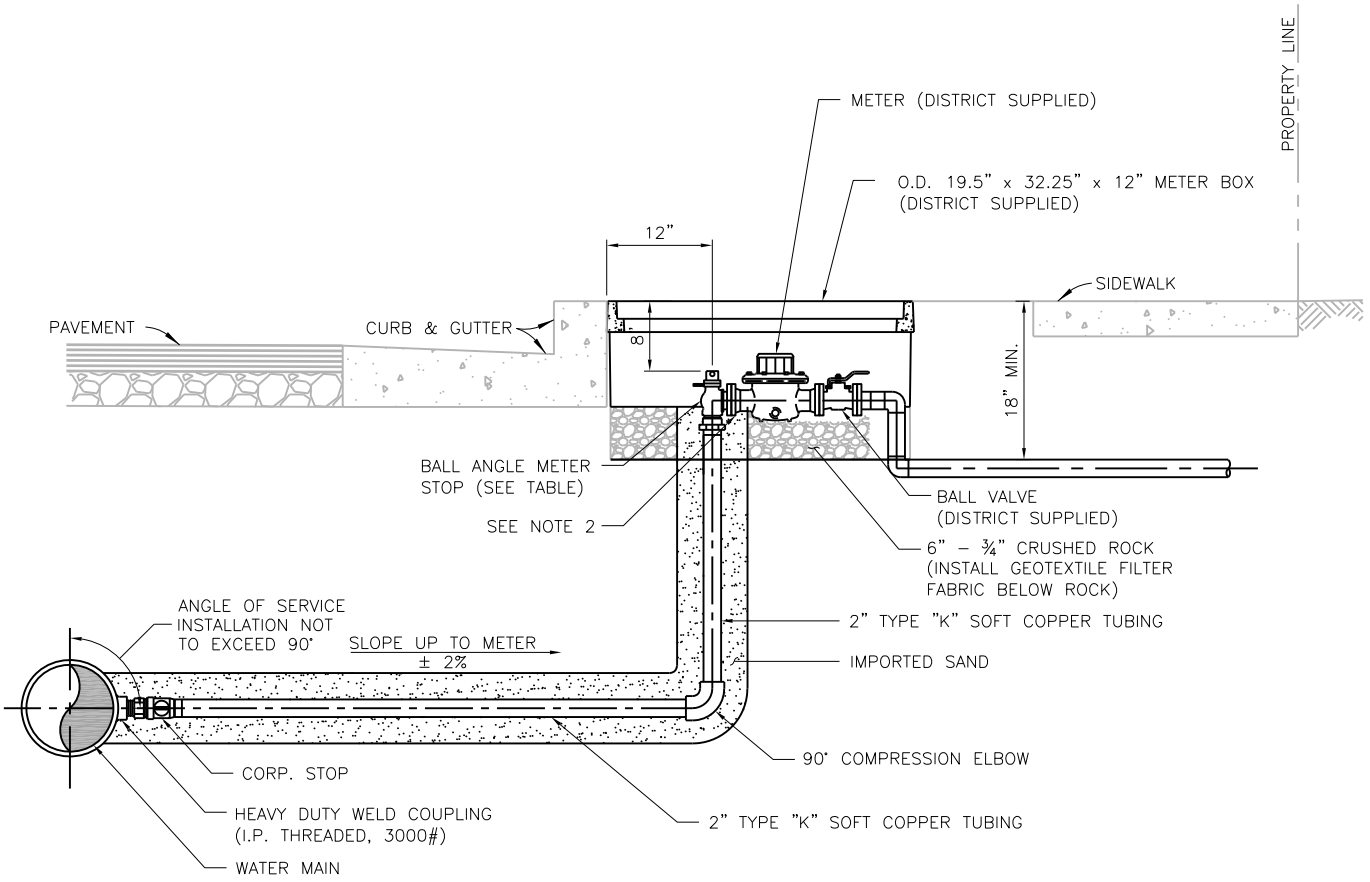

1½" AND 2" METERS

NOTES:

1. METER LOCATIONS AS SHOWN ON PLANS.
2. FOR 1 ½" METER, USE 2" X 1 ½" REDUCING METER FLANGE.
3. ROLLED CURB METER BEHIND SIDEWALK.
4. OLD–STYLE PACK JOINT NOT ACCEPTED.
5. ALL CORPORATION BALL VALVES AND ANGLE METER BALL VALVES SHALL HAVE A GRIP JOINT.

REV.	DESCRIPTION	DATE	APP'D

SERVICE INFORMATION TABLE

	MUELLER		JONES		A. Y. MCDONALD		FORD	
	BALL CORP. STOP	BALL ANGLE METER STOP	BALL CORP. STOP	BALL ANGLE METER STOP	BALL CORP. STOP	BALL ANGLE METER STOP	BALL CORP. STOP	BALL ANGLE METER STOP
1 ½", 2"	B25028N	B24276N	E1935SG	E1975WSG	74704BQ	74602BQ	FB1100–x–Q–NL	BFA43–xxxW–Q–NL

Cucamonga Valley Water District

TYPICAL WATER SERVICE 1 1/2-INCH AND 2-INCH W/ WATER METER

Cucamonga Valley Water District
ENGINEERING DEPARTMENT
10440 ASHFORD STREET, RANCHO CUCAMONGA, CA 91729
(909) 987-2591

APPROVED BY:

TUAN TRUONG, P.E.,
ENGINEERING MANAGER

12–22–25
DATE

STD. DWG.
103
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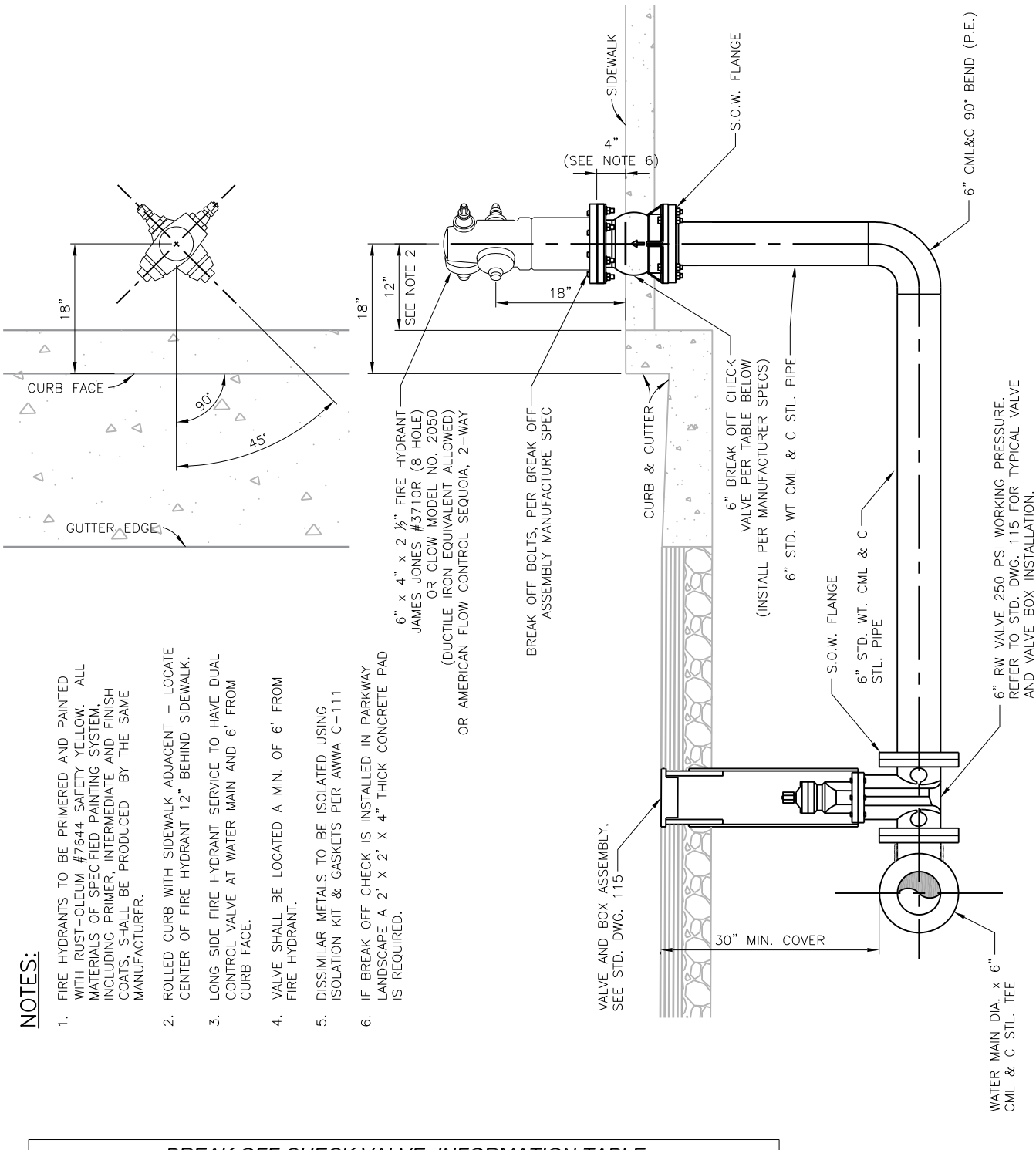

NOTES:

1. FIRE HYDRANTS TO BE PRIMERED AND PAINTED WITH RUST-OLEUM #7644 SAFETY YELLOW. ALL MATERIALS OF SPECIFIED PAINTING SYSTEM, INCLUDING PRIMER, INTERMEDIATE AND FINISH COATS, SHALL BE PRODUCED BY THE SAME MANUFACTURER.
2. ROLLED CURB WITH SIDEWALK ADJACENT – LOCATE CENTER OF FIRE HYDRANT 12" BEHIND SIDEWALK.
3. LONG SIDE FIRE HYDRANT SERVICE TO HAVE DUAL CONTROL VALVE AT WATER MAIN AND 6' FROM CURB FACE.
4. VALVE SHALL BE LOCATED A MIN. OF 6' FROM FIRE HYDRANT.
5. DISSIMILAR METALS TO BE ISOLATED USING ISOLATION KIT & GASKETS PER AWWA C-111
6. IF BREAK OFF CHECK IS INSTALLED IN PARKWAY LANDSCAPE A 2' X 2' X 4" THICK CONCRETE PAD IS REQUIRED.

BREAK OFF CHECK VALVE INFORMATION TABLE		
JONES	AVK	AMERICAN FLOW CONTROL
J6000 8 BOLT	FLOW-GUARD II	SEQUOIA

REV.	DESCRIPTION	DATE	APP'D

Cucamonga Valley Water District

FIRE HYDRANT

Cucamonga Valley Water District
ENGINEERING DEPARTMENT
10440 ASHFORD STREET, RANCHO CUCAMONGA, CA 91729
(909) 987-2591

APPROVED BY:

TUAN TRUONG, P.E.,
ENGINEERING MANAGER

10-13-25
DATE

STD. DWG.
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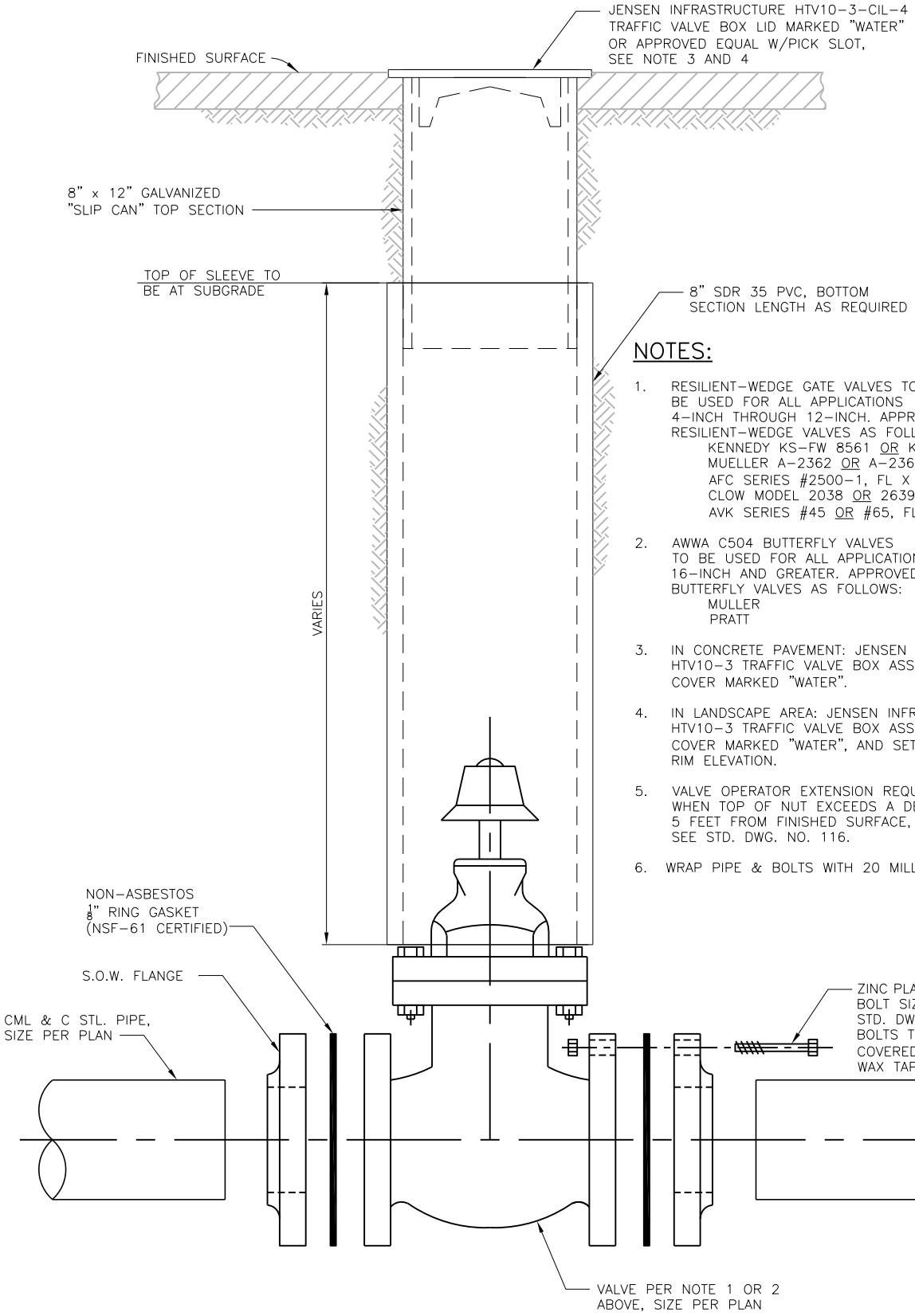

NOTES:

1. RESILIENT-WEDGE GATE VALVES TO BE USED FOR ALL APPLICATIONS 4-INCH THROUGH 12-INCH. APPROVED RESILIENT-WEDGE VALVES AS FOLLOWS:
   KENNEDY KS-FW 8561 OR KS-RW 7561A
   MUELLER A-2362 OR A-2361, FL X FL
   AFC SERIES #2500-1, FL X FL
   CLOW MODEL 2038 OR 2639, F6102
   AVK SERIES #45 OR #65, FL X FL
2. AWWA C504 BUTTERFLY VALVES TO BE USED FOR ALL APPLICATIONS 16-INCH AND GREATER. APPROVED BUTTERFLY VALVES AS FOLLOWS:
   MULLER
   PRATT
3. IN CONCRETE PAVEMENT: JENSEN INFRASTRUCTURE HTV10-3 TRAFFIC VALVE BOX ASSEMBLY WITH COVER MARKED "WATER".
4. IN LANDSCAPE AREA: JENSEN INFRASTRUCTURE HTV10-3 TRAFFIC VALVE BOX ASSEMBLY WITH COVER MARKED "WATER", AND SET ABOVE FLOOD RIM ELEVATION.
5. VALVE OPERATOR EXTENSION REQUIRED WHEN TOP OF NUT EXCEEDS A DEPTH OF 5 FEET FROM FINISHED SURFACE, SEE STD. DWG. NO. 116.
6. WRAP PIPE & BOLTS WITH 20 MILL PLASTIC.

REV.	DESCRIPTION	DATE	APP'D

Cucamonga Valley Water District

VALVE AND BOX ASSEMBLY

Cucamonga Valley Water District
ENGINEERING DEPARTMENT
10440 ASHFORD STREET, RANCHO CUCAMONGA, CA 91729
(909) 987-2591

APPROVED BY:

TUAN TRUONG, P.E.,
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11-10-25
DATE

STD. DWG.

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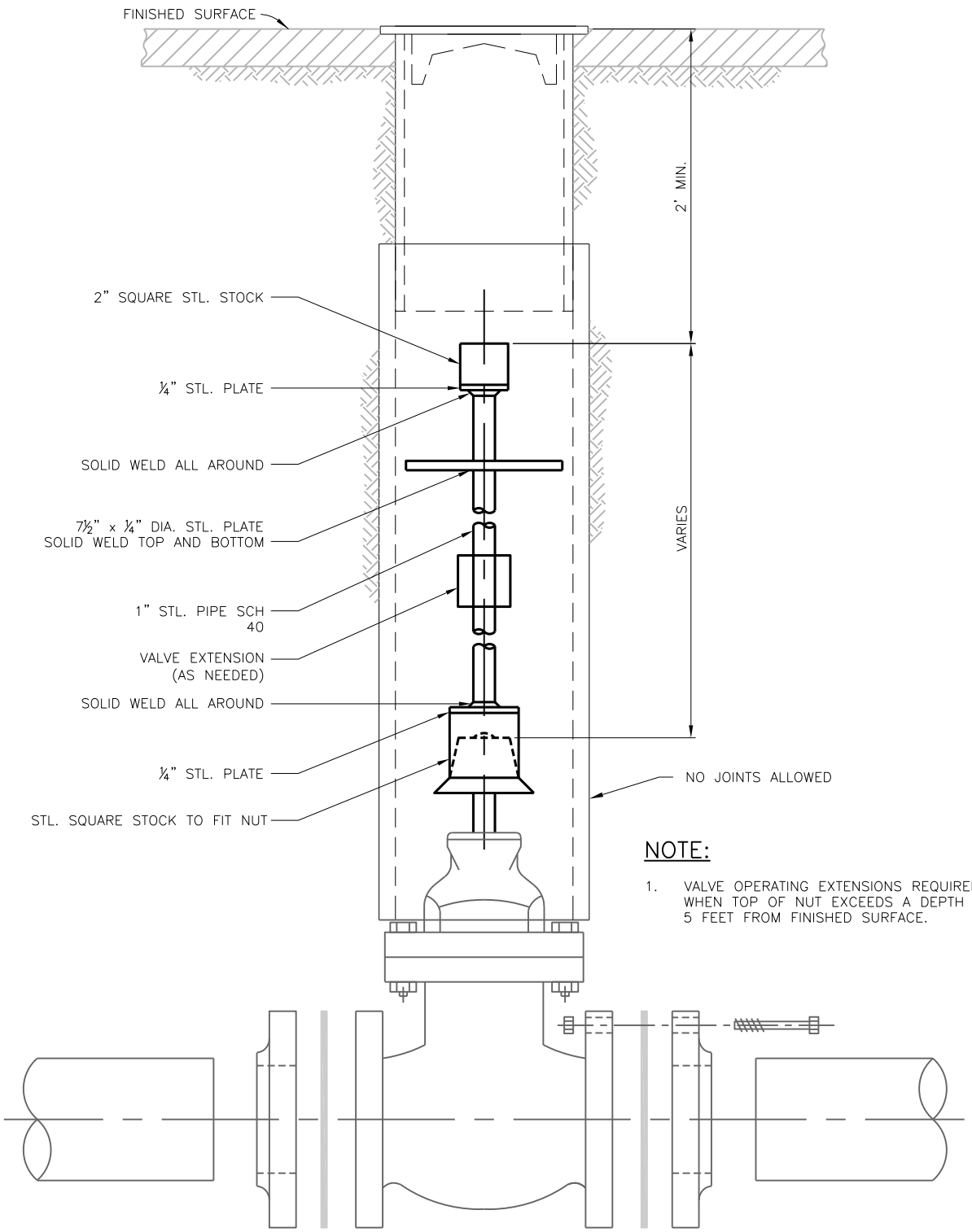

NOTE:

1. VALVE OPERATING EXTENSIONS REQUIRED WHEN TOP OF NUT EXCEEDS A DEPTH OF 5 FEET FROM FINISHED SURFACE.

REV.	DESCRIPTION	DATE	APP'D

Cucamonga Valley Water District

VALVE OPERATOR EXTENSION

Cucamonga Valley Water District
ENGINEERING DEPARTMENT
10440 ASHFORD STREET, RANCHO CUCAMONGA, CA 91729
(909) 987-2591

APPROVED BY:

TUAN TRUONG, P.E.,
ENGINEERING MANAGER

4-17-25
DATE

STD. DWG.

116

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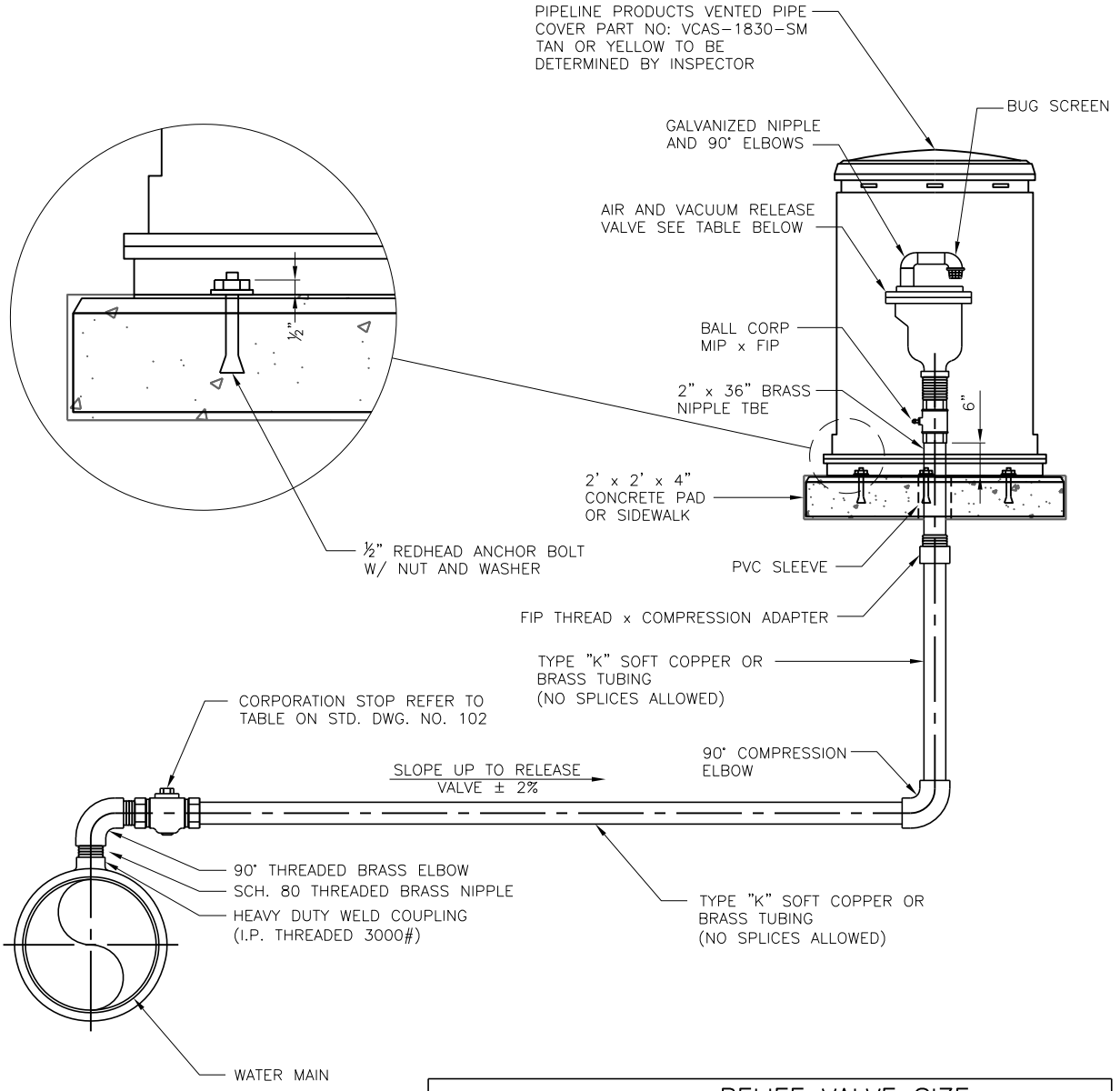

RELIEF VALVE SIZE			
PIPE DIA.	SIZE	AIR/VAC CAN	AIR/VAC
LESS THAN 8-INCH	1"	VCAS-1830 YELLOW	UL10
8-INCH OR 12-INCH	2"	VCAS-1830 YELLOW	UL20

NOTE:

1. CRISPIN AIR/VAC UL SERIES OR APPROVED EQUAL.

REV.	DESCRIPTION	DATE	APP'D

Cucamonga Valley Water District

AIR VACUUM RELEASE VALVE

Cucamonga Valley Water District
ENGINEERING DEPARTMENT
10440 ASHFORD STREET, RANCHO CUCAMONGA, CA 91729
(909) 987-2591

APPROVED BY:

TUAN TRUONG, P.E.,
ENGINEERING MANAGER

12-22-25
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120
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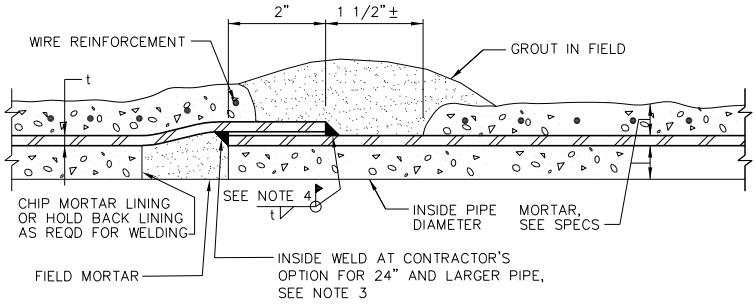
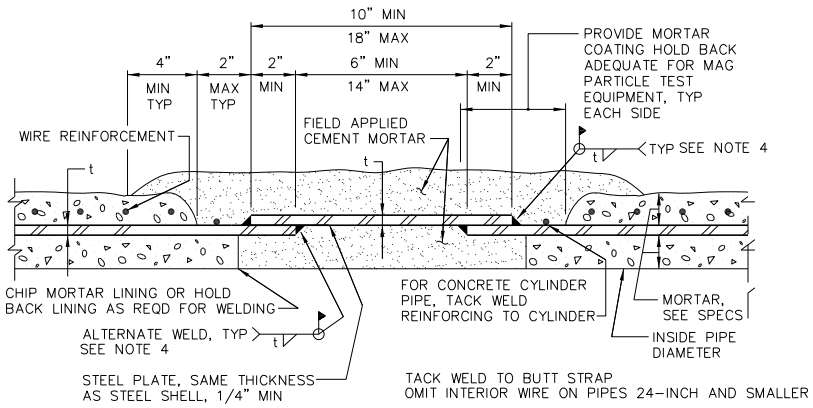
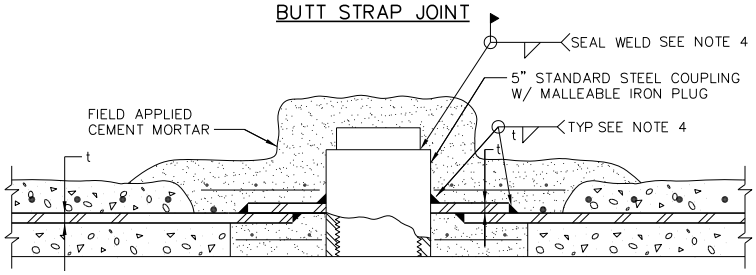


SINGLE / DOUBLE LAP WELDED JOINT



BUTT STRAP JOINT



TYPICAL HANDHOLE FOR BUTT STRAP JOINT

MLCSP JOINT NOTES

1. HANDHOLE REQUIRED ON PIPE SMALLER THAN 24" DIAMETER.
2. PROVIDE ADEQUATE HOLDBACK OF CEMENT MORTAR LINING AND COATING FOR WELDING AND TESTING OF WELDS.
3. WHERE DOUBLE LAP WELD IS SHOWN ON THE DRAWINGS, WELD INSIDE AND OUTSIDE.
4. ALL WELDING SHALL BE 2 PASS MINIMUM.
5. ON FITTINGS, CONTRACTOR SHALL USE WELD BELL FITTINGS OR WEDDING BANDS.
6. PIPE JOINT DIAPERS MAY BE USED WHERE APPLICABLE, PER THE APPROVAL OF THE CVWD INSPECTOR.
7. HAMMER AND CHISEL SHALL BE USED TO REMOVE CEMENT COATING. POWER CUT-OFFS SAWS SHALL NOT BE USED TO REMOVE COATING. SCOURED OR DAMAGED STEEL SHALL BE REJECTED.
8. NSF-61 CERTIFIED GROUT SHALL BE USED FOR INTERIOR JOINT REPAIR

REV.	DESCRIPTION	DATE	APP'D

Cucamonga Valley Water District

MORTAR LINED & COATED STEELL PIPE JOINT DETAIL

Cucamonga Valley Water District
ENGINEERING DEPARTMENT
10440 ASHFORD STREET, RANCHO CUCAMONGA, CA 91729
(909) 987-2591

APPROVED BY:

TUAN TRUONG, P.E.,
ENGINEERING MANAGER

4-17-25
DATE

STD. DWG.

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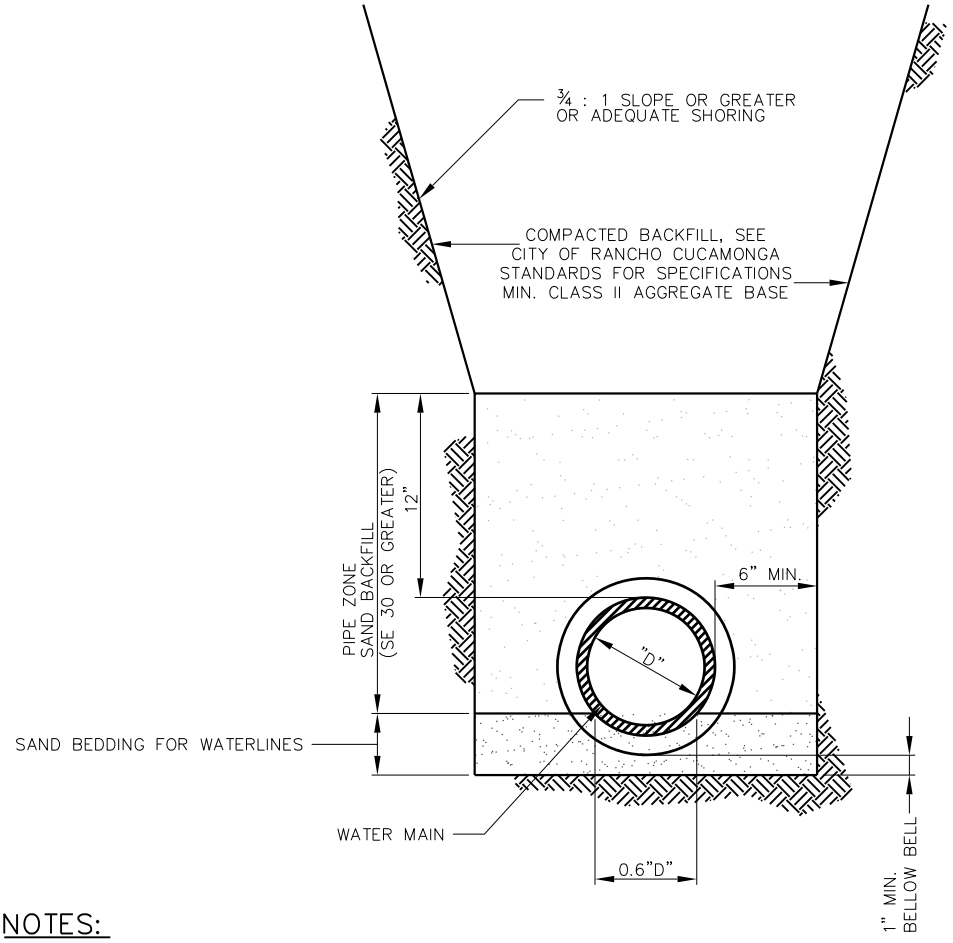

NOTES:

1. TRENCH WIDTH SHALL BE CONTROLLED TO TOP OF PIPE ZONE.
2. TRENCH DEPTHS OF GREATER THAN 5' SHALL HAVE ADEQUATE SHORING.
3. COMPACTION SHALL BE 95% IN ALL ZONES UNLESS OTHERWISE SPECIFIED.
4. TRENCH STABILITY TO CONFORM TO CAL-OSHA REQUIREMENTS.

REV.	DESCRIPTION	DATE	APP'D

Cucamonga Valley Water District

WATER TYPICAL TRENCH SECTION

Cucamonga Valley Water District
ENGINEERING DEPARTMENT
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(909) 987-2591

APPROVED BY:

TUAN TRUONG, P.E.,
ENGINEERING MANAGER

4-17-25
DATE

STD. DWG.

301-A

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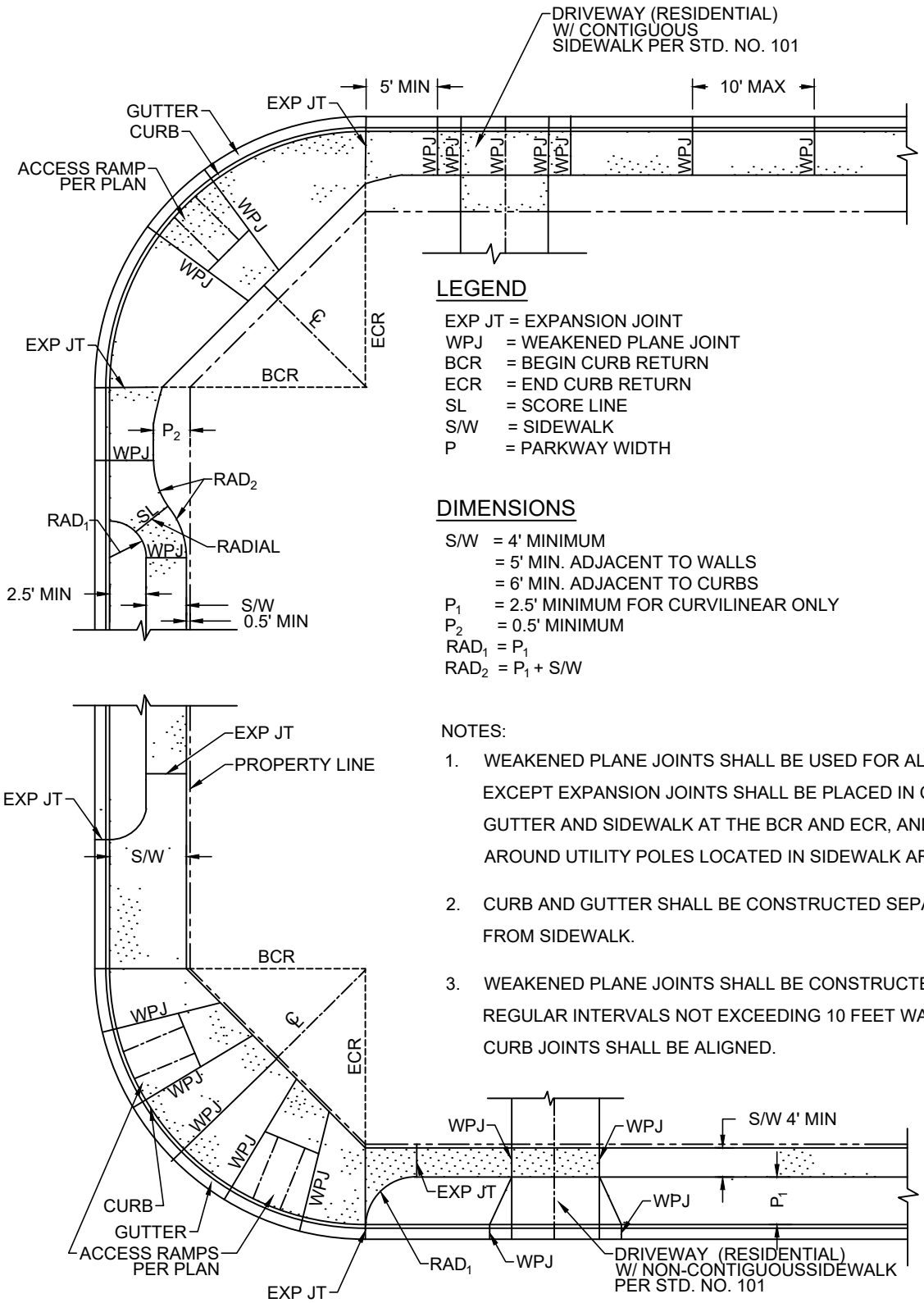


LEGEND

EXP JT = EXPANSION JOINT
WPJ = WEAKENED PLANE JOINT
BCR = BEGIN CURB RETURN
ECR = END CURB RETURN
SL = SCORE LINE
S/W = SIDEWALK
P = PARKWAY WIDTH

DIMENSIONS

S/W = 4' MINIMUM
= 5' MIN. ADJACENT TO WALLS
= 6' MIN. ADJACENT TO CURBS
P_1 = 2.5' MINIMUM FOR CURVILINEAR ONLY
P_2 = 0.5' MINIMUM
$RAD_1 = P_1$
$RAD_2 = P_1 + S/W$

NOTES:

1. WEAKENED PLANE JOINTS SHALL BE USED FOR ALL JOINTS, EXCEPT EXPANSION JOINTS SHALL BE PLACED IN CURB, GUTTER AND SIDEWALK AT THE BCR AND ECR, AND AROUND UTILITY POLES LOCATED IN SIDEWALK AREAS.
2. CURB AND GUTTER SHALL BE CONSTRUCTED SEPARATELY FROM SIDEWALK.
3. WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED AT REGULAR INTERVALS NOT EXCEEDING 10 FEET WALK AND CURB JOINTS SHALL BE ALIGNED.

REGISTERED PROFESSIONAL ENGINEER
JASON C. WELDAY
No. 67514
CIVIL
STATE OF CALIFORNIA

CITY OF RANCHO CUCAMONGA

SIDEWALK AND RAMP LAYOUT AND JOINT DETAIL

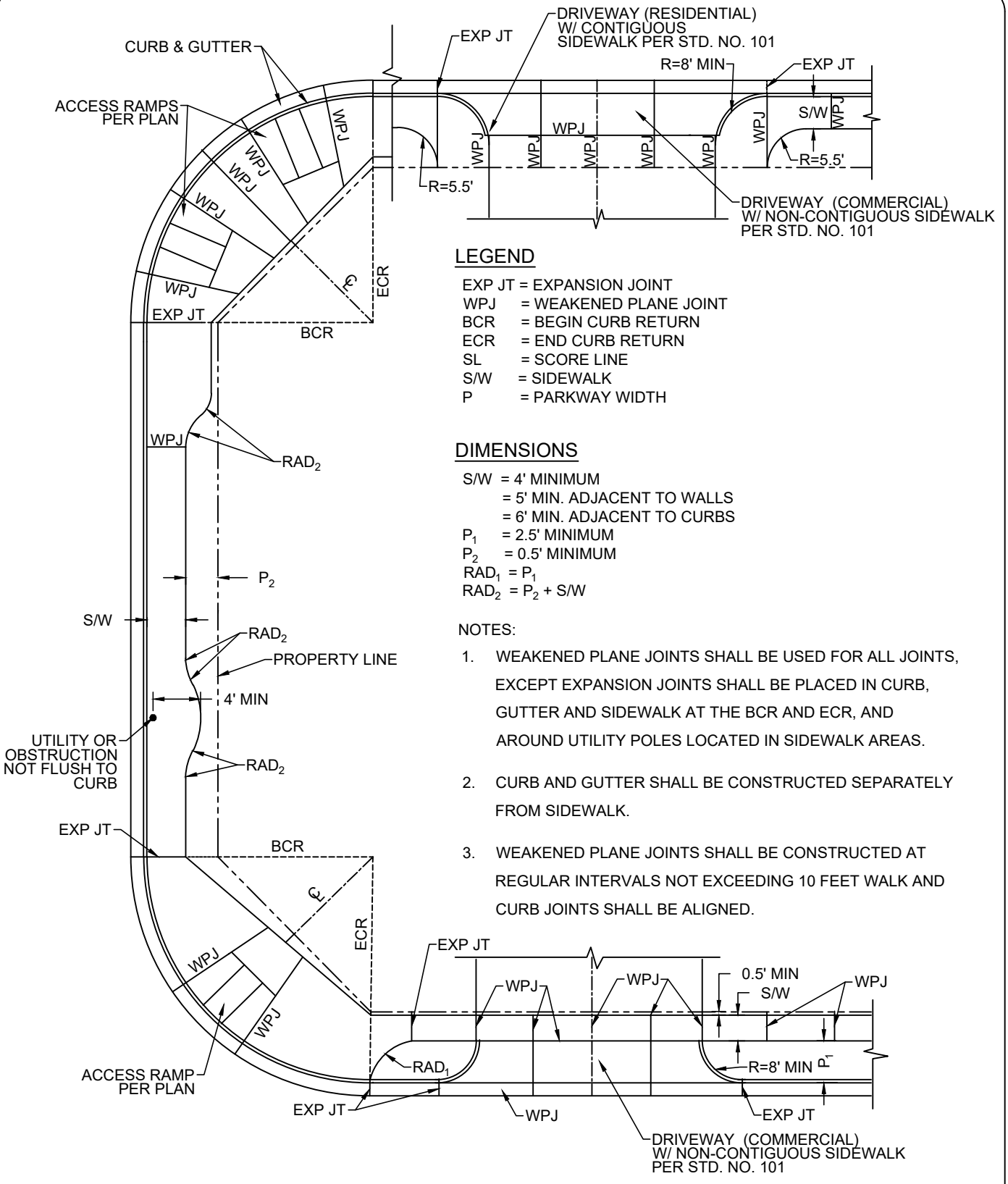
USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

APPROVED BY: _____ 5/20/2019 R.C.E. 67514
JASON C. WELDAY DATE
CITY ENGINEER

STD. PLAN NO. 103

SHEET 1 OF 2

DATE OF LAST REVISION 05/07/2019



LEGEND

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WPJ = WEAKENED PLANE JOINT
BCR = BEGIN CURB RETURN
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P_1 = 2.5' MINIMUM
P_2 = 0.5' MINIMUM
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REGISTERED PROFESSIONAL ENGINEER
JASON C. WELDAY
No. 67514
CIVIL
STATE OF CALIFORNIA

CITY OF RANCHO CUCAMONGA

SIDEWALK AND RAMP LAYOUT AND JOINT DETAIL

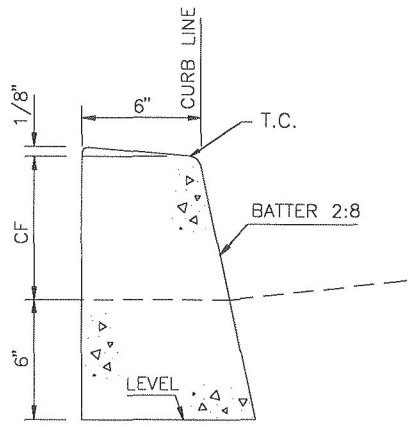
USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

APPROVED BY: _____ 5/20/2019 R.C.E. 67514
JASON C. WELDAY DATE
CITY ENGINEER

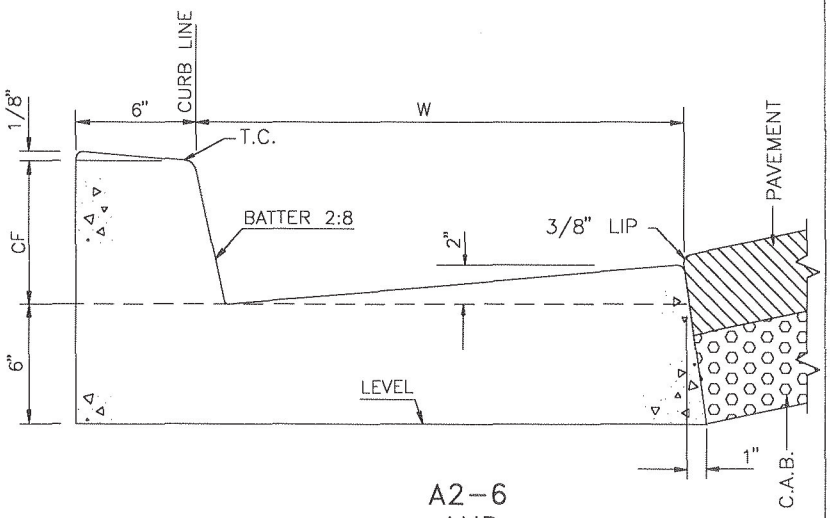
STD. PLAN NO. 103

SHEET 2 OF 2

DATE OF LAST REVISION 05/07/2019



A1-6
AND
A1-8



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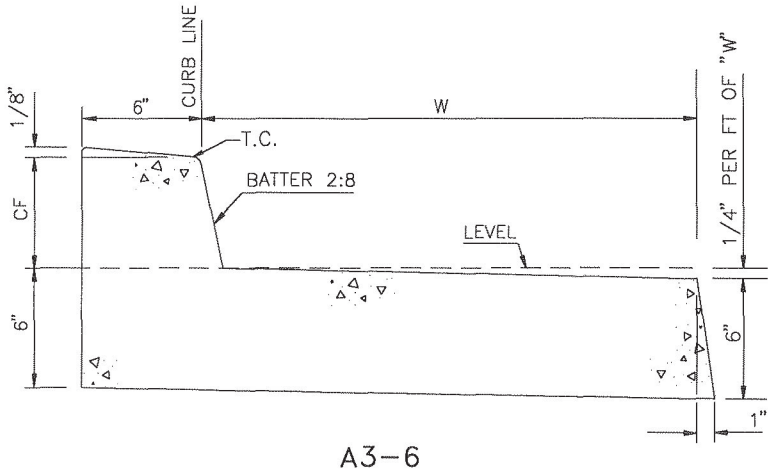
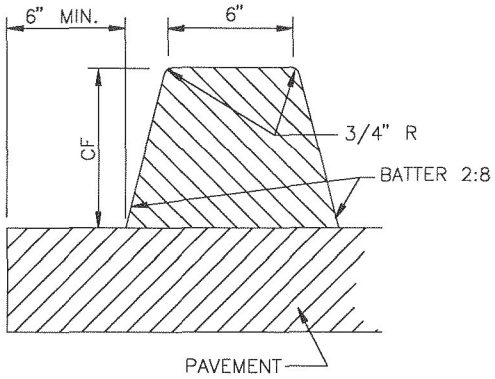
AND
A2-8



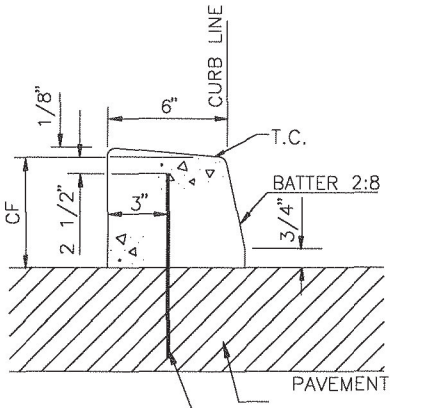
A3-6
AND
A3-8



D1-6
AND
D1-8

NOTES

1. ALL DIMENSIONS ARE MEASURED IN INCHES.
2. "CF" IS THE LAST NUMBER IN THE DESIGNATION.
3. "W" IS 24" UNLESS OTHERWISE SPECIFIED.
4. TYPES A1, A2, A3 AND C1 ARE CONSTURCTED OF PORTLAND CEMENT CONCRETE (520-C-2500).
5. TYPE D1 SHALL BE CONSTRUCTED OF TYPE C2-AR-8000 ASPHALT CONCRETE AND SHALL, WHERE APPLICABLE, BE BONDED TO THE EXISTING PAVEMENT BY A TACK COAT AS PER SECTION 302-5.4 OF THE STANDARD SPECIFICATIONS.
6. TYPE CI CURB SHALL BE ANCHORED WITH DOWELS AS SHOWN OR WITH AN EPOXY APPROVED BY THE ENGINEER.
7. ALL EXPOSED CORNERS ON PCC CURBS AND GUTTERS TO BE ROUNDED WITH A 1/2" RADIUS
8. CONSTRUCT WEAKENED PLANE JOINTS AT REGULAR INTERVALS NOT EXCEEDING 10 FEET.
9. PLACE 3/4" DOWEL PINS (MINIMUM OF 4) AT ALL EXPANSION JOINTS WHERE THE FLOW LINE GRADIENT IS LESS THAN 0.40%, TO HOLD ADJACENT GUTTER SECTIONS IN ALIGNMENT.
10. TYPE A2 CURB AND GUTTER MAY ALSO BE APPLIED TO A 12" CURB FACE i.e. A2-12 REFERS TO A CURB AND GUTTER WHERE CF=12".



C1-6
AND
C1-8

REVISED 7-20-92 6-20-95

CITY OF RANCHO CUCAMONGA, CALIFORNIA

APPROVED BY:

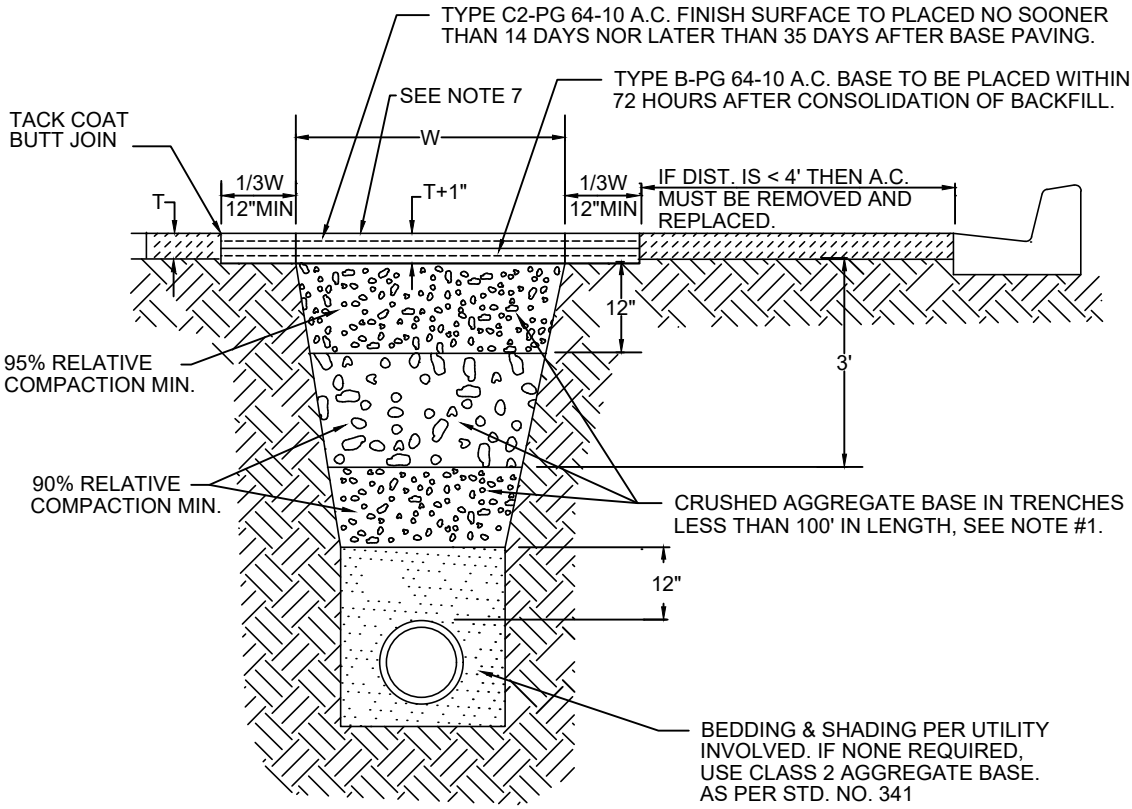
CITY ENGINEER 7/8/95 DATE

R.C.E. 24953

CURB AND GUTTER-BARRIER

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN
104
SHEET 1 OF 1



NOTES:

1. ALL TRENCHES 100' IN LENGTH OR LARGER SHALL BE BACKFILLED AND CONSOLIDATED PER SECTION 306-1.3.1 THRU 306-1.3.4 OF THE STANDARD SPECIFICATIONS.
2. SPREAD BOXES MAY BE EMPLOYED ON TRENCH PAVING JOBS LESS THAN 500 LINEAR FEET.
3. ALL JOINTS SHALL BE VERTICAL BUTT JOINTS, LAP OR FEATHERED JOINTS ARE NOT ACCEPTABLE.
4. UNLESS OTHERWISE INSTRUCTED BY THE CITY ENGINEER, TRENCH PATCH SHALL BE STRAIGHT GRADE ACROSS WIDTH, AND SHALL NOT BE CROWDED AT CENTER.
5. PRIOR TO PLACEMENT OF A.C. PAVEMENT, EDGE SHALL BE CUT TO A CLEAN VERTICAL AND STRAIGHT EDGE WITH TACK COAT ON FACE OF CUT.
6. THE ENTIRE TRAVELED LANE, 12' MIN. SHALL BE OVERLAYED WITH 0.10' MIN. C2-PG 64-10 A.C. USING A SELF PROPELLED PAVING MACHINE (BARBER, GREEN, BLAW KNOX OR EQUAL) FOR ALL TRENCHES 500' IN LENGTH OR LONGER.
7. PERMANENT A.C. PATH, WHICH SHALL BE A MINIMUM 0.25' THICK OR 0.10' THICKER THAN EXISTING - WHICHEVER IS GREATER - AS DIRECTED BY THE CITY REPRESENTATIVE IN THE FIELD.

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CITY OF RANCHO CUCAMONGA

TRENCH REPAIR

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

APPROVED BY: _____ 5/21/2019 R.C.E. 67514
JASON C. WELDAY DATE
CITY ENGINEER

STD. PLAN NO. 120

SHEET 1 OF 2

DATE OF LAST REVISION 05/20/2019

TEMPORARY STEEL PLATE BRIDGING WITH A NON-SKID SURFACE

WHEN BACKFILLING OPERATIONS OF AN EXCAVATION IN THE ROADWAY INCLUDING BIKE LANES AND PARKING STRIP, WHETHER TRANSVERSE OR LONGITUDINAL, CANNOT BE PROPERLY COMPLETED WITHIN A WORK DAY, STEEL PLATE BRIDGING WITH A NON-SKID SURFACE AND SHORING SHALL BE REQUIRED TO PRESERVE UNOBSTRUCTED TRAFFIC FLOW. IN SUCH CASES, THE FOLLOWING CONDITIONS SHALL APPLY:

1. STEEL PLATES USED FOR BRIDGING MUST EXTEND A MINIMUM OF 12" BEYOND THE EDGES OF THE TRENCH.
2. STEEL PLATE BRIDGING SHALL BE INSTALLED TO OPERATE WITH MINIMUM NOISE.
3. THE TRENCH SHALL BE ADEQUATELY SHORED TO SUPPORT THE BRIDGING AND TRAFFIC LOADS.
4. TEMPORARY PAVING WITH COLD ASPHALT CONCRETE SHALL BE USED TO FEATHER THE EDGES OF THE PLATES (10:1/H:V MIN), IF PLATE INSTALLATION BY METHOD (2) DESCRIBED BELOW, IS USED.
5. BRIDGING SHALL BE SECURED AGAINST DISPLACEMENT BY USING ADJUSTABLE CLEATS, SHIMS, OR OTHER DEVICES.
6. "ROAD CONSTRUCTION AHEAD" (W20-1) SIGN SHALL BE USED 1,000' IN ADVANCE OF STEEL PLATES.
7. "STEEL PLATES AHEAD" (TYPE P) SIGN SHALL BE PLACED 500' IN ADVANCE OF STEEL PLATES.

AS REQUIRED BY THE CITY, STEEL PLATE BRIDGING AND SHORING SHALL BE INSTALLED USING EITHER METHOD (1) OR (2):

METHOD 1 FOR SPEEDS 45 MPH OR GREATER:

A. THE PAVEMENT SHALL BE COLD PLANED TO A DEPTH EQUAL TO THE THICKNESS OF THE PLATE AND TO A WIDTH AND LENGTH EQUAL TO THE DIMENSIONS OF THE PLATE.
B. APPROACH PLATE(S) AND ENDING PLATE (IF LONGITUDINAL PLACEMENT) SHALL BE ATTACHED TO THE ROADWAY BY A MINIMUM OF TWO (2) DOWELS PRE-DRILLED INTO THE CORNERS OF THE PLATE AND DRILLED 2" INTO THE PAVEMENT. SUBSEQUENT PLATES ARE TO BE BUTTED AND TACK WELDED TO EACH OTHER.

METHOD 2 FOR SPEEDS LESS THAN 45 MPH:

A. APPROACH PLATE(S) AND ENDING PLATE (IF LONGITUDINAL PLACEMENT) SHALL BE ATTACHED TO THE ROADWAY BY A MINIMUM OF TWO (2) DOWELS PRE-DRILLED INTO THE CORNERS OF THE PLATE AND DRILLED 2" INTO THE PAVEMENT.
B. SUBSEQUENT PLATES ARE TO BE BUTTED AND TACK WELDED TO EACH OTHER.
C. FINE GRADED ASPHALT CONCRETE SHALL BE COMPACTED TO FORM RAMPS, MAXIMUM SLOPE 8.5% WITH A MINIMUM 12" TAPER TO COVER ALL EDGES OF THE STEEL PLATES.
D. WHEN STEEL PLATES ARE REMOVED, THE DOWEL HOLES IN THE PAVEMENT SHALL BE BACKFILLED WITH EITHER GRADED FINES OF ASPHALT CONCRETE MIX, CONCRETE SLURRY, EPOXY OR AN EQUIVALENT THAT IS SATISFACTORY TO THE CITY'S REPRESENTATIVE.

THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF THE STEEL PLATES, SHORING, ASPHALT CONCRETE RAMPS, AND ENSURING THAT THEY MEET MINIMUM SPECIFICATIONS. UNLESS NOTED OR APPROVED OTHERWISE, STEEL PLATE BRIDGING SHALL NOT EXCEED FOUR (4) CONSECUTIVE WORKING DAYS IN ANY GIVEN WEEK AND SHOULD NOT BE LEFT THROUGH THE WEEKEND. BACKFILLING OF EXCAVATIONS SHALL BE COVERED WITH A MINIMUM 3" TEMPORARY LAYER OF COLD ASPHALT CONCRETE. THE FOLLOWING TABLE SHOWS THE MINIMUM THICKNESS OF STEEL PLATE BRIDGING REQUIRED FOR A GIVEN TRENCH WIDTH (A-36 GRADE STEEL, DESIGNED FOR HS20-44 TRUCK LOADING).

TRENCH WIDTH	MINIMUM PLATE THICKNESS
10 INCHES	1/2 INCH
1 FOOT 11 INCHES	3/4 INCH
2 FEET 7 INCHES	7/8 INCH
3 FEET 5 INCHES	1 INCH
5 FEET 3 INCHES	1 ¾ INCH

REGISTERED PROFESSIONAL ENGINEER
JASON C. WELDAY
No. 67514
CIVIL
STATE OF CALIFORNIA

CITY OF RANCHO CUCAMONGA

TRENCH REPAIR

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

APPROVED BY: _____ 5/21/2019 R.C.E. 67514
JASON C. WELDAY DATE
CITY ENGINEER

STD. PLAN NO. 120

SHEET 2 OF 2

DATE OF LAST REVISION 05/20/2019