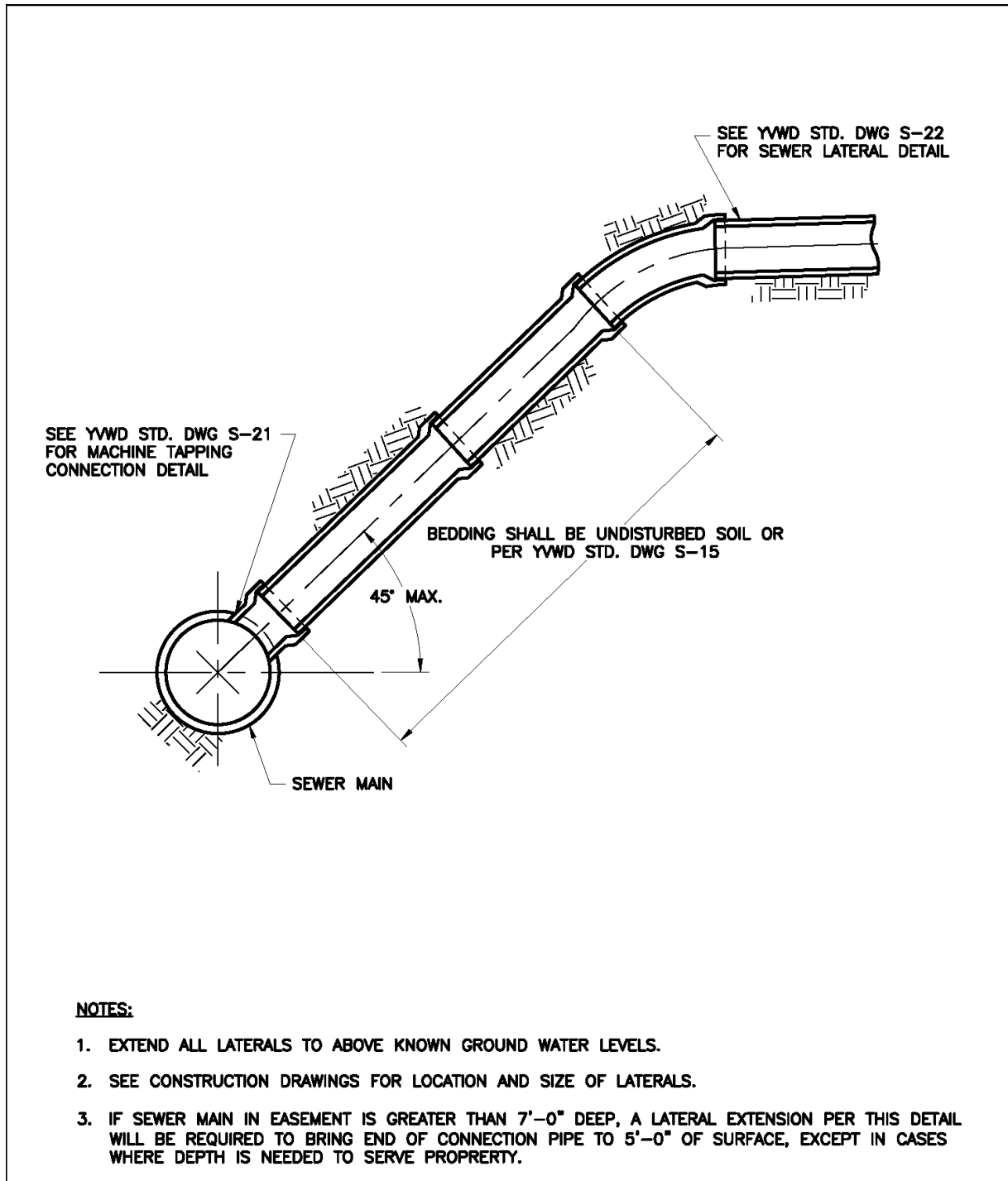
NOTES:

STOPPER DETAIL

1. LATERAL SIZE TO BE DETERMINED ON THE BASIS OF TOTAL NUMBER OF FIXTURE UNITS DRAINED, BUT IN NO CASE SHALL THE LATERAL DIAMETER BE LESS THAN FOUR INCHES FOR SINGLE OR MULTIPLE FAMILY RESIDENTIAL AND SIX INCHES FOR COMMERCIAL OR INDUSTRIAL. RISERS SHALL BE THE SAME SIZE AS THE LATERAL.
2. LATERAL TO BE INSTALLED TO PROPERTY LINE. ALL LATERALS ARE TO BE CONSTRUCTED OF EXTRA STRENGTH VITRIFIED CLAY PIPE. MUST BE INSTALLED WITH A MINIMUM HORIZONTAL OFFSET OF 36" FROM ALL OTHER UTILITIES.
3. PLACE 3/4" CRUSHED ROCK A MINIMUM OF 4" BELOW THE PIPE AND 1' ABOVE THE TEE OR WYE, AND LATERAL.
4. IF RISER IS NOT BUILT, PLUG WYE BRANCH WITH STOPPER.
5. INSTALL A SEWER LOCATOR DISK AT THE END OF ALL LATERAL RUNS AT RIGHT OF WAY.
6. ONLY LATERAL RUNS ARE PERMITTED TO BE EITHER "BELL AND SPIGOT", OR "BAND SEAL".
7. WHERE LATERALS ARE INSTALLED IN DRIVEWAYS, A TRAFFIC RATED BOX IS REQUIRED.
8. IF THE LATERAL IS INSTALLED UNDER A PERMANENT HARDSCAPE SUCH AS A CONCRETE DRIVEWAY ALL THE WAY TO THE STRUCTURE, THEN A CUT OFF WALL IS NOT REQUIRED.
9. SHALLOW SEWER LATERAL NEEDS PERMISSION FROM DISTRICT.

TYPICAL SEWER LATERAL

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DEEP SEWER LATERAL DETAIL

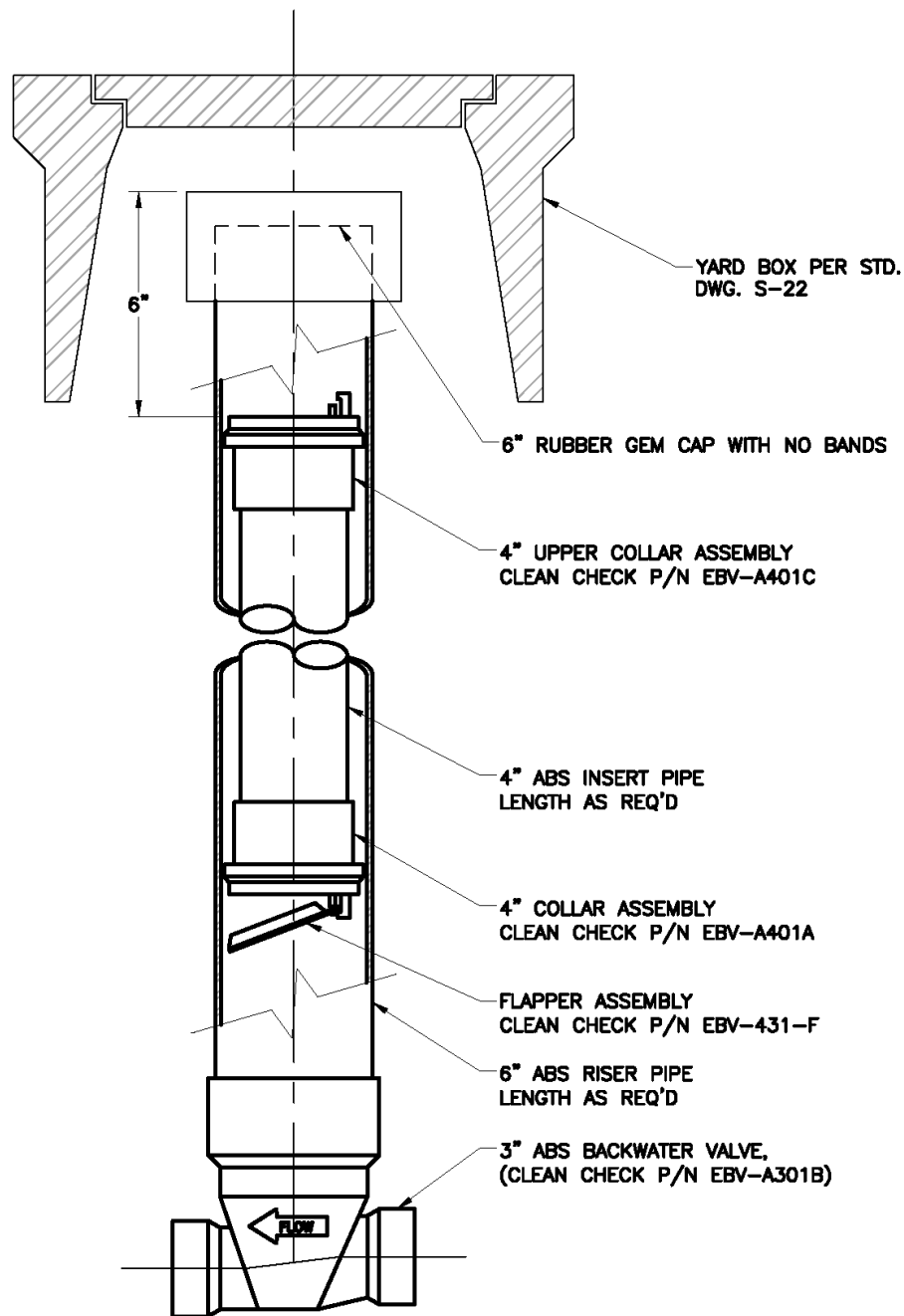
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BACKWATER VALVE DETAIL

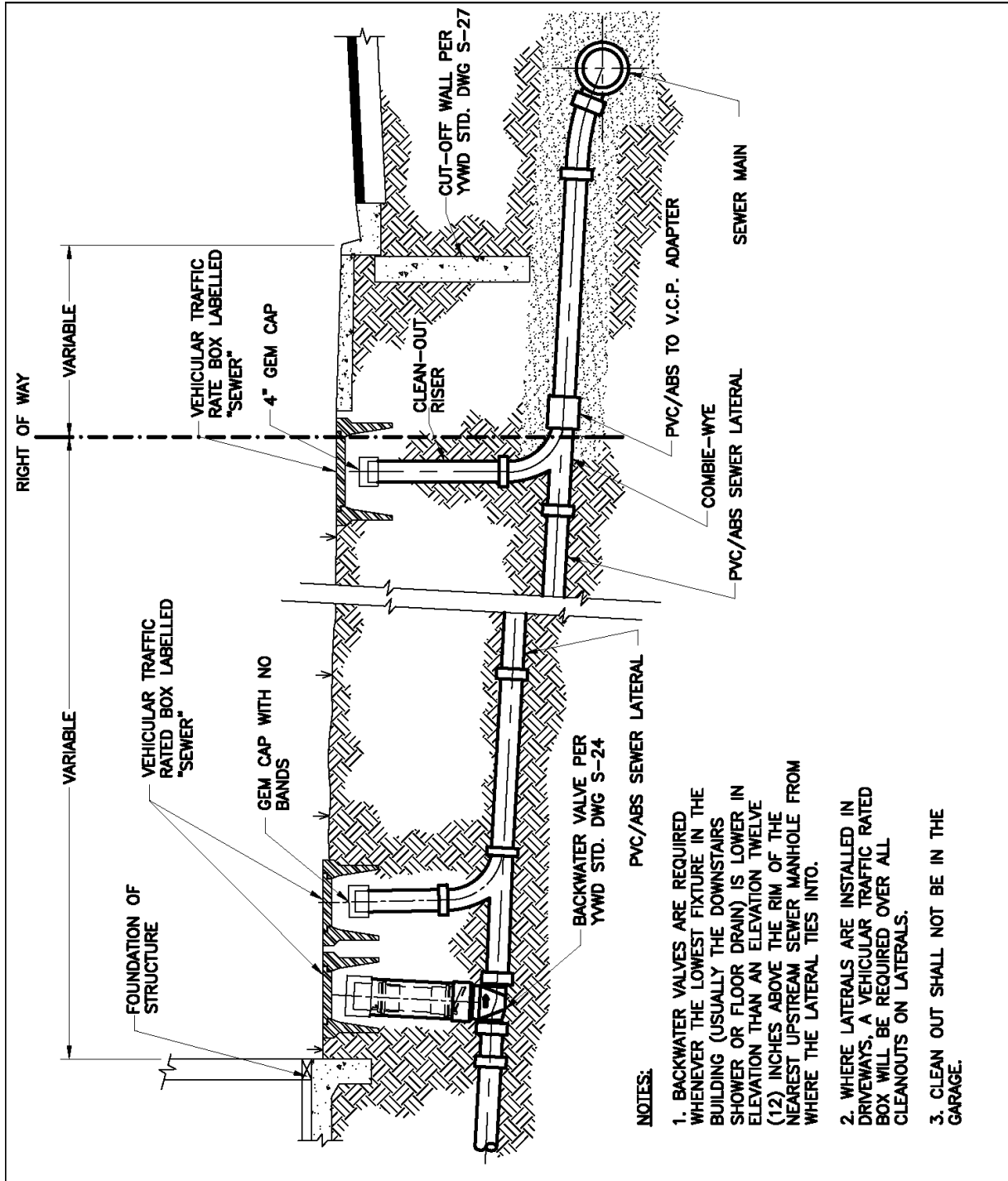
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- NOTES:**
1. BACKWATER VALVES ARE REQUIRED WHENEVER THE LOWEST FIXTURE IN THE BUILDING (USUALLY THE DOWNSTAIRS SHOWER OR FLOOR DRAIN) IS LOWER IN ELEVATION THAN AN ELEVATION TWELVE (12) INCHES ABOVE THE RIM OF THE NEAREST UPSTREAM SEWER MANHOLE FROM WHERE THE LATERAL TIES INTO.
 2. WHERE LATERALS ARE INSTALLED IN DRIVEWAYS, A VEHICULAR TRAFFIC RATED BOX WILL BE REQUIRED OVER ALL CLEANOUTS ON LATERALS.
 3. CLEAN OUT SHALL NOT BE IN THE GARAGE.

BACKWATER VALVE INSTALLATION DETAIL

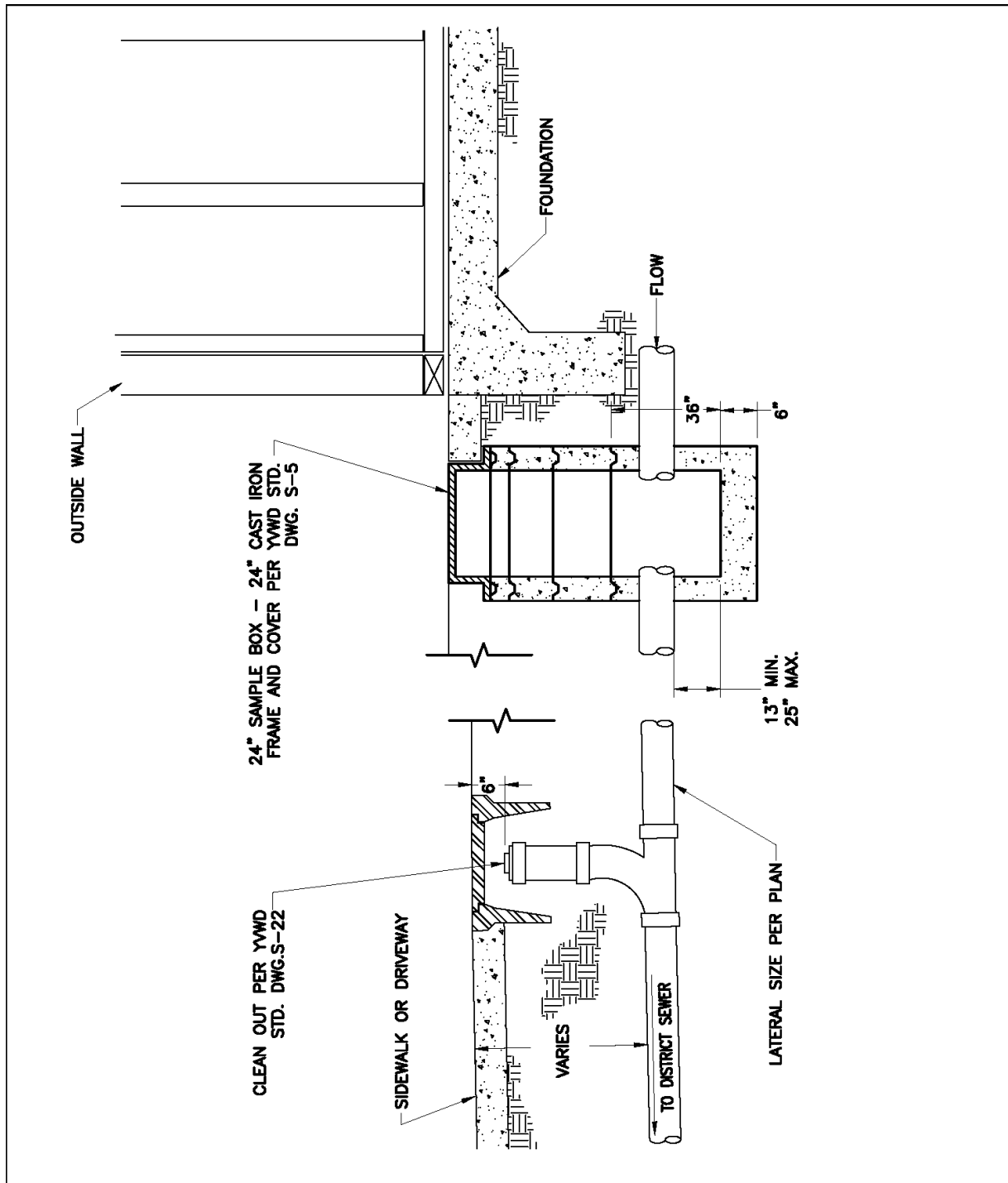
2019



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SEWER SAMPLING BOX

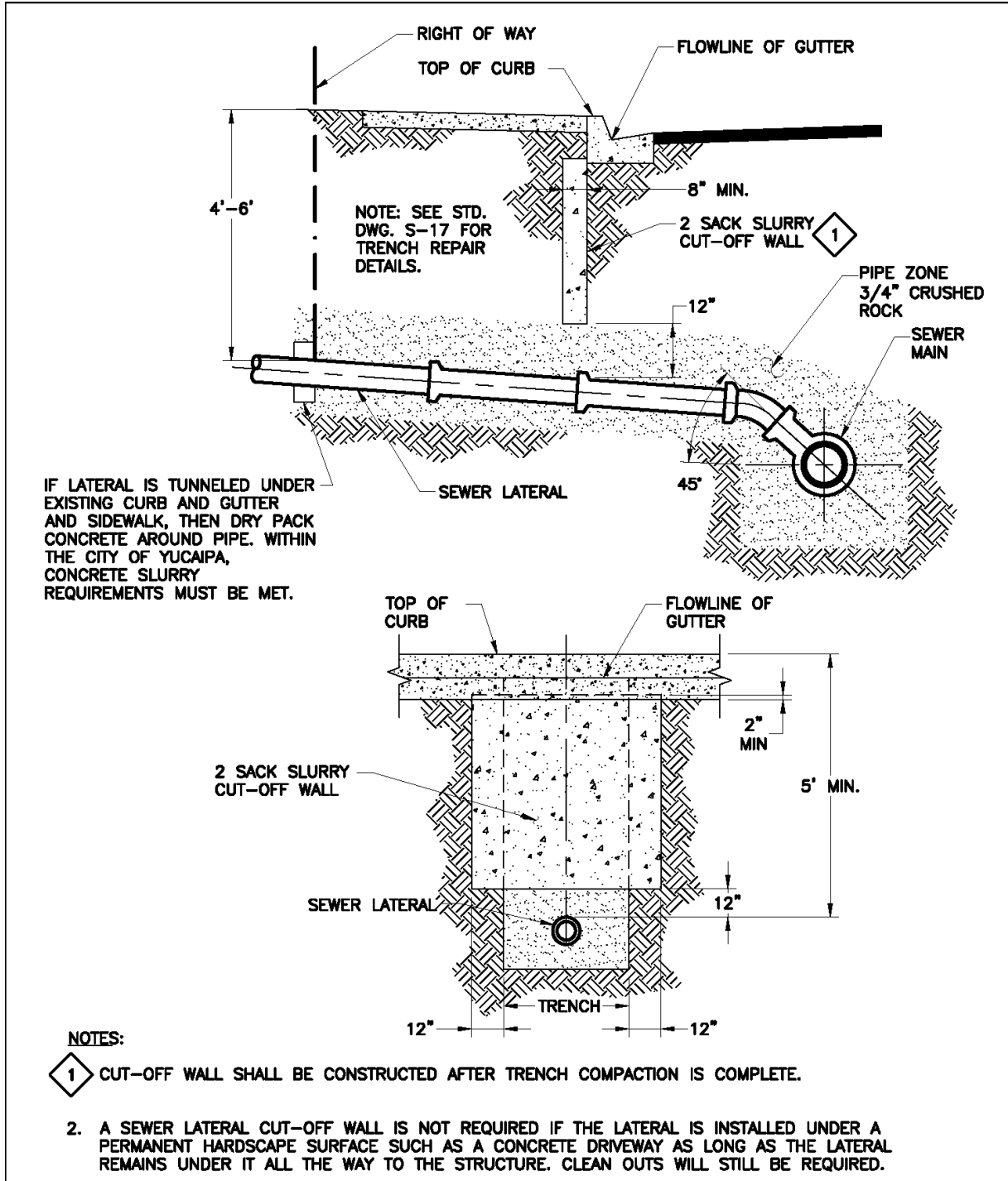
2019




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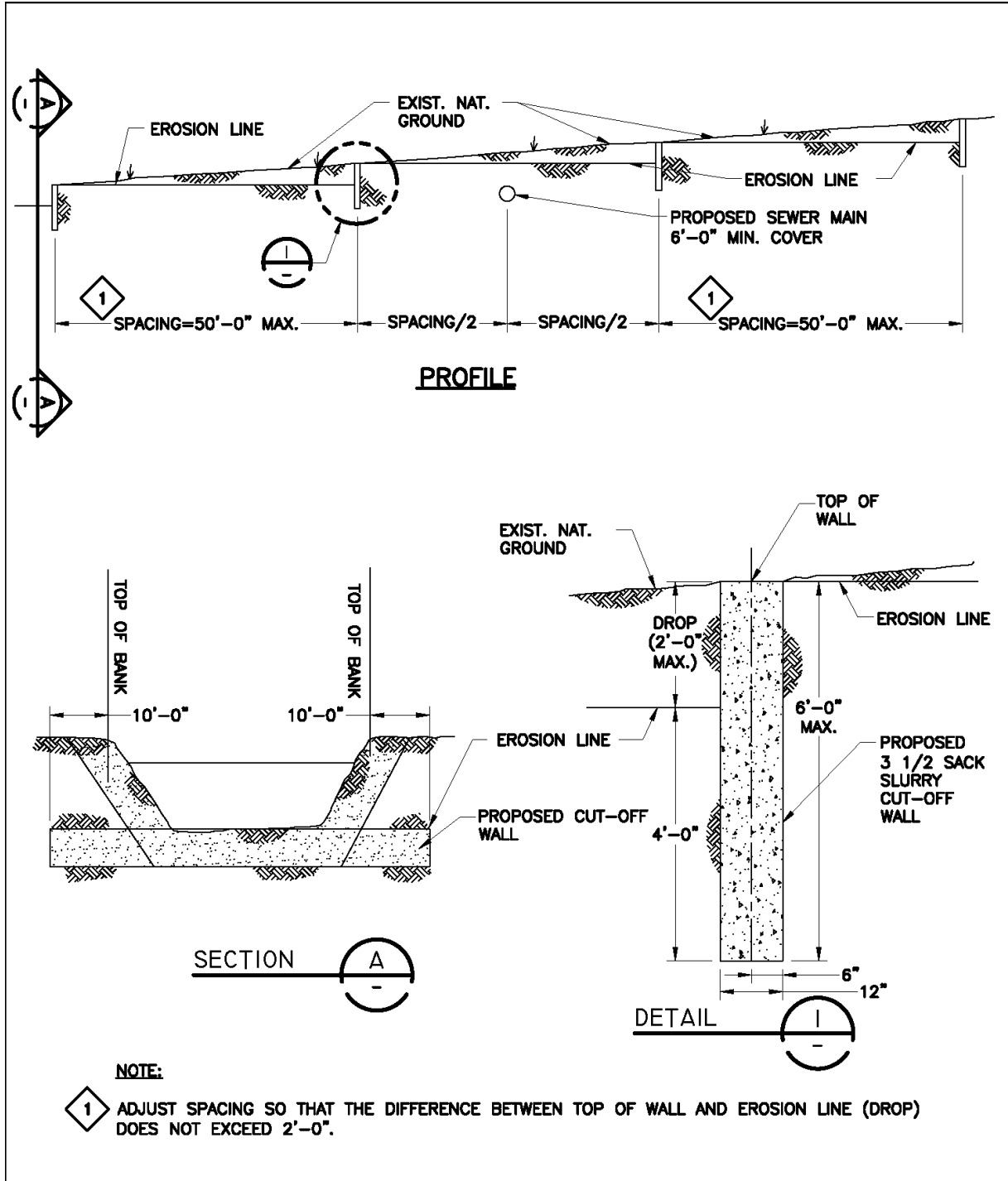
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SEWER LATERAL CUTOFF WALL DETAIL

2019	 <p style="margin: 0;">Yucaipa Valley Water District</p>	<p style="margin: 0;">Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX</p>	S-27
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EROSION CONTROL CUTOFF WALL DETAIL

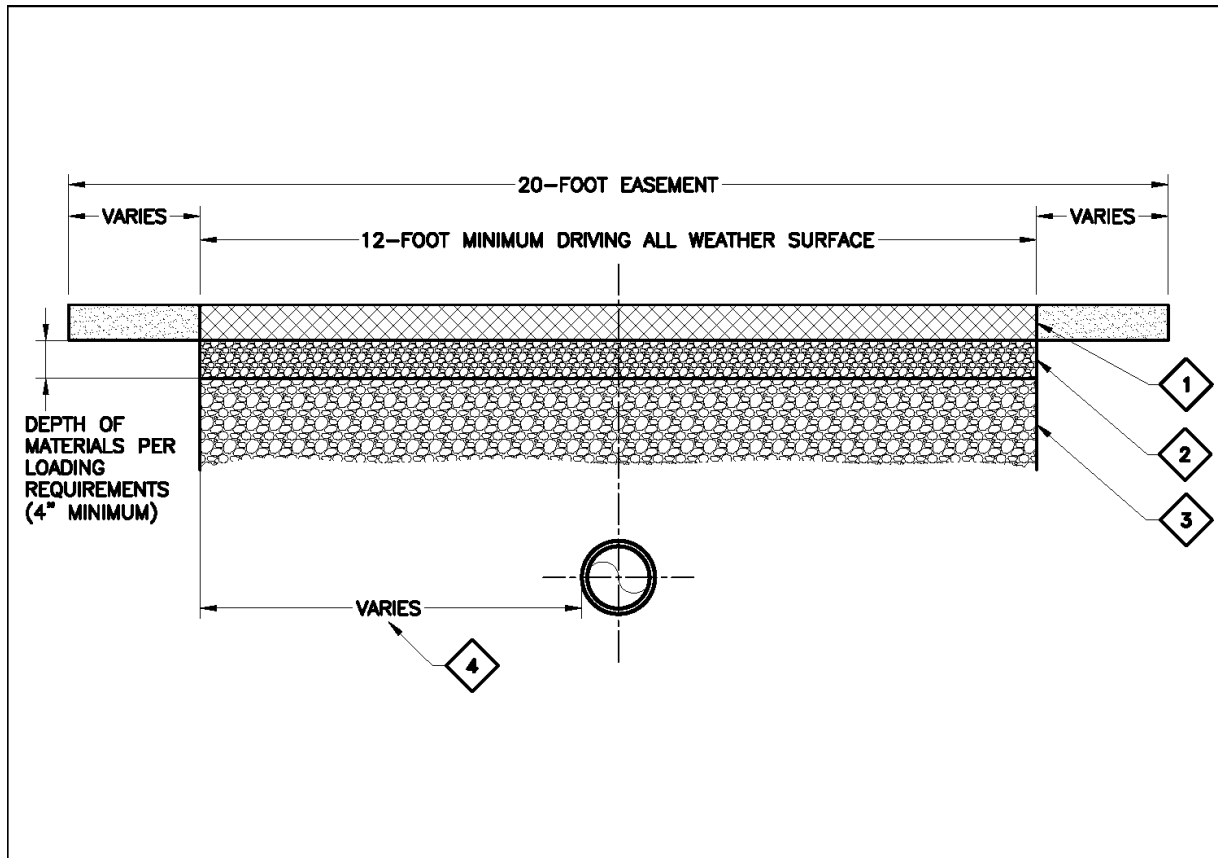
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NOTES:

- 1 ALL WEATHER SURFACE APPROVED MATERIALS INCLUDE ASPHALT, 3250 PSI CONCRETE, SOIL CEMENT OR OTHER APPROVED DRIVING SURFACE CAPABLE OF SUPPORTING AT LEAST 60,000 POUND VEHICLE ACCESS OVER 2 AXLE OR AS OTHERWISE DETERMINED BY THE DISTRICT.
- 2 SUBGRADE MATERIALS COMPACTED TO 95% MINIMUM UNLESS OTHERWISE APPROVED.
- 3 NATIVE OR IMPORTED BACKFILL, COMPACTED TO ENGINEERS SPECIFICATIONS FOR MATERIAL USED AS DRIVING SURFACE.
- 4 4-FOOT MINIMUM FROM EDGE OF ALL WEATHER SURFACE WHEN OVER DISTRICT UTILITY LINES.
- 5 EASEMENTS THAT HAVE ANGLES WILL REQUIRE A TURNING RADIUS. RADIUS POINT WILL BE DETERMINED BY THE DISTRICT.
- 6 NO PERMANENT WALL, FENCE, VEGETATION, OR STRUCTURE MAY BE CONSTRUCTED ACROSS OR WITHIN THE DISTRICT EASEMENT WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DISTRICT.
- 7 SLOPE ELEVATION DESIGN WILL BE REVIEWED AND APPROVED BY THE DISTRICT.

TYPICAL DISTRICT EASEMENT

2019	 <p>Yucaipa Valley Water District</p>	<p>Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX</p>	W-34
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Yucaipa Valley Water District

2019

STANDARD SPECIFICATIONS
FOR THE
DESIGN AND PROCESSING,
FURNISHING OF MATERIALS,
AND
CONSTRUCTION OF RECYCLED WATER FACILITIES

YVWD RECYCLED WATER FACILITY STANDARDS
DRAWING INDEX (NUMERICAL)

R-1	STANDARD DESIGN REQUIREMENTS AND LEGEND
R-2	RECYCLED WATER PIPELINE LOCATION
R-3	RECYCLED WATER NOTES FOR NON-RESIDENTIAL SITES
R-4	RECYCLED WATER NOTES FOR ONSITE RESIDENTIAL USE
R-5	3/4" RECYCLED WATER DUAL METER SERVICE FOR ADJOINING RESIDENCES
R-6	1" RECYCLED WATER SERVICE
R-7	1 1/2" AND 2" RECYCLED WATER SERVICE
R-15	1" AND 2" RECYCLED WATER AIR AND VACUUM VALVE ASSEMBLY
R-19	4" RECYCLED WATER BLOW-OFF ASSEMBLY
R-20	RESIDENTIAL DUAL PLUMBED SERVICE SCHEMATIC
R-21	RESIDENTIAL LOT IRRIGATION LAYOUT PLAN SUBMITTAL EXAMPLE
R-22	ONSITE IRRIGATION PIPELINE TRENCHING DETAIL FOR PLANNED RECYCLED WATER USE
R-23	RECYCLED WATER CROSS-CONNECTION CONTROL TEST STATION DETAIL
R-24	ONSITE IRRIGATION AUTOMATIC CONTROLLER - WALL MOUNT
R-25	ONSITE IRRIGATION BURIED ELECTRIC REMOTE CONTROL VALVE
R-26	TRENCH REPAIR AND PIPE BEDDING DETAIL
R-27	LOCKING BALL VALVE FOR FUTURE EXPANSION TO BACKYARD BY OWNER
R-28	TYPICAL DISTRICT EASEMENT

NOTE:

- DRAWINGS R-8 THROUGH R-14 ARE NOT IN USE
- (W) DRAWINGS LISTED BELOW ARE YVWD DRINKING WATER STANDARD DRAWINGS APPLICABLE TO RECYCLED FACILITIES

W-1	STANDARD LEGEND
W-3	UTILITY LOCATIONS - SECTIONS
W-6	3/4" AND 1" DRINKING WATER SERVICES ON MANIFOLD ASSEMBLY
W-8	3" AND 4" DRINKING WATER SERVICE
W-9	6" AND 8" DRINKING WATER SERVICE
W-10	DOUBLE CHECK BACKFLOW ASSEMBLY
W-11	REDUCED PRESSURE BACKFLOW ASSEMBLY
W-16	DRINKING WATER QUALITY SAMPLING STATION
W-18	FIRE HYDRANT INSTALLATIONS
W-20	VALVE AND VALVE BOX INSTALLATION
W-21	VALVE STEM EXTENSION
W-22	THRUST BLOCK DETAILS FOR RETROFIT ONLY
W-23	PRESSURE REDUCING STATION DETAILS
W-24	PREFABRICATED VAULT AND LID WITH VENT ASSEMBLY
W-25	ADJUSTABLE PIPE SUPPORT
W-26	STEEL CASING PIPE
W-30	TRENCH REPAIR AND PIPE BEDDING DETAIL
W-31	WATER PIPELINE PROTECTION DETAIL
W-32	RETROFIT FOR EXISTING 3/4 AND 1 INCH DRINKING WATER SERVICE
W-33	TYPICAL DISTRICT EASEMENT

RECYCLED WATER STANDARD INDEX

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YVWD RECYCLED WATER FACILITY STANDARDS
DRAWING INDEX (SUBJECT)

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- R-2 RECYCLED WATER PIPELINE LOCATION
- R-3 RECYCLED WATER NOTES FOR NON-RESIDENTIAL SITES
- R-4 RECYCLED WATER NOTES FOR ONSITE RESIDENTIAL USE
- R-26 TRENCH REPAIR DETAIL
- R-27 PIPE BEDDING DETAIL
- R-29 TYPICAL DISTRICT EASEMENT

- W-1 STANDARD LEGEND
- W-3 UTILITY LOCATIONS – SECTIONS
- W-30 TRENCH REPAIR AND PIPE BEDDING DETAIL

SERVICES

- R-5 3/4" RECYCLED WATER DUAL METER SERVICE FOR ADJOINING RESIDENCES
- R-6 1" RECYCLED WATER SERVICE
- R-7 1 1/2" AND 2" RECYCLED WATER SERVICE
- R-15 1" AND 2" RECYCLED WATER AIR AND VACUUM VALVE ASSEMBLY

- W-6 3/4" AND 1" DRINKING WATER SERVICES ON MANIFOLD ASSEMBLY
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- W-11 REDUCED PRESSURE BACKFLOW ASSEMBLY

BLOW-OFF AND VALVES

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- W-18 FIRE HYDRANT INSTALLATIONS
- W-20 VALVE AND VALVE BOX INSTALLATION
- W-21 VALVE STEM EXTENSION

NOTE: W- DWGS LISTED ARE YVWD WATER STANDARD DRAWINGS APPLICABLE TO RECYCLED FACILITIES.

RECYCLED WATER STANDARD INDEX

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Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX

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YVWD RECYCLED WATER FACILITY STANDARDS
DRAWING INDEX (SUBJECT)

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- W-26 STEEL CASING PIPE
- W-31 WATER PIPELINE PROTECTION DETAIL

PRESSURE REDUCING STATION AND VAULT DETAILS

- W-23 PRESSURE REDUCING STATION DETAILS
- W-24 PREFABRICATED VAULT AND LID WITH VENT ASSEMBLY
- W-25 ADJUSTABLE PIPE SUPPORT

IRRIGATION DESIGN REQUIREMENT DETAILS

- R-20 RESIDENTIAL DUAL PLUMBED SERVICE SCHEMATIC
- R-21 HOUSE IRRIGATION LAYOUT PLAN SUBMITTAL EXAMPLE
- R-22 ONSITE IRRIGATION PIPELINE TRENCHING DETAIL FOR PLANNED RECYCLED WATER USE
- R-23 RECYCLED WATER CROSS-CONNECTION CONTROL TEST STATION DETAIL
- R-24 ONSITE IRRIGATION AUTOMATIC CONTROLLER – WALL MOUNT
- R-25 ONSITE IRRIGATION BURIED ELECTRIC REMOTE CONTROL VALVE

NOTE: W- DWGS LISTED ARE YVWD WATER STANDARD DRAWINGS APPLICABLE TO DUAL PLUMBED FACILITIES.

RECYCLED WATER STANDARD INDEX

2019



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STANDARD DESIGN REQUIREMENTS:

PLAN SCALE SIZES ARE REQUIRED TO BE DESIGNED AT 1"=40', PROFILE AT 1"=4'. SPECIAL CONSTRUCTION DETAILS MAY BE ADJUSTED AS NECESSARY FOR DESIGN AND CONSTRUCTION PURPOSES.

ALL PLAN SHEETS SHALL BE ON 24-INCH BY 36-INCH ARCHITECTURAL SHEET SIZE D.

ALL PROJECTS SHALL BE SUBMITTED TO THE DISTRICT ON MYLAR PRIOR TO CONSTRUCTION.

ALL PROJECTS, UPON COMPLETION, SHALL UPDATE THE MYLAR PLANS AND PROVIDE AUTOCAD FILES FOR DISTRICT USE AND RECORDS UPON COMPLETION.

STANDARD LEGEND

	RIGHT OF WAY (R.O.W.)		
	CENTERLINE		
	EXISTING DRINKING WATER LINE		
	PROPOSED DRINKING WATER LINE		
	EXISTING RECYCLED WATER LINE		
	PROPOSED RECYCLED WATER LINE		
	EXISTING SEWER LINE		
	PROPOSED SEWER LINE		
	EXISTING GAS LINE		
	PROPOSED GAS LINE		
	SERVICE LATERAL		
	ENCASEMENT		
	EXISTING ELECTRICAL CONDUIT		
	PROPOSED ELECTRICAL CONDUIT		
	EXISTING TELEPHONE CONDUIT		
	PROPOSED TELEPHONE CONDUIT		
	EXISTING FIBER OPTIC CABLE		
	PROPOSED FIBER OPTIC CABLE		
	PORTLAND CEMENT CONCRETE IN SECTION		
	PORTLAND CEMENT CONCRETE IN PLAN		

	POWER POLE AND GUY LINE		CLEAN-OUT
	TRAFFIC SIGNAL EXISTING		HOUSE CONNECTION SEWER
	WATER WELL		WYE BRANCH
	BUTTERFLY VALVE		CUT-OFF WALL
	GATE VALVE	C.O.	CLEAN-OUT
	FIRE HYDRANT	D.I.P.	DUCTILE IRON PIPE
	BLOW-OFF	D.M.H.	DROP MANHOLE
	AIR & VACUUM VALVE ASSEMBLY (SIZE PER PLAN)	J.M.H.	JUNCTION MANHOLE
	DRINKING WATER QUALITY SAMPLE STATION	M.H.	MANHOLE
	RECYCLED WATER QUALITY SAMPLE STATION	V.C.P.	VITRIFIED CLAY PIPE

STANDARD DESIGN REQUIREMENTS AND LEGEND

2019



Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX

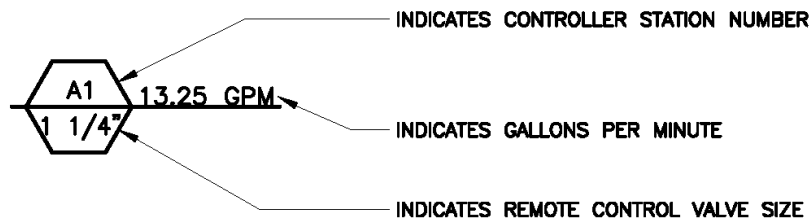
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IRRIGATION LEGEND

	REMOTE CONTROL VALVE	ELECTRIC CONTROL VALVE WITH RECYCLED ID TAGS
	PRESSURE REGULATING VALVE	WILKINS 70 SERIES, 3/4" SIZE
	ISOLATION VALVE	WITH RECYCLED ID TAGS
	IRRIGATION CONTROLLER	PEDESTAL OR EXTERIOR MOUNT WITH RECYCLED WATER LABEL
	DRINKING WATER HOSE BIB	
	VALVE	
	BACKFLOW PREVENTER	


— RW —	RECYCLED WATER MAINLINE	PURPLE PVC PIPE (OR APPROVED EQUAL) WITH 3" WARNING TAPE, SIZE PER PLAN
— W —	DRINKING WATER MAINLINE	COPPER PIPE WITH 3" WARNING TAPE
—	RECYCLED WATER LATERAL	PURPLE PVC PIPE (OR APPROVED EQUAL) WITH 3" WARNING TAPE, SIZE PER PLAN FOR NON-CONSTANT PRESSURE PIPE.
=====	RECYCLED WATER SLEEVING	2" MIN. SCHEDULE 40 PURPLE PVC PIPE
—	DRINKING WATER FEATURE FILL LINE	COPPER TUBING, TYPE K
	POINT OF CONNECTION (P.O.C.)	LOCKED VALVE TO BACK YARD

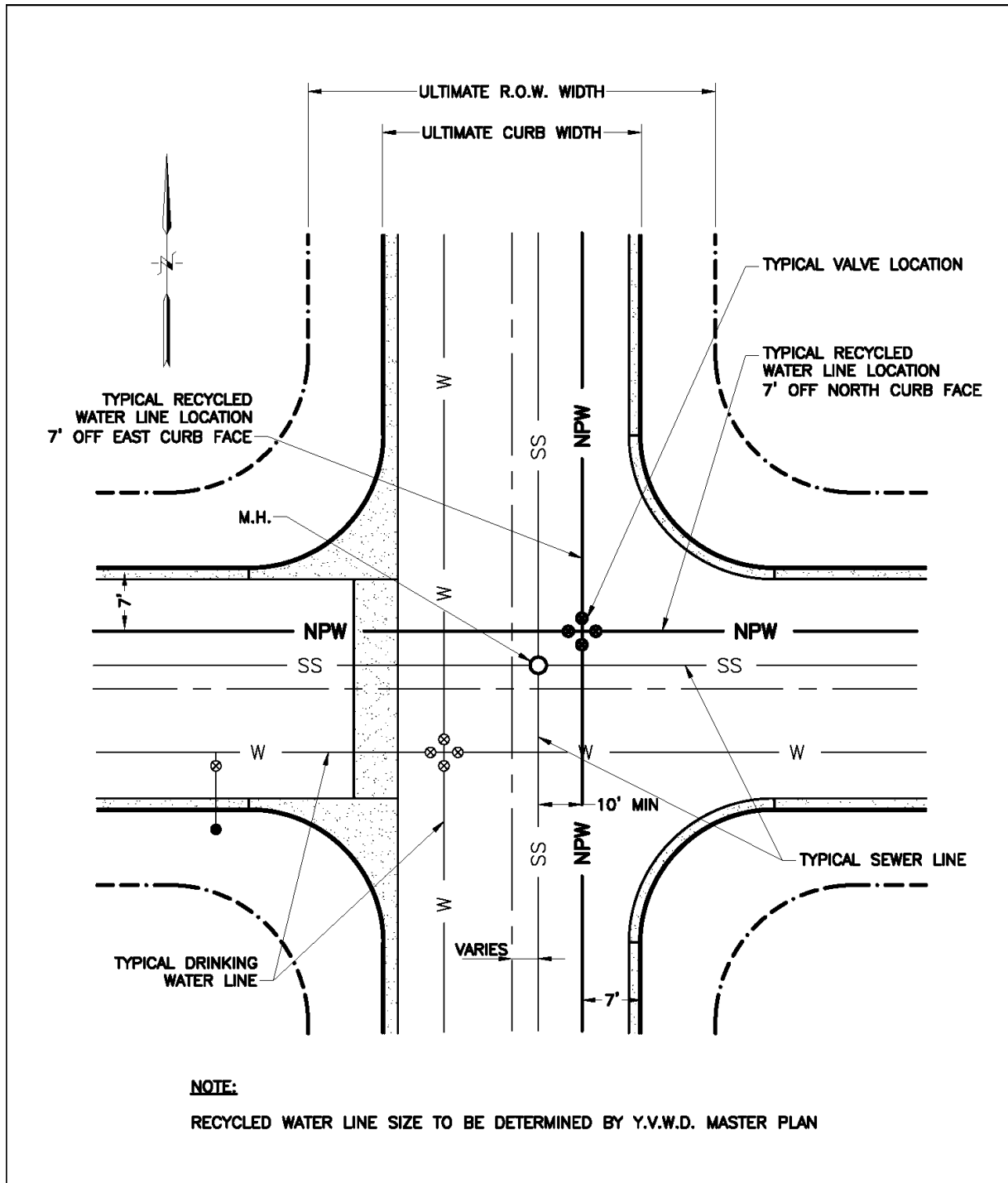


NOTE:

1. INSTALLATION OF RECYCLED WATER IRRIGATION SYSTEM SHALL BE IN CONFORMANCE WITH YVWD ON-SITE DESIGN AND CONSTRUCTION STANDARDS.

STANDARD DESIGN REQUIREMENTS AND LEGEND

2019	 <p>Yucaipa Valley Water District</p>	Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX	R-1
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RECYCLED WATER PIPELINE LOCATION

2019



Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX

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Sheet 1 of 1

1. THE INSTALLATION OF THE RECYCLED WATER SYSTEM SHALL BE ACCOMPLISHED UNDER THE APPROVAL, INSPECTION, AND TO THE SATISFACTION OF THE YUCAIPA VALLEY WATER DISTRICT (YVWD).
2. ALL WORK ON EXISTING AND FUTURE DISTRICT FACILITIES REQUIRES FULL TIME INSPECTIONS AS THE WORK IS TAKING PLACE. WORK ON ON-SITE FACILITIES WILL REQUIRE INSPECTIONS AS NECESSARY TO THE SATISFACTION OF THE DISTRICT AND OR THE STATE AS PERTAINING TO THE USE AND APPLICATION OF RECYCLED WATER. THE PROJECT OWNER OR A REPRESENTATIVE SUCH AS A SUPERINTENDENT, SHALL BE RESPONSIBLE FOR COORDINATING A PRE-CONSTRUCTION MEETING AND SCHEDULING ALL INSPECTIONS WITH THE YUCAIPA VALLEY WATER DISTRICT AT (909) 797-5118. ALL SCHEDULING OF PRE-CONSTRUCTION MEETINGS AND INSPECTIONS SHALL BE DONE A MINIMUM OF TWO (2) FULL WORKING DAYS AHEAD OF THE WORK TO TAKE PLACE.
3. THE PROPERTY OWNER AND OR THE SITE SUPERVISOR SHALL BE RESPONSIBLE FOR PROVIDING ACCESS TO AND COOPERATION WITH THE DISTRICT INSPECTOR TO PERFORM ALL INSPECTIONS AND TESTING.
4. CONNECTION TO THE EXISTING RECYCLED WATER FACILITIES SHALL BE PERFORMED BY A LICENSED CONTRACTOR IN ACCORDANCE WITH THE YUCAIPA VALLEY WATER DISTRICT RECYCLED WATER ON-SITE DESIGN AND CONSTRUCTION STANDARDS.
5. THERE SHALL NEVER BE ANY DIRECT CONNECTIONS BETWEEN THE DRINKING WATER AND RECYCLED WATER SYSTEMS.
6. RECYCLED WATER SHALL NOT BE USED FOR ANY PURPOSE OTHER THAN LANDSCAPE IRRIGATION AND APPROVED USES SUCH AS INDUSTRIAL USE OR IMPOUNDMENTS.
7. HOSE BIBS ARE PROHIBITED ON RECYCLED WATER SYSTEMS.
8. WATER USED IN HOSE BIBS SHALL BE DRINKING WATER AND ALL HOSE BIBS SHALL BE AFFIXED TO THE BUILDING WITH AN APPROPRIATE ANIT-SIPHON VALVE INSTALLED AT THE HOSE CONNECTION.
9. THE DRINKING WATER SYSTEM SHALL BE PROTECTED BY A UNIVERSITY OF SOUTHERN CALIFORNIA – FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH APPROVED BACKFLOW PREVENTION DEVICE. THE SPECIFIC DEVICE TO BE INSTALLED MAY BE DIRECTED BY THE YUCAIPA VALLEY WATER DISTRICT BASED UPON INSTALLATION REQUIREMENTS AND OR THE STANDARD DRAWINGS AVAILABLE AT THE TIME OF CONSTRUCTION. THE RECYCLED WATER SERVICE WILL NORMALLY NOT REQUIRE BACKFLOW PROTECTION (AT THE DISCRETION OF THE YUCAIPA VALLEY WATER DISTRICT.)
10. A MINIMUM OF TEN (10) FEET HORIZONTAL SEPARATION MUST BE MAINTAINED AT ALL TIMES BETWEEN THE CONSTANT PRESSURE DRINKING WATER AND RECYCLED WATER LINES. A MINIMUM OF ONE (1) FOOT VERTICAL SEPARATION MUST BE MAINTAINED AT ALL TIMES BETWEEN THE DRINKING WATER AN RECYCLED WATER LINES WITH THE RECYCLED WATERLINE BELOW THE DRINKING WATER.
11. ALL CROSSINGS BETWEEN DRINKING WATER AND RECYCLED WATER LINES SHALL BE AS NEAR TO PERPENDICULAR AS POSSIBLE AND THE RECYCLED WATER LINES SHALL BE SLEEVED A MINIMUM OF FIVE (5) FEET ON BOTH SIDES OF THE DRINKING WATER LINE.
12. SERVICE LINES FOR THE ON-SITE DRINKING WATER SYSTEM AND FILL LINES FOR WATER FEATURES CONNECTED TO THE DRINKING WATER SYSTEM SHALL BE CONSTRUCTED USING COPPER PIPE UNLESS OTHERWISE APPROVED BY THE YUCAIPA VALLEY WATER DISTRICT.
13. CONTINUOUS BLUE WARNING TAPE SHALL BE AFFIXED TO ALL BELOW GRADE POTABLE WATER PIPES; WARNING TAPE SHALL BE SECURED EVERY 5-FEET AND AT ALL ANGLE JOINTS IN ANY TRENCHES CARRYING DRINKING WATER. REFER TO T. CHRISTY’S OR APPROVED EQUAL.
14. CONTINUOUS PURPLE WARNING TAPE SHALL BE AFFIXED TO ALL BELOW GRADE RECYCLED WATER PIPES; WARNING TAPE SHALL BE SECURED EVERY 5-FEET AND ALL ANGLE JOINTS IN ANY TRENCHES CARRYING RECYCLED WATER. REFER TO T. CHRISTY’S OR APPROVED EQUAL.

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RECYCLED WATER NOTES FOR NON-RESIDENTIAL SITES

2019



Approved by the Yucaipa
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15. RECYCLED WATER PIPING SHALL BE PURPLE AND IDENTIFIED AS RECYCLED WATER PIPE BY CONTINUOUS MARKING ON BOTH SIDES. THE MARKINGS SHALL INCLUDE THE FOLLOWING: "WARNING RECYCLED WATER – DO NOT DRINK", NOMINAL PIPE SIZE, PRESSURE RATING, AND ASTM DESIGNATIONS.
16. RECYCLED WATER ISOLATION AND CONTROL VALVE BOXES SHALL BE WEATHERPROOF PURPLE PLASTIC AND MARKED "RECYCLED WATER". *NOTE – ALL CONTROL VALVES SHALL BE BURIED BLOW GRADE AUTOMATIC CONTROL VALVES OPERATED BY A PROGRAMMABLE CONTROLLER. ABOVE GROUND ANTI-SIPHON CONTROL VALVES ARE NOT ALLOWED.
17. ALL RECYCLED WATER IRRIGATION SYSTEM CONTROL VALVES, ISOLATION VALVES, QUICK COUPLERS, REGULATORS, AND APPURTENANCES SHALL BE TAGGED WITH IDENTIFICATION. IDENTIFICATION SHALL BE WEATHERPROOF PURPLE PLASTIC, 3-INCHES BY 4-INCHES AND IMPRINTED WITH "WARNING RECYCLED WATER – DO NOT DRINK". REFER TO T. CHRISTY'S OR APPROVED EQUAL.
18. ALL AREAS WHERE RECYCLED WATER IS USED SHALL BE POSTED WITH APPROVED SIGNAGE. EACH SIGN SHALL STATE "RECYCLED WATER – DO NOT DRINK" AND DISPLAY THE INTERNATIONAL "DO NOT DRINK" SYMBOL. SIGNS MAY BE PROVIDED AT THE DISCRETION OF THE YUCAIPA VALLEY WATER DISTRICT.
19. BEFORE ACTIVATION OF THE DRINKING WATER SERVICE THE BACKFLOW DEVICE SHALL BE TESTED AND APPROVED BY A LICENSED BACKFLOW TESTER. ARRANGEMENTS WITH THE YUCAIPA VALLEY WATER DISTRICT MUST BE MADE AT LEAST TWO (2) WORKING DAYS IN ADVANCE TO TURN ON THE DRINKING WATER SERVICE TO ALLOW TESTING OF THE DEVICE. DRINKING WATER SERVICES WILL NOT BE ACTIVATED UNTIL THE BACKFLOW DEVICE PASSES INSPECTION.
20. BEFORE ACTIVATION OF ANY RECYCLED WATER SERVICE, THE PROJECT SHALL COMPLETE THE FOLLOWING PROCESSES;
 - A.) PROVIDE A COMPLETED "YUCAIPA VALLEY WATER DISTRICT – ENGINEERS SUPPLEMENTAL REPORT"
 - B.) OWNER OR LANDSCAPE MAINTENANCE SUPERVISOR(S) SHALL COMPLETE AN AUTHORIZED "RECYCLED WATER USER SITE SUPERVISOR TRAINING" COURSE AS REQUIRED BY THE YUCAIPA VALLEY WATER DISTRICT AND STATE OF CALIFORNIA DEPARTMENT OF DRINKING WATER.
 - C.) PROVIDE SITE PLANS INDICATING FOOTPRINTS FOR ALL STRUCTURAL, HARDSCAPE AND LANDSCAPE AREAS. SITE PLANS TO INCLUDE COLOR CODED WATER LINE LOCATIONS FOR EASIER IDENTIFICATION IN THE FOLLOWING COLORS;

DRINKING WATER	(BLUE)
FIRE SUPPRESSION SYSTEMS	(RED)
RECYCLED WATER LINES	(PURPLE)
 - D.) PROVIDE IRRIGATION AND PLUMBING PLANS AS REQUIRED BY THE YUCAIPA VALLEY WATER DISTRICT OR THE CALIFORNIA DEPARTMENT OF DRINKING WATER FOR PERMITTING PURPOSES.
 - E.) ONCE ALL PLANS AND ENGINEERS SUPPLEMENTAL REPORT(S) HAVE BEEN REVIEWED AND APPROVED BY THE DISTRICT, THE SITE MUST COMPLETE A CROSS-CONNECTION TEST AND INSPECTION FOR PRELIMINARY APPROVAL OF THE IRRIGATION SYSTEM USING A TEMPORARY DRINKING WATER CONNECTION. THE PROPERTY OWNER OR CONTRACTOR SHALL ARRANGE WITH THE DISTRICT FOR AN IRRIGATION COVERAGE TEST AND MAKE ANY MODIFICATIONS OR ADJUSTMENTS DEEMED REQUIRED BEFORE FINAL SUBMITTAL TO THE CALIFORNIA DEPARTMENT OF DRINKING WATER FOR REVIEW. ALL PRELIMINARY WATER USE PRIOR TO RECEIVING RECYCLED WATER SHALL BE COMPLETED BY USING A TEMPORARY DRINKING WATER SOURCE AUTHORIZED BY THE DISTRICT.
 THE DEPARTMENT OF DRINKING WATER HAS THE AUTHORITY FOR FINAL APPROVAL OR DENIAL FOR RECYCLED WATER SUE PERMITS. THE OWNER SHALL BE RESPONSIBLE FOR MAKING ANY AND ALL CORRECTIONS THAT MAY BE REQUIRED OF THE SITE BY THE DEPARTMENT OF DRINKING WATER.
 PROVIDED THAT ALL REQUIREMENTS ARE MET FOR OBTAINING A RECYCLED WATER USER PERMIT FOR A SITE, THE OWNER AND OR SITE SUPERVISOR SHALL THEN MAINTAIN THE SITE AS ORIGINALLY PERMITTED. CHANGES TO THE SITE MUST BE PRIOR APPROVED BY THE DISTRICT IN WRITING AND WILL NEED TO COMPLETE THE ABOVE LIST OF REQUIREMENTS AS NECESSARY. THE SITE WILL REQUIRE ANNUAL INSPECTIONS BY THE YUCAIPA VALLEY WATER DISTRICT FOR UPDATES OR NOTATION OF CHANGES. ONCE EVERY FOUR (4) YEARS, THE SITE WILL REQUIRE AN IN-DEPTH REVIEW, INSPECTION AND CROSS-CONNECTION TEST TO ENSURE COMPLIANCE WITH THE RECYCLED WATER SUE PERMIT FROM THE CALIFORNIA DEPARTMENT OF DRINKING WATER.

(CONTINUED ON SHEET 3)

RECYCLED WATER NOTES FOR NON-RESIDENTIAL SITES

2019



Yucaipa Valley
Water District


Approved by the Yucaipa
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- 21. ALL SPRAY HEADS SHALL BE ADJUSTED TO ELIMINATE OVERSPRAY AND RUNOFF ONTO ADJACENT HARDSCAPES, DRINKING FOUNTAINS OR WATER FEATURES AND OUTDOOR FURNITURE SUCH AS TABLES, ETC.
- 22. RECYCLED WATER OVERHEAD SPRAY IRRIGATION SYSTEMS ARE RESTRICTED FOR TIME OF USE TO OPERATE BETWEEN THE HOURS OF 9:00 PM AND 6:00 AM. RECYCLED WATER DRIP IRRIGATION SYSTEMS ARE NOT RESTRICTED TO A TIME OF USE.
- 23. RECYCLED WATER OVERHEAD SPRAY IRRIGATION IS RESTRICTED AND NOT PERMITTED WITHIN 5-FEET OF STRUCTURES AND 2-FEET FROM HARDSCAPES.
- 24. FAILURE TO COMPLY WITH ANY OF THE YUCAIPA VALLEY WATER DISTRICT STANDARDS OR REQUIREMENTS MAY RESULT IN THE TERMINATION OF RECYCLED WATER AND/OR POTABLE WATER SERVICE.

**RECYCLED WATER NOTES
FOR NON-RESIDENTIAL SITES**

2019	 <p style="margin: 0;">Yucaipa Valley Water District</p>	<p>Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX</p>	R-3
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1. THE INSTALLATION OF THE RECYCLED WATER SYSTEM SHALL BE ACCOMPLISHED UNDER THE APPROVAL, INSPECTION, AND TO THE SATISFACTION OF THE YUCAIPA VALLEY WATER DISTRICT (YVWD).
2. ALL WORK ON EXISTING AND FUTURE DISTRICT FACILITIES REQUIRES FULL TIME INSPECTIONS AS THE WORK IS TAKING PLACE. WORK ON ON-SITE FACILITIES WILL REQUIRE INSPECTIONS AS NECESSARY TO THE SATISFACTION OF THE DISTRICT AND OR THE STATE AS PERTAINING TO THE USE AND APPLICATION OF RECYCLED WATER. THE HOMEOWNER OR A REPRESENTATIVE SUCH AS A CONTRACTOR, SHALL BE RESPONSIBLE FOR COORDINATING A PRE-CONSTRUCTION MEETING AND SCHEDULING ALL INSPECTIONS WITH THE YUCAIPA VALLEY WATER DISTRICT AT (909) 797-5118. ALL SCHEDULING OF PRE-CONSTRUCTION MEETINGS AND INSPECTIONS SHALL BE DONE A MINIMUM OF TWO (2) FULL WORKING DAYS AHEAD OF THE WORK TO TAKE PLACE.
3. THE HOMEOWNER AND OR THE SITE SUPERVISOR SHALL BE RESPONSIBLE FOR PROVIDING ACCESS TO AND COOPERATION WITH THE DISTRICT INSPECTOR TO PERFORM ALL INSPECTIONS AND TESTING.
4. CONNECTION TO THE EXISTING RECYCLED WATER FACILITIES SHALL BE PERFORMED BY A LICENSED CONTRACTOR IN ACCORDANCE WITH THE YUCAIPA VALLEY WATER DISTRICT RECYCLED WATER ON-SITE DESIGN AND CONSTRUCTION STANDARDS.
5. THERE SHALL NEVER BE ANY DIRECT CONNECTIONS BETWEEN THE DRINKING WATER AND RECYCLED WATER SYSTEMS.
6. RECYCLED WATER SHALL NOT BE USED FOR ANY PURPOSE OTHER THAN LANDSCAPE IRRIGATION.
7. HOSE BIBS ARE PROHIBITED ON RECYCLED WATER SYSTEMS.
8. WATER USED IN HOSE BIBS SHALL BE DRINKING WATER AND ALL HOSE BIBS SHALL BE AFFIXED TO THE HOUSE WITH AN APPROPRIATE ANIT-SIPHON VALVE INSTALLED AT THE HOSE CONNECTION.
9. THE DRINKING WATER SYSTEM SHALL BE PROTECTED BY A UNIVERSITY OF SOUTHERN CALIFORNIA – FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH APPROVED BACKFLOW PREVENTION DEVICE. THE SPECIFIC DEVICE TO BE INSTALLED MAY BE DIRECTED BY THE YUCAIPA VALLEY WATER DISTRICT BASED UPON INSTALLATION REQUIREMENTS AND OR THE STANDARD DRAWINGS AVAILABLE AT THE TIME OF CONSTRUCTION. THE RECYCLED WATER SERVICE WILL NORMALLY NOT REQUIRE BACKFLOW PROTECTION (AT THE DISCRETION OF THE YUCAIPA VALLEY WATER DISTRICT.)
10. A MINIMUM OF TEN (10) FEET HORIZONTAL SEPARATION MUST BE MAINTAINED AT ALL TIMES BETWEEN THE CONSTANT PRESSURE DRINKING WATER AND RECYCLED WATER LINES. A MINIMUM OF ONE (1) FOOT VERTICAL SEPARATION MUST BE MAINTAINED AT ALL TIMES BETWEEN THE DRINKING WATER AN RECYCLED WATER LINES WITH THE RECYCLED WATER LINE BELOW THE DRINKING WATER.
11. ALL CROSSINGS BETWEEN DRINKING WATER AND RECYCLED WATER LINES SHALL BE AS NEAR TO PERPENDICULAR AS POSSIBLE AND THE RECYCLED WATER LINES SHALL BE SLEEVED A MINIMUM OF FIVE (5) FEET ON BOTH SIDES OF THE DRINKING WATER LINE.
12. SERVICE LINES FOR THE ON-SITE DRINKING WATER SYSTEM AND FILL LINES FOR WATER FEATURES CONNECTED TO THE DRINKING WATER SYSTEM SHALL BE CONSTRUCTED USING COPPER PIPE UNLESS OTHERWISE APPROVED BY THE YUCAIPA VALLEY WATER DISTRICT.
13. CONTINUOUS BLUE WARNING TAPE SHALL BE AFFIXED TO ALL BELOW GRADE POTABLE WATER PIPES; WARNING TAPE SHALL BE SECURED EVERY 5-FEET AND AT ALL ANGLE JOINTS IN ANY TRENCHES CARRYING DRINKING WATER. REFER TO T. CHRISTY’S OR APPROVED EQUAL.
14. CONTINUOUS PURPLE WARNING TAPE SHALL BE AFFIXED TO ALL BELOW GRADE RECYCLED WATER PIPES; WARNING TAPE SHALL BE SECURED EVERY 5-FEET AND ALL ANGLE JOINTS IN ANY TRENCHES CARRYING RECYCLED WATER. REFER TO T. CHRISTY’S OR APPROVED EQUAL.

(CONTINUED ON SHEET 2)

RECYCLED WATER NOTES FOR ONSITE RESIDENTIAL USE

2019



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Valley Water District Board of
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15. RECYCLED WATER PIPING SHALL BE PURPLE AND IDENTIFIED AS RECYCLED WATER PIPE BY CONTINUOUS MARKING ON BOTH SIDES. THE MARKINGS SHALL INCLUDE THE FOLLOWING: "WARNING RECYCLED WATER – DO NOT DRINK", NOMINAL PIPE SIZE, PRESSURE RATING, AND ASTM DESIGNATIONS.
16. RECYCLED WATER ISOLATION AND CONTROL VALVE BOXES SHALL BE WEATHERPROOF PURPLE PLASTIC AND MARKED "RECYCLED WATER". *NOTE – ALL CONTROL VALVES SHALL BE BURIED BLOW GRADE AUTOMATIC CONTROL VALVES OPERATED BY A PROGRAMMABLE CONTROLLER. ABOVE GROUND ANTI-SIPHON CONTROL VALVES ARE NOT ALLOWED.
17. ALL RECYCLED WATER IRRIGATION SYSTEM CONTROL VALVES, ISOLATION VALVES, QUICK COUPLERS, REGULATORS, AND APPURTENANCES SHALL BE TAGGED WITH IDENTIFICATION. IDENTIFICATION SHALL BE WEATHERPROOF PURPLE PLASTIC, 3-INCHES BY 4-INCHES AND IMPRINTED WITH "WARNING RECYCLED WATER – DO NOT DRINK". REFER TO T. CHRISTY'S OR APPROVED EQUAL.
18. ALL AREAS WHERE RECYCLED WATER IS USED SHALL BE POSTED WITH APPROVED SIGNAGE. EACH SIGN SHALL STATE "RECYCLED WATER – DO NOT DRINK" AND DISPLAY THE INTERNATIONAL "DO NOT DRINK" SYMBOL. SIGNS MAY BE PROVIDED AT THE DISCRETION OF THE YUCAIPA VALLEY WATER DISTRICT.
19. BEFORE ACTIVATION OF THE DRINKING WATER SERVICE THE BACKFLOW DEVICE SHALL BE TESTED AND APPROVED BY A LICENSED BACKFLOW TESTER. ARRANGEMENTS WITH THE YUCAIPA VALLEY WATER DISTRICT MUST BE MADE AT LEAST TWO (2) WORKING DAYS IN ADVANCE TO TURN ON THE DRINKING WATER SERVICE TO ALLOW TESTING OF THE DEVICE. DRINKING WATER SERVICES WILL NOT BE ACTIVATED UNTIL THE BACKFLOW DEVICE PASSES INSPECTION.
20. BEFORE ACTIVATION OF ANY RECYCLED WATER SERVICE, THE HOMEOWNER SHALL COMPLETE THE FOLLOWING PROCESSES;
 - A.) PROVIDE A COMPLETED "YUCAIPA VALLEY WATER DISTRICT – ENGINEERS SUPPLEMENTAL REPORT"
 - B.) HOMEOWNER OR TENANTS(S) SHALL COMPLETE AN AUTHORIZED "RECYCLED WATER USER SITE SUPERVISOR TRAINING" COURSE AS REQUIRED BY THE YUCAIPA VALLEY WATER DISTRICT AND STATE OF CALIFORNIA DEPARTMENT OF DRINKING WATER.
 - C.) PROVIDE SITE PLANS INDICATING FOOTPRINTS FOR ALL STRUCTURAL, HARDSCAPE AND LANDSCAPE AREAS. SITE PLANS TO INCLUDE COLOR CODED WATER LINE LOCATIONS FOR EASIER IDENTIFICATION IN THE FOLLOWING COLORS;

DRINKING WATER	(BLUE)
FIRE SUPPRESSION SYSTEMS	(RED)
RECYCLED WATER LINES	(PURPLE)
 - D.) PROVIDE IRRIGATION AND PLUMBING PLANS AS REQUIRED BY THE YUCAIPA VALLEY WATER DISTRICT OR THE CALIFORNIA DEPARTMENT OF DRINKING WATER FOR PERMITTING PURPOSES.
 - E.) ONCE ALL PLANS AND ENGINEERS SUPPLEMENTAL REPORT(S) HAVE BEEN REVIEWED AND APPROVED BY THE DISTRICT, THE SITE MUST COMPLETE A CROSS-CONNECTION TEST AND INSPECTION FOR PRELIMINARY APPROVAL OF THE IRRIGATION SYSTEM USING A TEMPORARY DRINKING WATER CONNECTION. THE HOMEOWNER OR TENANT(S) SHALL ARRANGE WITH THE DISTRICT FOR AN IRRIGATION COVERAGE TEST AND MAKE ANY MODIFICATIONS OR ADJUSTMENTS DEEMED REQUIRED BEFORE FINAL SUBMITTAL TO THE CALIFORNIA DEPARTMENT OF DRINKING WATER FOR REVIEW. ALL PRELIMINARY WATER USE PRIOR TO RECEIVING RECYCLED WATER SHALL BE COMPLETED BY USING A TEMPORARY DRINKING WATER SOURCE AUTHORIZED BY THE DISTRICT.
 THE DEPARTMENT OF DRINKING WATER HAS THE AUTHORITY FOR FINAL APPROVAL OR DENIAL FOR RECYCLED WATER SUE PERMITS. THE OWNER SHALL BE RESPONSIBLE FOR MAKING ANY AND ALL CORRECTIONS THAT MAY BE REQUIRED OF THE SITE BY THE DEPARTMENT OF DRINKING WATER.
 PROVIDED THAT ALL REQUIREMENTS ARE MET FOR OBTAINING A RECYCLED WATER USER PERMIT FOR A SITE, THE HOMEOWNER AND OR TENANT(S) SHALL THEN MAINTAIN THE SITE AS ORIGINALLY PERMITTED. CHANGES TO THE SITE MUST BE PRIOR APPROVED BY THE DISTRICT IN WRITING AND WILL NEED TO COMPLETE THE ABOVE LIST OF REQUIREMENTS AS NECESSARY. THE SITE WILL REQUIRE ANNUAL INSPECTIONS BY THE YUCAIPA VALLEY WATER DISTRICT FOR UPDATES OR NOTATION OF CHANGES. ONCE EVERY FOUR (4) YEARS, THE SITE WILL REQUIRE AN IN-DEPTH REVIEW, INSPECTION AND CROSS-CONNECTION TEST TO ENSURE COMPLIANCE WITH THE RECYCLED WATER SUE PERMIT FROM THE CALIFORNIA DEPARTMENT OF DRINKING WATER.

(CONTINUED ON SHEET 3)

RECYCLED WATER NOTES FOR ONSITE RESIDENTIAL USE

2019




Approved by the Yucaipa
Valley Water District Board of
Directors on October 1, 2019
as Resolution No. 2019-XX

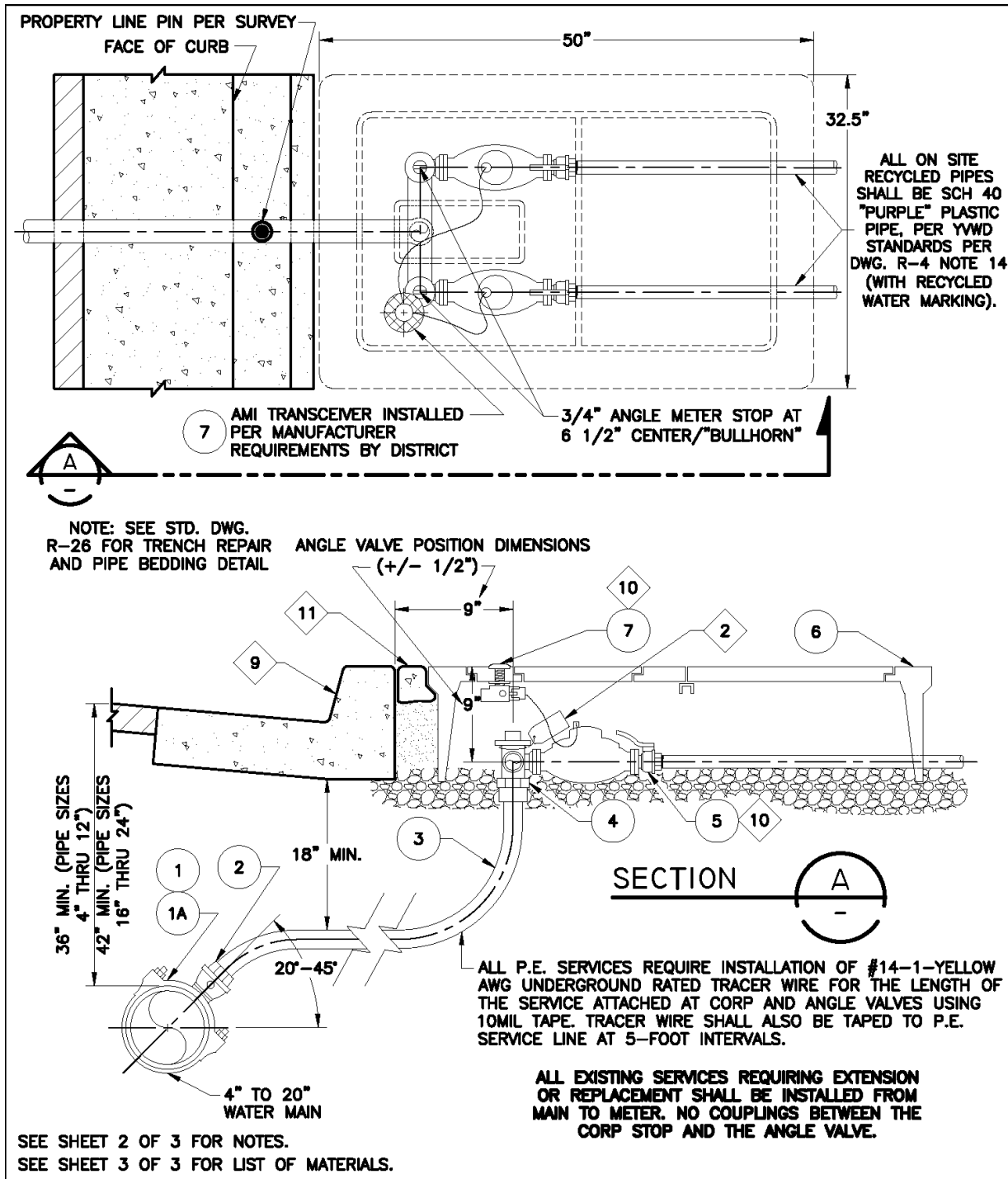
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- 21. ALL SPRAY HEADS SHALL BE ADJUSTED TO ELIMINATE OVERSPRAY AND RUNOFF ONTO ADJACENT HARDSCAPES, DRINKING FOUNTAINS OR WATER FEATURES AND OUTDOOR FURNITURE SUCH AS TABLES, ETC.
- 22. RECYCLED WATER OVERHEAD SPRAY IRRIGATION SYSTEMS ARE RESTRICTED FOR TIME OF USE TO OPERATE BETWEEN THE HOURS OF 9:00 PM AND 6:00 AM. RECYCLED WATER DRIP IRRIGATION SYSTEMS ARE NOT RESTRICTED TO A TIME OF USE.
- 23. RECYCLED WATER OVERHEAD SPRAY IRRIGATION IS RESTRICTED AND NOT PERMITTED WITHIN 5-FEET OF STRUCTURES AND 2-FEET FROM HARDSCAPES.
- 24. FAILURE TO COMPLY WITH ANY OF THE YUCAIPA VALLEY WATER DISTRICT STANDARDS OR REQUIREMENTS MAY RESULT IN THE TERMINATION OF RECYCLED WATER AND/OR POTABLE WATER SERVICE.

**RECYCLED WATER NOTES
FOR ONSITE RESIDENTIAL USE**

2019	 <p style="margin: 0;">Yucaipa Valley Water District</p>	<p style="margin: 0;">Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX</p>	R-4
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3/4" RECYCLED WATER DUAL METER SERVICE FOR ADJOINING RESIDENCES

2019



Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX

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NOTES:

1. SERVICE SADDLE SHALL NOT BE INSTALLED WITHIN 12-INCHES OF VALVE, COUPLING, JOINT OR FITTING.
2. METERS SHALL BE TAGGED. IDENTIFICATION SHALL BE WEATHERPROOF PURPLE PLASTIC, 3-INCHES BY 4-INCHES WITH THE WORDS "WARNING RECYCLED WATER – DO NOT DRINK". IMPRINTING SHALL BE PERMANENT AND BLACK IN COLOR. USE TAGS MANUFACTURED BY T. CHRISTY ENTERPRISES OR APPROVED EQUAL.
3. SET TOP OF METER BOX FLUSH WITH SIDEWALK OR TOP OF CURB AS SHOWN.
4. THE CORPORATION STOP TAP SHALL BE MADE AT A 20°–45° DEGREE ANGLE FROM THE SPRINGLINE OF PIPE.
5. THE WATER SERVICE SHALL EXTEND PERPENDICULAR TO CENTERLINE OF STREET FROM THE WATER MAIN TO THE STOP.
6. METER BOX SHALL BE SET BEHIND CURB WHERE SIDEWALK IS ADJACENT TO CURB, OR IN PARKWAY BETWEEN CURB AND SIDEWALK.
7. ALL CONNECTIONS TO "PURPLE P.E." TUBING SHALL BE 1-INCH CTS (COPPER TUBE SIZE) COMPRESSION FITTINGS.
8. ALL SERVICE LATERALS WILL BE LOCATED AT PROPERTY LINES.
9. LOCATE SERVICE WITH 1-1/2-INCH HIGH "RW" ETCHED IN FACE OF CURB WHERE THE SERVICE CROSSES UNDER THE CURB.
10. WATER METER AND MATERIAL ITEMS 5 AND 7 ARE PROVIDED AND SET BY DISTRICT CREWS AT THE DEVELOPERS EXPENSE.
11. 4-INCH SPACING ON BACK OF CURB TO FACE OF METERBOX. IN APPLICATIONS NOT REQUIRING SIDEWALK, METER BOX IS FLUSH TO BACK OF CURB.

**3/4" RECYCLED WATER DUAL METER SERVICE
FOR ADJOINING RESIDENCES**

2019



Yucaipa Valley
Water District


Approved by the Yucaipa
Valley Water District Board of
Directors on October 1, 2019
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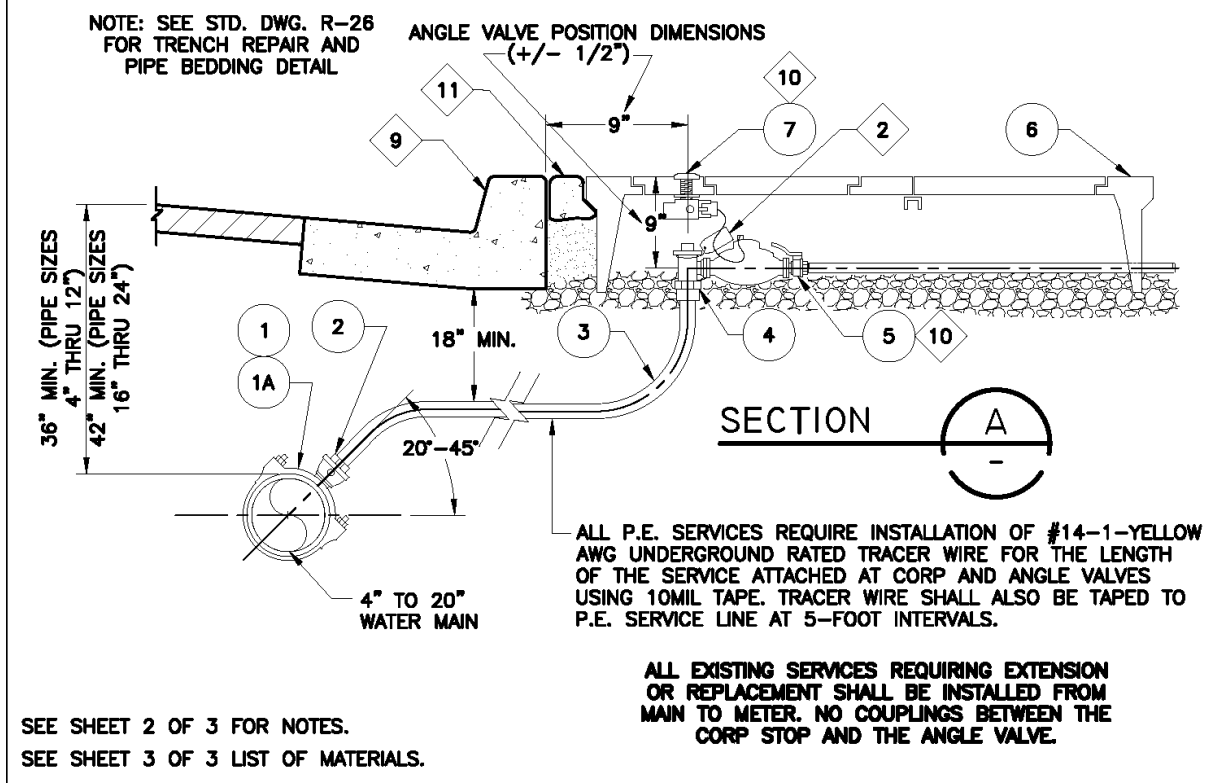
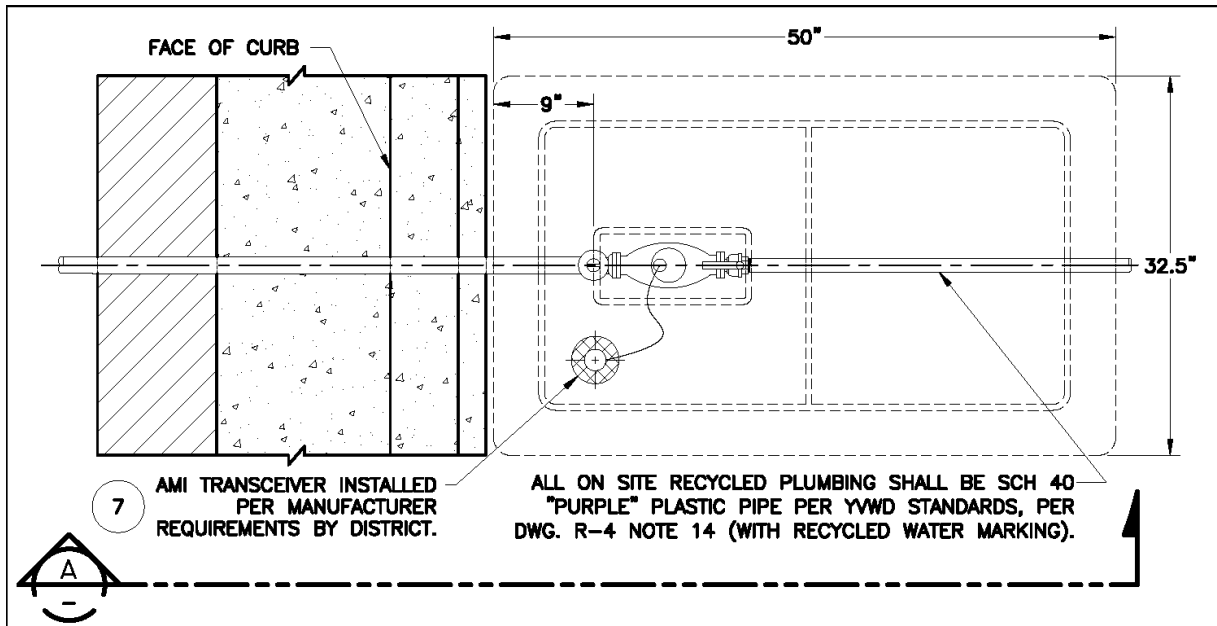
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LIST OF MATERIALS			
ITEM NO.	SIZE & DESCRIPTION	MANUFACTURER	SPEC. NO.
1	DOUBLE STRAP SERVICE SADDLE I.P. OUTLET (FOR DUCTILE IRON PIPE MAINS)	JONES MUELLER ROMAC	J-979-PIPE O.D. - 1" I.P. BR2B-PIPE O.D.- I.P. 100 202BS-PIPE O.D. - 1" I.P.
1A	CAST SERVICE SADDLE WITH I.P. OUTLET	ROMAC MUELLER	202S-PIPE O.D. - 1" I.P. F-202-PIPE O.D.- 1" I.P. DR2A-PIPE O.D.- I.P. 100
2	BRONZE CORPORATION STOP (MIP) THREAD X COMPRESSION (CTS)	JONES MUELLER AY McDONALD	E-1935SG B-25028N 74704BQ
3	1" PURPLE POLYETHYLENE TUBING-CTS	WESFLEX	1" SDR 9 LAVENDER
4	BRONZE BALL ANGLE METER STOP (W/LOCKWING) - BRANCH ASSEMBLY 7 1/2" CENTER TO CENTER, 1" CTS X 3/4" M (2)	JONES McDONALD	E-2613SG 1"x3/4"x7.5" 709U2EW 1"x3/4"x7.5"
5	BRONZE CUSTOMER SERVICE VALVE-METER NUT X F.I.P.	JONES	E-1908
6	METER BOX AND COVER WITH READING LID.	ARMOR CAST	A6001430PCX12 W/ CHANNEL FOR BOLT DOWN COVER-A6000482-H7 LID-A6001643DZ BOX-A6001640PCX12
7	AMI TRANSCEIVER (INSTALLED BY DISTRICT)	SENSUS	SMARTPOINT M2 - MODEL 520M (DUAL PORT) - PIT SET


**3/4" RECYCLED WATER DUAL METER SERVICE
FOR ADJOINING RESIDENCES**

2019	 <p style="margin: 0;">Yucaipa Valley Water District</p>	<p style="margin: 0;">Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX</p>	R-5
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SEE SHEET 2 OF 3 FOR NOTES.
SEE SHEET 3 OF 3 LIST OF MATERIALS.

1" RECYCLED WATER SERVICE

2019	 <p>Yucaipa Valley Water District</p>	<p>Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX</p>	<p>R-6</p> <p>Sheet 1 of 3</p>
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NOTES:

1. SERVICE SADDLE SHALL NOT BE INSTALLED WITHIN 12-INCHES OF VALVE, COUPLING, JOINT OR FITTING.
2. METERS SHALL BE TAGGED. IDENTIFICATION SHALL BE WEATHERPROOF PURPLE PLASTIC, 3-INCHES BY 4-INCHES WITH THE WORDS "WARNING RECYCLED WATER – DO NOT DRINK". IMPRINTING SHALL BE PERMANENT AND BLACK IN COLOR. USE TAGS MANUFACTURED BY T. CHRISTY ENTERPRISES OR APPROVED EQUAL.
3. SET TOP OF METER BOX FLUSH WITH SIDEWALK OR TOP OF CURB AS SHOWN.
4. THE CORPORATION STOP TAP SHALL BE MADE AT A 20°–45° DEGREE ANGLE FROM THE SPRINGLINE OF THE PIPE.
5. THE WATER SERVICE SHALL EXTEND PERPENDICULAR TO CENTERLINE OF STREET FROM THE WATER MAIN TO THE STOP.
6. METER BOX SHALL BE SET BEHIND CURB WHERE SIDEWALK IS ADJACENT TO CURB, OR IN PARKWAY BETWEEN CURB AND SIDEWALK.
7. ALL CONNECTIONS TO "PURPLE P.E." TUBING SHALL BE 1-INCH CTS (COPPER TUBE SIZE) COMPRESSION FITTINGS.
8. ALL SERVICE LATERALS WILL BE LOCATED AT PROPERTY LINES.
9. LOCATE SERVICE WITH 1-1/2-INCH HIGH "RW" ETCHED IN FACE OF CURB WHERE THE SERVICE CROSSES UNDER THE CURB.
10. WATER METER AND MATERIAL ITEMS 5 AND 7 ARE PROVIDED AND SET BY DISTRICT CREWS AT THE DEVELOPERS EXPENSE.
11. 4-INCH SPACING ON BACK OF CURB TO FACE OF METERBOX. IN APPLICATIONS NOT REQUIRING SIDEWALK, METER BOX IS FLUSH TO BACK OF CURB.

1" RECYCLED WATER SERVICE

2019



Yucaipa Valley
Water District

Approved by the Yucaipa
Valley Water District Board of
Directors on October 1, 2019
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LIST OF MATERIALS			
ITEM NO.	SIZE & DESCRIPTION	MANUFACTURER	SPEC. NO.
1	DOUBLE STRAP SERVICE SADDLE I.P. OUTLET (FOR DUCTILE IRON PIPE MAINS)	JONES ROMAC MUELLER	J-979-PIPE O.D. -1" I.P. 202BS-PIPE O.D. -1" I.P. BR2B-PIPE O.D. -I.P. 100
1A	CAST SERVICE SADDLE WITH 1" I.P. OUTLET (FOR D.I.P. MAINS)	ROMAC MUELLER	202S-PIPE O.D. -1" I.P. DR2A-PIPE O.D. -I.P. 100
2	1" BRONZE CORPORATION STOP (MIP) THREAD X COMPRESSION (CTS)	JONES MUELLER McDONALD	E-1935SG B-25028N 74704BQ
3	1" PURPLE POLYETHYLENE TUBING-CTS	WESFLEX	1" SDR 9 LAVENDER
4	BRONZE BALL ANGLE METER STOP W/LOCKWING (COMPRESSION X METER)	JONES MUELLER McDONALD	1963WSG H-14258N 74602BQ
5	BRONZE CUSTOMER SERVICE VALVE-METER NUT X F.I.P.	JONES	E-1908 B13-444-HT-34-NL
6	METER BOX AND COVER WITH READING LID.	ARMOR CAST	A6001430PCX12 W/ CHANNEL FOR BOLT DOWN A6000482-H7 A6001643DZ A6001640PCX12
7	AMI TRANSCEIVER (INSTALLED BY DISTRICT)	SENSUS	SMARTPOINT M2 - MODEL 520M (DUAL PORT) - PIT SET

1" RECYCLED WATER SERVICE

2019

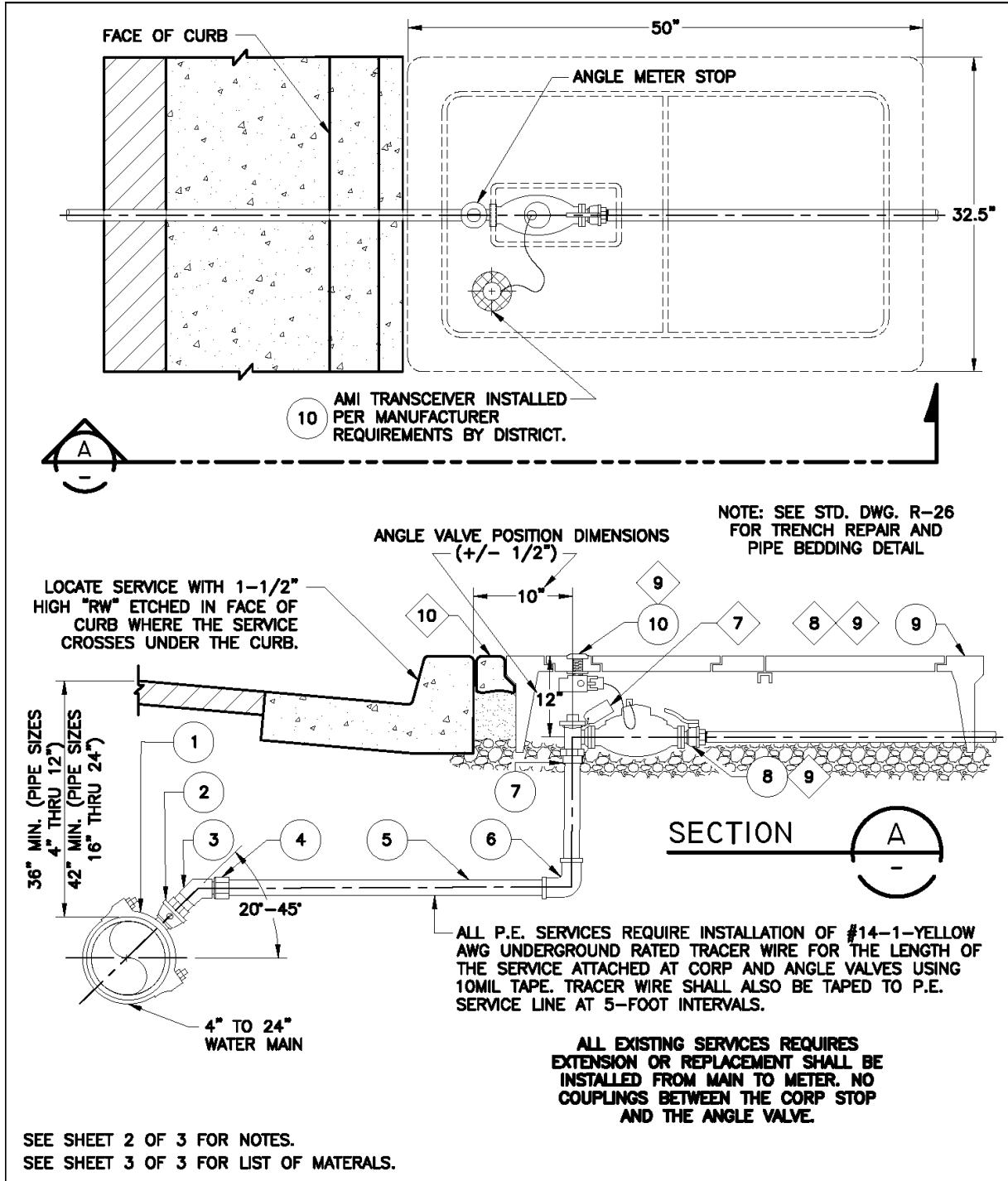


Yucaipa Valley
Water District

Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX

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1-1/2" AND 2" RECYCLED WATER SERVICE

2019



Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX

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Sheet 1 of 3

NOTES:

1. SERVICE SADDLE SHALL NOT BE INSTALLED WITHIN 12-INCHES OF VALVE, COUPLING, JOINT OR FITTING.
2. IF PURPLE PE TUBING CAN NOT BE USED, PURPLE POLY-SLEEVE SHALL BE USED AND SECURED AT THE CORP. AND THE ANGLE VALVE WITH 10 MIL. TAPE.
3. SET TOP OF METER BOX FLUSH WITH SIDEWALK OR CURB AS SHOWN.
4. THE CORPORATION STOP TAP SHALL BE MADE AT A 20°-45° DEGREE ANGLE FROM THE SPRINGLINE OF THE PIPE.
5. THE WATER SERVICE SHALL EXTEND PERPENDICULAR TO THE CENTERLINE OF THE STREET FROM THE WATER MAIN TO THE METER STOP.
6. METER BOX SHALL BE SET BEHIND CURB WHERE SIDEWALK IS ADJACENT TO CURB, OR IN PARKWAY BETWEEN CURB AND SIDEWALK.



METERS SHALL BE TAGGED. IDENTIFICATION SHALL BE WEATHERPROOF PURPLE PLASTIC, 3-INCHES BY 4-INCHES WITH THE WORDS "WARNING RECYCLED WATER - DO NOT DRINK". IMPRINTING SHALL BE PERMANENT AND BLACK IN COLOR. USE TAGS MANUFACTURED BY T. CHRISTY ENTERPRISES OR APPROVED EQUAL.



ALL ONSITE PIPING IS PURPLE SCH 40 PVC PER YVWD RECYCLED DESIGN AND CONSTRUCTION STANDARDS.



WATER METER AND MATERIAL ITEMS 8 AND 10 ARE PROVIDED AND SET BY DISTRICT CREWS AT THE DEVELOPERS EXPENSE.



4-INCH SPACING ON BACK OF CURB TO FACE OF METERBOX. IN APPLICATIONS NOT REQUIRING SIDEWALK, METER BOX IS FLUSH TO BACK OF CURB.

1-1/2" AND 2" RECYCLED WATER SERVICE

2019



Yucaipa Valley
Water District

Approved by the Yucaipa
Valley Water District Board of
Directors on October 1, 2019
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LIST OF MATERIALS			
ITEM NO.	SIZE & DESCRIPTION	MANUFACTURER	SPEC. NO.
1	DOUBLE STRAP SERVICE SADDLE I.P. OUTLET (FOR DUCTILE IRON PIPE MAINS)	JONES ROMAC MUELLER	J-979-PIPE O.D.-2" I.P. 202BS-PIPE O.D.-2" I.P. BR2B-PIPE O.D.-I.P. 200
2	BRONZE CORPORATION STOP MIPT X MIPT	JONES MUELLER	E-1943 B-2969-N
3	45° DEGREE BRASS ELBOW	-	-
4	M.I.P.T. X COMPRESSION ADAPTOR	JONES MUELLER	E-2605SG H-15428N
5	2" POLYETHYLENE TUBING - CTS - PURPLE OR WITH PURPLE POLY SLEEVE	-	-
6	BRASS 90° ELBOW, 2" X 2" COMPRESSION X COMPRESSION	JONES MUELLER	E-2611SG H-15526N
7	BRONZE ANGLE METER STOP W/LOCKWING COMPRESSION CTS X FLANGE 1 1/2" THRU 2" COMBO ANGLE VALVE.	JONES MUELLER	E-1975W B-24276N
8	BRONZE CUSTOMER SERVICE VALVE-METER FLANGE X F.I.P.	JONES MUELLER	E-1913F B-24337N
9	METER BOX AND COVER WITH READING LID.	ARMOR CAST	A6001430PCX12 W/ CHANNEL FOR BOLT DOWN A6000482-H7 A6001643DZ A6001640PCX12
10	AMI TRANSCEIVER (INSTALLED BY DISTRICT)	SENSUS	SMARTPOINT M2 - MODEL 520M (DUAL PORT) - PIT SET

1-1/2" AND 2" RECYCLED WATER SERVICE

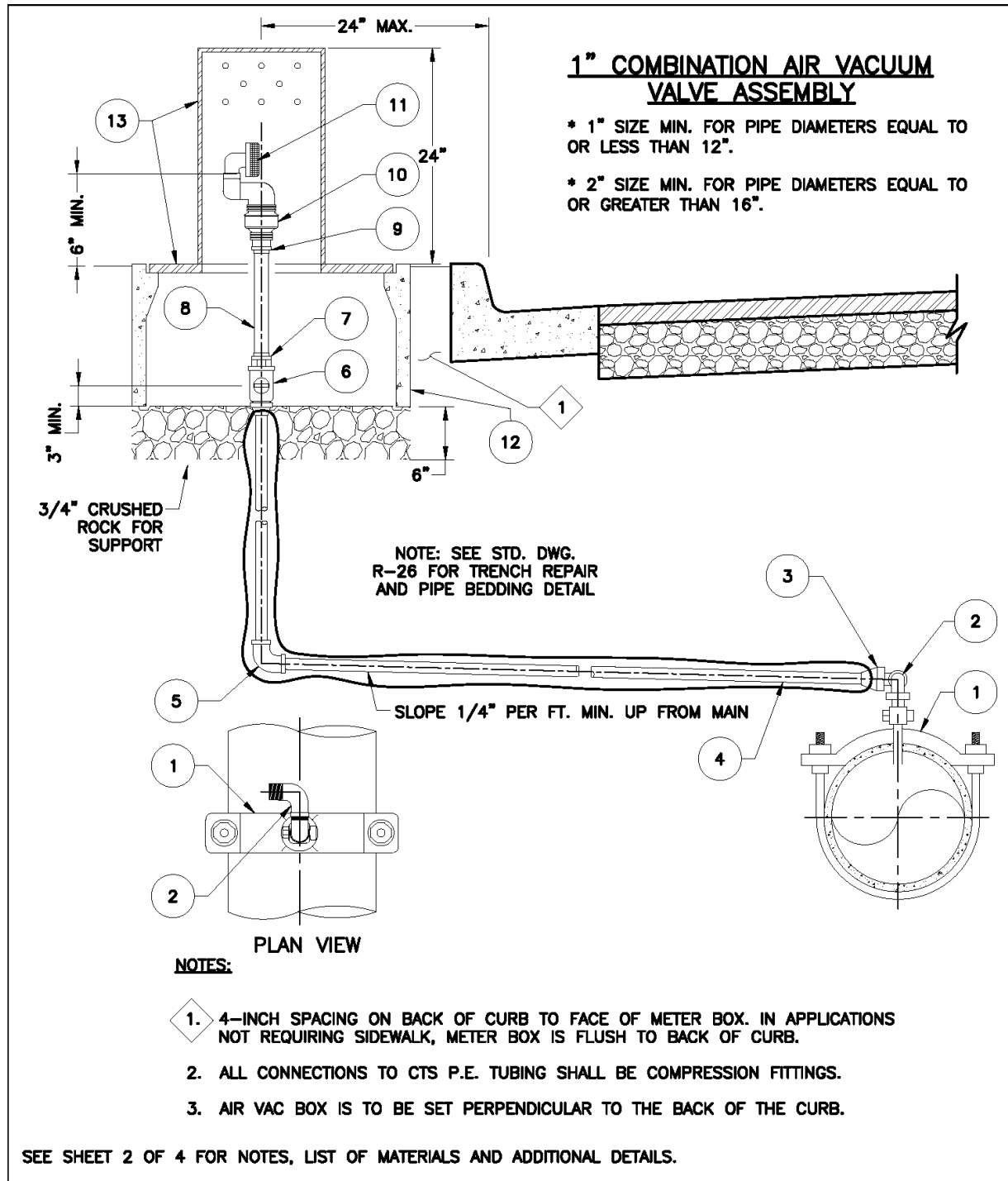
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**1" AND 2" RECYCLED WATER
AIR AND VACUUM VALVE ASSEMBLIES**

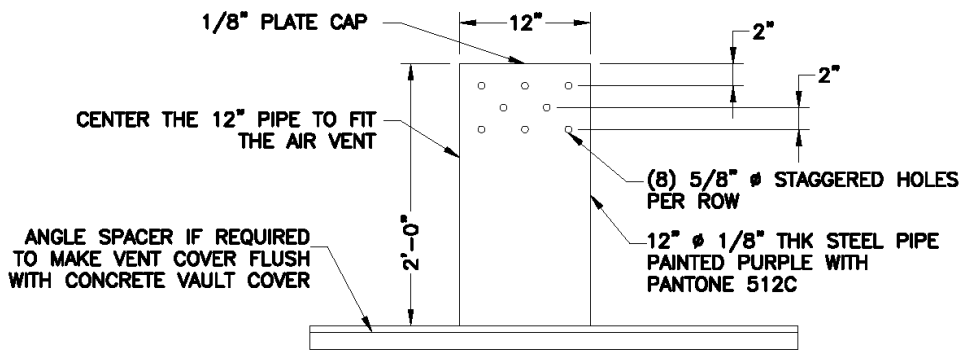
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**VAULT COVER DETAIL
FOR 1" AND 2" AIR VENT.**

LIST OF MATERIAL

ITEM NO.	SIZE & DESCRIPTION	MANUFACTURER	SPEC. NO.
1	CONNECTION PER YVWD STD. DWG W-4 OFF THE TOP	-	-
2	CORPORATION STOP WITH 2-90° ELBOW SWING JOINTS, BRASS	-	-
3	F.I.P. X COMPRESSION ADAPTOR BY SIZE	JONES MUELLER	J-2607 H-15451
4	1" P.E. TUBING, CTS, PURPLE OR WITH PURPLE POLY SLEEVE.	WESFLEX	1" SDR 9 LAVENDER
5	COMPRESSION X COMPRESSION 90° ELBOW BY SIZE	JONES MUELLER	J-2611 H-15526
6	CURB VALVE-SHUT OFF PARALLEL WITH CURB	JONES MUELLER	J-1921 B-25172
7	1" MPT X 1" SL SCH. 40 ADAPTOR	-	-
8	12" X 1" SCH. 35 PVC	-	-
9	1" FPT X 1" SL SCH. 40 ADAPTOR	-	-
10	COMBINATION AIR VACUUM VALVE - 1"	A.R.I.	D-040
11	BUG SCREEN	A.R.I.	-
12	METER VAULT	AMORCAST	BOX NUMBER A6001640PCX12
13	VAULT COVER - SEE DETAIL ABOVE	-	-

**1" AND 2" RECYCLED WATER
AIR AND VACUUM VALVE ASSEMBLIES**

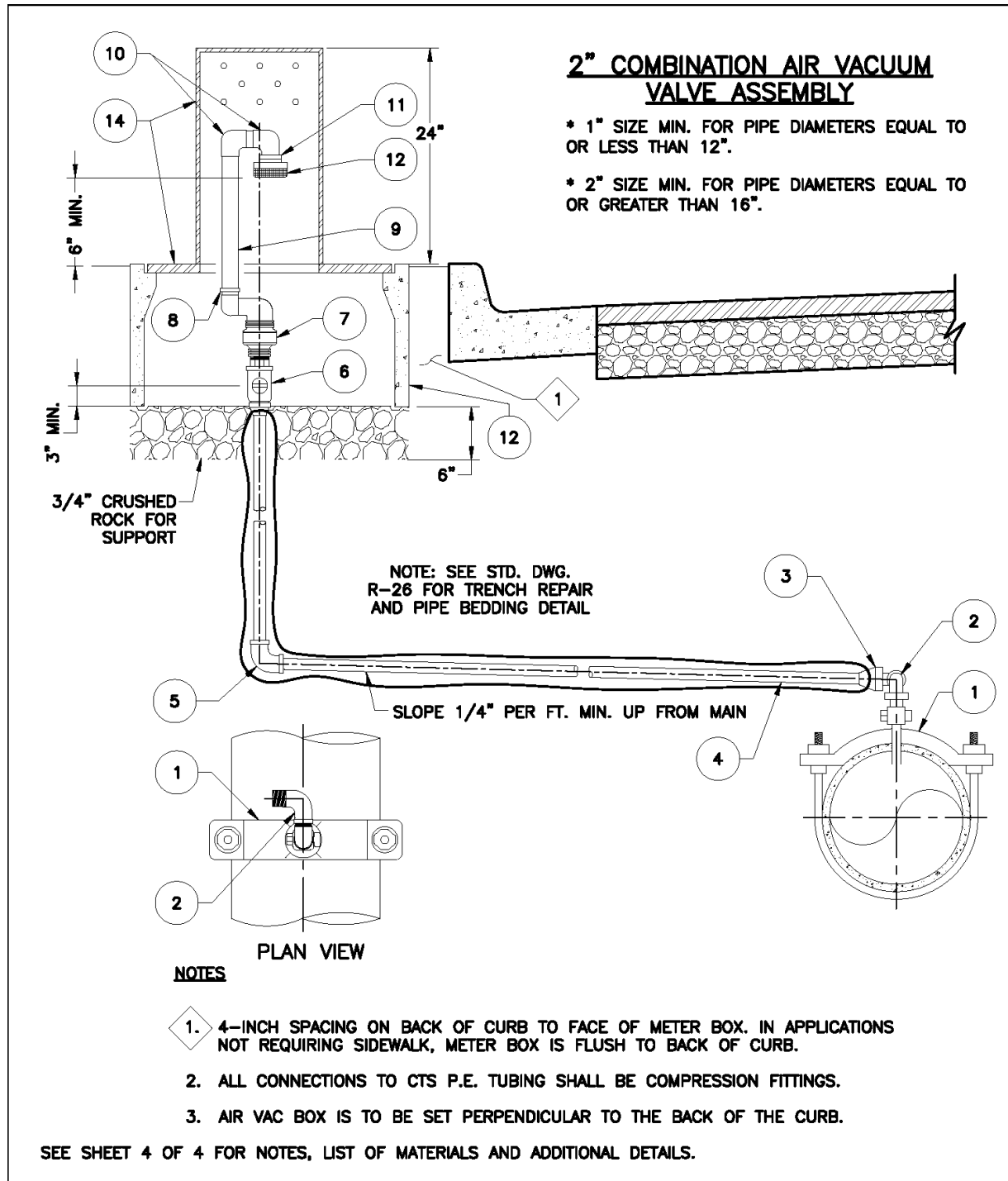
2019




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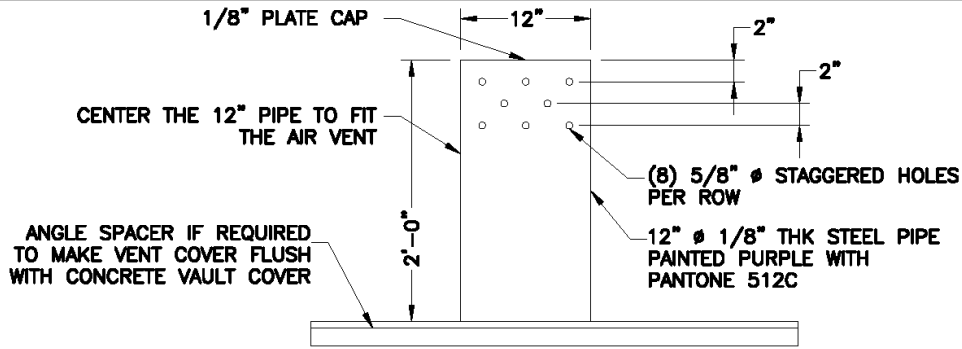
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1" AND 2" RECYCLED WATER AIR AND VACUUM VALVE ASSEMBLIES

2019	 <p>Yucaipa Valley Water District</p>	<p>Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX</p>	R-15
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**VAULT COVER DETAIL
FOR 1" AND 2" AIR VENT.**

LIST OF MATERIAL

ITEM NO.	SIZE & DESCRIPTION	MANUFACTURER	SPEC. NO.
1	CONNECTION BY SIZE PER YWWD STD. DWG W-7 - OFF THE TOP	-	-
2	CORPORATION STOP WITH 2-90° ELBOW SWING JOINTS, BRASS BY SIZE	-	-
3	F.I.P. X COMPRESSION ADAPTOR BY SIZE	JONES MUELLER	J-2607 H-15451
4	2" P.E. TUBING, CTS, PURPLE OR WITH PURPLE POLY SLEEVE.	WESFLEX	1" SDR 9 LAVENDER
5	COMPRESSION X COMPRESSION 90° ELBOW BY SIZE	JONES MUELLER	J-2611 H-15526
6	CURB VALVE-SHUT OFF PARALLEL WITH CURB BY SIZE	JONES MUELLER	J-1921 B-25172
7	COMBINATION AIR VACUUM VALVE - 2"	A.R.I.	D-040
8	1-1/2" MPT X 1-1/2" SL SCH. 40 ADAPTOR	-	-
9	12" X 1-1/2" SCH. 35 PVC	-	-
10	1-1/2" SCH. 40 90°	-	-
11	1-1/2" MALE SL X 1-1/2" FPT SCH. 40 COUPLING	-	-
12	BUG SCREEN	A.R.I.	-
13	METER VAULT	AMORCAST	BOX NUMBER A6001640APCX12
14	VAULT COVER - SEE DETAIL ABOVE	-	-

**1" AND 2" RECYCLED WATER
AIR AND VACUUM VALVE ASSEMBLIES**

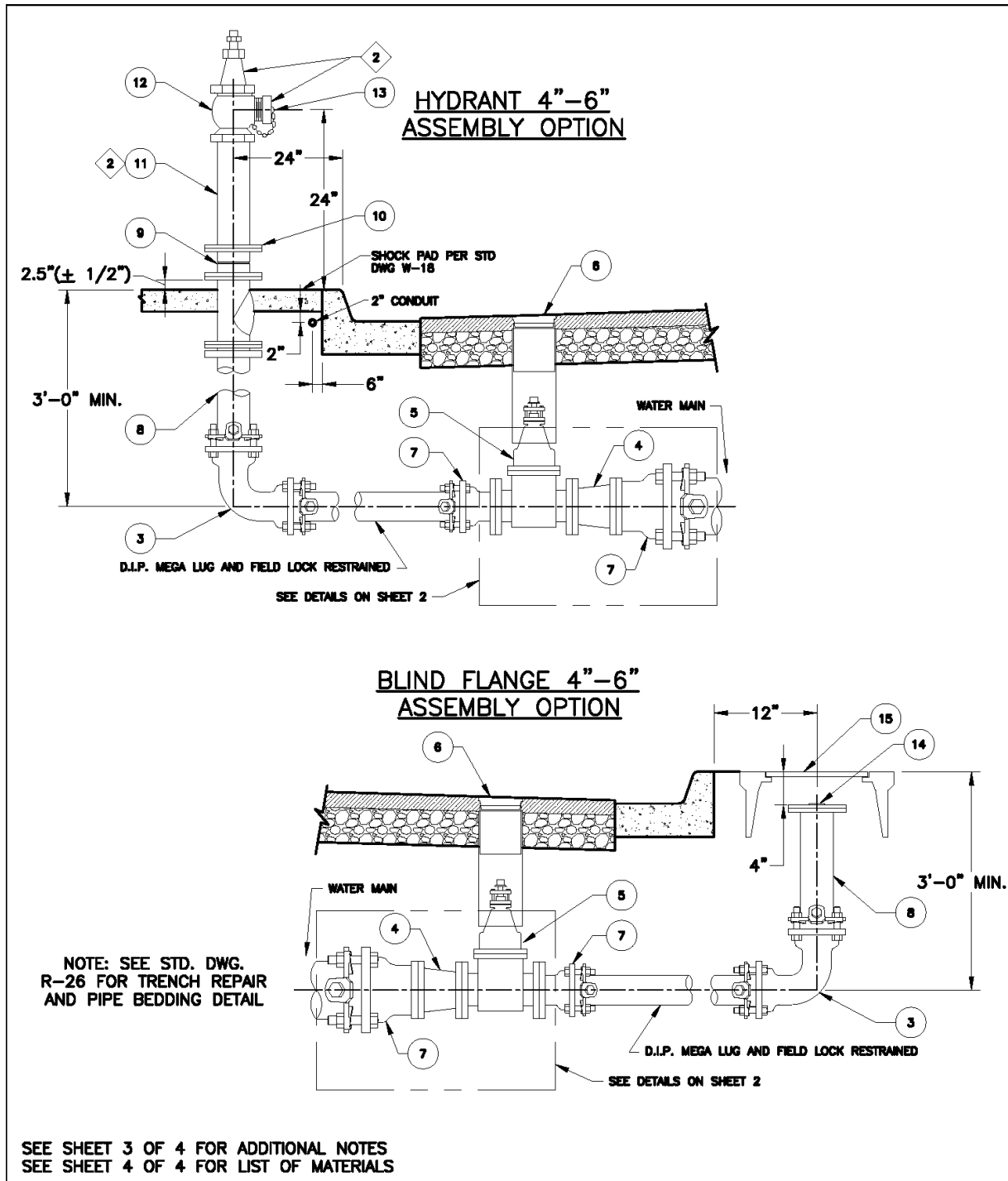
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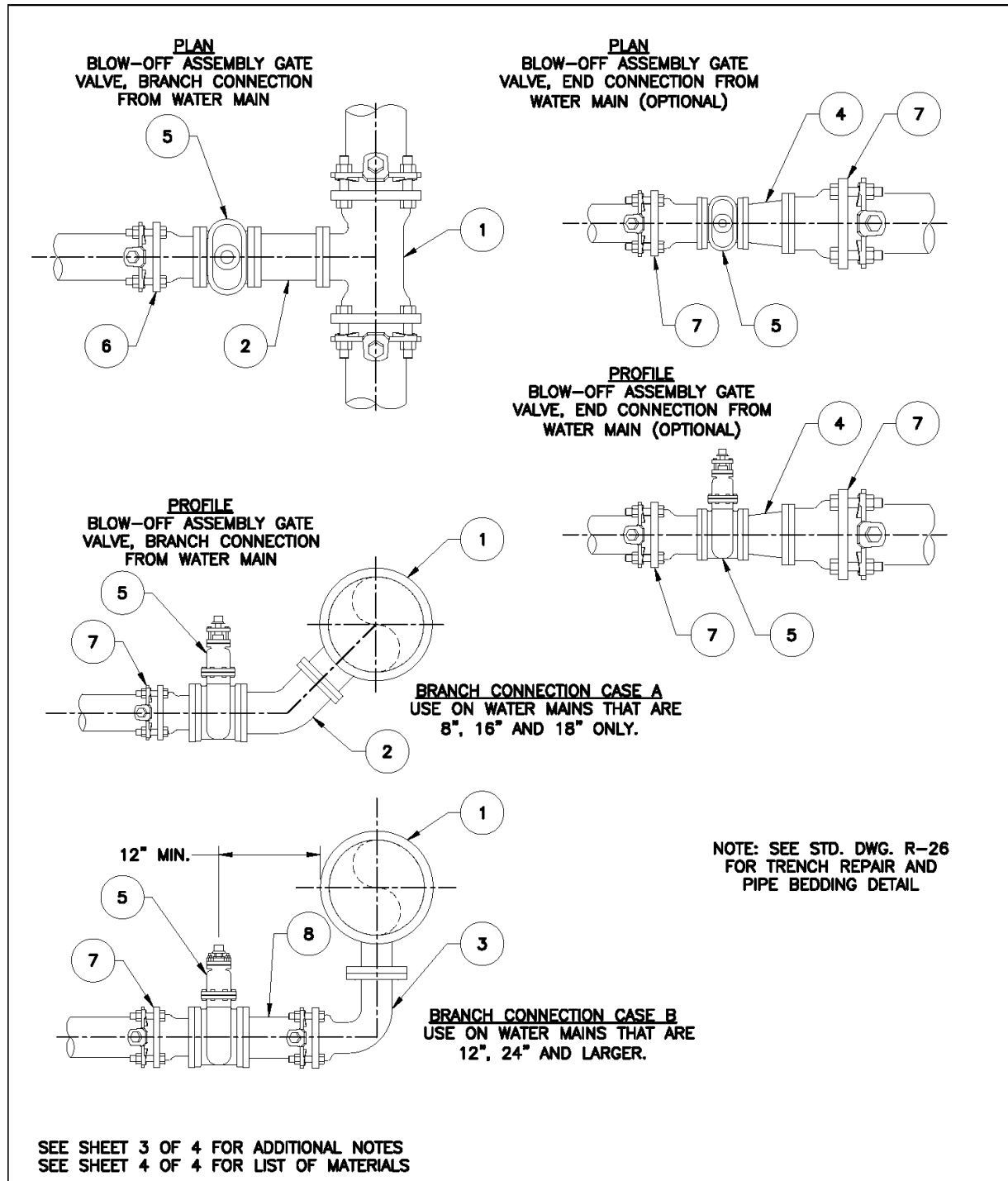
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6" AND 4" BLOW-OFF ASSEMBLY

2019	 <p>Yucaipa Valley Water District</p>	<p>Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX</p>	<p>R-19</p> <p>Sheet 1 of 4</p>
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6" AND 4" BLOW-OFF ASSEMBLY

2019	 <p>Yucaipa Valley Water District</p>	<p>Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX</p>	R-19
			Sheet 2 of 4

NOTES:

1. ALL RECYCLED WATER LINES BELOW GROUND ARE TO BE FULLY BAGGED USING PURPLE POLY SLEEVE.
2. 2. PRIOR TO PAINTING, BLOW-OFFS SHALL BE PREPARED PER SSPC-SP5. PAINT WITH 2 COATS, 3 TO 5 MILS EACH, OF PANTONE 512C SAFETY PURPLE.
3. PROVIDE "BREAK-OFF" RISER AT COMPANION FLANGE. BOLTS FROM THE "BREAK-OFF" TO THE CHECK VALVE ASSEMBLY MUST BE INSTALLED FROM TOP TO BOTTOM.
4. BLOW-OFFS LOCATED HIGHER THAN 3,500 FT ABOVE SEA LEVEL SHOULD BE A DRY BARREL FIRE HYDRANT.
5. BOTTOM FLUSH INSTALLATION WHERE REQUIRED BY YVWD.
6. BACKFILL UNDER EXISTING CURB WITHIN THE CITY OF YUCAIPA, MUST BE 2 SACK SLURRY PER CITY STANDARDS.
7. ALL HYDRANTS AND BLOW-OFFS SHALL BE LOCATED A MINIMUM OF 3-FEET AWAY FROM THE E.C./B.C. OF DRIVEWAY APPROACHES AND CURB RETURNS FROM INTERSECTIONS.

6" AND 4" BLOW-OFF ASSEMBLY

2019



Yucaipa Valley
Water District

Approved by the Yucaipa
Valley Water District Board of
Directors on October 1, 2019
as Resolution No. 2019-XX

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LIST OF MATERIAL			
ITEM NO.	SIZE & DESCRIPTION	MANUFACTURER	SPEC. NO.
1	DIP TEE – MJ X MJ X FLG	–	–
2	DIP 45° ELBOW – FLG X MJ WITH MEGA LUG RESTRAINTS	–	–
3	DIP 90° ELBOW – FLG X MJ WITH MEGA LUG RESTRAINTS	–	–
4	DIP FLG X FLG REDUCER	–	–
5	GATE VALVE – FLG X FLG	–	–
6	VALVE BOX PER STD. DWG. W-20	–	–
7	DIP MJ X FLG ADAPTOR	–	–
8	DIP HALF SPOOL – FLG X PE	–	–
9	BREAK OFF VALVE – 8-HOLE	CLOW VALVE CO.	LBI-400A
10	DIP COMPANION FLANGE – 6" (8-HOLE) X 4" THREAD	–	–
11	12" X 4" THREADED GALV. NIPPLE	–	–
12	FIRE PLUG VALVE – 4" X 2-1/2"	JONES	J-344HP
13	CAST IRON HYDRANT CAP WITH CHAIN	–	–
14	4" X 2" FIP THD X COMPANION FLG W/2" BRASS PLUG	–	–
15	METER BOX W/SOLID LID, PURPLE IN COLOR W/ "RECYCLED" LOGO	AMORCAST	BOX – A6000485 LID – A6000484

6" AND 4" BLOW-OFF ASSEMBLY

2019

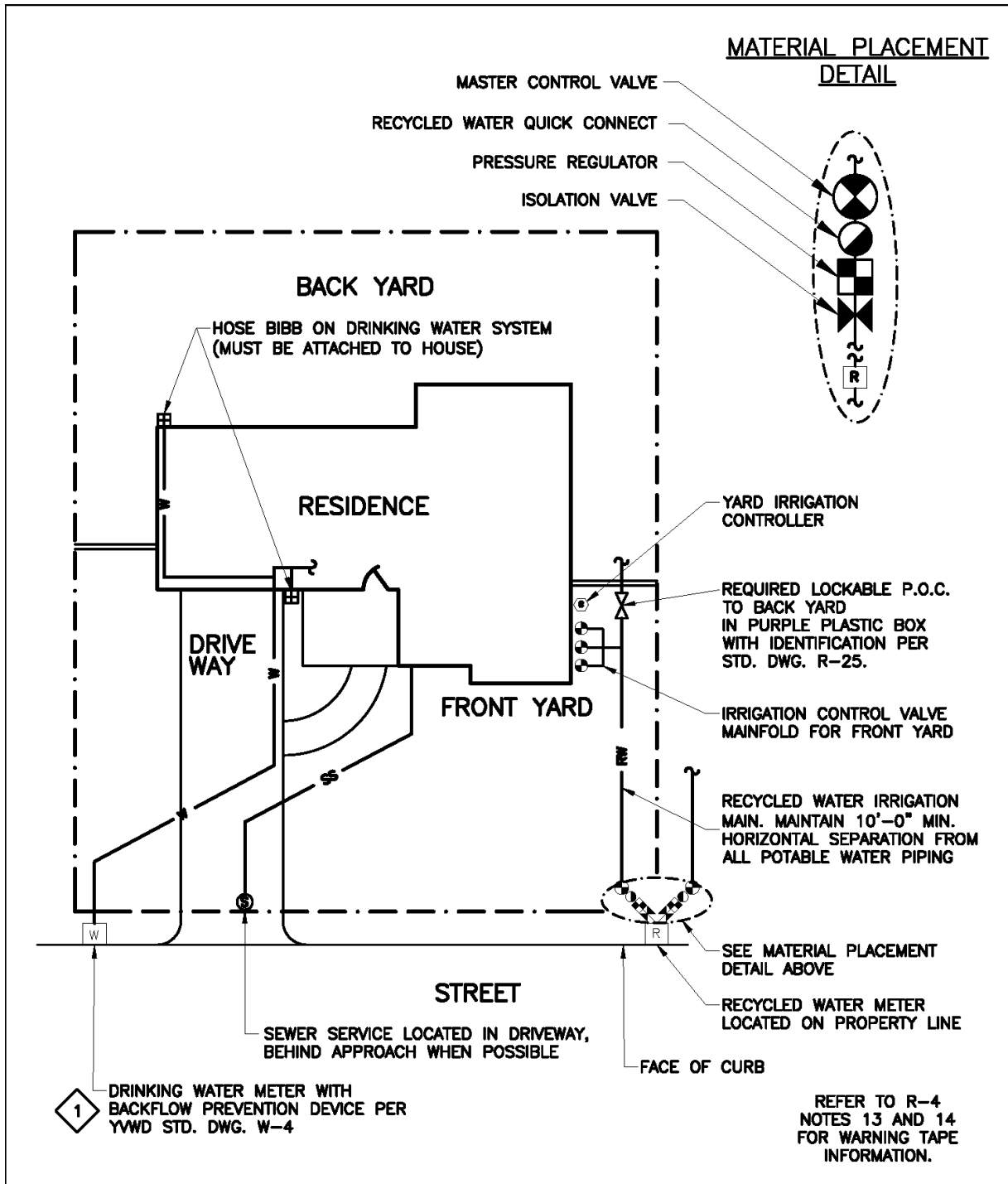


Yucaipa Valley
Water District

Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX

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Sheet 4 of 4



RESIDENTIAL DUAL PLUMBED SERVICE SCHEMATIC

2019




Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX

R-20

Sheet 1 of 2

NOTES:

1.  DRINKING WATER METER SHALL BE LOCATED A MINIMUM OF 10-FEET AWAY FROM THE RECYCLED WATER SERVICE AND SEWER LATERAL, AND 3-FEET AWAY FROM THE E.C./B.C. OF THE DRIVEWAY APPROACH. IF THESE SEPARATIONS ARE NOT POSSIBLE, THE DRINKING WATER METER MAY BE LOCATED WITHIN THE DRIVEWAY BEHIND THE APPROACH BY SPECIAL PERMISSION ONLY.
2. ALL WATER LINES INSTALLED UNDER CONCRETE OR AT POTABLE/RECYCLED WATER LINE CROSSINGS MUST BE SLEEVED. REFER TO STD. DWG. R-4, NOTE 11.
3. ALL RECYCLED WATER LINES AND IDENTIFICATION TAPE GOING UNDER CONCRETE OR OVER POTABLE WATER LINES MUST BE SLEEVED. REFER TO STD. DWG. R-4, 13 AND 14.
4. SITE INSPECTIONS AND BACKFLOW TESTING WILL BE PERFORMED ANNUALLY BY YVWD.
5. CROSS CONNECTION TESTING WILL BE PERFORMED EVERY 3 YEARS.
6. RECYCLED WATER OVERHEAD SPRAY IRRIGATION IS RESTRICTED AND NOT PERMITTED WITHIN 5-FEET OF STRUCTURES AND 2-FEET FROM HARDSCAPES.

RESIDENTIAL DUAL PLUMBED SERVICE SCHEMATIC

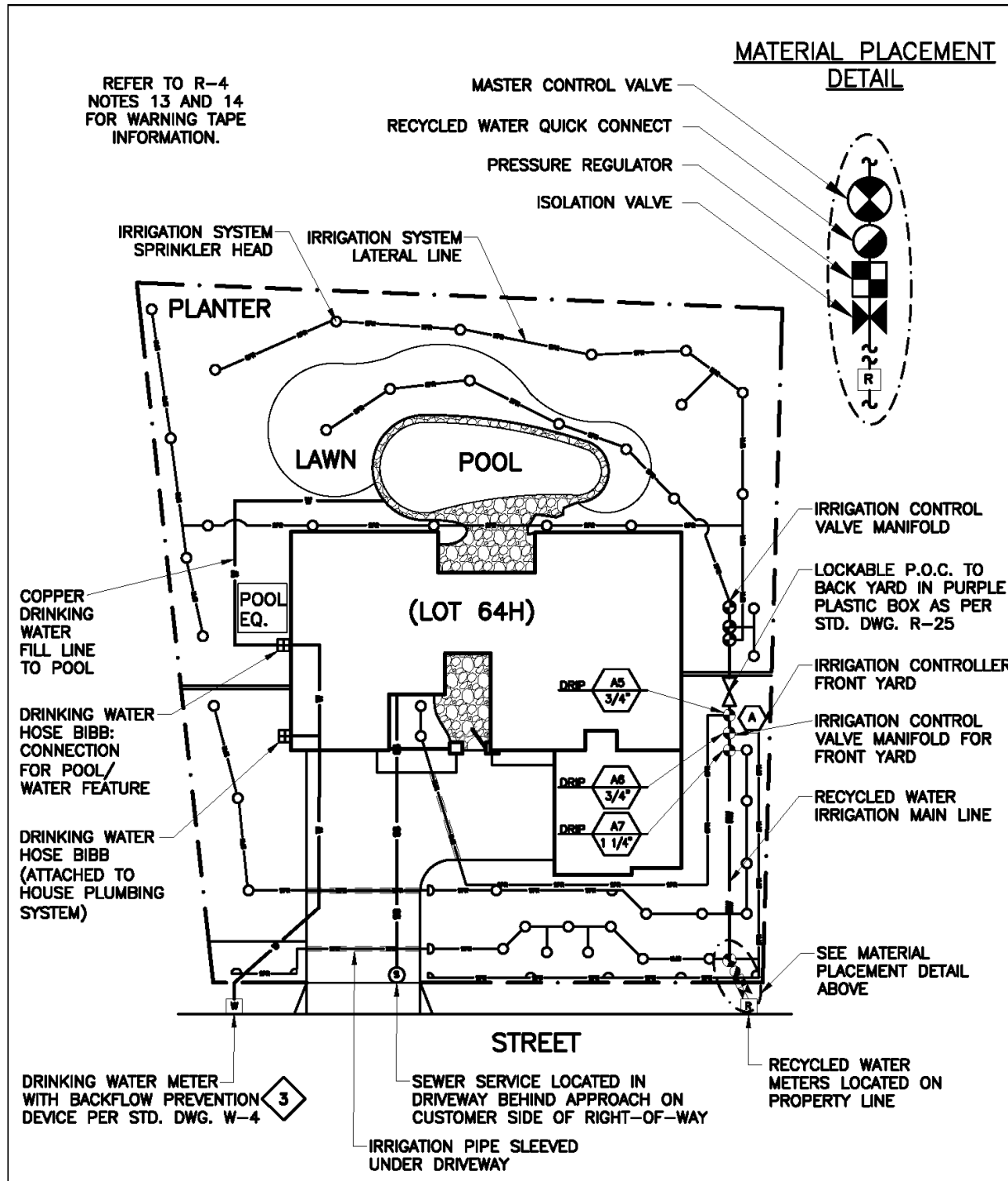
2019




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Valley Water District Board of
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RESIDENTIAL LOT IRRIGATION LAYOUT PLAN SUBMITTAL EXAMPLE

2019	 <p style="font-size: 18pt; font-weight: bold;">Yucaipa Valley Water District</p>	<p>Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX</p>	R-21
			Sheet 1 of 2

NOTES:

1. THIS EXAMPLE OF AN IRRIGATION PLAN SUBMITTAL REPRESENTS THE MINIMUM PLAN SUBMITTAL REQUIREMENT.
2. IRRIGATION LEGEND SHALL BE INCLUDED ON THE PLAN. SEE YVWD STD. DWG. R-1 FOR EXAMPLE OF IRRIGATION PLAN LEGEND.
3. DRINKING WATER METER SHALL BE LOCATED A MINIMUM OF 10-FEET AWAY FROM THE RECYCLED WATER SERVICE AND SEWER LATERAL, AND 3-FEET AWAY FROM THE E.C./B.C. OF THE DRIVEWAY APPROACH. IF THESE SEPARATIONS ARE NOT POSSIBLE, THE DRINKING WATER METER MAY BE LOCATED WITHIN THE DRIVEWAY BEHIND THE APPROACH BY SPECIAL PERMISSION ONLY.
3. ALL WATER LINES INSTALLED UNDER CONCRETE OR AT POTABLE/RECYCLED WATER LINE CROSSINGS MUST BE SLEEVED. REFER TO STD. DWG. R-4 NOTE 11 AND 13.
4. SITE INSPECTIONS AND BACKFLOW TESTING WILL BE PERFORMED ANNUALLY BY YVWD CROSS CONNECTION TESTING WILL BE PERFORMED EVERY 3 YEARS.
5. RECYCLED WATER OVERHEAD SPRAY IRRIGATION IS RESTRICTED AND NOT PERMITTED WITHIN 5-FEET OF STRUCTURES AND 2-FEET FROM HARDSCAPES.

**RESIDENTIAL LOT IRRIGATION LAYOUT
PLAN SUBMITTAL EXAMPLE**

2019

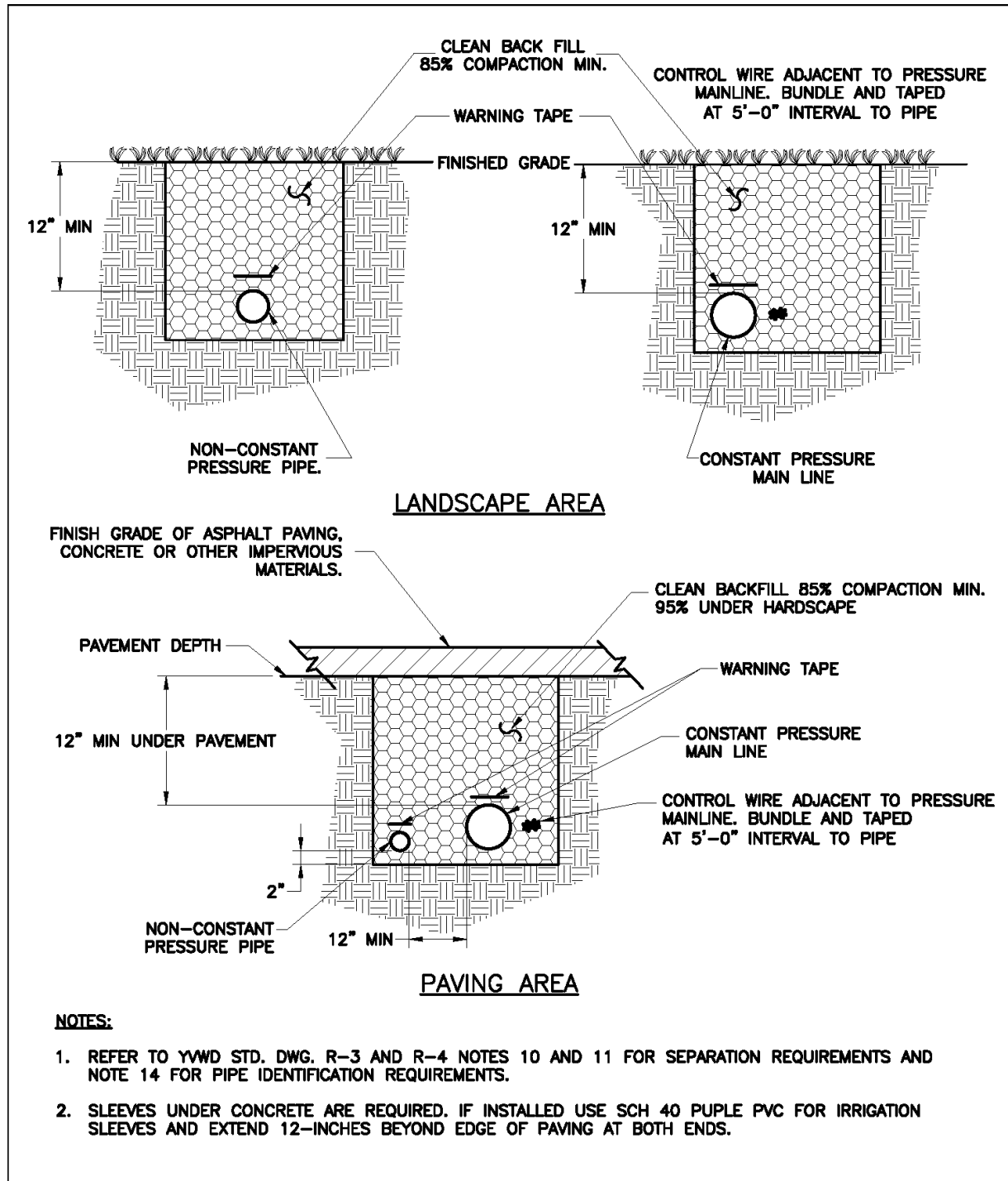


Yucaipa Valley
Water District

Approved by the Yucaipa
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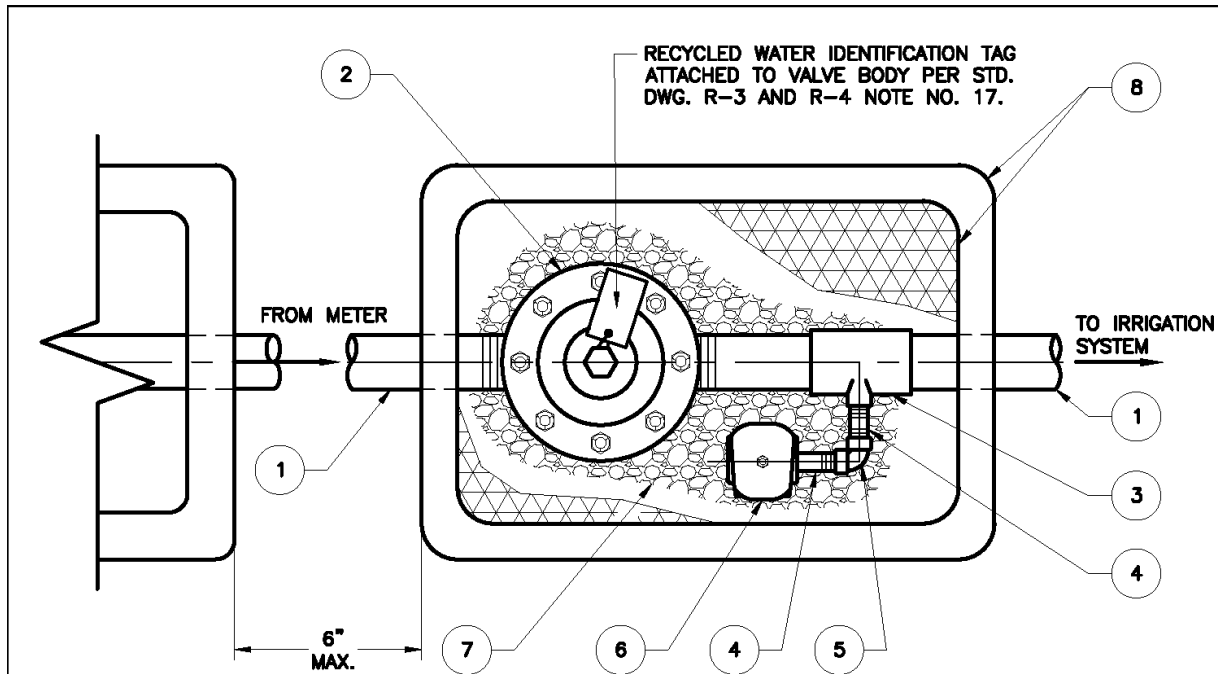


NOTES:

1. REFER TO YWD STD. DWG. R-3 AND R-4 NOTES 10 AND 11 FOR SEPARATION REQUIREMENTS AND NOTE 14 FOR PIPE IDENTIFICATION REQUIREMENTS.
2. SLEEVES UNDER CONCRETE ARE REQUIRED. IF INSTALLED USE SCH 40 PUPLE PVC FOR IRRIGATION SLEEVES AND EXTEND 12-INCHES BEYOND EDGE OF PAVING AT BOTH ENDS.

ONSITE IRRIGATION PIPELINE TRENCHING DETAIL FOR PLANNED RECYCLED WATER USE

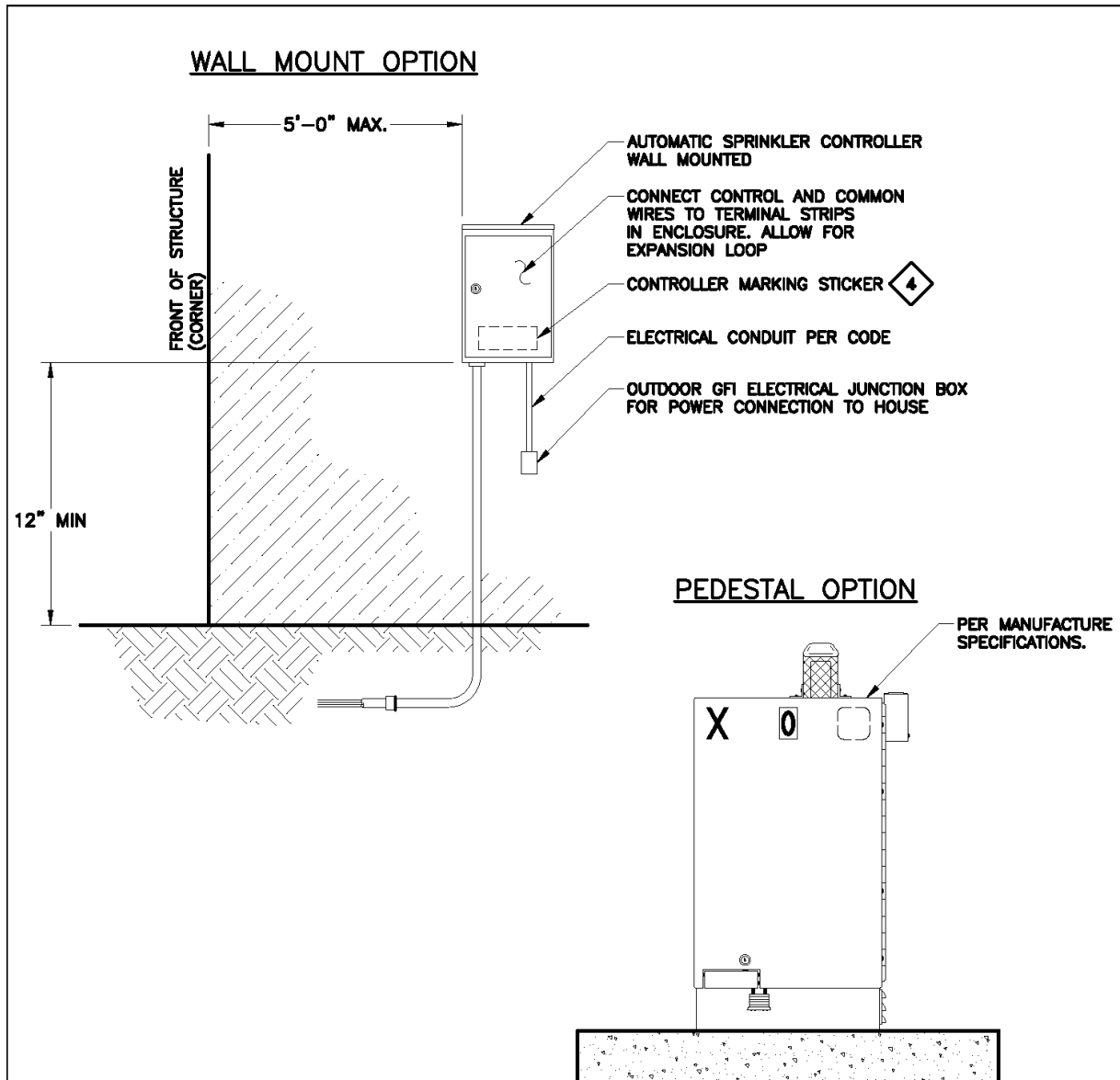
2019	 <p>Yucaipa Valley Water District</p>	<p>Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX</p>	<p>R-22</p>
			<p>Sheet 1 of 1</p>



LIST OF MATERIALS	
ITEM NO.	DESCRIPTION
1	SCH 80 MAINLINE
2	PRESSURE REDUCING REGULATOR AS REQUIRED
3	LINE SIZE X LINE SIZE X 3/4" SCH 80 TEE (SOC X SOC X THD)
4	3/4" SCH 80 NIPPLE
5	3/4" SCH 80 ELBOW (THD X THD)
6	3/4" QUICK COUPLER
7	3/8" DIA. PEA GRAVEL SUMP (MIN. 1 CUBIC FT.)
8	PURPLE COLOR VALVE BOX AND LID

RECYCLED WATER CROSS CONNECTION CONTROL TEST STATION DETAIL

2019	 <p>Yucaipa Valley Water District</p>	<p>Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX</p>	R-23
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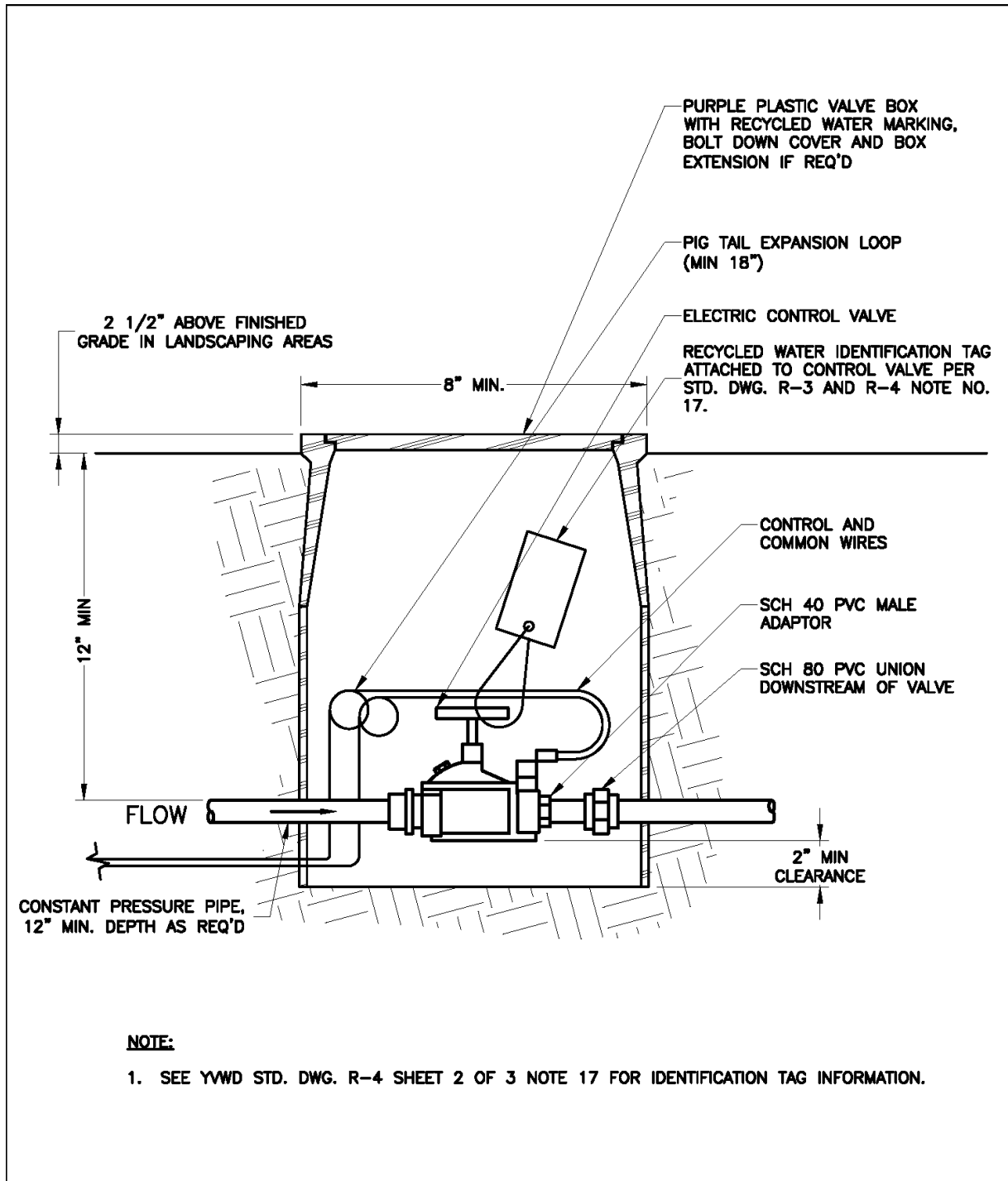


NOTES:

1. INSTALL ON/OFF SWITCH FOR ELECTRICAL SUPPLY INSIDE OF CONTROLLER.
2. INSTALL CONTROLLER MARKING STICKER: "ATTENTION - CONTROLLER UNIT FOR RECYCLED WATER" ATTACH STICKER ON CONTROLLER CABINET DOOR. REFER TO CHRISTY'S OR EQUAL.

ONSITE IRRIGATION AUTOMATIC CONTROLLER – WALL MOUNT/ PEDESTAL

2019	 <p style="font-size: 18pt; font-weight: bold;">Yucaipa Valley Water District</p>	Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX	R-24
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ONSITE IRRIGATION BURIED ELECTRIC REMOTE CONTROL VALVE

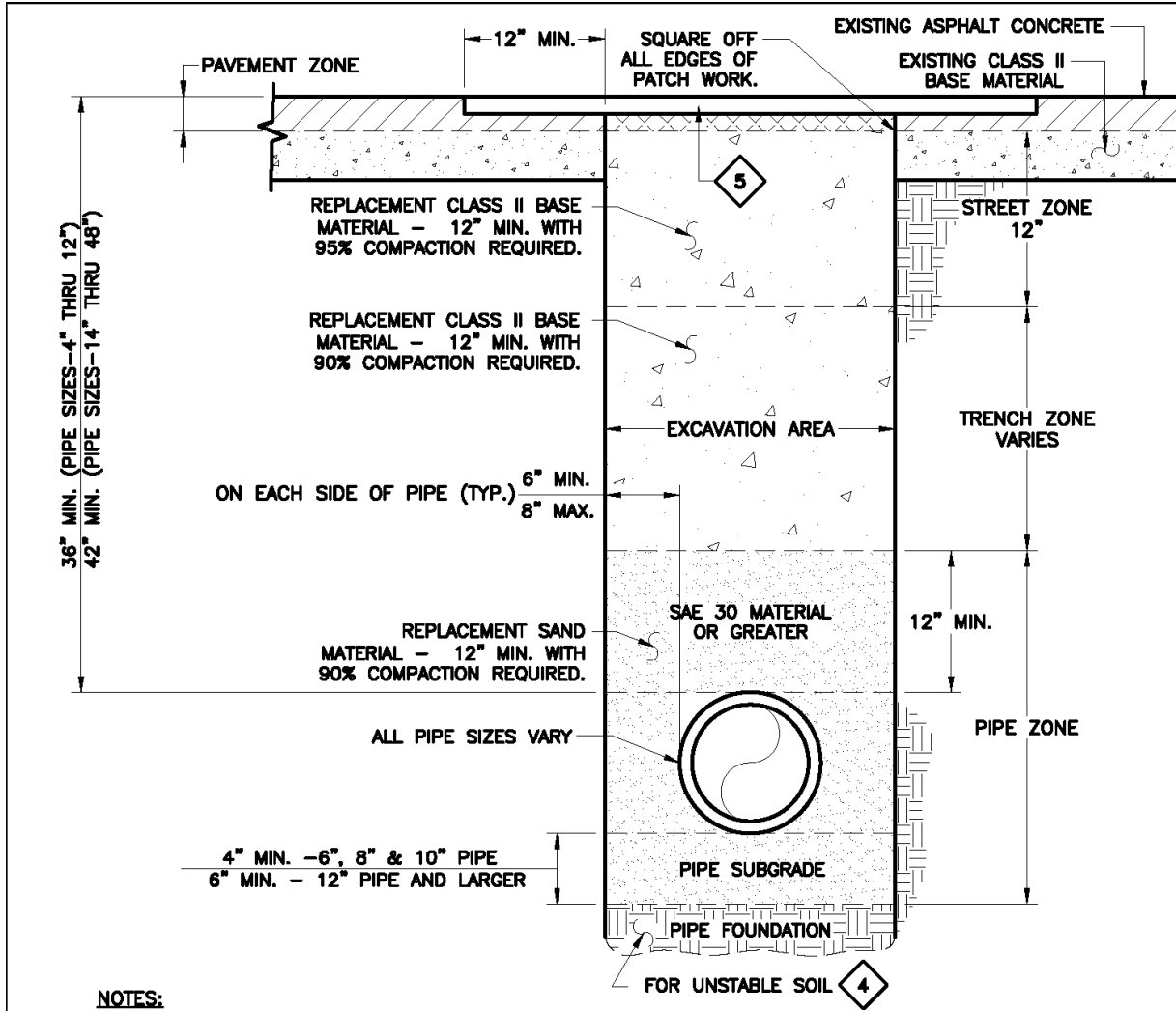
2019



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NOTES:

1. PLANT-MANUFACTURED SAND MATERIAL WITH AN SAE OF 30 OR GREATER SHALL BE USED FOR PIPE ZONE BACK FILL. REMAINING BACK FILL WILL BE IN ACCORDANCE WITH CITY/YVWD REQUIREMENTS (WHICH EVER IS GREATER)
2. BACKFILL UNDER EXISTING CURB WITHIN THE CITY OF YUCAIPA, MUST BE 2 SACK SLURRY PER CITY STANDARDS.
3. ADDITIONAL ARTERIAL STREET BACKFILL MAY BE REQUIRED BY APPROPRIATE CITY JURISDICTION.
4. IF UNSTABLE SOIL IS ENCOUNTERED, DISTRICT REPRESENTATIVE SHALL DETERMINE DEPTH OF REMOVAL AND SIZE OF FOUNDATION ROCK REFILL MATERIAL.
5. 1 1/4" THK MILL & CAP FOR PERMANENT PAVING REQUIREMENTS REFER TO STANDARD SPECIFICATIONS FOR THE APPROPRIATE CITY OR COUNTY OF JURISDICTION

SEE SHEET 2 OF 2 FOR PIPE VS. TRENCH SIZES.

TRENCH REPAIR AND PIPE BEDDING DETAIL

2019



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R-26

Sheet 1 of 2

TRENCH REPAIR—PIPE SIZE VS TRENCH SIZE		
PIPE SIZE—INCHES (INSIDE DIAMETER)	TRENCH WIDTH—INCHES	
	MINIMUM	MAXIMUM
4	18	24
6	20	30
8	24	32
10	24	36
12	30	36
14	32	42
16	34	42
24	38	46
29	42	46
30	46	48
36	—	—
48	—	—

TRENCH REPAIR DETAIL

2019

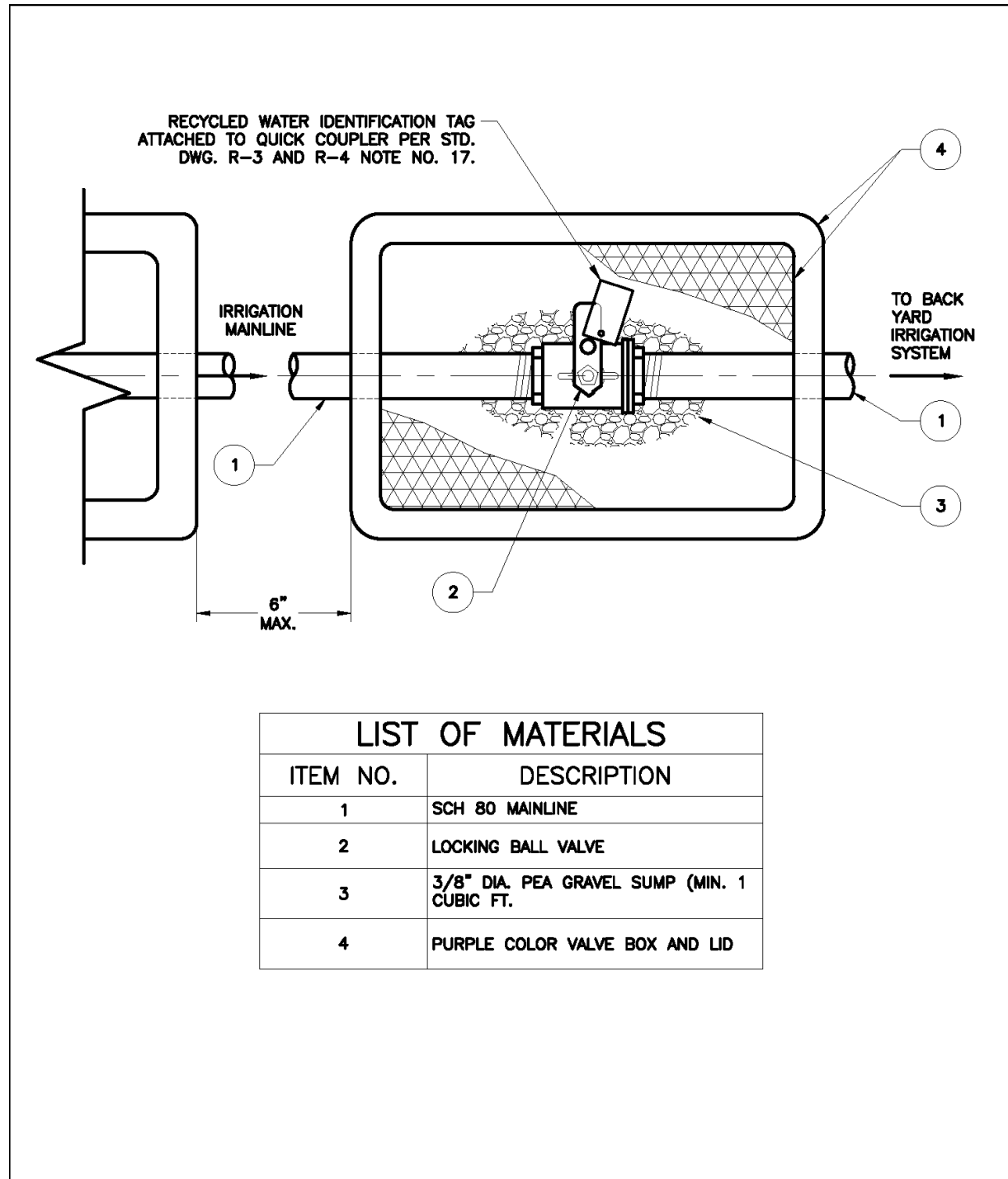


Yucaipa Valley
Water District

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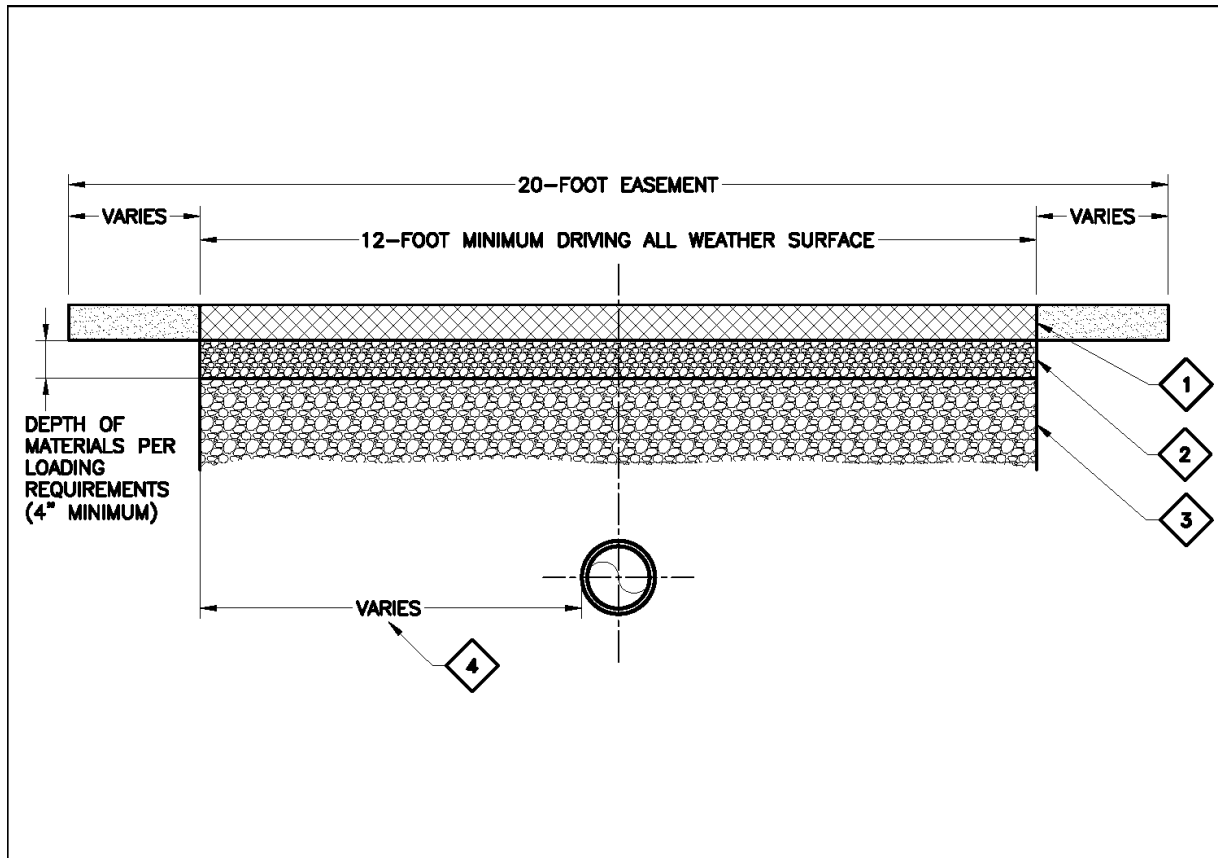
Sheet 2 of 2



LIST OF MATERIALS	
ITEM NO.	DESCRIPTION
1	SCH 80 MAINLINE
2	LOCKING BALL VALVE
3	3/8" DIA. PEA GRAVEL SUMP (MIN. 1 CUBIC FT.)
4	PURPLE COLOR VALVE BOX AND LID

LOCKING BALL VALVE FOR FUTURE EXPANSION TO BACKYARD BY OWNER


2019	 <p>Yucaipa Valley Water District</p>	<p>Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX</p>	R-27
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NOTES:

- 1 ALL WEATHER SURFACE APPROVED MATERIALS INCLUDE ASPHALT, 3250 PSI CONCRETE, SOIL CEMENT OR OTHER APPROVED DRIVING SURFACE CAPABLE OF SUPPORTING AT LEAST 60,000 POUND VEHICLE ACCESS OVER 2 AXLE OR AS OTHERWISE DETERMINED BY THE DISTRICT.
- 2 SUBGRADE MATERIALS COMPACTED TO 95% MINIMUM UNLESS OTHERWISE APPROVED.
- 3 NATIVE OR IMPORTED BACKFILL, COMPACTED TO ENGINEERS SPECIFICATIONS FOR MATERIAL USED AS DRIVING SURFACE.
- 4 4-FOOT MINIMUM FROM EDGE OF ALL WEATHER SURFACE WHEN OVER DISTRICT UTILITY LINES.
- 5 EASEMENTS THAT HAVE ANGLES WILL REQUIRE A TURNING RADIUS. RADIUS POINT WILL BE DETERMINED BY THE DISTRICT.
- 6 NO PERMANENT WALL, FENCE, VEGETATION, OR STRUCTURE MAY BE CONSTRUCTED ACROSS OR WITHIN THE DISTRICT EASEMENT WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DISTRICT.
- 7 SLOPE ELEVATION DESIGN WILL BE REVIEWED AND APPROVED BY THE DISTRICT.

TYPICAL DISTRICT EASEMENT

2019	 <p>Yucaipa Valley Water District</p>	Approved by the Yucaipa Valley Water District Board of Directors on October 1, 2019 as Resolution No. 2019-XX	R-28
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Date: October 1, 2019

Prepared By: Joseph B. Zoba, General Manager

Subject: Appointment of an Ad Hoc Committee for Policy Collaboration and Resolution of Institutional Constraints between San Bernardino Valley Municipal Water District, San Gorgonio Pass Water Agency, and the Yucaipa Valley Water District

Recommendation: That the Board appoint two members as the ad hoc Regional Collaboration Committee.

On September 25, 2019, the elected officials from the San Bernardino Valley Municipal Water District, San Gorgonio Pass Water Agency, and Yucaipa Valley Water District met to discuss the Facilitated Joint Management process.

At this meeting, Tim Moore discussed the framework of an agreement that would reduce some of the policy and institutional differences between the three agencies to create a more adaptable and beneficial working arrangement for our common customers.

Following the meeting, Tim Moore suggested the formation of ad hoc committees to provide him with additional insights of potential opportunities and constraints. At this time the ad hoc committee would be used to meet directly with Tim Moore. In the future, the ad hoc committee may need to meet with the ad hoc committee members from the other two agencies to expedite the final agreement.



SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT
380 E. Vanderbilt Way, San Bernardino, CA 92408

JOINT MEETING OF THE SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT, THE SAN GORGONIO PASS WATER AGENCY AND THE YUCAIPA VALLEY WATER DISTRICT BOARD OF DIRECTORS

AGENDA

1:30 PM Wednesday, September 25, 2019

CALL TO ORDER/PLEDGE OF ALLEGIANCE/ROLL CALL

1. **PUBLIC COMMENT** - Any person may address the Board on matters within its jurisdiction.
2. **DISCUSSION AND POSSIBLE ACTION ITEMS**
 - 2.1. Consider Agreement Review of an Agreement to Facilitate Water Deliveries to the Calimesa Area by San Bernardino Valley Municipal Water District for the San Gorgonio Pass Water Agency (Page 3)
[Staff Memo - Review of Agreement to Facilitate Water Deliveries](#)
[Agreement to Facilitate Water Deliveries](#)
[Joint Agreement SWPAO 16030](#)
[Sample Calculation of Calimesa Deliveries for August 2019](#)
 - 2.2. Presentation and Discussion of Facilitated Joint Management Meetings (Page 26)
[Staff Memo - Calimesa Water Supply](#)
[Joint Board Meeting for Calimesa Water Supply Agreement](#)
3. **BOARD MEMBER COMMENTS**
4. **ADJOURNMENT**

PLEASE NOTE:
Materials related to an item on this Agenda submitted to the Board after distribution of the agenda packet are available for public inspection in the District's office located at 380 E. Vanderbilt Way, San Bernardino, during normal business hours. Also, such documents are available on the District's website at www.sbvmd.com subject to staff's ability to post the documents before the meeting. The District recognizes its obligation to provide equal access to those individuals with disabilities. Please contact Lillian Hernandez at (909) 387-9214 two working days prior to the meeting with any special requests for reasonable accommodation.

Negotiating a Joint Water Supply Agreement for the Calimesa Area



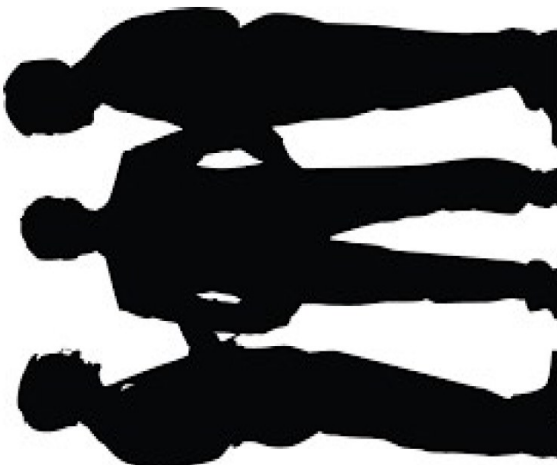
SAN GORGONIO PASS
WATER AGENCY
• *Established 1961* •



Joint Board Meeting: Sept. 25, 2019

Joint Meetings of the GM's

- ❖ Modeled on Past Successes
- ❖ Guided by an Objective Facilitator
- ❖ A Few Simple Ground Rules



Shared Goals

- ❖ Reliable Water Supplies
- ❖ Reasonable Rates & Fees
- ❖ Regional Collaboration



Key Concerns: YVWD

- ❖ Meeting Future Growth Demands
- ❖ Drought Resilience
- ❖ Complex Rate Structure



Yucaipa Valley Water District

Key Concerns: SGPWA

- ❖ Expanding Water Supply Portfolio
- ❖ Meeting Financial Obligations
- ❖ Maintaining Stable Service Areas



SAN GORGONIO PASS
WATER AGENCY
• Established 1961 •

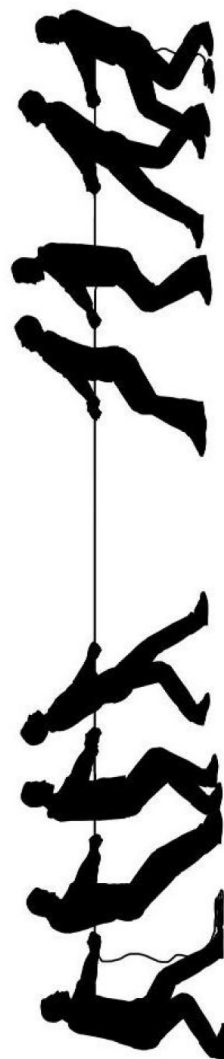
Key Concerns: SBVMWD

- ❖ Regional Strategies & Solutions
- ❖ Innovative Resource Management
- ❖ Long-term Perspectives



Opportunities for Collaboration

AGENCY	MAJOR ASSETS	CRITICAL NEEDS
YVWD	1) Drinking Water Treatment Plant 2) High Quality Recycled Water	1) More Groundwater Storage 2) Long-term Supply Assurance
SGPWA	1) New Water Supply: AVEK Contract 2) Groundwater Storage at Elevation	1) Limited Near-term Demand 2) Other Funding Constraints
SBVMWD	1) Groundwater Storage Capacity 2) Regional Incentive Program	1) Greater Water Portfolio Diversity 2) Stabilizing Groundwater Elevation



Working on an MOA

- ❖ To expand water supply portfolios
- ❖ To increase groundwater storage
- ❖ To share costs & benefits equitably



Next Steps:

- ❖ Draft Principles of Agreement
- ❖ Develop conceptual projects
- ❖ Establish contract terms



Board Reports



Yucaipa Valley Water District

Director Comments





FACTS ABOUT THE YUCAIPA VALLEY WATER DISTRICT

Service Area Size: 40 square miles (sphere of influence is 68 square miles)

Elevation Change: 3,140 foot elevation change (from 2,044 to 5,184 feet)

Number of Employees: 5 elected board members
72 full time employees

FY 2019-20 Operating Budget: Water Division - \$14,455,500
Sewer Division - \$12,217,712
Recycled Water Division - \$1,301,447

Number of Services: 13,794 drinking water connections serving 19,243 units
14,104 sewer connections serving 22,774 units
111 recycled water connections serving 460 units

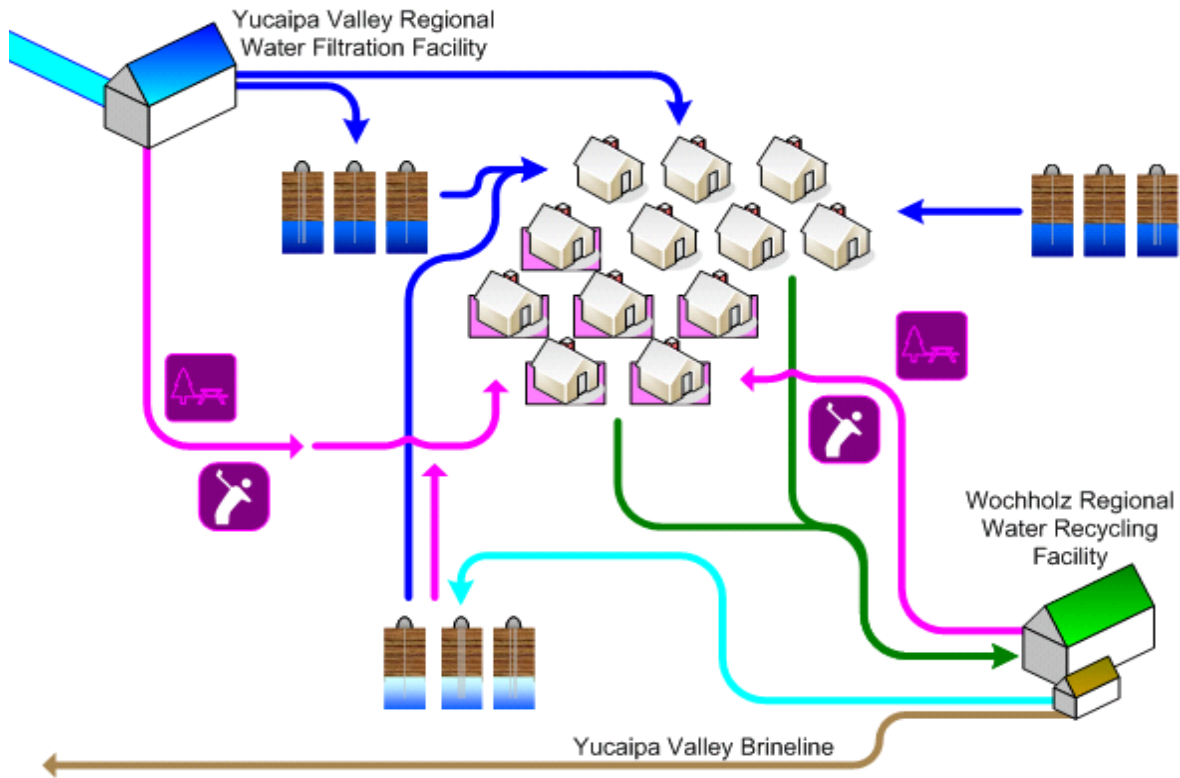
Water System: 223 miles of drinking water pipelines
2,033 fire hydrants
27 reservoirs - 34 million gallons of storage capacity
18 pressure zones
2.958 billion gallon annual drinking water demand
Two water filtration facilities:
- 1 mgd at Oak Glen Surface Water Filtration Facility
- 12 mgd at Yucaipa Valley Regional Water Filtration Facility

Sewer System: 8.0 million gallon treatment capacity - current flow at 3.5 mgd
213 miles of sewer mainlines
4,504 sewer manholes
5 sewer lift stations
1.27 billion gallons of recycled water produced per year

Recycled Water: 22 miles of recycled water pipelines
5 reservoirs - 12 million gallons of storage
0.681 billion gallon annual recycled water demand

Brine Disposal: 2.2 million gallon desalination facility at sewer treatment plant
1.756 million gallons of Inland Empire Brine Line capacity
0.595 million gallons of treatment capacity in Orange County

Sustainability Plan: A Strategic Plan for a Sustainable Future: The Integration and Preservation of Resources, adopted on August 20, 2008.



Typical Rates, Fees and Charges:

- Drinking Water Commodity Charge:

1,000 gallons to 15,000 gallons	\$1.429 per each 1,000 gallons
16,000 gallons to 60,000 gallons	\$1.919 per each 1,000 gallons
61,000 gallons to 100,000 gallons	\$2.099 per each 1,000 gallons
101,000 gallons or more	\$2.429 per each 1,000 gallons

- Recycled Water Commodity Charge:

1,000 gallons or more	\$1.425 per each 1,000 gallons
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- Water Meter Service Charge (Drinking Water or Recycled Water):

5/8" x 3/4" Water Meter	\$14.00 per month
1" Water Meter	\$23.38 per month
1-1/2" Water Meter	\$46.62 per month

- Sewer Collection and Treatment Charge:

Typical Residential Charge	\$42.43 per month
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State Water Contractors: San Bernardino Valley Municipal Water District
San Gorgonio Pass Water Agency



	San Bernardino Valley Municipal Water District	San Gorgonio Pass Water Agency
Service Area Size	353 square miles	222 square miles
Table "A" Water Entitlement	102,600 acre feet	17,300 acre feet
Imported Water Rate	\$125.80 / acre foot	\$399 / acre foot
Tax Rates for FY 2019-20	\$0.1425 per \$100	\$0.1775 per \$100
Number of Board Members	Five (5)	Seven (7)
Operating Budget FY 2019-20	\$58,372,000	\$9,551,000

Imported Water Charges (Pass-through State Water Project Charge)

- San Bernardino Valley Municipal Water District - Customers in San Bernardino County or City of Yucaipa pay a pass-through amount of \$0.270 per 1,000 gallons.
- San Gorgonio Pass Water Agency - Customers in Riverside County or City of Calimesa pay a pass-through amount of \$0.660 per 1,000 gallons. A proposed rate change to \$0.857 per 1,000 gallons is pending future consideration by YVWD.





GLOSSARY OF COMMONLY USED TERMS

Every profession has specialized terms which generally evolve to facilitate communication between individuals. The routine use of these terms tends to exclude those who are unfamiliar with the particular specialized language of the group. Sometimes jargon can create communication cause difficulties where professionals in related fields use different terms for the same phenomena.

Below are commonly used water terms and abbreviations with commonly used definitions. If there is any discrepancy in definitions, the District's Regulations Governing Water Service is the final and binding definition.

Acre Foot of Water - The volume of water (325,850 gallons, or 43,560 cubic feet) that would cover an area of one acre to a depth of 1 foot.

Activated-Sludge Process - A secondary biological wastewater treatment process where bacteria reproduce at a high rate with the introduction of excess air or oxygen and consume dissolved nutrients in the wastewater.

Annual Water Quality Report - The document is prepared annually and provides information on water quality, constituents in the water, compliance with drinking water standards and educational material on tap water. It is also referred to as a Consumer Confidence Report (CCR).

Aquifer - The natural underground area with layers of porous, water-bearing materials (sand, gravel) capable of yielding a supply of water; see Groundwater basin.

Backflow - The reversal of water's normal direction of flow. When water passes through a water meter into a home or business it should not reverse flow back into the water mainline.

Best Management Practices (BMPs) - Methods or techniques found to be the most effective and practical means in achieving an objective. Often used in the context of water conservation.

Biochemical Oxygen Demand (BOD) - The amount of oxygen used when organic matter undergoes decomposition by microorganisms. Testing for BOD is done to assess the amount of organic matter in water.

Biosolids - Biosolids are nutrient rich organic and highly treated solid materials produced by the wastewater treatment process. This high-quality product can be recycled as a soil amendment on farmland or further processed as an earth-like product for commercial and home gardens to improve and maintain fertile soil and stimulate plant growth.

Capital Improvement Program (CIP) - Projects for repair, rehabilitation, and replacement of assets. Also includes treatment improvements, additional capacity, and projects for the support facilities.

Certificate of Participation (COP) – A type of financing where an investor purchases a share of the lease revenues of a program rather than the bond being secured by those revenues.

Coliform Bacteria - A group of bacteria found in the intestines of humans and other animals, but also occasionally found elsewhere used as indicators of sewage pollution. E. coli are the most common bacteria in wastewater.

Collections System - In wastewater, it is the system of typically underground pipes that receive and convey sanitary wastewater or storm water.

Conjunctive Use - The coordinated management of surface water and groundwater supplies to maximize the yield of the overall water resource. Active conjunctive use uses artificial recharge, where surface water is intentionally percolated or injected into aquifers for later use. Passive conjunctive use is to simply rely on surface water in wet years and use groundwater in dry years.

Consumer Confidence Report (CCR) - see Annual Water Quality Report.

Contaminants of Potential Concern (CPC) - Pharmaceuticals, hormones, and other organic wastewater contaminants.

Cross-Connection - The actual or potential connection between a potable water supply and a non-potable source, where it is possible for a contaminant to enter the drinking water supply.

Disinfection by-Products (DBPs) - The category of compounds formed when disinfectants in water systems react with natural organic matter present in the source water supplies. Different disinfectants produce different types or amounts of disinfection byproducts. Disinfection byproducts for which regulations have been established have been identified in drinking water, including trihalomethanes, haloacetic acids, bromate, and chlorite

Drought - a period of below average rainfall causing water supply shortages.

Fire Flow - The ability to have a sufficient quantity of water available to the distribution system to be delivered through fire hydrants or private fire sprinkler systems.

Gallons per Capita per Day (GPCD) - A measurement of the average number of gallons of water use by the number of people served each day in a water system. The calculation is made by dividing the total gallons of water used each day by the total number of people using the water system.

Groundwater Basin - An underground body of water or aquifer defined by physical boundaries.

Groundwater Recharge - The process of placing water in an aquifer. Can be a naturally occurring process or artificially enhanced.

Hard Water - Water having a high concentration of minerals, typically calcium and magnesium ions.

Hydrologic Cycle - The process of evaporation of water into the air and its return to earth in the form of precipitation (rain or snow). This process also includes transpiration from plants, percolation into the ground, groundwater movement, and runoff into rivers, streams, and the ocean; see Water cycle.

Levels of Service (LOS) - Goals to support environmental and public expectations for performance.

Mains, Distribution - A network of pipelines that delivers water (drinking water or recycled water) from transmission mains to residential and commercial properties, usually pipe diameters of 4" to 16".

Mains, Transmission - A system of pipelines that deliver water (drinking water or recycled water) from a source of supply the distribution mains, usually pipe diameters of greater than 16".

Meter - A device capable of measuring, in either gallons or cubic feet, a quantity of water delivered by the District to a service connection.

Overdraft - The pumping of water from a groundwater basin or aquifer in excess of the supply flowing into the basin. This pumping results in a depletion of the groundwater in the basin which has a net effect of lowering the levels of water in the aquifer.

Pipeline - Connected piping that carries water, oil, or other liquids. See Mains, Distribution and Mains, Transmission.

Point of Responsibility, Metered Service - The connection point at the outlet side of a water meter where a landowner's responsibility for all conditions, maintenance, repairs, use and replacement of water service facilities begins, and the District's responsibility ends.

Potable Water - Water that is used for human consumption and regulated by the California Department of Public Health.

Pressure Reducing Valve - A device used to reduce the pressure in a domestic water system when the water pressure exceeds desirable levels.

Pump Station - A drinking water or recycled water facility where pumps are used to push water up to a higher elevation or different location.

Reservoir - A water storage facility where water is stored to be used at a later time for peak demands or emergencies such as fire suppression. Drinking water and recycled water systems will typically use concrete or

steel reservoirs. The State Water Project system considers lakes, such as Shasta Lake and Folsom Lake to be water storage reservoirs.

Runoff - Water that travels downward over the earth's surface due to the force of gravity. It includes water running in streams as well as over land.

Santa Ana River Interceptor (SARI) Line - A regional brine line designed to convey 30 million gallons per day (MGD) of non-reclaimable wastewater from the upper Santa Ana River basin to Orange County Sanitation District for treatment, use and/or disposal.

Secondary treatment - Biological wastewater treatment, particularly the activated-sludge process, where bacteria and other microorganisms consume dissolved nutrients in wastewater.

Service Connection - The water piping system connecting a customer's system with a District water main beginning at the outlet side of the point of responsibility, including all plumbing and equipment located on a parcel required for the District's provision of water service to that parcel.

Sludge - Untreated solid material created by the treatment of wastewater.

Smart Irrigation Controller - A device that automatically adjusts the time and frequency which water is applied to landscaping based on real-time weather such as rainfall, wind, temperature, and humidity.

South Coast Air Quality Management District (SCAQMD) - Regional regulatory agency that develops plans and regulations designed to achieve public health standards by reducing emissions from business and industry.

Special district - A form of local government created by a local community to meet a specific need. Yucaipa Valley Water District is a County Water District formed pursuant to Section 30000 of the California Water Code

Supervisory Control and Data Acquisition (SCADA) - A computerized system which provides the ability to remotely monitor and control water system facilities such as reservoirs, pumps, and other elements of water delivery.

Surface Water - Water found in lakes, streams, rivers, oceans, or reservoirs behind dams. In addition to using groundwater, Yucaipa Valley Water District receives surface water from the Oak Glen area.

Sustainable Groundwater Management Act (SGMA) - Pursuant to legislation signed by Governor Jerry Brown in 2014, the Sustainable Groundwater Management Act requires water agencies to manage groundwater extractions to not cause undesirable results from over production.

Transpiration - The process by which water vapor is released into the atmosphere by living plants.

Trickling filter - A biological secondary treatment process in which bacteria and other microorganisms, growing as slime on the surface of rocks or plastic media, consume nutrients in wastewater as it trickles over them.

Underground Service Alert (USA) - A free service (<https://www.digalert.org>) that notifies utilities such as water, telephone, cable and sewer companies of pending excavations within the area (dial 8-1-1 at least 2 working days before you dig).

Urban runoff - Water from city streets and domestic properties that carry pollutants into the storm drains, rivers, lakes, and oceans.

Valve - A device that regulates, directs, or controls the flow of water by opening, closing, or partially obstructing various passageways.

Wastewater - Any water that enters the sanitary sewer.

Water Banking - The practice of actively storing or exchanging in-lieu surface water supplies in available groundwater basin storage space for later extraction and use by the storing party or for sale or exchange to a third party. Water may be banked as an independent operation or as part of a conjunctive use program.

Water Cycle - The continuous movement water from the earth's surface to the atmosphere and back again.

Water Pressure - Water pressure is created by the weight and elevation of water and/or generated by pumps that deliver water to customers.

Water Service Line - A water service line is used to deliver water from the Yucaipa Valley Water District's mainline distribution system.

Water table - the upper surface of the zone of saturation of groundwater in an unconfined aquifer.

Water transfer - a transaction, in which a holder of a water right or entitlement voluntarily sells/exchanges to a willing buyer the right to use all or a portion of the water under that water right or entitlement.

Watershed - A watershed is the region or land area that contributes to the drainage or catchment area above a specific point on a stream or river.

Water-Wise House Call - a service which provides a custom evaluation of a customer's indoor and outdoor water use and landscape watering requirements.

Well - a hole drilled into the ground to tap an underground aquifer.

Wetlands - lands which are fully saturated or under water at least part of the year, like seasonal vernal pools or swamps.





COMMONLY USED ABBREVIATIONS

AQMD	Air Quality Management District
BOD	Biochemical Oxygen Demand
CARB	California Air Resources Board
CCTV	Closed Circuit Television
CWA	Clean Water Act
EIR	Environmental Impact Report
EPA	U.S. Environmental Protection Agency
FOG	Fats, Oils, and Grease
GPD	Gallons per day
MGD	Million gallons per day
O & M	Operations and Maintenance
OSHA	Occupational Safety and Health Administration
POTW	Publicly Owned Treatment Works
PPM	Parts per million
RWQCB	Regional Water Quality Control Board
SARI	Santa Ana River Inceptor
SAWPA	Santa Ana Watershed Project Authority
SBVMWD	San Bernardino Valley Municipal Water District
SCADA	Supervisory Control and Data Acquisition system
SGMA	Sustainable Groundwater Management Act
SSMP	Sanitary Sewer Management Plan
SSO	Sanitary Sewer Overflow
SWRCB	State Water Resources Control Board
TDS	Total Dissolved Solids
TMDL	Total Maximum Daily Load
TSS	Total Suspended Solids
WDR	Waste Discharge Requirements
YVWD	Yucaipa Valley Water District