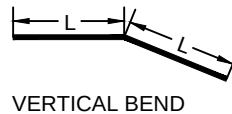
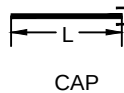
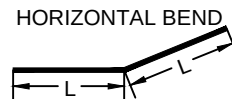
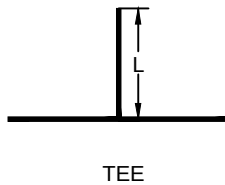
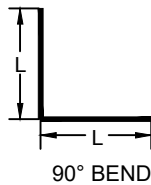


LENGTH OF HORIZONTAL RESTRAINED PIPE

	PIPE SIZE	4"	6"	8"	12"	16"	18"	24"
FITTING TYPE								
TEE/ CROSS		10'	10'	31'	72'	113'	131'	188'
90° BEND		24'	34'	44'	60'	75'	82'	102'
45° BEND		10'	14'	18'	25'	32'	34'	43'
22 1/2° BEND		5'	7'	9'	12'	15'	17'	21'
11 1/4° BEND		5'	5'	5'	6'	8'	9'	11'
CAP		68'	95'	124'	175'	223'	246'	313'



NOTE:

1. ALL FITTINGS SHALL BE RESTRAINED.
2. PIPE SHALL BE PLACED WITH LETTERING FACE UP DURING INSTALL.
3. TRACE WIRE SHALL BE TAPED TO TOP OF PIPE, WITH AN INDIVIDUAL LEG RUN UP EACH VALVE CAN, HYDRANT, SERVICE LINE, AND BLOW-OFF
4. WHEN REDUCERS ARE USED AT FITTINGS, THE LENGTH OF RESTRAINED PIPE SHALL BE BASED ON THE LARGER PIPE SIZE.
5. BASED ON PVC @ 200 PSI S.F. =2, SOIL TYPE GW. TYPE 4 TRENCH.
6. DESIGN ENGINEER MAY SUBMIT CALCULATIONS FOR VARYING CONDITIONS.
7. SERVICE LINES FOR 1" & $\frac{3}{4}$ " METERS SHALL BE 1" PEX-A WITH COLD EXPANSION FITTINGS ONLY.
8. SERVICE LINES FOR 2" METERS SHALL BE 2" (CTS) HDPE PIPE WITH COMPRESSION FITTINGS.



DESCHUTES VALLEY WATER DISTRICT STANDARD DETAIL

GENERAL NOTES

SCALE: NTS

DRAWN BY:
DLC

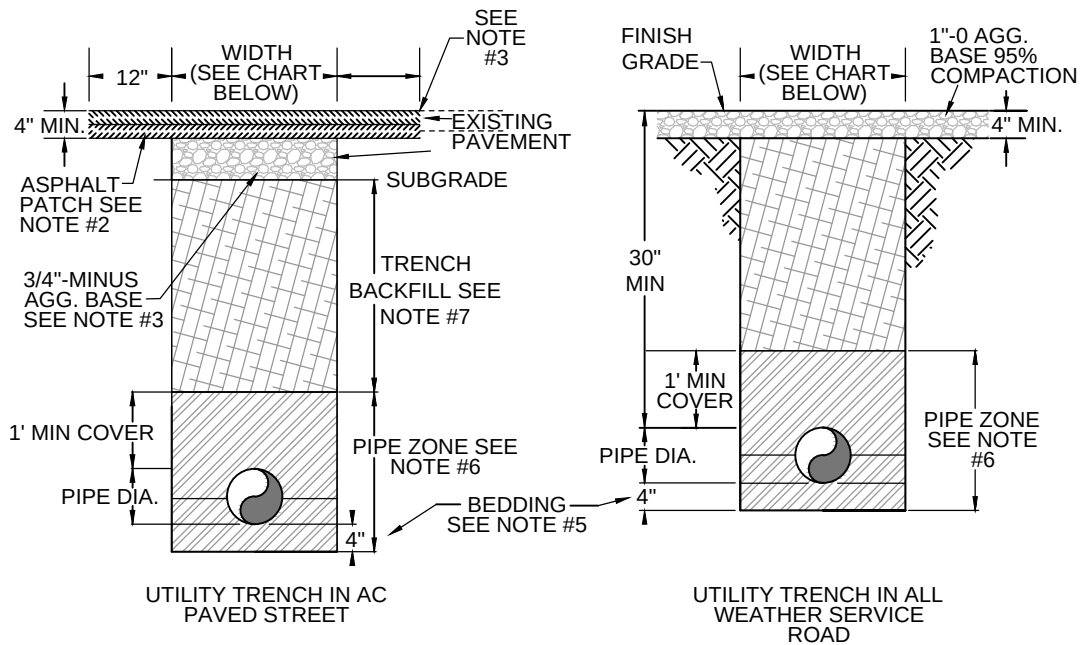
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SPC

APPROVED BY: JSG

REVISION DATE: 10/20/2026

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NO.

1-1



TRENCH WIDTH & DEPTH

PIPE SIZE I.D.	DEPTH MIN.	WIDTH MIN.
LESS THAN 6"	38"	24"
6"	40"	24"
8"	42"	26"
10"	44"	26"
12"	46"	26"
15"	49"	30"
18"	52"	34"

NOTE:

1. SAW CUT JOINTS SHALL BE TACKED AND SAND SEALED.
2. ASPHALT PATCH SECTION SHALL BE NOT LESS THAN 4" THICK, PLACED IN TWO LIFTS NOT TO EXCEED 2".
3. BASE MATERIAL SHALL MEET APPLICABLE JURISDICTIONAL STANDARDS.
4. TRENCHES LESS THAN 24" IN WIDTH UNDER PAVEMENT, CURB AND/OR SIDEWALK AREAS SHALL BE BACKFILLED PER APPLICABLE JURISDICTIONAL STANDARDS. TRENCHES IN HIGH TRAFFIC AREAS MAY BE REQUIRED TO BE BACKFILLED WITH CONTROLLED LOW STRENGTH MATERIAL AS REQUIRED PER APPLICABLE JURISDICTIONAL STANDARDS.
5. PIPE BEDDING SHALL BE 4" MINIMUM DEPTH.
6. PIPE ZONE MATERIAL SHALL BE CLASS "B" BACKFILL , COMPACTED TO 95% OF MAXIMUM DENSITY AASHTO T-99. FOR PIPES LARGER THAN 3" PLACE FIRST LIFT TO PIPE CENTERLINE.
7. CLASS "A" TRENCH BACKFILL MATERIAL IS ALLOWED FROM 2' ABOVE PIPE TO SUBGRADE FOR TRENCHES DEEPER THAN 6 FEET (FINISH GRADE TO TOP OF PIPE).

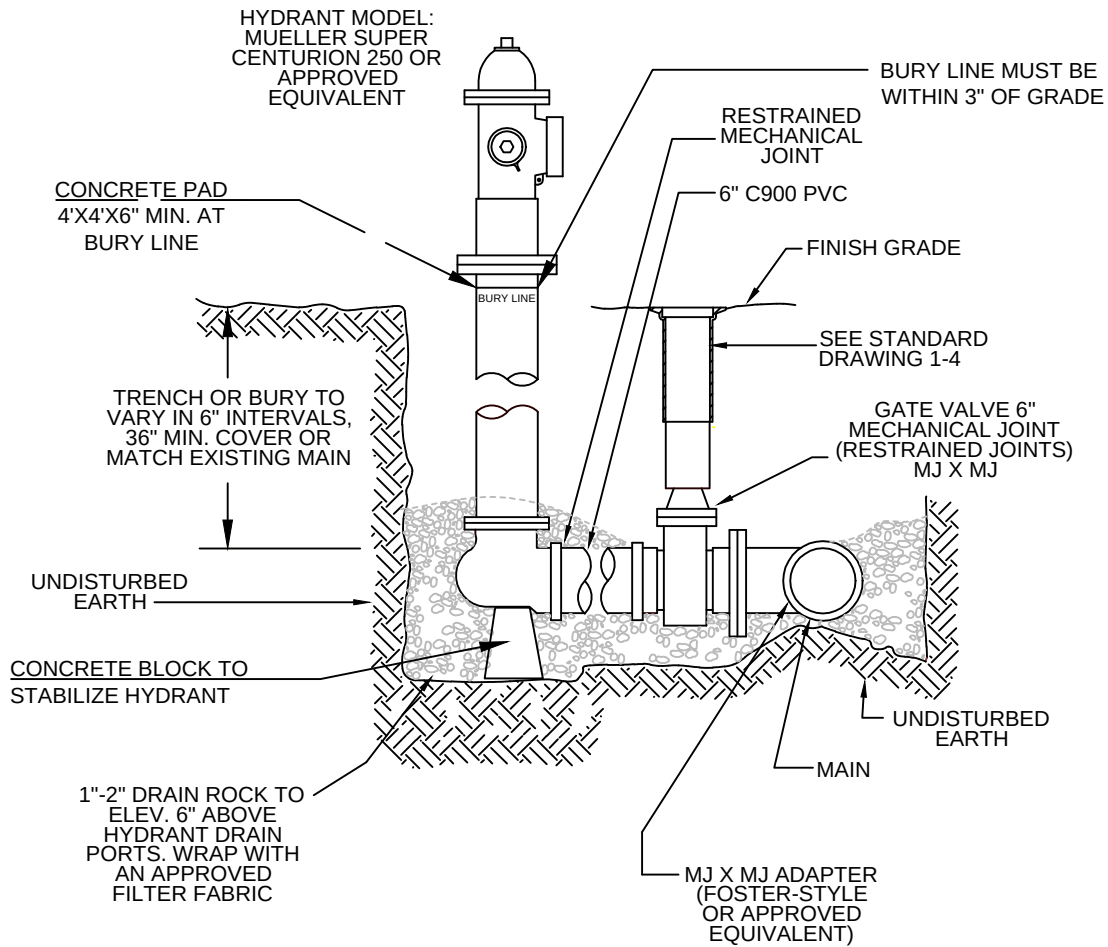


**DESCHUTES VALLEY WATER DISTRICT
STANDARD DETAIL**

UTILITY TRENCH

SCALE: NTS
 DRAWN BY: DLC
 APPROVED BY: JSG
 REVISION DATE: 03/22/2023

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 NO.
 1-2



NOTE:

1. ANY BELL IN HYDRANT SPOOL MUST BE RESTRAINED
2. ALTERNATE THRUST BLOCKING MUST BE APPROVED BY THE DISTRICT



**DESCHUTES VALLEY WATER DISTRICT
STANDARD DETAIL**

**FIRE HYDRANT & GATE VALVE CONTROL
INSTALLATION**

SCALE: NTS

DRAWN BY:
DLC

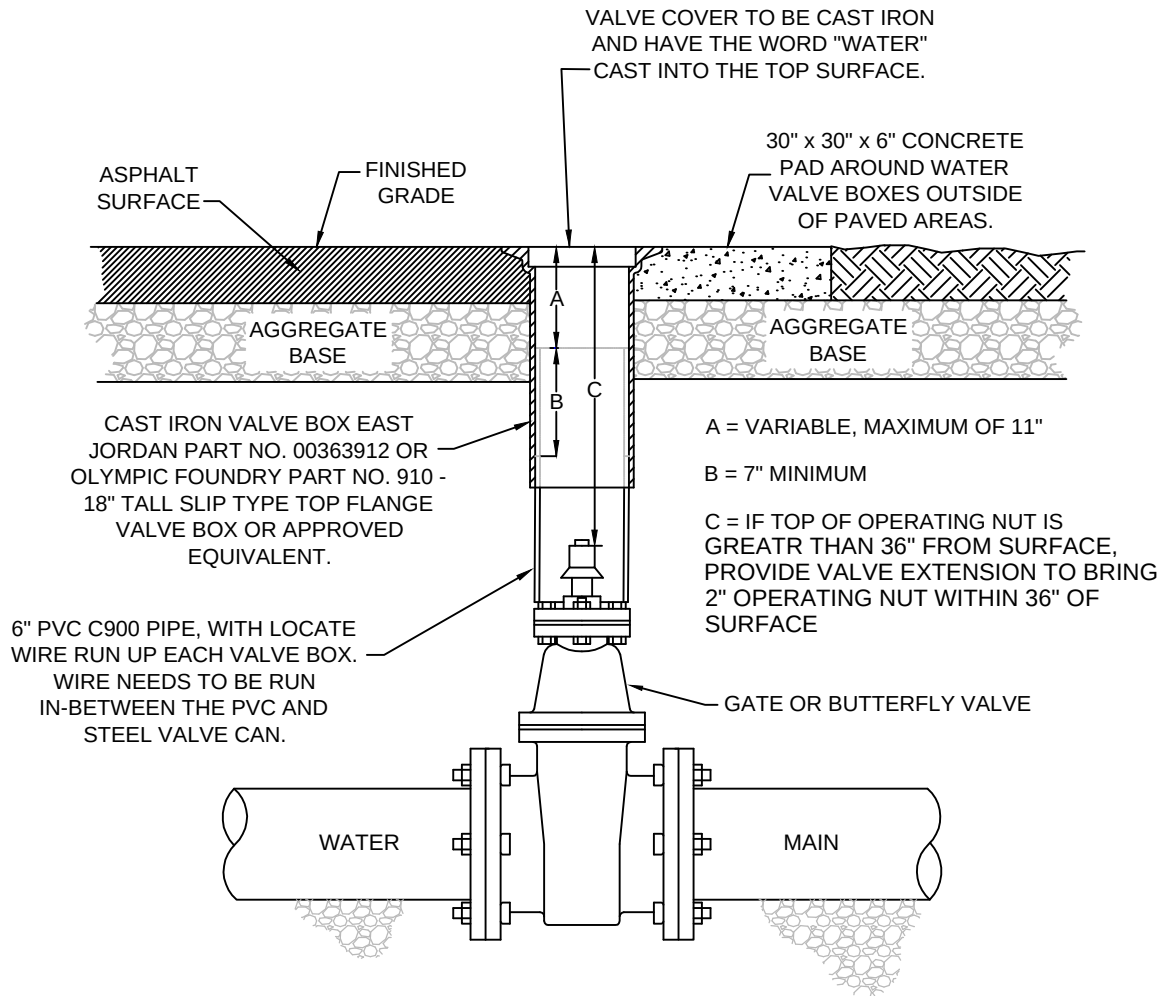
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APPROVED BY: JSG

REVISION DATE: 08/18/2026

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DESCHUTES VALLEY WATER DISTRICT STANDARD DETAIL

TYPICAL VALVE AND BOX INSTALL

SCALE: NTS

DRAWN BY:
DLC

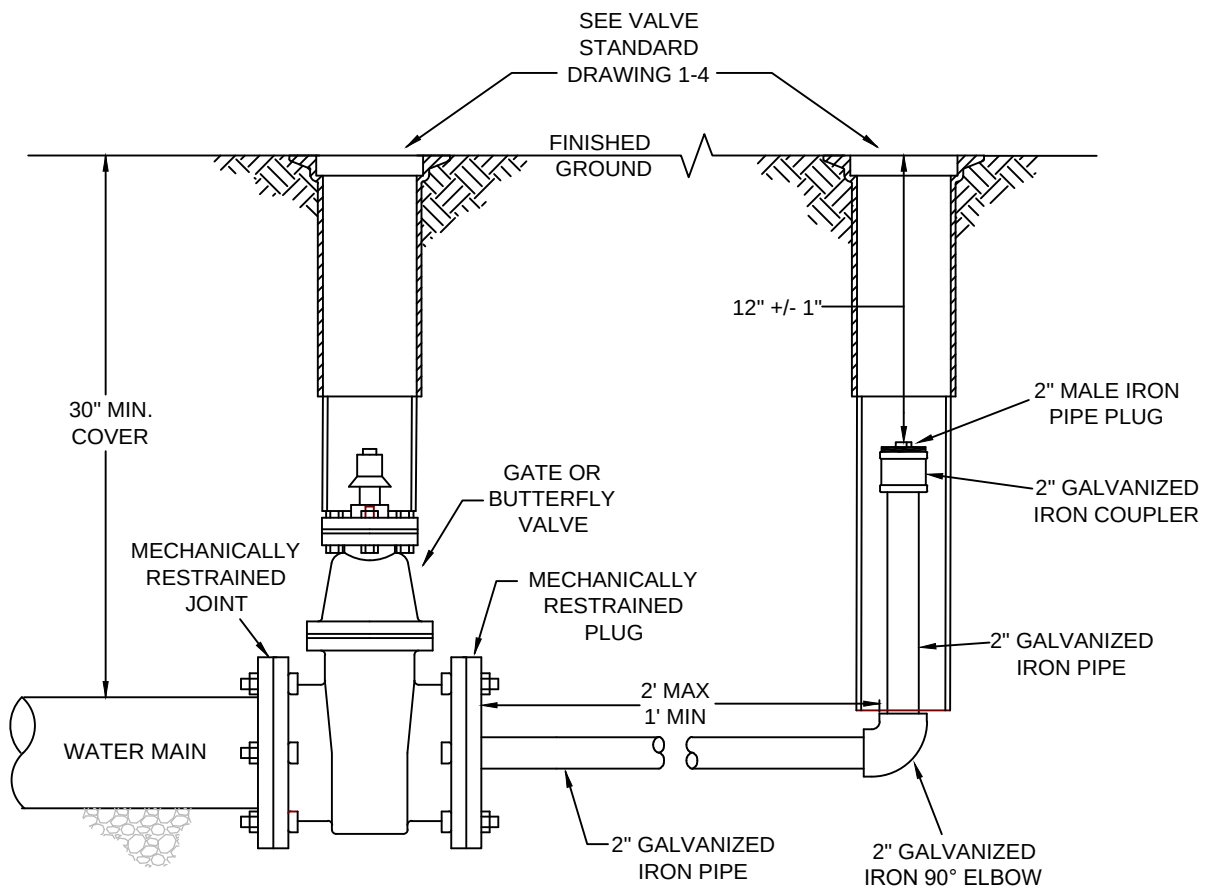
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APPROVED BY: JSG

REVISION DATE: 02/05/2026

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1-4



NOTE:

- IF MAIN IS 6" OR SMALLER USE 2" GALVANIZED FOR BLOW/OFF INSTALLATION.
- IF MAIN IS 8" OR LARGER USE 4" GALVANIZED FOR BLOW OFF INSTALLATION



**DESCHUTES VALLEY WATER DISTRICT
STANDARD DETAIL**

TYPICAL 2" BLOW OFF INSTALLATION

SCALE: NTS

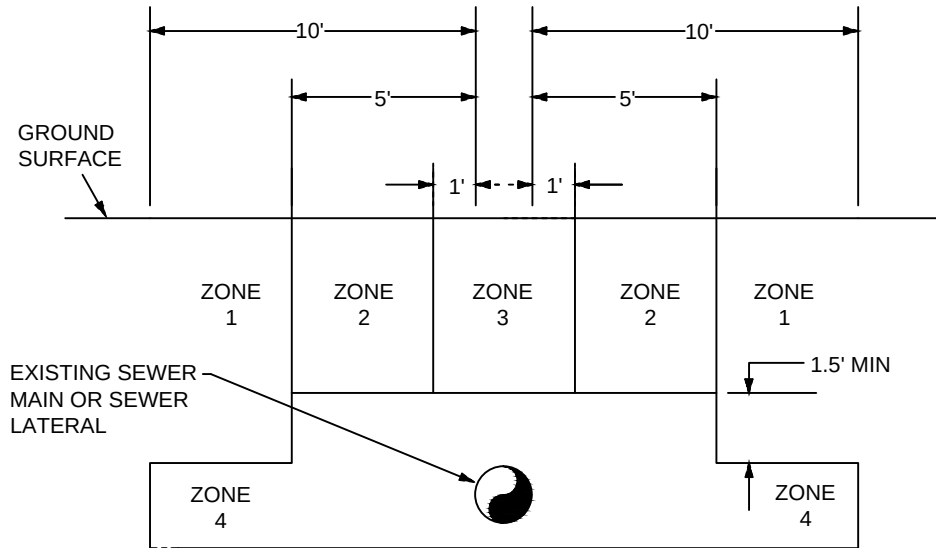
DRAWN BY: DLC

APPROVED BY: JSG

REVISION DATE: 3/22/2023

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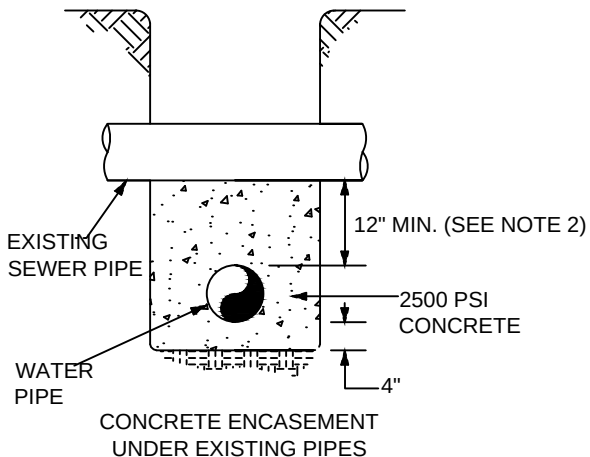
1-5



WATER & SEWER LINE IN PARALLEL CONDITIONS

ZONE	VERTICAL SEPARATION	HORIZONTAL SEPARATION	RESTRICTIONS
1	WATER LINE HIGHER THAN SEWER	5'	ONLY CROSSING RESTRICTIONS APPLY
1	WATER LINE LEVEL OR LOWER THAN SEWER	10'	ONLY CROSSING RESTRICTIONS APPLY
2	WATER LINE 1.5' HIGHER THAN SEWER	GREATER THAN 1', LESS THAN 5'	CASE BY CASE DETERMINATION
3	WATER LINE 1.5' HIGHER THAN SEWER	LESS THAN 1'	PARALLEL WATER LINE PROHIBITED
4	WATER LINE LESS THAN 1.5' ABOVE SEWER	LESS THAN 5'	PARALLEL WATER LINE PROHIBITED
4	WATER LINE LEVEL OR LOWER THAN SEWER	LESS THAN 10'	PARALLEL WATER LINE PROHIBITED

NOTE:



1. WATER & SEWER LINE CROSSINGS SHALL COMPLY WITH DESIGN STANDARDS, 11C. SEWER OR O.A.R. 333-61-050 FOR SEPARATION AND PIPE MATERIAL REQUIREMENTS.
2. SEPARATION LESS THAN 12" FOR WATER & SEWER LINE CROSSINGS MUST BE APPROVED BY THE CITY ENGINEER.
3. CONCRETE ENCASUREMENT TO BE USED IN CASES WHERE A CITY WATER MAIN CROSSES UNDER AN EXISTING SEWER MAIN, WITH CITY APPROVAL. MINIMUM ENCASUREMENT LENGTH SHALL BE 3' EACH SIDE.
4. UNDERGROUND UTILITIES SHALL NOT BE LOCATED CLOSER THAN 10' HORIZONTALLY FROM ANY WATER AND SEWER MAIN. UNDER SPECIAL PERMISSION FROM THE DISTRICT ENGINEER, SEPARATION MAY BE REDUCED TO 5'.



DESCHUTES VALLEY WATER DISTRICT STANDARD DETAIL

WATER LINE AND SEWER LINE SEPARATION

SCALE: NTS

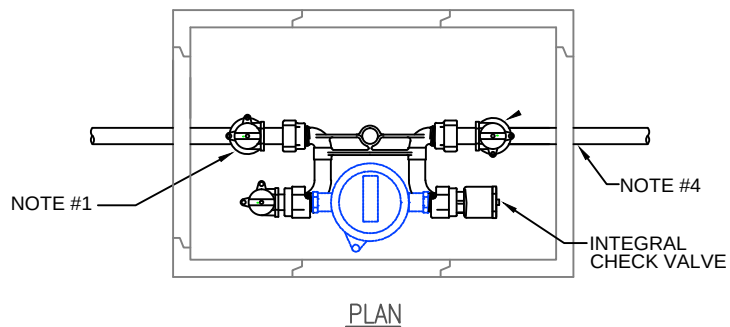
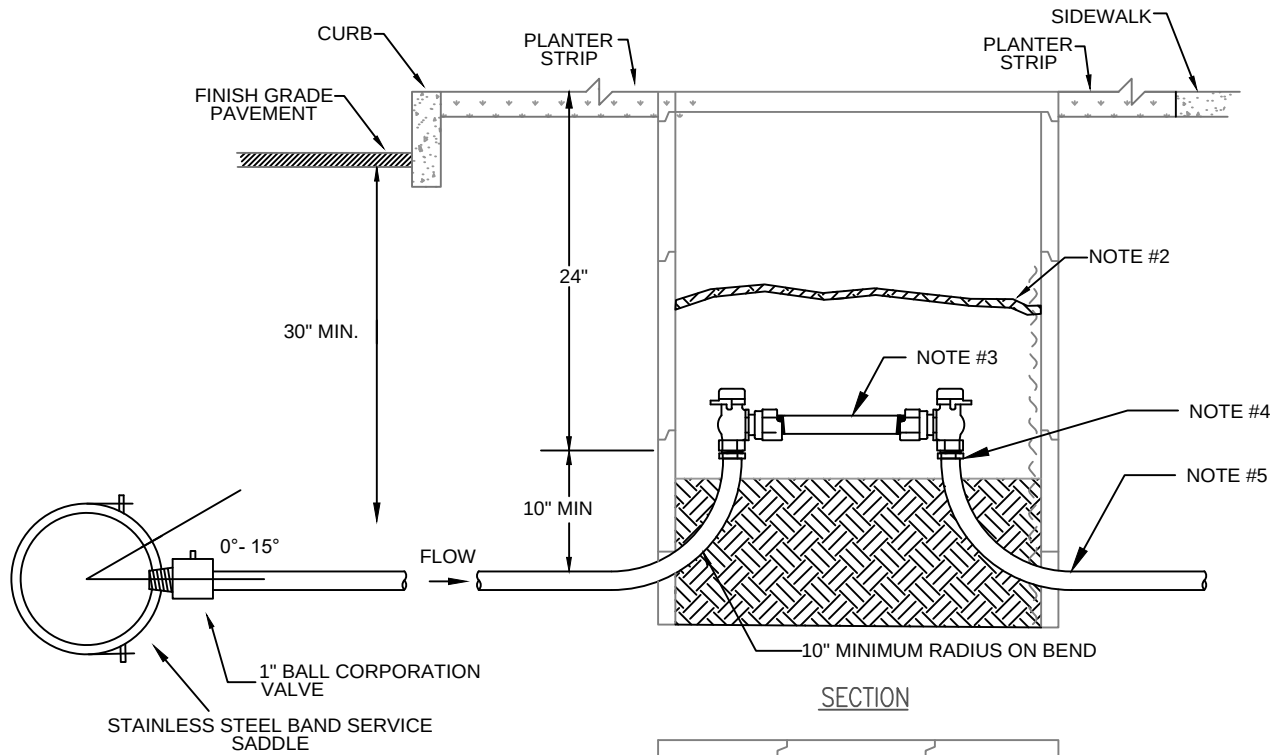
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APPROVED BY: JSG

REVISION DATE: 3/22/2023

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1-6



*OR APPROVED EQUIVALENT

METER BOXES		
METER SIZE	BOX TYPE	BOX HEIGHT
3/4"	FIBERLYTE FL12	2 BOX SECTIONS RERQUIRED
1"	OLDCASTLE PC1730-12	2 BOX SECTIONS RERQUIRED

NOTE:

1. ANGLE METER VALVE 1" X 3/4" (FEMALE PIPE THREAD) X 1" (PEX ADAPTER)
2. 1/2" CROSSLINK CLOSED CELL NATURAL T20 INSULATION, CUT TO FIT METER BOX - ANTENNA MUST STAY EXPOSED
3. 7 1/2" JUMPER TO BE INSTALLED BY CONTRACTOR FOR 3/4" METER, OR A 10 3/4" JUMPER FOR 1" METER. DVWD WILL INSTALL METER SETTER AND METER AT TIME OF SERVICE ACTIVATION
4. CUSTOMER SIDE OF METER. CUSTOMER RESPONSIBLE FOR MAINTENANCE & REPAIR AFTER VALVE ON HOUSE SIDE OF METER
5. MINIMUM 5' PEX TAIL OUT OF BOX FOR CUSTOMER CONNECTION
6. RESIDENTIAL METER SUPPLIED & INSTALLED BY DVWD. 5/8" X 3/4"
7. 1" METERS WILL USE SAME LAYOUT FOR INSTALL



**DESCHUTES VALLEY WATER DISTRICT
STANDARD DETAIL**

3/4" & 1" METER DETAIL

SCALE: NTS

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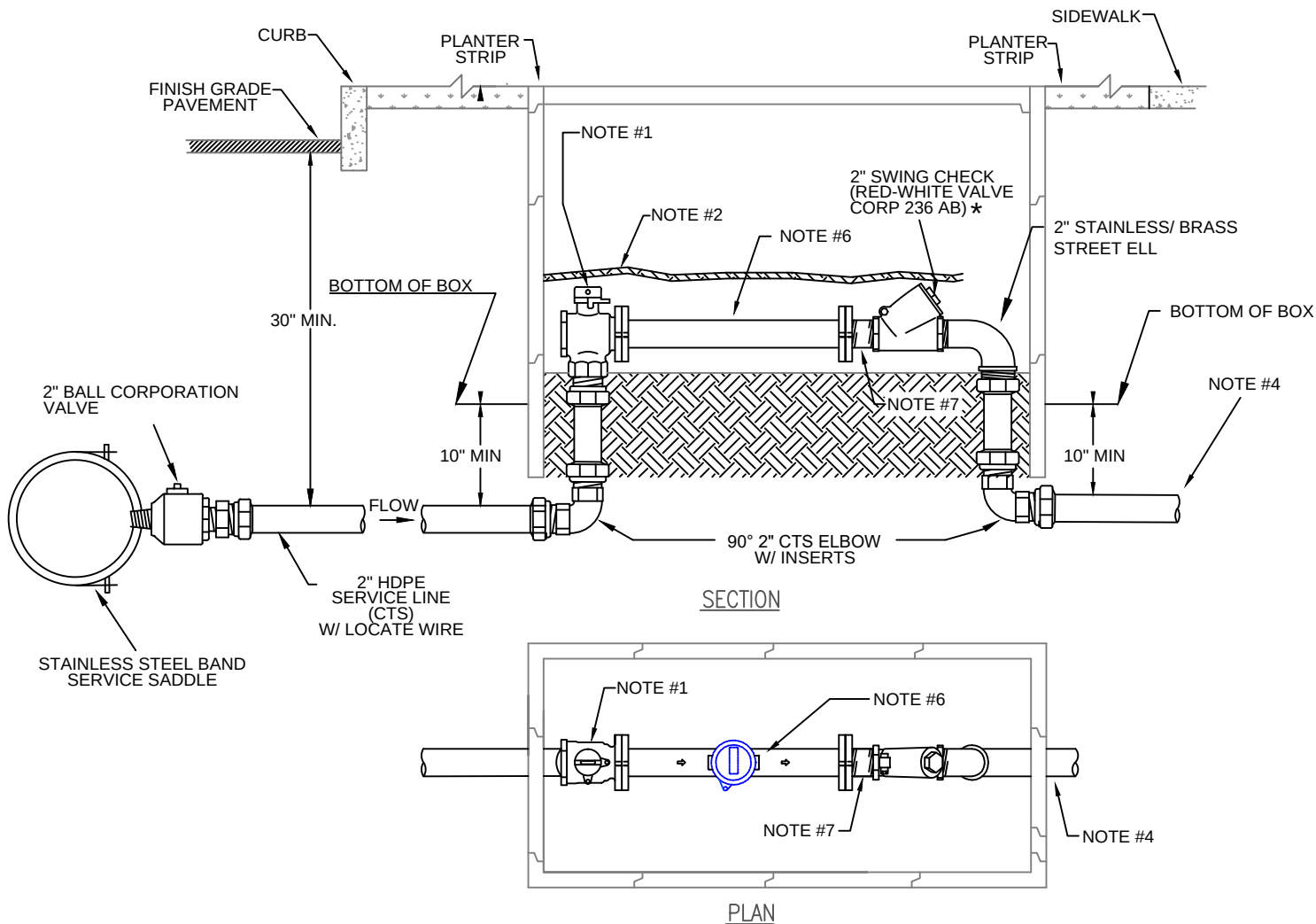
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APPROVED BY: JSG

REVISION DATE: 08/18/2026

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1-7



2" BOX TYPE		
METER SIZE	BOX PART NUMBER	BOX SECTIONS
2"	QUAZITE PT1730BA18	1 SECTION
OVER 2"	*TO BE APPROVED BY DVWD	*TO BE APPROVED BY DVWD

NOTE:

1. 2" ANGLE METER STOP W/ 2" FEMALE THREAD/110 COMPRESSION FITTING X FLANGE
2. 1/2" CROSSLINK CLOSED CELL NATURAL T20 INSULATION, CUT TO FIT METER BOX - ANTENNA MUST STAY EXPOSED
3. IF SIDEWALK IS CURB-TIGHT THEN BOX CAN BE SET ON CUSTOMER SIDE
4. CUSTOMER SIDE OF METER. CUSTOMER RESPONSIBLE FOR MAINTENANCE & REPAIR AFTER 2" SWING CHECK. MINIMUM 1' OF 2" (CTS) HDPE OUT OF METER BOX
5. LOCATE WIRE TO BE TAPED TO SERVICE LINE & RAN INTO BOX, W/ ENOUGH SLACK TO REACH MIN. 12" OUT OF BOX
6. CONTRACTOR TO INSTALL 17 1/4" JUMPER. RESIDENTIAL METER SUPPLIED & INSTALLED BY DVWD WHEN SERVICE IS ACTIVATED.
7. 2" STAINLESS STEEL/ COPPER STUB (2" CLOSE NIPPLE TYPICALLY)



**DESCHUTES VALLEY WATER DISTRICT
STANDARD DETAIL**

2" METER DETAIL

SCALE: NTS

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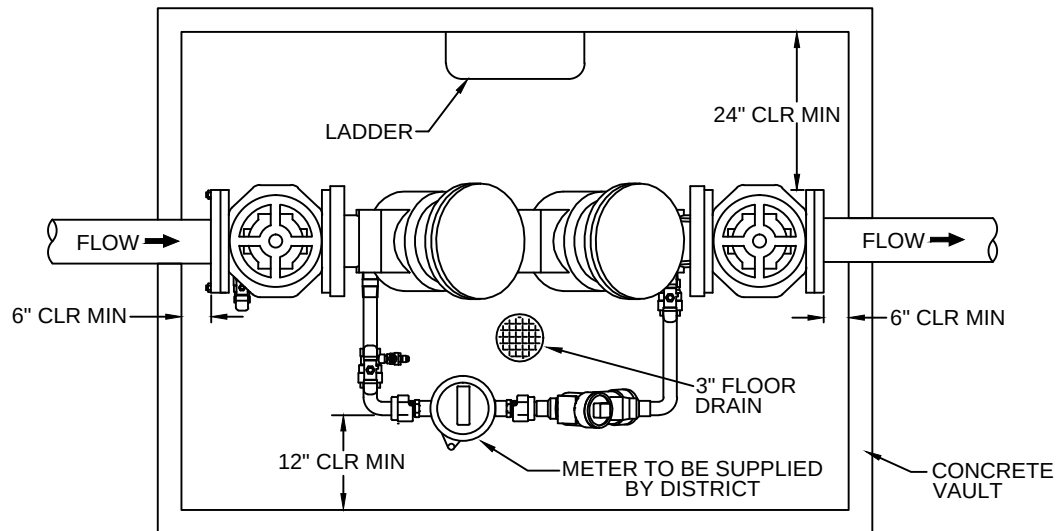
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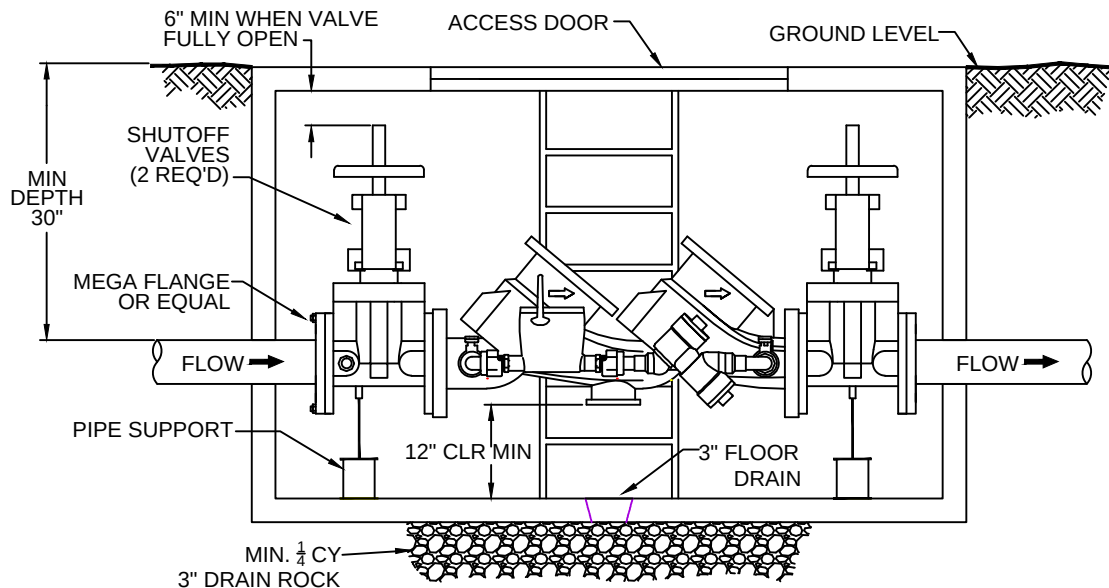
REVISION DATE: 10/20/2026

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1-7-2



PLAN



SECTION

VAULT MODEL

PIPE SIZE	UTILITY VAULT OR EQUAL	BILCO DOOR OR EQUAL
3	660-WA	J-5AL
4	577-WA	J-5AL
6	676-WA	J-5AL
8	687-WA	JD-3AL
10	5106-LA	JD-3AL

NOTES

1. ALL DIMENSIONS ARE MINIMUM REQUIREMENTS.
2. CONTRACTOR TO SEAL ALL OPENINGS IN VAULT WITH NON-SHRINK GROUT PRIOR TO BACKFILLING.
3. VAULT AND LID SHALL BE TRAFFIC RATED.
4. RESTRAIN PIPE 20' BEFORE VAULT.
5. LOCATED OUTSIDE PUE AS CLOSE TO PROPERTY LINE AS POSSIBLE.



**DESCHUTES VALLEY WATER DISTRICT
STANDARD DETAIL**

FIRE SERVICE VAULT (DCDA)

SCALE: NTS

DRAWN BY: DLC

APPROVED BY: JSG

REVISION DATE: 6/26/2024

DRAWING
NO.

1-8