Yucaipa Valley Water District

2022

STANDARD SPECIFICATIONS

FOR THE

DESIGN AND PROCESSING,

FURNISHING OF MATERIALS,

AND

CONSTRUCTION OF WATER FACILITIES

YVWD WATER FACILITY STANDARDS
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WATER STANDARD INDEX

2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

W–0

YVWD WATER FACILITY STANDARDS
DRAWING INDEX (SUBJECT)

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W–3	UTILITY LOCATIONS – SECTIONS
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W–13	DOUBLE CHECK OR REDUCED PRESSURE DETECTOR ASSEMBLY ABOVE GROUND FIRE LINE
W–14	NOT IN USE

FIRE HYDRANTS AND VALVES

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PIPE AND CASING DETAILS

W–22	THRUST BLOCK DETAILS FOR RETROFIT ONLY
W–25	ADJUSTABLE PIPE SUPPORT
W–26	STEEL CASING PIPE
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W–28	MORTAR LINED AND COATED STEEL PIPE CLOSURE DETAILS
W–30	TRENCH REPAIR AND PIPE BEDDING DETAIL
W–31	WATER PIPELINE PROTECTION DETAIL

PRESSURE REDUCING STATION AND VAULT DETAILS

W–23	PRESSURE REDUCING STATION DETAILS
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WATER STANDARD INDEX

2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

W–0

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
W x	EXISTING DRINKING WATER LINE
W	PROPOSED DRINKING WATER LINE
RW x	EXISTING RECYCLED WATER LINE
RW	PROPOSED RECYCLED WATER LINE
SS x	EXISTING SEWER LINE
SS	PROPOSED SEWER LINE
NG x	EXISTING GAS LINE
NG	PROPOSED GAS LINE
	SERVICE LATERAL
	ENCASEMENT
E x	EXISTING ELECTRICAL CONDUIT
E	PROPOSED ELECTRICAL CONDUIT
T x	EXISTING TELEPHONE CONDUIT
T	PROPOSED TELEPHONE CONDUIT
FO x	EXISTING FIBER OPTIC CABLE
FO	PROPOSED FIBER OPTIC CABLE
	PORTLAND CEMENT CONCRETE IN SECTION
	PORTLAND CEMENT CONCRETE IN PLAN

	POWER POLE AND GUY LINE
	TRAFFIC SIGNAL EXISTING
	WATER WELL
	BUTTERFLY VALVE
	GATE VALVE
	FIRE HYDRANT
	BLOW–OFF
	AIR & VACUUM VALVE ASSEMBLY (SIZE PER PLAN)
	DRINKING WATER QUALITY SAMPLE STATION
	RECYCLED WATER QUALITY SAMPLE STATION

	CLEAN–OUT
	HOUSE CONNECTION SEWER
	WYE BRANCH
	CUT–OFF WALL
C.O.	CLEAN–OUT
D.I.P.	DUCTILE IRON PIPE
D.M.H.	DROP MANHOLE
J.M.H.	JUNCTION MANHOLE
M.H.	MANHOLE
V.C.P.	VITRIFIED CLAY PIPE

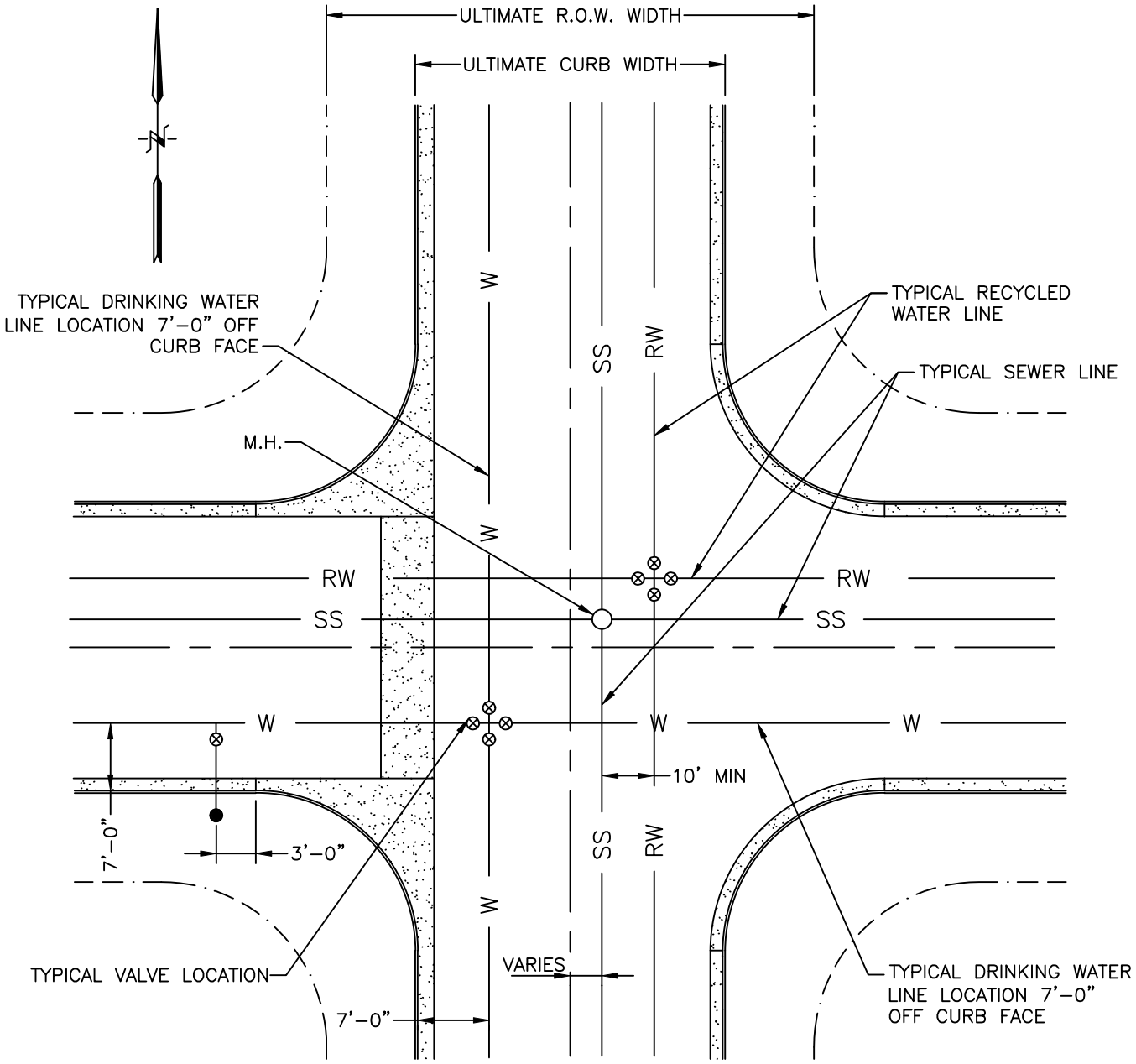
STANDARD DESIGN REQUIREMENTS AND LEGEND

2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

W–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.

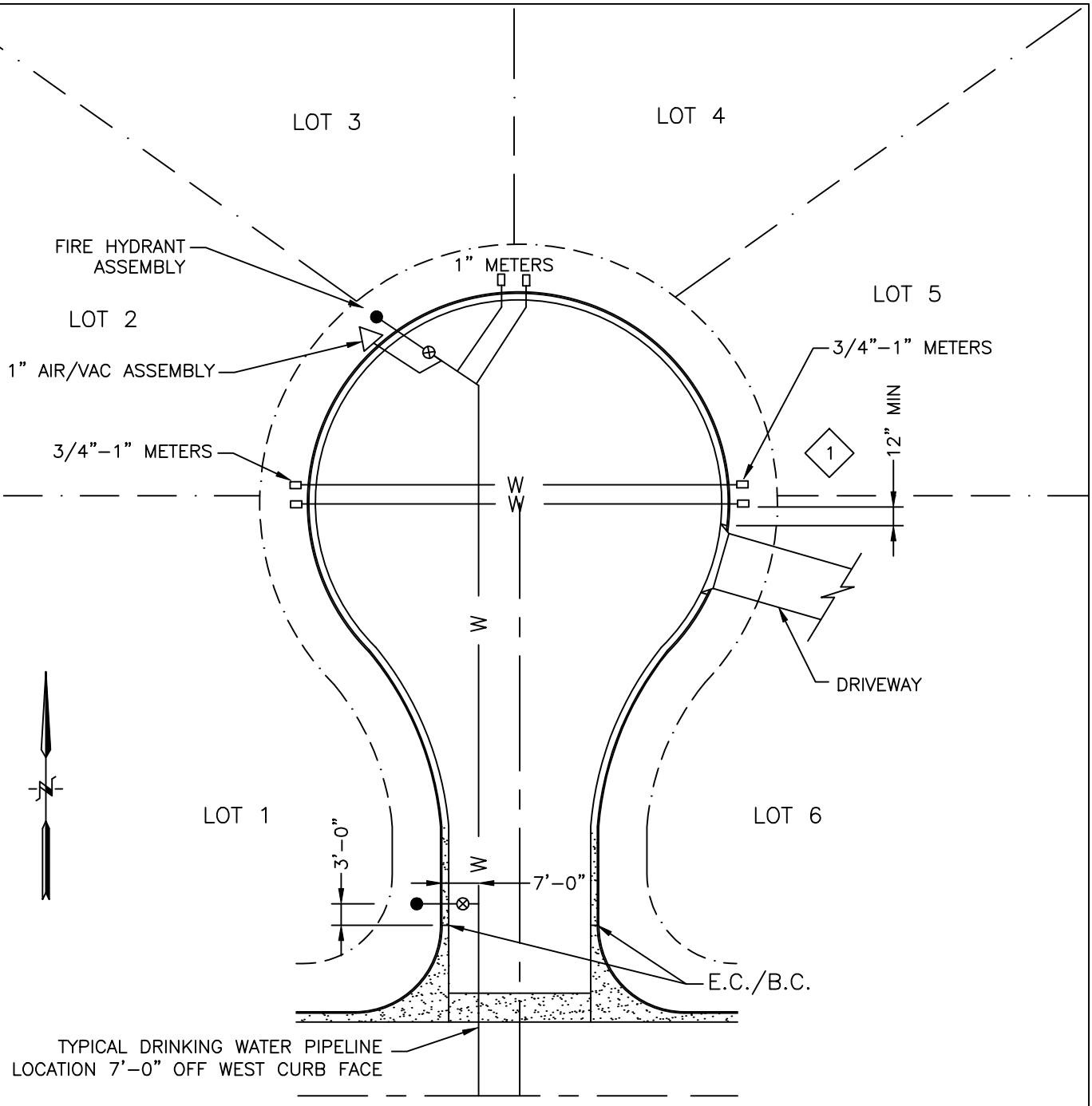
DRINKING WATER PIPELINE LOCATION

2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

W–2



NOTE:

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

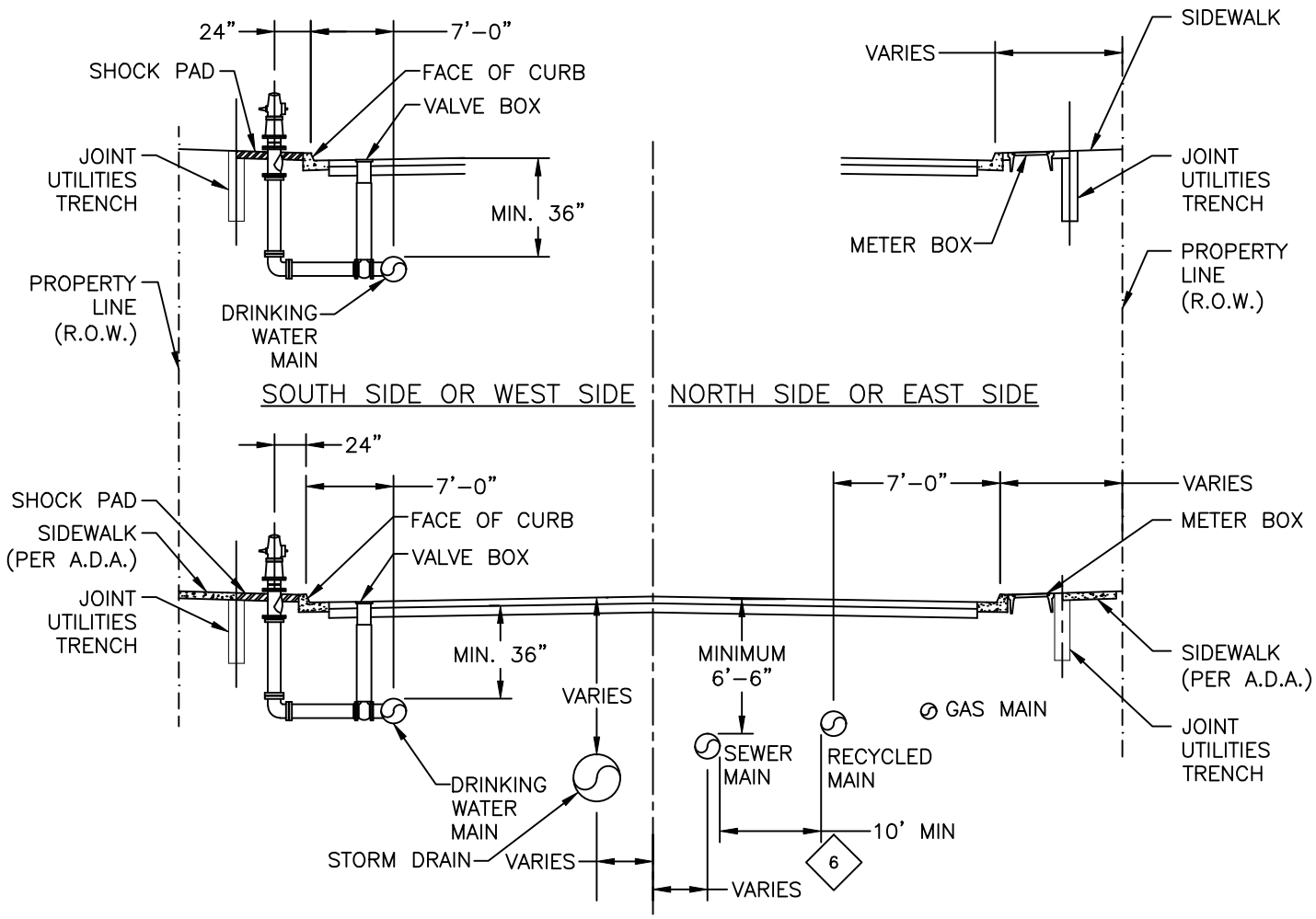
DRINKING WATER PIPELINE LOCATION

2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

W–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 DIVIDED ROADWAYS.

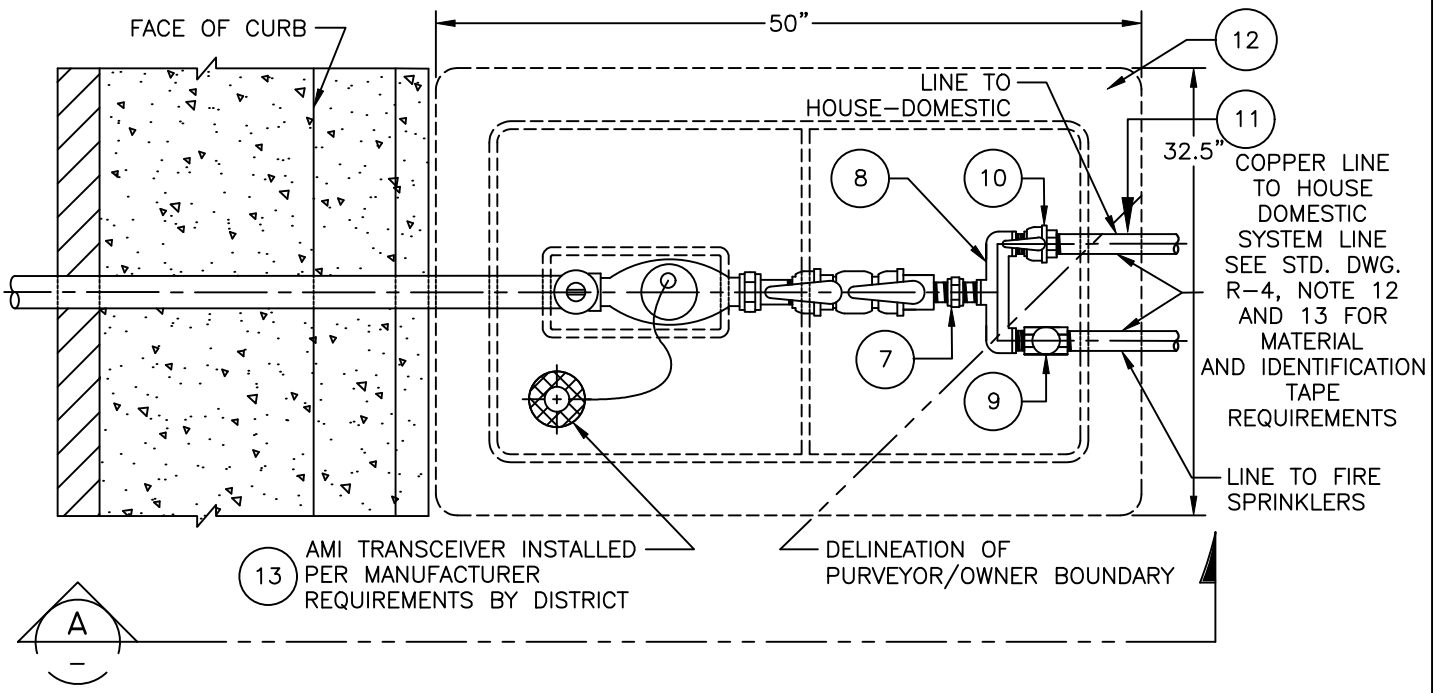
UTILITY LOCATIONS – SECTIONS

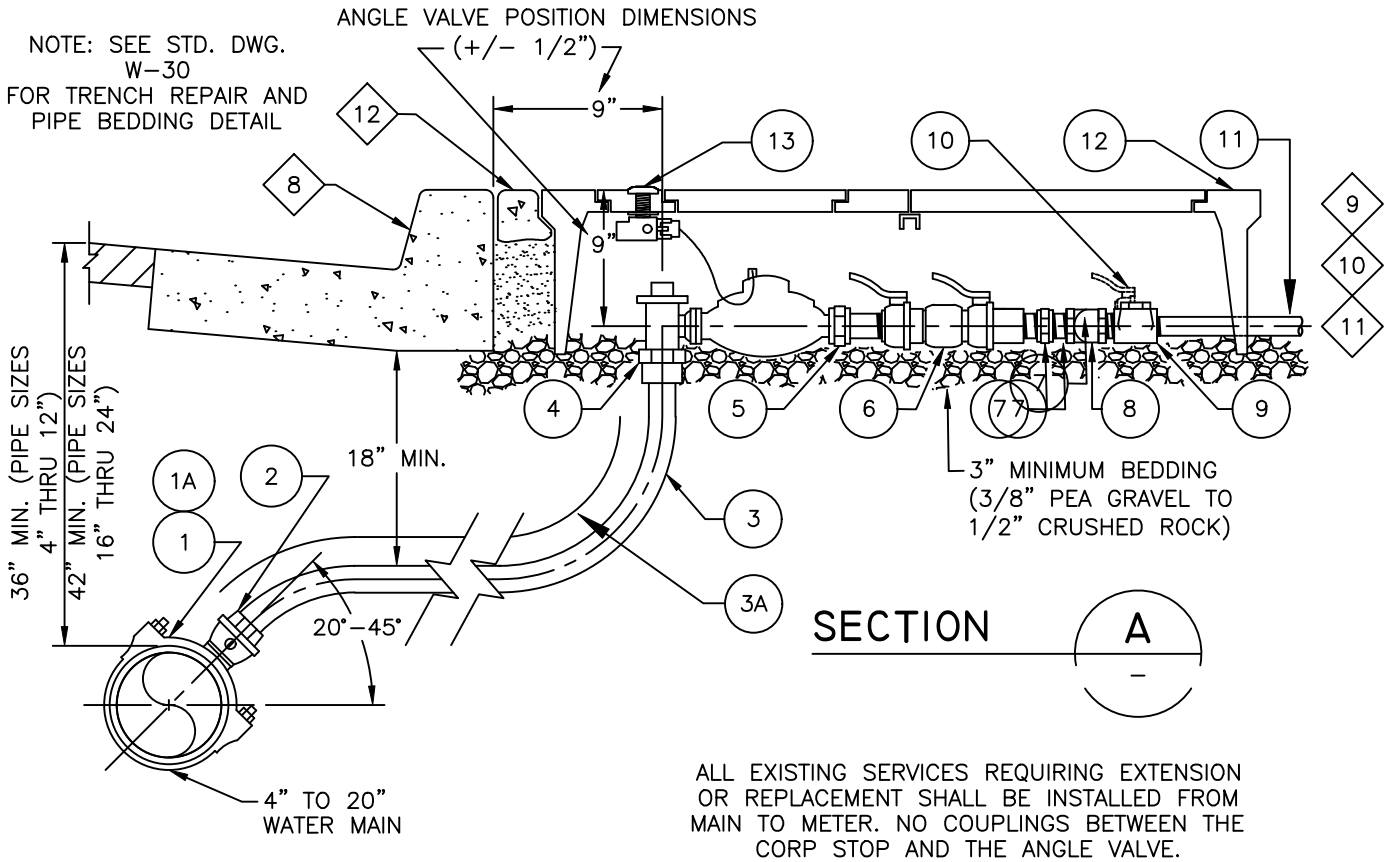
2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

W-3





ALL EXISTING SERVICES REQUIRING EXTENSION OR REPLACEMENT SHALL BE INSTALLED FROM MAIN TO METER. NO COUPLINGS BETWEEN THE CORP STOP AND THE ANGLE VALVE.

SEE SHEET 2 OF 4 FOR ADDITIONAL NOTES
SHEET 4 OF 4 FOR LIST OF MATERIALS

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

2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

W–4

LIST OF MATERIALS

ITEM NO.	SIZE & DESCRIPTION	MANUFACTURER	SPEC. NO.
1	DOUBLE STRAP SERVICE SADDLE 1" I.P. OUTLET (FOR D.I.P. MAINS)	FORD JONES ROMAC MUELLER	F202 OR F202B 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)	FORD ROMAC MUELLER	202S-PIPE O.D. - 1" I.P. 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)	FORD JONES MULLER McDONALD	FB1100-4-Q-NL E-1935SG B-25028N 74704BQ
3	1" BLUE PLASTIC COATED COPPER TUBING	MUELLER	COPPER TYPE "K" SOFT
3A	3" BLUE - POTABLE WATER INDICATOR TAPE	CHRISTY'S	TA-ND3-BPW
4	BRONZE BALL ANGLE METER STOP W/LOCKWING (1" COMPRESSION X METER)	FORD JONES MUELLER McDONALD	BA43-444W-Q-NL 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" METER COUPLING	McDONALD	74620 - ¾" X 1" X 2.5"
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.)	FORD JONES MUELLER McDONALD	B13-444W-HB-34S-NL E-1900W B20283 N AYM76101W
11	1" X 12" SCHEDULE 80 PVC THREADED ON BOTH ENDS		
12	METER BOX AND COVER WITH READING LID METER BOX TO HAVE 2 READING LI9DS AND AMI PORT ON COVER LID	ARMOR CAST	A6001430PCX12 W/ CHANNEL FOR BOLT DOWN (1)-A6001470 (1)-A6001470DZ-H7 (1)-A6000482
13	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

2022

Yucaipa Valley Water District

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W-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 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. 3" INDICATOR TAPE INSTALLED ON NEW WATER SERVICES.
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 13 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

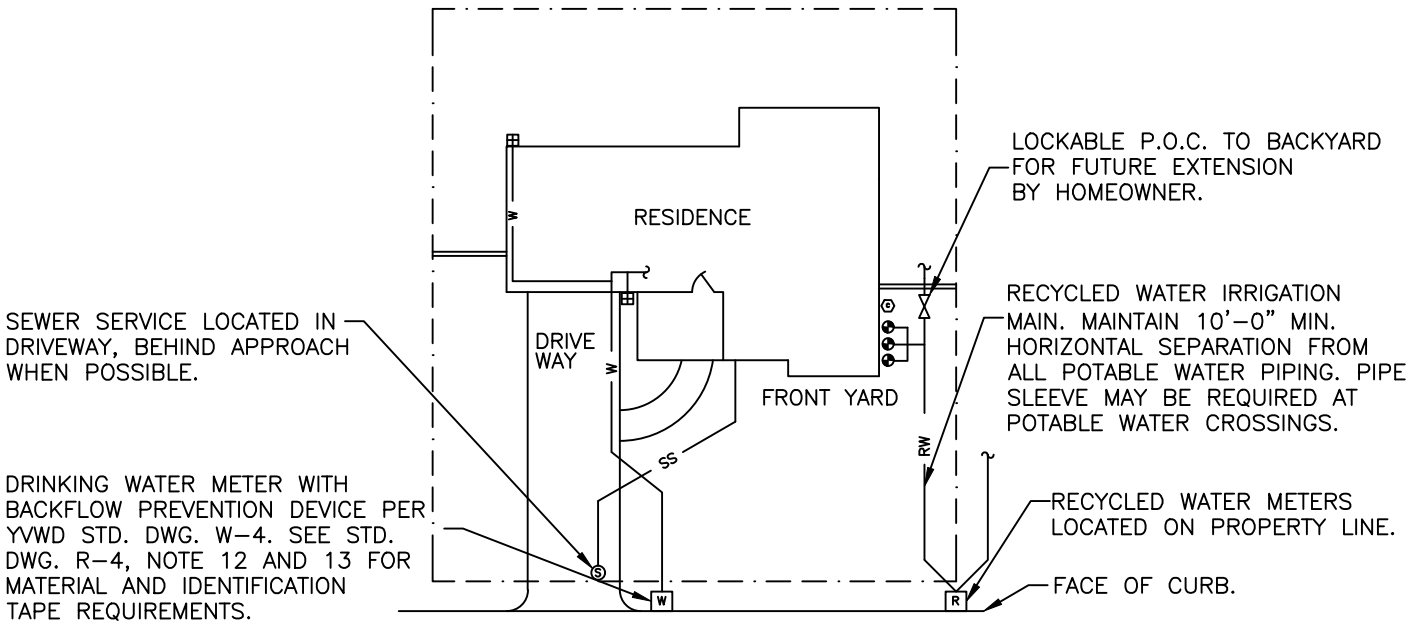
2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

W–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.

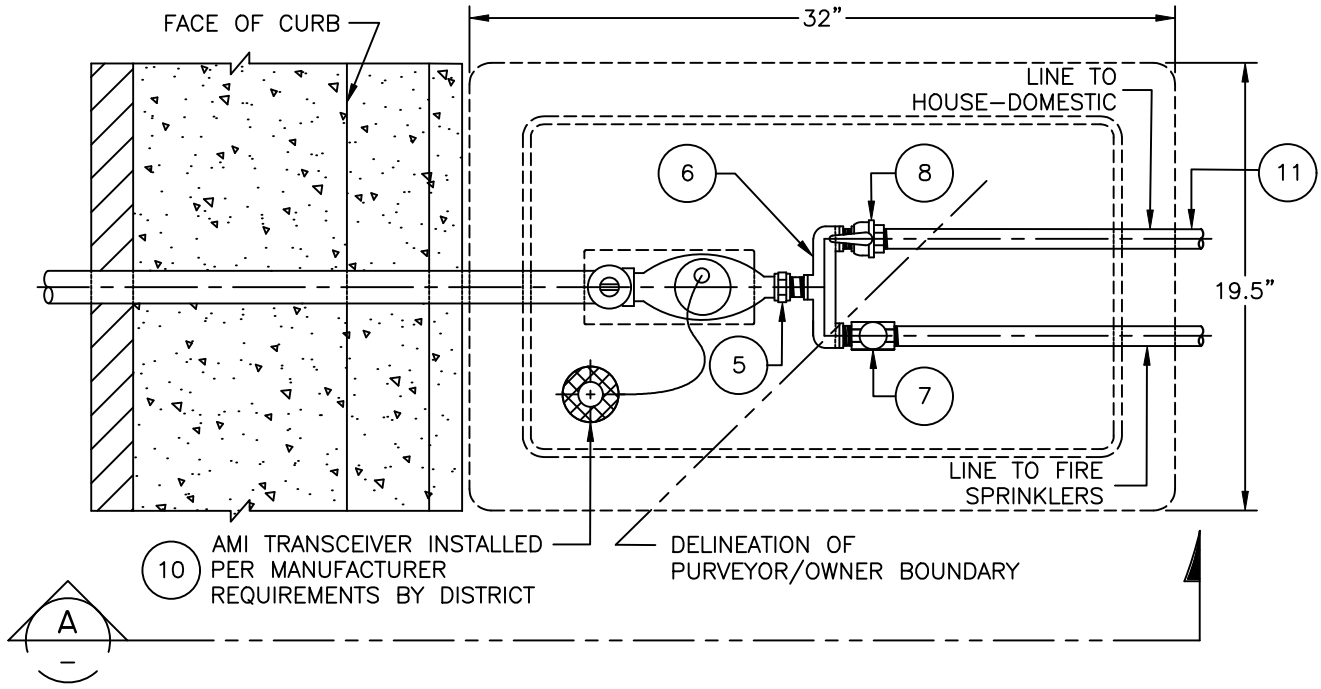
1" DRINKING WATER SERVICE WITH FIRE SPRINKLERS FOR DUAL PLUMBED RESIDENCE

2022

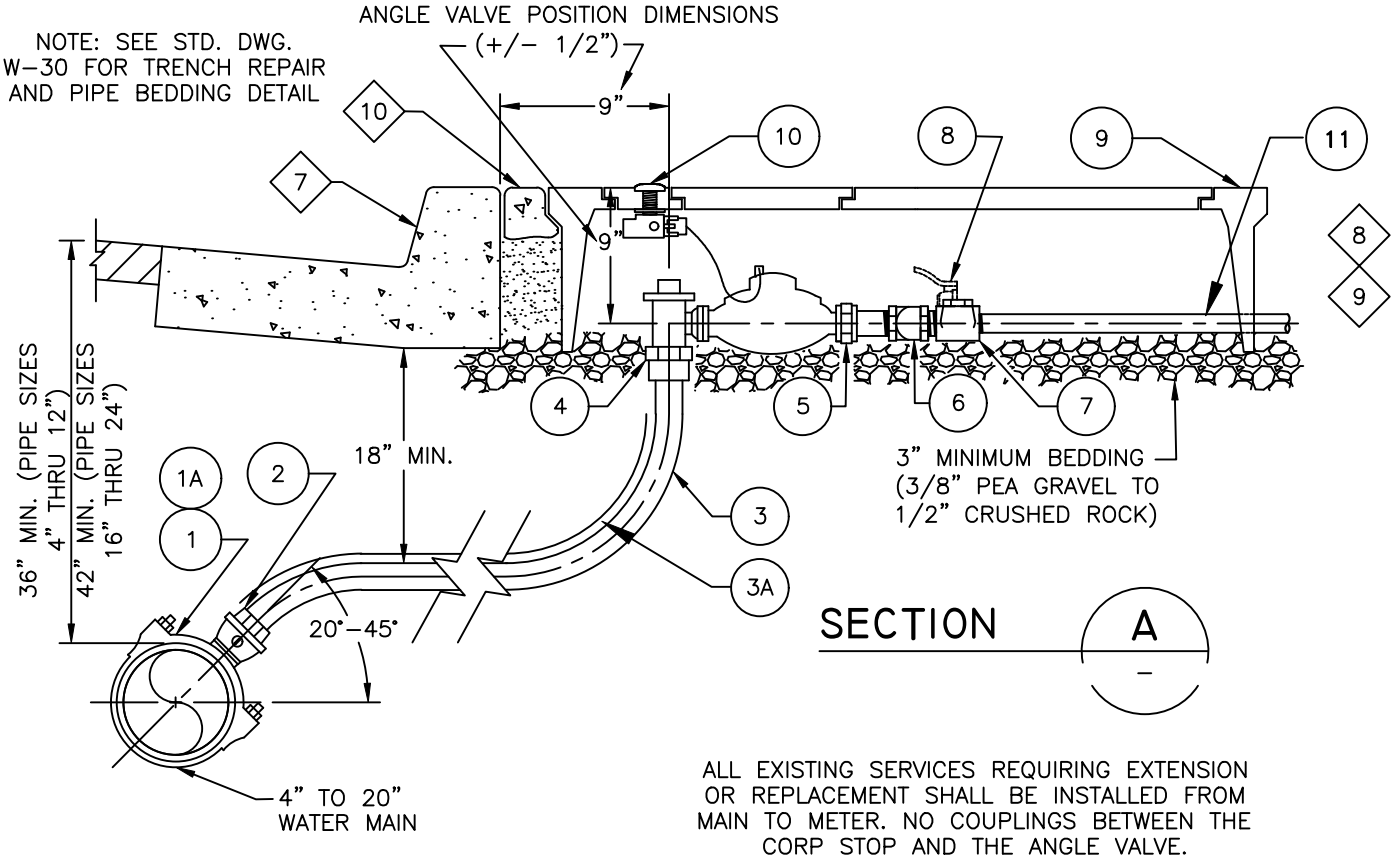
Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

W–4



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



ALL EXISTING SERVICES REQUIRING EXTENSION OR REPLACEMENT SHALL BE INSTALLED FROM MAIN TO METER. NO COUPLINGS BETWEEN THE CORP STOP AND THE ANGLE VALVE.

SEE SHEET 2 OF 4 FOR ADDITIONAL NOTES
SEE SHEET 4 OF 4 FOR LIST OF MATERIALS

1" DRINKING WATER SERVICE WITH FIRE SPRINKLERS

2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

W–5

LIST OF MATERIALS

ITEM NO.	SIZE & DESCRIPTION	MANUFACTURER	SPEC. NO.
1	DOUBLE STRAP SERVICE SADDLE 1" I.P. OUTLET (FOR D.I.P. MAINS)	FORD JONES ROMAC MUELLER	F202 OR F202B 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)	FORD ROMAC MUELLER	202S-PIPE O.D. - 1" I.P. 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)	FORD JONES MULLER McDONALD	FB1100-4-Q-NL E-1935SG B-25028N 74704BQ
3	1" BLUE PLASTIC COATED COPPER TUBING	MUELLER	COPPER TYPE "K" SOFT
3A	3" BLUE - POTABLE WATER INDICATOR TAPE	CHRISTY'S	TA-ND-3-BPW
4	BRONZE BALL ANGLE METER STOP W/LOCKWING (1" COMPRESSION X METER)	FORD JONES MUELLER McDONALD	BA43-444W-Q-NL 1963WSG H-14258N 74602BQ
5	1" METER COUPLING	McDONALD	74620-3/4" X 1" X 2.5"
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.)	FORD JONES MUELLER McDONALD	B13-444W-HB-34S-NL E-1900W B20283 N AYM76101W
9	METER BOX AND COVER WITH READING LID	ARMOR CAST	(1)-A6001640PCX12 (1)-A600482-H7 (1)-A6001643DZ
10	AMI TRANSCEIVER (INSTALLED BY DISTRICT)	SENSUS	SMARTPOINT M2 - MODEL 520M (DUAL PORT) - PIT SET
11	SCH 80 PVC 1"x12"		

1" DRINKING WATER SERVICE WITH FIRE SPRINKLERS

2022

Yucaipa Valley Water District

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W-5

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. 3" INDICATOR TAPE INSTALLED ON NEW WATER SERVICES.
6. ALL CONNECTIONS TO COPPER TUBING SHALL BE COMPRESSION FITTINGS.
7. METERS AND BRANCH ASSEMBLY TO BE CENTERED IN METER BOXES TO ALLOW FOR ACCESS AND MAINTENANCE.

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

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

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

◇11 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

2022

Yucaipa Valley Water District

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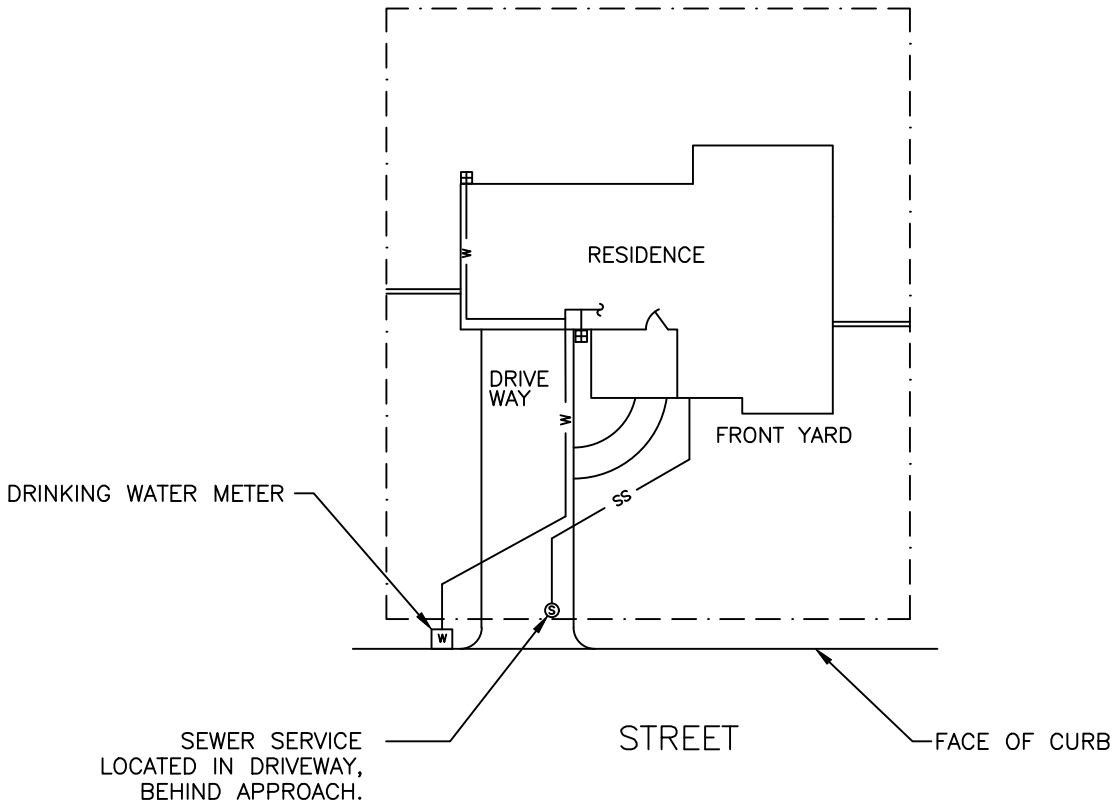
W–5

TYPICAL LAYOUT



1" DRINKING WATER SERVICE WITH FIRE SPRINKLERS

2022

Yucaipa Valley Water District

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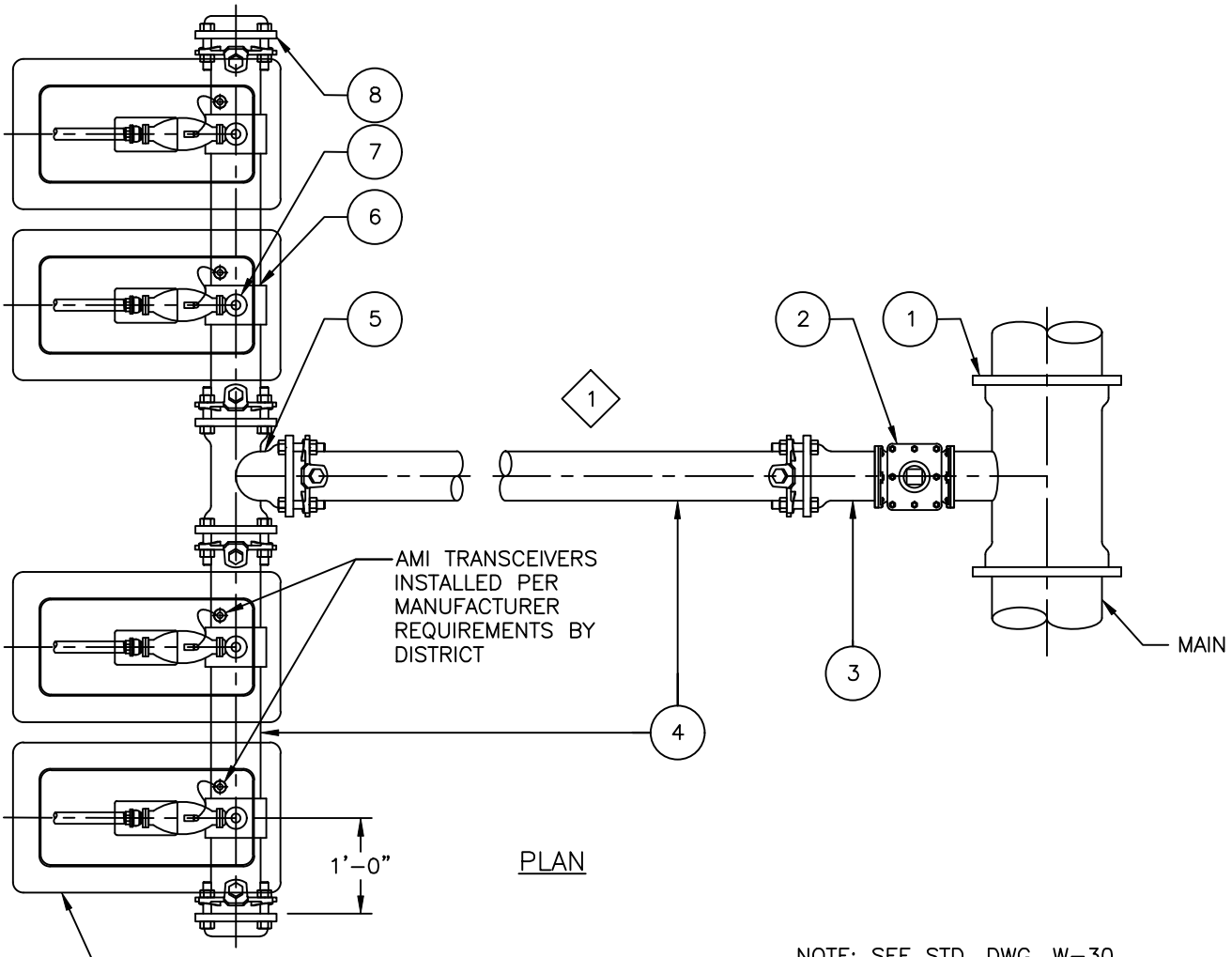
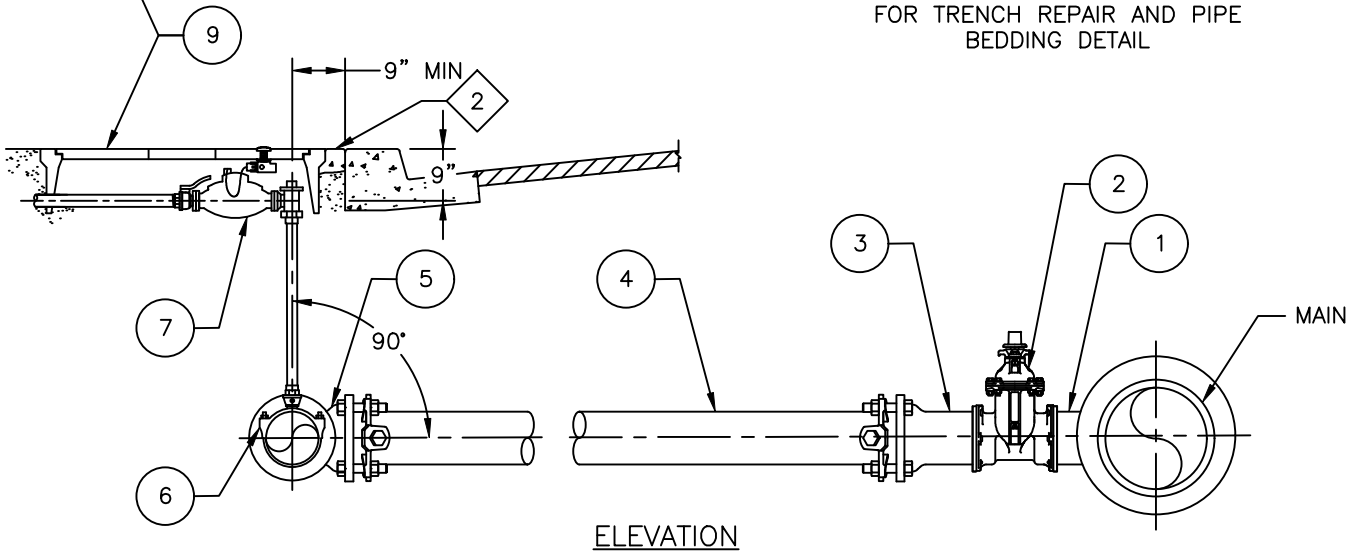
W–5



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



SEE SHEET 2 OF 2 FOR LIST OF MATERIALS.

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

2022

Yucaipa Valley Water District

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W-6

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
9	AMORCAST 438: BOX A6001640PC–12 (27 1/2 X 18) COVER A6001866DQ–87 (13 X 24)

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.

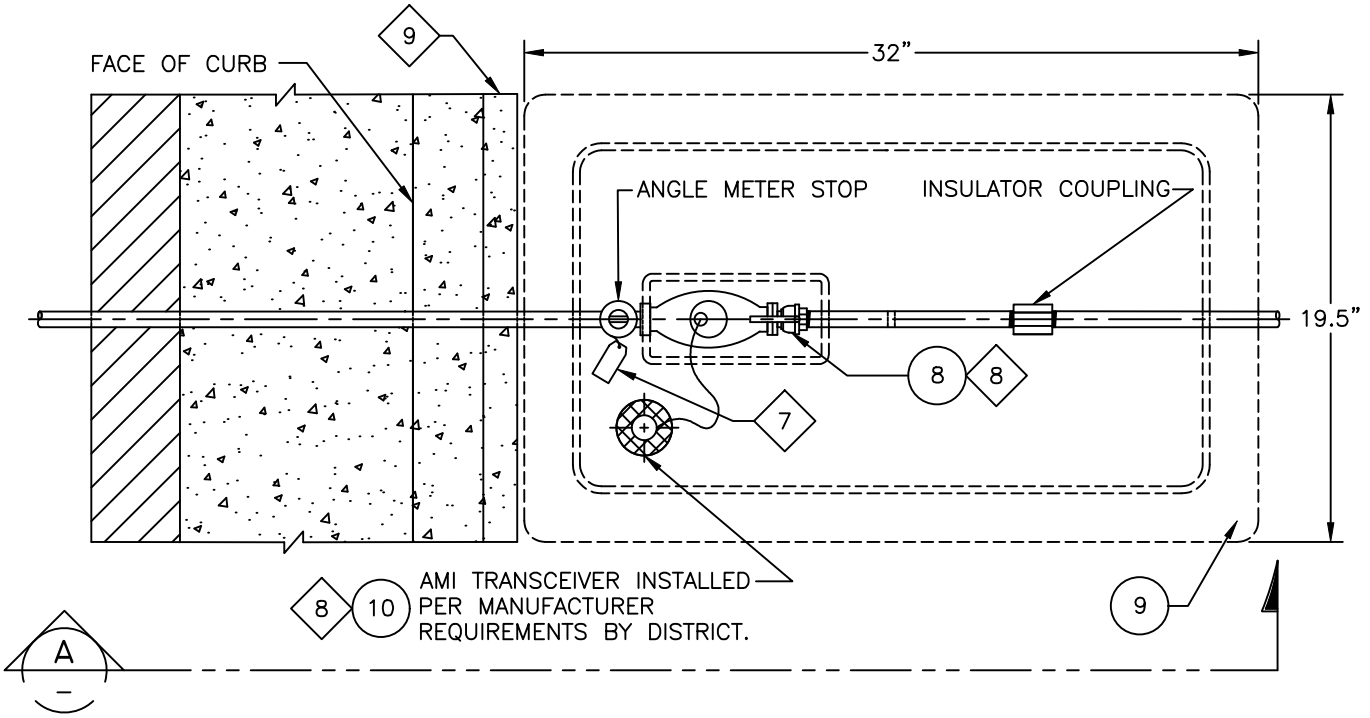
3/4" AND 1" DRINKING WATER SERVICES ON MANIFOLD ASSEMBLIES

2022

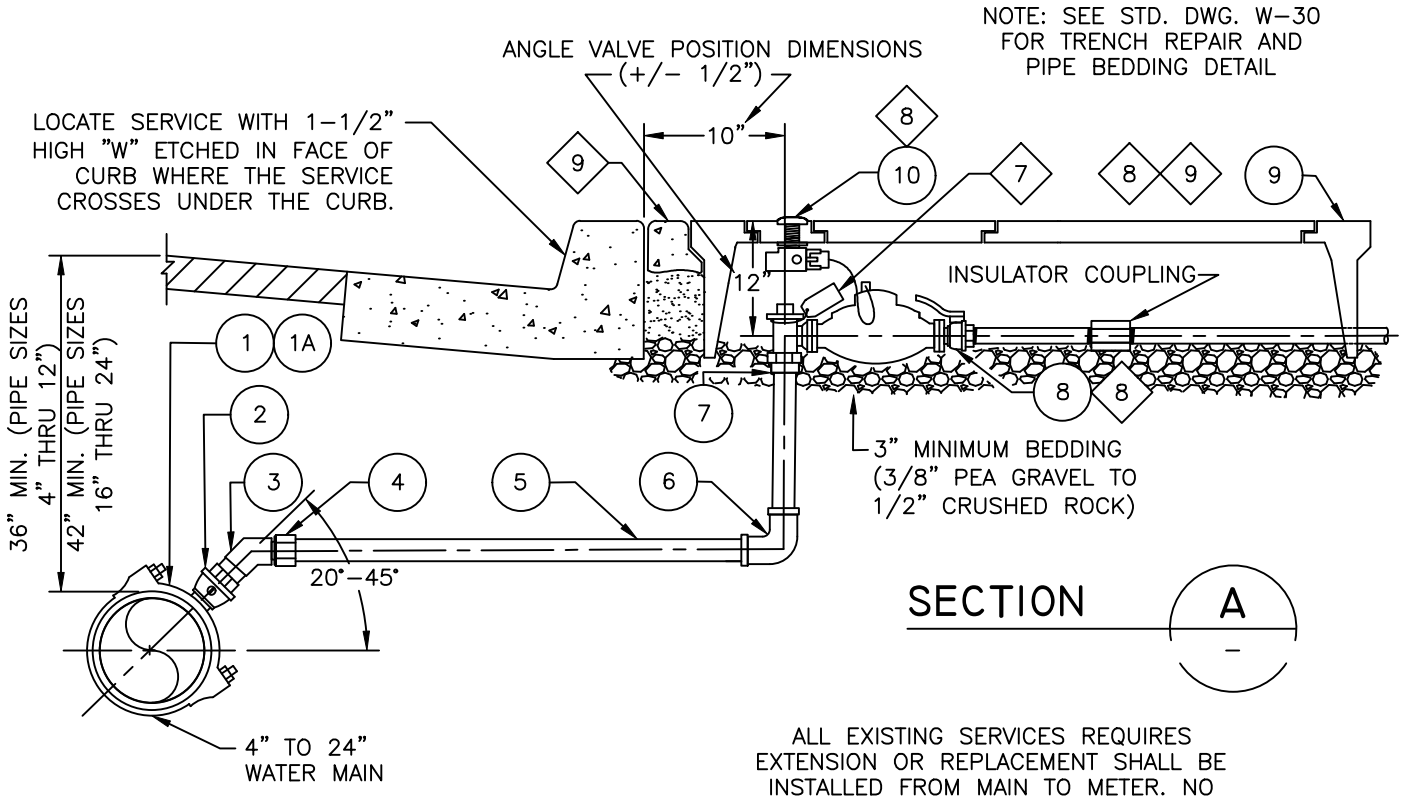
Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

W–6



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



SECTION A –

ALL EXISTING SERVICES REQUIRES EXTENSION OR REPLACEMENT SHALL BE INSTALLED FROM MAIN TO METER. NO COUPLINGS BETWEEN THE CORP STOP AND THE ANGLE VALVE.

SEE SHEET 2 OF 3 FOR NOTES.
SEE SHEET 3 OF 3 FOR LIST OF MATERIALS.

1–1/2" AND 2" DRINKING WATER SERVICE

2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

W–7

LIST OF MATERIALS

ITEM NO.	SIZE & DESCRIPTION	MANUFACTURER	SPEC. NO.
1	DOUBLE STRAP SERVICE SADDLE I.P. OUTLET (FOR D.I.P. MAINS)	FORD JONES ROMAC MUELLER	F202 OR F202B 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 BALL VALVE-METER FLANGE X F.I.P.	JONES MUELLER	E-1913F B-24337N
9	METER BOX AND COVER WITH READING LID	ARMORCAST	BOX-A6001640PCX12 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

2022

Yucaipa Valley Water District

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W-7

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 MAYBE REQUIRED FOR INSTALLATIONS NEEDING CONTINUOUS SERVICE.

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

◇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.

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

2022

Yucaipa Valley Water District

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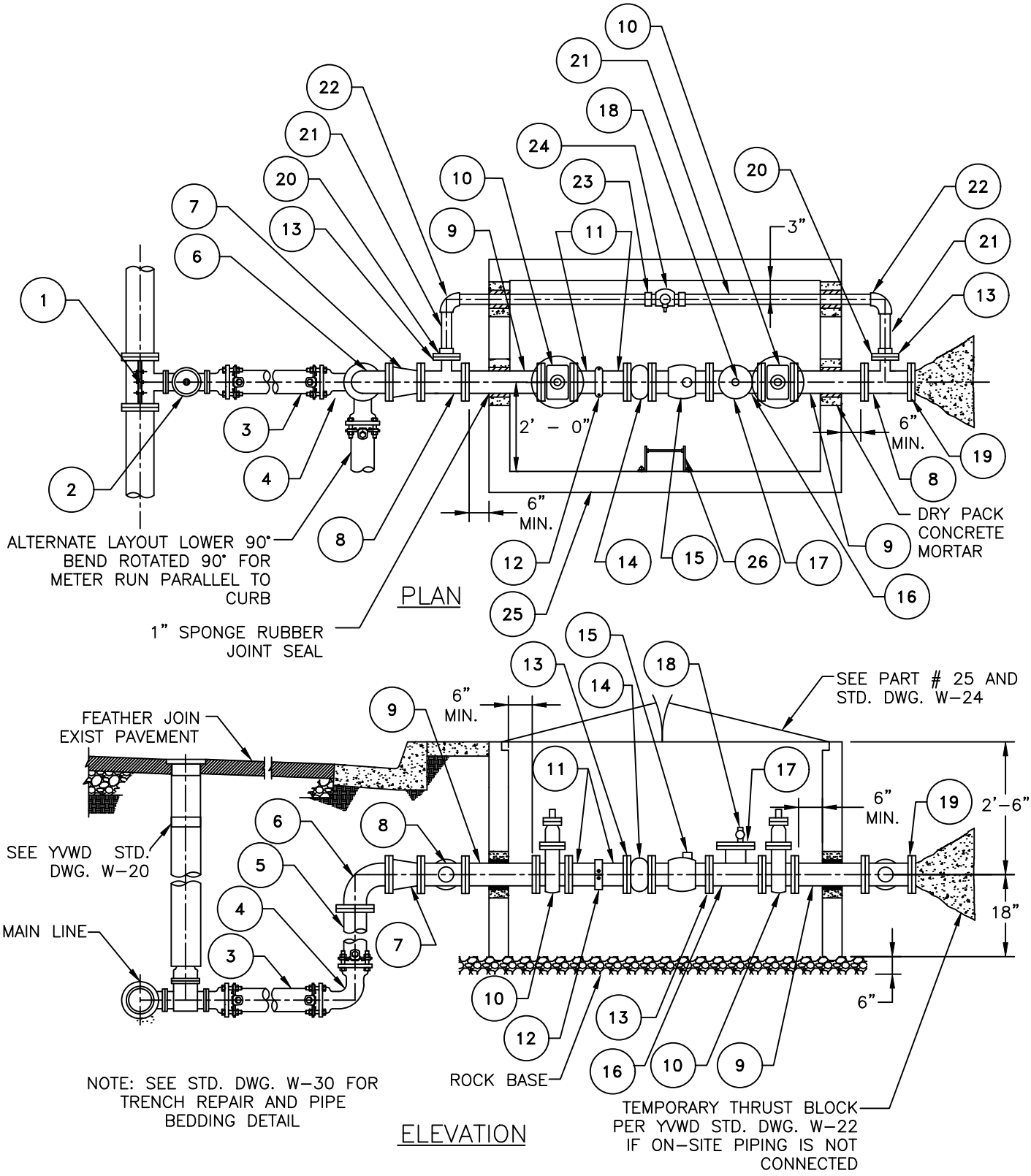
W-7



3" AND 4" DRINKING WATER SERVICE

2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

W–8

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" COPPER PIPE
22	2 EA	2" 90° ELBOW COMPRESSION BY COMPRESSION
23	1 EA	2" BRASS 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.

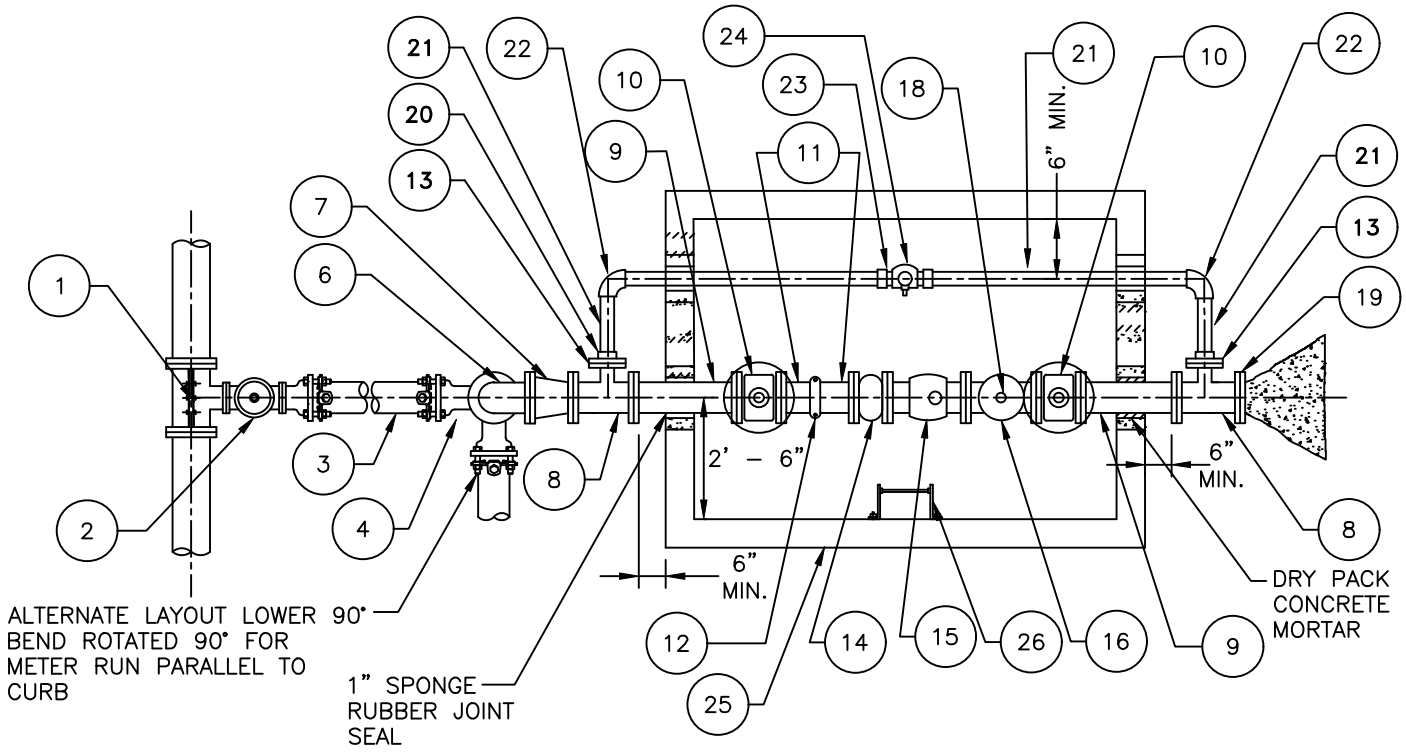
3" AND 4" DRINKING WATER SERVICE

2022

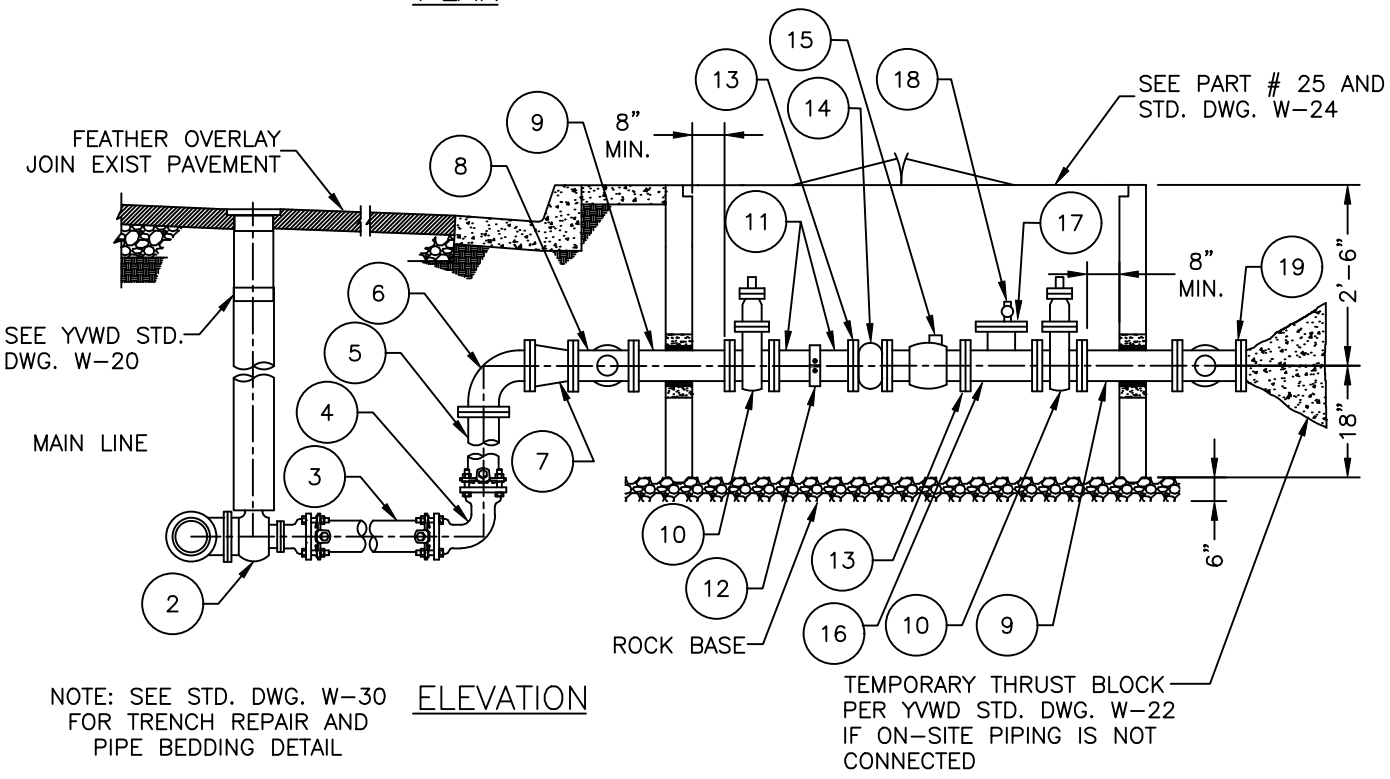
Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

W–8



PLAN



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

ELEVATION

6" AND 8" DRINKING WATER SERVICE

2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

W–9

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" COPPER PIPE
22	2 EA	2" 90° ELBOW COMPRESSION BY COMPRESSION
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.

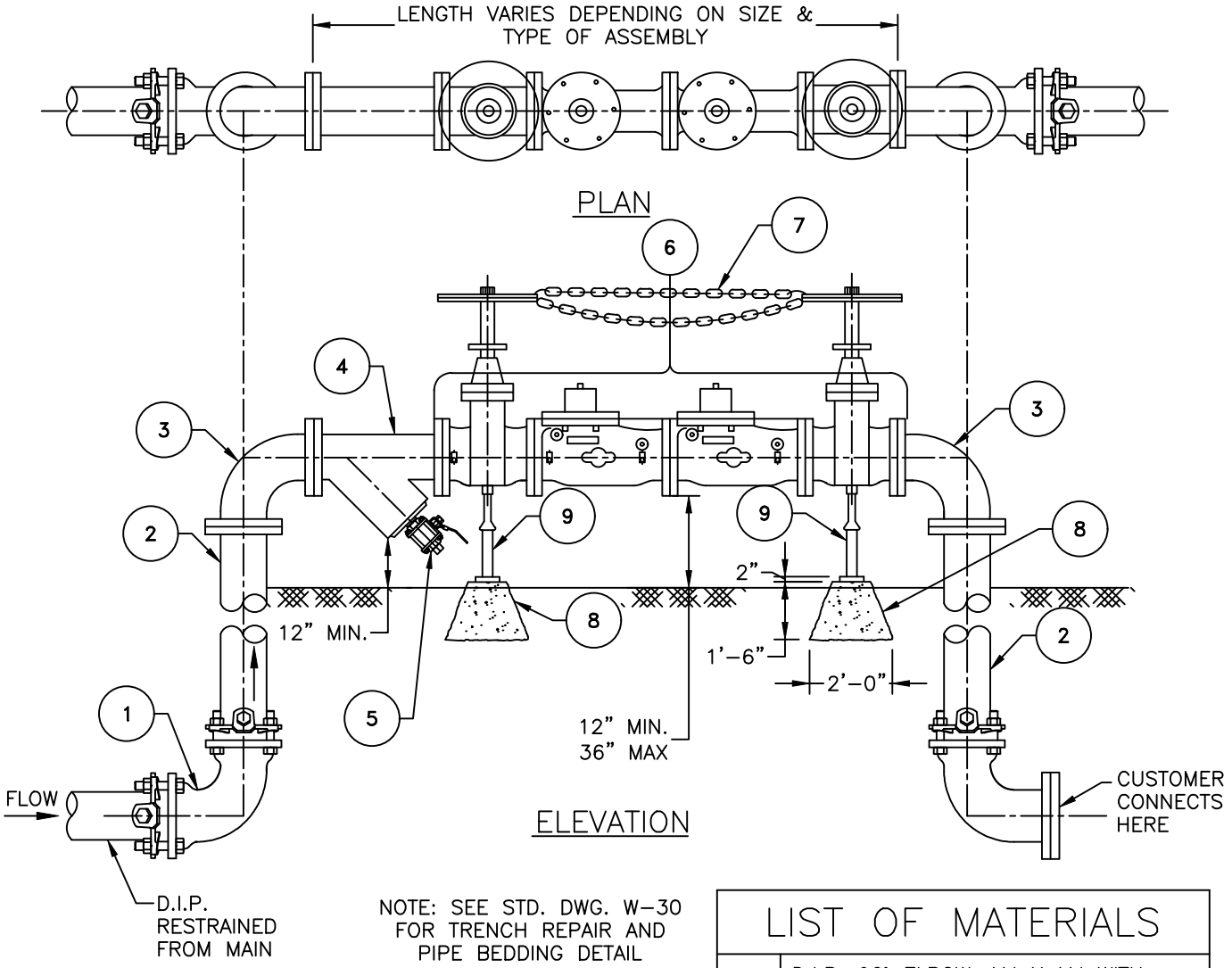
6" AND 8" DRINKING WATER SERVICE

2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

W–9



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. 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

2022

Yucaipa Valley Water District

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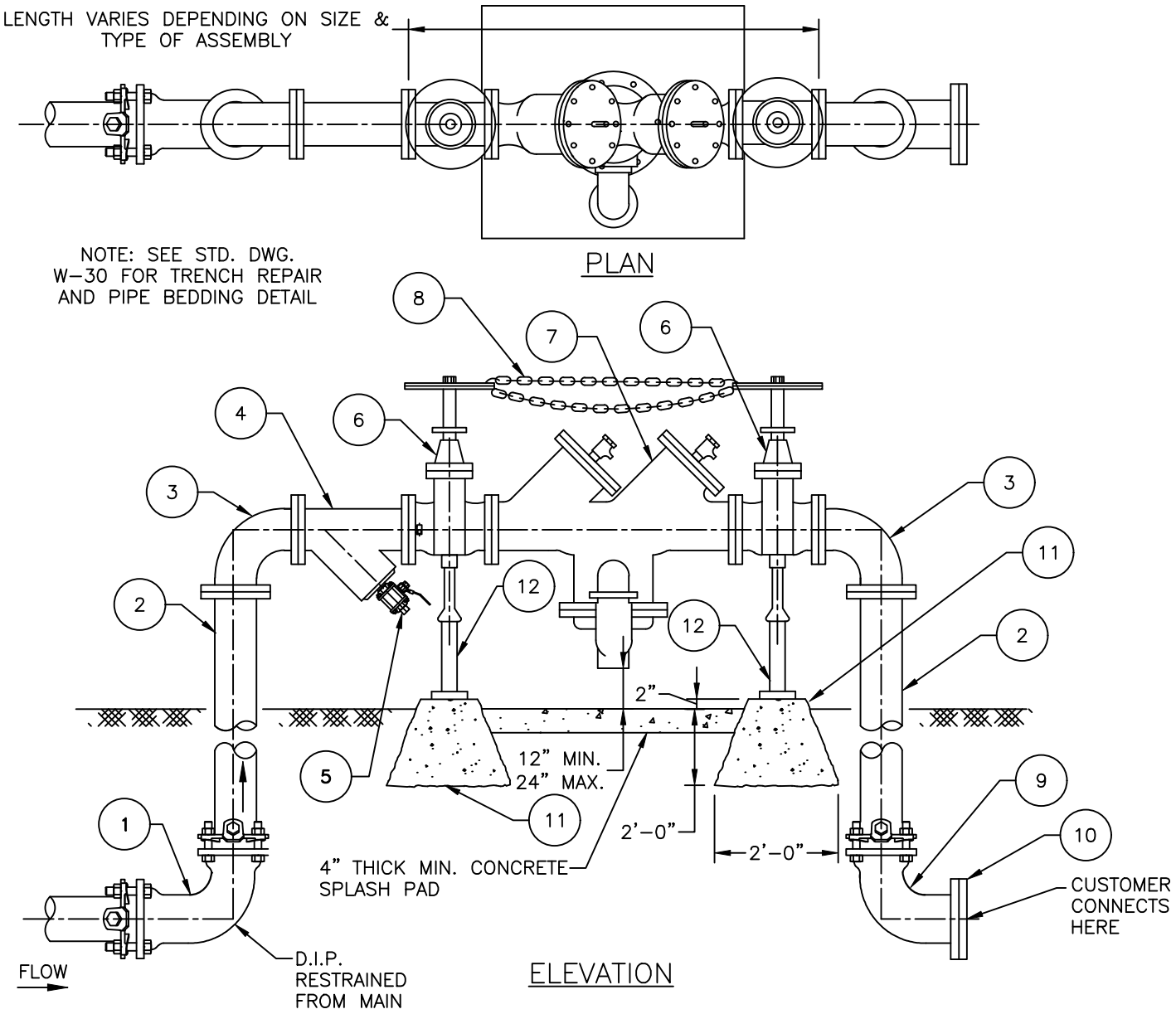
W-10



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. ALL BACKFLOW ASSEMBLIES ARE TO BE INSTALLED AS CLOSE AS POSSIBLE TO THE METER AND ON THE CUSTOMER SIDE OF RIGHT OF WAY.
4. RESTRAINED MECHANICAL JOINTS (MEGALUG) D.I.P. PIPE TO THE MAIN.

SEE SHEET 2 OF 2 FOR LIST OF MATERIALS.

REDUCED PRESSURE BACKFLOW ASSEMBLY

2022

Yucaipa Valley Water District

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W-11

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

2022

Yucaipa Valley Water District

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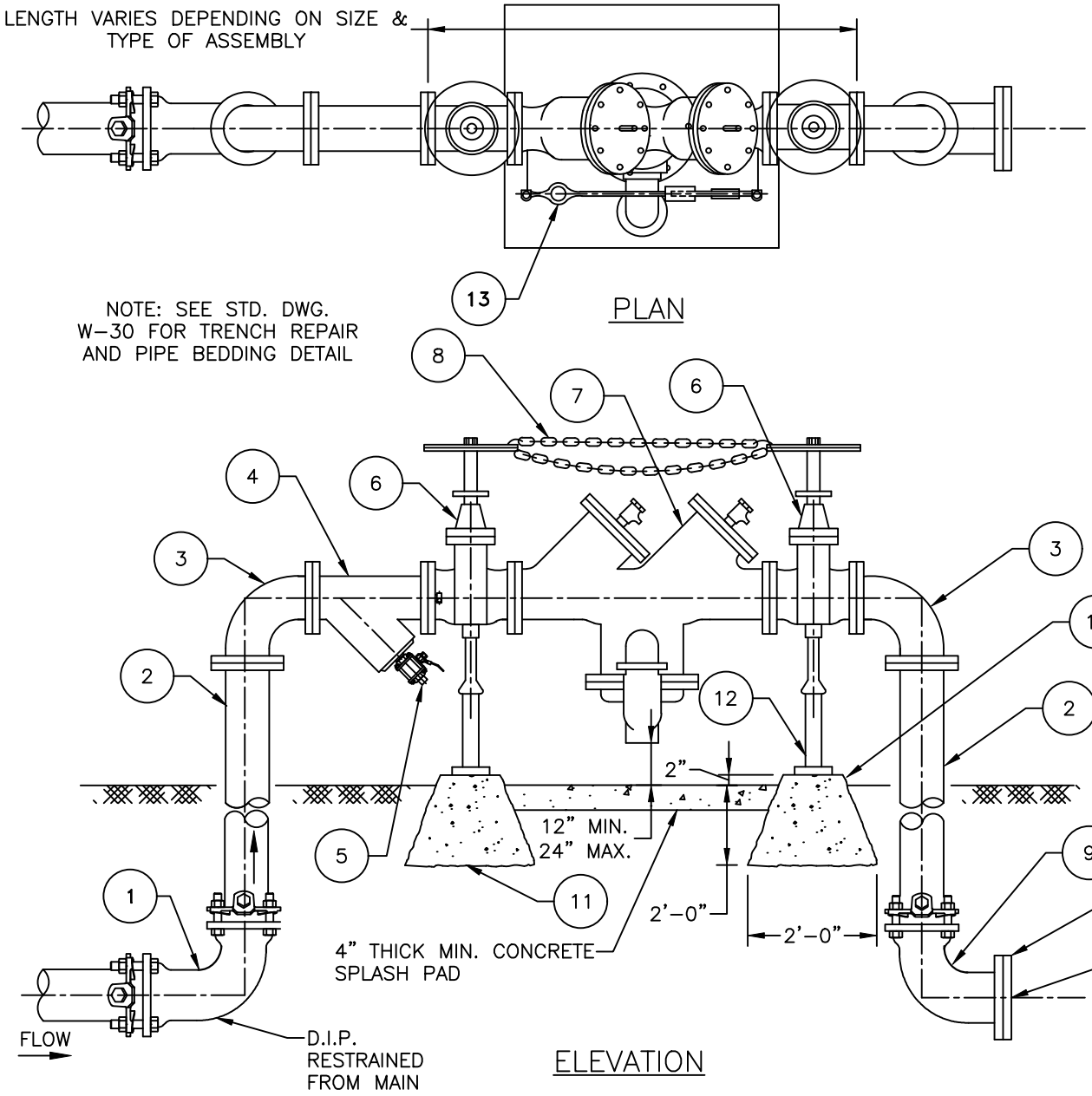
W–11



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. ALL BACKFLOW ASSEMBLIES ARE TO BE INSTALLED AS CLOSE AS POSSIBLE TO THE METER AND ON THE CUSTOMER SIDE OF RIGHT OF WAY.
4. RESTRAINED MECHANICAL JOINTS (MEGALUG) D.I.P. PIPE TO THE MAIN.

SEE SHEET 2 OF 2 FOR LIST OF MATERIALS.

REDUCED PRESSURE BACKFLOW ASSEMBLY WITH BYPASS

2022

Yucaipa Valley Water District

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W-12

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

2022

Yucaipa Valley Water District

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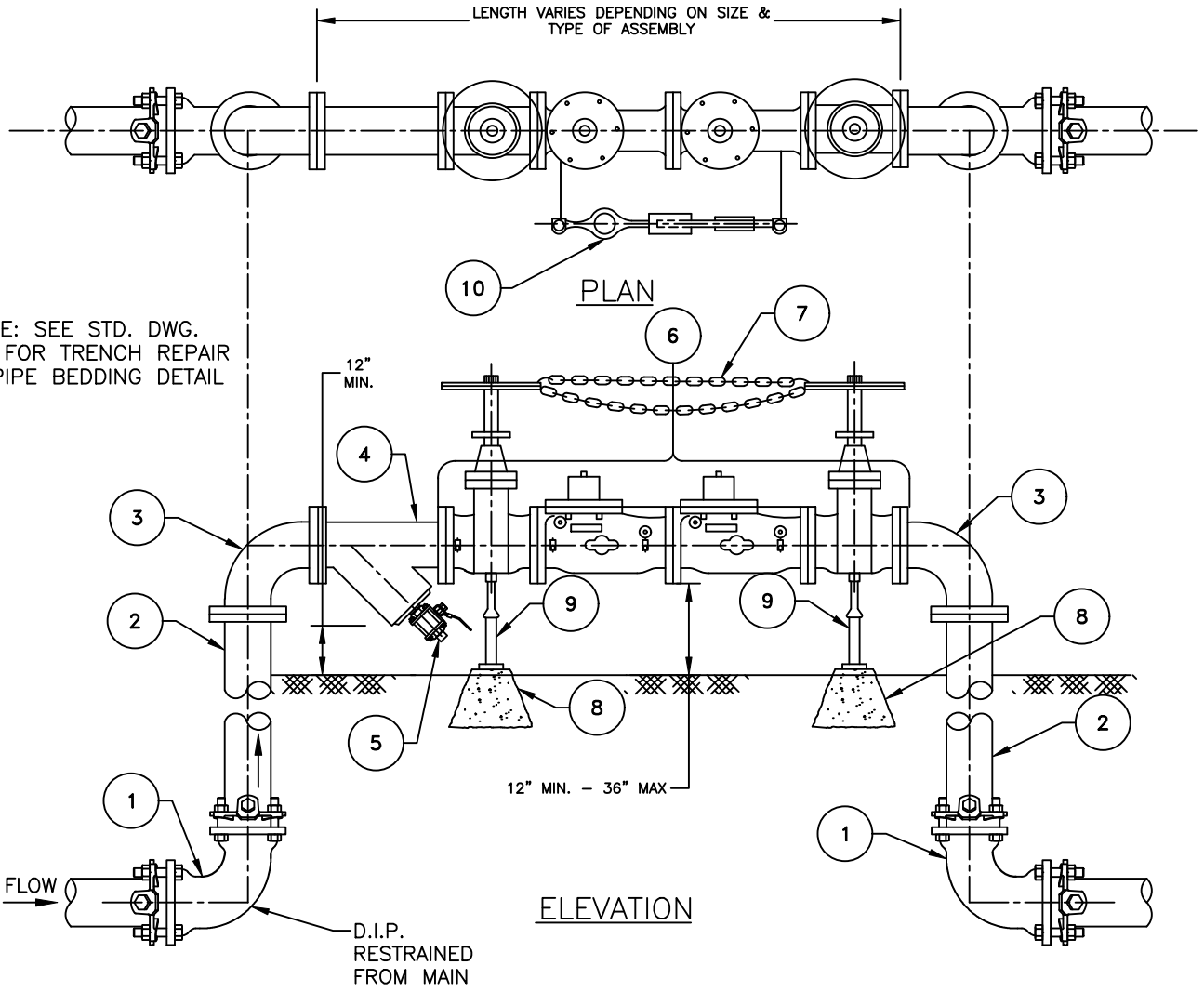
W–12



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.

REDUCED PRESSURE DETECTOR ASSEMBLY ABOVE GROUND FIRE LINE

2022

Yucaipa Valley Water District

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W-13

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.
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

2022

Yucaipa Valley Water District

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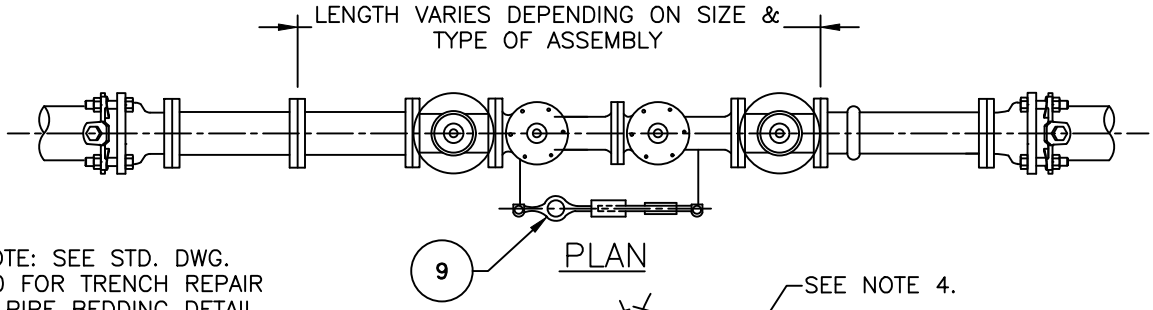
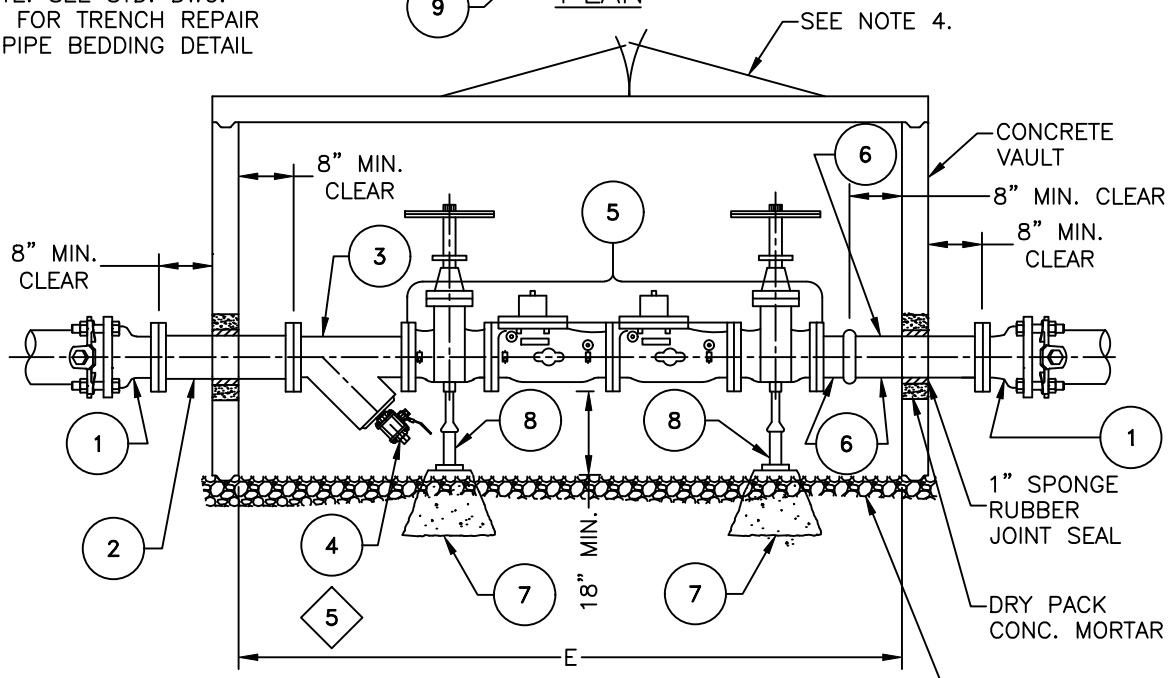
W-13

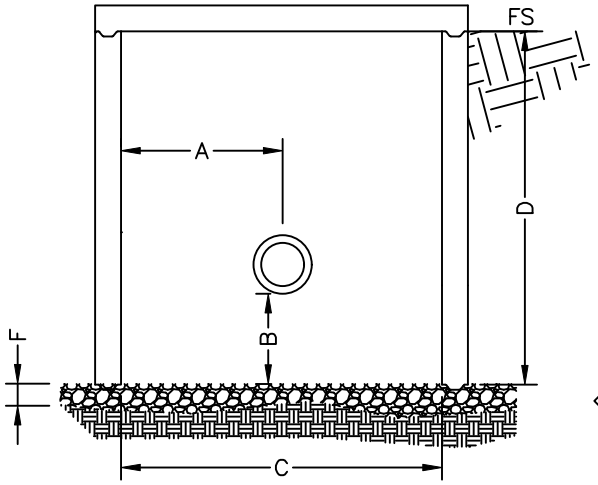


PLAN

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



UNDERGROUND – ELEVATION



END VIEW

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 HEREON. RP ASSEMBLIES MAY NOT BE INSTALLED WITHIN A VAULT. ABOVE GROUND ONLY.
4. VAULT SHALL BE FURNISHED WITH SPRING–ASSIST HINGED DIAMOND PLATE ALUMINUM ACCESS DOORS WITH RECESSED PADLOCK HASP. ALSO SEE STD. DWG. W–24.
5. ALL BACKFLOW ASSEMBLIES ARE TO BE INSTALLED AS CLOSE AS POSSIBLE TO THE METER AND ON THE CUSTOMER SIDE OF RIGHT OF WAY.
6. ROTATE 45° TO ALLOW SCREEN REMOVAL.

SEE SHEET 2 OF 2 FOR LIST OF MATERIALS.

DOUBLE CHECK ASSEMBLY AND BELOW GROUND FIRE LINE

2022

Yucaipa Valley Water District

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W–14

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

2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

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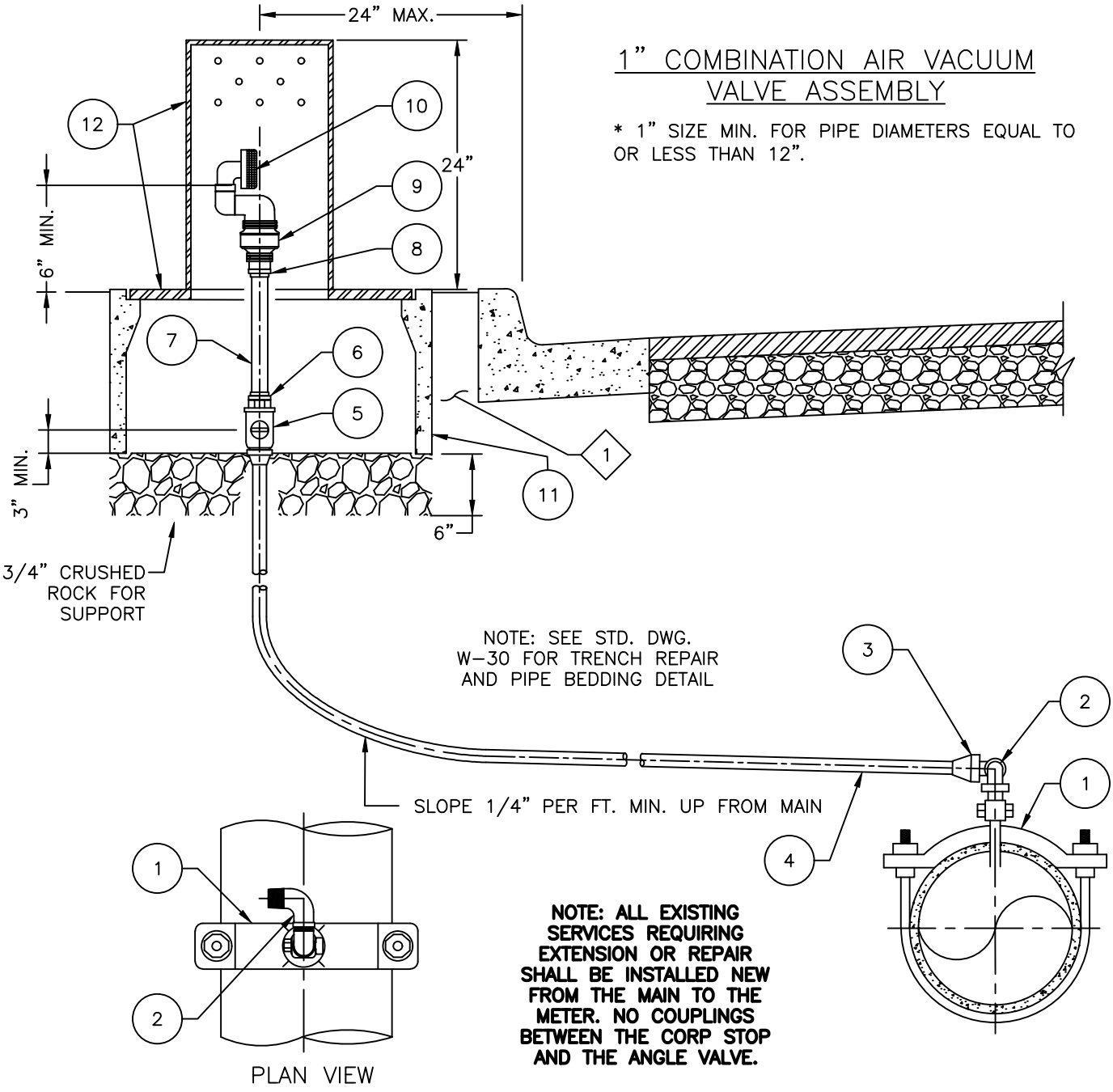


1" COMBINATION AIR VACUUM VALVE ASSEMBLY

* 1" SIZE MIN. FOR PIPE DIAMETERS EQUAL TO OR LESS THAN 12".

NOTES:

1. 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. ALL CONNECTIONS TO COPPER TUBING SHALL BE COMPRESSION FITTINGS.
2. AIR VAC BOX IS TO BE SET PERPENDICULAR TO THE BACK OF THE CURB.

SEE SHEET 2 OF 4 FOR NOTES, LIST OF MATERIALS AND ADDITIONAL DETAILS.

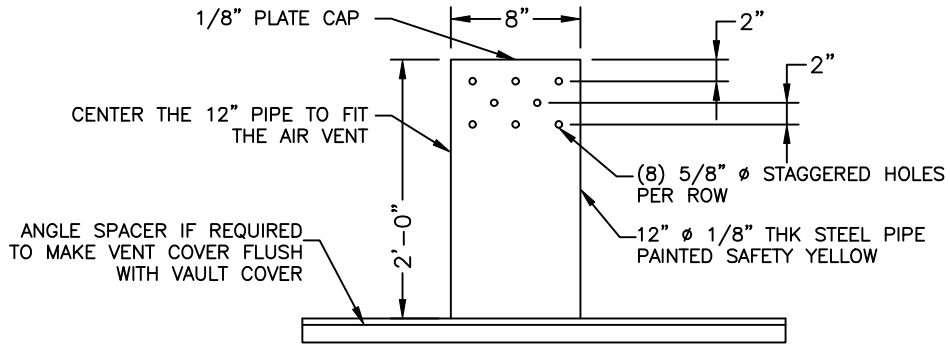
1" AIR AND VACUUM VALVE ASSEMBLY

2022

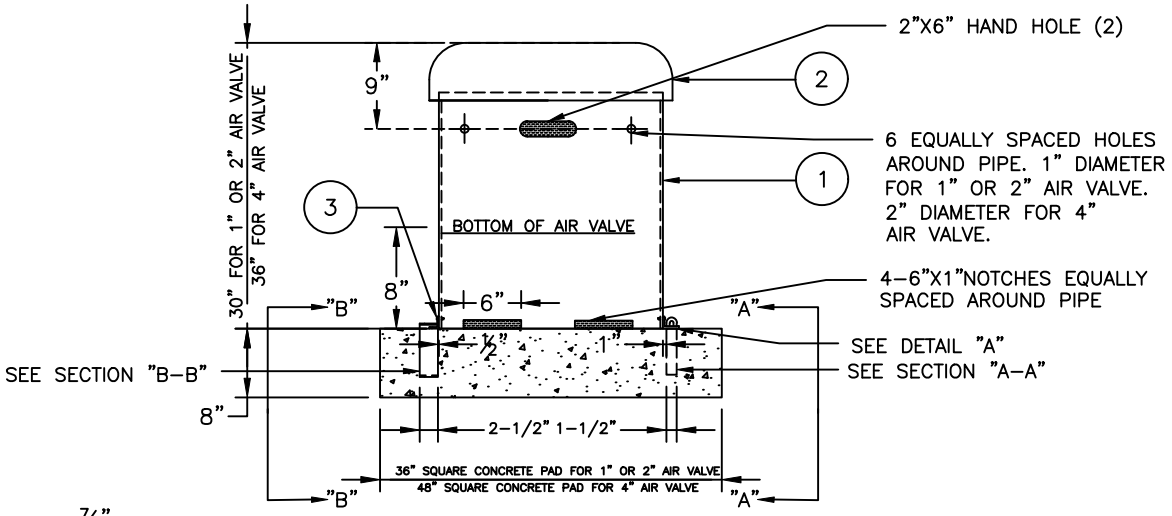
Yucaipa Valley Water District

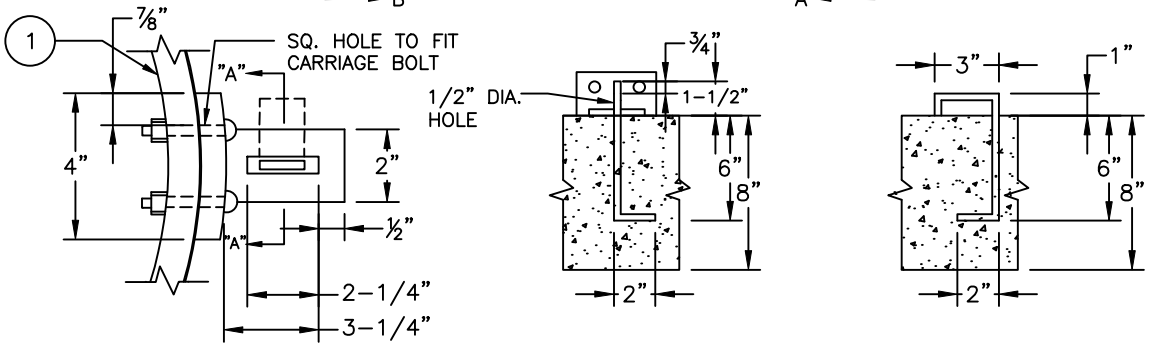
Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

W-15



VAULT COVER DETAIL
FOR 1" AIR VENT.





DETAIL "A" SECTION "A-A" SECTION "B-B"

ITEM	DESCRIPTION	APPROVED MATERIAL LIST NO.
1	21" PVC PIPE 100 PSI FOR 1" OR 2" AIR VALVE, 27" PVC PIPE 100 PSI FOR 4" AIR VALVE	H-16
2	PVC SLIP CAP, DIAMETER AS REQUIRED TO FIT PVC PIPE	H-16
3	4" X 2" X 1/4"STEEL PLATE WITH TWO 3/8" DIAMETER CARRIAGE BOLTS	N/A

NOTES

1) COVER BRACKETS SHALL BE PAINTED IN ACCORDANCE WITH AGENCY APPROVED PAINT SYSTEMS.
2) BRACKETS SHALL BE COONSIDERED OF 1/4" STEEL.

1" AIR AND VACUUM VALVE ASSEMBLY

2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

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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	FORD JONES MUELLER	J–2607 H–15451
4	TYPE "K" COPPER TUBING, POLY SLEEVED	MUELLER	–
5	CURB VALVE–SHUT OFF PARALLEL WITH CURB	FORD JONES MUELLER	J–1921 B–25172
6	1" MPT X 1" SL SCH. 40 ADAPTOR	–	–
7	12" X 1" SCH. 35 PVC	–	–
8	1" FPT X 1" SL SCH. 40 ADAPTOR	–	–
9	COMBINATION AIR VACUUM VALVE – 1"	A.R.I.	D–050
10	BUG SCREEN	A.R.I.	–
11	METER VAULT	ARMORCAST	A6001640PCX12
12	VAULT COVER – SEE PAGE 2 OF 6	–	–

1" AIR AND VACUUM VALVE ASSEMBLY

2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

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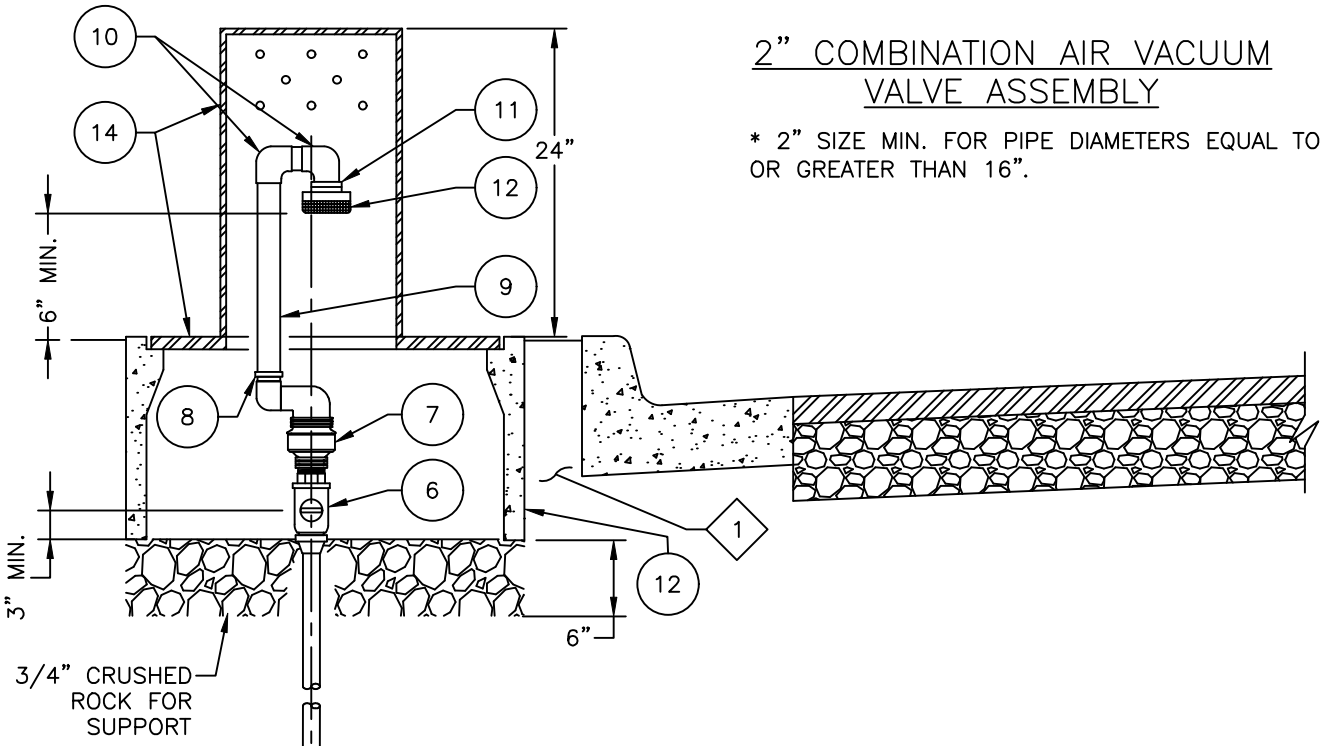
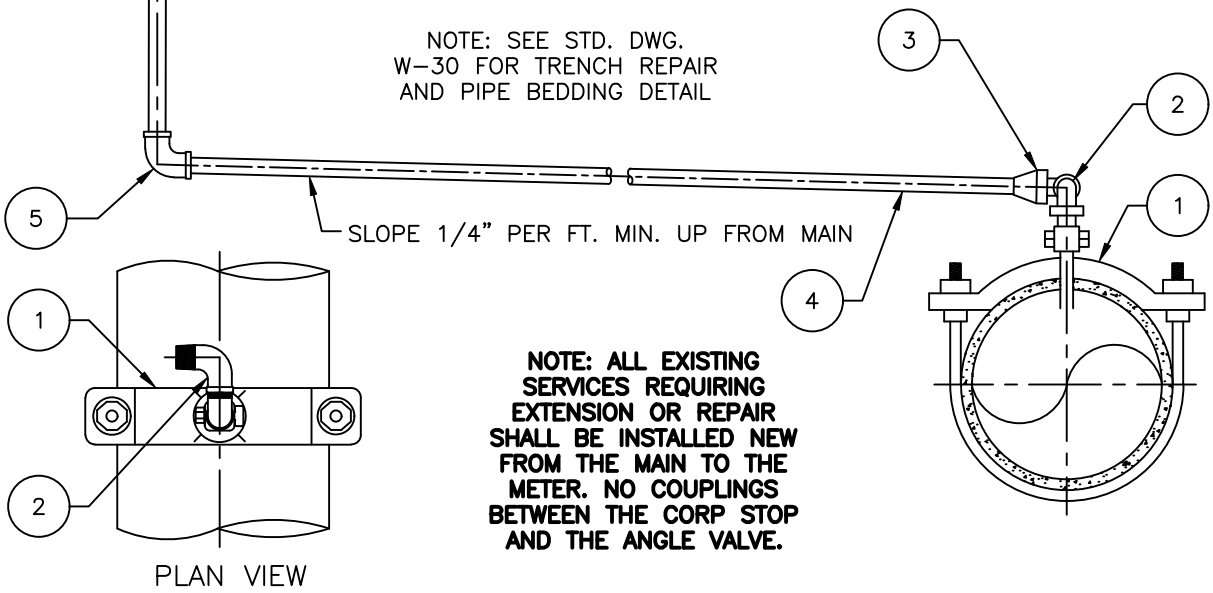
2" COMBINATION AIR VACUUM VALVE ASSEMBLY

* 2" SIZE MIN. FOR PIPE DIAMETERS EQUAL TO OR GREATER THAN 16".



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



PLAN VIEW

NOTE: ALL EXISTING SERVICES REQUIRING EXTENSION OR REPAIR SHALL BE INSTALLED NEW FROM THE MAIN TO THE METER. NO COUPLINGS BETWEEN THE CORP STOP AND THE ANGLE VALVE.

NOTES:

1. 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. ALL CONNECTIONS TO COPPER TUBING SHALL BE COMPRESSION FITTINGS.
2. AIR VAC BOX IS TO BE SET PERPENDICULAR TO THE BACK OF THE CURB.

SEE SHEET 4 OF 4 FOR NOTES, LIST OF MATERIALS AND ADDITIONAL DETAILS.

2" AIR AND VACUUM VALVE ASSEMBLY

2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

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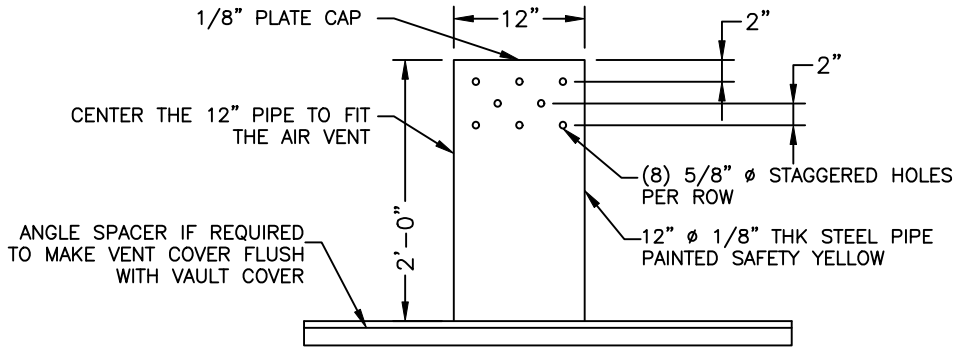
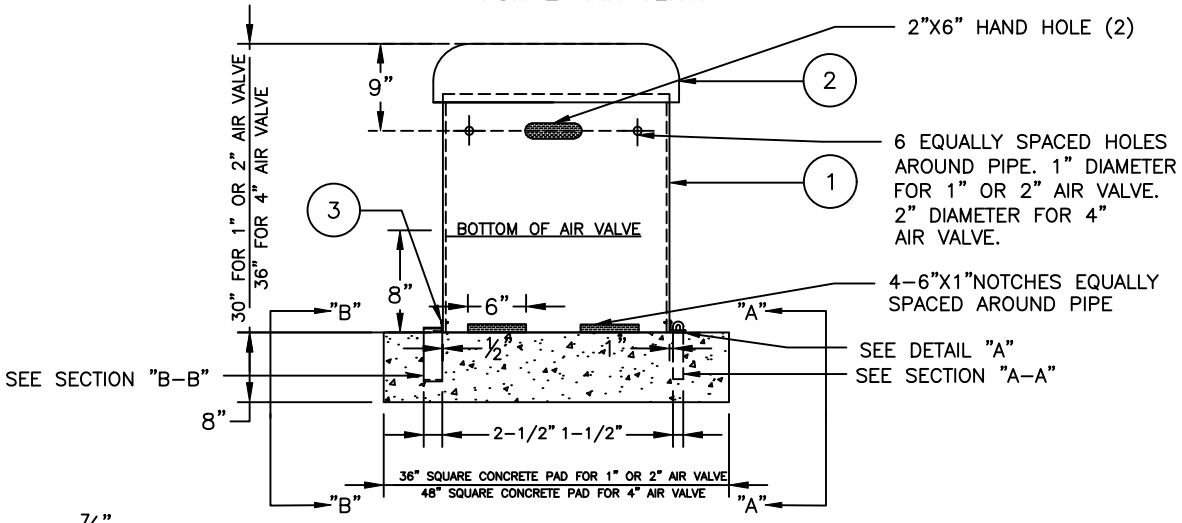
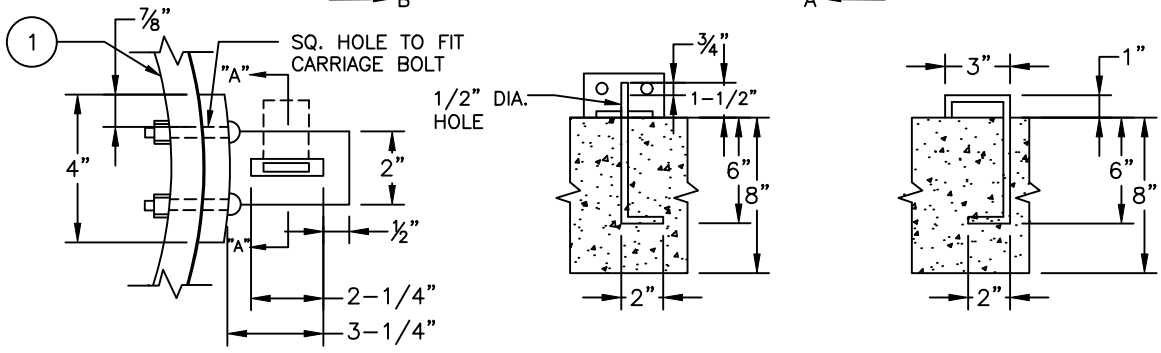


VAULT COVER DETAIL
FOR 2" AIR VENT.





DETAIL "A" SECTION "A-A" SECTION "B-B"

ITEM	DESCRIPTION	APPROVED MATERIAL LIST NO.
1	21" PVC PIPE 100 PSI FOR 1" OR 2" AIR VALVE, 27" PVC PIPE 100 PSI FOR 4" AIR VALVE	H-16
2	PVC SLIP CAP, DIAMETER AS REQUIRED TO FIT PVC PIPE	H-16
3	4" X 2" X ¼"STEEL PLATE WITH TWO ⅜" DIAMETER CARRIAGE BOLTS	N/A

NOTES

1) COVER BRACKETS SHALL BE PAINTED IN ACCORDANCE WITH AGENCY APPROVED PAINT SYSTEMS.
2) BRACKETS SHALL BE COONSIDERED OF ¼" STEEL.

2" AIR AND VACUUM VALVE ASSEMBLY

2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

W-15

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	FORD JONES MUELLER	J–2607 H–15451
4	TYPE "K" COPPER TUBING, POLY SLEEVED BY SIZE	MUELLER	–
5	COMPRESSION X COMPRESSION 90° ELBOW BY SIZE	FORD JONES MUELLER	J–2611 H–15526
6	CURB VALVE–SHUT OFF PARALLEL WITH CURB BY SIZE	FORD 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	A6001640PCX12
14	VAULT COVER – SEE PAGE 5 OF 6	–	–

2" AIR AND VACUUM VALVE ASSEMBLY

2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

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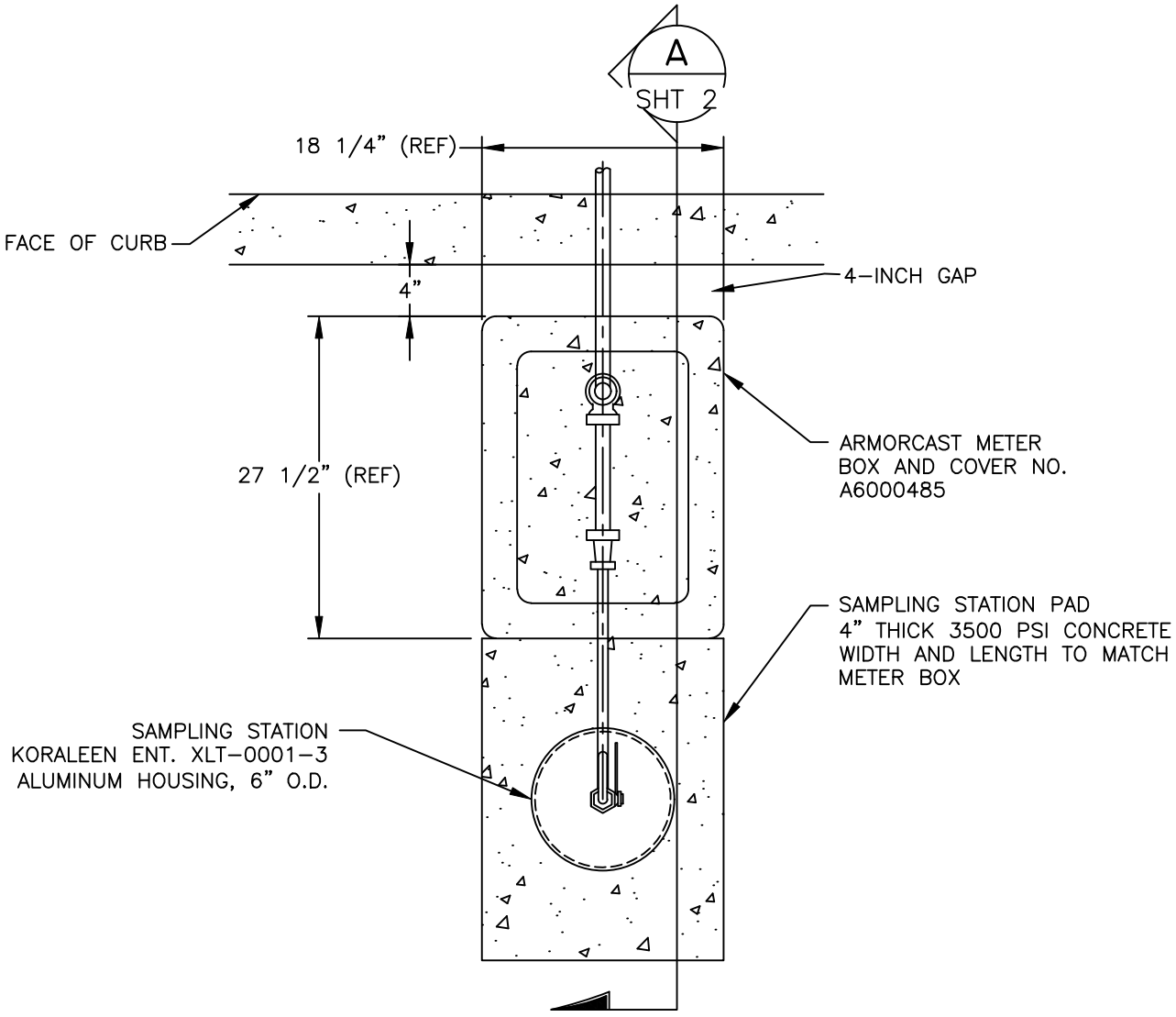

PLAN

NOTE:

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

DRINKING WATER QUALITY SAMPLING STATION

2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

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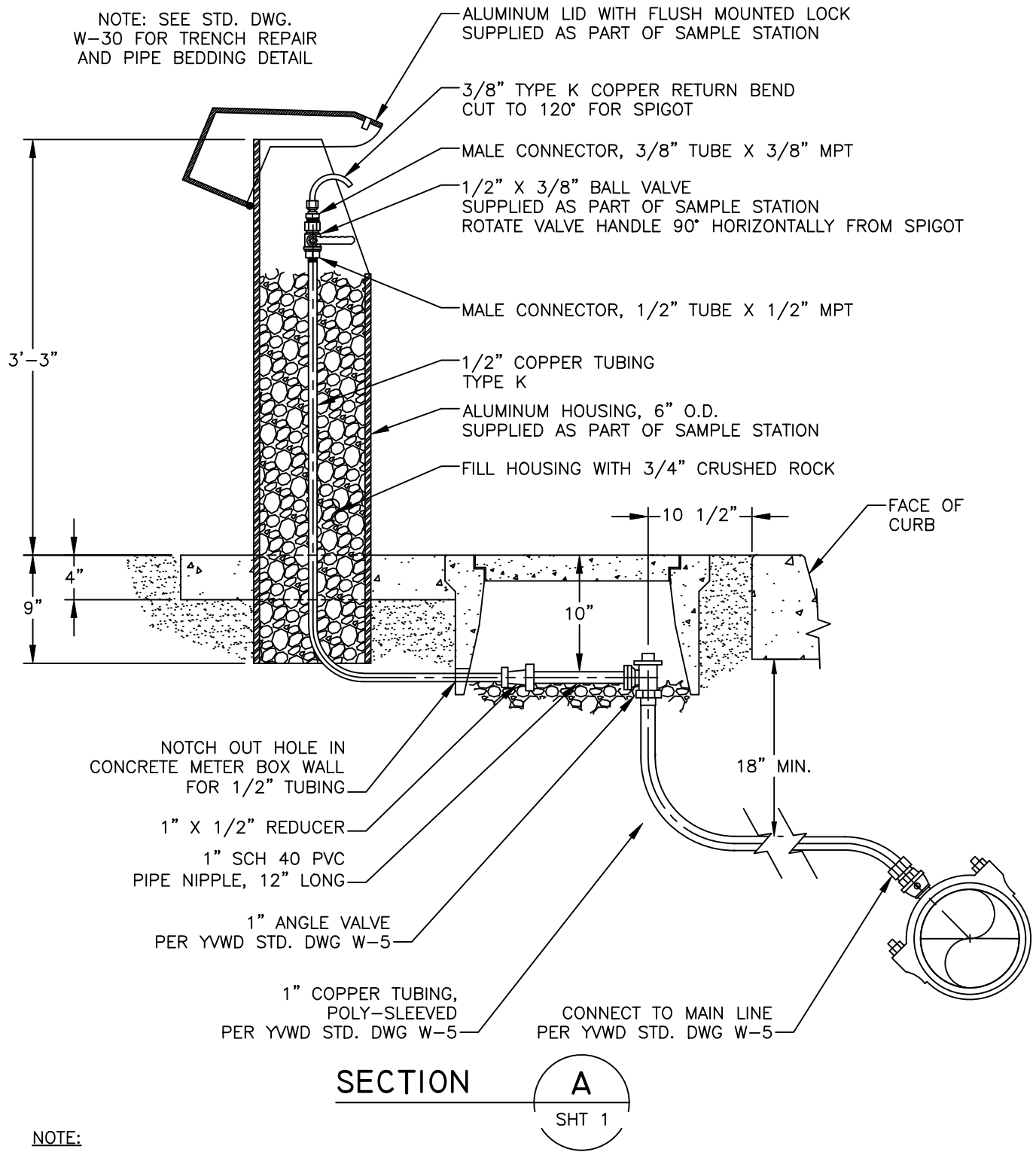


SECTION A
SHT 1

NOTE:

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

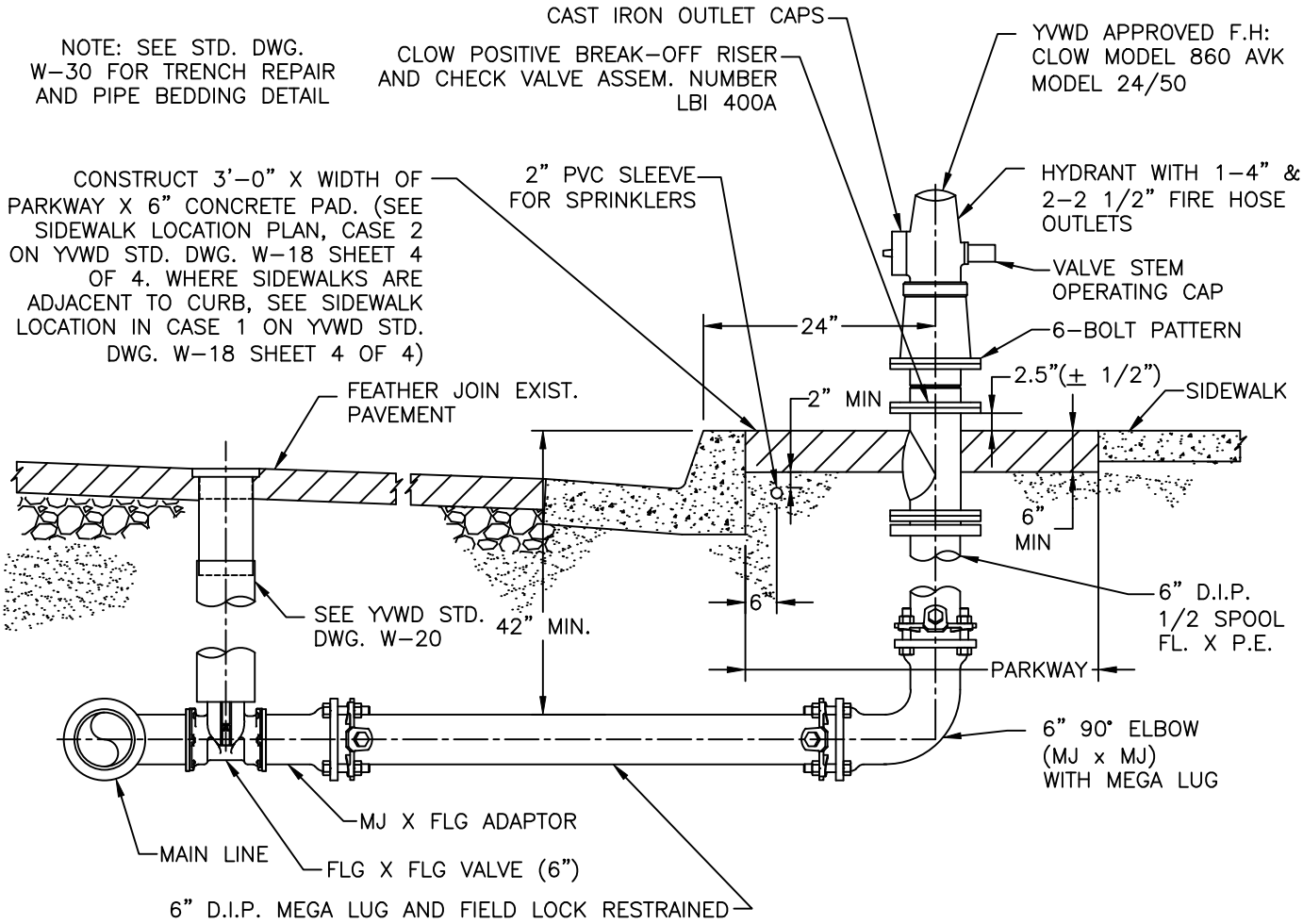
DRINKING WATER QUALITY SAMPLING STATION

2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

W-16



NOTES:

1. IF A RESIDENTIAL FIRE HYDRANT IS INSTALLED AS A LONG SIDE HYDRANT, THEN IT MUST BE INSTALLED PER SPECIFICATION W-18 SHEET 2 OF 4.
2. 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.
3. PROVIDE "BREAK-OFF" RISER AT HYDRANT FLANGE. BOLTS FROM THE "BREAK-OFF" SPOOL TO THE CHECK VALVE ASSEMBLY MUST BE INSTALLED FROM TOP TO BOTTOM.
4. ALL HYDRANT FLANGE BOLTS ARE TO BE INSTALLED WITH THE CAP OF THE BOLT ON TOP AND THE NUT ON THE BOTTOM.
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.
7. DRY BARREL HYDRANTS ARE REQUIRED AT ELEVATIONS ABOVE 4,000 FT

FIRE HYDRANT INSTALLATION - RESIDENTIAL

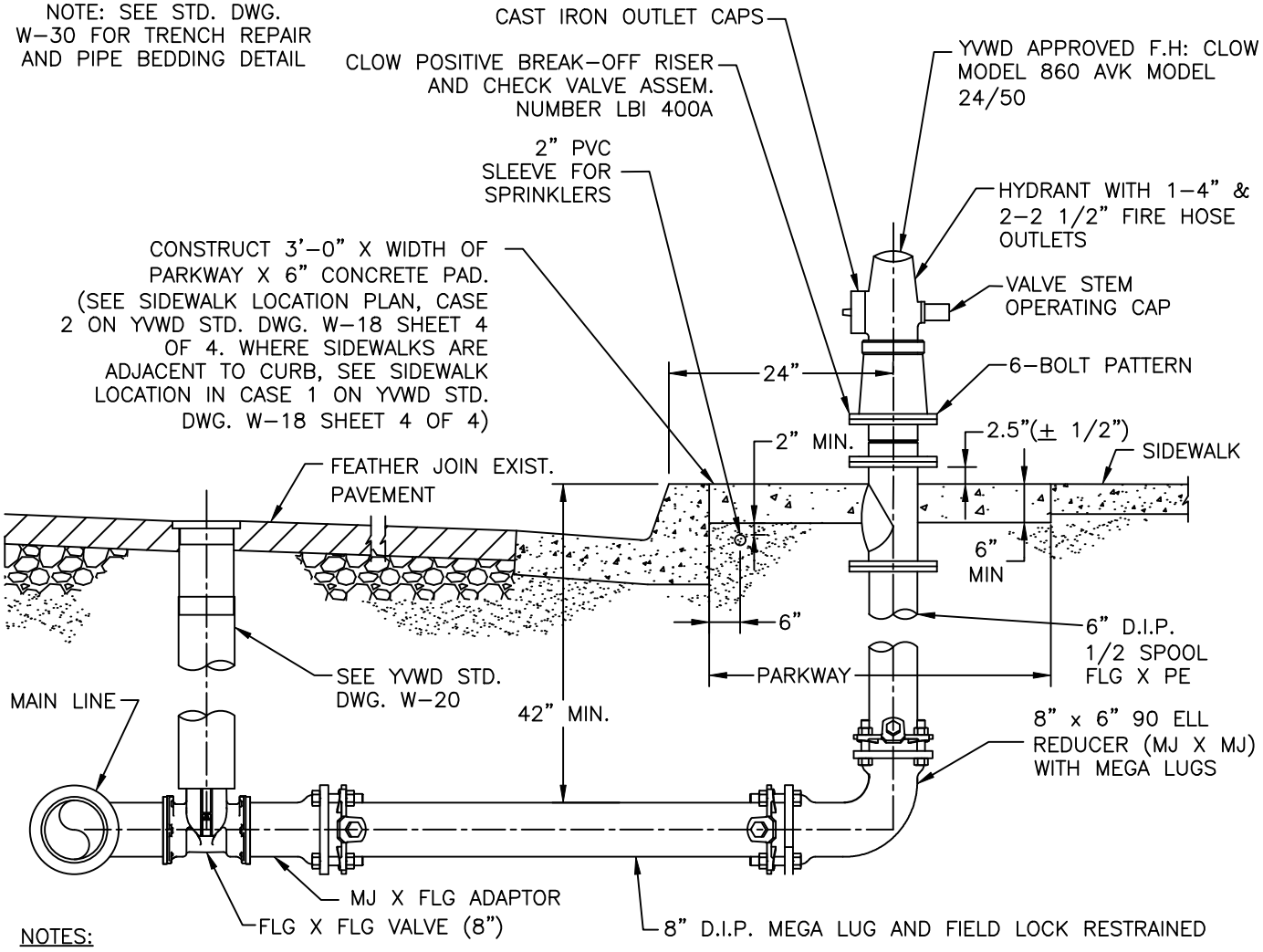
2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

W-18

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



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. PROVIDE "BREAK–OFF" RISER AT HYDRANT FLANGE. BOLTS FROM THE "BREAK–OFF" TO THE CHECK VALVE ASSEMBLY MUST BE INSTALLED FROM TOP TO BOTTOM.
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.
6. DRY BARREL HYDRANTS ARE REQUIRED AT ELEVATIONS ABOVE 4000 FT.

SEE SHEET 4 OF 4 FOR HYDRANT FLOW COLOR CODING.

FIRE HYDRANT INSTALLATION – COMMERCIAL

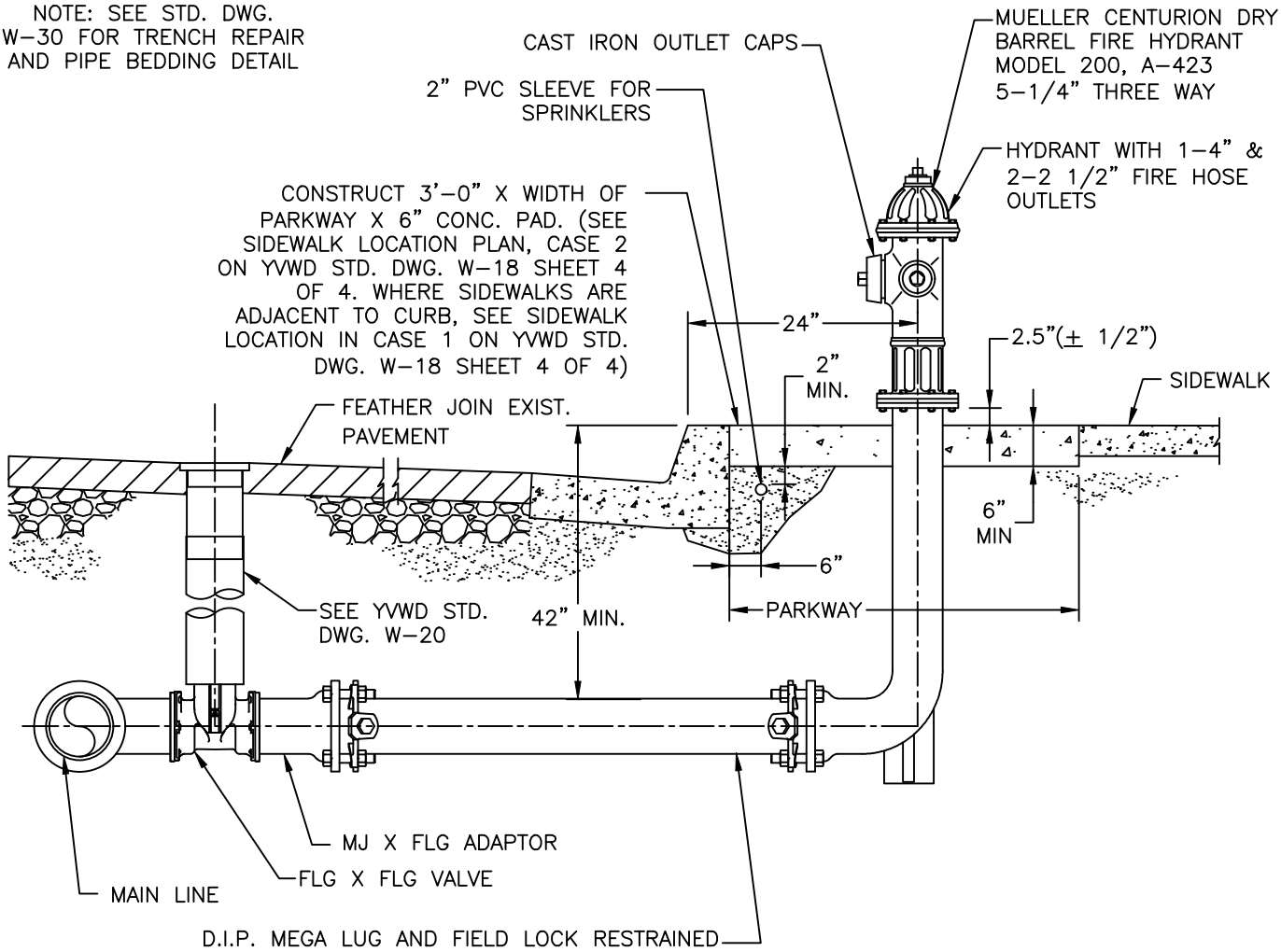
2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

W–18

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



NOTES:

1. DRY BARREL HYDRANTS ARE ONLY REQUIRED AT ELEVATIONS ABOVE 4,000 FT.
2. 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.
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

2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

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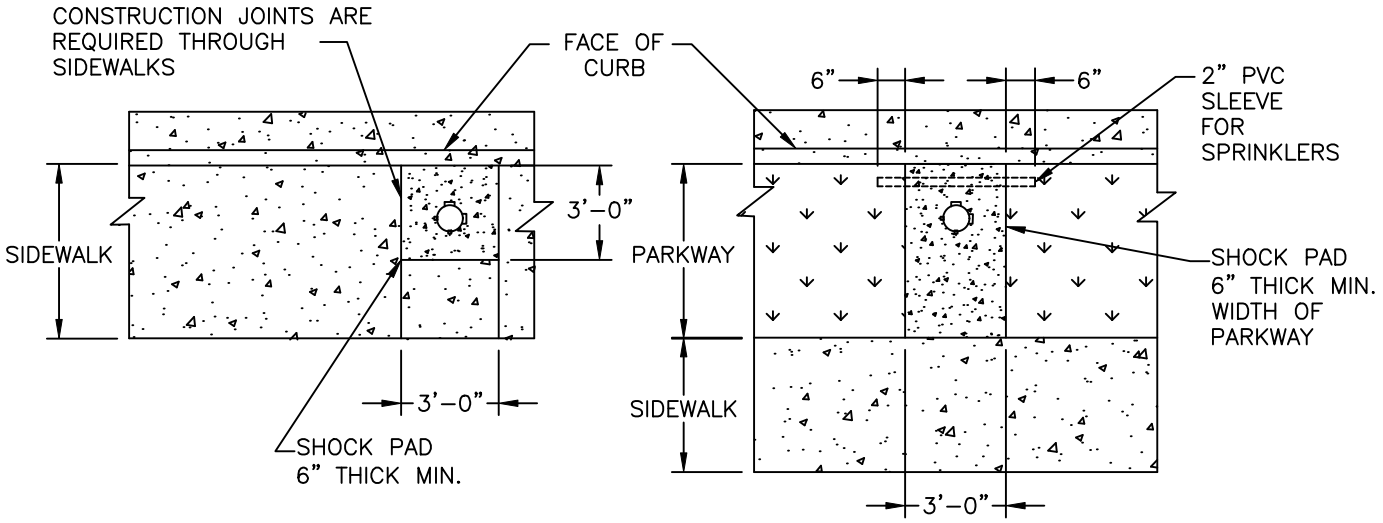
SIDEWALK LOCATION PLANS



CASE 1
SIDEWALK ADJACENT TO CURB

CASE 2
SIDEWALK NOT ADJACENT TO CURB

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

2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

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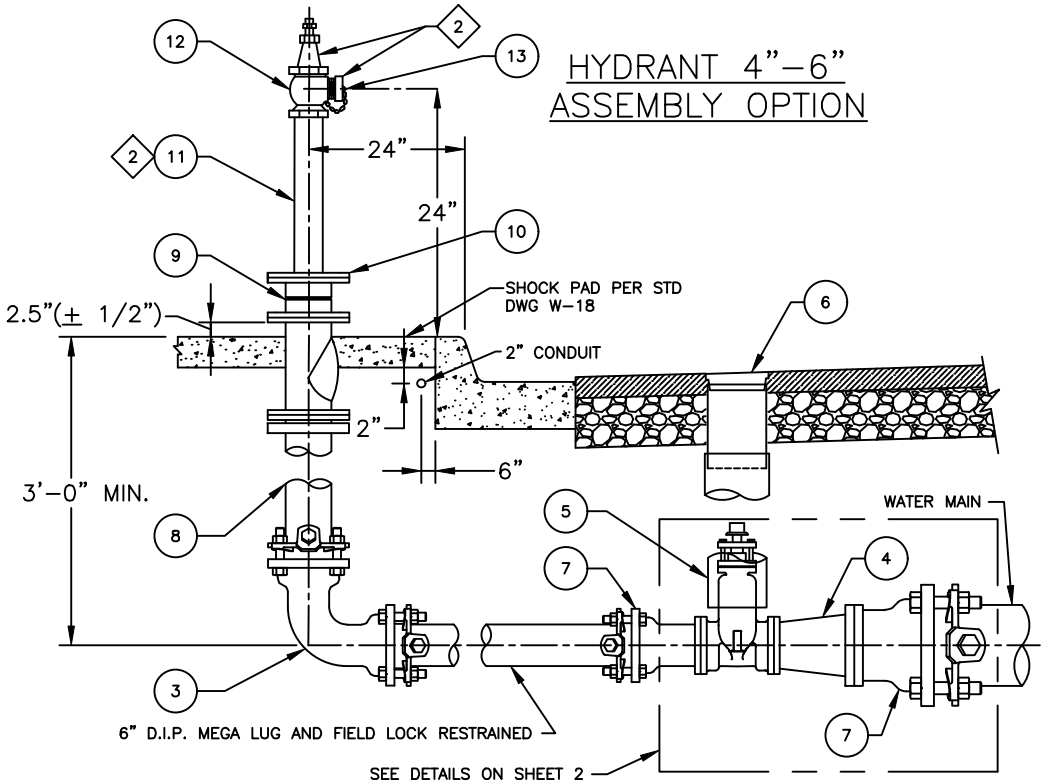
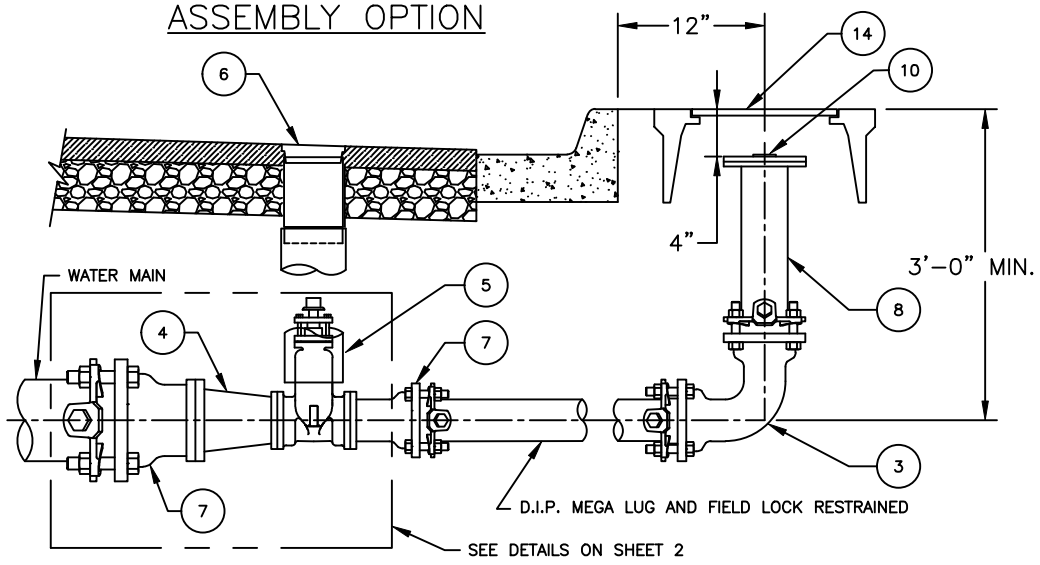
HYDRANT 4"–6" ASSEMBLY OPTION



BLIND FLANGE 4"–6" ASSEMBLY OPTION



NOTE: SEE STD. DWG. R–26 FOR TRENCH REPAIR AND PIPE BEDDING DETAIL

SEE SHEET 3 OF 3 FOR ADDITIONAL NOTES AND LIST OF MATERIALS

BLOW–OFF ASSEMBLY

2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

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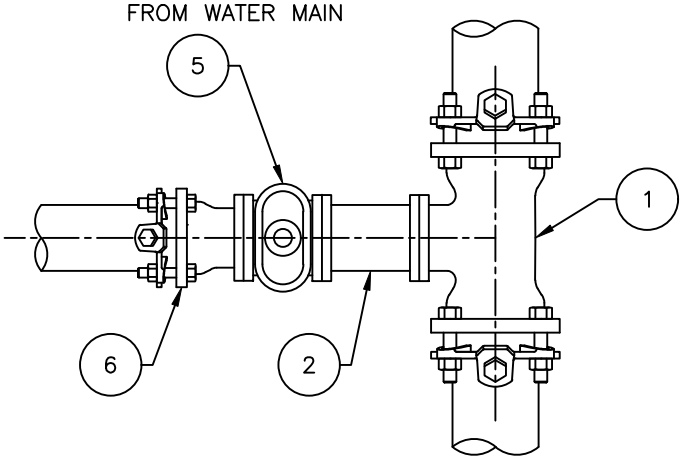
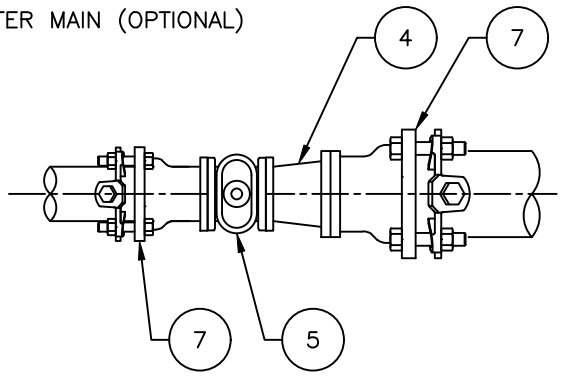
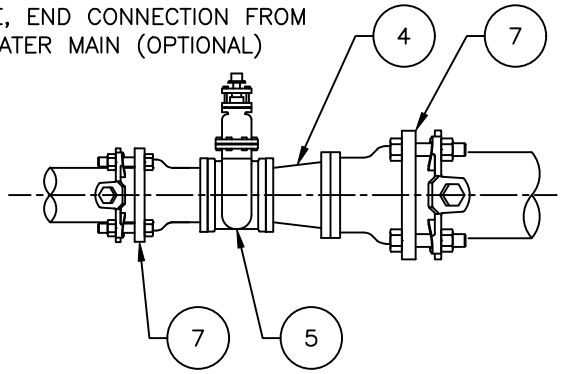
PLAN
BLOW–OFF ASSEMBLY GATE VALVE, BRANCH CONNECTION FROM WATER MAIN



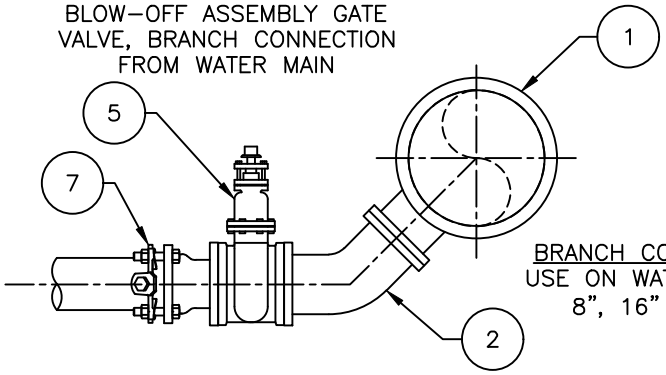
PLAN
BLOW–OFF ASSEMBLY GATE VALVE, END CONNECTION FROM WATER MAIN (OPTIONAL)



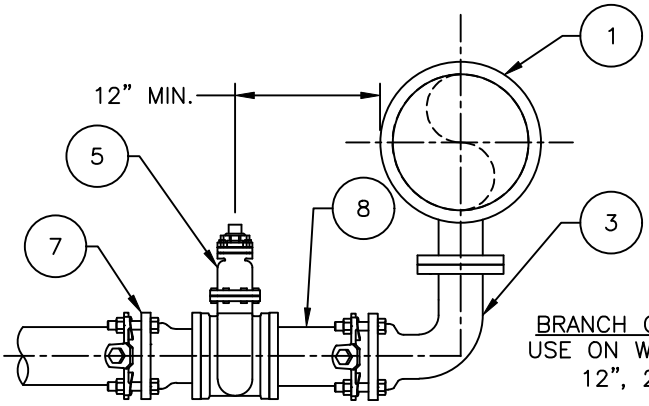
PROFILE
BLOW–OFF ASSEMBLY GATE VALVE, END CONNECTION FROM WATER MAIN (OPTIONAL)



PROFILE
BLOW–OFF ASSEMBLY GATE VALVE, BRANCH CONNECTION FROM WATER MAIN



BRANCH CONNECTION CASE A
USE ON WATER MAINS THAT ARE 8", 16" AND 18" ONLY



BRANCH CONNECTION CASE B
USE ON WATER MAINS THAT ARE 12", 24" AND LARGER

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

SEE SHEET 3 OF 3 FOR ADDITIONAL NOTES AND LIST OF MATERIALS

BLOW–OFF ASSEMBLY

2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

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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 – MJ X MJ WITH MEGA LUG RESTRAINTS 6"	–	–
3	DIP 90° ELBOW – FLG X MJ WITH MEGA LUG RESTRAINTS 6"	–	–
4	DIP FLG X FLG REDUCER	–	–
5	GATE VALVE – FLG X FLG 6"	–	–
6	VALVE BOX PER STD. DWG. W–20	–	–
7	DIP MJ X FLG ADAPTOR 6"	–	–
8	DIP HALF SPOOL – FLG X PE 6"	–	–
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	METER BOX W/SOLID LID W/ "WATER" LOGO	AMORCAST	BOX – A6000485 LID – A6000484

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 4,000 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 BLOWW–OFFS SHALL BE LOCATED A MINIMUM OF 3–FEET AWAY FROM THE E.C./B.C. OF DRIVEWAY APPROACHES AND CURB RETURNS FROM INTERSECTIONS.

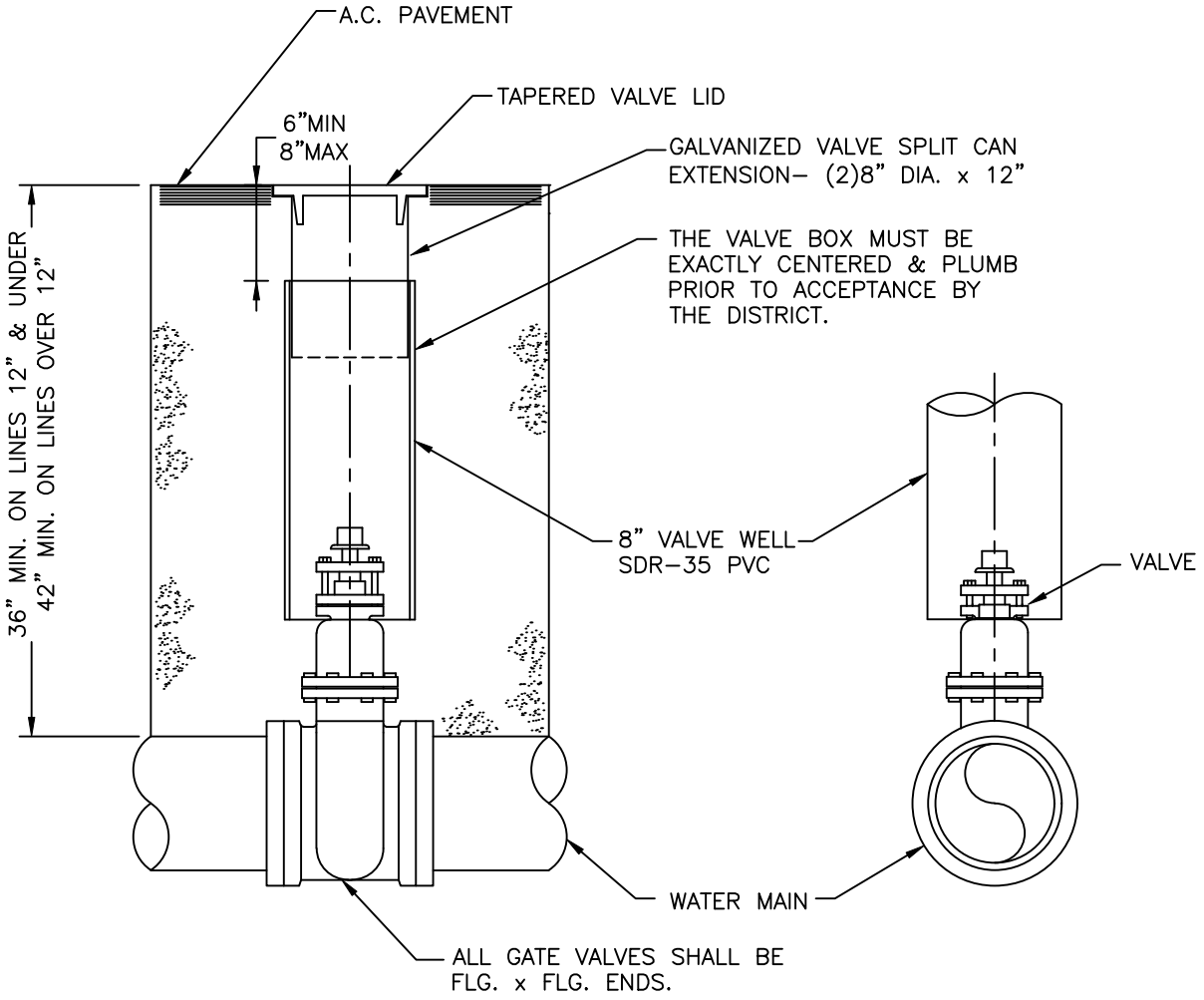
BLOW–OFF ASSEMBLY

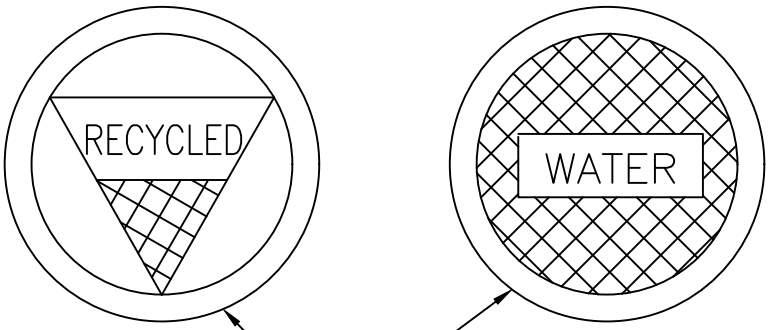
2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

W–19





IRON COVER WITH THE WORD "WATER" CAST THEREON FOR DOMESTIC WATER LINES OR "RECYCLED" FOR RECLAIMED WATERLINES. VALVE LIDS MUST BE TAPERED

VALVE AND VALVE BOX INSTALLATION

2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

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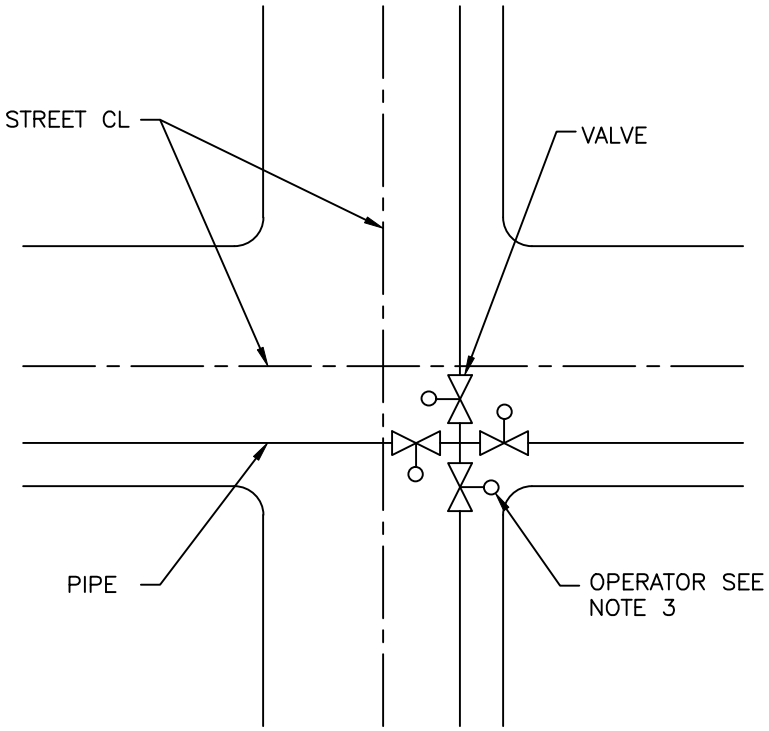

TYPICAL BUTTERFLY VALVE OPERATOR POSITION

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

2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

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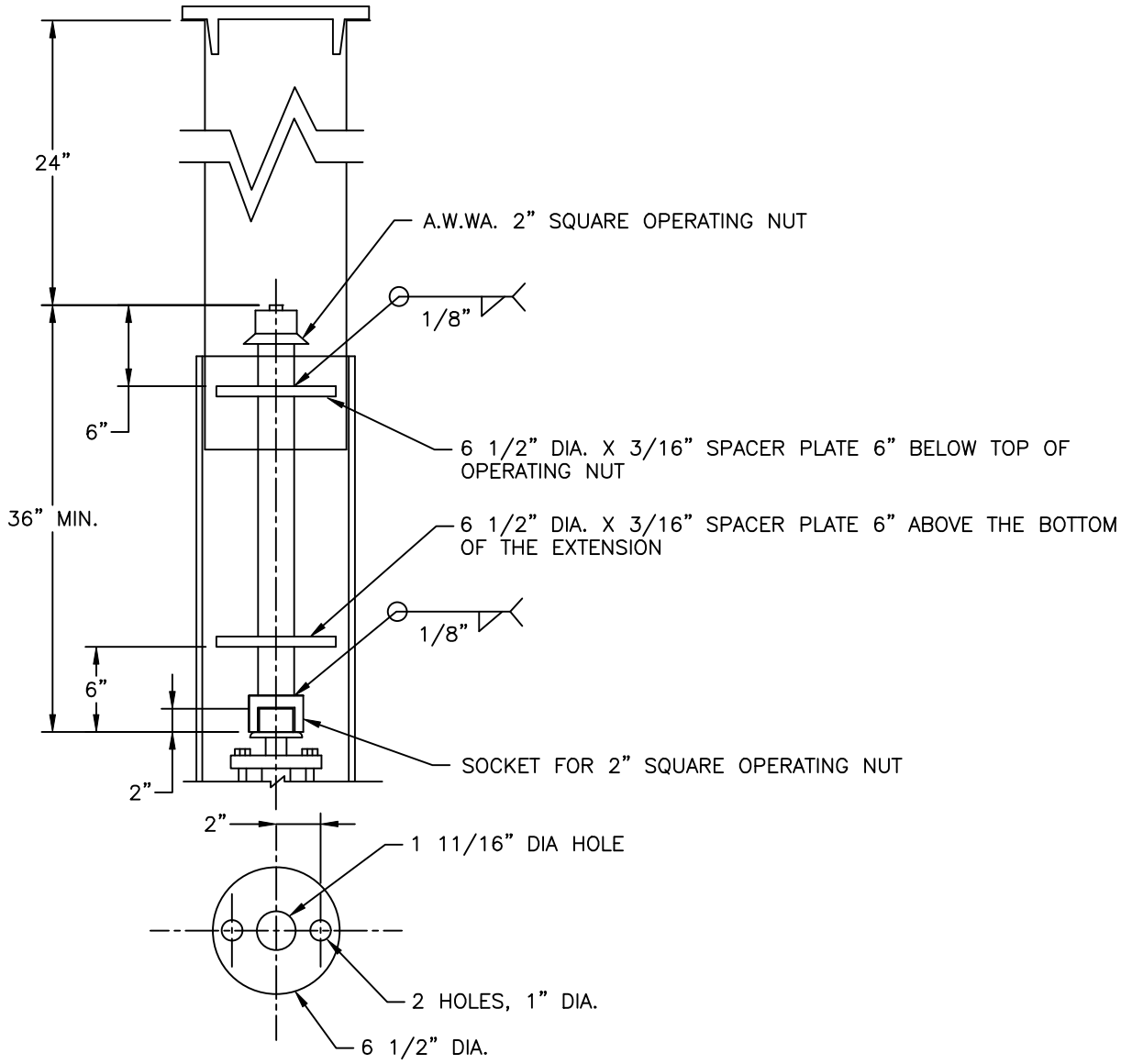

SPACER PLATE PLAN

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

2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

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Yucaipa Valley Water District

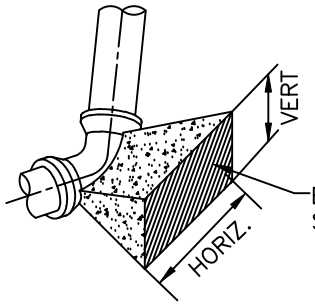
THRUST BLOCK DETAILS FOR RETROFIT ONLY

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

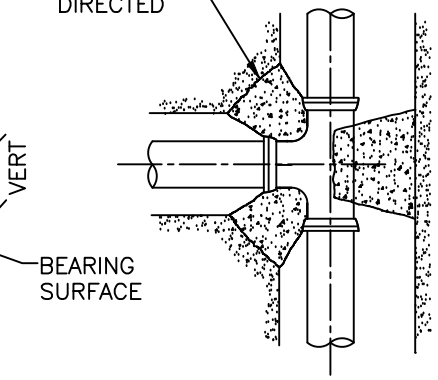
W-22

Sheet 1 of 2

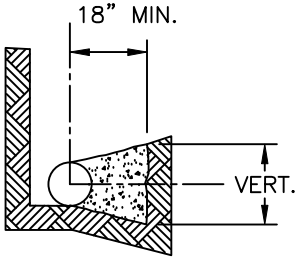
SEE SHEET 2 FOR NOTES AND THRUST BLOCK SIZING.



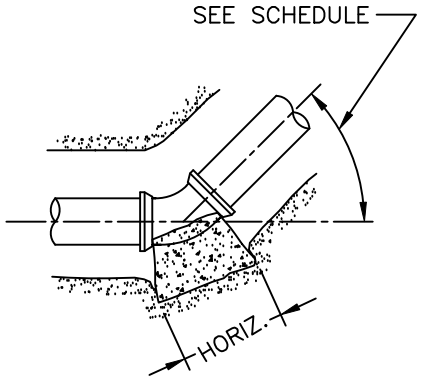
TYPICAL BEARING SURFACE



TEE OR VALVE

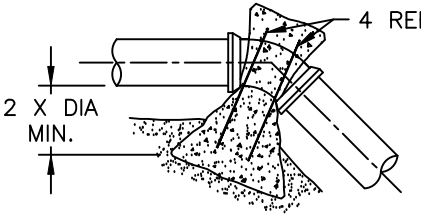


PROFILE

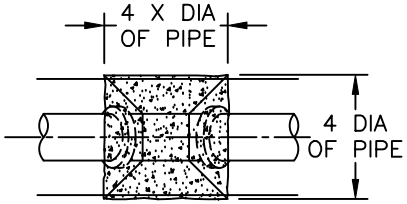


PLAN

HORIZONTAL BEND

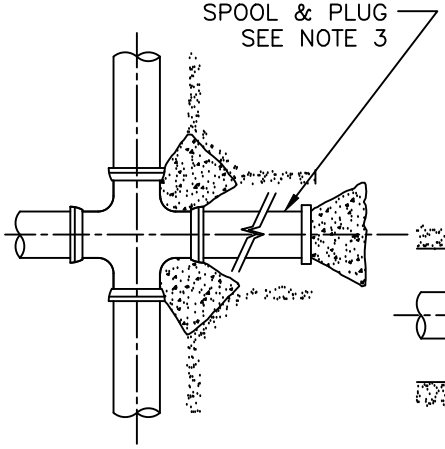


PROFILE

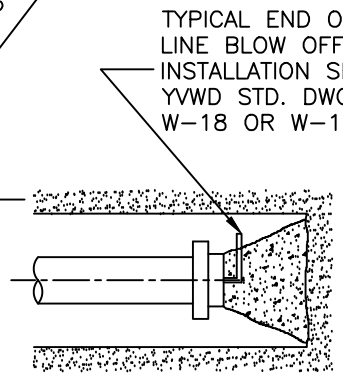


PLAN

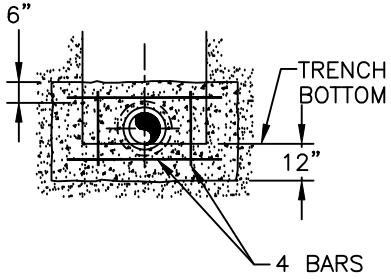
VERTICAL BEND



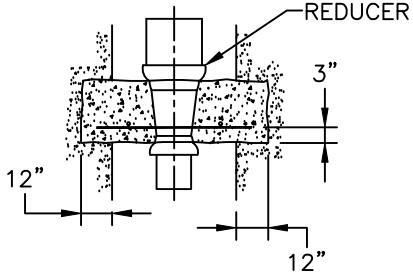
CROSS



END CAP



END VIEW REDUCER



PLAN

REDUCER

2022

Yucaipa Valley Water District

THRUST BLOCK DETAILS FOR RETROFIT ONLY

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:

1. 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
2. ALL THRUST BLOCKS SHALL BE 3,250 PSI CONCRETE AND PLACED AGAINST UNDISTURBED SOIL. DESIGN ENGINEER SHALL DETERMINE SIZES NOT SHOWN.
3. THRUST BLOCKS ON CROSSES SHALL BE USED ONLY WHEN THERE IS A STUB–OUT ON ONE OR MORE SIDES.
4. REINFORCING STEEL SHALL CONFORM TO ASTM A15 AND A305 INTERMEDIATE GRADE.
5. CONCRETE SHALL NOT EXTEND ONTO FLANGE OR ADJOINING PIPE.
6. ALL FITTINGS SHALL BE WRAPPED WITH 10 MIL PLASTIC.
7. ALL FITTINGS SHALL BE MECHANICALLY RESTRAINED UNLESS APPROVED BY YVWD.

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

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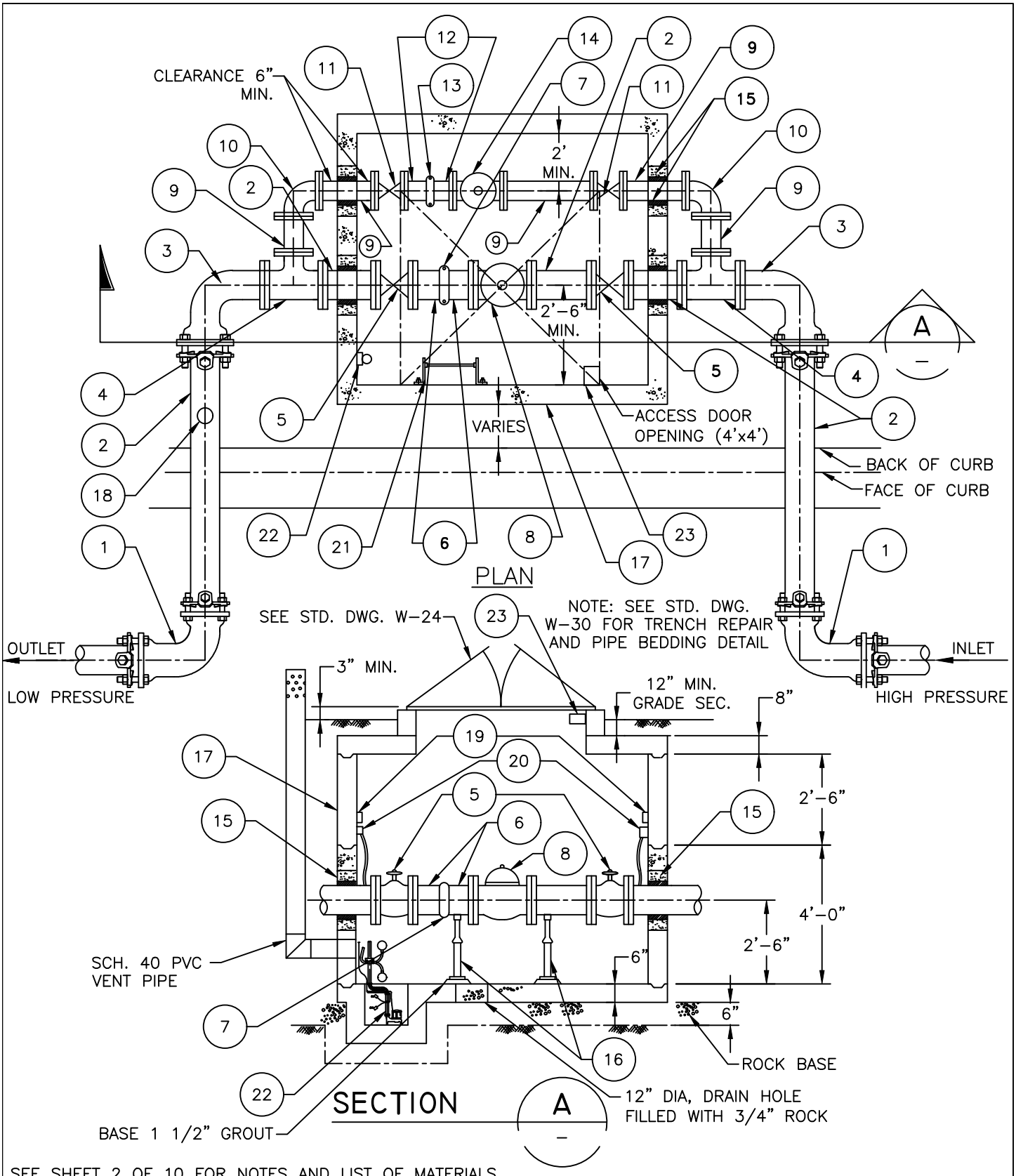

SEE SHEET 2 OF 10 FOR NOTES AND LIST OF MATERIALS.

PRESSURE REDUCING STATION
TYPICAL ASSEMBLY – FINAL DESIGN BY ENGINEER

2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

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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

2022

Yucaipa Valley Water District

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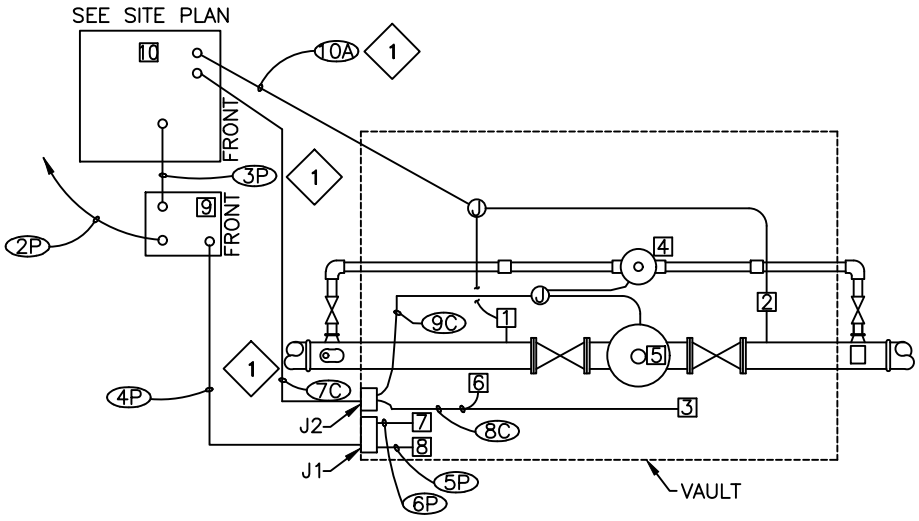
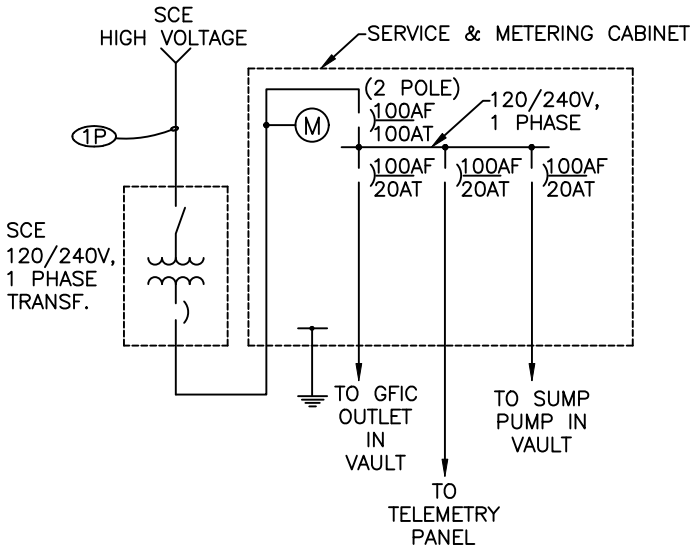


PRESSURE REDUCING STATION ELECTRICAL PLAN

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

2022

Yucaipa Valley Water District

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TELEMETRY CABINET–ELEVATION
SCALE: NONE

SERVICE & METERING CABINET
ELEVATION
SCALE: NONE

PRESSURE REDUCING STATION
ELECTRICAL DIAGRAM AND DETAILS

2022

Yucaipa Valley Water District

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Yucaipa Valley Water District

PRESSURE REDUCING STATION
ELECTRICAL DIAGRAM AND DETAILS

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CONDUIT SCHEDULE

SYMBOL	CONDUIT		WIRE	DESCRIPTION	LOCATION		REMARKS
#	QTY.	SIZE	QTY. SIZE	USE	FROM	TO	
(1P)	1	4"	C.O.	POWER	SCE XFMR	EXISTING SCE POWER	IF REQ'D
(2P)	1	2"	C.O.	POWER	SCE XFMR	SVS & MTR CAB	120/240 SVS FDR
(3P)	1	3/4"	2#12&1#12 GND	POWER	SVS & MTR CAB	TELEMETRY CAB	SEE NOTE
(4P)	1	3/4"	4#12&1#12 GND	POWER	SVS & 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

ELECTRICAL COMPONENTS

ITEM NO.	DEVICE ID.	DESCRIPTION	MANUFACTURE	MODEL NUMBER	REMARKS
1	PT-1	DOWNSTREAM PRESS. XMTR	ROSE MOUNT	#3051CG-X-A22 AIJ-M6210-S-140	150/250 PSI
2	PT-2	UPSTREAM PRESS. XMTR	ROSE MOUNT	#3051CG-X-A22 AIJ-M6210-S-140	150/250 PSI
3	XS-1	HATCH ENTRY SWITCH	ALLEN BRADLEY	E50DRI	W/CUTLER HAMMER ROLLER #E50KL546
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	MEUGQ100	120/240 V, 100A
10	NA	TELEMETRY CABINET			SEE YVWD SDT DWG W-23D, DETAIL A

NOTE:

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

PRESSURE REDUCING STATION ELECTRICAL DIAGRAM AND DETAILS

2022

Yucaipa Valley Water District

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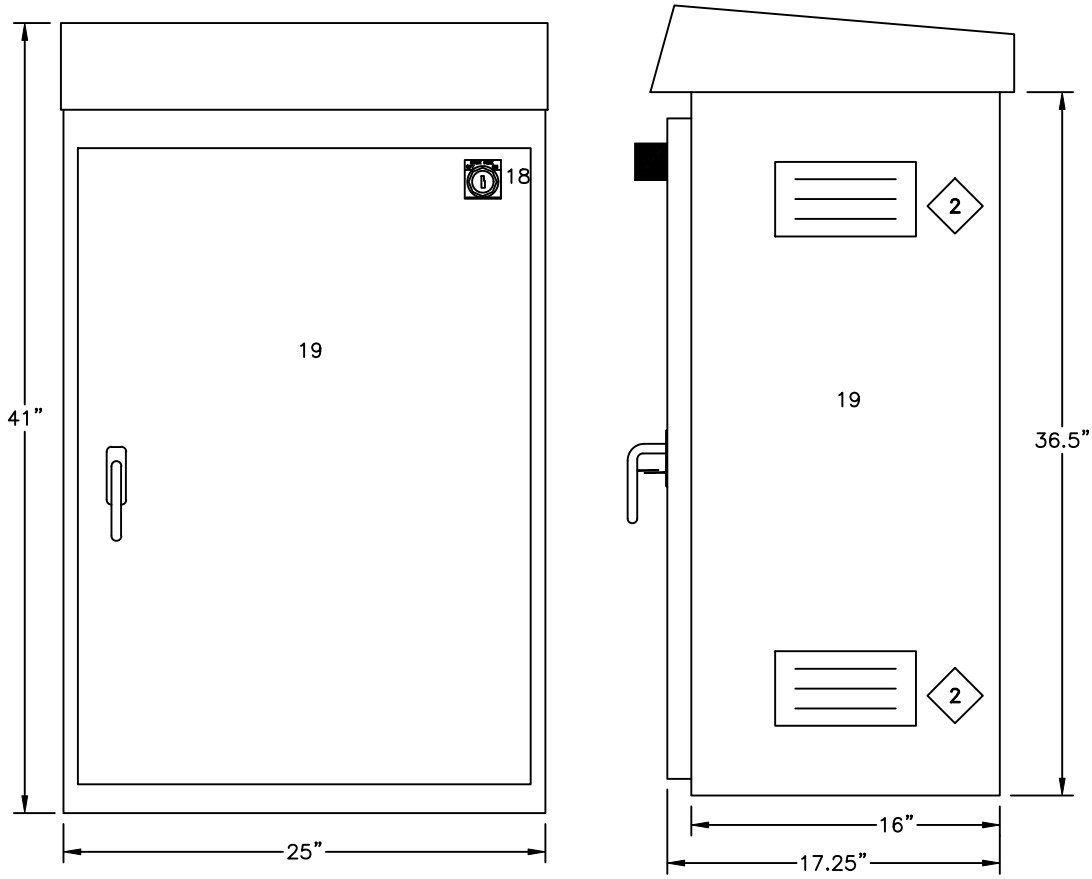

NOTES:

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

2022

Yucaipa Valley Water District

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LIST OF TELEMETRY CABINET COMPONENTS

ITEM NO.	QTY.	DESCRIPTION	PART NUMBER	MANUFACTURER	TYPE
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	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

2022

Yucaipa Valley Water District

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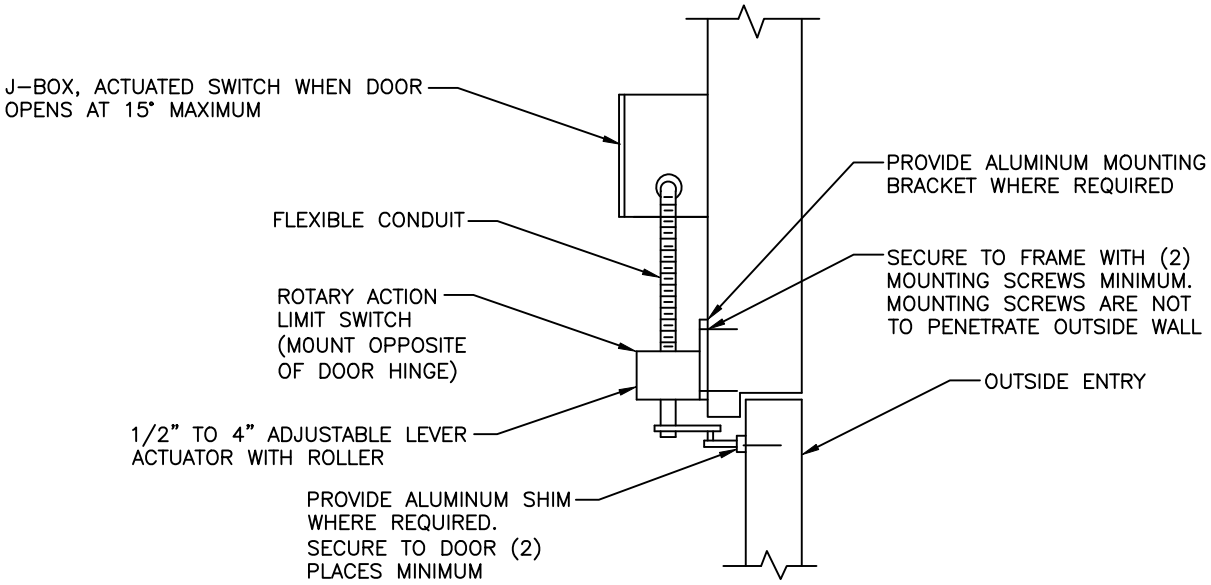
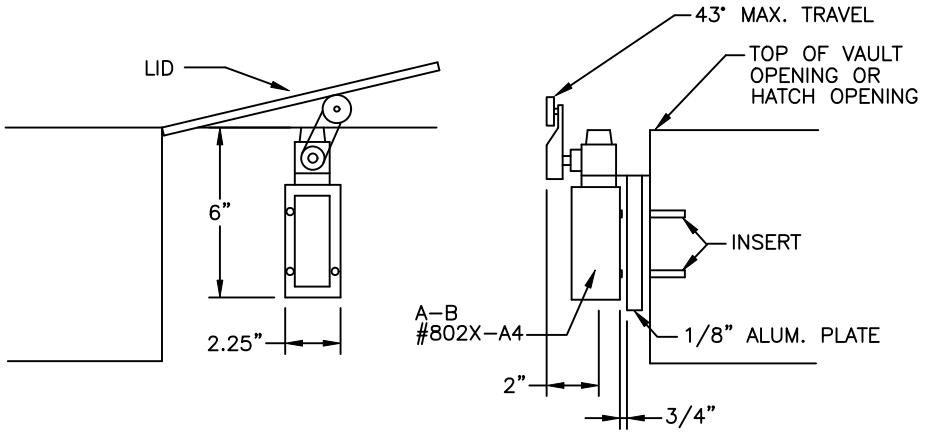


DOOR HATCH ENTRY SWITCH



INTRUSION SWITCH DETAIL

PRESSURE REDUCING STATION ENTRY SWITCH DETAILS

2022

Yucaipa Valley Water District

Approved by the Yucaipa Valley Water District Board of Directors on December 7, 2021 as Resolution No. 2021-59

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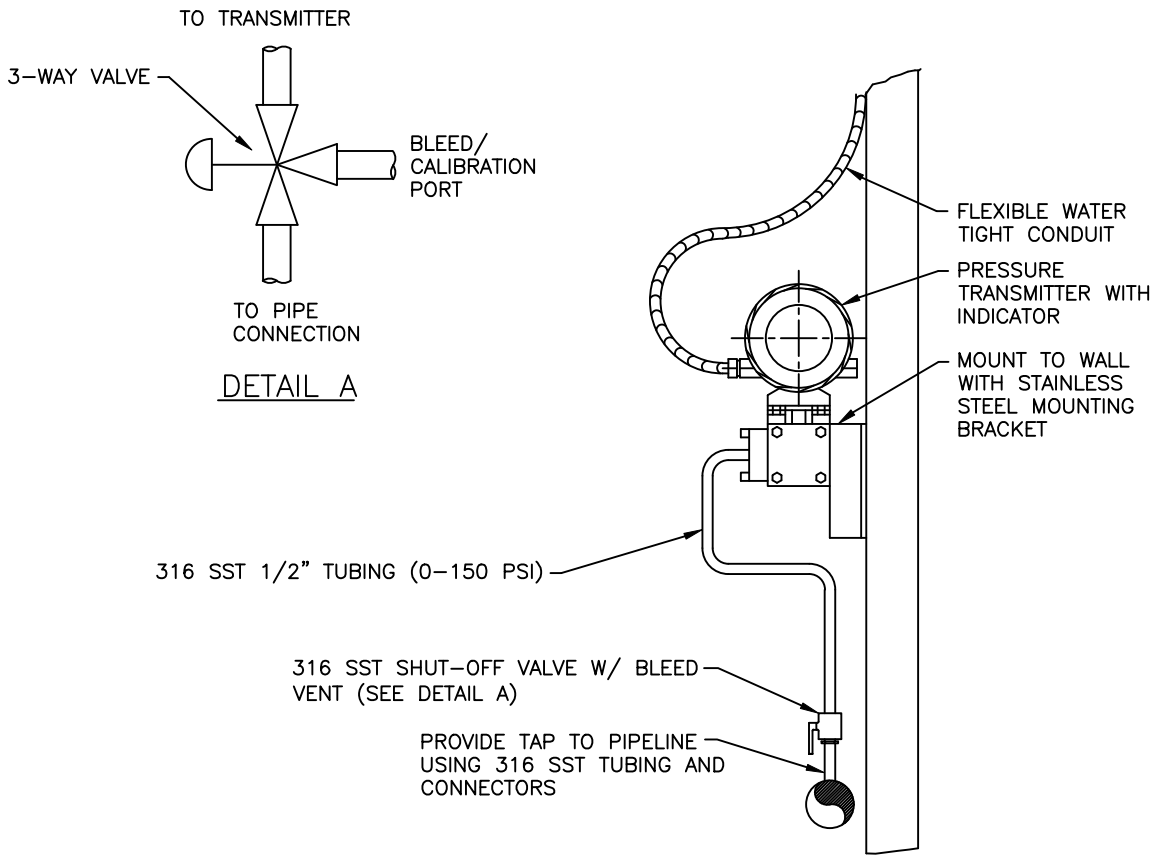

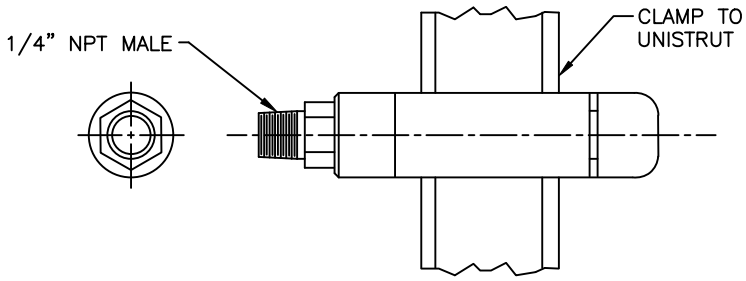

SUBMERSIBLE TYPE

PRESSURE REDUCING STATION
PRESSURE TRANSMITTER INSTALLATION DETAILS

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Yucaipa Valley Water District

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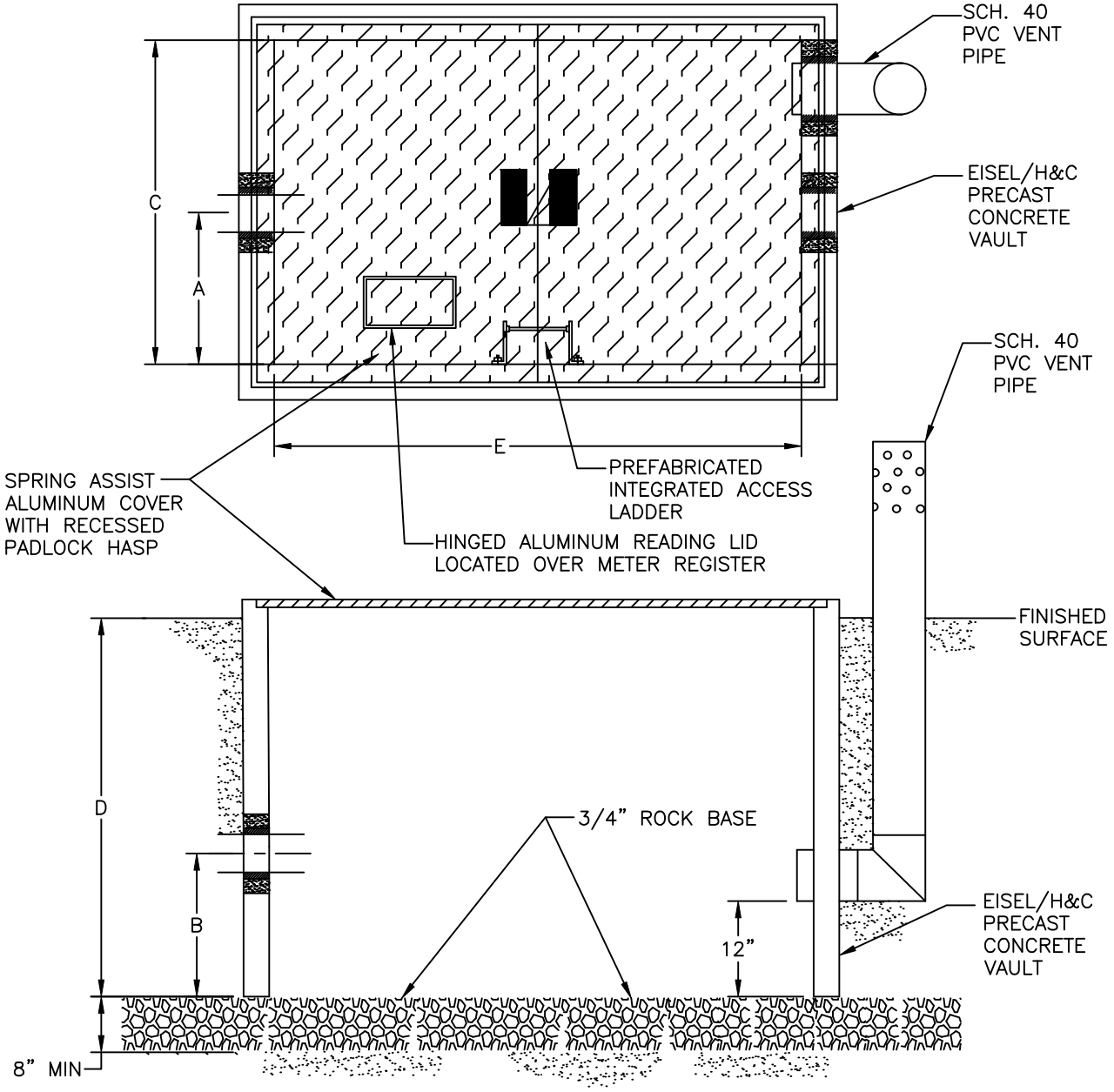

UNDERGROUND INSTALLATIONS						
PIPE SIZE	A	B	C	D	E	VAULT DIM
3"	24"	18"	4'	5'	6'	4'x6'
4"	24"	18"	4'	5'	6'	4'x6'
6"	24"	18"	4'	5'	8'	4'x8'
8"	24"	18"	4'	5'	12'	4'x12'
12"	36"	18"	6'	5'	12'	6'x12'

PREFABRICATED VAULT WITH LID AND VENT ASSEMBLY

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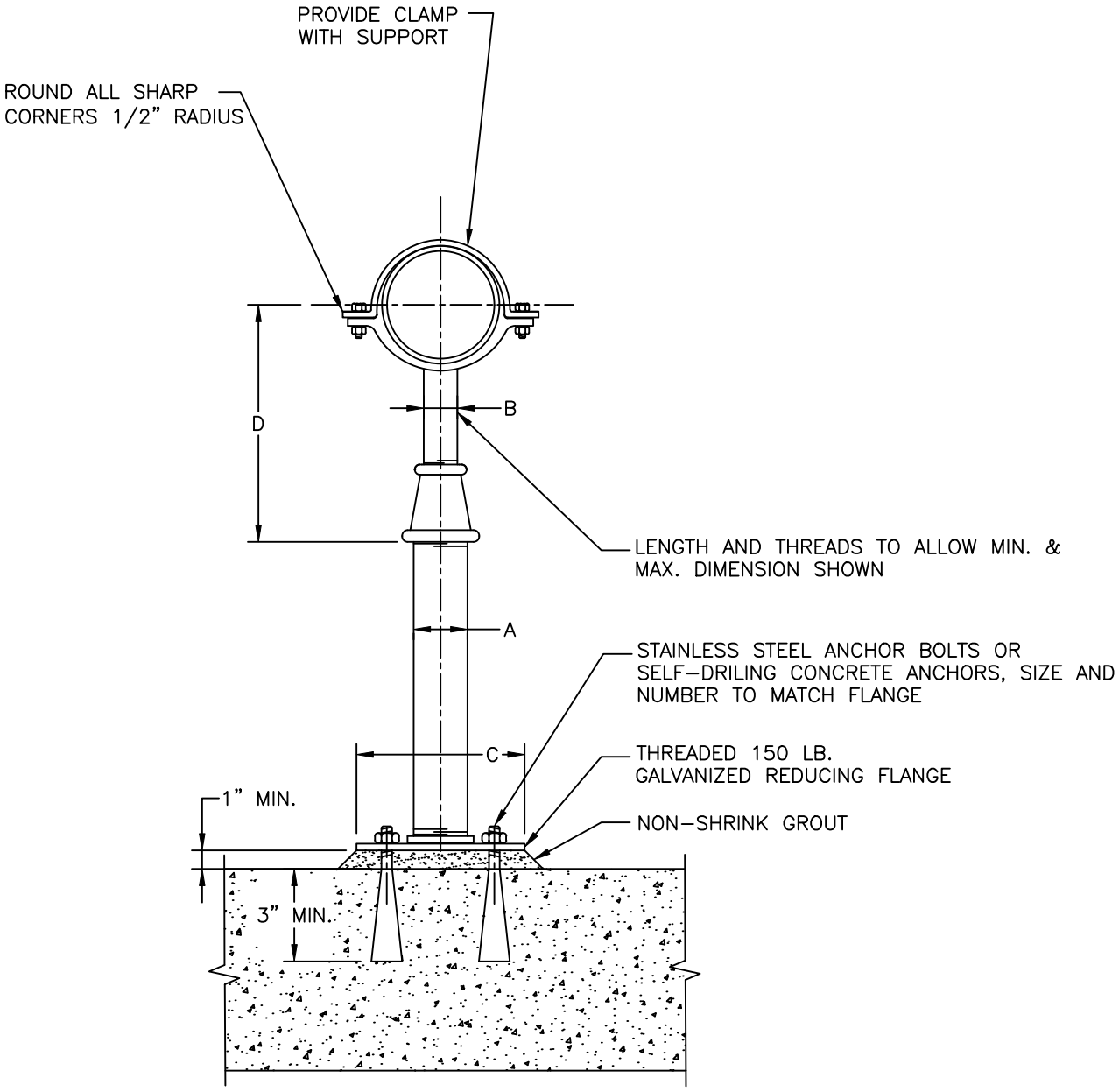

NOTE:

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

ADJUSTABLE PIPE SUPPORT

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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

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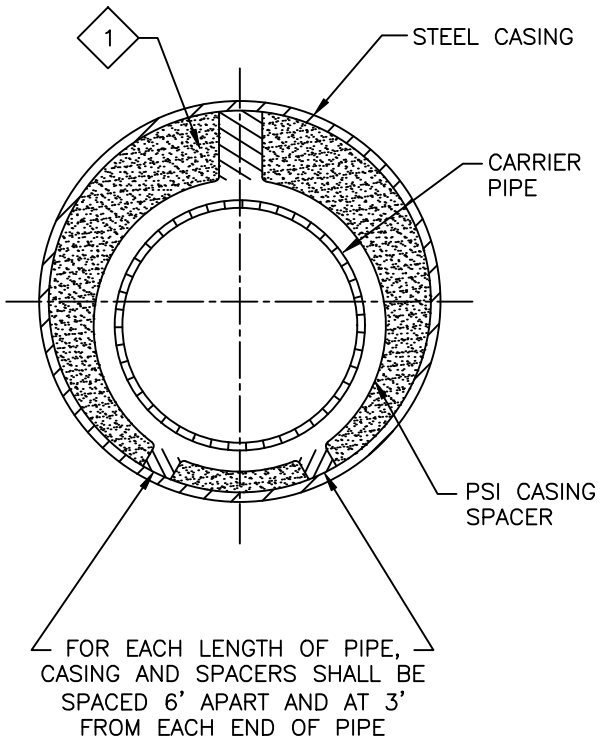
SCHEDULE STEEL CASING		
NOMINAL CARRIER PIPE SIZE	MINIMUM CASING SIZE	MIN. WALL THICK.
4"	10 3/4 O.D.	1/4"
6"	12 3/4 O.D.	1/4"
8"	16" O.D.	5/16"
12"	24" O.D.	3/8"
16"	30" O.D.	3/8"
20"	36" O.D.	3/8"
24"	36" O.D.	3/8"
30"	42" O.D.	3/8"



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 YVWD STD. DWG. W-30.
10. PSI CASING SPACERS REQUIRED, SIZE PER PLAN.

STEEL CASING PIPE

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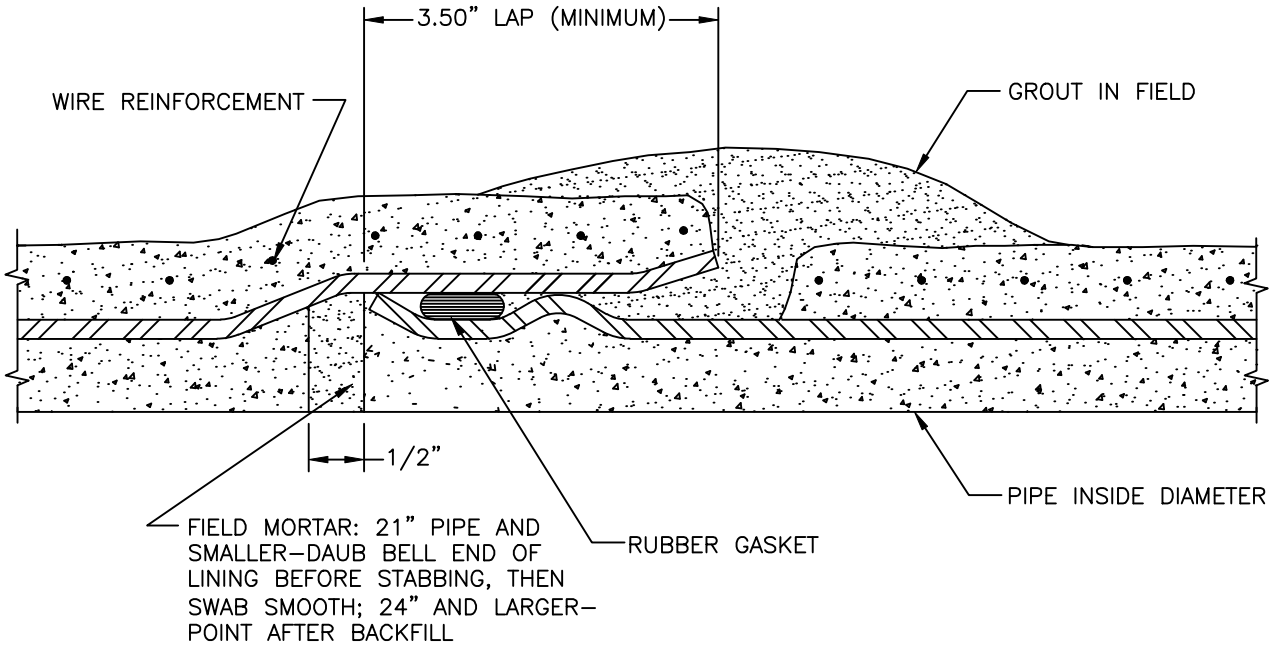
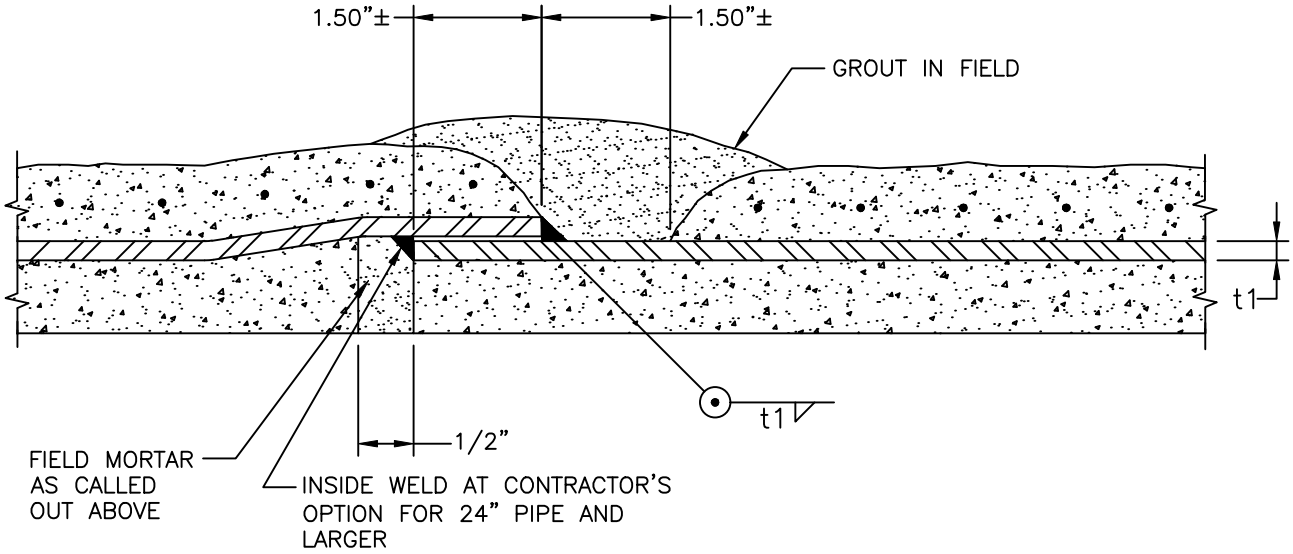


BELL AND SPIGOT RUBBER GASKET JOINT



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

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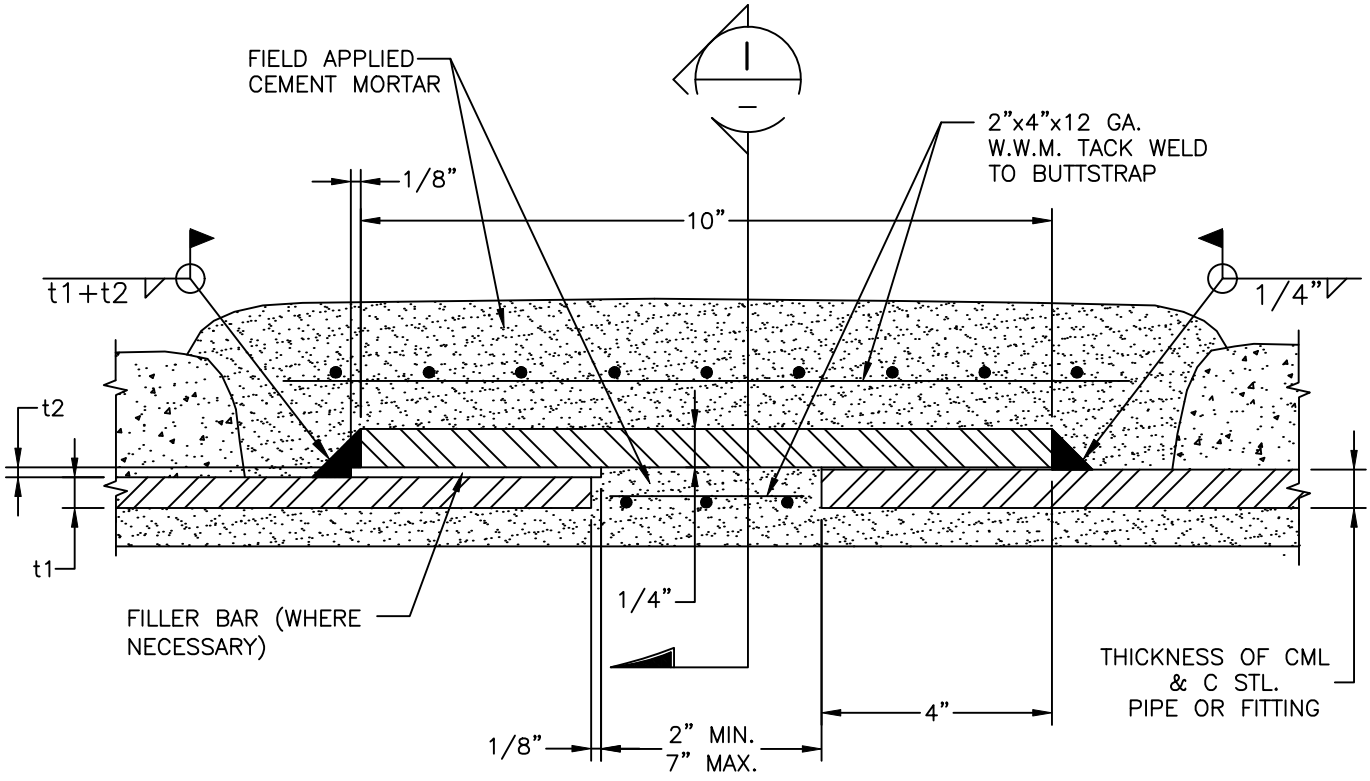

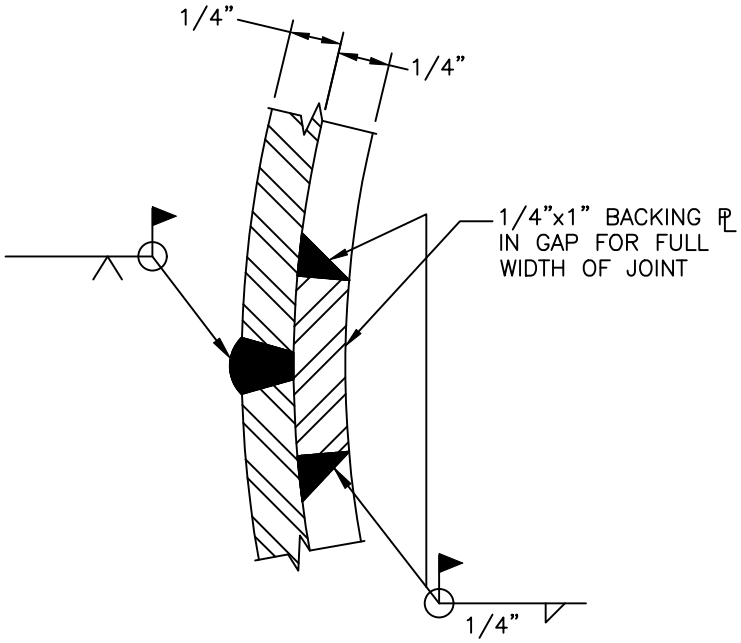

BUTTSTRAP CLOSURE

SECTION 1

MORTAR LINED AND COATED STEEL PIPE CLOSURE DETAILS

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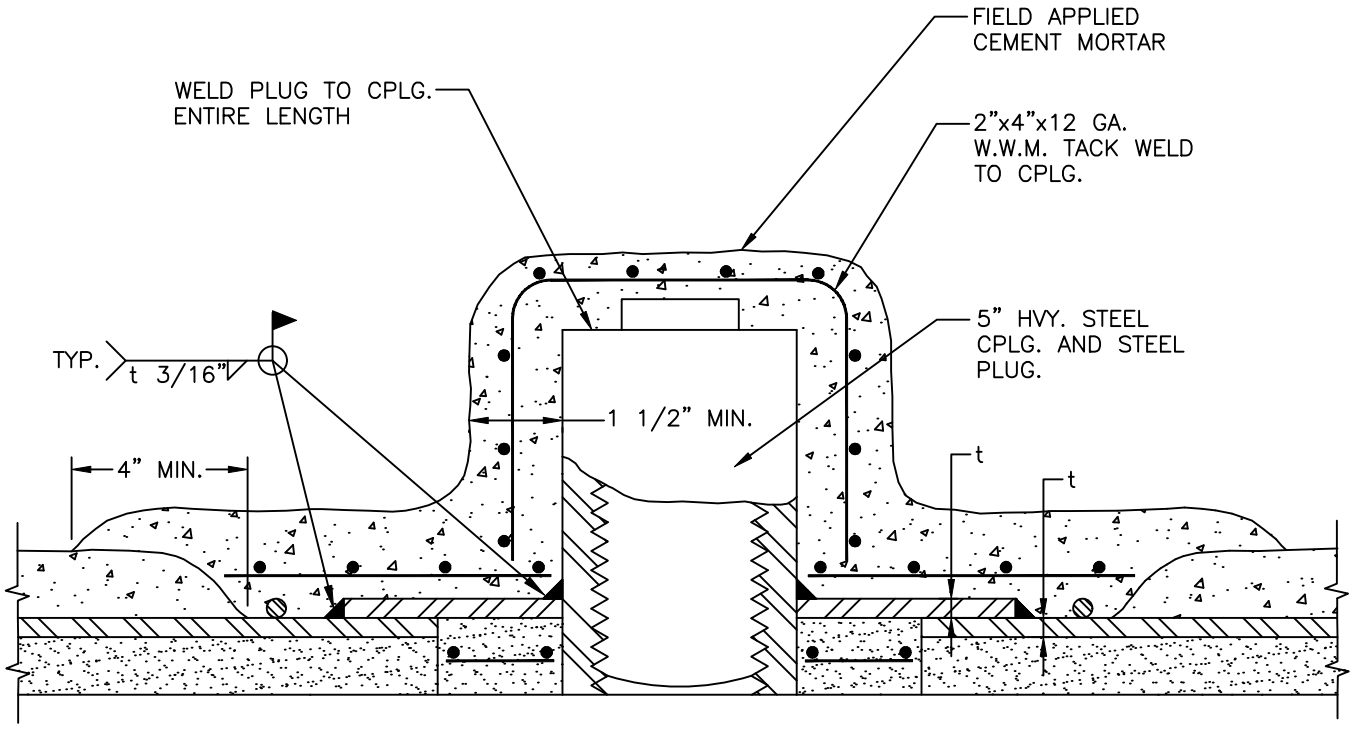

TYPICAL HANDHOLE

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

MORTAR LINED AND COATED STEEL PIPE CLOSURE DETAILS

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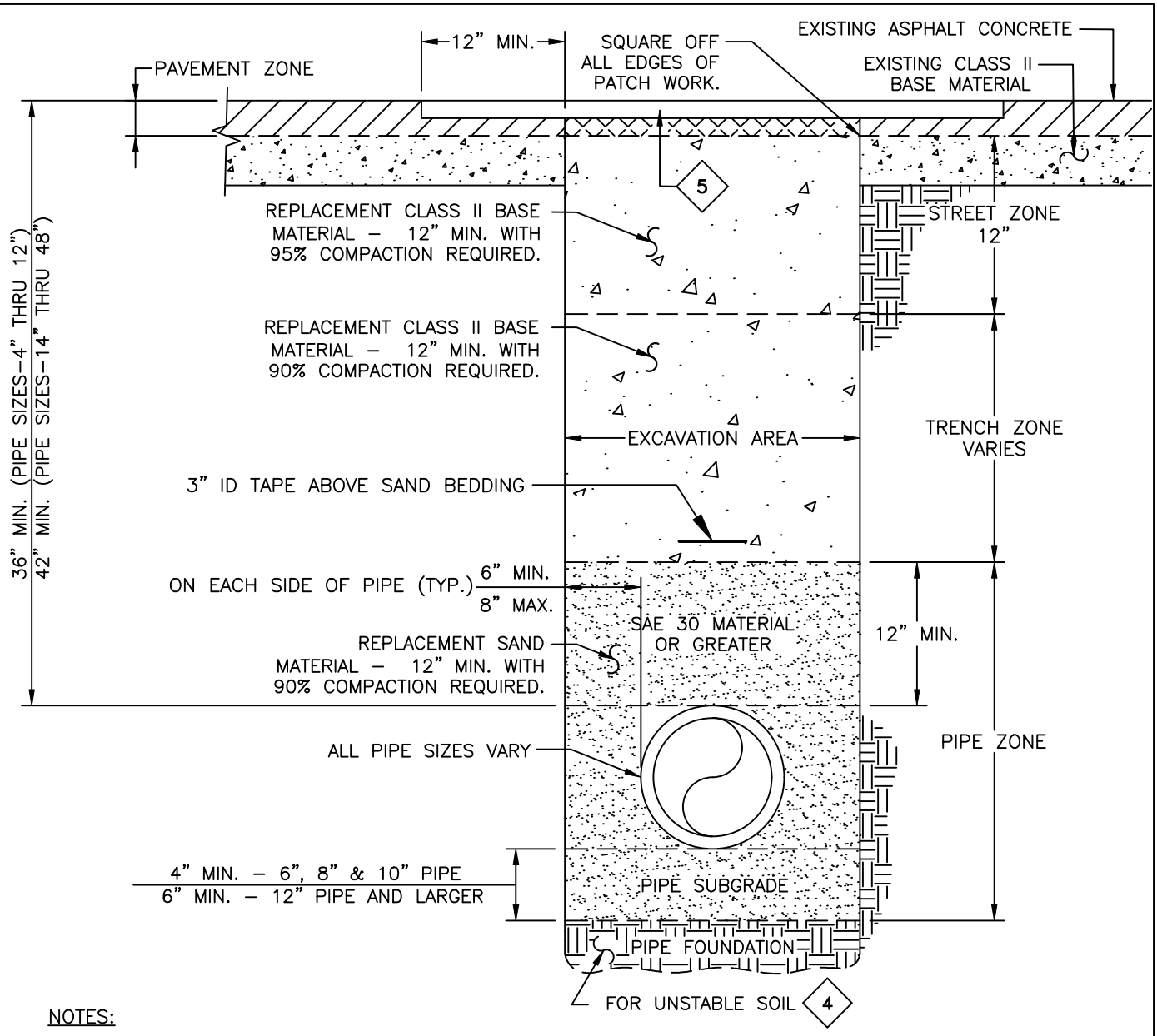

NOTES:

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

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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

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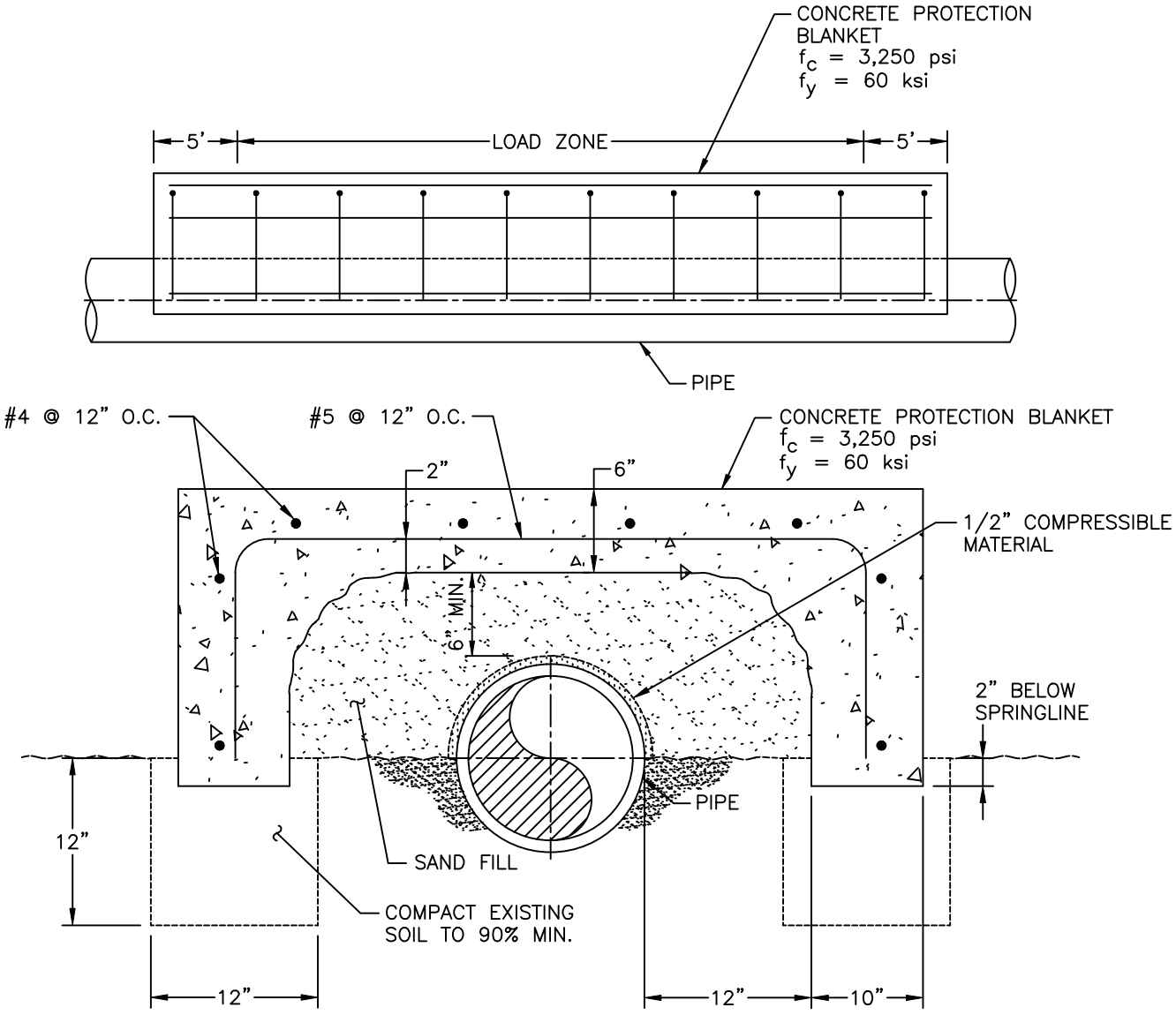

NOTES:

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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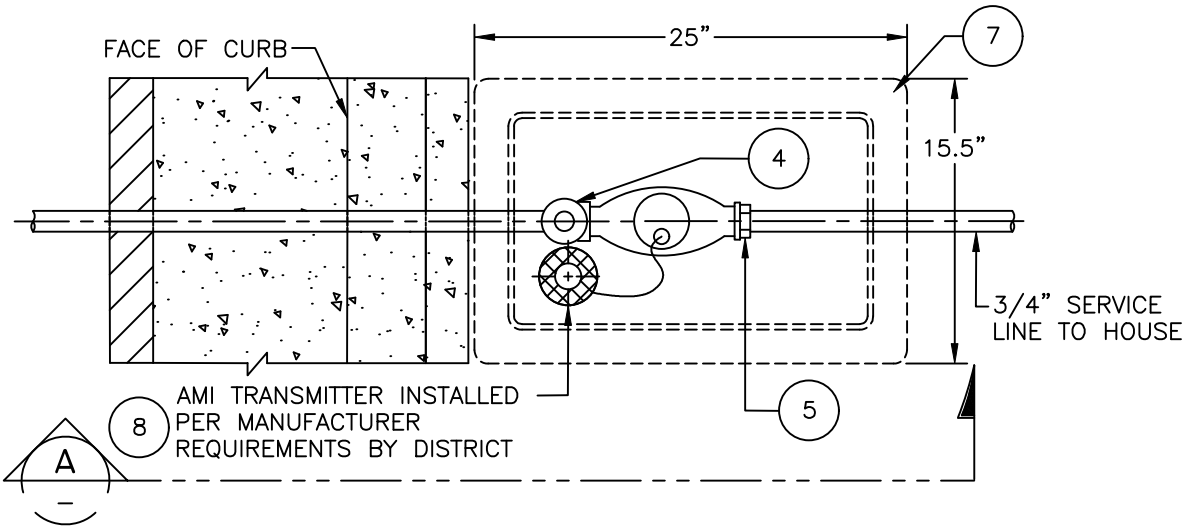

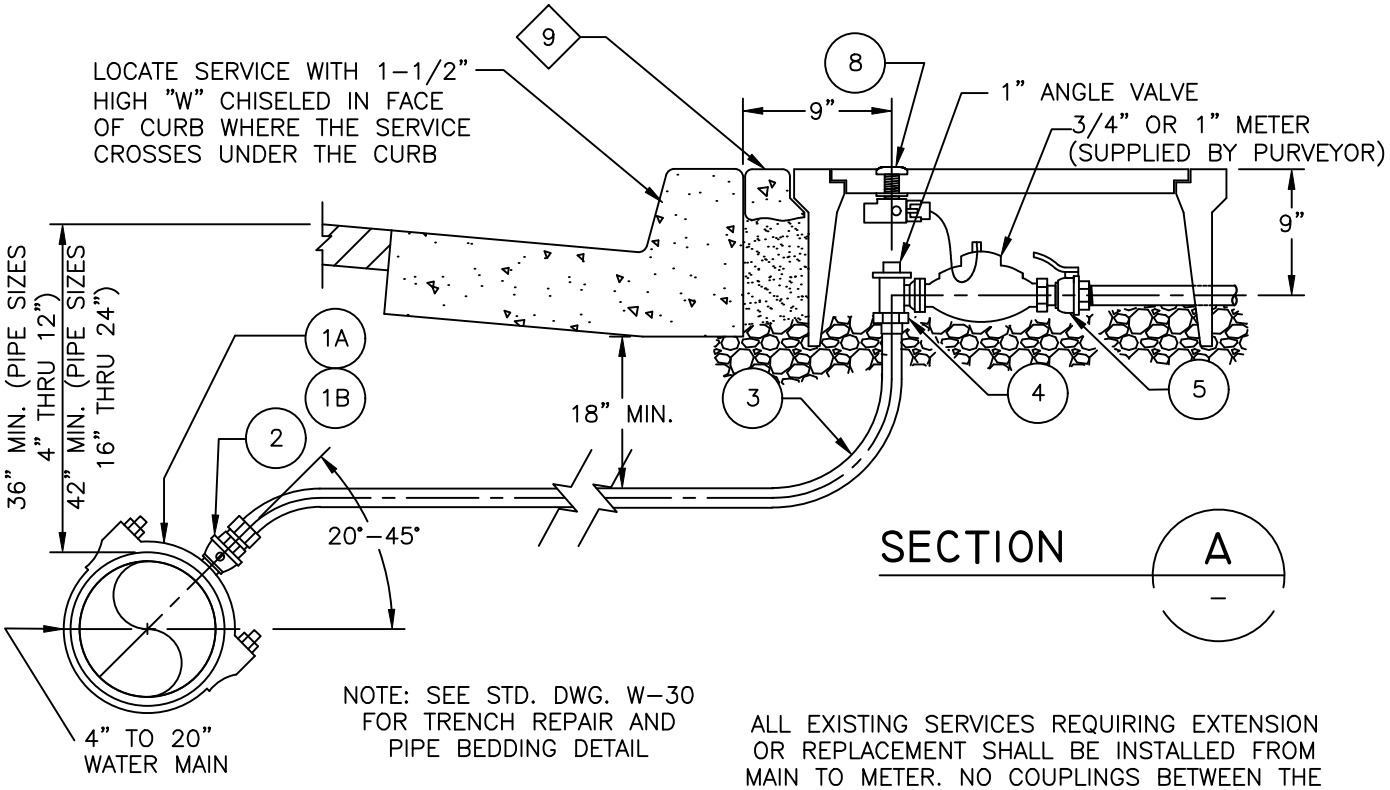

SECTION A

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

ALL EXISTING SERVICES REQUIRING EXTENSION OR REPLACEMENT SHALL BE INSTALLED FROM MAIN TO METER. NO COUPLINGS BETWEEN THE CORP STOP AND THE ANGLE VALVE.

SEE SHEET 2 OF 3 FOR ADDITIONAL NOTES
SEE SHEET 3 OF 3 FOR LIST OF MATERIALS

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

2022

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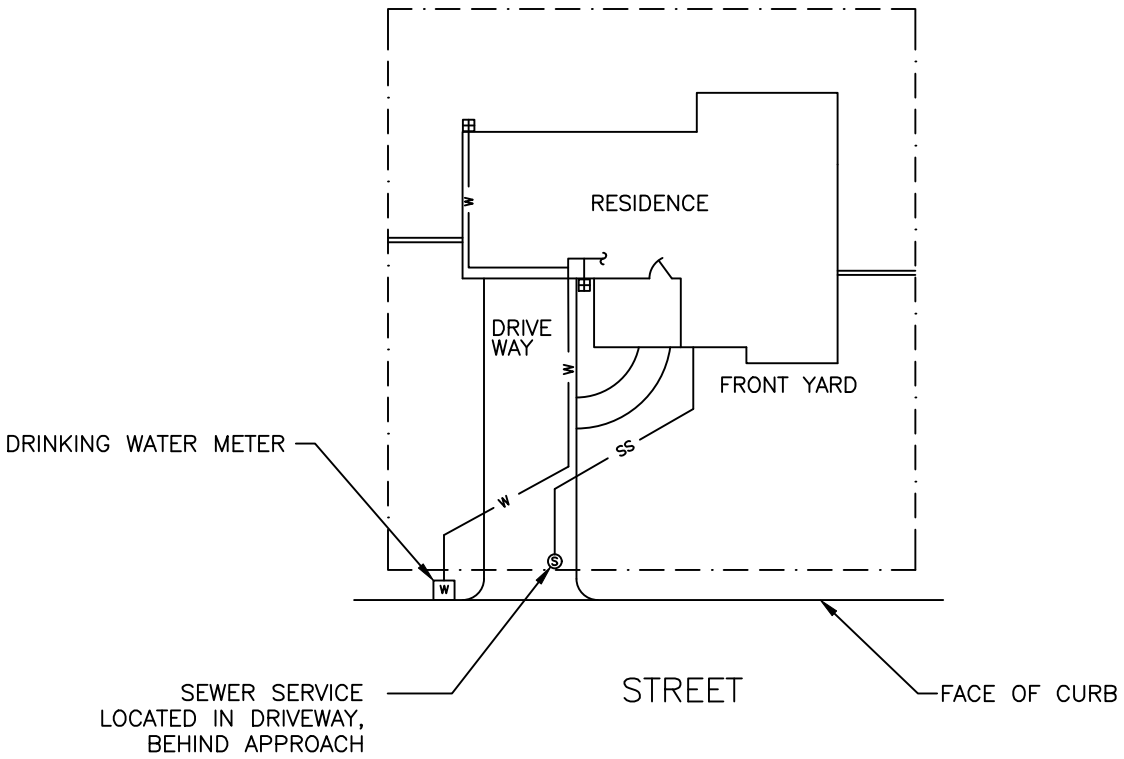
NOTES:

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

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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	¾" OR 1" BRONZE BALL CORPORATION STOP (M.I.P.T. X COMPRESSION)	FORD 1" JONES MUELLER McDONALD	FB1100-4-Q-NL E-1935SG B-25028N 74704BQ
3	¾" OR 1" BLUE PLASTIC COATED COPPER TUBING	MUELLER	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.)	FORD 1" JONES MUELLER McDONALD	BA43-444W-Q-NL 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 EXISITING 3/4 AND 1 INCH DRINKING WATER SERVICE

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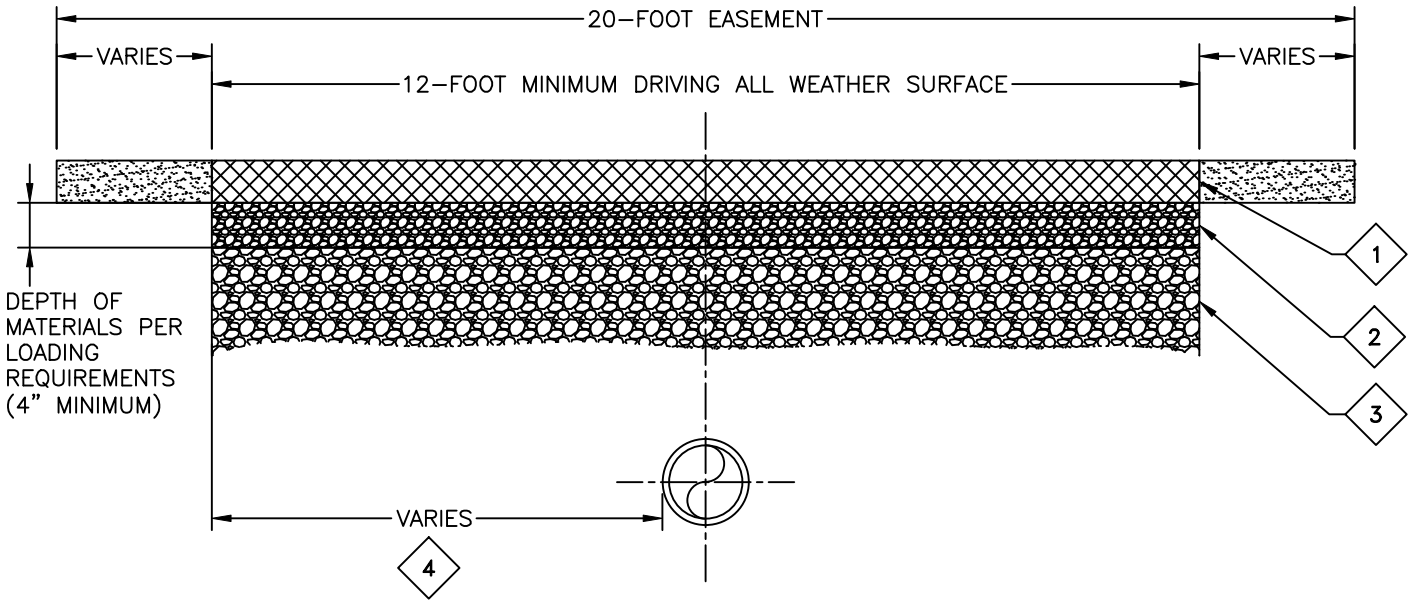

NOTES:

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

2022

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