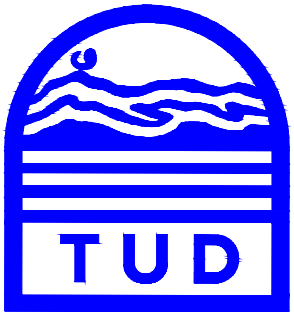

TUOLUMNE UTILITIES DISTRICT

18885 NUGGET BOULEVARD
SONORA, CA 95370
(209) 532-5536

STANDARD DRAWINGS

THESE DRAWINGS ARE TO BE REFERENCED ON CONSTRUCTION PLANS SUBMITTED FOR DISTRICT REVIEW. THE CURRENT VERSION OF THESE STANDARD DRAWINGS CAN BE FOUND ON THE DISTRICT'S WEBSITE AT :
https://tudwater.com/development-services/other-services/

For information regarding these Standard Drawings contact
Antonio Ramirez
(209) 532-5536 ext. 511
aramirez@tudwater.com

REV. 10-16-2026

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TUOLUMNE UTILITIES DISTRICT

CONSTRUCTION DRAWING INDEX - ALPHA

REV. 10-16-26

STD. DWG. NO.

100A

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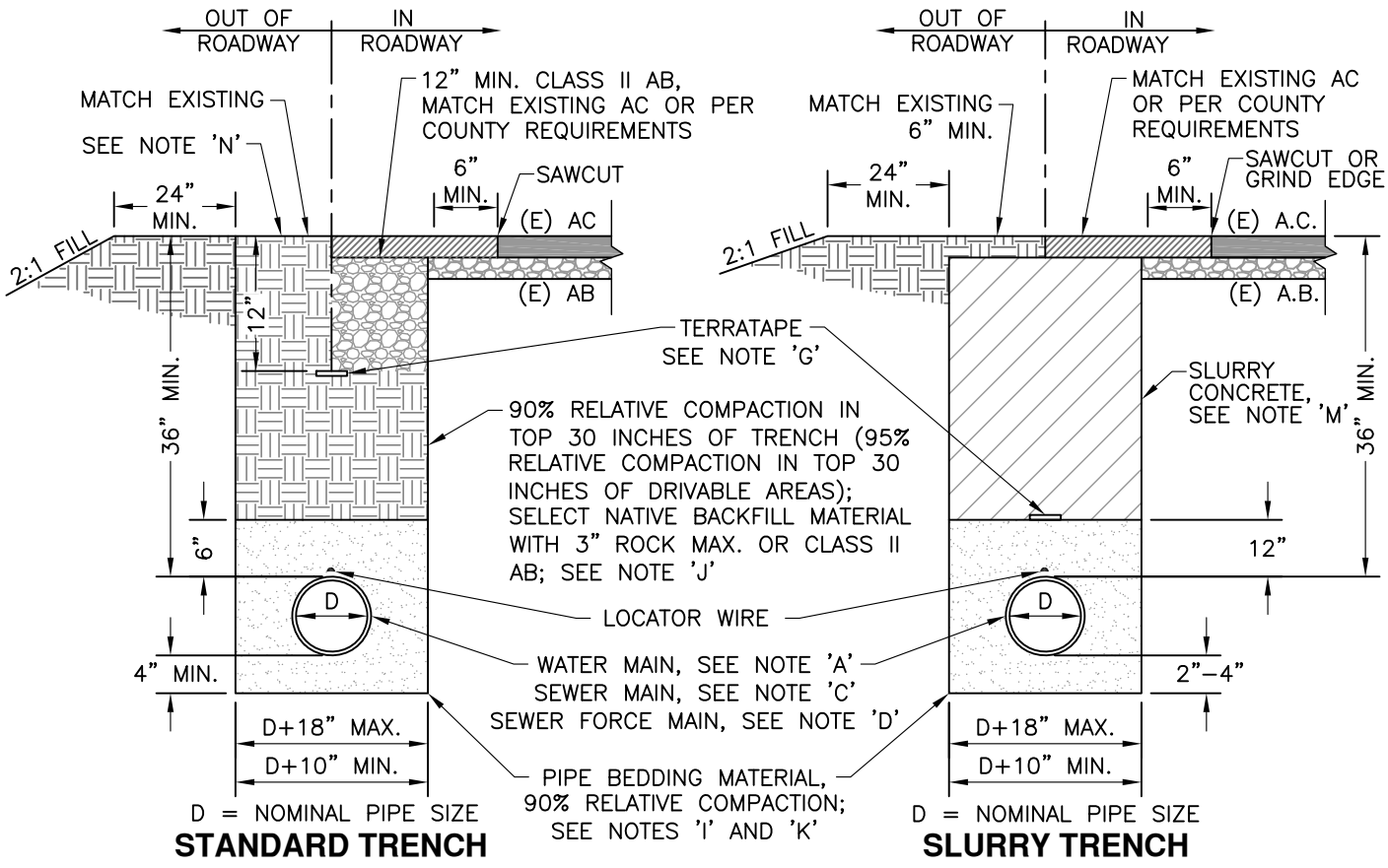
1. All new work requires prior approval from Tuolumne Utilities District (TUD) and inspection by TUD during construction. All work shall comply with current TUD standards, drawings, and specifications.
2. A reasonable effort has been made to locate and delineate all known underground utilities. The Project Engineer and TUD can assume no responsibility for the completeness or accuracy of the delineation of these utilities nor for the existence of other buried objects or utilities which may be encountered but which are not shown on these plans. Contractor shall be responsible for determining the exact locations of utilities shown and any that may exist and are not shown prior to beginning any work. Contractor shall expose all underground utilities that are to be connected to or that are in the path of the proposed improvements prior to beginning work.
3. Contractor shall contact USA North at 811 or 1-800-227-2600, two full working days prior to any excavation and shall notify the following parties by the time specified prior to beginning work within their jurisdictions:

Tuolumne Utilities District Engineering Dept.	5 Days
Tuolumne County Department of Public Works	48 Hours
Home owners affected by construction	24 Hours

4. Contractor shall assume sole and complete responsibility for job site conditions during project construction including safety of all persons and property. This requirement shall apply continuously and not be limited to normal working hours. Contractor shall defend, indemnify and hold TUD and the Project Engineer harmless from any and all liability, real or alleged, in connection with the performance of work on this project, except for liability arising from the sole negligence of TUD or Project Engineer.
5. Contractor shall excavate in such a manner as to avoid any damage to existing structures and trees if possible. Any damaged structures shall be restored or replaced in a manner acceptable to TUD's District Engineer. Reduced cover over existing pipelines due to Contractor's activities will require reconstruction or protection satisfactory to District Engineer at sole cost of Contractor.
6. Trenching and paving within any County right-of-way shall conform to the requirements of the Tuolumne County Department of Public Works.
7. Contractor shall perform work with a minimal disruption of services and shall notify TUD 48 hours in advance of beginning work in order to give water customers 24 hours notice of any shut-offs.
8. Contractor shall provide Project Engineer with "As-Built" notes including measurements to all facilities from at least two permanent objects and all deviations from original plans. Project Engineer shall provide "As-Built" plans to TUD prior to project acceptance.
9. All pipeline sections shall be pressure tested to TUD specifications and water mains shall be disinfected to TUD specifications prior to project acceptance.
10. Sewer and water mains shall not be installed in the same trench with electrical (primary or secondary), CATV, telephone, gas or other utilities. All other utilities shall cross underneath sewer and water mains. All projects with underground gas pipelines shall have locator wire attached to the pipes and pulled into valve boxes, and shall have locating tape labeled "[type of] GAS BURIED BELOW."
11. Contractor shall conform with all Federal, State, and Local safety regulations. Specifically, attention is directed to trenching, drilling and blasting, confined space, and traffic control. Contractor shall conform with all requirements of Encroachment Permits issued to TUD by Cal-Trans and the Tuolumne County Department of Public Works.
12. Compaction tests shall be required for trenches, except slurry trenches, and shall be performed by a qualified, licensed testing laboratory. Compaction characteristics for materials shall be based on California Test Method (CTM) 216. Field tests for compaction density shall be in accordance with ASTM D1556 or ASTM D2922. Contractor shall cooperate with Engineer during field testing by leveling small test areas as directed. Contractor shall be responsible for all costs for compaction tests ordered by Engineer.
13. Contractor shall notify property owners when working within easements or trenching across driveways and shall provide evidence of such notification to TUD.
14. Per Section 64591 of the California Waterworks Standards, all items in contact with potable water shall be certified as meeting the latest specifications of NSF61/600.



LOCATOR WIRE

1. WIRE TO BE #12 AWG INSULATED SINGLE STRAND COPPER, PAIGE/TRACER 600V OR UF LISTED.
2. WIRE TO BE CONTINUOUS BETWEEN VALVE BOXES.
3. STRIP INSULATION FROM WIRE INSIDE VALVE BOX AND AT ALL SPLICES.
4. BARE WIRE IS NOT TO TOUCH VALVES.
5. WIRE TO BE TAPED TO TOP OF PIPE AT 5 FT. MAX. INTERVALS.
6. USE 3M DBR/Y–6 SPLICE KIT FOR ALL SPLICES.
7. CONTINUITY TEST SHALL BE COMPLETED BY THE DISTRICT PRIOR TO ACCEPTANCE OF FACILITIES.

A. FOR WATER MAINS 4" DIA. OR GREATER, PIPE SHALL BE AWWA C900 PVC PIPE; CLASS RATING SHALL BE APPROVED BY T.U.D. PRIOR TO INSTALLATION.

B. WATER MAINS SHALL BE PRESSURE TESTED. PRESSURE TEST SHALL NOT BE LESS THAN 150 PSI AT THE HIGHEST ELEVATION OF THE TEST SECTION AND SHALL BE 200 PSI AT THE LOWEST ELEVATION OF THE TEST SECTION.

C. FOR GRAVITY SEWER MAINS 4"–15" DIA., PIPE SHALL BE PVC SDR35 AND SHALL MEET ASTM D3034 STANDARDS. MAINS 18"–24" DIA., PIPE SHALL MEET ASTM F679 STANDARDS. RUBBER SEALANT RINGS SHALL MEET ASTM D3212 REQUIREMENTS. CAMERA INSPECTION BY T.U.D. STAFF (OR EQUAL) SHALL BE REQUIRED FOR ALL SEWER LINES. BELLS SHALL BE INSTALLED FACING UPSTREAM.

D. FOR SEWER FORCE MAINS 4" DIA. OR GREATER, PIPE SHALL BE AWWA C900–DR18 PVC PIPE; HIGHER CLASS RATING MAY BE REQUIRED BY T.U.D. MAINS LESS THAN 4" DIA. ARE NOT PERMITTED.

E. PRIOR TO INSTALLING GRAVITY SEWER PIPE, BOTTOM OF TRENCH SHALL BE COMPACTED AND INSPECTED.

F. GRAVITY SEWER ELBOWS SHALL BE SDR35 PVC LONG SWEEP BEND. OTHER ELBOWS MAY BE USED WITH PRIOR DISTRICT APPROVAL AND SHALL NOT EXCEED 22–1/2°. ALL OTHER SEWER FITTINGS SHALL BE CAST IRON.

G. TERRATAPE (3" WIDE LOCATING TAPE) TO BE LABELED "BURIED WATERLINE [SEWER LINE] BELOW – TUD". (AVAILABLE FOR PURCHASE AT THE T.U.D. OFFICE).

H. ALL TRENCHES OVER 5 FT. DEEP SHALL BE SLOPED, SHORED, BRACED, OR OTHERWISE SUPPORTED IN ACCORDANCE WITH CAL–OSHA REQUIREMENTS. T.U.D. ASSUMES NO RESPONSIBILITY FOR THE DESIGN OF SUCH SUPPORT SYSTEMS. IN PAVED AREAS TRENCHES SHALL NOT BE SIDE–SLOPED.

I. RELATIVE COMPACTION TO BE 90% OR GREATER IN THE HAUNCH AREA OF THE PIPE FROM THE SPRINGLINE TO THE BOTTOM OF THE PIPE.

J. ALL NATIVE MATERIAL REQUIRES DISTRICT APPROVAL PRIOR TO USE. CONTRACTOR SHALL USE OTHER APPROVED MATERIAL IF NEEDED TO MEET COMPACTION REQUIREMENTS.

K. USE TYPE "A" MATERIAL (SEE T.U.D. SPECIFICATIONS) UNLESS OTHERWISE APPROVED BY DISTRICT.

L. ALL IMPORTED MATERIAL FOR AREAS UNDER T.U.D. JURISDICTION SHALL BE ASBESTOS FREE. ALL IMPORTED MATERIAL FOR AREAS UNDER COUNTY JURISDICTION SHALL COMPLY WITH COUNTY AIR POLLUTION CONTROL REQUIREMENTS REGARDING ASBESTOS.

M. SLURRY IS ACCEPTED BY THE DISTRICT IF APPROVED BY THE TUOLUMNE COUNTY DIRECTOR OF PUBLIC WORKS.

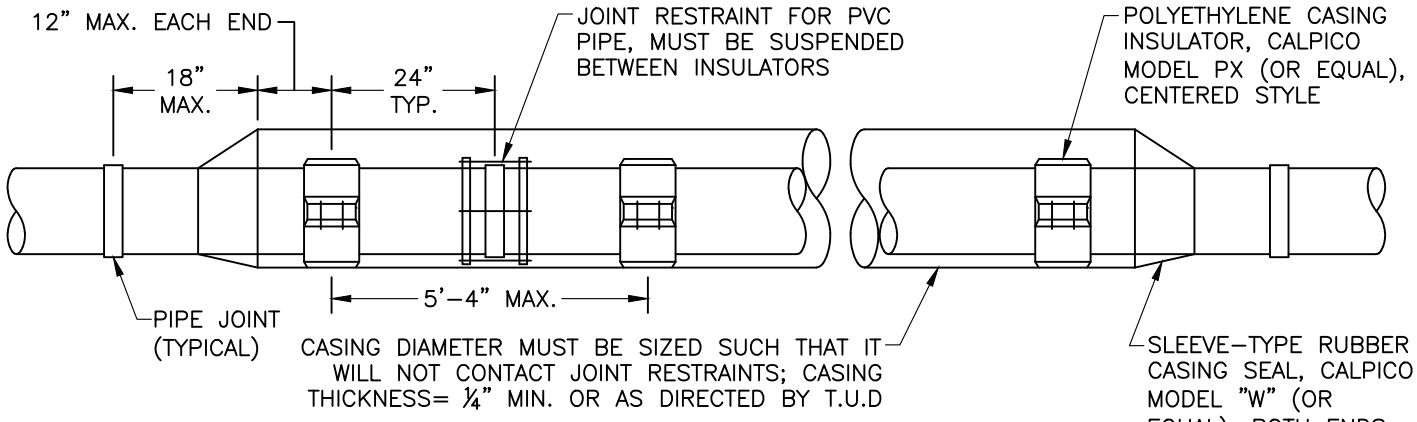
N. NATIVE BACKFILL WITHIN 3 FEET OF THE ROADWAY IS ACCEPTABLE IF APPROVED BY THE TUOLUMNE COUNTY DIRECTOR OF PUBLIC WORKS.

O. WHEN ROCK IS ENCOUNTERED, CLEARANCE BETWEEN ROCK AND WATER/SEWER FACILITIES SHALL BE 8 INCHES.

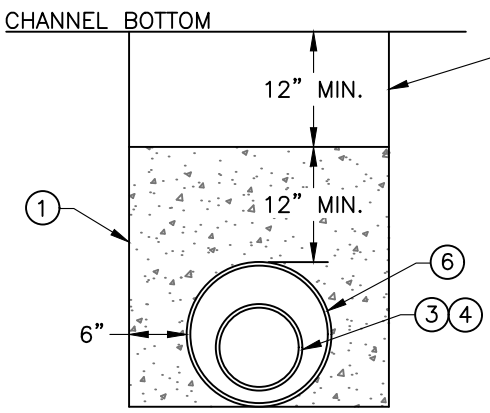
TUOLUMNE UTILITIES DISTRICT
STANDARD TRENCH FOR WATER AND SEWER

REV. 10–16–26

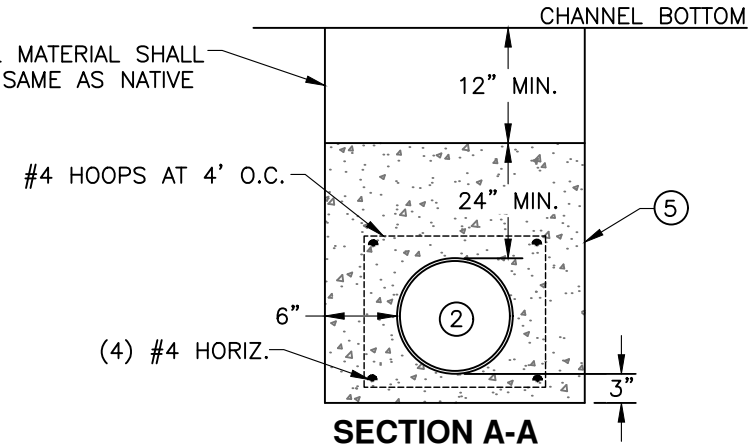
STD. DWG. NO. **102**



BORE & JACK CASING

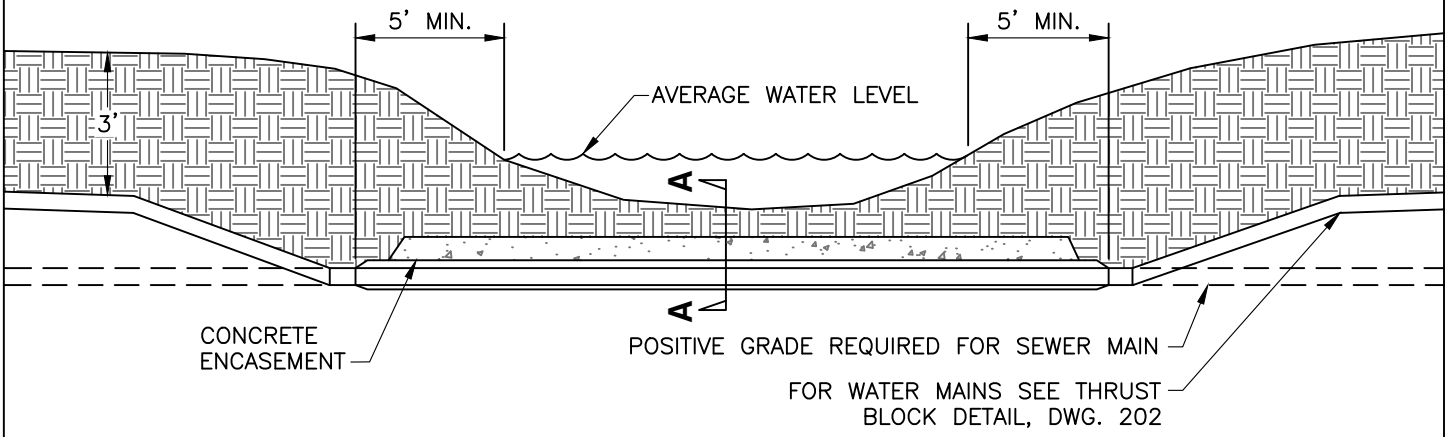


SECTION A-A, SEE BORE & JACK CASING DETAIL



SECTION A-A ALTERNATE VERSION

(REQUIRES T.U.D. APPROVAL)



CREEK CROSSING FOR WATER AND SEWER MAINS

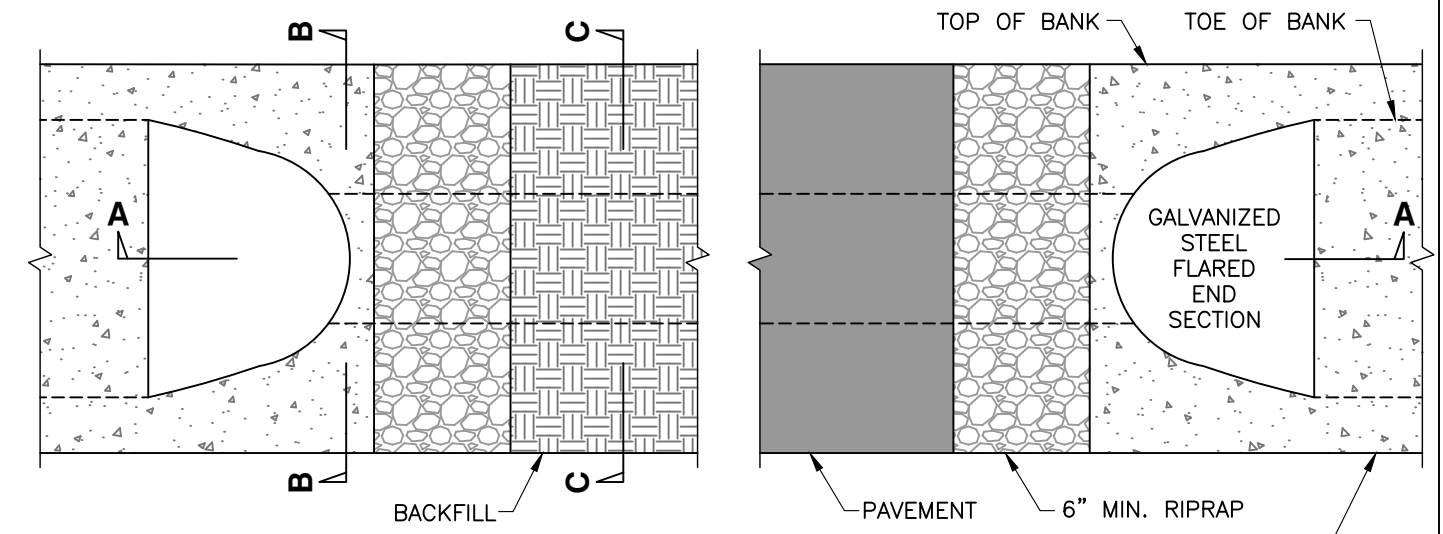
ITEM	QTY	DESCRIPTION	REMARKS
1		3-SACK SLURRY MIX	NO LOADS TO BE PLACED ON CONCRETE FOR 7 DAYS
2		DUCTILE IRON PIPE, PLASTIC WRAPPED	CEMENT OR PVC LINED; USE CAST IRON FITTINGS AS NEEDED
3		PVC C900-DR18 FOR WATER	USE CAST IRON FITTINGS AS NEEDED
4		SDR35 FOR SEWER	USE CAST IRON FITTINGS AS NEEDED
5		6-SACK STRUCTURAL CONCRETE	
6		CASING	STEEL PIPE 1/4" MIN. WALL THICKNESS

TUOLUMNE UTILITIES DISTRICT

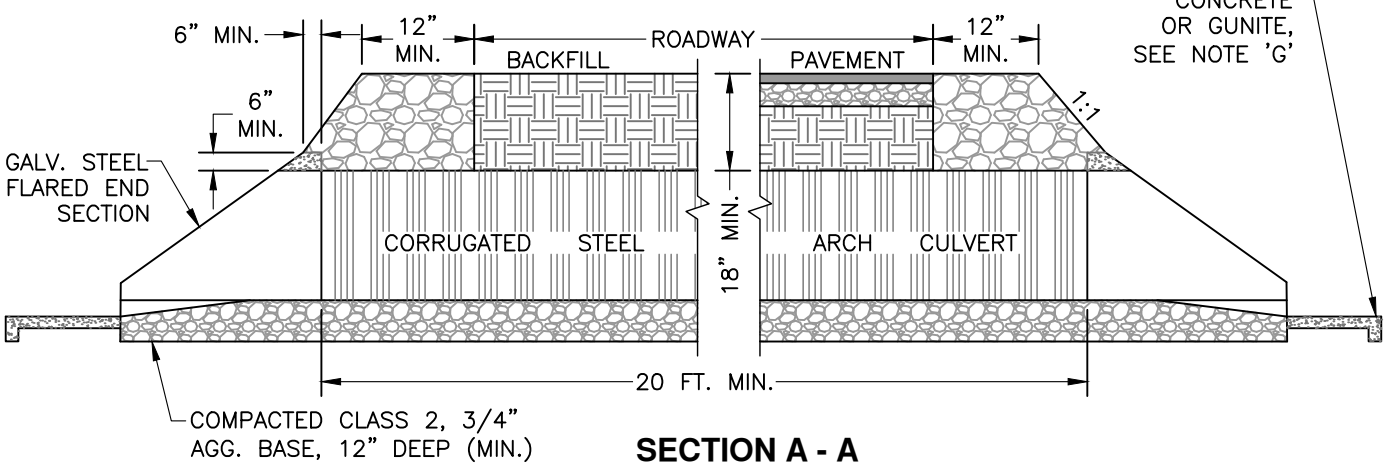
CREEK CROSSING FOR WATER & SEWER MAINS AND BORE & JACK CASING

REV. 10-16-26

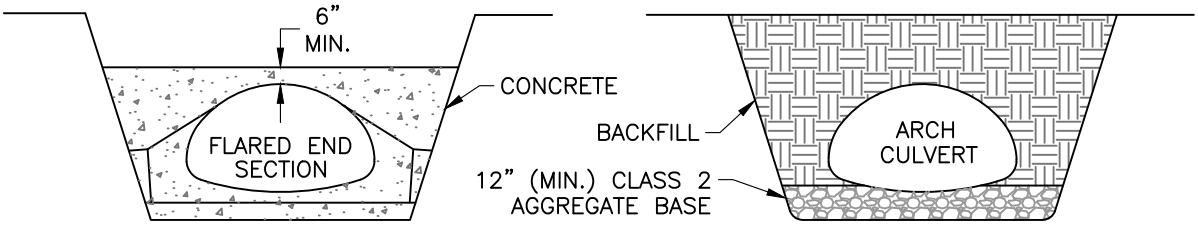
STD. DWG. NO. **103**



PLAN VIEW



SECTION A - A



SECTION B - B **SECTION C - C**

NOTES:

A. ALL BANDS, JOINTS AND CONNECTIONS IN ARCH CULVERT SHALL BE SEALED WATERTIGHT WITH MANUFACTURER'S GASKET, "RAMNECK" SEALANT, OR APPROVED EQUAL. BAND CORRUGATIONS MUST MATCH CULVERT CORRUGATIONS FOR TIGHT SEAL.

B. BACKFILL AROUND END SECTIONS WITH BAGS OF CONCRETE READYMIX. AS AN ALTERNATIVE, END SECTIONS MAY BE BACKFILLED WITH POURED CONCRETE.

C. PROPER BACKFILL OF PIPE IS ESSENTIAL. PLACE FILL BY DISTRIBUTING MATERIAL AROUND PIPE IN A UNIFORM 6" LAYER AND COMPACT THOROUGHLY. USE SELECT NATIVE BACKFILL WITH NO VEGETATIVE MATTER, ROOTS OR ROCKS LARGER THAN 2 INCHES.

D. EXCAVATE DITCH SO THAT INVERT OF PIPE AND FLARED END SECTIONS LAY FLUSH WITH BOTTOM OF CANAL, YET MAINTAIN POSITIVE SLOPE IN DIRECTION OF FLOW.

E. ARCH PIPE TO BE DESIGNED FOR AN H–20 LOADING, 20 FT. MIN. LENGTH PLUS END SECTIONS, SIZE PER TUOLUMNE UTILITIES DISTRICT REQUIREMENTS.

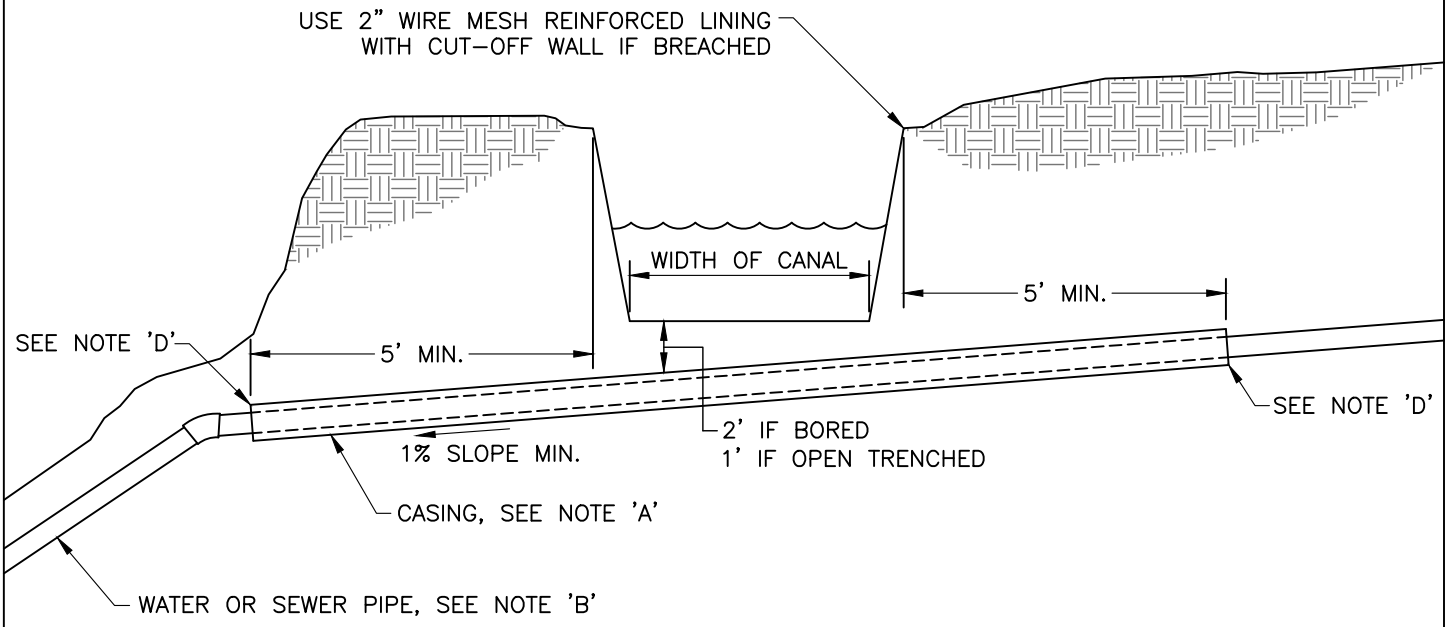
F. COORDINATE DRIVEWAY CROSSING CONSTRUCTION WITH T.U.D. PERSONNEL. TWO WEEK MIN. NOTICE IS REQUIRED FOR TEMPORARY DITCH SHUTDOWN.

G. CONCRETE OR GUNITE SHALL BE EXTENDED 10 FEET FROM EACH FLARED END SECTION ALONG DITCH BOTTOM AND TO TOP OF EACH BANK TO MINIMIZE INFILTRATION, 2 INCH MIN. THICKNESS WITH 6x6x10 GA. WELDED WIRE AND 8"x12" KEYWAY AT EACH END.

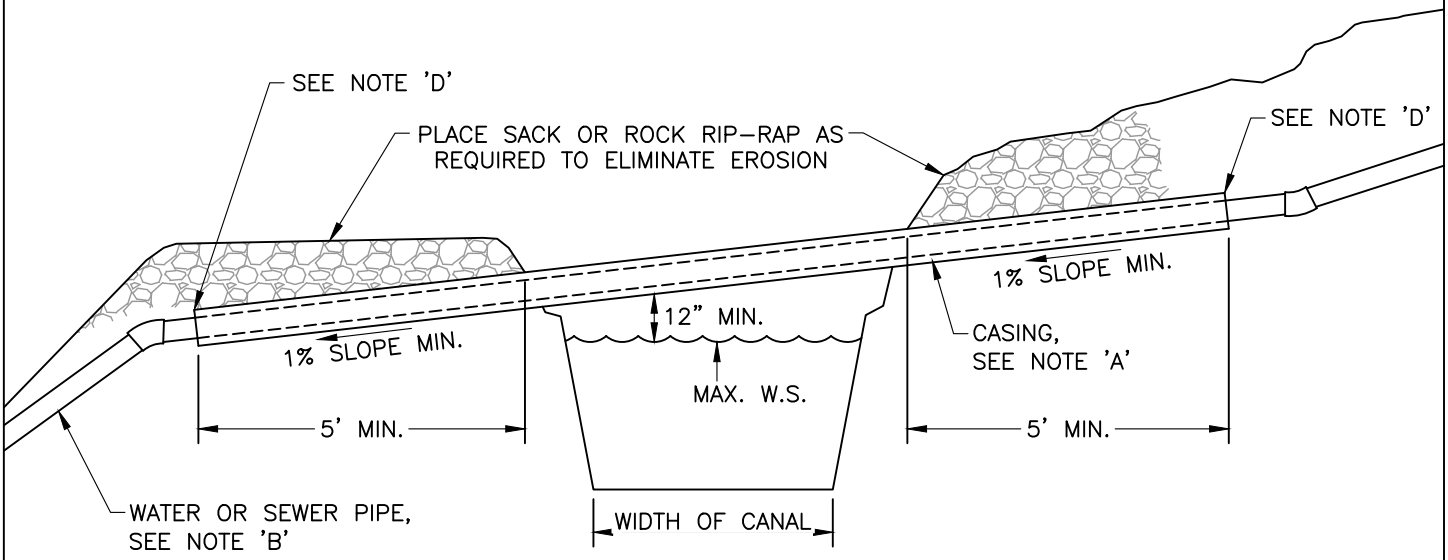
TUOLUMNE UTILITIES DISTRICT
ROAD CROSSING OVER RAW-WATER CANAL

REV. 10–16–26

STD. DWG. NO. **104**



CROSSING UNDER CANAL



CROSSING OVER CANAL

NOTES:

A. CASING TO BE DUCTILE IRON PIPE OR 16–GAUGE CMP. DIAMETER TO BE 4 INCHES LARGER THAN THE WATER OR SEWER PIPE. NO JOINTS ALLOWED IN CASING OR CARRY PIPE.
B. PIPE TYPE PER TUOLUMNE UTILITIES DISTRICT.
C. IF HOLE FOR CASING PIPE IS HYDRO–AUGERED UNDER CANAL, BORE DIAMETER SHALL NOT BE MORE THAN 2 INCHES LARGER THAN DIAMETER OF THE CASING. IF CANAL IS OPEN TRENCHED TO INSTALL CASING AND PIPELINE, BACKFILL SHALL BE REPLACED IN 12 INCH LAYERS TO ACHIEVE 90% COMPACTION; EACH 12 INCH LAYER SHALL BE PNEUMATICALLY TAMPED.
D. SEAL BOTH ENDS OF CASING TO MAIN WITH CONCRETE OR SYNTHETIC RUBBER END BUSHING.

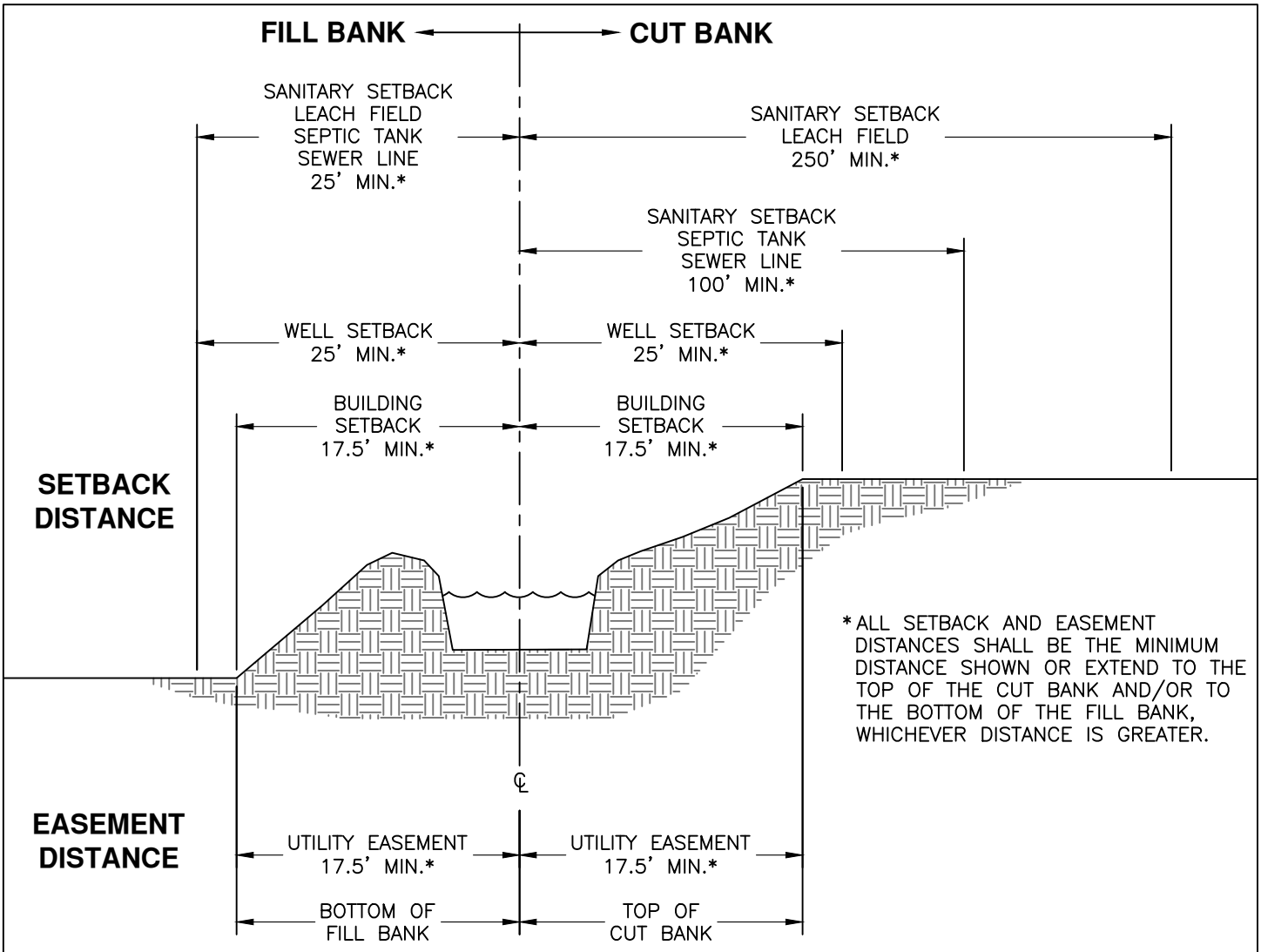
TUOLUMNE UTILITIES DISTRICT

RAW-WATER CANAL CROSSING FOR WATER OR SEWER

REV. 10–16–26

STD. DWG. NO.

105



*ALL SETBACK AND EASEMENT DISTANCES SHALL BE THE MINIMUM DISTANCE SHOWN OR EXTEND TO THE TOP OF THE CUT BANK AND/OR TO THE BOTTOM OF THE FILL BANK, WHICHEVER DISTANCE IS GREATER.

SETBACK TABLE

SETBACK TYPE	FILL BANK	CUT BANK
SANITARY–LEACH FIELD	25' MIN.	250' MIN.
SANITARY–SEPTIC TANK	25' MIN.	100' MIN.
SANITARY–SEWER LINE	25' MIN.	100' MIN.
WELL	25' MIN.	25' MIN.
BUILDING	17.5' MIN.	17.5' MIN.
EXTENDED SETBACK*	TO BOTTOM OF FILL	TO TOP OF CUT

UTILITY EASEMENT TABLE

EASEMENT TYPE	FILL BANK	CUT BANK
MINIMUM EASEMENT	17.5' FROM ℄	17.5' FROM ℄
EXTENDED EASEMENT*	TO BOTTOM OF FILL	TO TOP OF CUT

NOTES

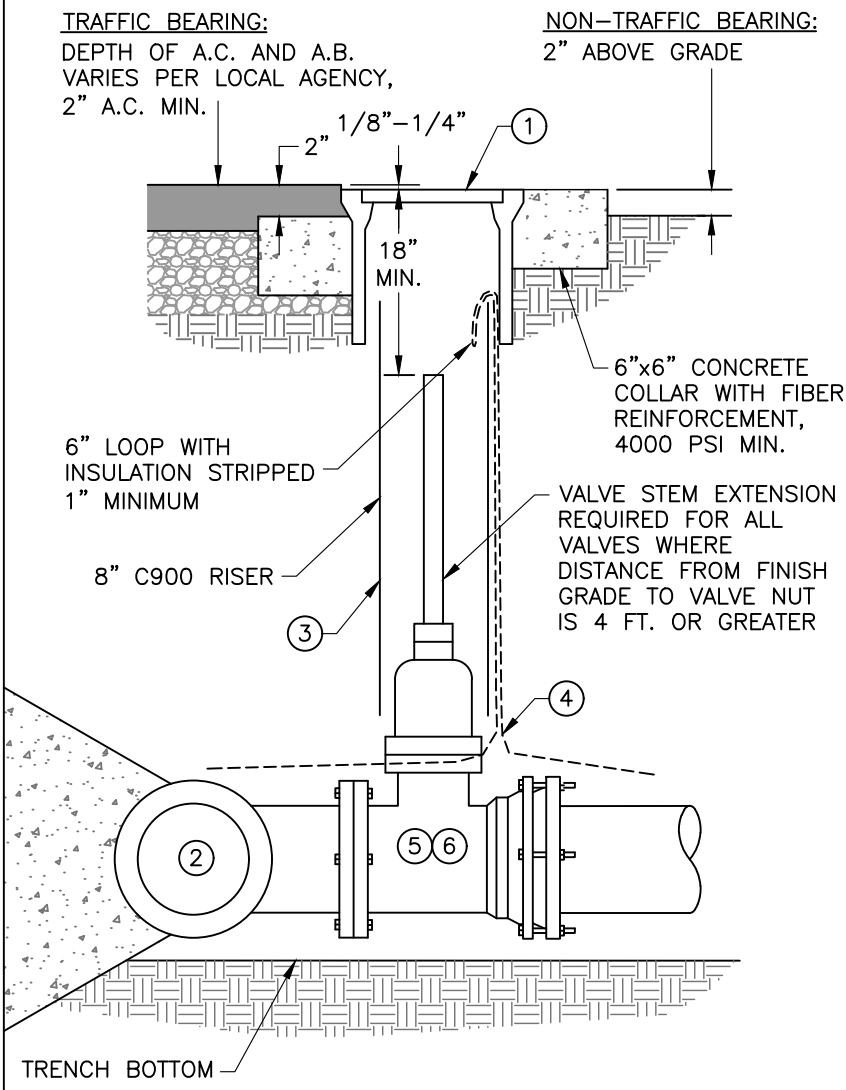
A. A UTILITY EASEMENT SHALL BE DEDICATED TO THE DISTRICT FOR ANY NEW DEVELOPMENT WITHIN THE MINIMUM SETBACK AND EASEMENT DISTANCES DESCRIBED ABOVE.
B. SANITARY SETBACK REQUIREMENTS SHALL BE IN COMPLIANCE WITH TUOLUMNE COUNTY ORDINANCE CODE 13.04.06. AT THE DISCRETION OF THE DISTRICT, FOR INDIVIDUAL SEPTIC INSTALLATIONS AND REPAIRS, THE LESS RESTRICTIVE SETBACKS PER COUNTY ORDINANCE SECTION 13.08, TABLE 2, MAY BE CONSIDERED ON A CASE–BY–CASE BASIS.
C. EXCEPTIONS TO THE BUILDING AND SANITARY SETBACK REQUIREMENTS ARE SUBJECT TO APPROVAL BY THE DISTRICT.
D. PROPERTY OWNERS SHALL PREVENT LIVESTOCK FROM DAMAGING AND/OR POLLUTING THE DISTRICT'S RAW–WATER CANAL AND RELATED FACILITIES PER THE DISTRICT'S WATER RULES AND REGULATIONS SECTION 14.09.1 AND CALIFORNIA HEALTH AND SAFETY CODE SECTIONS 116985, 116990, AND 116995.

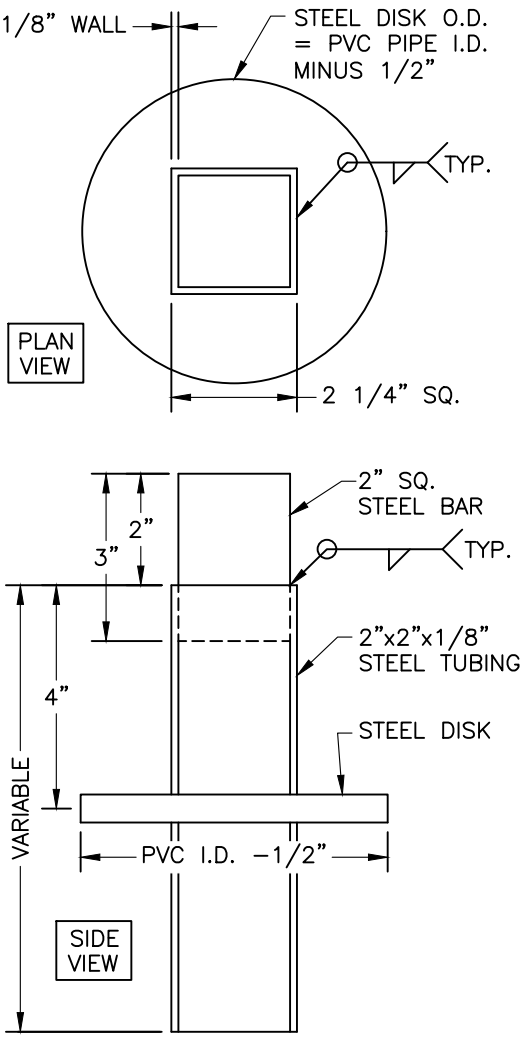
TUOLUMNE UTILITIES DISTRICT

RAW-WATER CANAL SETBACK AND EASEMENT REQUIREMENTS

REV. 10–16–26

STD. DWG. NO. **106**





VALVE STEM EXTENSION

NOTES

A. COAT BURIED NUTS & BOLTS WITH KOPPERS BITUMASTIC NO. 50 OR NAPA #MAC8400 RUBBERIZED UNDERCOAT.
B. WRAP ALL FITTINGS, BOLTS, AND NUTS WITH 8 MIL. MIN. POLYETHYLENE SHEETING AND SECURE WITH 3 WRAPS OF 10 MIL. TAPE. COMPLETE WRAPPING PRIOR TO CONCRETE PLACEMENT. KEEP FITTINGS, BOLTS, NUTS, AND THREADS FREE OF CONCRETE AT ALL TIMES.
C. VALVES SHALL BE INSTALLED ON FITTINGS UNLESS OTHERWISE APPROVED BY T.U.D.
D. WATER VALVES SHALL BE RESILIENT WEDGE. VALVES ON PRESSURIZED SEWER SHALL BE DEZURIK PLUG VALVES OR APPROVED EQUAL.

ITEM	QTY	DESCRIPTION	REMARKS
1	1	TRAFFIC VALVE BOX WITH LID MARKED "WATER" OR "SEWER"	CHRISTY G5 W/G5C LID, BINGHAM AND TAYLOR CUL12RHVYF BOX W/CUL12L-HVY4 LID OR APPROVED EQUAL, VALVE BOX SHALL NOT REST ON RISER
2		FLANGED TEE	
3	1	6" OR 8" PVC PIPE (8" FOR VALVE SIZES 6"+)	SDR35 AND C900 ARE ACCEPTABLE
4	1	#12 AWG INSULATED LOCATOR WIRE	SINGLE STRAND COPPER, SEE DWG. 102
5	1	FOR WATER APPLICATIONS: RESILIENT WEDGE GATE VALVE, EPOXY-COATED, NON-RISING STEM, 2" SQUARE NUT FOR ALL VALVES 2" AND LARGER	FLxMJ UNLESS OTHERWISE APPROVED, KENNEDY, CLOW, MUELLER, AMERICAN DARLING OR APPROVED EQUAL, SUITABLE CLASS FOR SERVICE PRESSURE
6		FOR SEWER APPLICATIONS: PLUG VALVE, EPOXY-COATED, 2" SQUARE NUT	DEZURIK OR APPROVED EQUAL, OPEN TO THE UP POSITION, CLOSE WITH SEAT TOWARD HIGH PRESSURE.

TUOLUMNE UTILITIES DISTRICT
GATE/PLUG VALVE INSTALLATION

REV. 10-16-26
STD. DWG. NO. **201**

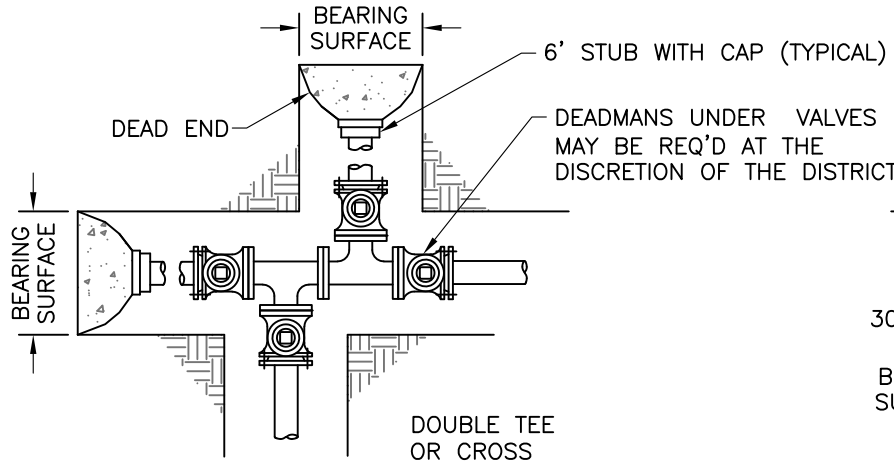


FIGURE 1

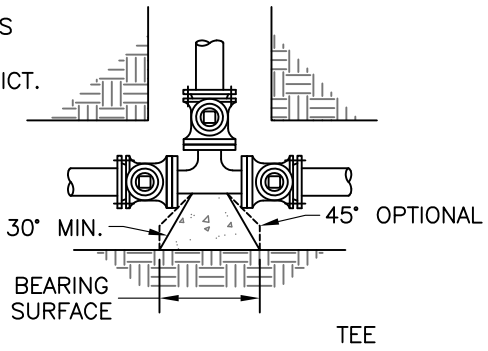


FIGURE 2

VALVE INSTALLATION NOTES

A. COAT BURIED NUTS & BOLTS WITH KOPPERS BITUMASTIC NO. 50 OR NAPA #MAC8400 RUBBERIZED UNDERCOAT.
B. WRAP ALL FITTINGS, BOLTS, AND NUTS WITH 8 MIL. MIN. POLYETHYLENE SHEETING AND SECURE WITH 3 WRAPS OF 10 MIL. TAPE. COMPLETE WRAPPING PRIOR TO CONCRETE PLACEMENT. KEEP FITTINGS, BOLTS, NUTS, AND THREADS FREE OF CONCRETE AT ALL TIMES.
C. ALL VALVES AND FITTINGS SHALL BE CAST IRON OR DUCTILE IRON AND SHALL HAVE A PRESSURE RATING EQUAL TO OR GREATER THAN THE WORKING PRESSURE RATING OF THE PIPE.
D. ALL TEES & CROSSES SHALL BE FLANGED WITH FLxMJ VALVES UNLESS OTHERWISE APPROVED BY T.U.D.
E. VALVES SHALL BE LOCATED IN-LINE, NOT TO EXCEED 1,320 FEET APART, AND AT ALL TEES AND CROSSES.

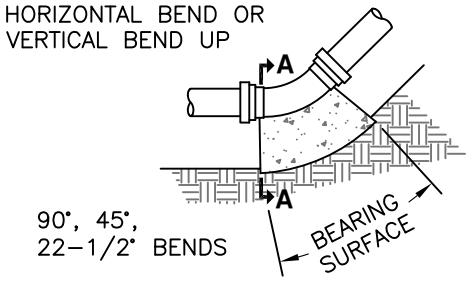
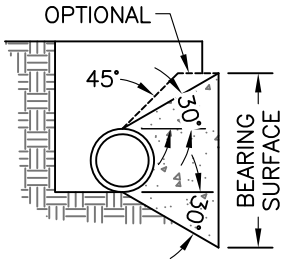


FIGURE 3



SECTION A-A

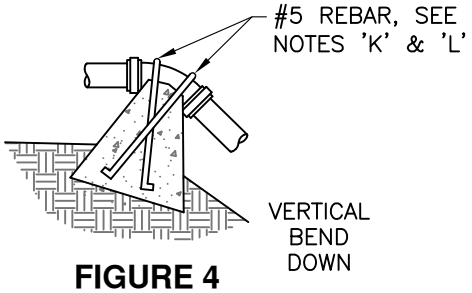


FIGURE 4

THRUST BLOCKS FOR HORIZONTAL AND VERTICAL BENDS AT UNRESTRAINED JOINTS, 4" TO 12" FITTINGS

SIZE OF PIPE	MIN. BEARING AREA IN SQUARE FEET						CUBIC FEET OF CONCRETE		
	FIG. 1	FIG. 2	FIGURE 3				FIGURE 4		
	DEAD END	TEE	90°	45°	22-1/2°	11-1/4°	45°	22-1/2°	11-1/4°
4"	2	2	2	1	1	N/A	19	19	N/A
6"	3	3	4	3	2	N/A	20	20	N/A
8"	5	5	7	4	2	N/A	SPECIAL DESIGN REQUIRED		N/A
10"	8	8	12	6	3	N/A			N/A
12"	12	12	16	9	5	N/A			N/A

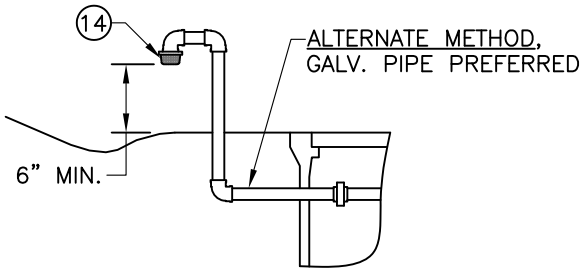
GENERALLY, THE BEARING AREA WIDTH TO HEIGHT RATIO SHOULD NOT EXCEED 2:1

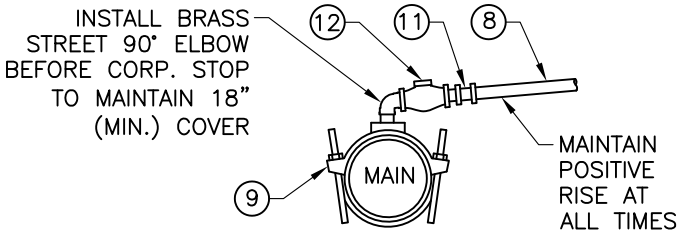
THRUST BLOCK NOTES

F. THRUST BLOCKS ARE TO BE CONSTRUCTED OF 2500 PSI MINIMUM COMPRESSIVE STRENGTH CONCRETE. AREAS GIVEN ARE THE MINIMUM REQUIREMENT FOR C900-DR18 PIPE AT TEST PRESSURES OF 250 PSI IN SOIL WITH 2,000 PSF BEARING CAPACITY. WITH DIFFERENT PIPE TYPES, WORKING PRESSURES AND/OR SOIL TYPES, ADJUST ACCORDINGLY. VARIANCES ARE SUBJECT TO T.U.D. APPROVAL.
G. BLOCKS ARE TO BE POURED AGAINST UNDISTURBED SOIL.
H. THRUST BLOCKS SHALL HAVE A 5-DAY MINIMUM CURE PRIOR TO PRESSURIZATION OF MAINS.
I. GRIP RINGS REQUIRED AT ALL FITTINGS
J. RESTRAINED JOINTS ARE REQUIRED ON AT LEAST 3 JOINTS IN EACH DIRECTION WHEN SITE LIMITATIONS PREVENT STRICT ADHERENCE TO THESE STANDARDS (SUBJECT TO DISTRICT APPROVAL.)
K. ANCHOR BOLTS TO EXTEND TO 90% OF DEPTH OF BLOCK; COAT ALL EXPOSED METAL WITH BITUMASTIC COATING AFTER INSTALLATION. SPECIAL DESIGN IN FIELD MAY BE REQUIRED FOR 8", 10" AND 12" PIPE.
L. RESTRAIN PIPE JOINTS 40' UPSTREAM AND DOWNSTREAM OF FITTING.

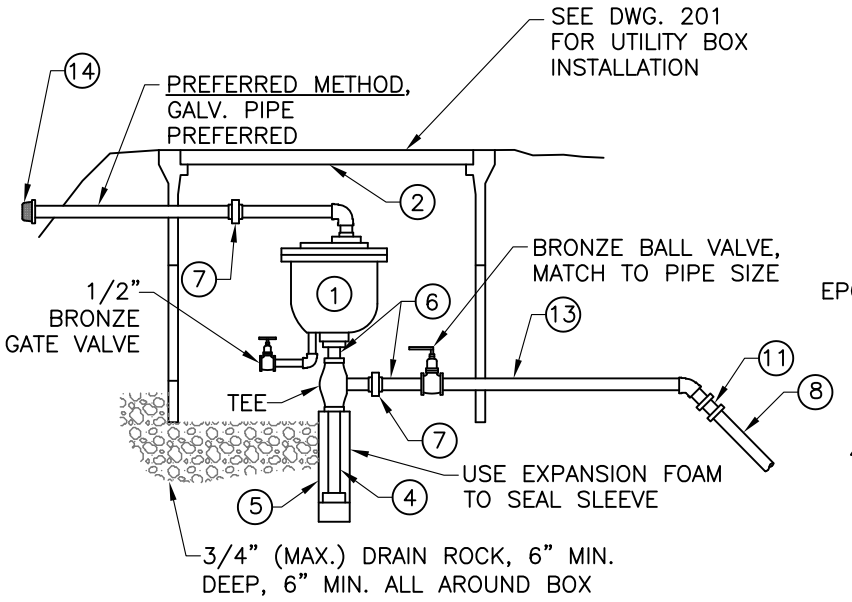
TUOLUMNE UTILITIES DISTRICT
WATER MAIN VALVE LOCATIONS AND THRUST BLOCKS

REV. 10-16-26
STD. DWG. NO. **202**

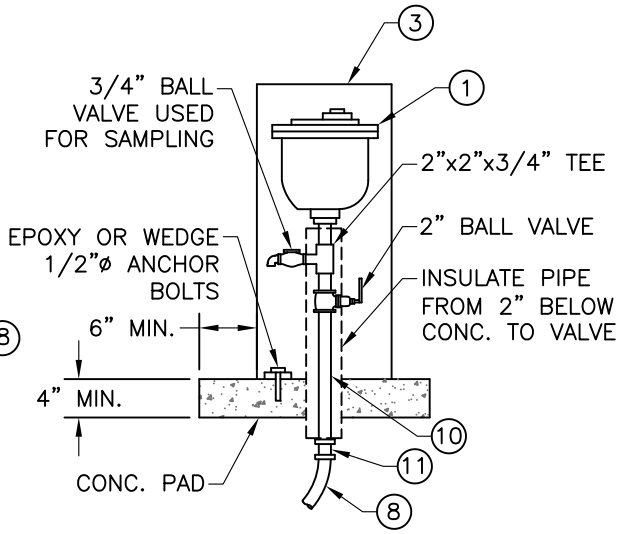




CONNECTION AT MAIN



BELOW-GROUND INSTALLATION



ABOVE-GROUND INSTALLATION

REQUIRES PRIOR T.U.D. APPROVAL

NOTES

A. GATE VALVES, BRASS UNIONS AND TEES WILL BE A SPECIFIC SIZE ACCORDING TO THE C.A.V. USED.
B. ALL CONCRETE SHALL HAVE A MIN. COMPRESSIVE STRENGTH OF 2500 PSI IN ALL AREAS SHOWN.
C. ALL COMBINATION AIR VALVES TO BE LOCATED OUT OF TRAFFIC AREAS.
D. ABOVE-GROUND COMB. AIR VALVES MUST BE PROTECTED FROM TRAFFIC WITH BOLLARDS OR LARGE BOULDERS.
E. ALL FITTINGS SHALL BE BRASS UNLESS OTHERWISE NOTED.
F. C.A.V. SHALL BE SINGLE BODY DOUBLE ORIFICE OR APPROVED EQUAL.

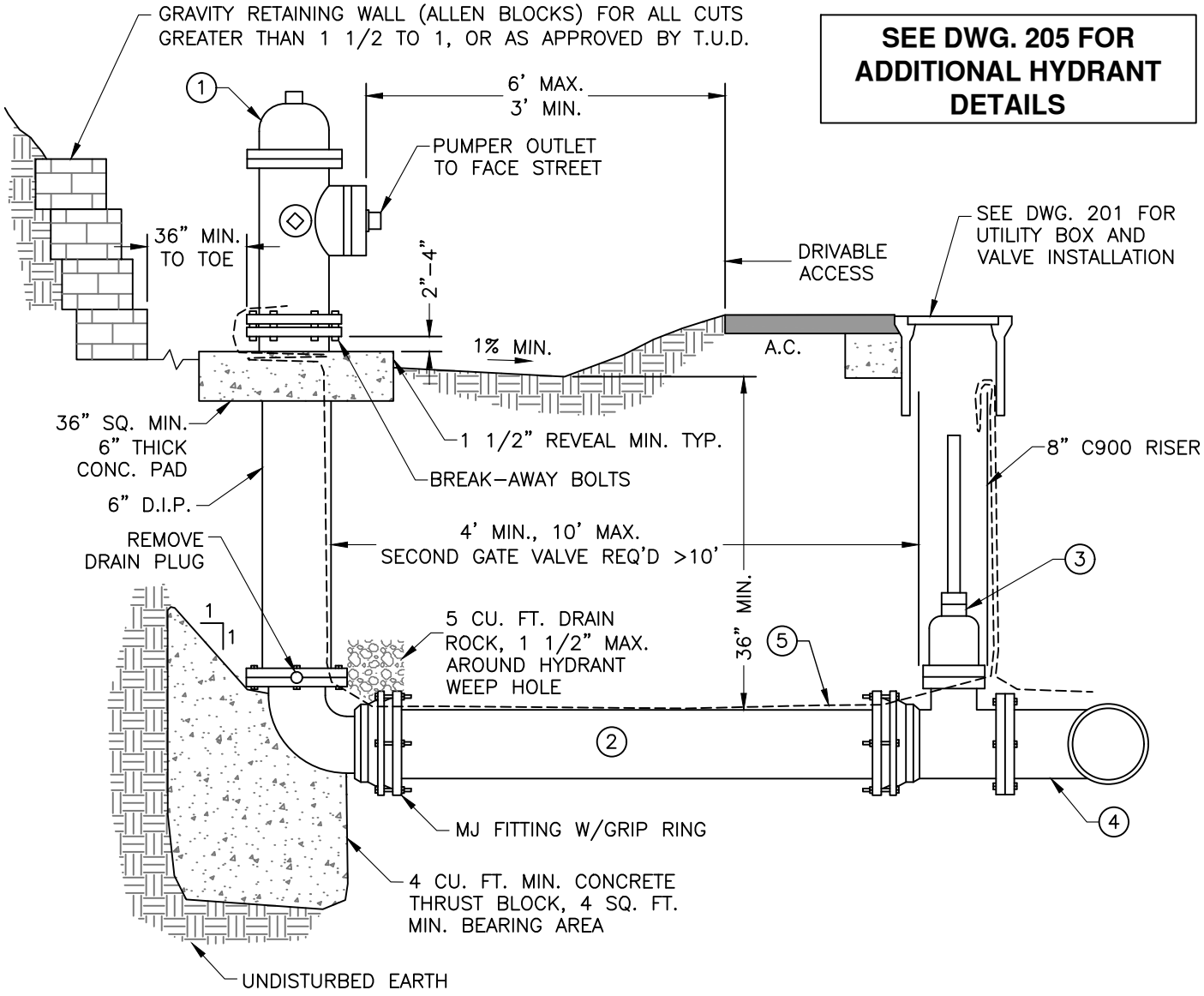
ITEM	QTY	DESCRIPTION	REMARKS
(1)	1	COMBINATION AIR VALVE	1" APCO 143C, CRISPIN UL10 OR 1" G.A. 945 FOR 6" & 8" MAINS. 2" APCO 145C, CRISPIN UL20 OR 2" G.A. 945 FOR 10" & 12" MAINS
(2)	1	UTILITY BOX AND LID, USE EXTENSION(S)	CHRISTY B36 FOR 1" VALVE, CHRISTY B40 FOR 2" VALVE, 61D LID, OR APPROVED EQUAL
(3)	1	VALVE PEDESTAL, 12"x12"x30"	PLACER WATER WORKS #PW/SJARV-2 OR APPROVED EQUAL
(4)	1	1"x8" BRASS NIPPLE WITH BRASS CAP	USE 1"x2" REDUCER WITH NIPPLE FOR 2" C.A.V.
(5)	1	2"x12" PVC NIPPLE WITH 2" CAP	SCH. 40 PVC
(6)	1	3" LONG BRASS NIPPLE	SIZE PER PIPE
(7)	2	BRASS UNION	SIZE PER PIPE
(8)	1	1" POLYETHYLENE TUBING FOR 6" & 8" MAINS, 2" TUBING FOR 10" & 12" MAINS	CENTENNIAL CENFLO, ADS POLYFLEX, OR APPROVED EQUAL, 200 PSI MIN.
(9)	1	1" OR 2" SERVICE SADDLE	FORD FS202 FOR C900 PVC, OR APPROVED EQUAL
(10)	1	1" OR 2" BRASS NIPPLE, 12" MIN.	EXTEND 6" MIN. BELOW GRADE
(11)	2	FEMALExCTS PACK JOINT COUPLING	FORD C14-44 (1"), C14-77 (2"), OR APPROVED EQUAL
(12)	1	CORPORATION STOP (MIPxMIP)	FORD FB500-4-NL(1"), FB500-7-NL(2") OR APPROVED EQUAL
(13)	1	36" LONG BRASS NIPPLE	SIZE PER PIPE
(14)	1	AIR VENT CAP #10 MESH	T. CHRISTY #VCI FOR 1" AIR/VAC; #VC2 FOR 2" AIR/VAC

TUOLUMNE UTILITIES DISTRICT

COMBINATION AIR VALVE ("AIR/VAC")

REV. 10-16-26

STD. DWG. NO. **203**



NOTES

A. MAXIMUM OPERATING PRESSURE SHALL NOT EXCEED 200 PSI WITHOUT PRIOR T.U.D. APPROVAL.
B. FIRE HYDRANTS SHALL BE LOCATED NEAR CUT SLOPE WHENEVER POSSIBLE.
C. CUT SLOPE TO BE STABILIZED IN VICINITY OF HYDRANT.
D. DRIVABLE ACCESS SHALL NOT BE MORE THAN 6 FT. FROM HYDRANT.
E. COAT BURIED NUTS & BOLTS WITH KOPPERS BITUMASTIC NO. 50 OR NAPA #MAC8400 RUBBERIZED UNDERCOAT.
F. WRAP ALL FITTINGS, BOLTS, AND NUTS WITH 8 MIL. MIN. POLYETHYLENE SHEETING AND SECURE WITH 3 WRAPS OF 10 MIL. TAPE. COMPLETE WRAPPING PRIOR TO CONCRETE PLACEMENT. KEEP FITTINGS, BOLTS, NUTS, AND THREADS FREE OF CONCRETE AT ALL TIMES.
G. HYDRANTS MUST HAVE 3' CLEAR MIN. FROM DRIVABLE SPACE OR BOLLARDS ARE REQUIRED; SEE DWG. 205.

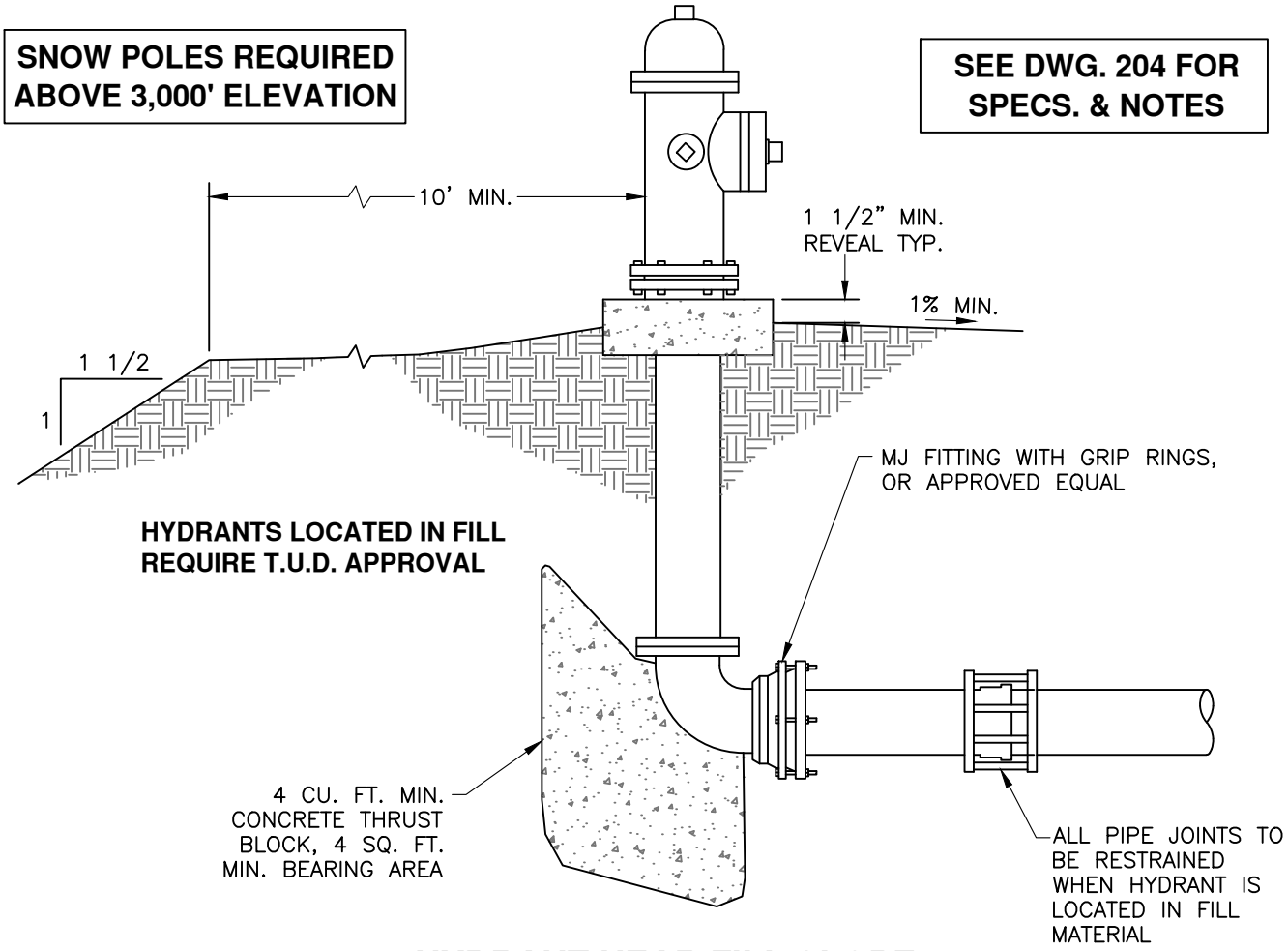
ITEM	QTY	DESCRIPTION	REMARKS
(1)	1	6" DRY BARREL, TRAFFIC MODEL HYDRANT WITH (2) 2 1/2" NST HOSE OUTLETS, ONE 4 1/2" NST PUMPER OUTLET, AND A 5 1/4" SEAT OPENING; BASE CONNECTION IS MECHANICAL JOINT, OPEN COUNTERCLOCKWISE	AMERICAN DARLING B84B OR KENNEDY-GUARDIAN K81D OR MUELLER-SUPER CENTURION OR AMERICAN AVK 27N/PHH; BODY COLOR CHROME YELLOW
(2)		6" C900 PVC PIPE	SUITABLE CLASS FOR SERVICE PRESSURE
(3)	1	6" RESILIENT WEDGE GATE VALVE (MJxFL)	SEE DWG. 201
(4)	1	FLANGED TEE OR TAPPING SLEEVE	SIZE TO SUIT WATER MAIN (6" MIN.)
(5)	1	#12 AWG INSULATED LOCATOR WIRE	SINGLE STRAND COPPER, SEE DWG. 102

TUOLUMNE UTILITIES DISTRICT
FIRE HYDRANT INSTALLATION

REV. 10-16-26
STD. DWG. NO. **204**

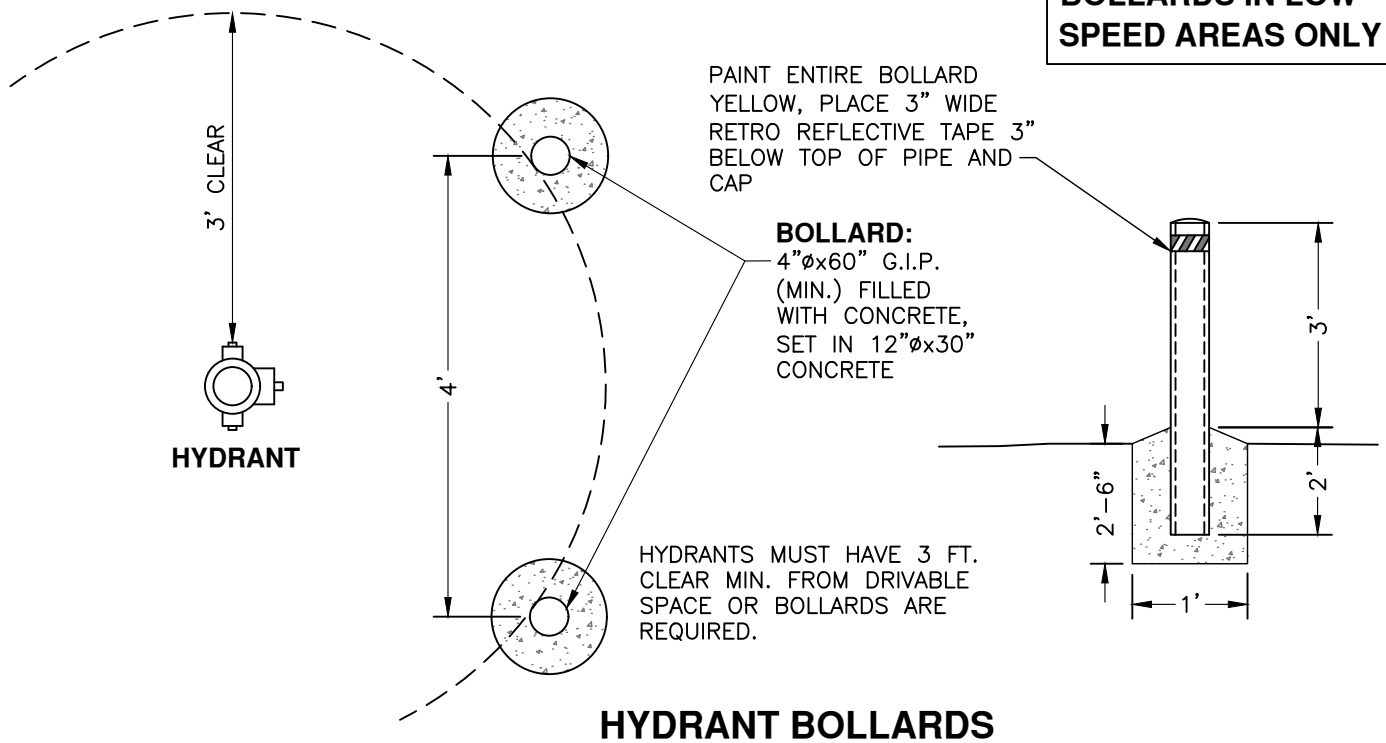
SNOW POLES REQUIRED ABOVE 3,000' ELEVATION

SEE DWG. 204 FOR SPECS. & NOTES



HYDRANT NEAR FILL SLOPE

BOLLARDS IN LOW SPEED AREAS ONLY



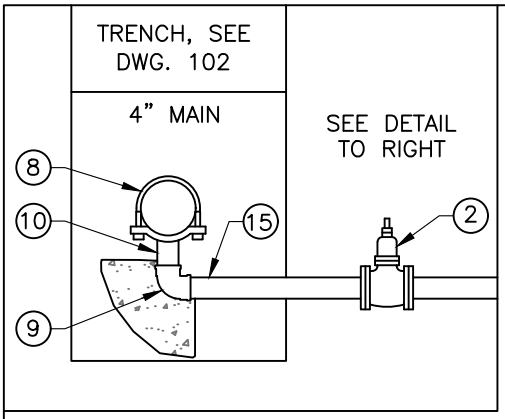
HYDRANT BOLLARDS

TUOLUMNE UTILITIES DISTRICT

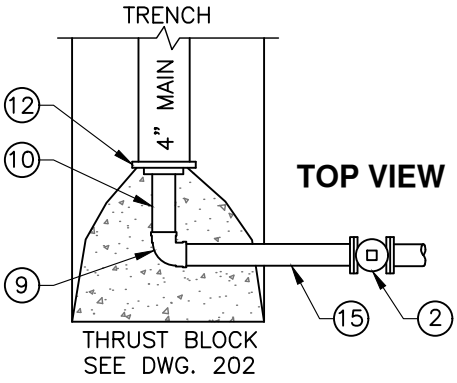
FIRE HYDRANT NEAR FILL SLOPE AND HYDRANT BOLLARDS

REV. 10-16-26

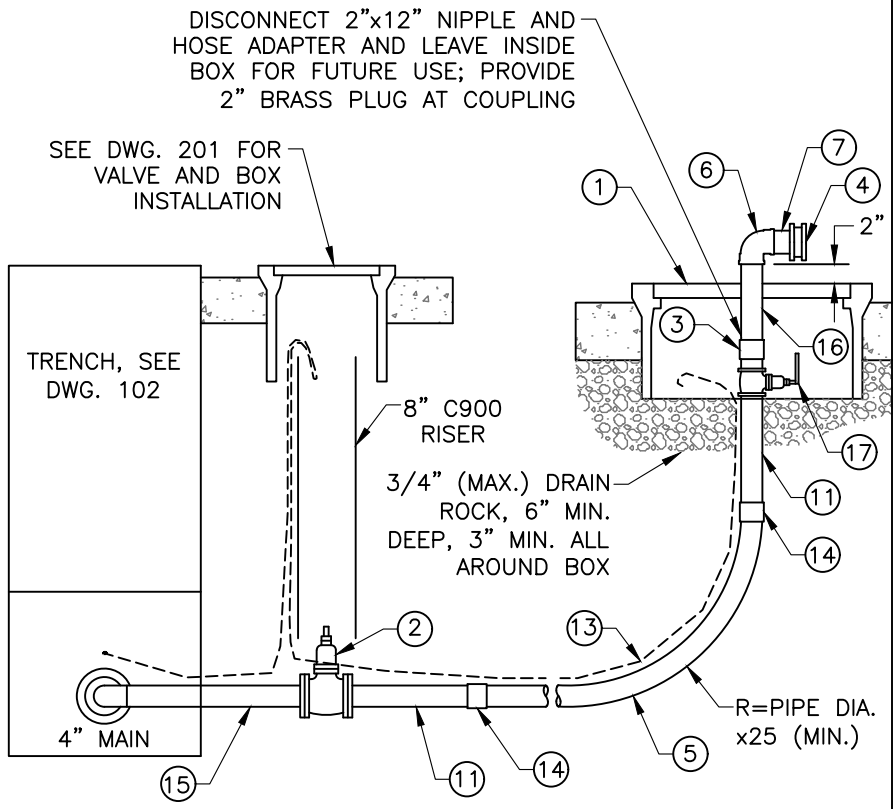
STD. DWG. NO. **205**



IN-LINE LOW-POINT BLOWOFF (REQUIRES T.U.D. APPROVAL)



TOP VIEW



BLOWOFF AT END OF 4" MAIN

NOTES

A. THIS BLOWOFF CONSTRUCTION ALLOWED AT END OF 6" MAIN WITH PRIOR T.U.D. APPROVAL.
B. BLOWOFF TO BE INSTALLED AT THE END OF ALL DEAD-END WATER MAINS UNLESS HYDRANT IS WITHIN 20 FT. OF END OF MAIN.
C. DO NOT LOCATE BLOWOFF IN TRAFFIC AREAS.
D. COAT BURIED NUTS & BOLTS WITH KOPPERS BITUMASTIC NO. 50 OR NAPA #MAC8400 RUBBERIZED UNDERCOAT.
E. WRAP ALL FITTINGS, BOLTS, AND NUTS WITH 8 MIL. MIN. POLYETHYLENE SHEETING AND SECURE WITH 3 WRAPS OF 10-MIL TAPE. COMPLETE WRAPPING PRIOR TO CONCRETE PLACEMENT. KEEP FITTINGS, BOLTS, NUTS, AND THREADS FREE OF CONCRETE AT ALL TIMES.

ITEM	QTY	DESCRIPTION	REMARKS
1	1	CONCRETE BOX	B30 OR APPROVED EQUAL
2	1	2" RESILIENT WEDGE GATE VALVE	SEE DWG. 201
3	1	2" COUPLING WITH 2" PLUG	BRASS
4	1	2"x2 1/2" FIRE HOSE ADAPTER	BRASS, NH THREAD, PROVIDE W/PROTECTIVE CAP
5	1	2" POLYETHYLENE TUBING, "CTS", 200 PSI	CENTENNIAL CENFLO, ADS POLYFLEX OR APPROVED EQUAL
6	1	2" 90° ELBOW	BRASS
7	2	2" SHORT NIPPLE	BRASS
8	1	2" SERVICE SADDLE WITH DOUBLE-WIDE STRAP	FORD FS202 (FOR C900 PVC)
9	2	2" 90° ELBOW	BRASS
10	1	2"x6" NIPPLE	BRASS
11	2	2"x12" NIPPLE	BRASS
12	1	CAST IRON CAP, 2" TAP	MECHANICAL JOINT W/GRIP RINGS
13	1	#12 AWG INSULATED LOCATOR WIRE	SINGLE STRAND COPPER, SEE DWG. 102
14	2	2" FIP x CTS ADAPTER	BRASS
15	1	2"x18" NIPPLE	BRASS
16	1	2"x12" NIPPLE WITH 2" CAP	SCH40, GALV.
17	1	2" BALL VALVE	BRASS

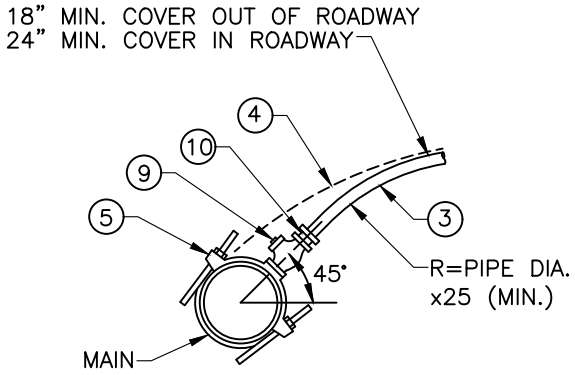
TUOLUMNE UTILITIES DISTRICT

IN-LINE BLOWOFF & BLOWOFF AT END OF 4" WATER MAIN

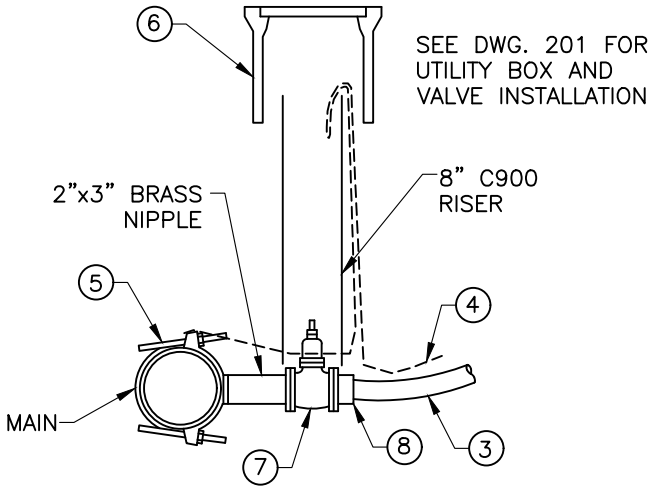
FOR WATER MAINS 6" OR GREATER, INSTALL FIRE HYDRANT PER DWG. 204

REV. 10-16-26

STD. DWG. NO. **206**



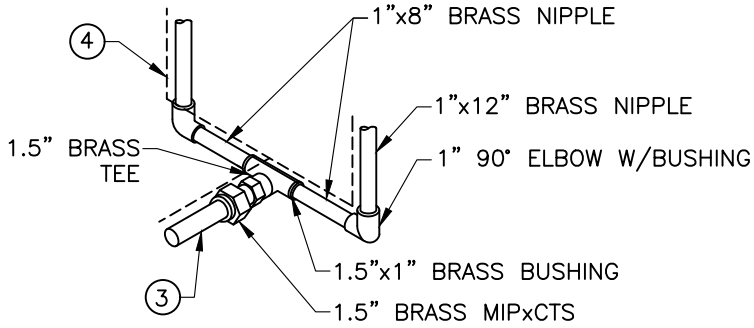
SINGLE OR DOUBLE SERVICE



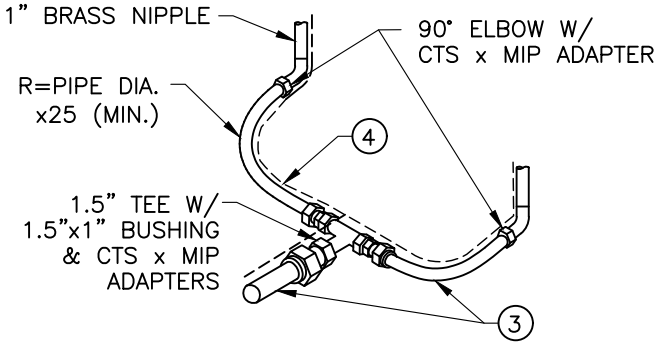
TRIPLE OR QUADRUPLE SERVICE

CONNECTION AT MAIN SHALL BE 3 FT. FROM ALL FITTINGS AND JOINTS

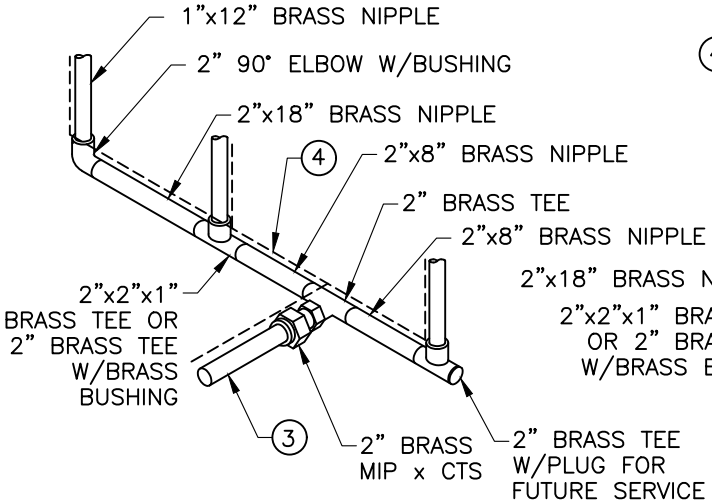
CONNECTION AT MAIN



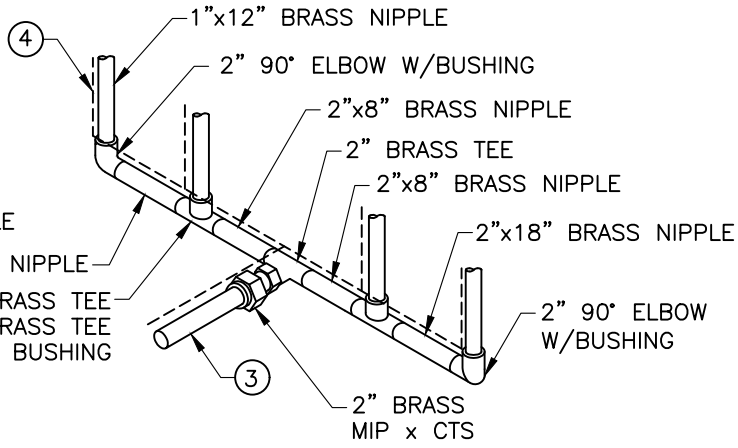
DOUBLE SERVICE



DOUBLE SERVICE
ALTERNATE INSTALLATION
WITH T.U.D. APPROVAL



TRIPLE SERVICE



QUADRUPLE SERVICE

CONNECTION AT METER

SEE DWG. 208 FOR NOTES, PARTS LIST & WATER SERVICE BOX DETAIL

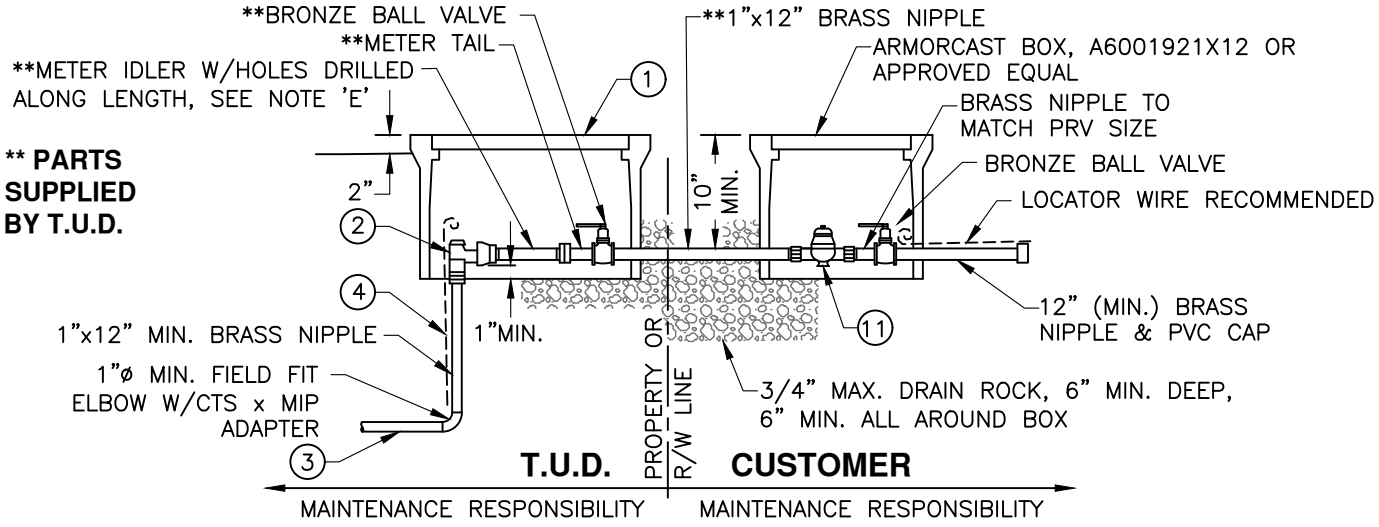
TUOLUMNE UTILITIES DISTRICT

WATER SERVICE LATERAL CONNECTIONS

REV. 10-16-26

STD. DWG. NO. **207**

INSTALL SERVICE WITH PRV WHERE CALCULATED STATIC INLET PRESSURE IS 80 PSI OR GREATER.



WATER SERVICE AND PRESSURE-REDUCING VALVE

NOTES

A. SERVICES SHALL BE LOCATED OUT OF TRAVELED WAY (INCLUDING SHOULDERS) UNLESS APPROVED BY T.U.D.
B. SERVICES LOCATED WITHIN THE TRAVELED WAY SHALL HAVE A 6" WIDE (MIN.) BY 15" DEEP CONCRETE COLLAR.
C. ONE METER PER BOX ONLY.
D. FOR DOUBLE, TRIPLE, OR QUADRUPLE SERVICE, USE BRASS PIPE FOR MANIFOLD BELOW ANGLE STOPS, SAME SIZE AS SERVICE PIPE.
E. METERS WILL BE SET BY T.U.D. AFTER APPLICATION OF SERVICE IS SIGNED AND FEES ARE PAID.
F. USE POLYETHYLENE SERVICE TUBING CONTINUOUS FROM MAIN TO 90° ELBOW, 1"ø FOR SINGLE SERVICE, 1 1/2"ø FOR DOUBLE SERVICE, AND 2"ø FOR TRIPLE & QUADRUPLE SERVICE.
G. SERVICE SADDLES SHALL BE 3 FT. MIN. FROM PIPE FITTINGS, JOINTS AND TAPS.
H. PER SECTION 64591 OF THE CALIFORNIA WATERWORKS STANDARDS, ALL ITEMS IN CONTACT WITH POTABLE WATER SHALL BE CERTIFIED AS MEETING THE SPECIFICATIONS OF NSF 61/600.
I. CONTRACTOR SHALL BE RESPONSIBLE TO PRESSURE TEST ALL PIPE, VALVES & FITTINGS UP TO THE ANGLE STOP.

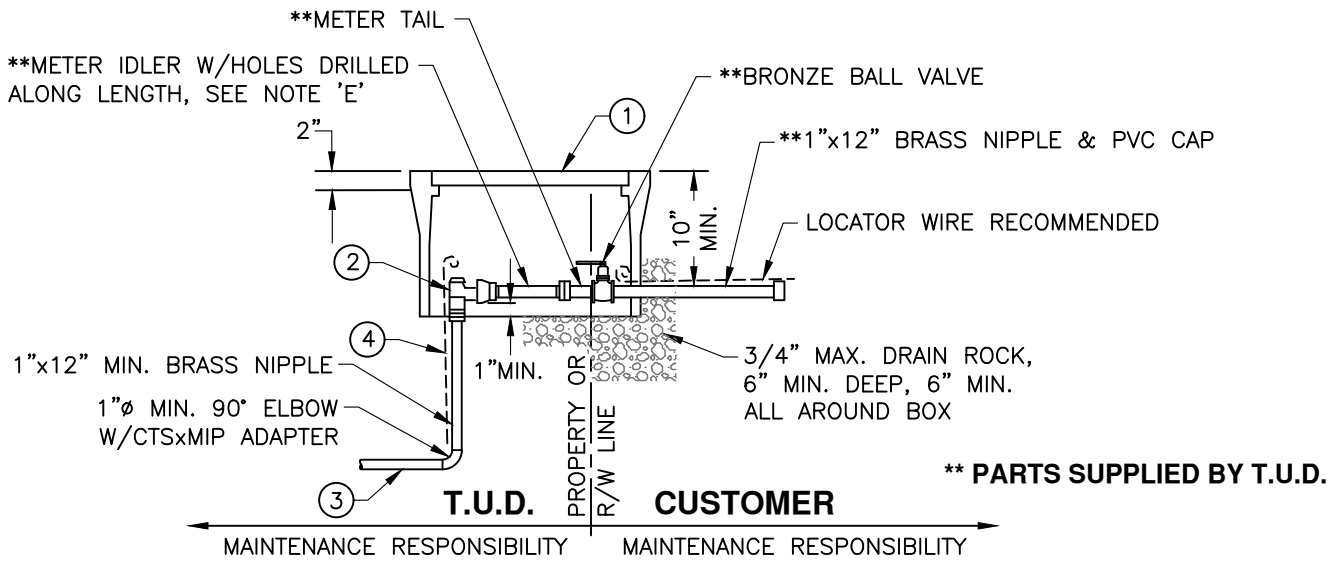
ITEM	DESCRIPTION	REMARKS
(1)	1" METER: B16 CONCRETE OR "HUBBELL" POLYMER CONCRETE W/A6000489T RADIO READ LID; 1 1/2" METER: CHRISTY B30 W/B30G RADIO READ LID; 2" METER: CHRISTY B36 W/B36G RADIO READ LID	
(2)	LOCKABLE ANGLE STOP FOR 1" METER: LOCKABLE ANGLE STOP FOR 1 1/2" OR 2" METER:	FORD BA13-444W-NL FORD BFA13-666W-NL OR BFA13-777W-NL
(3)	HDPE POLYETHYLENE SERVICE TUBING, "CTS" DR-9.	CENTENNIAL CENFLO, ADS POLYFLEX, OR APPROVED EQUAL, SEE NOTE 'F'
(4)	#12 AWG INSULATED LOCATOR WIRE	SINGLE STRAND COPPER, SEE DWG. 102
(5)	SERVICE SADDLE, MATCH TUBING SIZE, NOTE 'F'	FORD FCD202, POWERSEAL 3417, OR APPROVED EQUAL
(6)	TRAFFIC VALVE BOX MARKED "WATER"	CHRISTY G5 BOX W/G5C LID OR APPROVED EQUAL
(7)	2" RESILIENT WEDGE GATE VALVE, EPOXY COATED	AMERICAN AVK45 OR APPROVED EQUAL (2" SERVICE)
(8)	2" MIP x CTS ADAPTER (BRASS)	2" SERVICES ONLY
(9)	CORPORATION STOP, 1"ø MIN. MATCH TUBING SIZE (MALE x MALE)	1" SERVICE: FORD FB500-4-NL OR APPROVED EQUAL 1.5" SERVICE: FORD FB500-6-NL OR APPROVED EQUAL
(10)	FEMALE x CTS PACK JOINT COUPLING	1" SERVICE: FORD C14-44 OR APPROVED EQUAL 1.5" SERVICE: FORD C14-66 OR APPROVED EQUAL
(11)	PRV W/DOUBLE UNION, SIZE TO MATCH METER, 1" MIN.	1" PRV: WATTS #LFX65BDU OR EQUAL 1.5" OR 2" PRV: WATTS #LFX65BDU OR EQUAL

TUOLUMNE UTILITIES DISTRICT

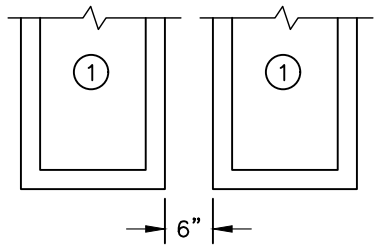
WATER SERVICE BOX AND PRESSURE-REDUCING VALVE

REV. 10-16-26

STD. DWG. NO. **208-PRV**



WATER SERVICE



WATER SERVICE BOX SEPARATION

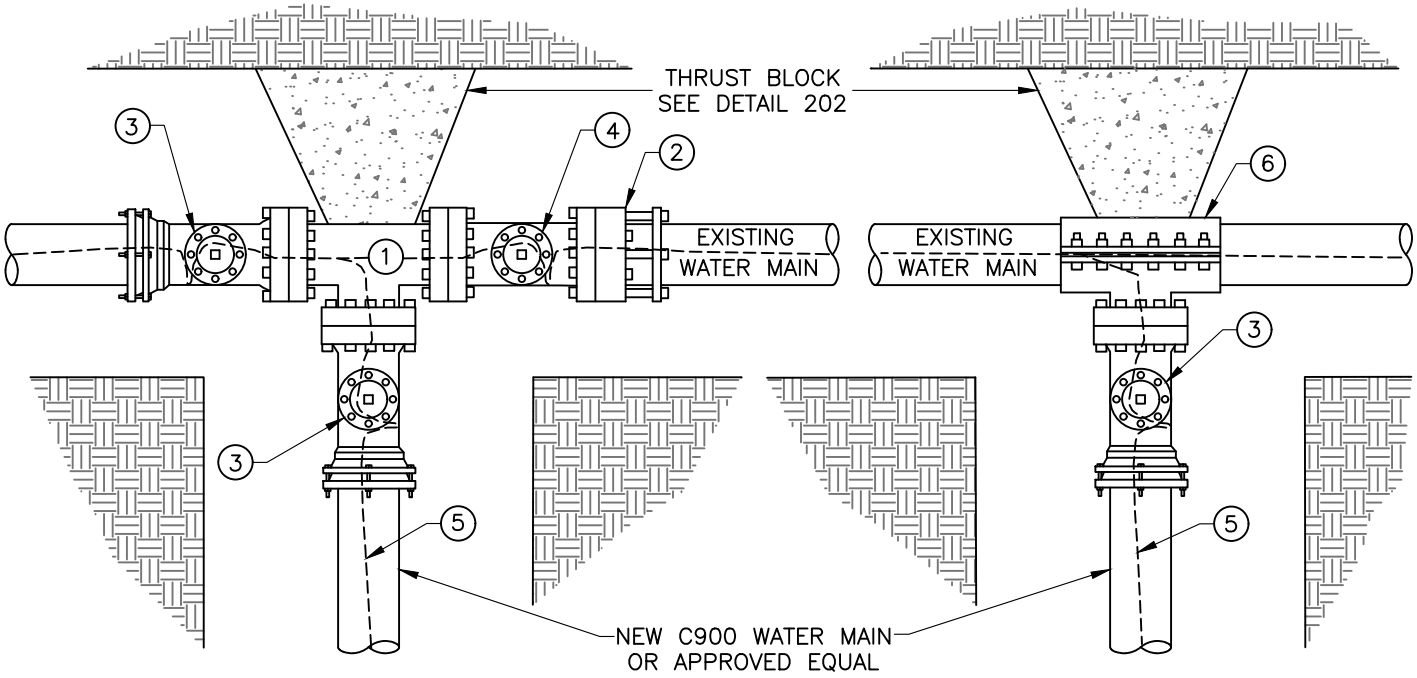
NOTES

A. SERVICES SHALL BE LOCATED OUT OF TRAVELED WAY (INCLUDING SHOULDERS) UNLESS APPROVED BY T.U.D.
B. SERVICES LOCATED WITHIN THE TRAVELED WAY SHALL HAVE A 6" WIDE BY 6" DEEP CONCRETE COLLAR.
C. ONE METER PER BOX ONLY.
D. FOR DOUBLE, TRIPLE, OR QUADRUPLE SERVICE, USE BRASS PIPE FOR MANIFOLD BELOW ANGLE STOPS, SAME SIZE AS SERVICE PIPE.
E. METERS WILL BE SET BY T.U.D. AFTER APPLICATION OF SERVICE IS SIGNED AND FEES ARE PAID.
F. USE POLYETHYLENE SERVICE TUBING CONTINUOUS FROM MAIN TO 90° ELBOW, 1"ø FOR SINGLE SERVICE, 1 1/2"ø FOR DOUBLE SERVICE, AND 2"ø FOR TRIPLE & QUADRUPLE SERVICE.
G. SERVICE SADDLES SHALL BE 3 FT. MIN. FROM PIPE FITTINGS, JOINTS AND TAPS.
H. PER SECTION 64591 OF THE CALIFORNIA WATERWORKS STANDARDS, ALL ITEMS IN CONTACT WITH POTABLE WATER SHALL BE CERTIFIED AS MEETING THE SPECIFICATIONS OF NSF600.
I. CONTRACTOR SHALL BE RESPONSIBLE TO PRESSURE TEST ALL PIPE, VALVES & FITTINGS UP TO THE ANGLE STOP.

ITEM	DESCRIPTION	REMARKS
(1)	1" METER: B16 CONCRETE OR "HUBBELL" POLYMER CONCRETE W/A6000489T RADIO READ LID; 1 1/2" METER: B30 BOX W/B30G RADIO READ LID; 2" METER: B36 BOX W/B36G RADIO READ LID	
(2)	LOCKABLE ANGLE STOP FOR 1" METERS: LOCKABLE ANGLE STOP FOR 1 1/2" OR 2" METERS:	FORD BA13-444W-NL FORD BFA13-666W-NL OR BFA13-777W-NL
(3)	POLYETHYLENE SERVICE TUBING, "CTS" 200 PSI MIN.	CENTENNIAL CENFLO, ADS POLYFLEX, OR APPROVED EQUAL, SEE NOTE 'F'
(4)	#12 AWG INSULATED LOCATOR WIRE	SINGLE STRAND COPPER, SEE DWG. 102
(5)	SERVICE SADDLE, MATCH TUBING SIZE, NOTE 'F'	FORD FCD202, POWERSEAL 3417, OR APPROVED EQUAL
(6)	TRAFFIC VALVE BOX MARKED "WATER"	CHRISTY G5 BOX W/G5C LID OR APPROVED EQUAL
(7)	2" RESILIENT WEDGE GATE VALVE, EPOXY COATED	AMERICAN AVK45 OR APPROVED EQUAL (2" SERVICE)
(8)	2" MIP x CTS ADAPTER (BRASS)	MULTIPLE SERVICES ONLY
(9)	CORPORATION STOP, 1"ø MIN. MATCH TUBING SIZE (MALE x MALE)	1" SERVICE: FORD FB500-4-NL OR APPROVED EQUAL 1.5" SERVICE: FORD FB500-6-NL OR APPROVED EQUAL
(10)	FEMALE x CTS PACK JOINT COUPLING	1" SERVICE: FORD C14-44 OR APPROVED EQUAL 1.5" SERVICE: FORD C14-66 OR APPROVED EQUAL

TUOLUMNE UTILITIES DISTRICT
WATER SERVICE BOX

REV. 10-16-26
STD. DWG. NO. **208**



CUT-IN-TEE

T.U.D. APPROVAL REQUIRED.
MAIN LINE SHUTDOWN REQUIRED.

HOT-TAP

NOTES

A. UNLESS OTHERWISE APPROVED, ALL CONNECTIONS TO EXISTING T.U.D. MAINS SHALL BE BY "HOT–TAP" WITH APPROVED TAPPING SLEEVE, TUESDAY THROUGH THURSDAY, WITH 7 DAYS ADVANCE NOTICE.
B. WATER AND FIRE PROTECTION SERVICE SHALL NOT BE DISRUPTED WITHOUT PRIOR APPROVAL BY T.U.D.
C. NOTIFICATION TO CUSTOMERS OF WATER OUTAGE SHALL FIRST BE MADE BY T.U.D.; 48 HOURS NOTICE IS REQUIRED PRIOR TO WORK BEING PERFORMED BY THE CONTRACTOR.
D. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DRAIN AND DISPOSE OF WATER FROM THE EXISTING MAIN UNDER THE SUPERVISION OF T.U.D.
E. T.U.D. IS RESPONSIBLE FOR FLUSHING AND PURGING THE EXISTING MAIN AFTER THE CONNECTION HAS BEEN MADE.
F. VALVE ON NEW BRANCH IS TO REMAIN CLOSED FOR A MINIMUM OF 5 DAYS TO ALLOW THE CONCRETE THRUST BLOCK TO CURE.
G. ALL FITTINGS INSTALLED ON EXISTING WATER MAINS SHALL BE 3 FT. MIN. FROM JOINTS, FITTINGS OR TAPS.
H. COAT BURIED NUTS & BOLTS WITH KOPPERS BITUMASTIC NO. 50 OR NAPA #MAC8400 RUBBERIZED UNDERCOAT.
I. WRAP ALL FITTINGS, BOLTS, AND NUTS WITH 8 MIL. MIN. POLYETHYLENE SHEETING AND SECURE WITH 3 WRAPS OF 10 MIL. TAPE. COMPLETE WRAPPING PRIOR TO CONCRETE PLACEMENT. KEEP FITTINGS, BOLTS, NUTS, AND THREADS FREE OF CONCRETE AT ALL TIMES.
J. NO SOAP ON EXISTING C900 WATER MAINS.

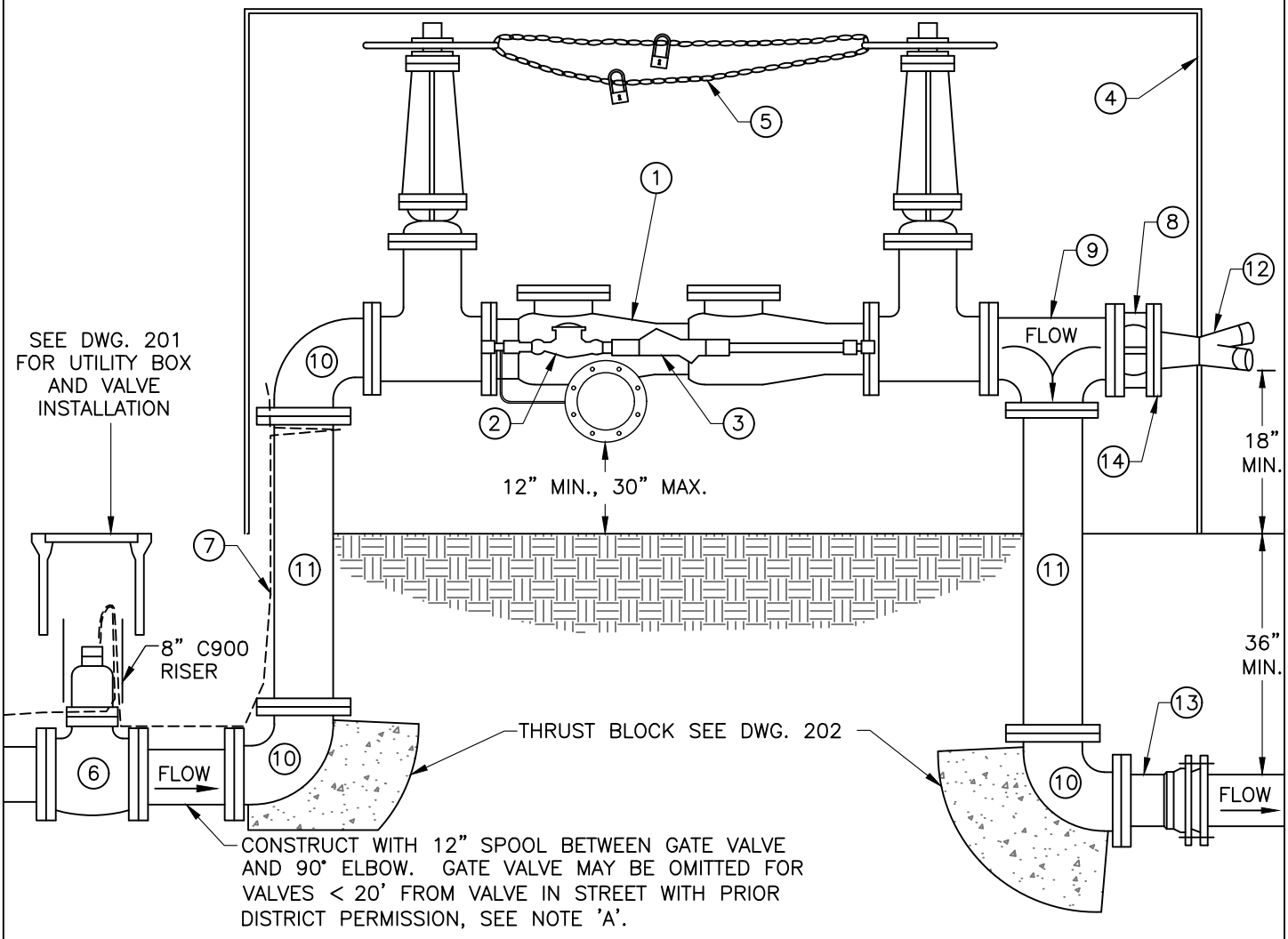
ITEM	QTY	DESCRIPTION	REMARKS
(1)	1	FLANGED TEE	
(2)	1	CUT IN SLEEVE	FORD STYLE FFCA OR APPROVED EQUAL
(3)	3	RESILIENT WEDGE VALVE	FLANGE x MJ UNLESS OTHERWISE APPROVED, SEE DWG. 201
(4)	1	RESILIENT WEDGE VALVE	FLANGE x FLANGE
(5)		#12 AWG INSULATED LOCATOR WIRE	SINGLE STRAND COPPER, SEE DWG. 102
(6)	1	STAINLESS STEEL TAPPING SLEEVE	ROMAC "SST", JCM432, FORD "FAST" OR APPROVED EQUAL

TUOLUMNE UTILITIES DISTRICT

WATER MAIN CONNECTION TO EXISTING WATER MAIN

REV. 10–16–26

STD. DWG. NO. **209**



NOTES

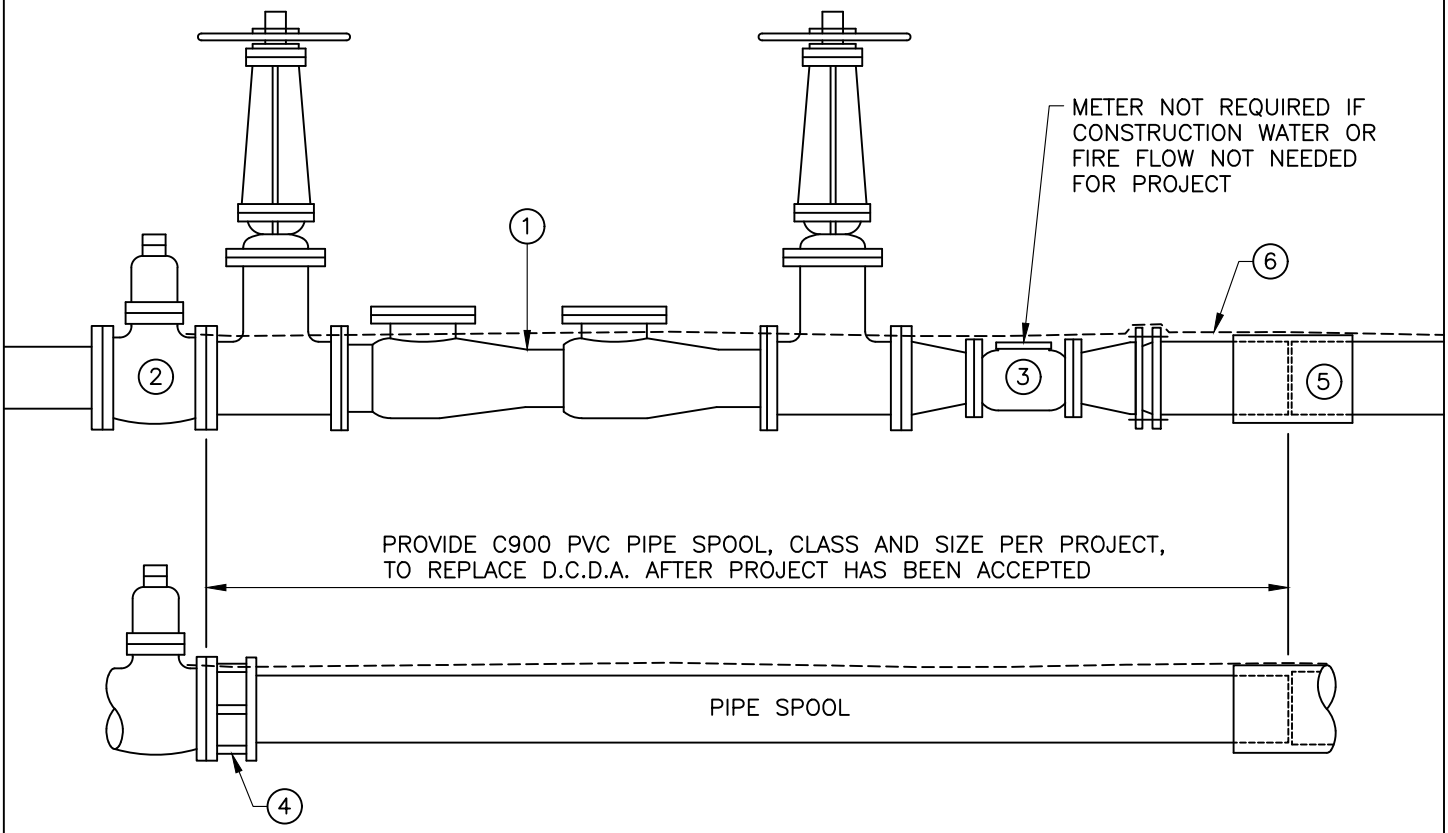
A. ALL MAINTENANCE, LIABILITY AND TESTING OF THE REDUCED–PRESSURE DETECTOR ASSEMBLY (R.P.D.A.) SHALL BE SOLELY BY CUSTOMER, PER T.U.D. REGULATIONS, STARTING AT THE VALVE CLOSEST TO THE R.P.D.A.
B. EXPOSED MAIN AND BYPASS PIPE ABOVE GROUND SHALL BE WRAPPED WITH INSULATION WHEREVER IT DOES NOT INTERFERE WITH OPERATION OF THE R.P.D.A.
C. R.P.D.A. SHALL BE CERTIFIED LEAD FREE ON THE CURRENT STATE APPROVED LIST.
D. CHECK WITH THE APPROPRIATE FIRE DEPARTMENT FOR SPECIFIC ADDITIONAL REQUIREMENTS.
E. FIRE DEPARTMENT CONNECTION SHALL BE LOCATED SUCH THAT HOSE LINES CAN BE READILY ATTACHED WITHOUT INTERFERENCE FROM NEARBY OBJECTS INCLUDING BUILDINGS, FENCES OR OTHER FIRE DEPT. CONNECTIONS.
F. COAT BURIED NUTS & BOLTS WITH KOPPERS BITUMASTIC NO. 50 OR NAPA #MAC8400 RUBBERIZED UNDERCOAT.
G. WRAP ALL FITTINGS, BOLTS, AND NUTS WITH 8 MIL. MIN. POLYETHYLENE SHEETING AND SECURE WITH 3 WRAPS OF 10 MIL. TAPE. COMPLETE WRAPPING PRIOR TO CONCRETE PLACEMENT. KEEP FITTINGS, BOLTS, NUTS, AND THREADS FREE OF CONCRETE AT ALL TIMES.

ITEM	QTY	DESCRIPTION
(1)	1	REDUCED–PRESSURE DETECTOR ASSEMBLY WITH OS & Y VALVES OUTSIDE STEM AND YOLK. SEE NOTE 'C'.
(2)	1	BYPASS METER MUST READ IN CUBIC FT.
(3)	1	BYPASS REDUCED–PRESSURE BACKFLOW PREVENTER
(4)	1	WEATHERGUARD BLANKET (OR EQUAL) OR APPROVED ENCLOSURE
(5)	1	1/4" GALV. STEEL CHAIN W/2 KEYED PADLOCKS: ONE FOR T.U.D. AND ONE FOR CAL FIRE
(6)	1	RESILIENT WEDGE GATE VALVE, SEE DWG. 201
(7)	1	#12 AWG INSULATED LOCATOR WIRE, SINGLE STRAND COPPER, SEE DWG. 102
(8)	1	WAFER CHECK VALVE, VAL–MATIC SERIES 1400, FLOMATIC #888, OR APPROVED EQUAL
(9)	1	DUCTILE IRON FLANGED TEE
(10)	3	DUCTILE IRON 90° FLANGED ELBOW
(11)	2	DUCTILE IRON FLANGED RISER
(12)	1	FIRE DEPARTMENT CONNECTION (THREADED)
(13)	2	FLANGE x MJ FITTING
(14)	1	THREADED COMPANION FLANGE

TUOLUMNE UTILITIES DISTRICT
REDUCED-PRESSURE DETECTOR ASSEMBLY

REV. 10–16–26
STD. DWG. NO. **210**

INSTALLATION OF TEMPORARY DOUBLE CHECK DETECTOR ASSEMBLY REQUIRED PRIOR TO CONSTRUCTION OF NEW WATER FACILITIES.



NOTES

A. DOUBLE CHECK DETECTOR ASSEMBLY (D.C.D.A.) SHALL BE ON THE CURRENT STATE–APPROVED LIST. SEE T.U.D. FOR LIST.
B. COAT BURIED NUTS & BOLTS WITH KOPPERS BITUMASTIC NO. 50 OR NAPA #MAC8400 RUBBERIZED UNDERCOAT.
C. WRAP ALL FITTINGS, BOLTS, AND NUTS WITH 8 MIL. MIN. POLYETHYLENE SHEETING AND SECURE WITH 3 WRAPS OF 10 MIL. TAPE. COMPLETE WRAPPING PRIOR TO CONCRETE PLACEMENT. KEEP FITTINGS, BOLTS, NUTS, AND THREADS FREE OF CONCRETE AT ALL TIMES.
D. CONTRACTOR IS RESPONSIBLE FOR SUPPORTING AND PROTECTING D.C.D.A. AND METER UNTIL PROJECT HAS BEEN COMPLETED AND ACCEPTED BY T.U.D.

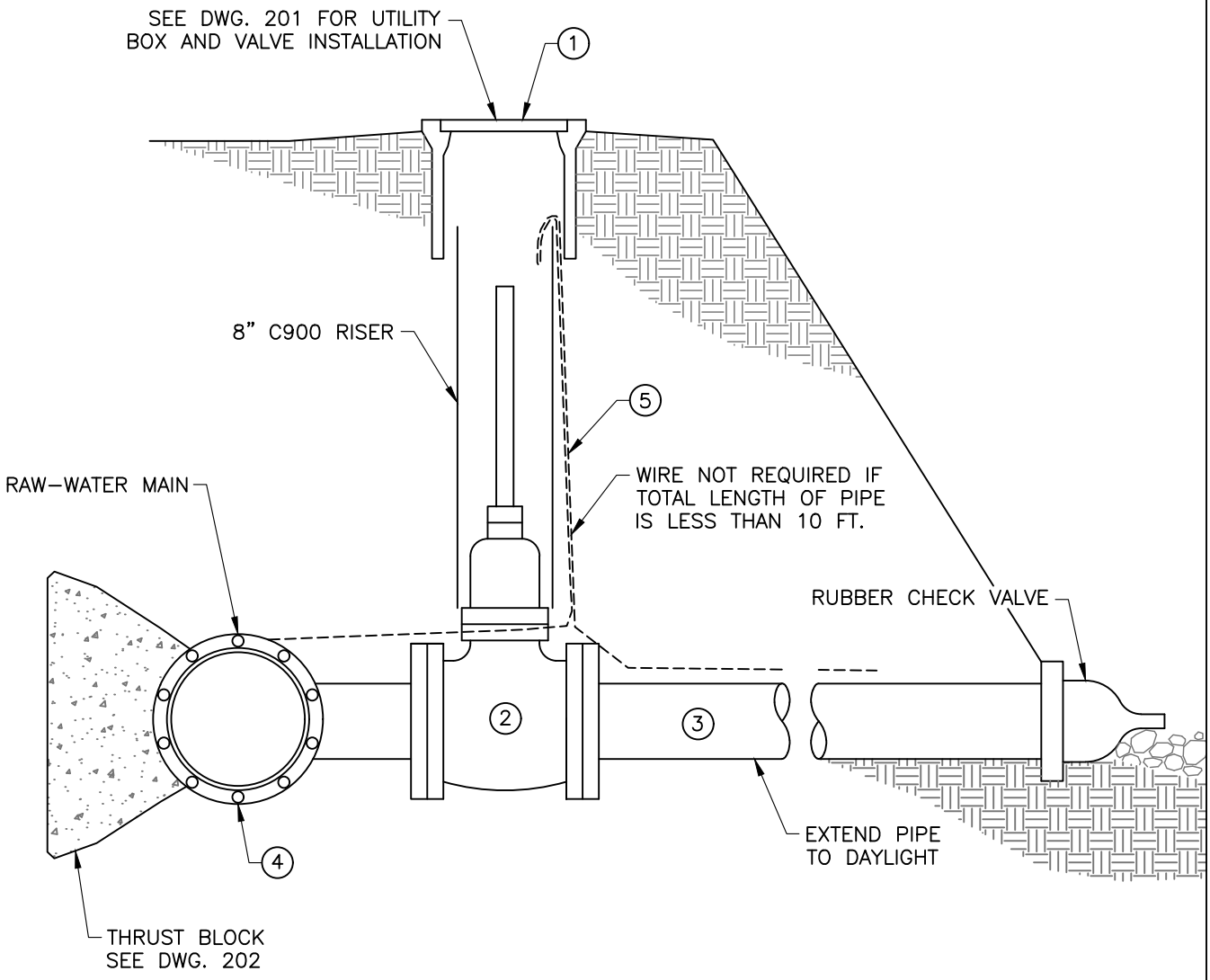
ITEM	QTY	DESCRIPTION
(1)	1	APPROVED DOUBLE CHECK DETECTOR ASSEMBLY
(2)	1	RESILIENT WEDGE GATE VALVE, SEE DWG. 201
(3)	1	4" TURBINE METER WITH 6"x4" FLxFL REDUCER & 4"x8" FL x MJ REDUCER
(4)	1	FLANGE x COUPLING ADAPTER
(5)	1	C900 COUPLING
(6)		#12 AWG INSULATED LOCATOR WIRE, SINGLE STRAND COPPER, SEE DWG. 102

TUOLUMNE UTILITIES DISTRICT

DOUBLE CHECK DETECTOR ASSEMBLY FOR PROJECT UNDER CONSTRUCTION

REV. 10–16–26

STD. DWG. NO. **211**



NOTES

A. EXTEND OUTLET PIPE INTO DRAINAGE AREA TO AVOID EROSION PROBLEMS AT OUTLET. SUPPORT SHALL BE HANDLED ON A CASE BY CASE BASIS. INSTALL 12" MIN. STONE RIPRAP TO DISSIPATE ENERGY.
B. ROTATE BLOWOFF DOWNHILL MAKING SURE VALVE IS EASILY ACCESSIBLE.
C. COAT BURIED NUTS & BOLTS WITH KOPPERS BITUMASTIC NO. 50 OR NAPA #MAC8400 RUBBERIZED UNDERCOAT.
D. WRAP ALL FITTINGS, BOLTS, AND NUTS WITH 8 MIL. MIN. POLYETHYLENE SHEETING AND SECURE WITH 3 WRAPS OF 10 MIL. TAPE. COMPLETE WRAPPING PRIOR TO CONCRETE PLACEMENT. KEEP FITTINGS, BOLTS, NUTS, AND THREADS FREE OF CONCRETE AT ALL TIMES.

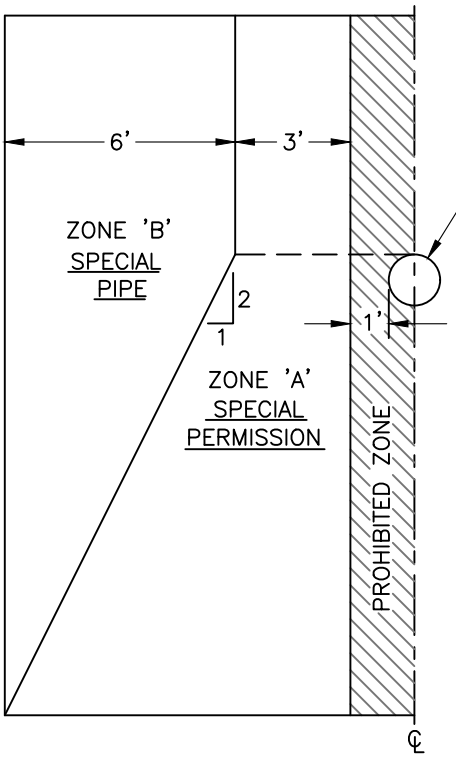
ITEM	QTY	DESCRIPTION	REMARKS
(1)	1	TRAFFIC VALVE BOX W/LID MARKED "WATER"	CHRISTY G5 W/G5C LID
(2)	1	RESILIENT WEDGE GATE VALVE	SEE DWG. 201
(3)	1	C900 PVC DR18	PIPE SIZE SHALL BE ½Ø OF MAIN LINE OR 4"Ø MIN.
(4)	1	FLANGED TEE TO MATCH MAIN LINE AND OUTLET SIZE	CAST IRON, CLASS 150, OR AS APPROVED BY T.U.D.
(5)		#12 AWG INSULATED LOCATOR WIRE	SINGLE STRAND COPPER, SEE DWG. 102

TUOLUMNE UTILITIES DISTRICT

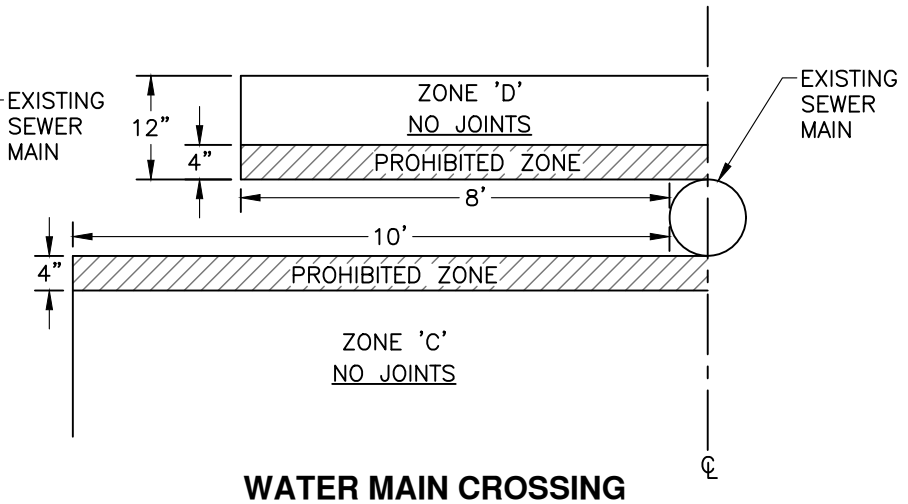
RAW-WATER MAIN LOW-POINT BLOWOFF

REV. 10-16-26

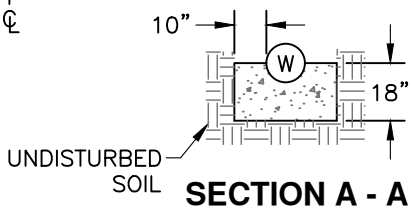
STD. DWG. NO. **212**



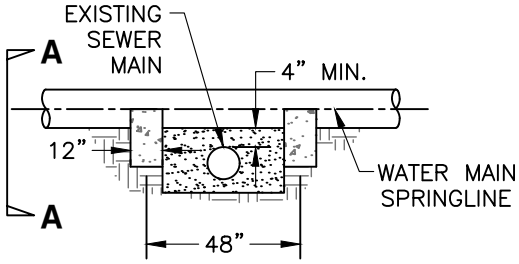
WATER MAIN PARALLEL TO EXISTING GRAVITY SEWER MAIN



WATER MAIN CROSSING EXISTING SEWER MAIN



SECTION A - A



CONCRETE PIPE SUPPORT

REQUIRED IF 12" OR LESS SEPARATION

SPECIAL CONSTRUCTION REQUIRED FOR WATER MAIN

ZONE A: WATER MAIN PARALLEL TO SEWER MAIN SHALL NOT BE PERMITTED IN THIS ZONE PER CCR TITLE 22 SECTION 64572, WITHOUT APPROVAL FROM T.U.D.

ZONE B: WATER MAIN PARALLEL TO SEWER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE WITH INTERIOR CEMENT COATING OR C900 PIPE (DR14 OR DR18).

ZONE C: WATER MAIN CROSSING UNDER SEWER MAIN SHALL HAVE NO JOINTS WITHIN 10 FEET AND SHALL BE CONSTRUCTED WITH ONE OF THE TWO MATERIALS LISTED UNDER ZONE B.

ZONE D: WATER MAIN CROSSING OVER SEWER MAIN SHALL HAVE NO JOINTS WITHIN 8 FEET OF SEWER MAIN AND SHALL BE CONSTRUCTED OF ZONE 'B' MATERIALS.

NOTES

A. WATER MAIN PARALLEL TO SEWER FORCE-MAIN SHALL HAVE A HORIZONTAL SEPARATION OF 10 FT. MIN.

B. WATER MAIN CROSSING OVER SEWER FORCE-MAIN SHALL BE AS CLOSE TO PERPENDICULAR AS PRACTICAL AND AT LEAST ONE FOOT ABOVE FORCE-MAIN. WATER MAIN SHALL HAVE NO JOINTS WITHIN 10 FEET EITHER SIDE OF FORCE-MAIN AND BE CONSTRUCTED OF ZONE 'B' MATERIAL.

C. WATER MAIN PARALLEL TO STORM DRAIN SHALL HAVE A HORIZONTAL SEPARATION OF 4 FEET AND A VERTICAL SEPARATION OF ONE FOOT. VERTICAL SEPARATION IS REQUIRED ONLY WHEN HORIZONTAL SEPARATION IS 10 FEET OR LESS.

D. ALL DRY UTILITIES SHALL MAINTAIN 5 FEET HORIZONTAL SEPARATION WHEN PARALLEL, 1 FOOT VERTICAL SEPARATION WHEN CROSSING, AND SHALL BE LOCATED UNDER EXISTING WATER AND SEWER. DRY UTILITIES MAY ONLY BE LOCATED OVER EXISTING WATER AND SEWER WITH PRIOR DISTRICT APPROVAL AND SHALL MAINTAIN 6 INCHES OF VERTICAL SEPARATION. A PROTECTIVE CONCRETE OR 3-SACK SLURRY CAP (6" MIN. THICK) SHALL BE PLACED OVER ALL CONDUITS.

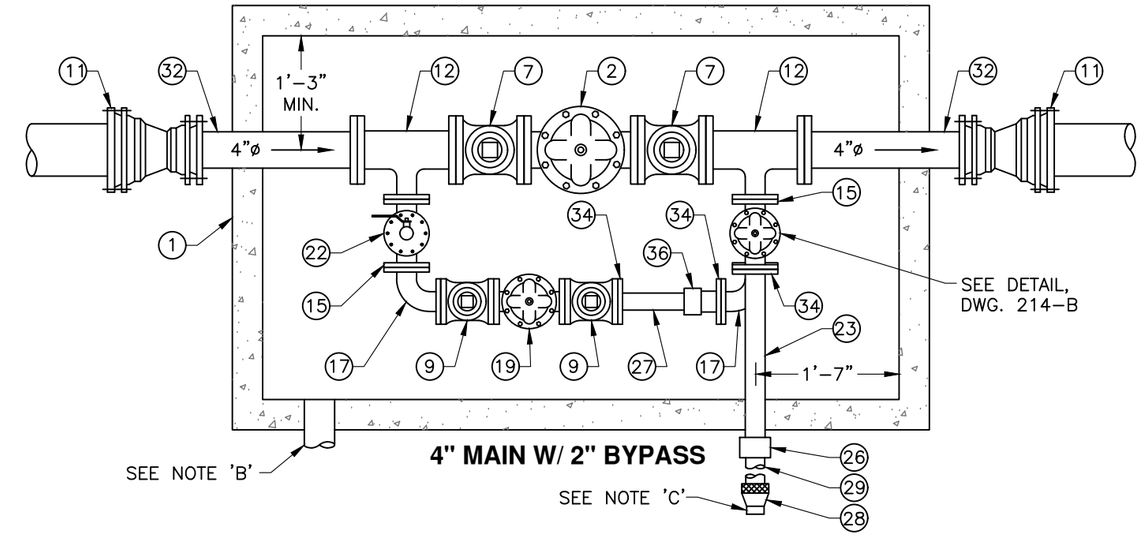
TUOLUMNE UTILITIES DISTRICT

WATER MAIN CONSTRUCTED NEAR EXISTING SEWER MAIN

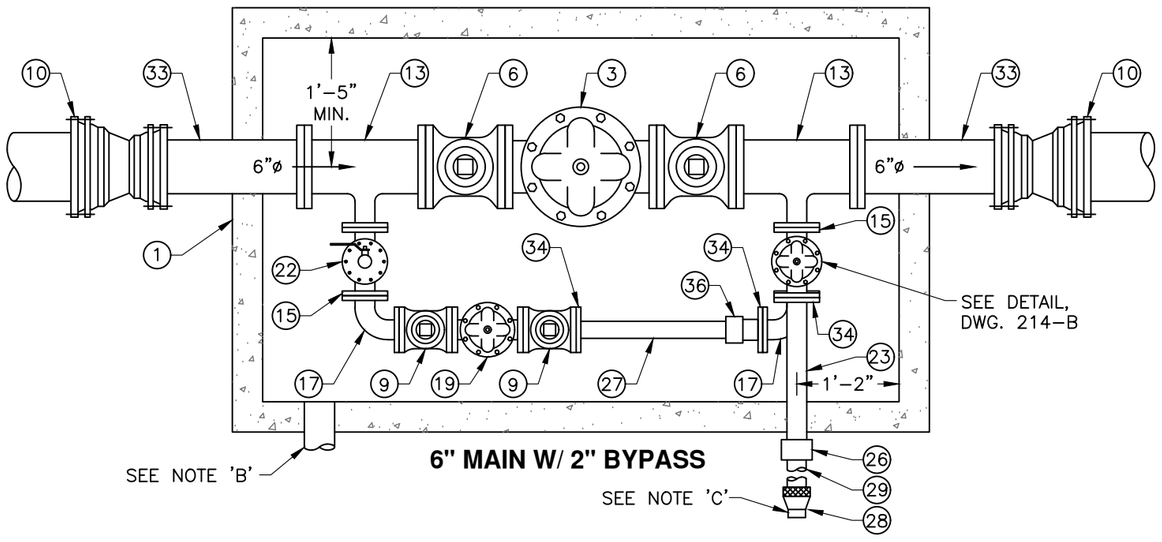
REV. 10-16-26

STD. DWG. NO.

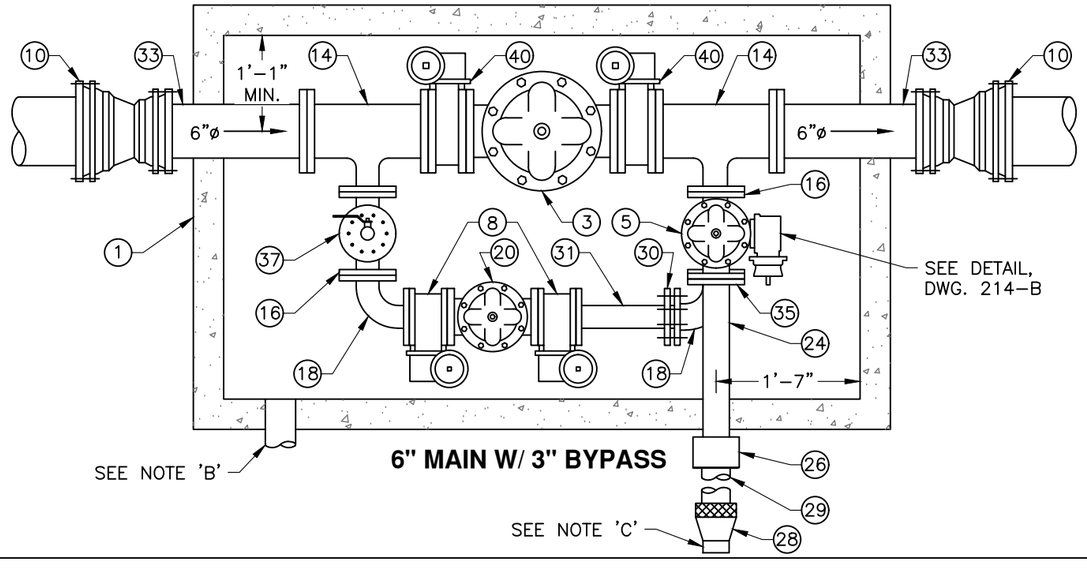
213



4" MAIN W/ 2" BYPASS



6" MAIN W/ 2" BYPASS



6" MAIN W/ 3" BYPASS

	QTY	ITEM	NOTES
(1)		VAULT: CHRISTY R37 PIT W/R37–HT H20 RATED COVER OR APPROVED EQUAL.	
(2)	1	4" P.R.V. W/STAINLESS STEEL TRIM, (FL)	CLA–VAL 90–01 WEST COAST IN STOCK OR EQ. SELECT SPRING BASED ON PRESSURE
(3)	1	6" P.R.V. W/STAINLESS STEEL TRIM, (FL)	CLA–VAL 90–01 WEST COAST IN STOCK OR EQ. SELECT SPRING BASED ON PRESSURE
(4)	1	2" PRESSURE RELIEF VALVE W/STAINLESS STEEL TRIM, ANGLE STYLE, (FL)	CLA–VAL 50–01 OR EQ. SELECT SPRING BASED ON PRESSURE, CAN ROTATE 90° AS NEEDED, SEE DWG. 214–B
(5)	1	3" PRESSURE RELIEF VALVE W/STAINLESS STEEL TRIM, ANGLE STYLE, (FL)	CLA–VAL 50–01 OR EQ. SELECT SPRING BASED ON PRESSURE, CAN ROTATE 90° AS NEEDED, SEE DWG. 214–B
(6)	2	6" RESILIENT WEDGE GATE VALVE, (FL)	
(7)	2	4" RESILIENT WEDGE GATE VALVE, (FL)	
(8)	3	3" BUTTERFLY VALVE AVK–816, (FL)	SEE DWG. 214–B
(9)	2	2" RESILIENT WEDGE GATE VALVE, (FL)	SEE DWG. 214–B
(10)	2	_"x6" MJxMJ REDUCER	
(11)	2	_"x4" MJxMJ REDUCER	
(12)	2	4"x4"x2" TEE, DUCTILE IRON, (FL)	
(13)	2	6"x6"x2" TEE, DUCTILE IRON, (FL)	
(14)	2	6"x6"x3" TEE, DUCTILE IRON, (FL)	
(15)	2	2"x2"x2" TEE, DUCTILE IRON, (FL)	SEE DWG. 214–B
(16)	2	3"x3"x3" TEE, DUCTILE IRON, (FL)	SEE DWG. 214–B
(17)	2	2" 90° ELBOW, (FL)	
(18)	2	3" 90° ELBOW, (FL)	
(19)	1	2" PRESSURE RELIEF VALVE W/SS TRIM, (FL)	CLA–VAL 90–01 WEST COAST IN STOCK OR EQ., KO KIT AS REQ.
(20)	1	3" PRESSURE RELIEF VALVE W/SS TRIM, (FL)	CLA–VAL 90–01 WEST COAST IN STOCK OR EQ., KO KIT AS REQ.
(21)	1	2" F.I.P. BRONZE BALL VALVE	
(22)	1	2"x1" COMPANION FLANGE, 1"x3" BRASS NIPPLE, & 1" F.I.P. BRONZE BALL VALVE	
(23)	1	2"x30" BRASS NIPPLE	
(24)	1	3"x36" BRASS NIPPLE	
(25)	1	_" BLIND FLANGE	TAP AS NEEDED FOR PRESSURE GAUGE, CAVV, SAMPLE POINTS
(26)	1	_" PVC ADAPTER	
(27)	1	2" BRASS BRASS NIPPLE, THREADED x _	FIELD FIT
(28)	1	_" RUBBER CHECK VALVE (SLIP)	PROCO MDL 730 OR EQ.
(29)	1	_" PVC SCH40	FIELD FIT LENGTH
(30)	1	3" UNIFLANGE ADAPTER	
(31)	2	3"x_" DUCTILE IRON SPOOL (FLxPE)	FIELD FIT LENGTH
(32)	2	4"x30" LONG MIN. DUCTILE IRON SPOOL (FLxPE)	FIELD FIT LENGTH
(33)	2	6"x30" LONG MIN. DUCTILE IRON SPOOL (FLxPE)	FIELD FIT LENGTH
(34)	5	2" THREADED COMPANION FLANGE	
(35)	1	3" THREADED COMPANION FLANGE	
(36)	1	2" MIPxPACK JOINT	
(37)	1	3"x1" COMPANION FLANGE, 1"x3" BRASS NIPPLE, & 1" F.I.P. BRONZE BALL VALVE	
(38)	1	2"x5" BRASS NIPPLE	
(39)	1	2"x3" BRASS NIPPLE	
(40)	2	6" BUTTERFLY VALVE AVK–816, (FL)	

NOTES

A. COAT BURIED NUTS & BOLTS WITH KOPPERS BITUMASTIC NO. 50 OR NAPA #MAC8400 RUBBERIZED UNDERCOAT.
B. WRAP ALL FITTINGS, BOLTS, AND NUTS WITH 8 MIL. MIN. POLYETHYLENE SHEETING AND SECURE WITH 3 WRAPS OF 10 MIL. TAPE. COMPLETE WRAPPING PRIOR TO CONCRETE PLACEMENT. KEEP FITTINGS, BOLTS, NUTS, AND THREADS FREE OF CONCRETE AT ALL TIMES.
C. 3" DRAIN TO DAYLIGHT; FIELD LOCATE PENETRATION; LENGTH & ORIENTATION OF DRAIN PIPE TO BE DETERMINED IN FIELD; ATTACH RODENT SCREEN TO END OF PIPE.
D. RELIEF PIPELINE, DRAIN TO DAYLIGHT, PLACE MIN. 3'x6' RIPRAP APRON AT DISCHARGE POINT.
E. TOP (2) BOLTS ON ALL PRV FLANGES MUST BE ALL THREAD.

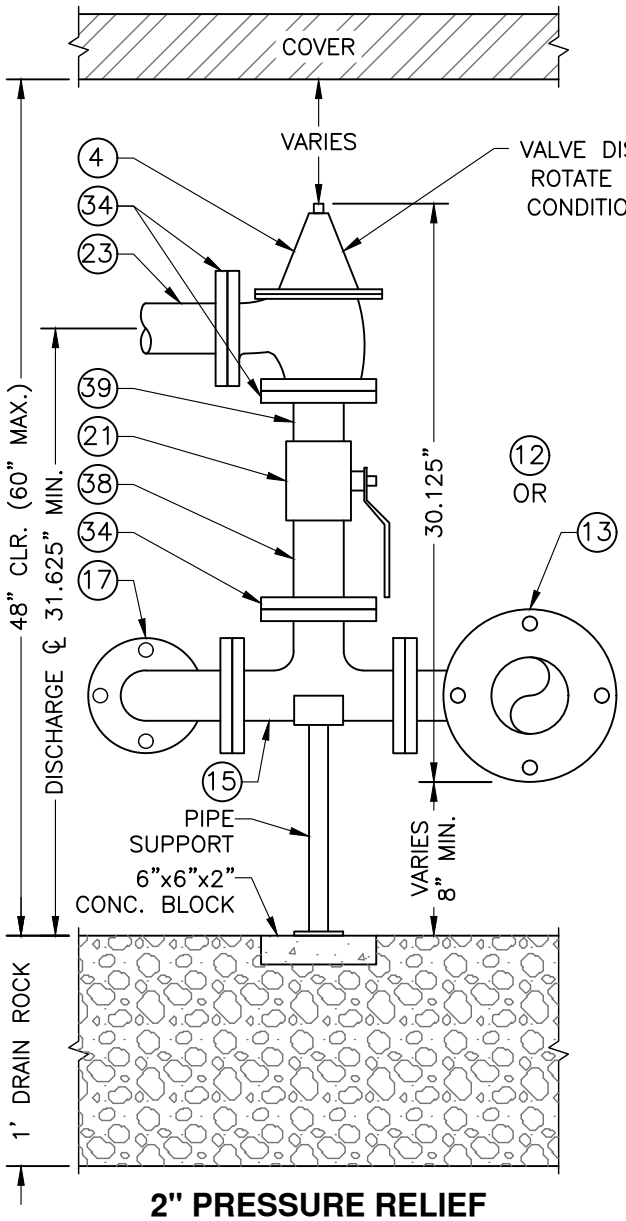
TUOLUMNE UTILITIES DISTRICT

PRESSURE REDUCING STATION FOR 4" & 6" MAIN WITH 2" OR 3" BYPASS

REV. 10–16–26

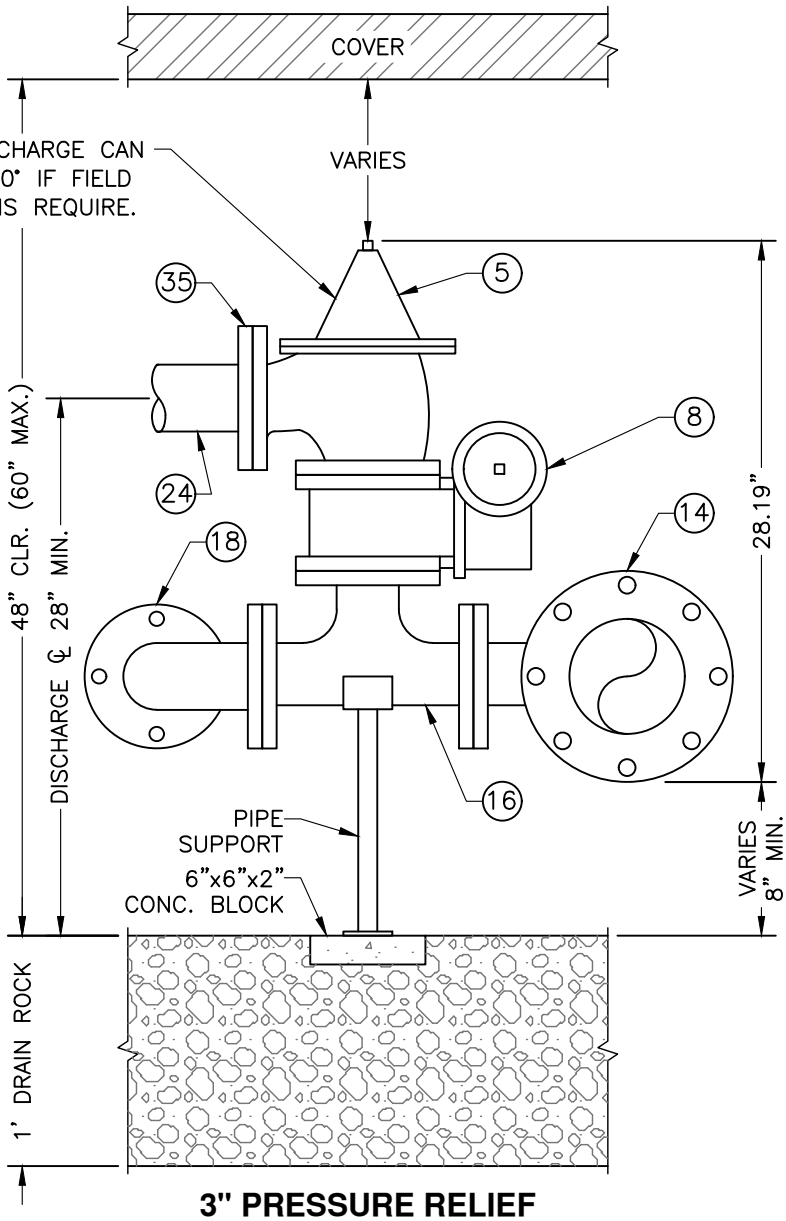
STD. DWG. NO. **214-A**

NOTE: QUANTITIES LISTED ON STD. DWG. 214–A.



2" PRESSURE RELIEF

VALVE DISCHARGE CAN ROTATE 90° IF FIELD CONDITIONS REQUIRE.



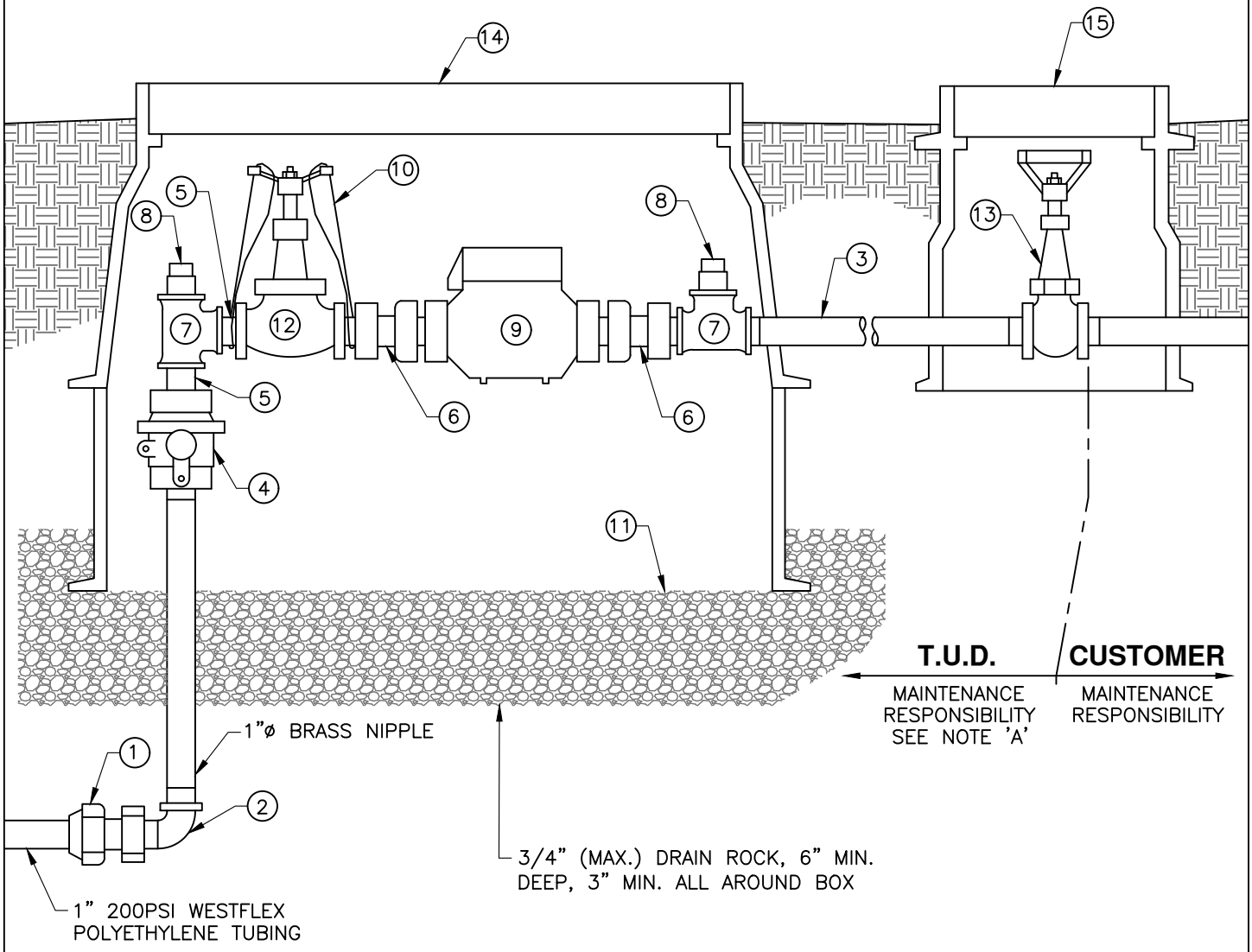
3" PRESSURE RELIEF

TUOLUMNE UTILITIES DISTRICT

PRESSURE REDUCING STATION DETAILS WITH 2" OR 3" BYPASS

REV. 10–16–26

STD. DWG. NO. **214-B**



NOTES

A. CUSTOMER TO PROVIDE PRV AND Y–STRAINER IF NECESSARY.

ITEM	QTY	DESCRIPTION	REMARKS
(1)	1	1" CTS TO 1" MALE IPS (PACK JOINT)	FORD #C84–44 OR APPROVED EQUAL
(2)	1	1" BRASS STREET 90° ELBOW	
(3)	2	1" STEEL NIPPLE, 18" LONG	GALV. SCH40
(4)	1	1" CURB–STOP (BALL VALVE) W/PADLOCK WING	FORD #B11–444 OR APPROVED EQUAL
(5)	2	1" STEEL CLOSE NIPPLE	GALV. SCH40
(6)	2	METER COUPLING 1" MALE IPS TO 5/8"x3/4" METER THD.	FORD #38–24–2.5
(7)	2	1" TEE	GALV. 150# MI
(8)	2	1" PIPE PLUG W/SQ. HEAD	GALV.
(9)	1	METERED ACCOUNTS: 5/8"x3/4" METER UNMETERED ACCOUNTS: 7 1/2" METER IDLER	FORD NO. 2
(10)	2	PG&E WIRE SECURITY TIES	TO PREVENT TAMPERING
(11)		DRAIN ROCK	
(12)	1	1" GLOBE VALVE CL150 BRONZE, TEFLON SEAT SCREWED	STOCKHAM B–22T
(13)	1	GATE VALVE, CLASS 150 BRONZE, SCREWED	STOCKHAM B–120
(14)	1	"FIBRELYTE" BOX	CHRISTY FL30 W/FL30D LID OR APPROVED EQUAL
(15)	1	"FIBRELYTE" BOX	CHRISTY FL8 W/FL8D LID OR APPROVED EQUAL

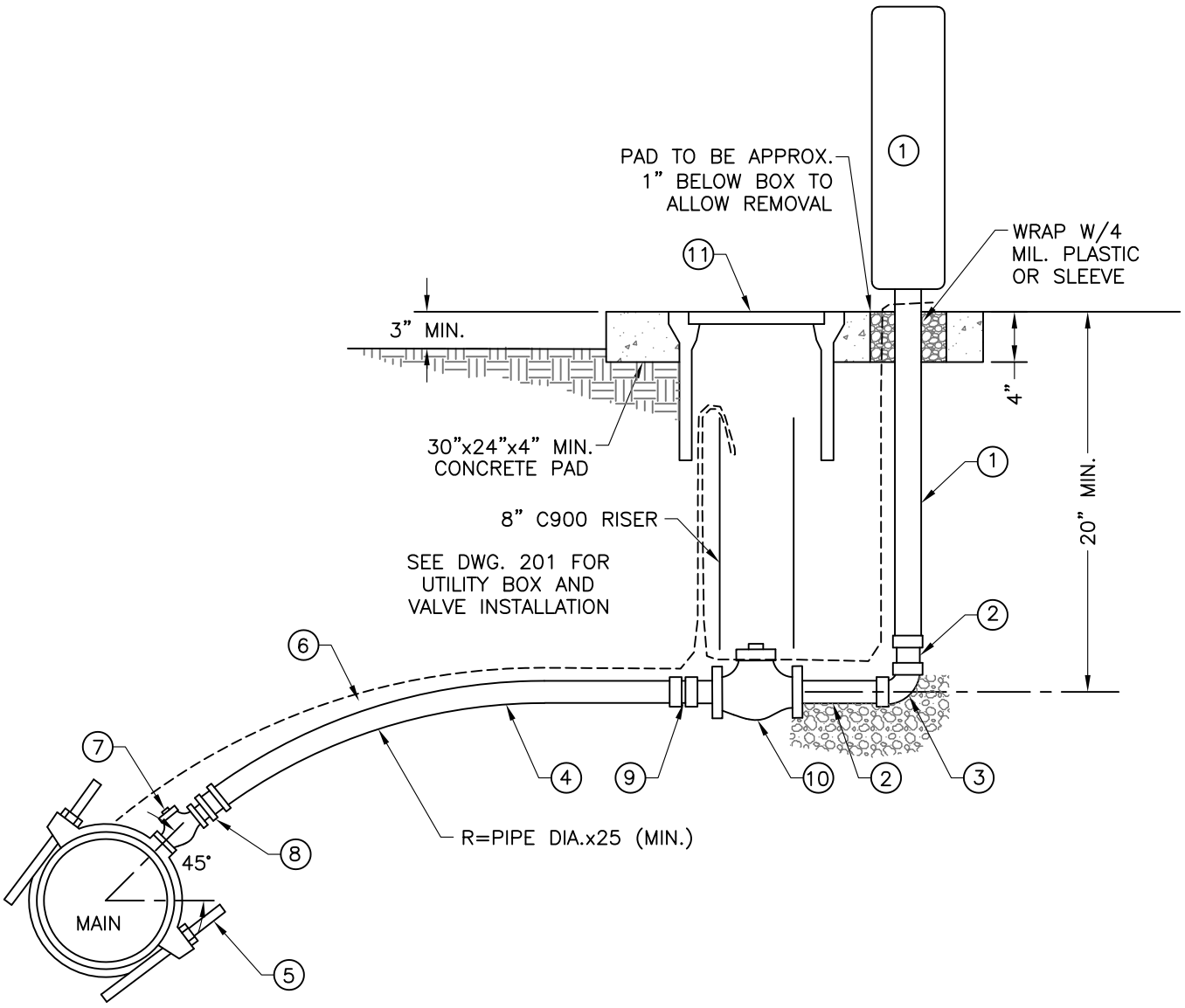
TUOLUMNE UTILITIES DISTRICT

RAW-WATER SERVICE ON PRESSURE PIPELINE

REV. 10–16–26

STD. DWG. NO. **215**

NOTE: ADD BOLLARDS AS NEEDED PER DISTRICT INSPECTOR.



NOTES

A. SAMPLE STATION SHALL BE LOCATED NEAR THE PROPERTY LINE OR EASEMENT IN AN EASILY ACCESSIBLE AREA THAT IS NOT SUBJECT TO TRAFFIC. BOLLARDS MAY BE REQUIRED.
B. SERVICE SADDLES SHALL BE 3 FEET MIN. FROM PIPE FITTINGS, JOINTS AND TAPS.
C. INSULATE ABOVE-GROUND PIPE WITH 3/8" THICK FOAM PIPE INSULATION.

ITEM	QTY	DESCRIPTION	REMARKS
1	1	PREFABRICATED SAMPLE STATION	AMERICAN MACHINE AND CONVEYOR MODEL EZ-02FCW, 24"-44" HIGH, COLOR CHOSEN BY DISTRICT OR KUPFERLE MAINGUARD #66.
2	1	3/4" BRASS NIPPLE	
3	1	3/4" BRASS 90° ELBOW	
4	1	3/4" POLYETHYLENE SERVICE TUBING	CENTENNIAL CENFLOW ADS POLY, OR APPROVED EQUAL, 200 PSI MIN.
5	1	3/4" SERVICE SADDLE	FORD FS202 STAINLESS STEEL BAND
6	1	#12 AWG INSULATED LOCATOR WIRE	SINGLE STRAND COPPER, SEE DWG. 102
7	1	CORPORATION STOP (MALE x MALE)	FORD F500-4/C14-44-3/4"
8	1	3/4" FIP x CTS PACK JOINT	
9	1	3/4" MIP x CTS PACK JOINT	
10	1	CURB STOP INCLUDED W/ SAMPLE STATION UNIT	
11	1	TRAFFIC VALVE BOX WITH LID MARKED "WATER"	CHRISTY G5 W/G5C LID OR APPROVED EQUAL

TUOLUMNE UTILITIES DISTRICT
SAMPLE STATION (WATER)

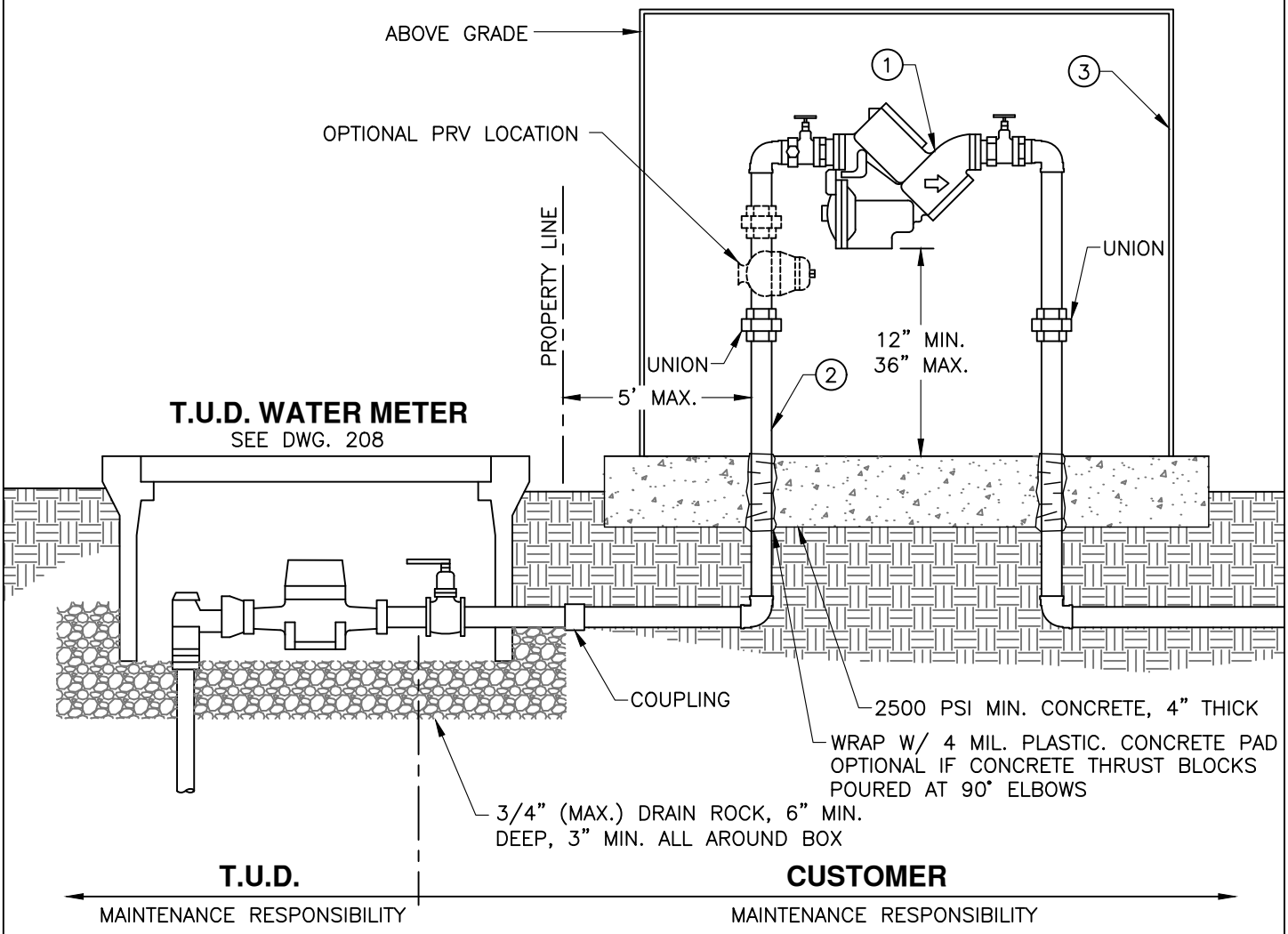
REV. 10-16-26

STD. DWG. NO. **216**

COMMON REDUCED–PRESSURE BACKFLOW DEVICES (MUST BE CERTIFIED LEAD FREE):

FEBCO–825Y
WATTS–LF009 SERIES
WILKINS–975XL2

REDUCED-PRESSURE BACKFLOW DEVICE



NOTES

A. REDUCED–PRESSURE BACKFLOW ASSEMBLY SHALL BE LOCATED AS CLOSE AS POSSIBLE TO THE T.U.D. WATER METER WITH NO TEES OR CONNECTIONS BETWEEN THEM. ALL FACILITITES SHALL BE INSPECTED BY THE DISTRICT PRIOR TO BACKFILL.

B. FITTINGS, JOINTS, BOLTS AND NUTS ARE TO BE COVERED WITH PLASTIC SHEETING (4 MIL THICK MIN.) OR 10 MIL. TAPE PRIOR TO PLACEMENT OF CONCRETE. NO CONCRETE TO BE ALLOWED ON BOLTS OR PIPE.

C. WRAP ALL UNDERGROUND GALVANIZED PIPE WITH 10 MIL. TAPE.

D. IF SOLID ENCLOSURE IS USED, MAINTAIN 12" MIN. CLEARANCE AROUND TEST–COCKS.

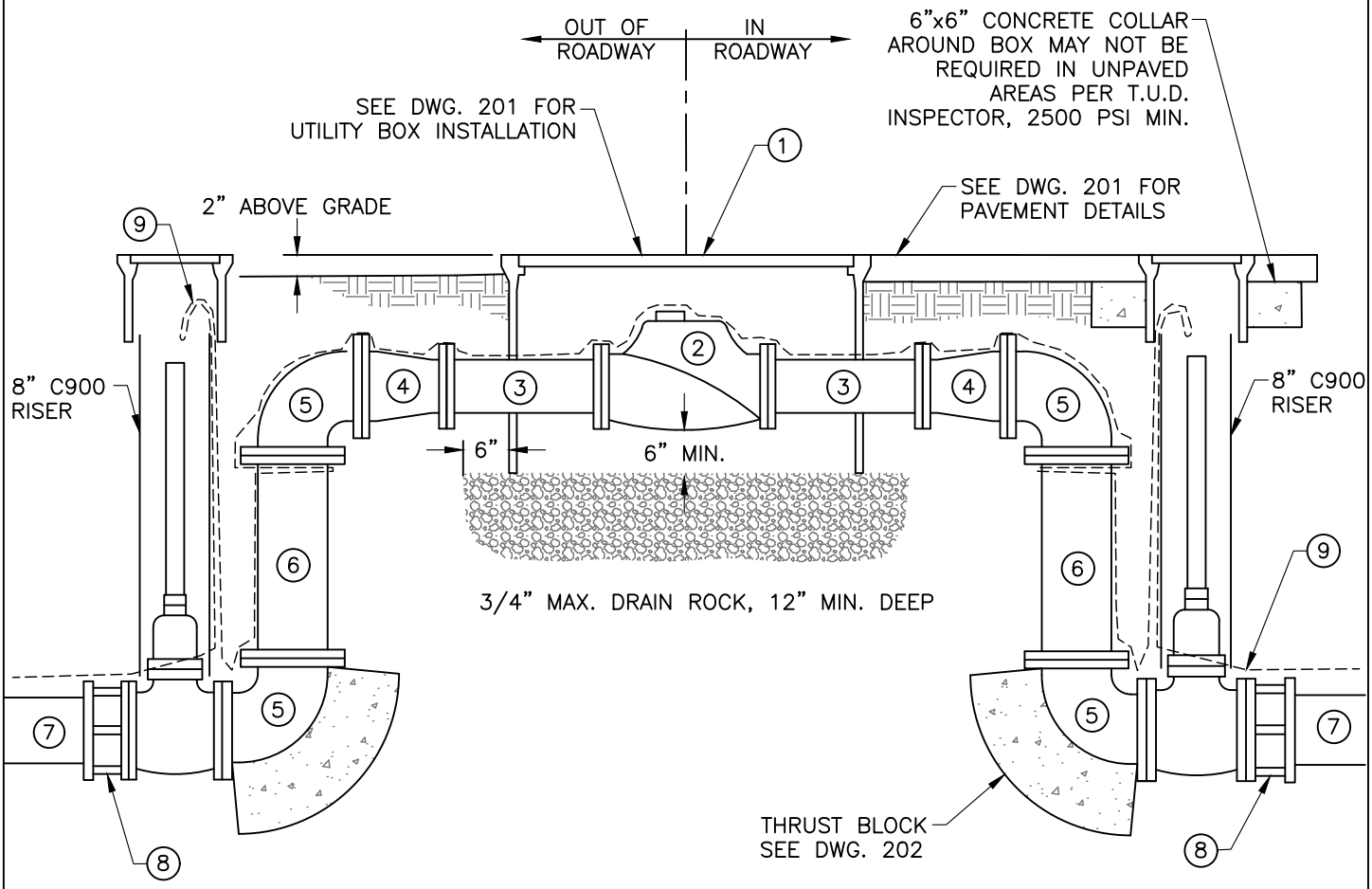
ITEM	QTY	DESCRIPTION	REMARKS
(1)	1	REDUCED–PRESSURE BACKFLOW PREVENTION ASSEMBLY	BRAND/MODEL PER STATE WATER BOARD SPECIFICATIONS
(2)	1	BRASS OR GALVANIZED IRON PIPE	SIZE VARIES, SEE NOTE 'C'
(3)	1	INSULATED PROTECTIVE ENCLOSURE	WEATHERGUARD BLANKET OR EQUAL, SEE NOTE 'D'

TUOLUMNE UTILITIES DISTRICT

REDUCED-PRESSURE BACKFLOW PREVENTION ASSEMBLY

REV. 10–16–26

STD. DWG. NO. **217**



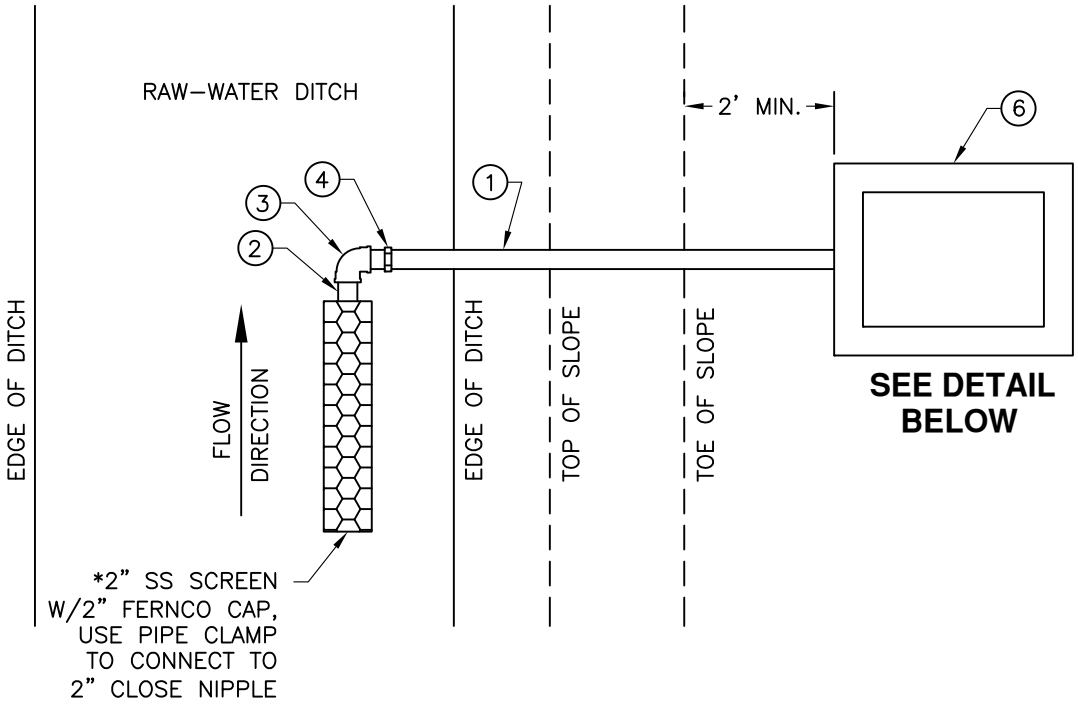
NOTES

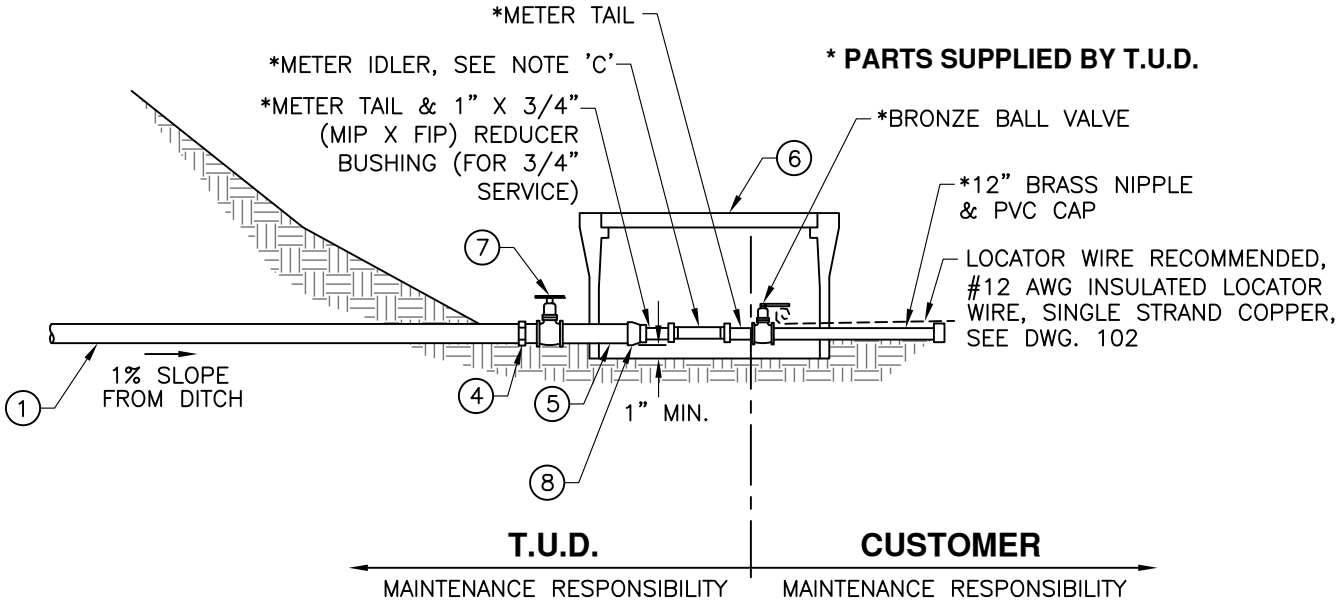
A. COAT BURIED NUTS & BOLTS WITH KOPPERS BITUMASTIC NO. 50 OR NAPA #MAC8400 RUBBERIZED UNDERCOAT.
B. WRAP ALL FITTINGS, BOLTS, AND NUTS WITH 8 MIL. MIN. POLYETHYLENE SHEETING AND SECURE WITH 3 WRAPS OF 10 MIL. TAPE. COMPLETE WRAPPING PRIOR TO CONCRETE PLACEMENT. KEEP FITTINGS, BOLTS, NUTS, AND THREADS FREE OF CONCRETE AT ALL TIMES.
C. ALL EXPOSED PIPING SHALL BE PAINTED PANTONE PURPLE.

ITEM	QTY	DESCRIPTION	REMARKS
(1)	1	B48 BOX	W/TRAFFIC RATED STEEL LID
(2)	1	6" TURBINE OR MAG METER	AS DIRECTED BY T.U.D.
(3)	2	6" DUCTILE IRON SPOOL	FLANGE x FLANGE
(4)	2	6"x8" DUCTILE IRON REDUCER	FLANGE x FLANGE
(5)	4	8" DUCTILE IRON 90° ELBOW	FLANGE x FLANGE
(6)	2	8" DUCTILE IRON RISER	FLANGE x FLANGE, LENGTH AS NECESSARY
(7)		8" C900 WATERLINE	
(8)	2	FLANGE x MJ ADAPTER	
(9)		#12 AWG INSULATED LOCATOR WIRE	SINGLE STRAND COPPER, SEE DWG. 102
(10)	2	8" RESILIENT WEDGE GATE VALVE (FL x FL)	SEE DWG. 201

TUOLUMNE UTILITIES DISTRICT
MASTER WATER METER ON WATER MAIN

REV. 10-16-26
STD. DWG. NO. **218**





NOTES

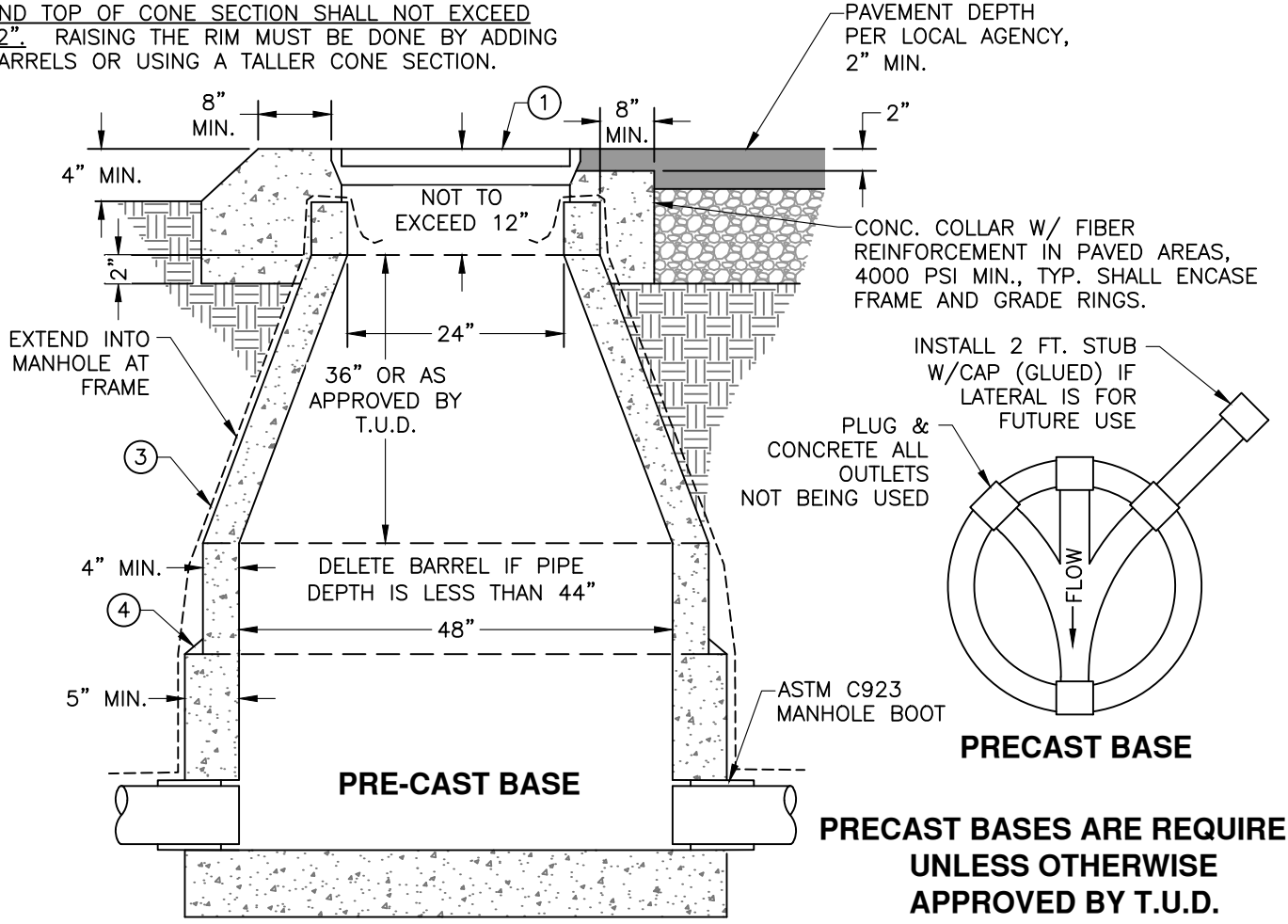
A. METER SIZE VARIES AND SHALL BE DETERMINED BY THE DISTRICT ENGINEER.
B. SERVICES SHALL BE LOCATED OUT OF TRAVEL WAY (INCLUDING SHOULDERS) UNLESS APPROVED BY T.U.D.
C. METERS WILL BE SET BY T.U.D. AFTER APPLICATION IS SIGNED AND FEES ARE PAID.
D. USE POLYETHYLENE SERVICE TUBING CONTINUOUS FROM ELBOW TO GATE VALVE, 2" MINIMUM.

ITEM	QTY	DESCRIPTION	REMARKS
(1)	1	2" CTS POLYETHYLENE SERVICE TUBING	CENTENNIAL CENFLOW OR APPROVED EQUAL
(2)	1	2" CLOSE NIPPLE	BRASS
(3)	1	2" 90° ELBOW	BRASS
(4)	2	2" MIP x CTS PACK JOINT	FORD C84–77 OR EQUAL
(5)	1	2" BRASS THREADED NIPPLE	4"–6" LONG
(6)	1	CARSON 1220 BOX W/T–COVER	12" DEPTH, GREEN BOX AND LID
(7)	1	2" BRONZE GATE VALVE, THREADED	RED & WHITE OR APPROVED EQUAL
(8)	1	2"x1" REDUCER (FIP x FIP)	BRASS

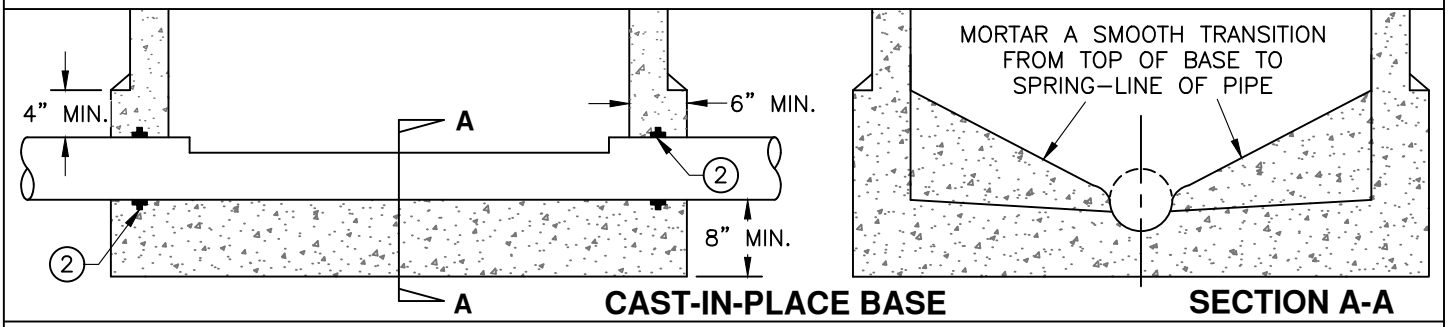
TUOLUMNE UTILITIES DISTRICT
RAW-WATER SERVICE ON OPEN DITCH

REV. 10–16–26
STD. DWG. NO. **219**

NOTE: WHEN RAISING EXISTING MANHOLE TO MATCH FINISHED GRADE, THE DISTANCE BETWEEN THE RIM AND TOP OF CONE SECTION SHALL NOT EXCEED 12". RAISING THE RIM MUST BE DONE BY ADDING BARRELS OR USING A TALLER CONE SECTION.



PRECAST BASES ARE REQUIRED UNLESS OTHERWISE APPROVED BY T.U.D.



NOTES

A. USE 2500 PSI CONCRETE MIN. FOR CAST-IN PLACE BASE. PIPES ARE TO BE CONTINUOUS THROUGH MANHOLE WITH THE TOP CUT AWAY AFTER BASE CURES.
B. PRECAST BASE (JENSEN) TO HAVE FITTINGS FOR PVC PIPE, 2, 3 OR 4-WAY AS REQUIRED; ALL CHANNELS TO MATCH LARGEST PIPE.
C. PRECAST CONES AND BARREL SECTIONS (JENSEN) SHALL CONFORM TO ASTM SPEC. C-478.
D. ALL MANHOLE JOINTS SHALL BE SEALED WITH KENT-SEAL #2, CONSEAL CS-102, OR APPROVED EQUAL. TRIM AND MORTAR INSIDE JOINTS TO A SMOOTH FINISH. FILL ALL PICK/LIFTING HOLES WITH TYPE M MORTAR.
E. IF PRE-TESTED, CONCRETE COLLAR SHALL EXTEND 2" BELOW TOP OF CONE.
F. BACKFILL MANHOLE WITH SELECT MATERIAL COMPACTED TO 95% RELATIVE DENSITY IN TRAFFIC AREAS, 90% IN ALL OTHER AREAS.

ITEM	QTY	DESCRIPTION	REMARKS
(1)	1	25 5/16" COVER & 4 1/2" FRAME	D&L FOUNDRY A1024 (OR APPROVED EQUAL) IN TRAFFIC AREAS; NO SIDE PICK OR GASKETS
(2)	2	RUBBER WATER STOP	FERNCO CONCRETE MANHOLE ADAPTOR, (CMA) OR EQUAL
(3)		#12 AWG INSULATED LOCATOR WIRE	SINGLE STRAND COPPER, SEE DWG. 102
(4)		EXTERIOR JOINT WRAP	CONWRAP CS-212

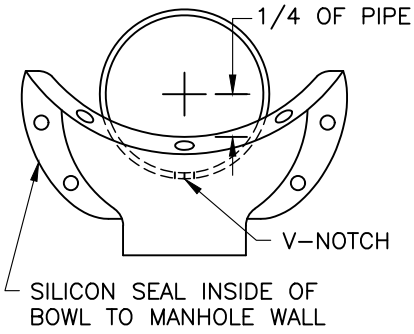
TUOLUMNE UTILITIES DISTRICT

STANDARD 48" MANHOLE

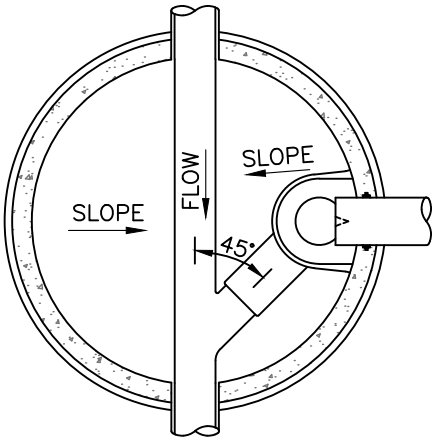
REV. 10-16-26

STD. DWG. NO. **301**

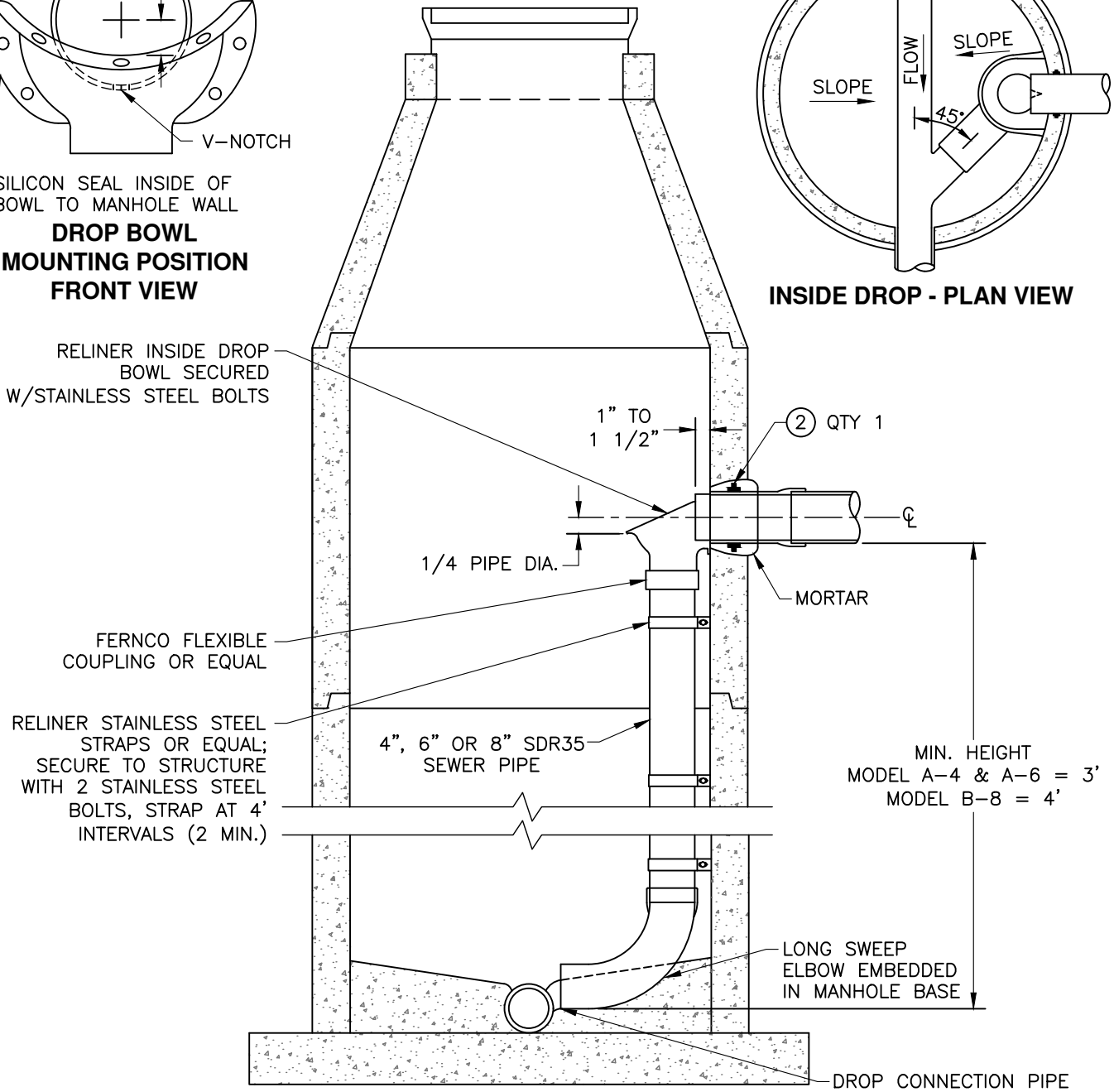
NOTE: QUANTITIES LISTED ON STD. DWG. #301.



DROP BOWL MOUNTING POSITION FRONT VIEW



INSIDE DROP - PLAN VIEW



INSIDE DROP CONNECTION

NOTES

A. ALL INSIDE DROP CONNECTIONS FOR SERVICES AND COLLECTOR SEWERS SHALL USE THE DROP BOWL AS PRODUCED BY RELINER-DURAN, WWW.RELINER.COM.
B. DROP BOWL MODEL A-4 SHALL BE USED FOR ALL LINES UP THROUGH FULL 6" INLETS. DROP BOWL MODEL A-6 SHALL BE USED FOR ALL 8" INLETS. DROP BOWL MODEL B-8 SHALL BE USED FOR ALL 10" INLETS.
C. THE FORCE LINE HOOD SHALL BE ATTACHED ON MODELS A-4 AND A-6 WHEN THE INCOMING LINE IS FROM A FORCE MAIN OR WHEN INCOMING FLOWS CANNOT BE FULLY CONTAINED.
D. SECURE DROP PIPE TO MANHOLE WALL WITH RELINER-DURAN STAINLESS STEEL ADJUSTABLE CLAMPING BRACKETS #4SS35 OR APPROVED EQUAL.
E. ATTACH THE DROP BOWL AND EACH CLAMPING BRACKET TO THE MANHOLE WALL WITH 3/8"x3 3/4" RAMSET/RED-HEAD BOLTS. PRE-ROTO DRILL AND SET BOLTS IN PLACE WITH EPOXY PASTE. EPOXY PASTE SHALL BE SIKADUR 31 HI-MOD GEL BY SIKA CORP. OR APPROVED EQUAL, IN ACCORDANCE WITH ASTM D695, ASTM D638 AND ASTM C882.

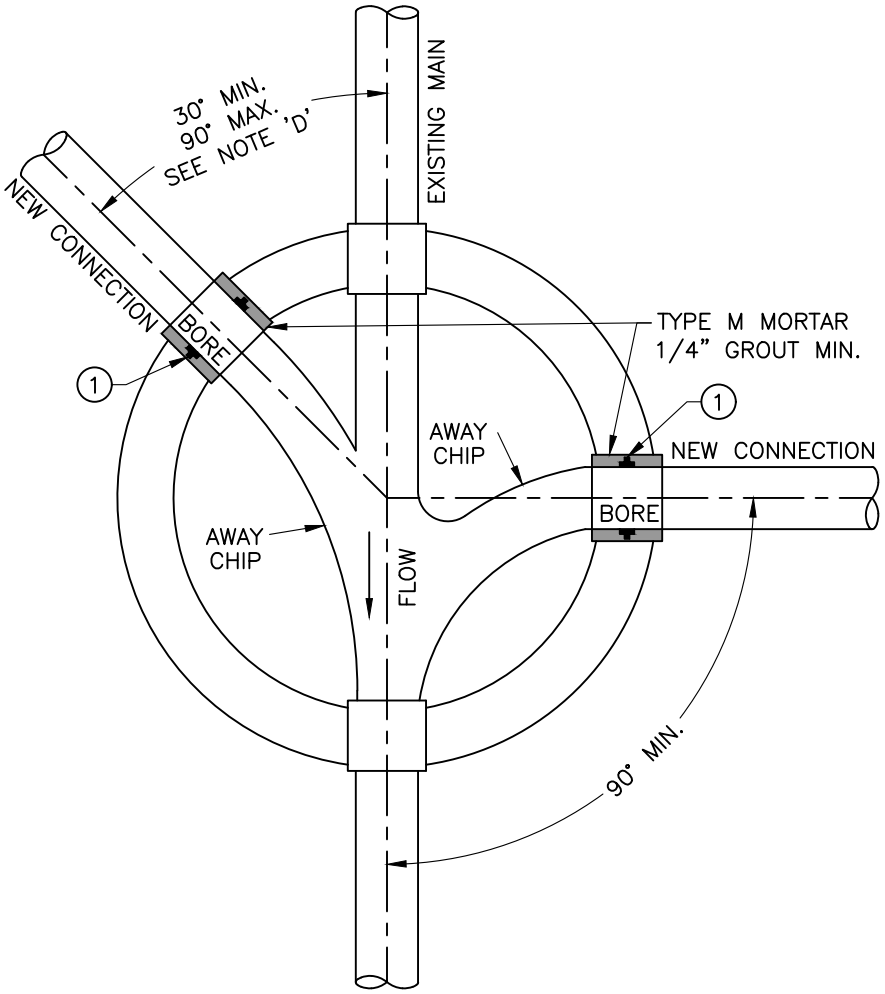
TUOLUMNE UTILITIES DISTRICT

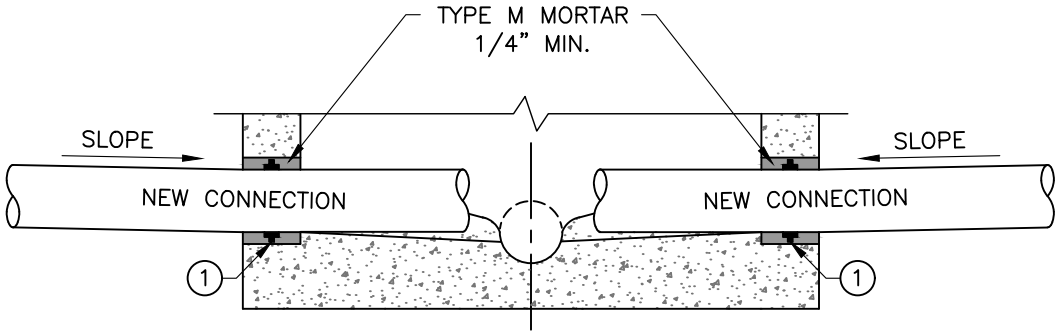
MANHOLE DROP CONNECTION

REV. 10-16-26

STD. DWG. NO. **302**

NOTE: QUANTITIES LISTED ON STD. DWG. 301.





NOTES

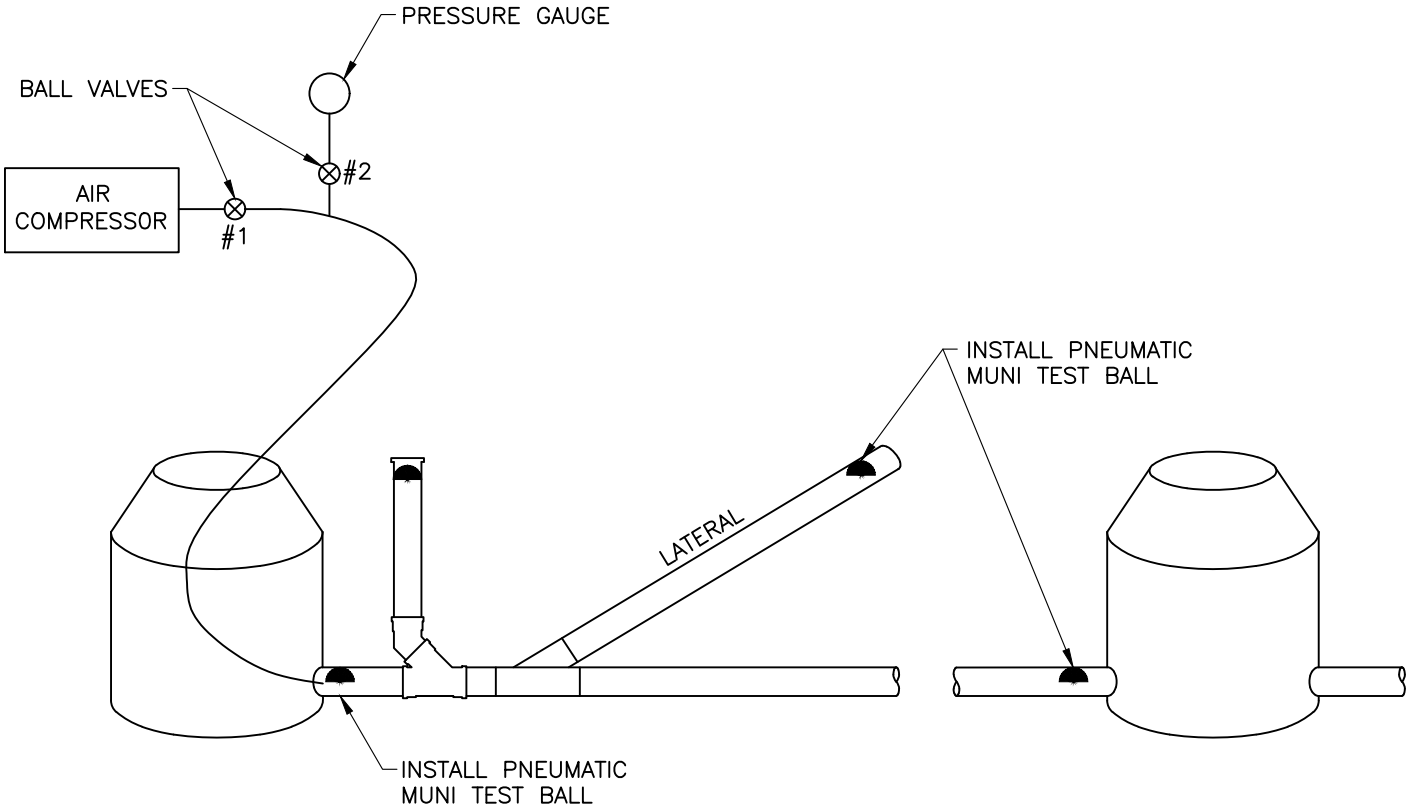
A. NEW CONNECTIONS TO BE BORED 2" LARGER THAN THE PIPE DIAMETER.
B. NEW CONNECTIONS WILL HAVE A MINIMUM SLOPE OF 2%.
C. FLOW CHANNEL FROM THE NEW CONNECTION TO THE EXISTING MAIN SHALL BE CHIPPED AWAY AND MORTARED TO A SMOOTH FINISH.
D. IF TIGHTER ENTRANCE ANGLES ARE REQUIRED DUE TO SITE CONSTRAINTS, USE LONG RADIUS BEND OUTSIDE OF MANHOLE PER T.U.D. APPROVAL.
E. CONTRACTOR IS RESPONSIBLE FOR DEBRIS REMOVAL AND PREVENTION OF FLOW BLOCKAGE WHILE UNDER CONSTRUCTION.

ITEM	QTY	DESCRIPTION	REMARKS
(1)	1	RUBBER WATER STOP	FERNCO CONCRETE MANHOLE ADAPTOR, (CMA) OR EQUAL

TUOLUMNE UTILITIES DISTRICT
SEWER CONNECTION TO EXISTING MANHOLE

REV. 10-16-26
STD. DWG. NO. **303**

TEST MUST BE PERFORMED PER ASTM F1417-11a STANDARDS.

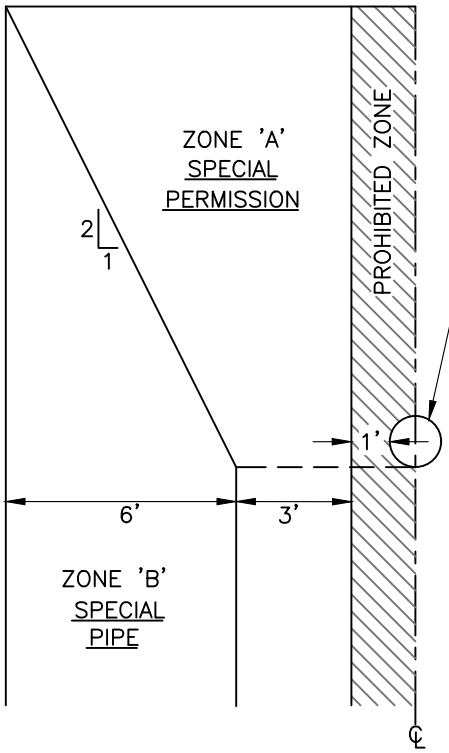


NOTES

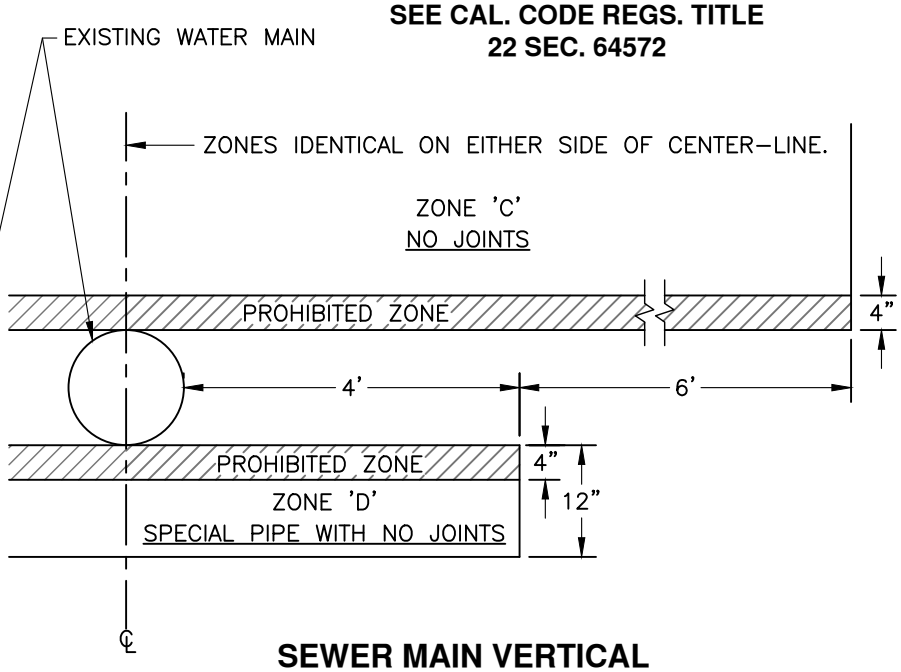
A. ALL LINES TO BE BACKFILLED AND COMPACTED.
B. BALL AND FLUSH TO BE COMPLETED.
C. PLUG ALL LATERALS AND CLEANOUTS WITH COMPRESSION–TYPE PLUGS.
D. INSTALL PNEUMATIC PLUGS IN EACH END OF THE MAIN LINE; ONE WILL NEED A MUNI TEST BALL TYPE PLUG SETUP FOR AIR HOSE CONNECTION TO THE TAPPED CENTER HOLE.
E. PRESSURIZE SEWER LINE BY CLOSING BALL VALVE #2; THIS PROTECTS GAUGE. THEN OPEN VALVE #1; ALTERNATE THESE VALVES TO CHECK PRESSURE IN THE LINE AS IT PRESSURIZES.
F. LINE MUST PASS PRESSURE TEST IN ACCORDANCE WITH STANDARD T.U.D. PROCEDURES AS OUTLINED IN THE SPECIFICATIONS.

TUOLUMNE UTILITIES DISTRICT
SEWER MAIN PRESSURE TEST

REV. 10–16–26
STD. DWG. NO. **304**



GRAVITY SEWER MAIN PARALLEL TO EXISTING WATER MAIN



SEWER MAIN VERTICAL CLEARANCE CROSSING EXISTING WATER MAIN

SPECIAL CONSTRUCTION REQUIRED FOR SEWER

ZONE A: SEWER MAIN PARALLEL TO WATER MAIN SHALL NOT BE PERMITTED IN THIS ZONE WITHOUT APPROVAL FROM TUOLUMNE UTILITIES DISTRICT.

ZONE B: SEWER MAIN PARALLEL TO WATER MAIN SHALL BE CONSTRUCTED OF:
(1) PVC SEWER PIPE WITH RUBBER RING JOINTS (ASTM D3034, SDR 35 OR EQUAL) OR
(2) CAST IRON OR DUCTILE IRON PIPE WITH COMPRESSION JOINTS. PIPE TYPE SHALL BE CONTINUOUS FROM MANHOLE TO MANHOLE.

ZONE C: SEWER MAIN CROSSING OVER WATER MAIN SHALL BE CONSTRUCTED OF:
(1) DUCTILE IRON PIPE WITH HOT DIP BITUMASTIC COATING AND MECHANICAL JOINTS, OR
(2) A CONTINUOUS SECTION OF C900, CLASS 235 PVC PIPE (DR18) CENTERED OVER PIPE BEING CROSSED, OR
(3) SDR35 PIPE IN A CONTINUOUS C900, CLASS 150 OR DUCTILE IRON SLEEVE EXTENDING 10 FT. EACH SIDE OF THE WATER PIPE.

PIPE TYPE SHALL BE CONTINUOUS FROM MANHOLE TO MANHOLE.

ZONE D: SEWER FORCE MAIN CROSSING UNDER WATER MAIN SHALL BE CONSTRUCTED OF ZONE 'C' MATERIALS.

SEWER FORCE-MAIN INSTALLATION NOTES

A. PARALLEL INSTALLATION: SEWER FORCE MAIN SHALL NOT BE INSTALLED WITHIN 10 FT. HORIZONTALLY OF WATER MAIN.

B. CROSSING UNDER WATER MAIN: SEWER FORCE MAIN MUST BE AS CLOSE TO PERPENDICULAR AS PRACTICAL AND AT LEAST ONE FOOT BELOW WATER MAIN.

C. CROSSING UNDER WATER MAIN IN ZONE 'D': SEWER FORCE MAIN WITHIN 8 FT. HORIZONTALLY OF WATER MAIN SHALL BE ENCLOSED IN A CONTINUOUS C900, CLASS 150 OR DUCTILE IRON SLEEVE.

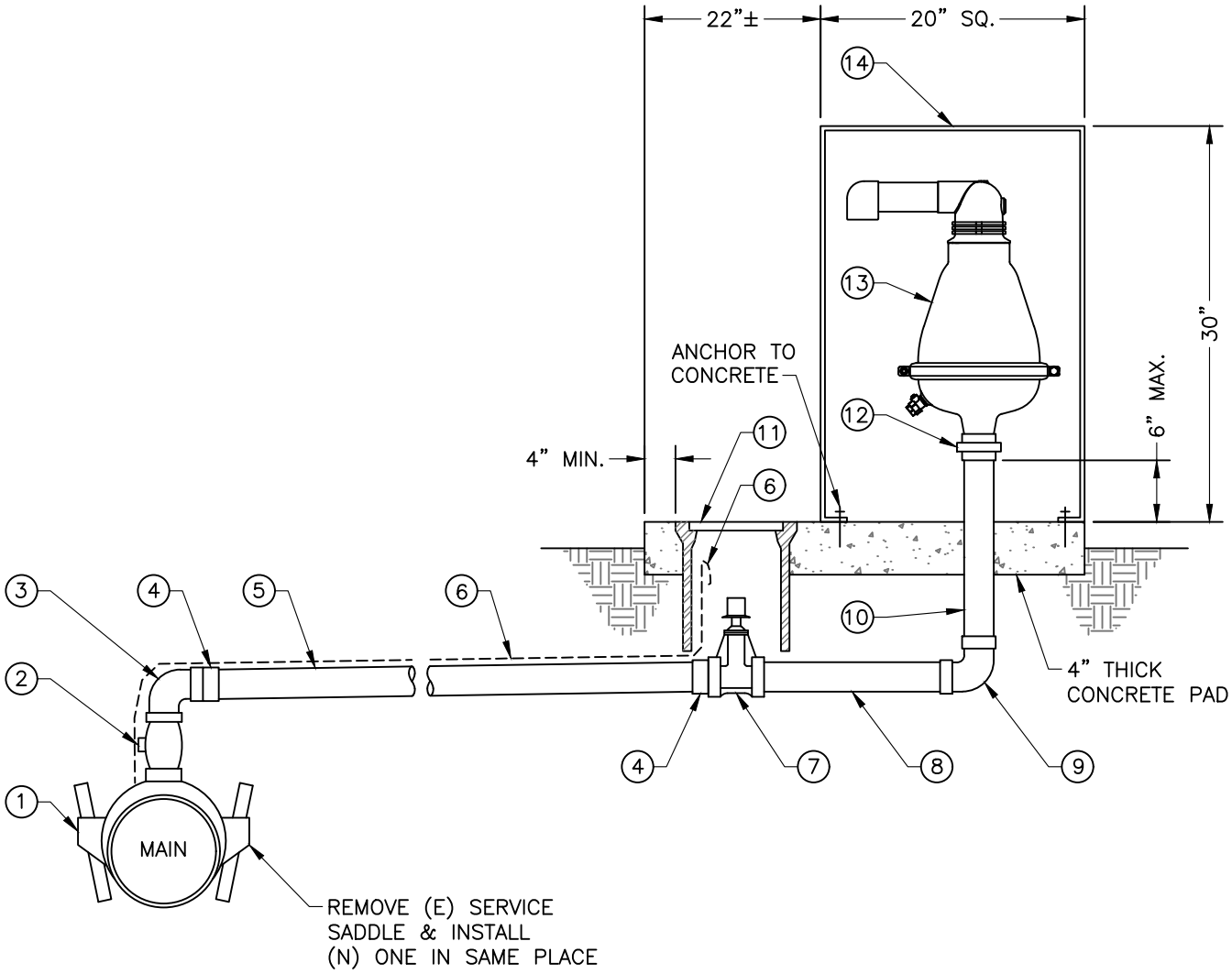
D. ALL DRY UTILITIES SHALL MAINTAIN 5 FEET HORIZONTAL SEPARATION WHEN PARALLEL, 1 FOOT VERTICAL SEPARATION WHEN CROSSING, AND SHALL BE LOCATED UNDER EXISTING WATER AND SEWER. DRY UTILITIES MAY ONLY BE LOCATED OVER EXISTING WATER AND SEWER WITH PRIOR DISTRICT APPROVAL AND SHALL MAINTAIN 6 INCHES OF VERTICAL SEPARATION. A PROTECTIVE CONCRETE OR 3–SACK SLURRY CAP (6" MIN. THICK) SHALL BE PLACED OVER ALL CONDUITS.

TUOLUMNE UTILITIES DISTRICT

SEWER MAIN CONSTRUCTED NEAR EXISTING WATER MAIN

REV. 10–16–26

STD. DWG. NO. **305**



NOTES

A. 2" POLYETHYLENE SERVICE TUBING MUST HAVE A POSITIVE, CONTINUOUS RISE FROM THE SEWER MAIN TO THE AIR/VAC VALVE.
B. SEWER AIR/VAC VALVE TO BE LOCATED OUT OF TRAFFIC AREAS.

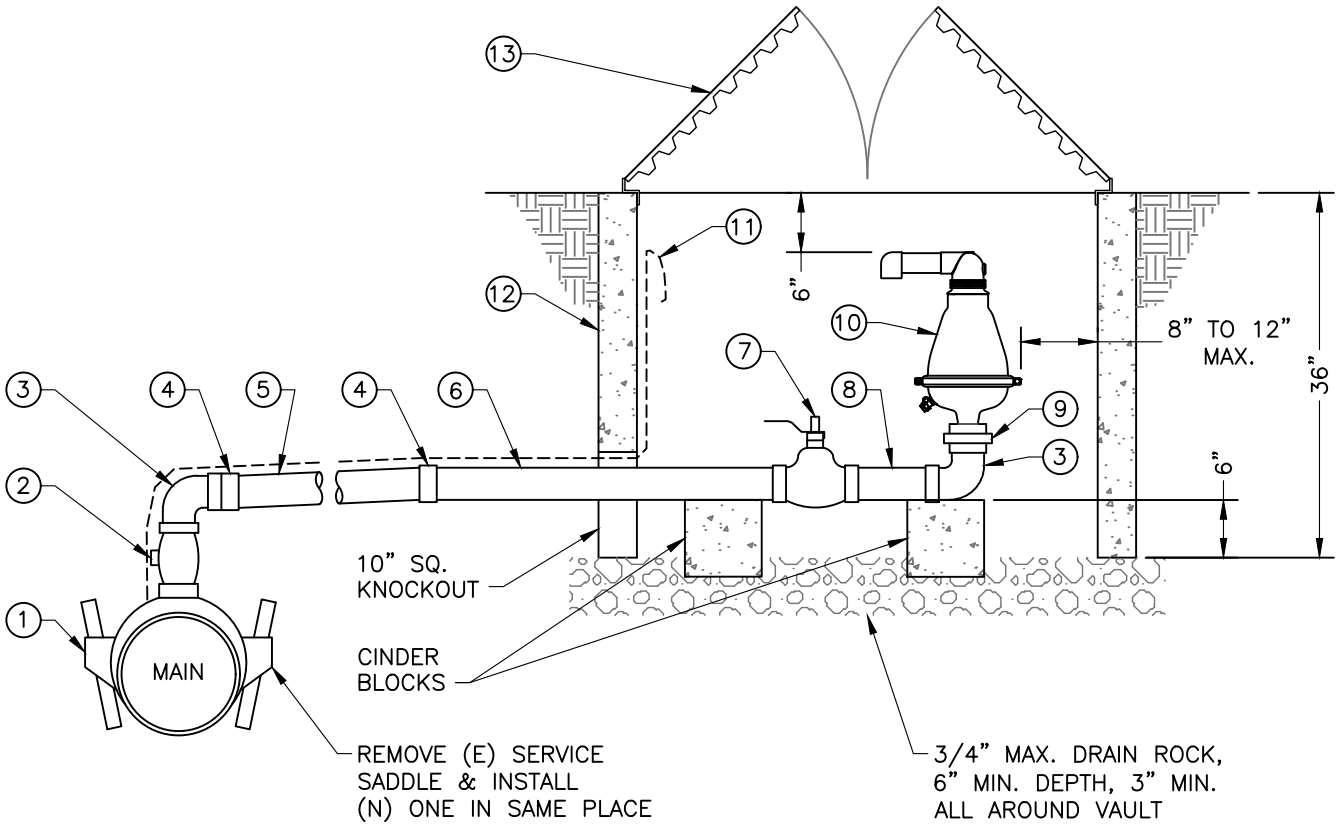
ITEM	QTY	DESCRIPTION	REMARKS
(1)	1	2" SERVICE SADDLE	FORD FS202, STAINLESS STEEL STRAP
(2)	1	2" MIPxFIP CORPORATION STOP	FORD FB1000
(3)	1	2" STREET ELBOW	BRASS
(4)	2	2" MIPxCTS ADAPTER	
(5)	1	2" 200 PSI POLYETHELYLENE SERVICE TUBING	CENTENNIAL CENFLOW, OR APPROVED EQUAL
(6)	1	#12 AWG INSULATED LOCATOR WIRE	SINGLE STRAND COPPER, SEE DWG. 102
(7)	1	2" GATE VALVE W/2" OPERATING NUT (THREADED)	DUCTILE IRON FIPxFIP
(8)	2	2"x24" LONG NIPPLE	BRASS
(9)	1	2" 90° ELBOW	BRASS FIPxFIP
(10)	1	2"xTBD LONG NIPPLE	BRASS
(11)	1	TRAFFIC VALVE BOX W/LID MARKED "SEWER"	CHRISTY G5 W/G5C LID
(12)	1	2" UNION	BRASS
(13)	1	2" SEWER AIR/VAC VALVE (THREADED)	A.R.I. D-025 (SHORT VERSION) OR APPROVED EQUAL
(14)	1	PLACER WATERWORKS ABOVE GROUND ENCLOSURE	CAT. #PW/SJARVS-3

TUOLUMNE UTILITIES DISTRICT

SEWER FORCE MAIN AIR-VACUUM VALVE (ABOVE GROUND)

REV. 10-16-26

STD. DWG. NO. **306-A**



NOTES

A. 2" POLYETHYLENE SERVICE TUBING MUST HAVE A POSITIVE, CONTINUOUS RISE FROM THE SEWER MAIN TO THE AIR/VAC VALVE.

B. SEWER AIR/VAC VALVE TO BE LOCATED OUT OF TRAFFIC AREAS.

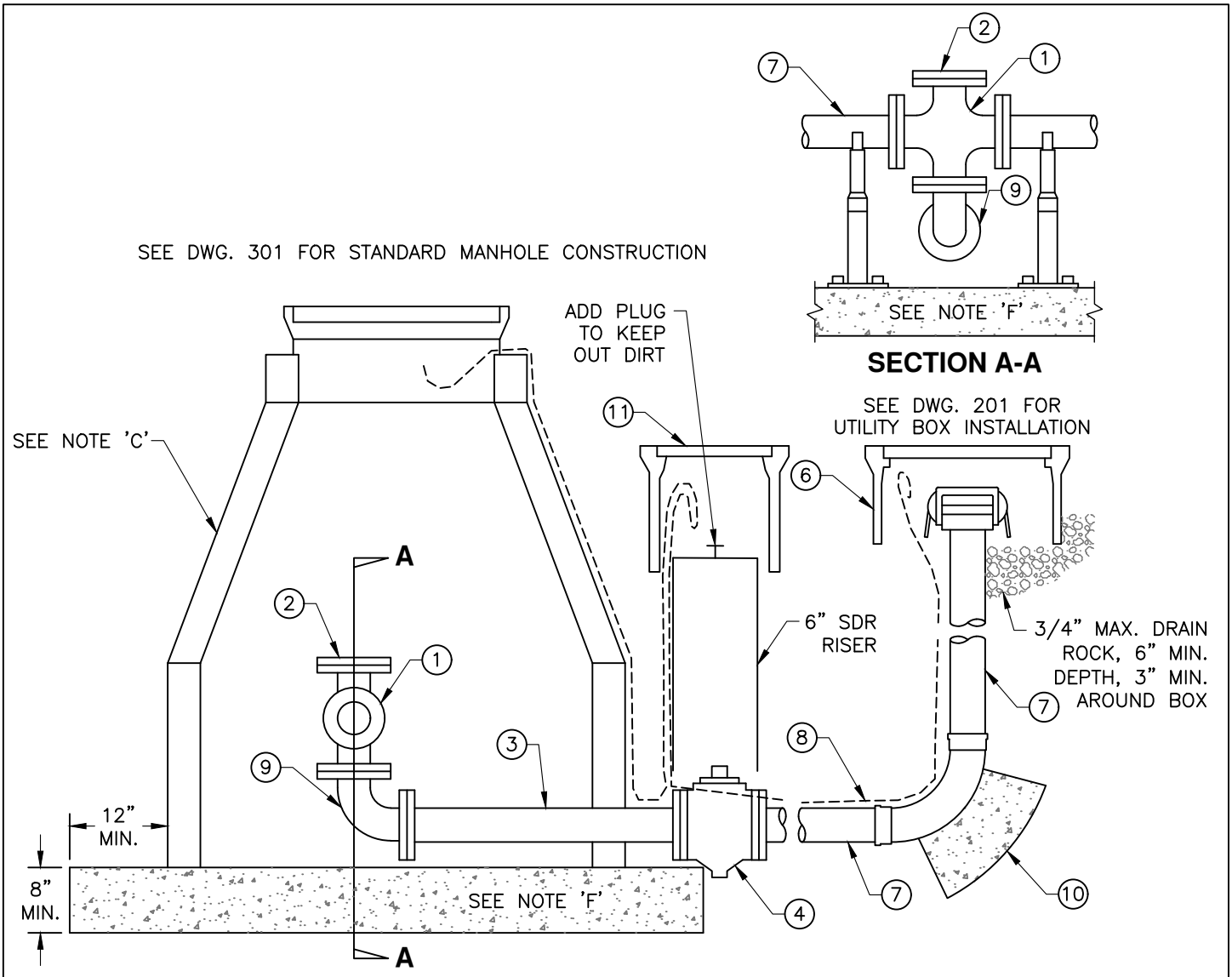
ITEM	QTY	DESCRIPTION	REMARKS
(1)	1	2" SERVICE SADDLE	FORD FS202, STAINLESS STEEL STRAP
(2)	1	2" MIPxCTS CORPORATION STOP	FORD FB1000
(3)	2	2" STREET ELBOW	BRASS
(4)	2	2" MIPxCTS ADAPTER	
(5)	1	2" 200 PSI POLYETHELYLENE SERVICE TUBING	CENTENNIAL CENFLOW, OR APPROVED EQUAL
(6)	1	2"x36" NIPPLE	BRASS
(7)	1	2" FIPxFIP BALL VALVE	BRASS
(8)	2	2"x8" NIPPLE	BRASS
(9)	1	2" UNION	BRASS
(10)	1	2" SEWER AIR/VAC VALVE (THREADED)	A.R.I. D-025 (SHORT VERSION) OR APPROVED EQUAL
(11)	1	#12 AWG INSULATED LOCATOR WIRE	SINGLE STRAND COPPER, SEE DWG. 102
(12)	1	4'x4'x3' DEEP CHRISTY PIT	NO. R27-P36
(13)	1	CHRISTY TORSION ASSIST COVER	NO. R27-52HT

TUOLUMNE UTILITIES DISTRICT

SEWER FORCE MAIN AIR-VACUUM VALVE (BELOW GROUND)

REV. 10-16-26

STD. DWG. NO. **306-B**



NOTES

A. BLOWOFF VAULT SHALL BE LOCATED OUTSIDE TRAFFIC AREAS WHENEVER POSSIBLE.
B. FOR SPECIFIC MANHOLE REQUIREMENTS SEE STANDARD MANHOLE DWG. 301.
C. EXTERIOR OF MANHOLE SURFACE WILL BE COATED WITH BITUMASTIC SEALANT OR APPROVED EQUAL.
D. ALL PIPES AND FITTINGS WITHIN MANHOLE WALLS SHALL BE PRIMED AND COATED WITH ENAMEL OR WRAPPED IN 10 MIL PVC TAPE.
E. COAT BURIED NUTS & BOLTS WITH KOPPERS BITUMASTIC NO. 50 OR NAPA #MAC8400 RUBBERIZED UNDERCOAT.
F. WRAP ALL FITTINGS, BOLTS, AND NUTS WITH 8 MIL. MIN. POLYETHYLENE SHEETING AND SECURE WITH 3 WRAPS OF 10 MIL. TAPE. COMPLETE WRAPPING PRIOR TO CONCRETE PLACEMENT. KEEP FITTINGS, BOLTS, NUTS, AND THREADS FREE OF CONCRETE AT ALL TIMES.
G. MANHOLE SLAB BASE SHALL BE 2500 PSI (MIN.) CONCRETE.

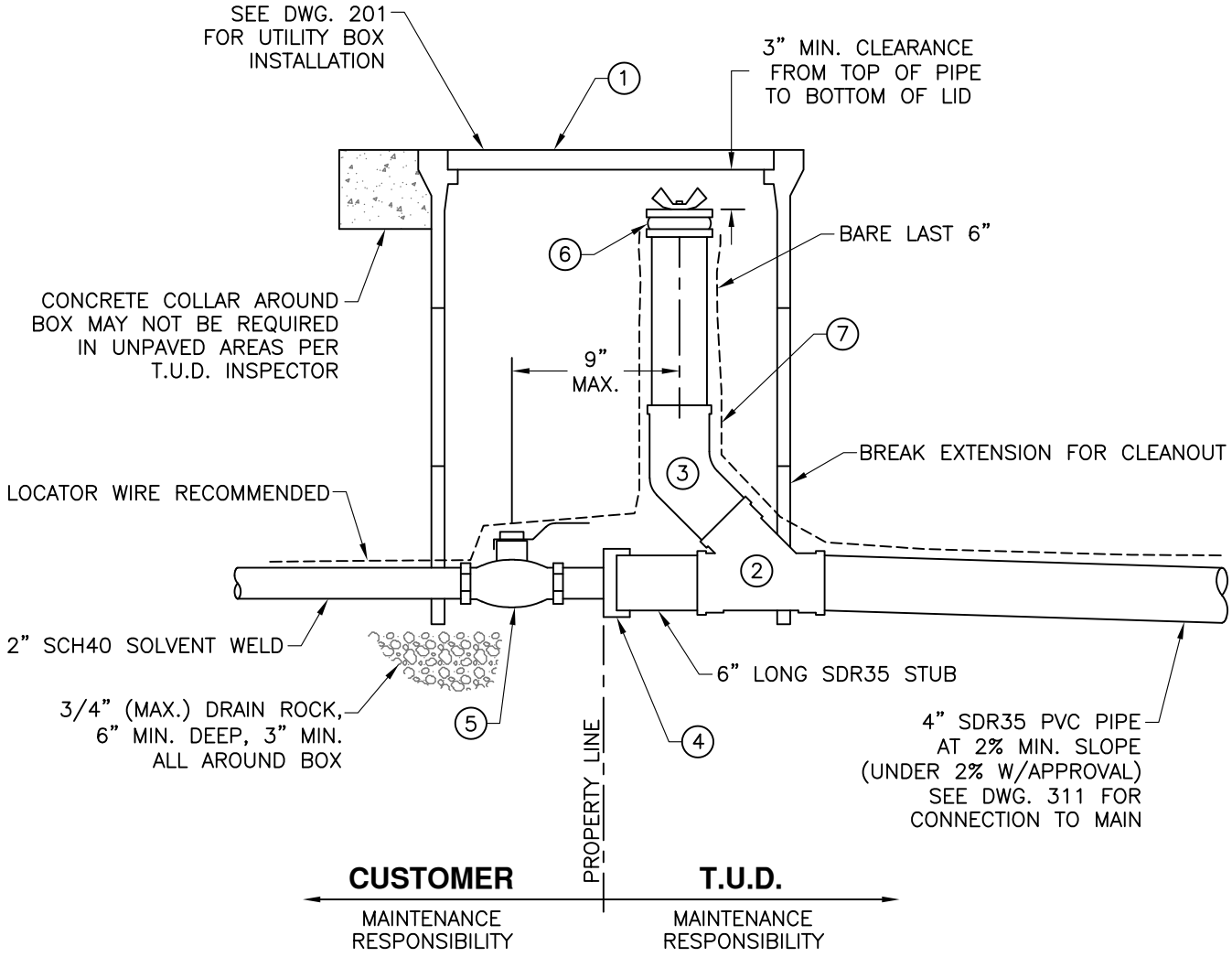
ITEM	QTY	DESCRIPTION	REMARKS
(1)	1	CROSS, SIZE PER MAIN LINE	4" TAPPED AND THREADED
(2)	1	BLIND FLANGE	CLASS 125
(3)	1	DUCTILE IRON UNION	CORROSION PROTECTIVE COATING
(4)	1	4" ECCENTRIC PLUG VALVE, STEM 3 FT. FROM LID	DEZURIK DIRECT BURY OR APPROVED EQUAL FULL PORT
(5)	1	FPD PLUG W/DUST CAP	CAMLOCK OR APPROVED EQUAL
(6)	1	CONCRETE UTILITY BOX W/TRAFFIC RATED LID	CHRISTY B16 W/B1661D LID OR APPROVED EQUAL
(7)	1	4" DUCTILE IRON PIPE	CEMENT MORTAR LINING
(8)	1	#12 AWG INSULATED LOCATOR WIRE	SINGLE STRAND COPPER, SEE DWG. 102
(9)	1	90° ELBOW, SIZE PER MAIN LINE	4" TAPPED AND THREADED
(10)		THRUST BLOCK	2500 PSI CONC. MIN., SEE DWG. 202
(11)	1	TRAFFIC BOX WITH LID	CHRISTY G5 BOX W/G5C LID (MARKED "SEWER")

TUOLUMNE UTILITIES DISTRICT

SEWER FORCE MAIN LOW-POINT VAULT

REV. 10-16-26

STD. DWG. NO. **307**



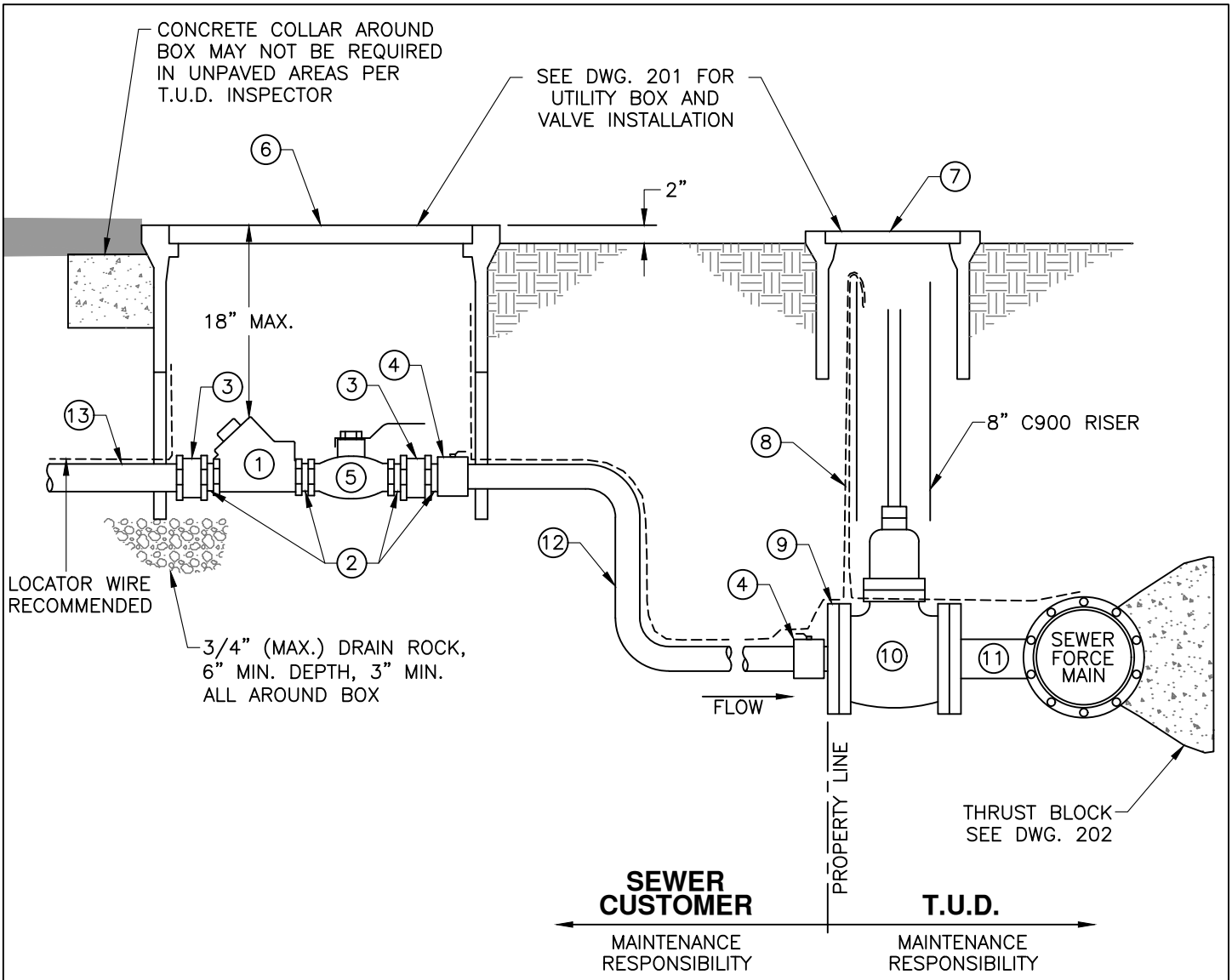
NOTES

A. T.U.D. IS RESPONSIBLE FOR MAINTAINING THE SEWER LATERAL TO THE CLEANOUT.
B. PRIVATE LIFT STATIONS, PUMPS, SUMPS, TANKS, ETC. WILL BE T.U.D. APPROVED AND INSPECTED.
C. SEE DWG. 203 FOR PIPE BEDDING MATERIAL.
D. LOCATE CLEANOUTS OUTSIDE TRAFFIC AREAS.
E. ALL FITTINGS SHALL BE SDR35 PVC PIPE, RING-TITE
F. PVC JOINT ADHESIVE IS "WELD-ON" JM7-21 BLUE WITH JMP PRIMER OR T.U.D. APPROVED EQUAL.
G. ALL FITTINGS TO HAVE RATING OF 150 PSI WORKING PRESSURE AT 73°F.

ITEM	QTY	DESCRIPTION	REMARKS
1	1	UTILITY BOX AND LID, USE EXTENSION(S)	CHRISTY B30 BOX W/61D LID
2	1	WYE	SDR35, RING-TITE
3	1	45° STREET ELBOW	SDR35, RING-TITE
4	1	2" PVC X 4" SDR ADAPTER	PVC
5	1	2" BALL VALVE	BRONZE, 150 LB
6	1	EXPANSION PLUG WITH LIP	PASCO HAND-TIGHT OR APPROVED EQUAL
7	1	#12 AWG INSULATED LOCATOR WIRE	SINGLE STRAND COPPER, SEE DWG. 102

TUOLUMNE UTILITIES DISTRICT
PRIVATE PUMP SYSTEM TO GRAVITY SEWER MAIN

REV. 10-16-26
STD. DWG. NO. **309**



NOTES

A. PRIVATE LIFT STATIONS, PUMPS, SUMPS, TANKS ETC. WILL BE T.U.D. APPROVED AND INSPECTED.
B. SEE DWG. 203 FOR PIPE BEDDING MATERIAL.
C. PVC JOINT ADHESIVE IS "WELD-ON" JM7-21 BLUE WITH JMP PRIMER OR T.U.D. APPROVED EQUAL.
D. ALL FITTINGS TO HAVE RATING OF 150 PSI WORKING PRESSURE AT 73°F.

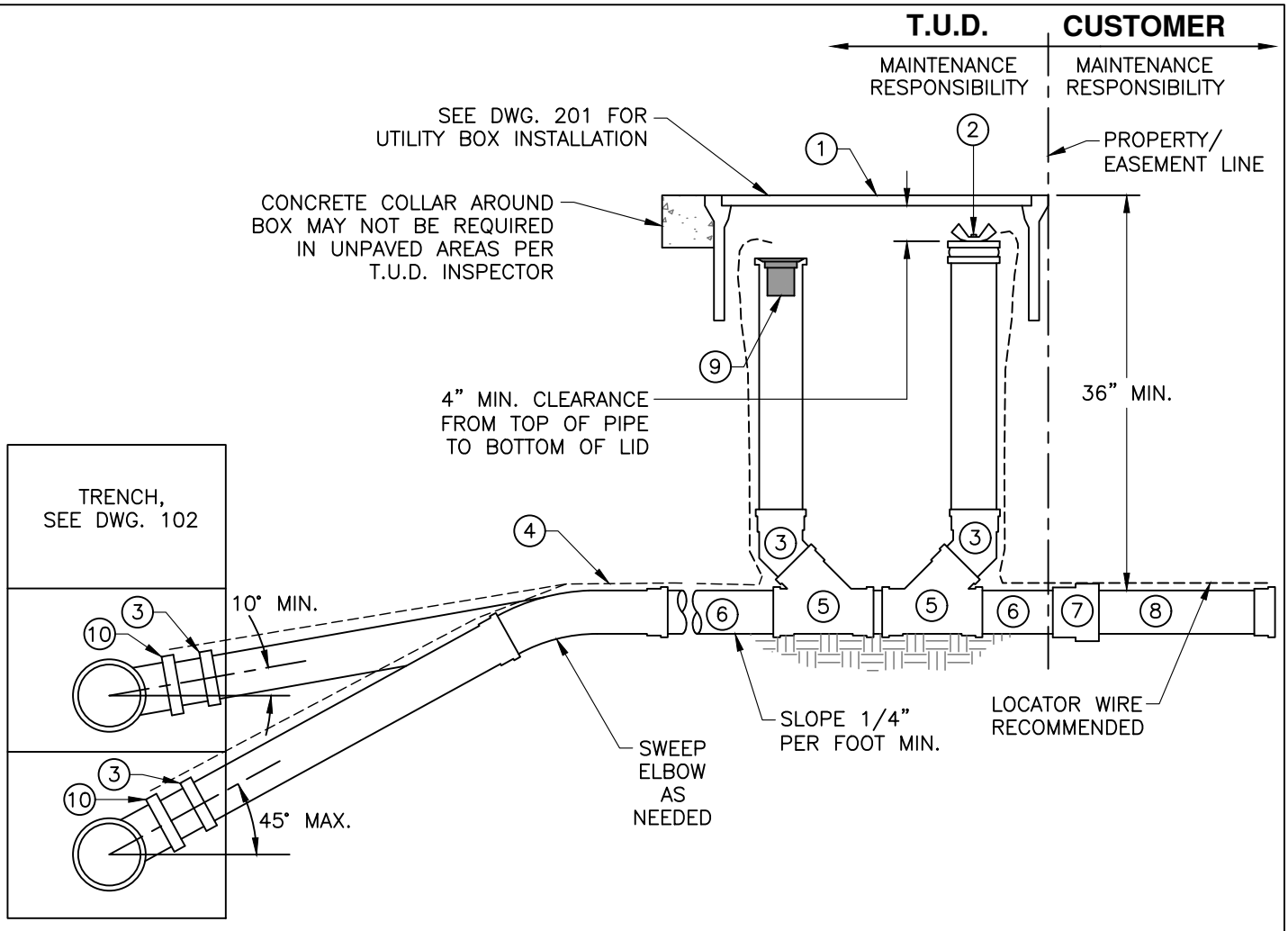
ITEM	QTY	DESCRIPTION	REMARKS
(1)	1	2" SWING CHECK VALVE	150 LB, BRONZE
(2)	4	CLOSE NIPPLE	BRASS
(3)	2	UNION	BRASS
(4)	2	2" MTP x CTS ADAPTER	BRASS
(5)	1	2" BALL VALVE	BRONZE, 150 LB
(6)	1	UTILITY BOX AND LID, USE EXTENSION(S)	CHRISTY B30 BOX W/61D LID
(7)	1	TRAFFIC VALVE BOX WITH LID MARKED "SEWER"	CHRISTY G5 W/G5C LID OR APPROVED EQUAL
(8)	1	#12 AWG INSULATED LOCATOR WIRE	SINGLE STRAND COPPER, SEE DWG. 102
(9)	1	4" FLANGE W/2" THREADED TAP	
(10)	1	4" RESILIENT WEDGE GATE VALVE, 2" SQUARE NUT	CLASS 150, NONRISING STEM, FL x FL
(11)	1	4" STAINLESS STEEL TAPPING SLEEVE	FOR HOT TAP ONLY, SEE DWG. 209
(12)		2" POLYETHYLENE SERVICE TUBING, "CTS" 200 PSI MIN.	WRAP PIPE WITH "T.U.D. SEWER TAPE"
(13)		2" SCH40 SOLVENT WELD	

TUOLUMNE UTILITIES DISTRICT

PRIVATE PUMP SYSTEM TO FORCE-MAIN OR PRESSURIZED INTERCEPTOR

REV. 10-16-26

STD. DWG. NO. **310**



NOTES

A. LOCATE CLEANOUTS OUTSIDE TRAFFIC AREAS WHEN POSSIBLE.

B. BACKFLOW PREVENTION IS REQUIRED FOR CLEANOUT AT PROPERTY, RIGHT–OF–WAY OR EASEMENT LINE.

C. PLACE 3 OR 4–SACK SLURRY MIX TO ENCASE SADDLE WITH 3" MINIMUM ENCASEMENT THICKNESS.

D. CUT–IN WYES MAY BE USED WITH T.U.D. APPROVAL. IF RUBBER (FERNCO) COUPLINGS ARE APPROVED, COUPLINGS SHALL HAVE A STAINLESS STEEL JACKET AND THE NEW PIPE SHALL BE BEDDED IN 3 OR 4–SACK SLURRY MIX INSTEAD OF SAND.

E. A "CARSON" PLASTIC BOX CAN BE USED IN PLANTER AREAS WITH PRIOR T.U.D. APPROVAL.

F. A 4–INCH LATERAL IS ACCEPTABLE FOR A DOUBLE SERVICE.

G. FLUSHING BRANCH SHALL BE END–OF–LINE CLEANOUT, SAME SIZE AS MAIN, WITH (2) 45° ELBOWS.

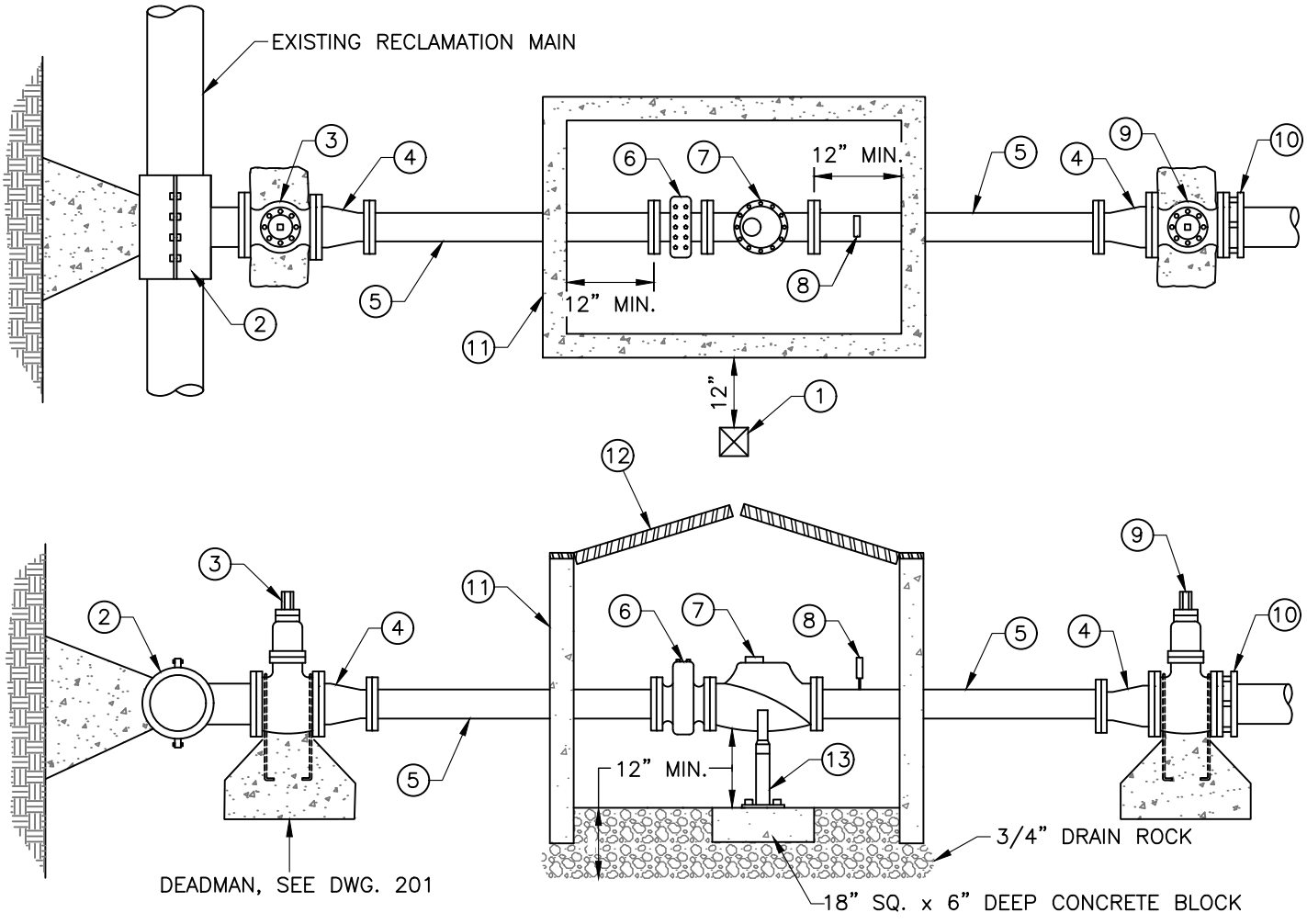
ITEM	QTY	DESCRIPTION	REMARKS
(1)	1	UTILITY BOX WITH LID MARKED "SEWER"	CHRISTY B30 OR (2) G5, SEE NOTE 'D'
(2)	1	EXPANSION PLUG	PASCO HAND–TIGHT OR APPROVED EQUAL, SEE NOTE 'C'
(3)	2	45° STREET ELBOW	SDR35 PVC PIPE
(4)		#12 AWG INSULATED LOCATOR WIRE	SINGLE STRAND COPPER, SEE DWG. 102
(5)	2	WYE	SDR35 PVC PIPE (GASKETED)
(6)		SINGLE SERVICE: 4" MIN., DOUBLE SERVICE: 4" MIN., MAIN–LINE CLEANOUT: SAME SIZE AS MAIN	SDR35 PVC PIPE (GASKETED)
(7)	1	4"x3" SDR x DWV ADAPTOR/REDUCER	PTI #P657, USE ABS TO SDR GLUE
(8)	1	2 FT. STUB WITH GLUED CAP	ABS–DWV OR OTHER BUILDING CODE APPROVED MATERIAL
(9)	1	SEWER RELIEF POPPER (SEE NOTE 'B')	PLUMBEST (POPPER) OR APPROVED EQUAL
(10)	1	WYE OR SADDLE WYE	SDR35 PIPE, 45° WYE (GxGxG) OR 45° SADDLE WYE (EXTEND SOLVENT SKIRT x GASKET INLET). FOR SADDLE WYE SEE NOTE 'C'.

TUOLUMNE UTILITIES DISTRICT

SEWER SERVICE, BI-DIRECTIONAL CLEANOUT & FLUSHING BRANCH

REV. 10–16–26

STD. DWG. NO. **311**



NOTES

A. UNLESS OTHERWISE APPROVED, ALL CONNECTIONS TO EXISTING T.U.D. MAINS SHALL BE BY "HOT–TAP" WITH APPROVED TAPPING SLEEVE. T.U.D. CAN ONLY HOT–TAP 4–INCH AND 6–INCH SEWER LINES.
B. BOTH 4–INCH AND 6–INCH SERVICES SHALL USE 4–INCH STRAINERS AND METERS.
C. VALVE IS TO REMAIN CLOSED FOR A MINIMUM OF 5 DAYS TO ALLOW THE CONCRETE THRUST BLOCK TO CURE.
D. ALL FITTINGS INSTALLED ON EXISTING RECLAMATION MAIN SHALL BE 3 FT. MIN. FROM JOINTS, FITTINGS, OR TAPS.
E. COAT BURIED NUTS & BOLTS WITH KOPPERS BITUMASTIC NO. 50 OR NAPA #MAC8400 RUBBERIZED UNDERCOAT.
F. WRAP ALL FITTINGS, BOLTS, AND NUTS WITH 8 MIL. MIN. POLYETHYLENE SHEETING AND SECURE WITH 3 WRAPS OF 10 MIL. TAPE. COMPLETE WRAPPING PRIOR TO CONCRETE PLACEMENT. KEEP FITTINGS, BOLTS, NUTS, AND THREADS FREE OF CONCRETE AT ALL TIMES.
G. ALL EXPOSED PIPING SHALL BE PAINTED PANTONE PURPLE.

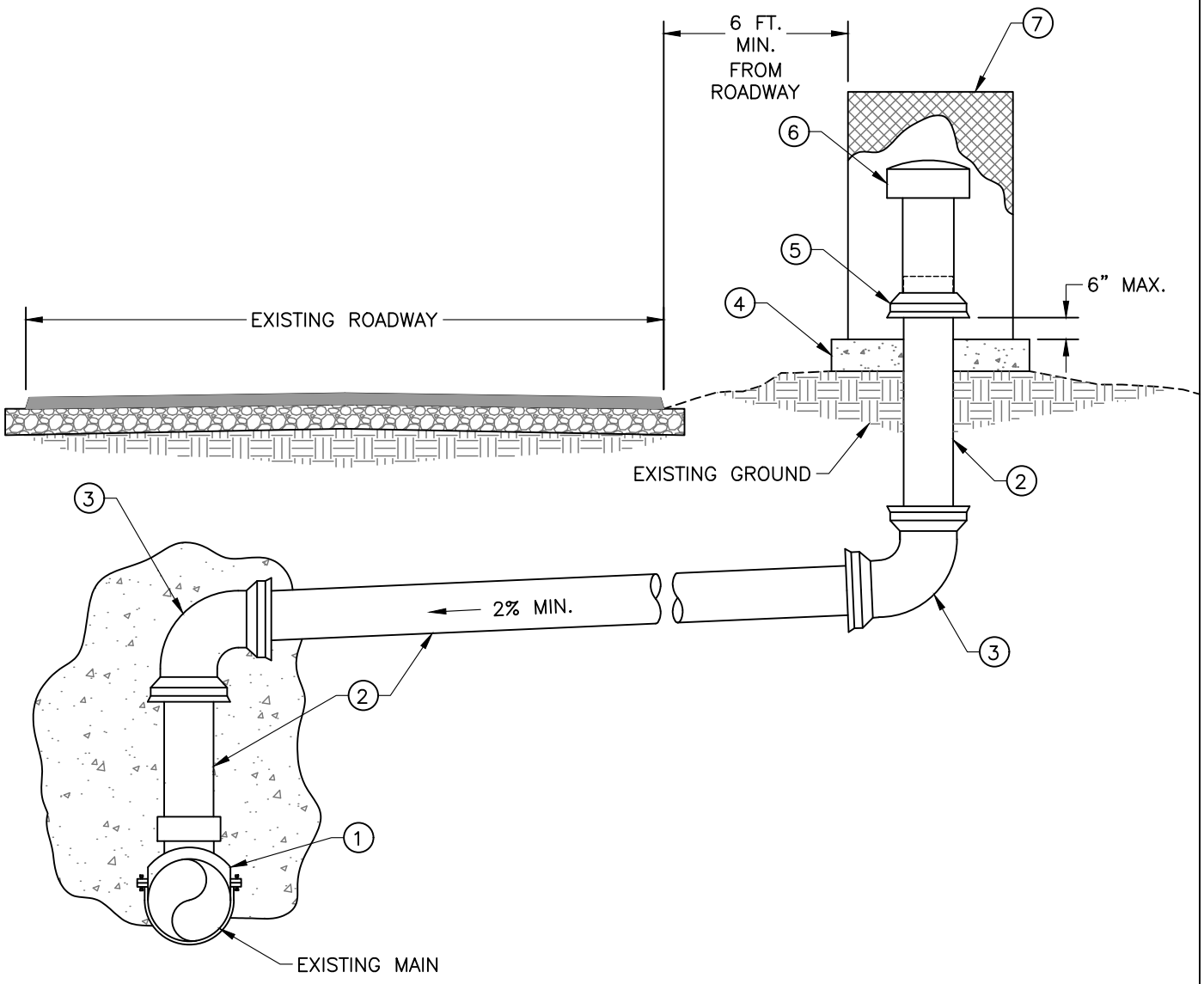
ITEM	QTY	DESCRIPTION	REMARKS
(1)	1	4"x4" POST	PRESSURE–TREATED, 4 FT. HIGH, PAINT PURPLE
(2)	1	STAINLESS STEEL TAPPING SLEEVE	ROMAC "SST", ROCKWELL 622, FORD "FAST" OR APPROVED EQUAL
(3)	1	RESILIENT WEDGE VALVE	FL x FL W/2" OPERATING NUT, SEE DWG. 201, SIZE TO MATCH SERVICE
(4)	2	4"x6" REDUCER	FL x FL (ONLY USE WITH 6" SERVICES) (SEE NOTE 'C')
(5)	2	4" D.I.P. SPOOL	FL x FL (48" LONG)
(6)	1	4" METER STRAINER	FL x FL (NEPTUNE OR APPROVED EQUAL)
(7)	1	4" TURBINE METER	FL x FL (NEPTUNE OR APPROVED EQUAL)
(8)	1	PRESSURE GAUGE	W/1/4" TAP (PRESSURE RANGE PER T.U.D.)
(9)	1	RESILIENT WEDGE VALVE	FL x MJ W/2" OPERATING NUT, SEE DWG. 201, SIZE TO MATCH SERVICE
(10)	1	MECHANICAL JOINT W/GRIP RINGS	OR APPROVED EQUAL
(11)	1	PRECAST 3'x5' VAULT	CHRISTY R17 PIT OR APPROVED EQUAL
(12)	1	STEEL HINGED TORSION–ASSIST LID	TRAFFIC–RATED CHRISTY R27–52HT
(13)	1	ADJUSTABLE PIPE SUPPORT	SEE DWG. 214

TUOLUMNE UTILITIES DISTRICT

RECLAMATION SYSTEM SERVICE CONNECTIONS (4" & 6")

REV. 10–16–26

STD. DWG. NO. **312**



NOTES

A. LOCATE CONNECTION TO MAIN UPSTREAM OF INVERTED SIPHON, BUT PRIOR TO ANY SERVICES OR MANHOLES IF POSSIBLE. SELECT A LOCATION THAT WILL NEVER BE SUBJECT TO PRESSURIZED CONDITIONS DURING A HIGH FLOW EVENT, AND A LOCATION WHERE GASES WILL NOT BE A NUISANCE TO THE PUBLIC.
B. LOCATE THE CB SADDLE AS CLOSE TO THE CROWN OF THE PIPE AS POSSIBLE.
C. MAINTAIN POSITIVE SLOPE FROM THE MAIN TO THE VENT.
D. ENCASE CB SADDLE WITH SLURRY OR PROVIDE 95% RELATIVE COMPACTION AROUND PIPE.
E. LOCATE ENCLOSURE IN AN AREA THAT MINIMIZES POTENTIAL DAMAGE FROM VEHICLES.

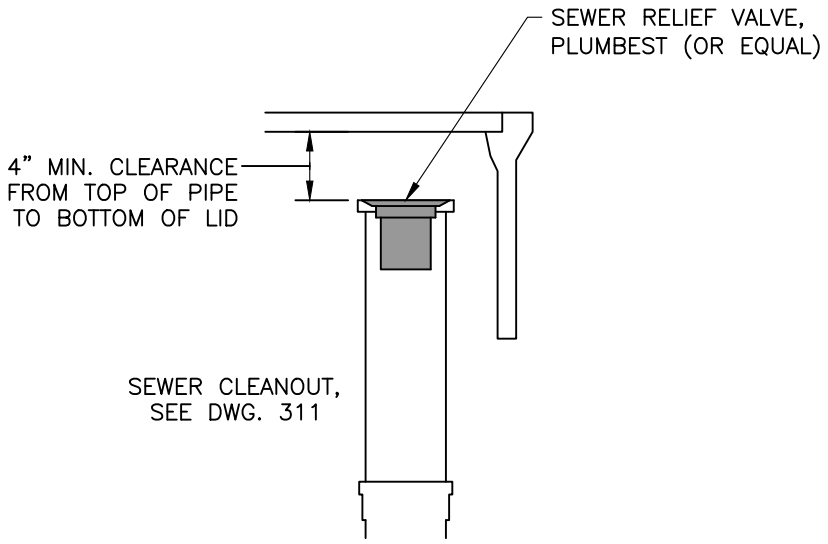
ITEM	QTY	DESCRIPTION	REMARKS
1	1	CB SADDLE W/SDR-35 OUTLET	ROMAC (OR EQUAL), SADDLE TO MATCH MAIN SIZE
2		SDR 35 PIPE	SIZE TO MATCH VENT SIZE
3	2	90° ELBOW	SDR35 GASKETED
4	1	CONCRETE PAD	4"x28"x28"
5	1	ADAPTER SLEEVE	ABS S x SDR G
6	1	SWEET AIR VENT	6" RATED AT 97 CFM, 8" RATED AT 188 CFM
7	1	ENCLOSURE (SEE NOTE 'E')	PLACER WATERWORKS PW/SJARVS-4 WITH EXPANDED STEEL BODY FOR VENTILATION (NO INSULATION)

TUOLUMNE UTILITIES DISTRICT

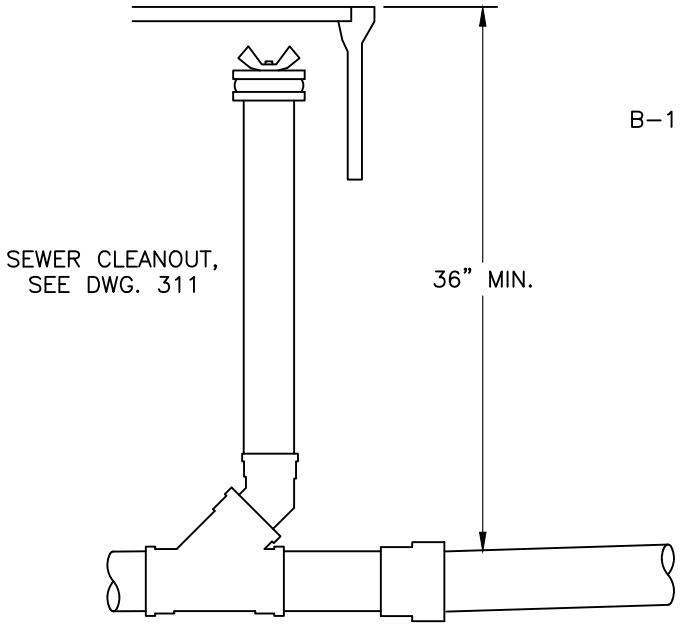
SEWER MAIN VENT

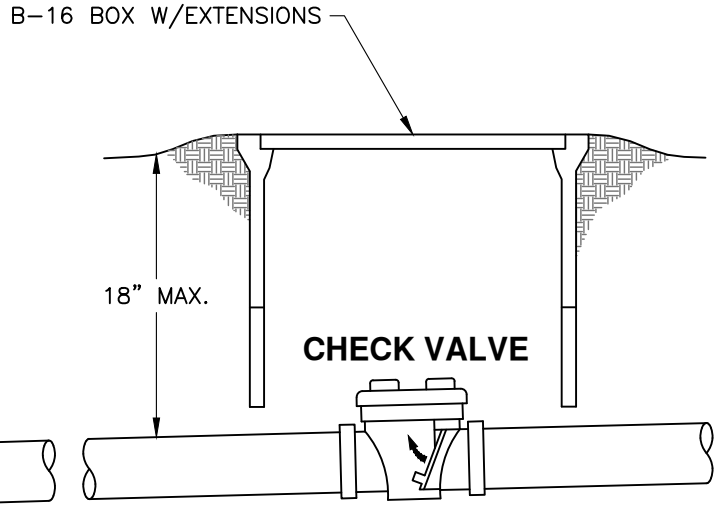
REV. 10-16-26

STD. DWG. NO. 313



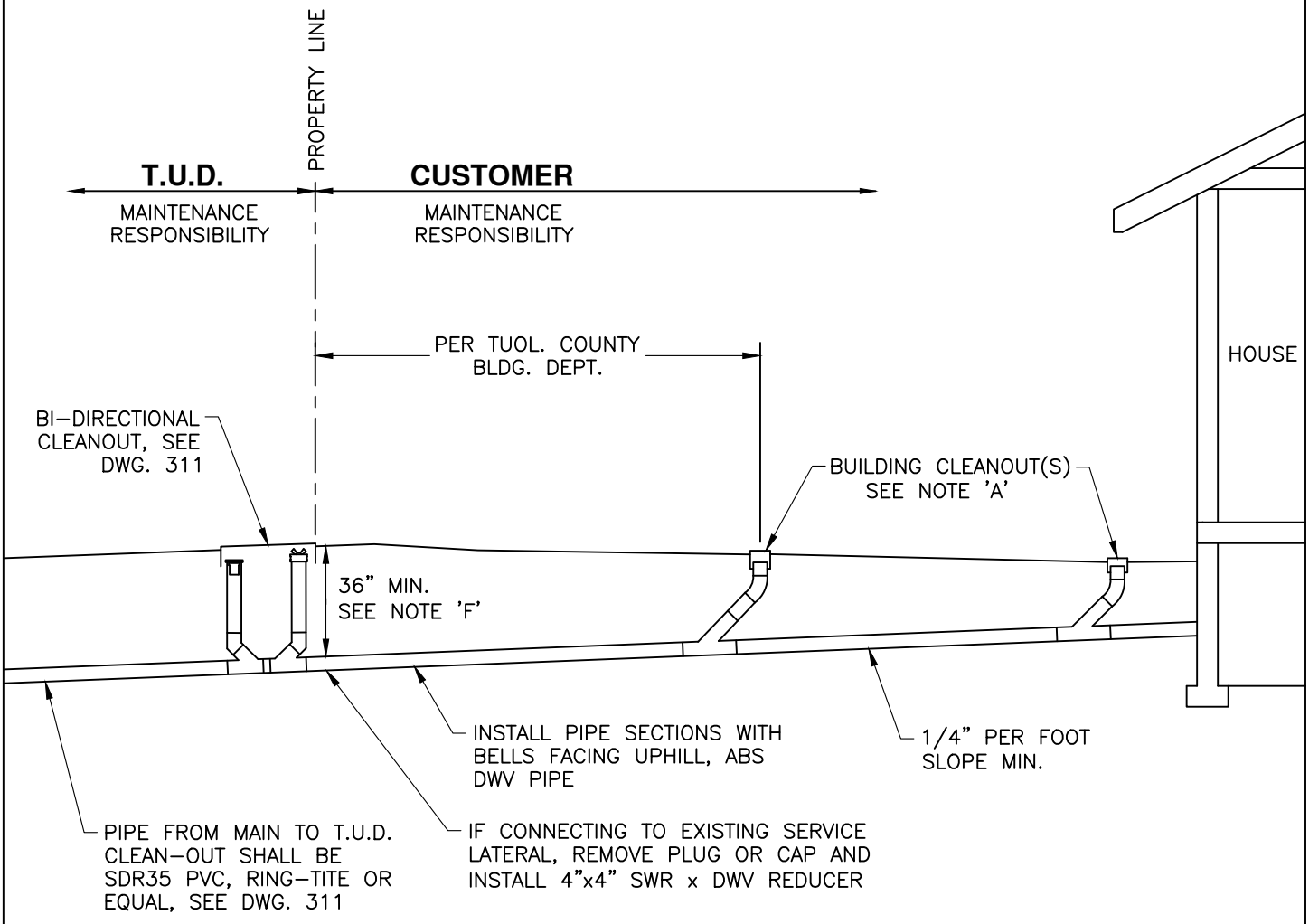
SEWER RELIEF VALVE
RECOMMENDED INSTALLATION





CHECK VALVE ON CUSTOMER'S LINE
NOT TYPICALLY USED

TUOLUMNE UTILITIES DISTRICT **SEWER BACKFLOW PROTECTION**	REV. 10–16–26 STD. DWG. NO. **401**



NOTES

A. SEWER CONNECTIONS AND PIPE INSTALLATION MUST BE INSPECTED BY T.U.D. AND THE COUNTY BUILDING DEPARTMENT PRIOR TO TRENCH BACKFILL. IF SEWER CONNECTION REQUIRES A PUMP, CONTACT BUILDING DEPARTMENT (209–533–5633).

B. ALL WORK INSIDE AND OUTSIDE OF RESIDENCE MUST CONFORM TO BUILDING DEPARTMENT SPECIFICATIONS AND ALL APPLICABLE COUNTY CODES.

C. WHERE A SEWER LATERAL HAS NOT BEEN STUBBED OUT TO THE PROPERTY LINE, CUSTOMER SHALL BE RESPONSIBLE FOR ALL COSTS AND APPLICABLE ENCROACHMENT PERMITS FOR WORK DONE WITHIN THE RIGHT–OF–WAY.

D. OWNERS OF EXISTING RESIDENCES WITH SEPTIC SYSTEMS MUST HAVE THE SEPTIC TANK PUMPED AND FILLED WITHIN ONE WEEK OF CONNECTING TO T.U.D. SEWER MAIN. ABANDONED SEPTIC TANK MUST BE INSPECTED BY THE COUNTY HEALTH DEPT.

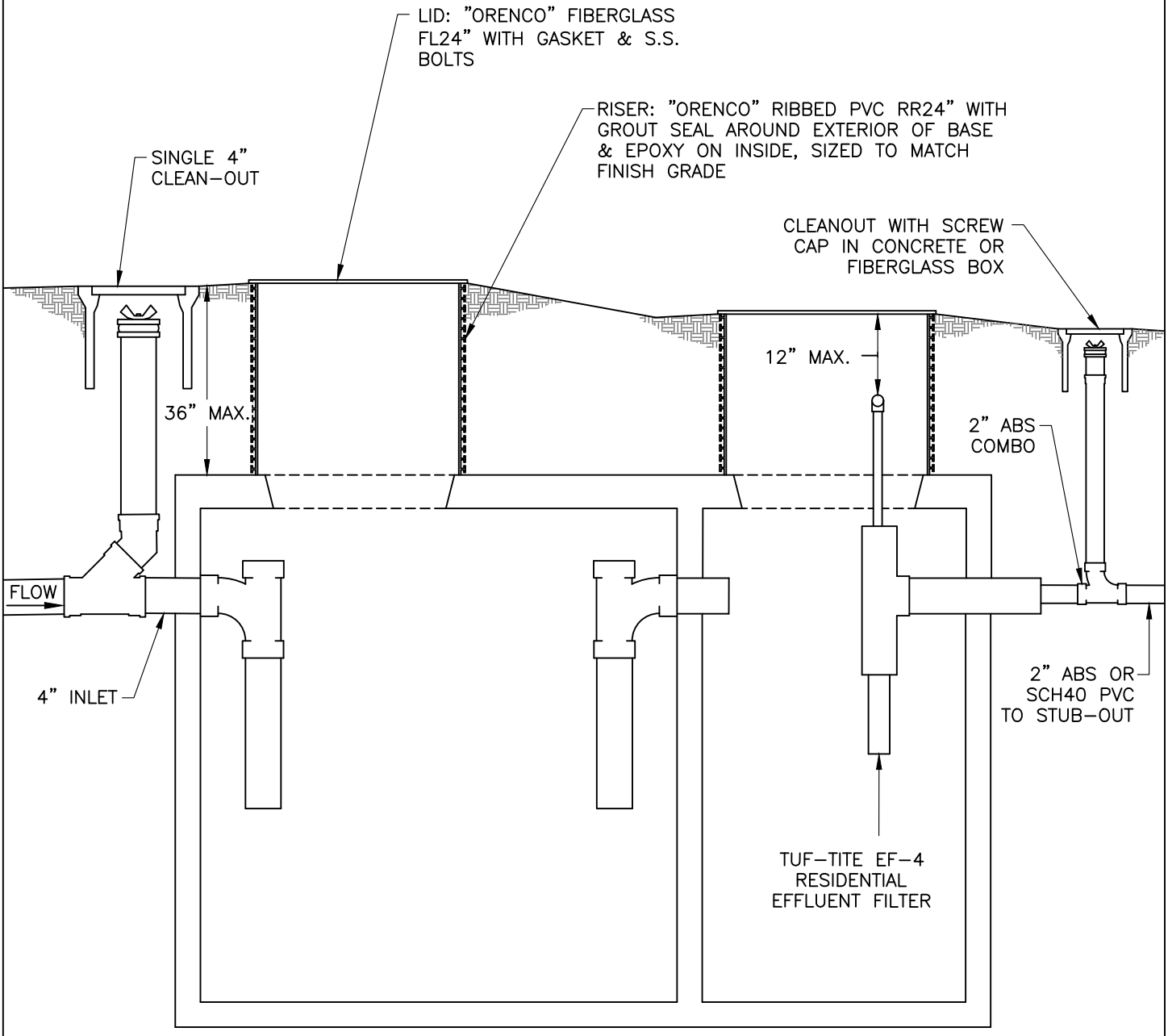
E. APPLICATION AND CONNECTION FEES MUST BE SUBMITTED TO T.U.D. PRIOR TO CONNECTION.

F. IF T.U.D. LATERAL IS LESS THAN 36" DEEP, USE MIN. SLOPE OF 1/4" PER FOOT FOR COVER.

TUOLUMNE UTILITIES DISTRICT
GRAVITY SEWER SERVICE INSTALLATION

REV. 10–16–26

STD. DWG. NO.
402



TANK SIZE PER TUOLUMNE COUNTY BUILDING DEPARTMENT

PROPERTY OWNER TO PROVIDE T.U.D. WITH ACCESS ROUTE FOR MAINTENANCE PURPOSES.

TUOLUMNE UTILITIES DISTRICT

APPLE VALLEY ESTATES & ROGUE RIVER COURT SEWER CONNECTIONS

REV. 10-16-26

STD. DWG. NO. **403**