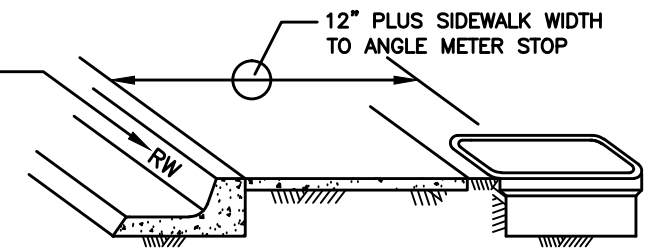


CHIP 2" "RW" IN CURB FACE TO IDENTIFY RECYCLED WATER SERVICE LOCATION



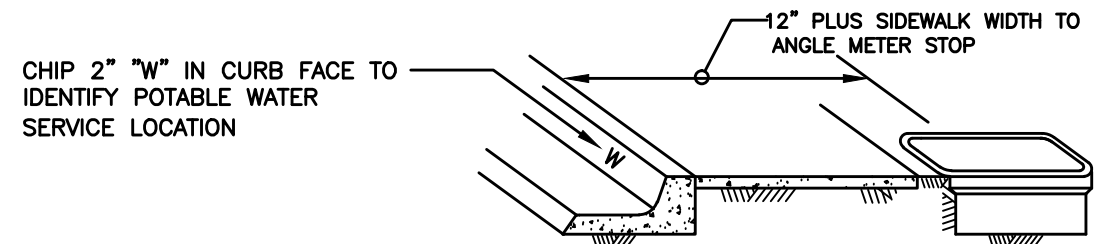
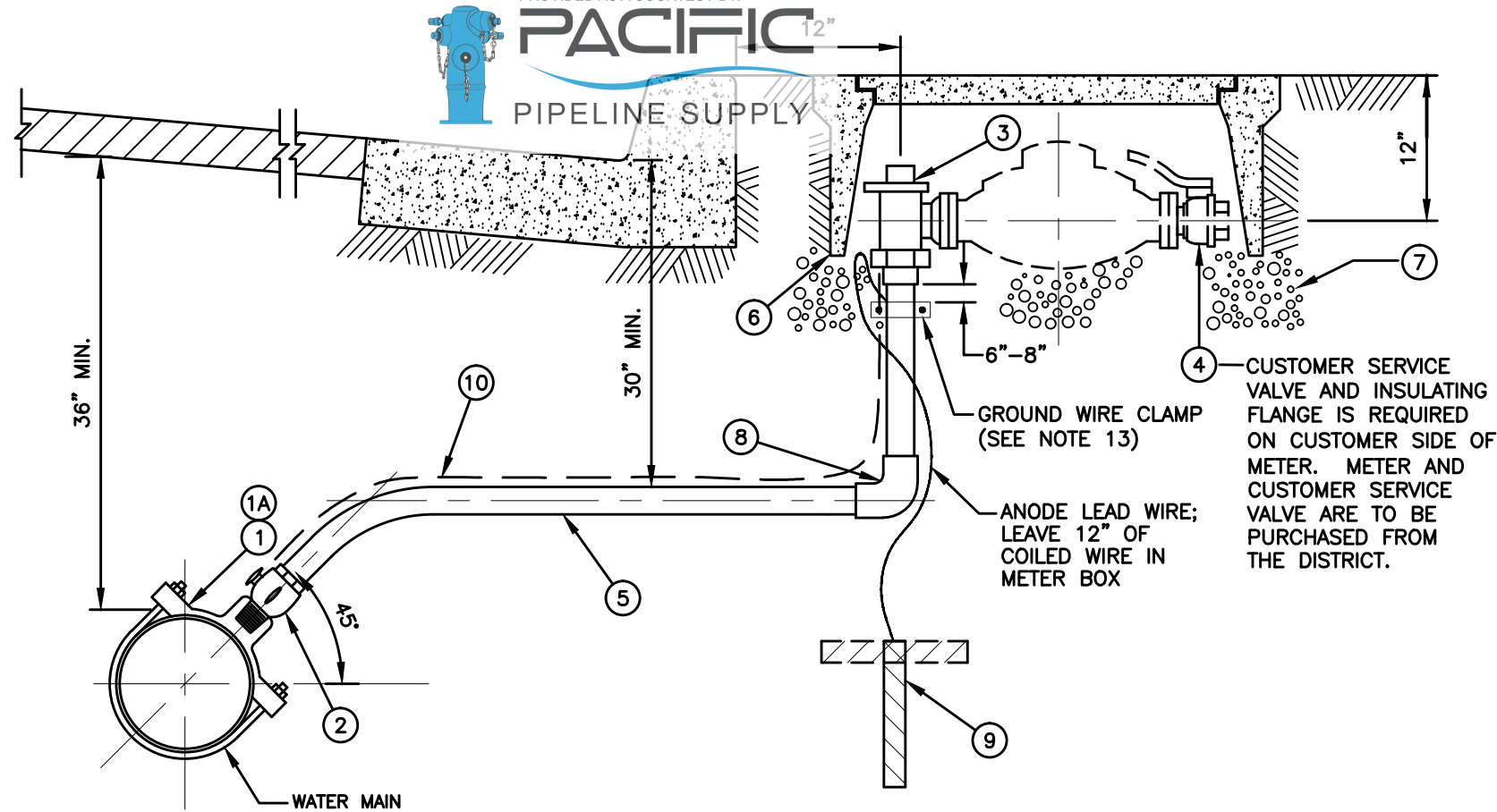
MATERIALS

ITEM NO.	SIZE & DESCRIPTION	SPEC. NO.
①	1" DOUBLE-STRAP BRONZE SERVICE SADDLE W/CC THREAD OUTLET (ACP OR DIP MAINS)	33 12 31
①A	1" SINGLE-STRAP 2-BOLT CAST BRONZE SERVICE SADDLE W/SS BOLTS AND W/CC THREAD OUTLET (C900 PVC PIPE MAINS)	33 12 31
②	1" CC THREAD x FLARE BRONZE CORPORATION STOP	33 12 31
③	1" LOCKING FLARE x METER NVT BRONZE ANGLE METER STOP	33 12 31
④	1" METER NUT x FNTF BRONZE CUSTOMER SERVICE VALVE	33 12 31
⑤	1" TYPE K COPPER TUBING	33 11 21
⑥	METER BOX W/READING LID	33 12 31
⑦	6" BASE OF 3/4" ROCK	31 05 16
⑧	ZINC ANODE AND LEAD WIRE. PLACE ANODE AT LEAST 2' FROM COPPER TUBING	26 42 00
⑨	WARNING TAPE	33 05 26

NOTES:

- DO NOT INSTALL SERVICE SADDLE WITHIN 18" OF VALVE, COUPLING, JOINT OR FITTING. TAPPED COUPLINGS ARE NOT PERMITTED.
- INSTALL CORPORATION STOP WITH KEY SIDEWAYS IN OPEN POSITION.
- SET TOP OF METER BOX FLUSH WITH SIDEWALK OR CURB.
- TAPS SHALL BE HOT-TAPPED WITH A TAPPING MACHINE.
- EXTEND WATER SERVICE PERPENDICULAR TO STREET CENTERLINE FROM WATER MAIN TO METER STOP.
- SET METER BOX BEHIND SIDEWALK WHERE SIDEWALK IS ADJACENT TO CURB, OR IN PARKWAY BETWEEN CURB AND SIDEWALK.
- NEW SERVICES SHALL NOT BE SPLICED.
- CLAMP ANODE LEAD WIRE TO COPPER TUBING. CLAMP SHALL BE DIRECT BURIAL TYPE OF RED BRASS WITH BRASS SCREWS AS MANUFACTURED BY DOTTIE, OR ACCEPTED EQUAL.
- NO TWO SERVICES SHALL BE IN SAME MOLE-HOLE.

SOUTH COAST WATER DISTRICT STANDARD DRAWING			
2014	1" RECYCLED WATER FOR IRRIGATION SERVICE	RW-1	SHEET 1 OF 1



MATERIALS

ITEM NO.	SIZE & DESCRIPTION	SPEC. NO.
①	2" DOUBLE-STRAP BRONZE SERVICE SADDLE W/CC THREAD OUTLET (ACP OR DIP MAINS)	33 12 31
①A	2" CAST BRONZE SERVICE SADDLE W/ CC THREAD OUTLET (C900 PVC PIPE MAINS)	33 12 31
②	2" CC THREAD x FNTF BRONZE BALL CORPORATION STOP	33 12 31
③	2" LOCKING FLARE x FLG BRONZE ANGLE METER BALL STOP	33 12 31
④	2" FLG x FNTF BRONZE CUSTOMER SERVICE BALL VALVE	33 12 31
⑤	2" TYPE K COPPER TUBING	33 11 21
⑥	METER BOX WITH READING LID	33 12 31
⑦	6" BASE OF 3/4" ROCK	31 05 16
⑧	2" SWEAT x SWEAT COPPER 90° ELL	33 11 21
⑨	ZINC ANODE AND LEAD WIRE. PLACE ANODE AT LEAST 2' FROM COPPER TUBING	26 42 00
⑩	WARNING TAPE	33 05 26

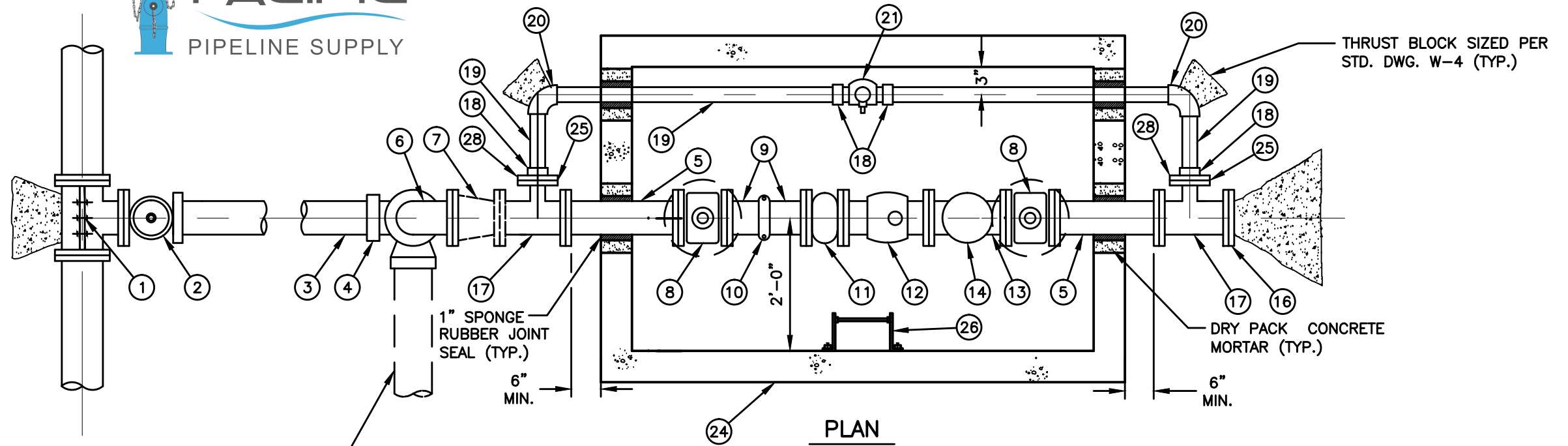
NOTES:

- DO NOT INSTALL SERVICE SADDLE WITHIN 18" OF VALVE, COUPLING, JOINT OR FITTING. TAPPED COUPLINGS ARE NOT PERMITTED.
- INSTALL CORPORATION STOP WITH KEY SIDWAYS IN OPEN POSITION.
- SET TOP OF METER BOX FLUSH WITH SIDEWALK OR CURB.
- MAKE CORPORATION STOP TAP SHALL BE MADE AS RECOMMENDED BY MANUFACTURER OF PIPE BEING TAPPED. MAKE TAPS SHALL BE MADE WITH MACHINE GUIDE OR PILOT TAP.
- EXTEND WATER SERVICE PERPENDICULAR TO STREET CENTERLINE FROM WATER MAIN TO METER STOP.
- SET METER BOX BEHIND SIDEWALK WHERE SIDEWALK IS ADJACENT TO CURB, OR IN PARKWAY BETWEEN CURB AND SIDEWALK.
- COPPER TUBING SPICES SHALL BE SILVER SOLDER CONNECTIONS..
- SWEAT JOINTS SHALL BE SILVER SOLDER (EXCEPT AS NOTED)
- A 2" BYPASS LINE WITH LOCKING CURB STOP MAY BE REQUIRED FOR INSTALLATIONS NEEDING CONTINUOUS SERVICE.
- FOR END OF LINE SERVICE INSTALLATION SEE STD. DWG. W-17.
- CLAMP ANODE LEAD WIRE TO COPPER TUBING. CLAMP SHALL BE DIRECT BURIAL TYPE OF RED BRASS WITH BRASS SCREWS AS MANUFACTURED BY DOTTIE, OR ACCEPTED EQUAL.
- SET METER BOX ADJACENT TO AND BEHIND SIDEWALK FOR 4' WIDE WALKS ADJACENT TO CURB.
- A MINIMUM OF 5 x PIPE DIAMETER IS REQUIRED UPSTREAM OF BALL VALVE FOR ANY FITTINGS. A MINIMUM OF 2 x PIPE DIAMETERS IS REQUIRED DOWNSTREAM OF THE BRONZE CUSTOMER SERVICE FOR ANY FITTINGS.
- RPPD TO BE INSTALLED DOWNSTREAM OF METER (SEE W-15).

BRONZE BOLTS

METER SIZE	BOLT SIZE
1 1/2"	5/8"x3"
2"	3/4"x2 1/2"

SOUTH COAST WATER DISTRICT STANDARD DRAWING			
2014	2" RECYCLED WATER FOR IRRIGATION SERVICE	RW-2	SHEET 1 OF 1

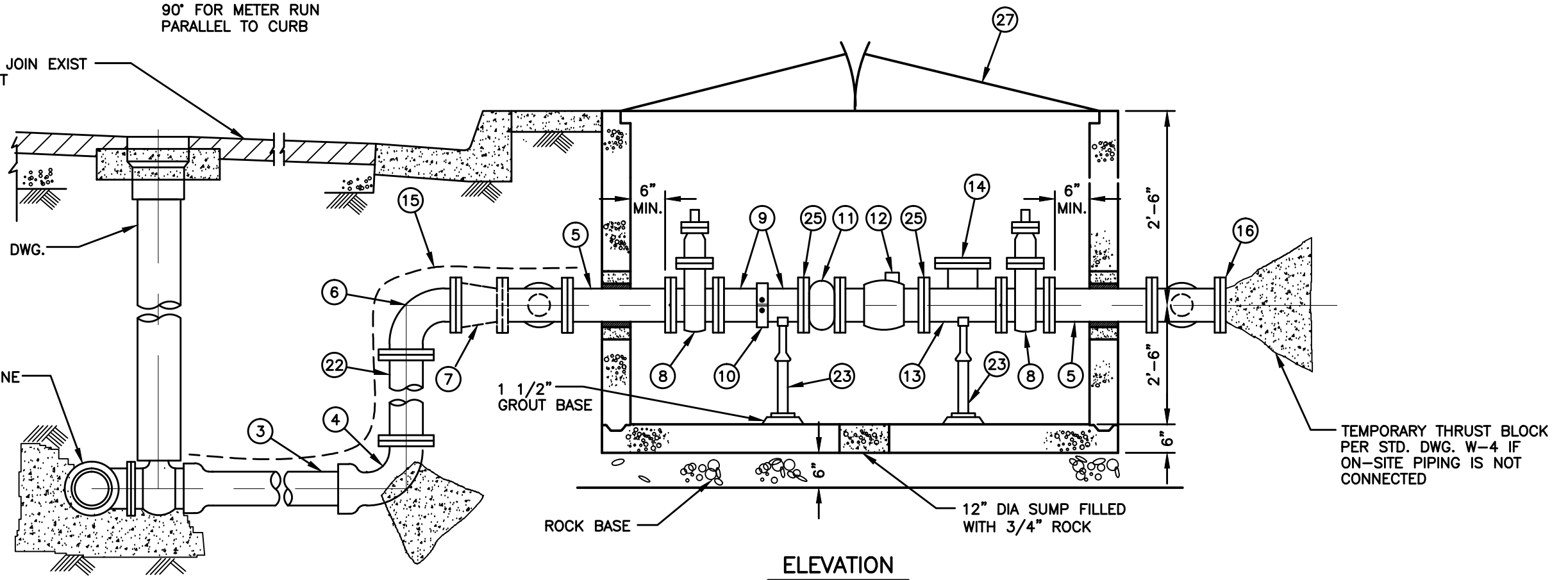


ALTERNATE LAYOUT
 LOWER 90° BEND ROTATED
 90° FOR METER RUN
 PARALLEL TO CURB

FEATHER JOIN EXIST
 PAVEMENT

SEE STD. DWG.
 RW-4

MAIN LINE



SOUTH COAST WATER DISTRICT STANDARD DRAWING			
2014	3", 4", AND 6" RECYCLED WATER FOR IRRIGATION SERVICE	RW-3	SHEET 1 OF 2

MATERIALS

<u>ITEM</u>	<u>QUANTITY</u>	<u>DESCRIPTION</u>	<u>SPEC NO.</u>
①	1 EACH	— MAIN SIZE x 4" (FOR 3" & 4" METERS) OR 6" TAPPING SLEEVE OR	33 12 12
	OR	— MAIN SIZE x 4" (FOR 3" OR 4" METERS) OR 6" PO x PO x PO D.I.P. TEE IF HOT TAP NOT REQUIRED	33 11 11
②	1 EACH	— 4" OR 6" FLG x PO TAPPING VALVE OR	33 12 12
	OR	— 4" OR 6" FLG x PO RW GATE VALVE IF HOT TAP NOT REQUIRED	33 12 12
③	AS REQ'D	— 4" OR 6" PO x PO D.I.P. OR PVC LATERAL	33 11 11
	OR	— 4" OR 6" PO x PO PVC LATERAL	33 11 31
④	1 EACH	— 4" OR 6" PO x FLG D.I.P. 90° ELL	33 11 11
⑤	2 EACH	— METER SIZE x 2'-6" LONG FLG x FLG D.I.P. SPOOL	33 11 11
⑥	1 EACH	— 4" OR 6" FLG x FLG D.I.P. 90° ELL	33 11 11
⑦	1 EACH	— 4" x 3" FLG x FLG D.I.P. REDUCER (FOR 3" METER ONLY)	33 11 11
⑧	3 EACH	— 3", 4" OR 6" FLG x FLG RW GATE VALVE	33 12 12
⑨	2 EACH	— 3", 4" OR 6" x 6" LONG FLG x GROOVED CL 53 D.I.P. SPOOL	33 11 11
⑩	2 EACH	— 3", 4" OR 6" GROOVED COUPLING	33 05 34
⑪	1 EACH	— 3", 4" OR 6" FLG x FLG BASKET STRAINER	33 12 30
⑫	1 EACH	— 3", 4" OR 6" FLG x FLG TURBINE METER	33 12 33
⑬	1 EACH	— 3", 4" OR 6" FLG x FLG x FLG D.I.P. TEE (MATCH METER SIZE)	33 11 11
⑭	1 EACH	— 3", 4" OR 6" BLIND FLANGE TAPPED FOR 2-1/2" IP	33 11 11
⑮	AS REQ'D	— WARNING TAPE	33 05 26
⑯	1 EACH	— 3", 4" OR 6" D.I.P. BLIND FLANGE	33 11 11
⑰	2 EACH	— 3", 4" OR 6" x 2" OUTLET FLG x FLG x FLG D.I.P. TEE (MATCH METER SIZE)	33 11 11
⑱	4 EACH	— 2" MNTP x SWEAT	33 11 21
⑲	AS REQ'D	— 2" TYPE K COPPER TUBING	33 11 21
⑳	2 EACH	— 2" SWEAT x SWEAT 90° ELL	33 11 21
㉑	1 EACH	— 2" FNTP x FNTP BALL VALVE WITH LOCKING WING	33 12 31
㉒	1 EACH	— 3", 4" OR 6" FLG x FLG D.I.P. SPOOL IF REQ'D (MATCH METER SIZE)	33 11 11
㉓	2 EACH	— ADJUSTABLE PIPE SUPPORT SEE STD. DWG. W-19	33 05 38
㉔	1 EACH	— PRECAST CONCRETE VAULT 5'-0" W x 6'-6" L x 5'-0" H	33 05 16
㉕	2 EACH	— FLANGE INSULATING KIT	33 05 32
㉖	1 EACH	— LADDER & SS ANCHOR BOLTS	05 51 00
㉗	1 EACH	— TORSION-SPRING ASSIST DIAMOND PLATE ALUMINUM COVER AND RECESSED LOCKING HASP. CENTER 6" x 12" HINGED READING LID OVER METER REGISTER	05 51 00
㉘	2 EACH	— 3", 4" OR 6" BRONZE COMPANION FLANGE WITH 2" FNTP OUTLET	33 11 21

NOTES:

1. VAULT IS FOR PARKWAY USE ONLY. FOR TRAFFIC LOADING AND OTHER REQUIREMENTS, CONTACT DISTRICT REPRESENTATIVE.
2. VAULT COVER TO BE SET TO CONFORM TO PARKWAY GRADE.
3. CONCRETE SHALL BE CLASS B.
4. FOR SIZE 8" & 10" TURBO METER, REFER TO DISTRICT ENGINEER.
5. AN RPPD TO BE INSTALLED DOWNSTREAM OF METER (SEE W-15).

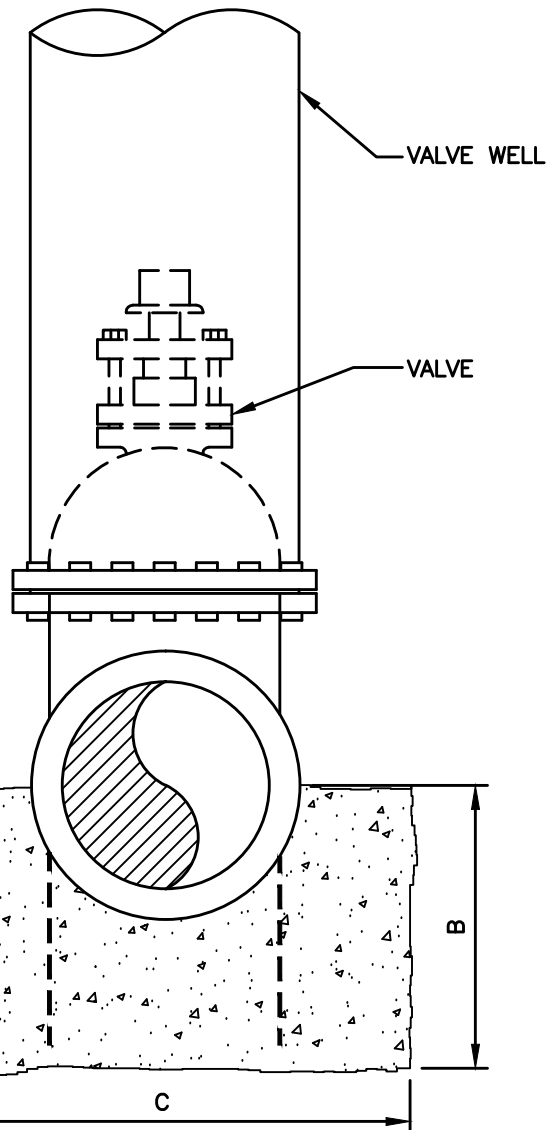
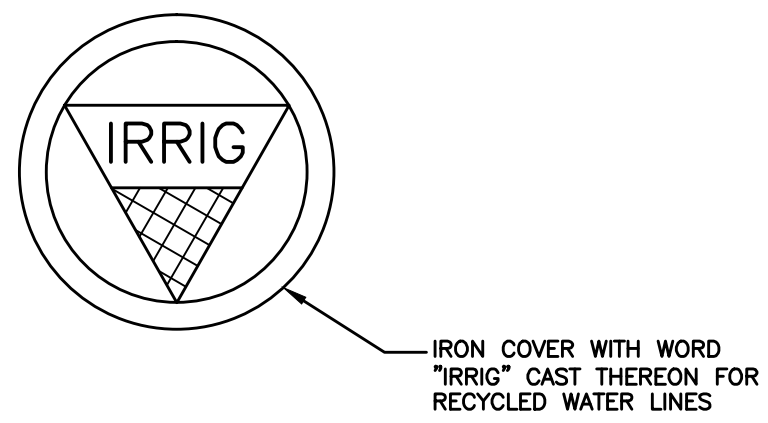
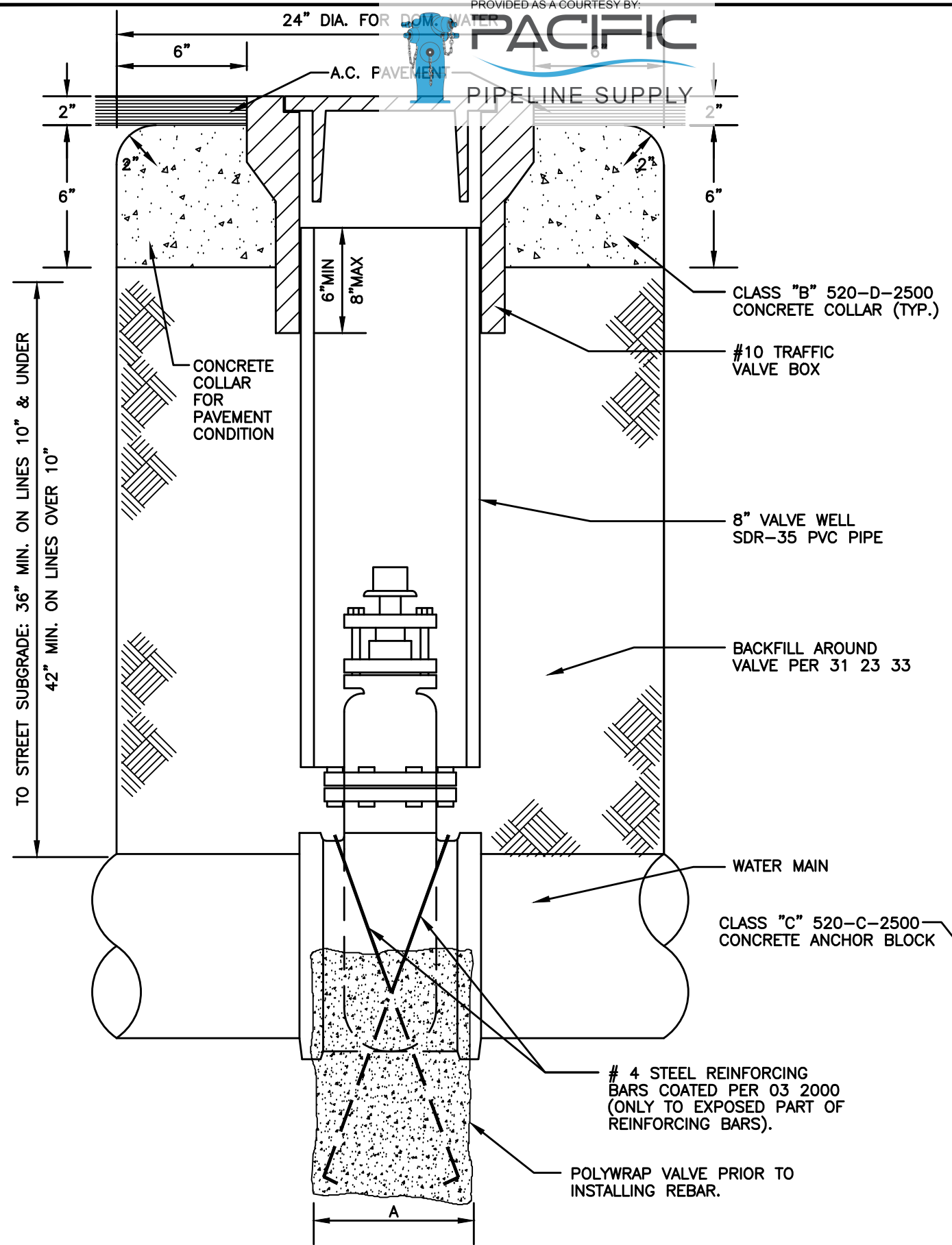
SOUTH COAST WATER DISTRICT STANDARD DRAWING

2014

3", 4", & 6" RECYCLED WATER
FOR IRRIGATION SERVICE

RW-3

SHEET
2 OF 2



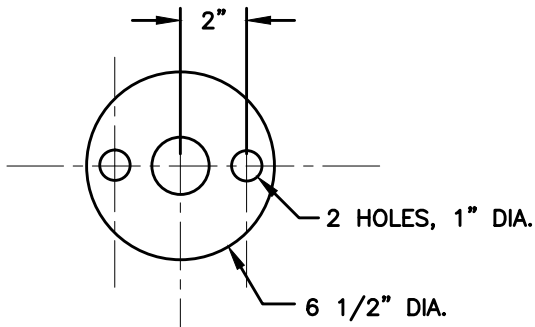
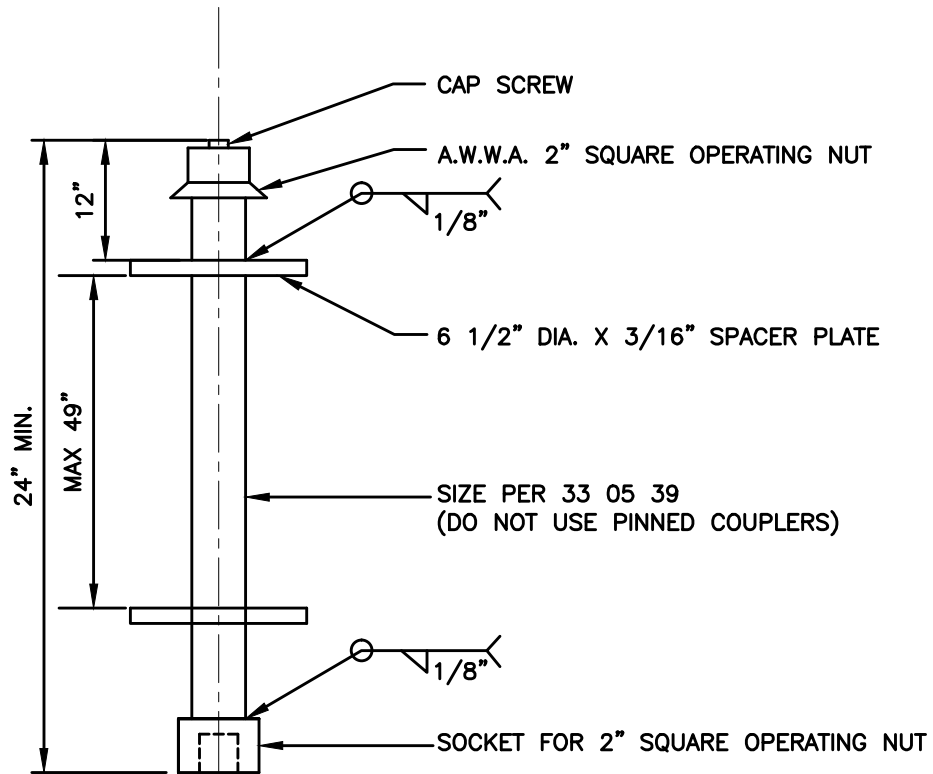
NOTES:

1. PROVIDE VALVE STEM EXTENSION CONFORMING TO 33 05 39 IF DEPTH TO VALVE NUT EXCEEDS 4 FEET. SEE NOTE 2.
2. IN NEW TRACT DEVELOPMENTS EXTEND VALVE WELL PIPE 2' ABOVE GROUND ON "KEY VALVES" FOR EMERGENCY SHUTOFFS.
3. WHERE CONCRETE CROSS GUTTERS AT STREET INTERSECTIONS INTERFERE WITH VALVE BOXES, RELOCATE PIPELINE TO 7 FEET OFF CURB FACE TO CLEAR CROSS GUTTER.
4. LOCATE VALVES ADJACENT TO FITTINGS WHEREVER POSSIBLE.
5. VALVES BOLTED TO FITTINGS SHALL NOT REQUIRE ANCHOR BLOCKS.
6. VALVE BOX AND COVER SHALL CONFORM TO 33 05 39.
7. FOR RECYCLED WATER, PAINT IRON COVER PURPLE.

VALVE SIZE	DIMENSION	
	A	B
6" OR SMALLER	12"	12"
8"	13"	14"
10"	14"	16"
12"	14"	18"

DIMENSION "C" = TRENCH WIDTH PLUS 2X PIPE DIAMETER

SOUTH COAST WATER DISTRICT STANDARD DRAWING			
2014	VALVE BOX ASSEMBLY	RW-4	SHEET 1 OF 2



SPACER PLATE

PLAN

NOTES:

1. FABRICATE EXTENSION TO FIELD MEASUREMENT – SEE NOTE 2
2. NO VALVE STEM EXTENSION SHALL BE LESS THAN 2 FEET IN LENGTH. TERMINATE EXTENSION 24" FROM FINISHED GRADE.
3. PROVIDE ADDITIONAL SPACER PLATE WHEN DISTANCE TO BOTTOM SOCKET EXCEEDS 5 FEET.

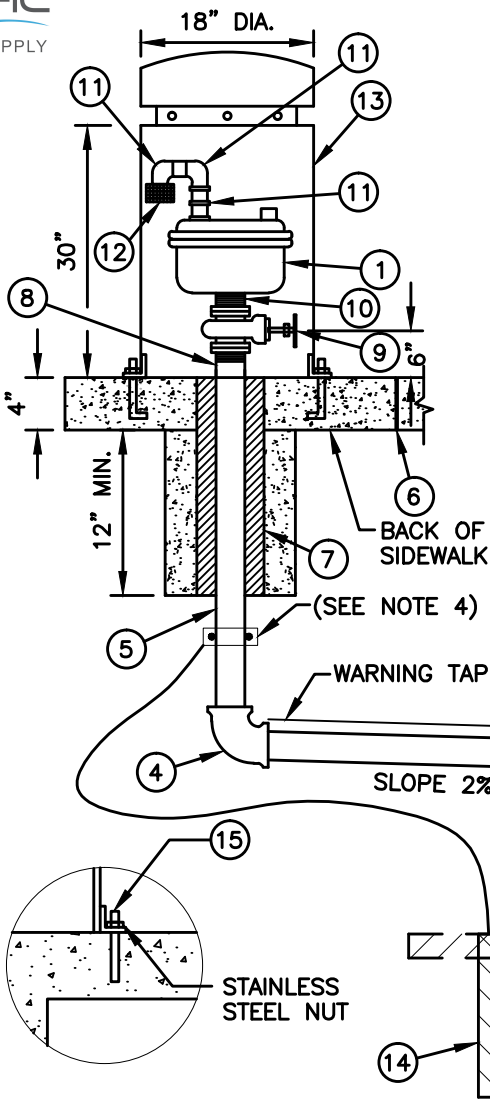
SOUTH COAST WATER DISTRICT STANDARD DRAWING

2014

VALVE EXTENSION

RW-4

SHEET
2 OF 2



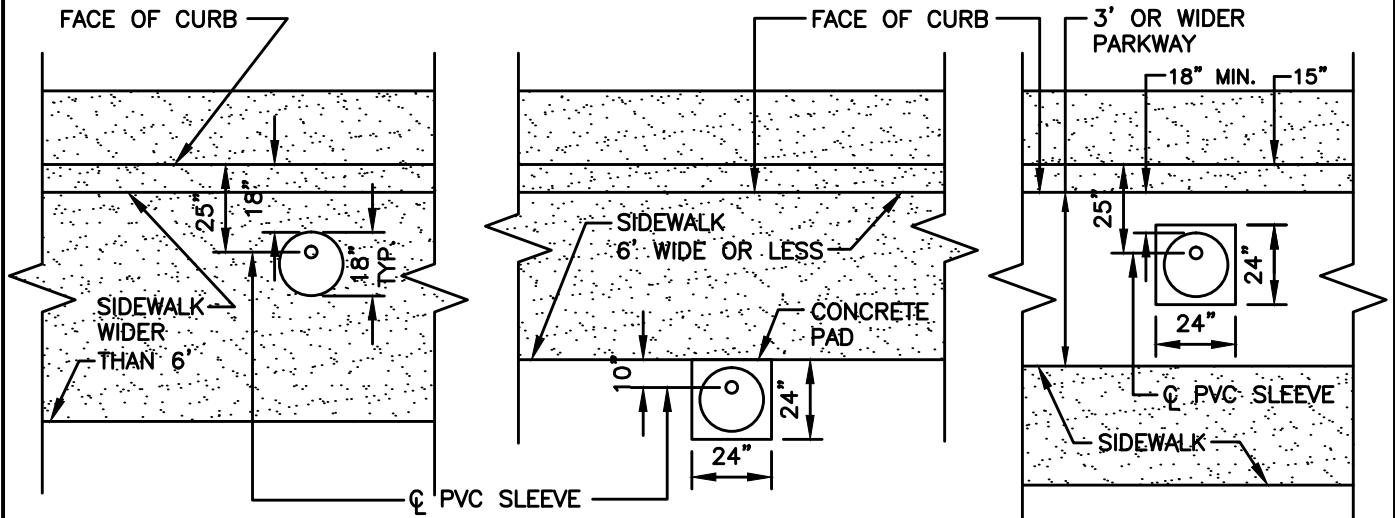
MATERIAL LIST:

①	1" OR 2" FNTP COMBINATION AIR AND VAC RELEASE VALVE	33 12 25 OR 33 12 16
②	1" OR 2" DOUBLE-STRAP BRONZE SERVICE SADDLE W/ CC THREAD OUTLET	33 12 31
③	1" OR 2" CC THREAD x FLARE BRONZE CORP. STOP	33 12 31
④	1" OR 2" SWEAT x SWEAT COPPER OR BRASS LONG RADIUS 90° ELL	33 11 21
⑤	1" OR 2" RIGID TYPE K COPPER TUBING	33 11 21
⑥	COLD JOINT FILLER STRIP	03 15 00
⑦	2" OR 4" SCH 80 PVC SLEEVE (2 x VALVE SIZE) FILL ANNUAL SPACE WITH DRY SAND	33 11 33
⑧	1" OR 2" SWEAT x MNTP THREAD ADAPTOR	33 11 21
⑨	1" OR 2" BRONZE BALL VALVE	33 12 22
⑩	1" OR 2" MNTP LOW-LEAD BRASS SHORT NIPPLE	33 11 21
⑪	1" OR 2" MNTP OR PE SCH 80 PVC CLOSE NIPPLES AND 90° ELLS	33 11 33
⑫	THREADED PRE-FAB PVC SCREEN OUTLET WITH RIGID SS SCREEN	
⑬	20" Ø POLYETHYLENE VENTED PIPE COVER. SEE SHEET W-8B	33 12 25 OR 33 12 16
⑭	SACRIFICIAL ANODE	26 42 00
⑮	CONCRETE EXPANSION BOLT ANCHOR	05 50 50

NOTES:

1. REFER TO SCWD STD. DWG W-1 FOR OTHER NOTES.
2. PAINT PIPE COVER & AIR RELEASE VALVE PER 09 90 00
3. ANODE LEAD WIRE SHALL BE CLAMPED TO COPPER TUBING. CLAMP SHALL BE DIRECT BURIAL TYPE OF RED BRASS WITH BRASS SCREWS AS MANUFACTURED BY DOTTIE, OR APPROVED EQUAL.
4. ALLOW CONCRETE TO CURE 7 DAYS BEFORE PLACING EXPANSION BOLTS.

VALVE ASSEMBLY LOCATION PLANS



SIDEWALK ADJACENT TO CURB

CASE 2

SIDEWALK NOT ADJACENT TO CURB

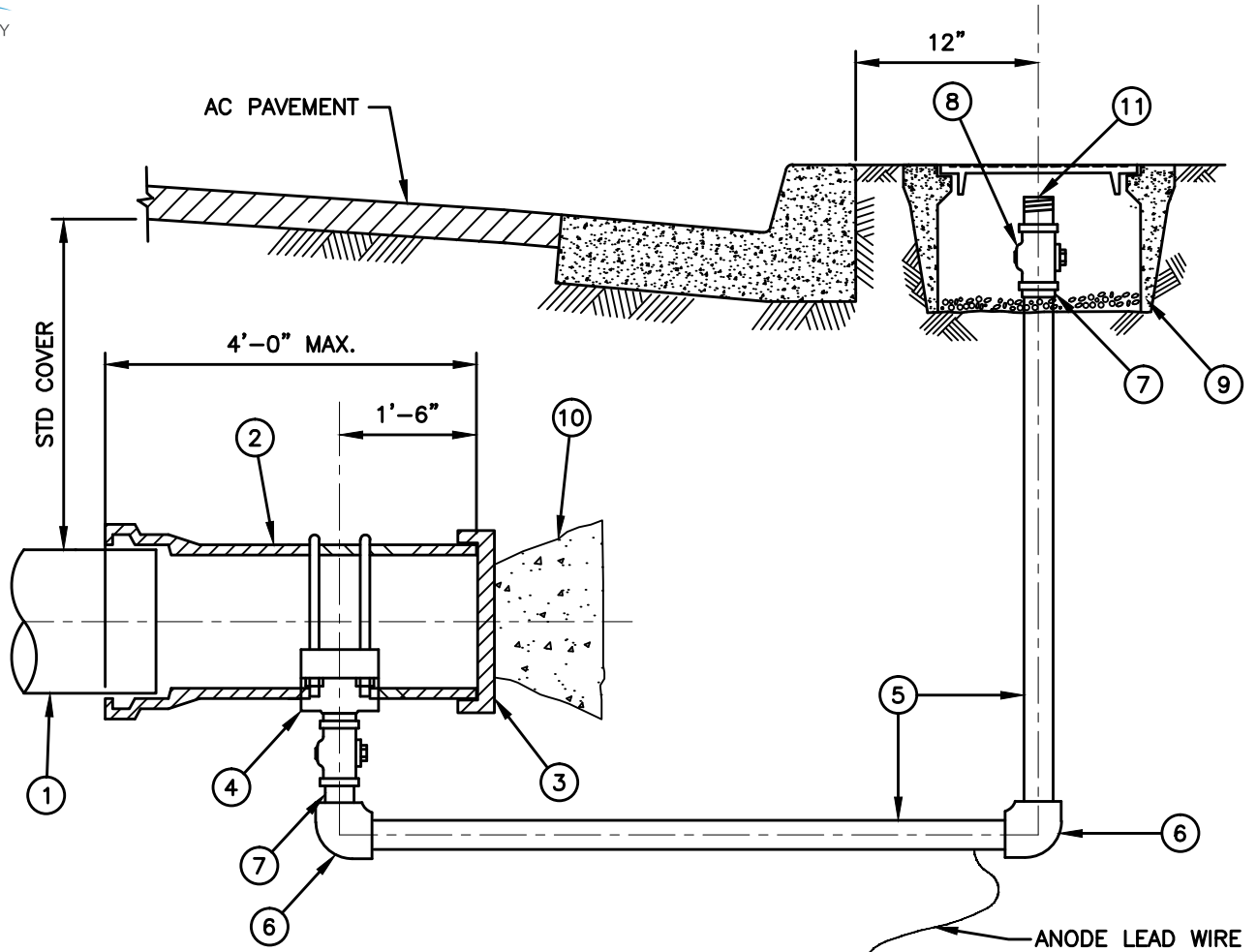
SOUTH COAST WATER DISTRICT STANDARD DRAWING

2014

1" AND 2" AIR RELEASE VALVE INSTALLATION

RW-5

SHEET
1 OF 1



MATERIALS

①	— 4", 6", 8", 10" OR 12" PVC PIPE	33 11 31
②	— PVC SPOOL (OPTIONAL)	33 11 31
③	— D.I.P. CAP	33 11 11
④	— 2" SERVICE SADDLE W/2" CORP STOP AND FLARE ADAPTER PER STD. DWG. W-2	33 12 31
⑤	— 2" TYPE K COPPER TUBING	33 11 21
⑥	— 2" SWEAT x SWEAT COPPER 90° ELL	33 11 21
⑦	— 2" FL x CC THREAD SWEAT COPPER ADAPTER AS NEEDED	33 11 21
⑧	— 2" MNTP x FNTP BRASS BALL VALVE	33 12 22
⑨	— METER BOX W/O READING LID	33 12 31
⑩	— CONCRETE THRUST BLOCK PER STD. DWG. W-4	03 30 00
⑪	— 2" FNTP x 2-1/2" NSHT BRASS ADAPTOR WITH CAP	33 11 21
⑫	— ZINC ANODE AND LEAD WIRE. PLACE ANODE AT LEAST 2' FROM COPPER TUBING	26 42 00

* NOTE: IF METER BOX IS IN TRAFFIC, BOX AND LID MUST BE TRAFFIC RATED.

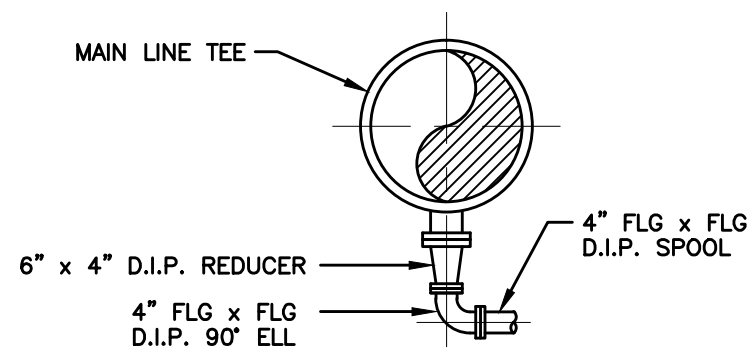
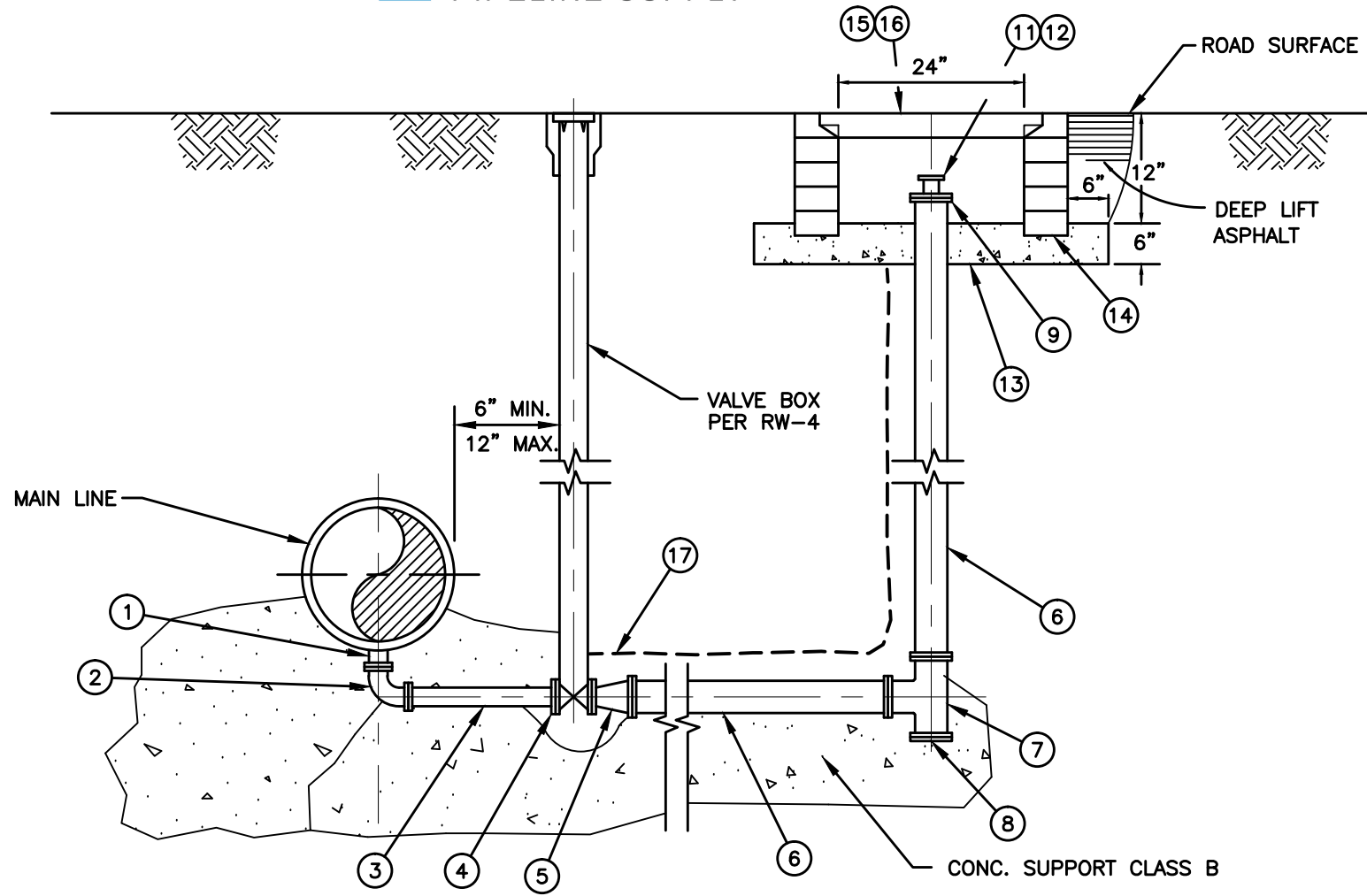
SOUTH COAST WATER DISTRICT STANDARD DRAWING

2014

2" BLOW-OFF ASSEMBLY

RW-6

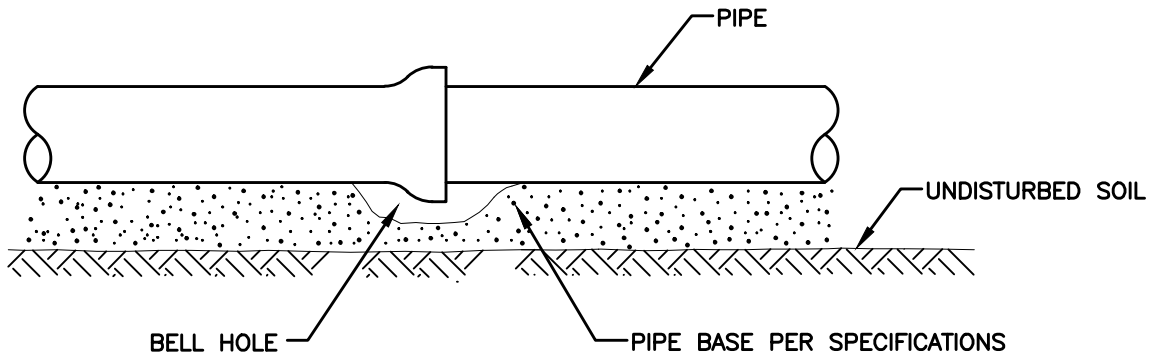
**SHEET
1 OF 1**



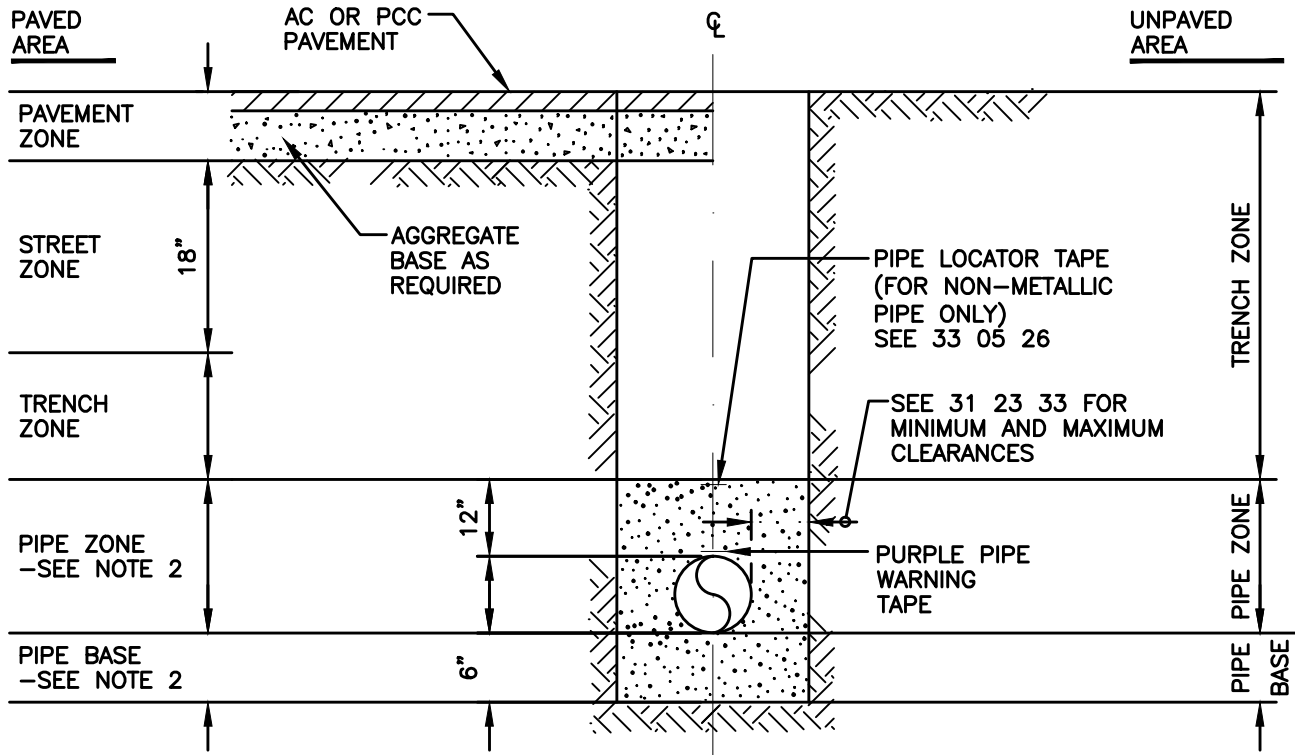
**FOR MAIN SIZES
 GREATER THAN 18"**

MATERIALS

ITEM NO.	SIZE & DESCRIPTION	SPEC. NO.
①	PO x PO x FLG D.I.P. TEE	33 11 11
②	4" FLG x FLG D.I.P. 90° ELL	33 11 11
③	4" FLG x FLG D.I.P. SPOOL	33 11 11
④	4" FLG x FLG RW GATE VALVE	33 12 12
⑤	8" x 4" FLG x FLG D.I.P. REDUCER	33 11 11
⑥	8" FLG x FLG D.I.P. SPOOL	33 11 11
⑦	8" x 8" D.I.P. TEE	33 11 11
⑧	8" BLIND FLG	33 11 11
⑨	8" BLIND FLG W/ 3" TAP	
⑩	3" x 2-1/2" DIELECTRIC BUSHING	33 05 52
⑪	2-1/2" MNTP x NSHT BRASS HOSE ADAPTOR (POTTER ROEMER 2830)	33 11 21
⑫	2-1/2" NSHT CAP AND CHAIN	33 11 21
⑬	36" x 36" CLASS B (520-A-2500) CONCRETE BASE	03 30 00
⑭	24" ID STANDARD MANHOLE RINGS	33 39 13
⑮	24" MANHOLE COVER	33 39 13
⑯	DISTRICT MAY ACCEPT SUBSTITUTION OF 12" x 24" METER BOX WHERE SPACE FOR MANHOLE COVER IS NOT AVAILABLE	33 12 31
⑰	WARNING TAPE	33 05 26



BELL HOLE PROFILE



TRENCH SECTION

NOTES:

SEE STANDARD DRAWING W-8B, SHEET 2 OF 2, FOR TRENCH SECTION NOTES.
 SEE 31 23 33 FOR COMPACTING REQUIREMENTS

SOUTH COAST WATER DISTRICT STANDARD DRAWING			
2014	TRENCH SECTION	RW-8	SHEET 1 OF 2

TRENCH SECTION NOTES:

1. ALL WORK SHALL BE IN ACCORDANCE WITH 21 23 33.
2. IMPORTED SAND BACKFILL, COMPACTED TO 90 PERCENT, SHALL BE USED FOR THE PIPE BASE AND AS BACKFILL WITHIN THE PIPE ZONE.
3. SEE 31 23 33 FOR MINIMUM SIDE CLEARANCE REQUIREMENTS.
4. VERTICAL TRENCH WALLS:
 - A) FOR DEPTHS UP TO 3'-6", NO TRENCH SUPPORT IS REQUIRED UNLESS UNSTABLE OR RUNNING SOIL IS ENCOUNTERED.
 - B) FOR DEPTHS EXCEEDING 3'-6", SHORING OR SOLID SHEETING SHALL COMPLY WITH THE CAL/OSHA CONSTRUCTION SAFETY ORDERS.
5. OPTIONAL COMBINATION OF VERTICAL AND SLOPING TRENCH WALLS:
 - A) TRENCH DEPTH EXCEEDING 3'-6" SHALL HAVE VERTICAL WALLS IN PIPE ZONE UNLESS OTHERWISE APPROVED BY THE ENGINEER.
 - B) FOR TRENCHES WITH COMBINED WALL AND ANY DEPTH EXCEEDING 3'-6", THE CONTRACTOR SHALL PROTECT IN ACCORDANCE WITH THE CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS (CAL/OSHA) CODE OF REGULATIONS TITLE 8, SUBCHAPTER 4 "CONSTRUCTION SAFETY ORDERS".
6. ALL EXCAVATIONS AND TRENCHES SHALL CONFORM TO THE CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS (CAL/OSHA) CODE OF REGULATIONS TITLE 8, SUBCHAPTER 4 "CONSTRUCTION SAFETY ORDERS".
7. SEE 33 23 33 FOR BEDDING AND BACKFILL MATERIAL REQUIREMENTS.
8. ALL DUCTILE IRON PIPE AND FITTINGS SHALL BE WRAPPED IN 8 MIL POLYETHYLENE.
9. INSTALL PVC PIPE SO LETTERING FACES UP.
10. LOCATE RECYCLED WATER TAPE ON TOP OF ALL BURIED LINES USING PURPLE TAPE WITH BLACK LETTERS STATING:
"CAUTION: RECYCLED WATER BURIED BELOW"
 ALSO USE TAPE TO FIT SIZE OF PIPE SUCH AS 2" TAPE FOR 2" PIPE, 3" TAPE FOR 3" PIPE. ETC.
11. DO NOT USE THE ABOVE TAPE ON LINES THAT ARE INSTALLED WITH "PURPLE C-900 PIPE".

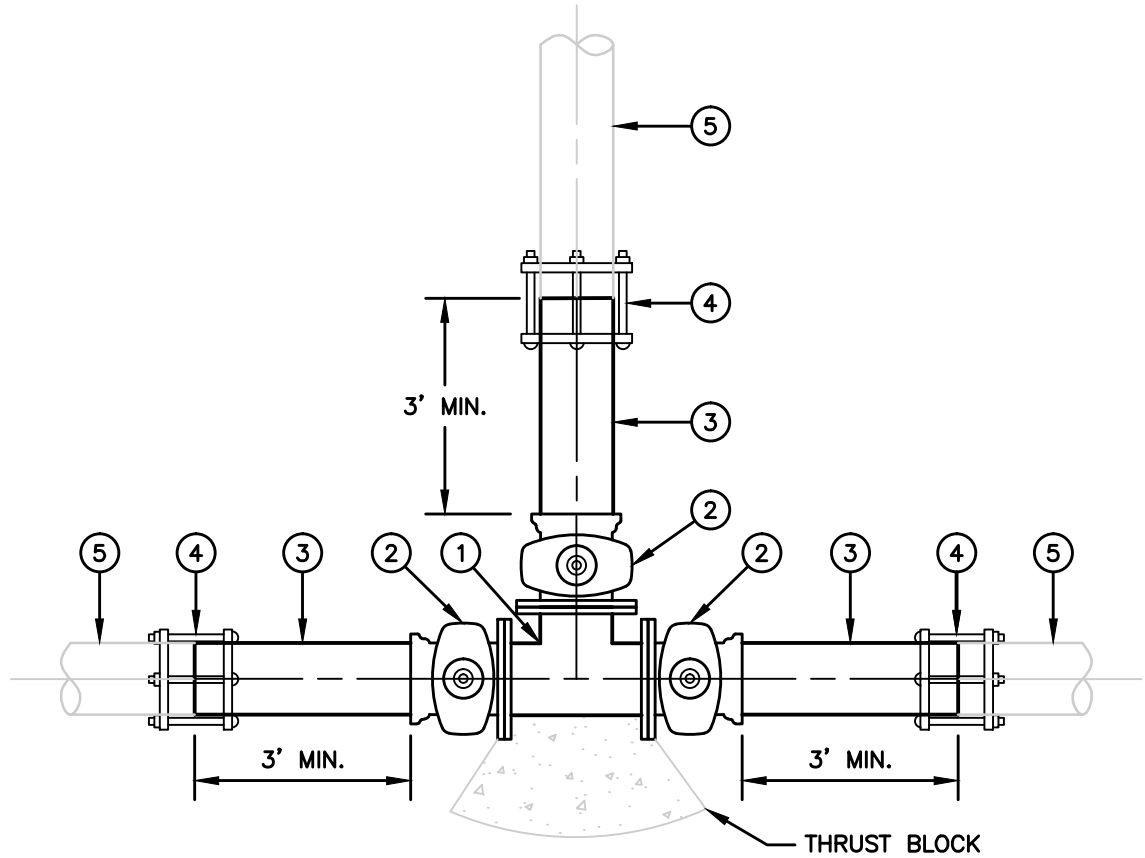
SOUTH COAST WATER DISTRICT STANDARD DRAWING

2014

TRENCH SECTION

RW-8

SHEET
2 OF 2



ITEMS:

SPEC NO.

①	FLG x FLG x FLG D.I.P. TEE	33 11 11
②	FLG x PO RW GATE VALVE	33 12 12
③	BEVELED END JOINING VALVE x PE DR-14 PVC (C900) PIPE	33 11 31
④	CAST BOLTED SLEEVE-TYPE COUPLING FOR IDENTICAL OR DIFFERENT PIPE MATERIALS ON EACH SIDE	33 05 33
⑤	EXISTING PIPE	

NOTES:

1. ALL NUTS AND BOLTS MUST BE STAINLESS STEEL.
2. TEES, VALVES AND ALL FITTINGS MUST BE DOUBLE WRAPPED IN 8 MIL POLYETHYLENE.
3. PURPLE WARNING TAPE TO BE INSTALLED.
4. SEE W-5 FOR TRENCH DETAILS.
5. SEE W-4 FOR FURTHER THRUST BLOCK DETAILS.
6. SEE W-4 FOR VALVE BOX ASSEMBLY AND VALVE EXTENSION.

SOUTH COAST WATER DISTRICT STANDARD DRAWING

2014

CUT-IN TEE AND VALVES

RW-9

SHEET
1 OF 1