

SPPWC 320-2 STORM DRAIN MANHOLE

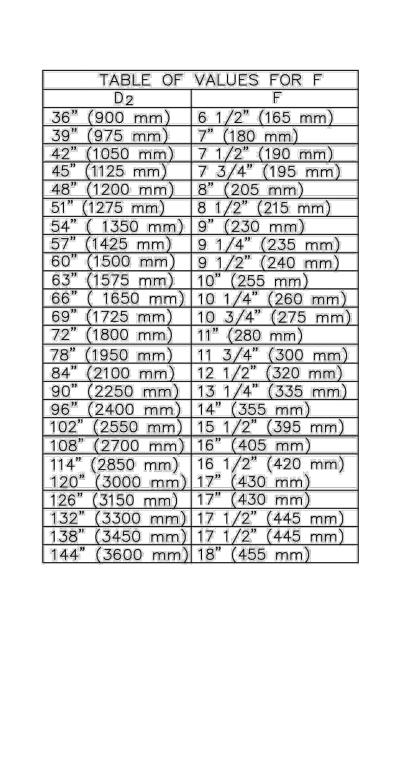


TABLE OF VALUES FOR M (SEE NOTE 1

2'-10 1/2" (867 mm)

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

MANHOLE PIPE—TO—PIPE
MAIN LINE ID = 36" (900 mm) OR LARGER

MAX

11" (282 mm) 8 1/2" (217 mm)

1. WHEN DEPTH M FROM STREET GRADE TO THE TOP OF THE BOX IS LESS THAN 2'-10 1/2" (867 mm) FOR PAVED STREETS OR 3'-6" (1060 mm) FOR UNPAVED STREETS, CONSTRUCT MONOLITHIC SHAFT PER SECTION C-C AND DETAIL "N". SHAFT FOR ANY DEPTH OF MANHOLE MAY BE CONSTRUCTED PER SECTION C-C. WHEN DIAMETER D, IS 48" (1200 mm) OR LESS, CENTER OF SHAFT MAY BE LOCATED PER NOTE 2.

2. CENTER OF MANHOLE SHAFT SHALL BE LOCATED OVER CENTER LINE OF STORM DRAIN WHEN DIAMETER DI IS 48" (1200 mm) OR LESS, IN WHICH CASE PLACE E BARS SYMMETRICALLY AROUND SHAFT AT 45° WITH CENTERLINE

3. L AND P SHALL HAVE THE FOLLOWING VALUES UNLESS OTHERWISE SHOWN ON THE PROJECT DRAWINGS: A. $D_2 = 96$ " (2400 mm) OR LESS, L = 5' - 6" (1.7 m), P = 5" (130 mm) B. D₂ OVER 96" (2400 mm), L=6'-0" (1.8 m), P=8" (210 mm) L MAY BE INCREASED OR LOCATION OF MANHOLE SHIFTED TO MEET PIPE ENDS. WHEN L GREATER THAN THAT SHOWN ABOVE IS SPECIFIED, D BARS SHALL BE CONTINUED 6" (150 mm) OC.

4. STATIONS OF MANHOLES SHOWN ON PLANS APPLY AT CENTERLINE OF SHAFT, ELEVATIONS ARE SHOWN AT CENTERLINE OF SHAFT AND REFER TO THE PROLONGED INVERT GRADE LINES.

5. REINFORCEMENT SHALL CONFORM TO ASTM A 615M, GRADE 300 (ASTM A 615, GRADE 40), AND SHALL TERMINATE 1 1/2" (40 mm) CLEAR OF CONCRETE

SURFACES UNLESS OTHERWISE SHOWN. 6. FLOOR OF MANHOLE SHALL BE STEEL TROWELED TO SPRING LINE. 7. BODY OF MANHOLE SHALL BE POURED IN ONE CONTINUOUS OPERATION EXCEPT THAT A CONSTRUCTION JOINT WITH A LONGITUDINAL KEYWAY MAY

BE PLACED AT SPRING LINE. 8. THICKNESS OF THE DECK SHALL VARY WHEN NECESSARY TO PROVIDE A LEVEL SEAT BUT SHALL NOT BE LESS THAN THE TABULAR VALUES FOR F

SHOWN ON SHEET 2.

9. D BARS SHALL BE #4 (#13M) FOR D = 39" (975 mm) OR LESS, #5 (#16M) FOR $D_2 = 42$ " (1050 mm) TO 84" (2100 mm) INCLUSIVE AND #6 (#19M) FOR $D_2 = 90$ " (2250 mm) OR OVER.

10. CENTERLINE OF INLET PIPE SHALL INTERSECT INSIDE FACE OF CONE AT SPRING LINE UNLESS OTHERWISE SHOWN.

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

MANHOLE PIPE—TO—PIPE
MAIN LINE ID = 36" (900 mm) OR LARGER

TO BE DETERMINED BY

BACKFLOW SPECIALIST

11. STEPS SHALL CONFORM TO SPPWC 635 OR 636. UNLESS OTHERWISE SHOWN, STEPS SHALL BE UNIFORMLY SPACED 14" (350 mm) TO 15" (375 mm) OC. THE LOWEST STEP SHALL NOT BE MORE THAN 24" (600 mm) ABOVE THE INVERT.

12. THE FOLLOWING CRITERIA SHALL BE USED FOR THIS MANHOLE: A. MAIN LINE = 36" (900 mm) INSIDE DIAMETER OR LARGER, EXCEPT IF THE MAIN LINE RCP DOWNSTREAM OF MANHOLE IS 36" (900 mm) TO 42" (1050 mm) INSIDE DIAMETER AND THE MAIN LINE RCP UPSTREAM IS 33" (825 mm) OR LESS SPPWC 321 SHALL BE USED.

B. THE OUTSIDE DIAMETER OF THE LATERAL MUST BE LESS THAN OR EQUAL TO 1/2 THE INSIDE DIAMETER OF THE MAIN LINE. IF THE UPSTREAM AND DOWNSTREAM DIAMETERS OF THE MANHOLE ARE NOT THE SAME, THE GOVERNING INSIDE DIAMETER OF THE MAIN LINE SHALL BE CONSIDERED TO BE THAT WHERE THE EXTENDED CENTERLINE OF THE LATERAL ENTERS THE MANHOLE.

C. IN NO INSTANCE SHALL THE INSIDE DIAMETER OF THE LATERAL TO THE MANHOLE BE GREATER THAN 30" (750 mm).

UNLESS OTHERWISE SHOWN. 14. MANHOLE SHAFT SHALL CONFORM TO SPPWC 324 UNLESS OTHERWISE SHOWN.

13. MANHOLE FRAME AND COVER SHALL CONFORM TO SPPWC 630

15. WHERE A MANHOLE SHAFT = 36" (900 mm) WITHOUT REDUCER IS SPECIFIED REFER TO SPPWC 326.

SPECIFIED REFER TO SPPWC 328. 17. WHERE A PRESSURE MANHOLE SHAFT - 914 mm (36") WITHOUT REDUCER IS

SPECIFIED REFER TO SPPWC 329. 18. THE FOLLOWING SPPWC ARE INCORPORATED HEREIN:

16. WHERE A PRESSURE MANHOLE SHAFT - WITH ECCENTRIC REDUCER IS

324 MANHOLE SHAFT - WITH ECCENTRIC REDUCER 326 MANHOLE SHAFT - 36" (900 mm) WITHOUT REDUCER

328 PRESSURE MANHOLE SHAFT - WITH ECCENTRIC 329 PRESSURE MANHOLE SHAFT 36" (914 mm) WITHOUT REDUCER

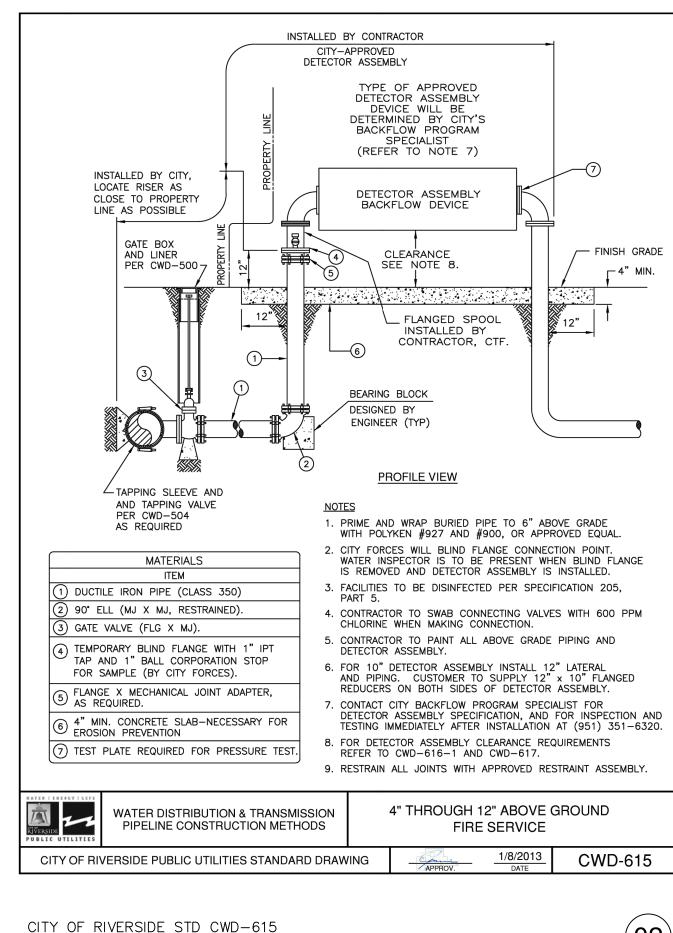
630 24" (610 mm) MANHOLE FRAME AND COVER 633 36" (914 mm) MANHOLE FRAME AND COVER

635 STEEL STEP 636 POLYPROPYLENE PLASTIC STEP

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

320-2

MANHOLE PIPE—TO—PIPE MAIN LINE ID = 36" (900 mm) OR LARGER



CITY OF RIVERSIDE STD CWD-615

320-2

UNPAVED STREET

BACKFLOW (1) DEVICE 2" MINIMUM TO -FINISH GRADE 36" MAXIMUM PROFILE VIEW 1. PRIOR TO INSTALLATION, LOCATION OF THE BACKFLOW DEVICE SHALL BE SUBJECT TO THE APPROVAL OF THE BACKFLOW PROGRAM SPECIALIST (951) 351-6320/6282. DEVICE SHALL BE LOCATED AS CLOSE TO METER AS PRACTICAL (MIN. 18", MAX. 24" BACK OF RW) 2. PLACE BOTTOM OF DEVICE A MINIMUM OF 12 INCHES AND NOT MORE THAN 36 INCHES INSPECTION OF PLUMBING IS REQUIRED PRIOR TO CONCRETE THRUST BLOCK AND/OR ABOVE GROUND SLAB BEING POURED. 4. MATERIALS SHALL BE IN COMPLIANCE WITH THE APPROVED MATERIALS SPECIFIED BELOW. 5. THE DEVICE MUST BE INSPECTED AND TESTED IMMEDIATELY AFTER INSTALLATION. TO SCHEDULE AN APPOINTMENT CALL (951) 351-6320/6282. DESCRIPTION DESCRIPTION PIPE SUPPORT BACKFLOW DEVICE (TYPE OF SERVICE LINE (NO PVC) BACKFLOW PROGRAM SPECIALIST CONCRETE THRUST BLOCK 90 DEGREE ELBOW FLANGED RISER PIPE (NECESSARY TO PREVENT CORROSION) ADEQUATE AND SAFE CLEARANCE MUST BE PROVIDED TO PERMIT TESTING AND REPAIR WORK MINIMUM CLEARANCE SCHEDULE SIZE | * A | B | C 3" AND UP 24" 24" 12" *REFERENCE TO INCLINE AND DECLINE SLOPES OVERHEAD VIEW OF CLEARANCE REQUIREMENTS BACKFLOW PREVENTION ASSEMBLY WATER DISTRIBUTION & TRANSMISSION PIPELINE CONSTRUCTION METHODS 3" & LARGER ABOVE GROUND INSTALLATION

CITY OF RIVERSIDE STD CWD-617

WHERE THE BASIN IS TO BE CONSTRUCTED WITHIN THE LIMITS OF EXISTING OR PROPOSED SIDEWALK OR IS CONTIGUOUS TO SUCH SIDEWALK. THE TOP SLAB OF THE BASIN MAY BE POURED EITHER MONOLITHIC WITH THE SIDEWALK OR SEPARATELY, USING THE SAME CLASS OF CONCRETE AS IN THE BASIN. WHEN POURED MONOLITHICALLY, THE SIDEWALK SHALL BE PROVIDED WITH A WEAKENED PLANE OR A 1" (25 mm) DEEP SAWCUT CONTINUOUSLY AROUND THE EXTERNAL PERIMETER OF THE CATCH BASIN WALLS, INCLUDING ACROSS THE FULL WIDTH OF THE SIDEWALK. SURFACE OF ALL EXPOSED CONCRETE SHALL CONFORM IN SLOPE, GRADE, COLOR, FINISH, AND SCORING TO EXISTING

2. ALL CURVED CONCRETE SURFACES SHALL BE FORMED BY CURVED FORMS, AND SHALL NOT BE SHAPED BY PLASTERING.

OR PROPOSED CURB AND WALK ADJACENT TO THE BASIN.

3. FLOOR OF BASIN SHALL BE GIVEN A STEEL TROWEL FINISH AND SHALL HAVE A LONGITUDINAL AND LATERAL SLOPE OF 1V:12H MINIMUM AND 1V:3H MAXIMUM, EXCEPT WHERE THE GUTTER GRADE EXCEEDS 8%, IN WHICH CASE THE LONGITUDINAL SLOPE OF THE FLOOR SHALL BE THE SAME AS THE GUTTER GRADE. SLOPE FLOOR FROM ALL DIRECTIONS TO THE OUTLET.

B = 3'-2'' (970 mm) UNLESS OTHERWISE NOTED.V = THE DIFFERENCE IN ELEVATION BETWEEN THE TOP OF THE CURB AND THE INVERT OF THE CATCH BASIN AT THE OUTLET. 4.5' (1.35 m) UNLESS OTHERWISE NOTED). VI = THE DIFFERENCE IN ELEVATION BETWEEN THE TOP OF THE CURB AND THE INVERT AT THE

UPSTREAM END OF THE BASIN. IT SHALL BE DETERMINED BY THE REQUIREMENTS OF NOTE 3, BUT SHALL NOT BE LESS THAN CURB FACE PLUS 12" (300 mm). VI = THE DIFFERENCE IN ELEVATION BETWEEN THE TOP OF THE CURB AND THE INVERT OF THE INLET, NOTED ON THE PLANS.

H = 2'' (50 mm) UNLESS OTHERWISE NOTED.W = NOTED ON THE PLANS.A = THE ANGLE, IN DEGREES, INTERCEPTED BY THE CENTERLINE OF THE CONNECTOR PIPE AND

THE CATCH BASIN WALL TO WHICH THE CONNECTOR PIPE IS ATTACHED. 5. PLACE CONNECTOR PIPES AS INDICATED ON THE PLANS. UNLESS OTHERWISE SPECIFIED, THE CONNECTOR PIPE SHALL BE LOCATED AT THE DOWNSTREAM END OF THE BASIN. WHERE THE CONNECTOR PIPE IS SHOWN AT A CORNER, THE CENTERLINE OF THE PIPE SHALL INTERSECT THE INSIDE CORNER OF THE BASIN. THE PIPE MAY BE CUT AND TRIMMED AT A SKEW NECESSARY TO ENSURE MINIMUM 3" (75 mm) PIPE EMBEDMENT, ALL AROUND, WITHIN THE CATCH BASIN WALL, AND 3" (75 mm) RADIUS OF ROUNDING OF STRUCTURE CONCRETE, ALL AROUND, ADJACENT TO PIPE ENDS. A MONOLITHIC CATCH BASIN CONNECTION SHALL BE USED TO JOIN THE CONNECTOR PIPE TO THE CATCH BASIN WHENEVER ANGLE "A" IS LESS THAN 70° OR GREATER THAN 110°, OR WHENEVER E CONNECTOR PIPE IS LOCATED IN A CORNER. THE OPTIONAL USE OF A MONOLITHIC CATCH BASIN CONNECTION IN ANY CASE IS PERMITTED. MONOLITHIC CATCH BASIN CONNECTIONS MAY BE CONSTRUCTED TO AVOID CUTTING STANDARD LENGTHS OF PIPE.

3. STEPS SHALL BE LOCATED AS SHOWN. IF THE CONNECTOR PIPE INTERFERES WITH THE STEPS, THEY SHALL BE LOCATED AT THE CENTERLINE OF THE DOWNSTREAM END WALL. STEPS SHALL BE SPACED 12" (300 mm) APART. THE TOP STEP SHALL BE 7" (175 mm) BELOW THE TOP OF THE MANHOLE AND PROJECT 2-1/2" (65 mm). ALL OTHER STEPS SHALL PROJECT 5" (125 mm).

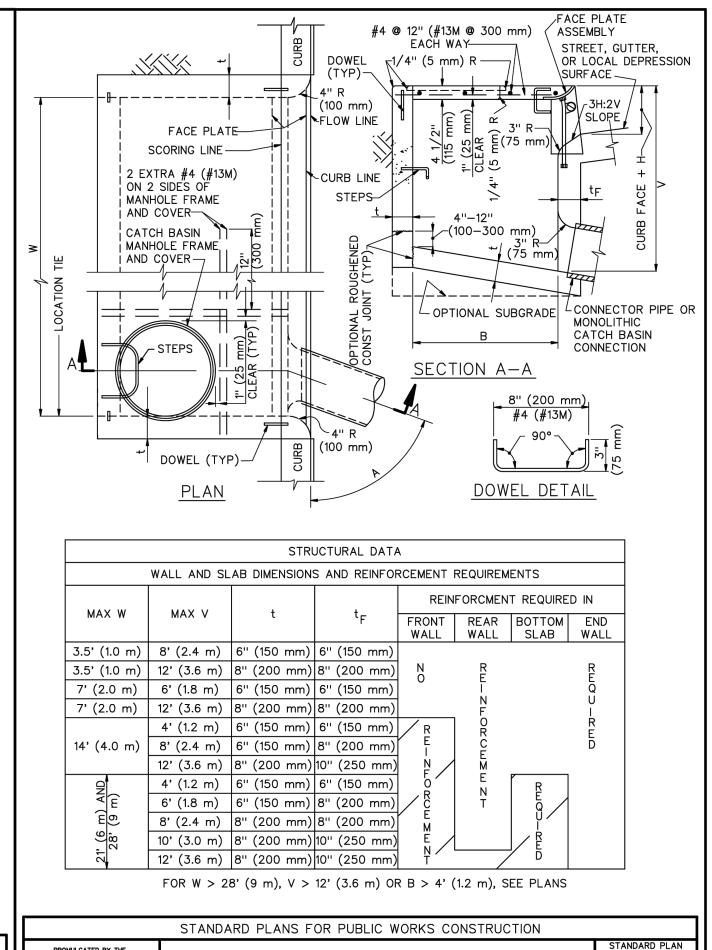
7. DOWELS ARE REQUIRED AT EACH CORNER AND AT 7' (2.0 m) ON CENTER (MAXIMUM) ALONG THE

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

CURB OPENING CATCH BASIN

8. THE FOLLOWING SPPWC ARE INCORPORATED HEREIN: 308 MONOLITHIC CATCH BASIN CONNECTION 309 CATCH BASIN REINFORCEMENT 310 CATCH BASIN FACE PLATE ASSEMBLY AND PROTECTION BAR 312 CATCH BASIN MANHOLE FRAME AND COVER 635 STEEL STEP 636 POLYPROPYLENE PLASTIC STEP

SPPWC 300-4 CURB OPENING CATCH BASIN



300-4 **CURB OPENING CATCH BASIN** USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

H241744-33-00 **APPROVAL STAMP**

BOULDER ASSOCIATE

300 SPECTRUM CENTER DR, SUITE 730

TOWN AND COUNTRY RD SUITE 700, ORANGE, CA 9286

P246459.00

PHONE: 714-939-1030 FAX: 714-938-9488

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PACIFIC GROVE

5900 BROCKTON AVE., RIVERSIDE,

DESIGN DEVELOPMEN

DESCRIPTION

DATE

PSYCHIATRIC

|FACILITY

CA 92506

DATE

REVISIONS

PACKAGE 1 - SITE

IRVINE, CALIFORNIA 92618

949.727.9000

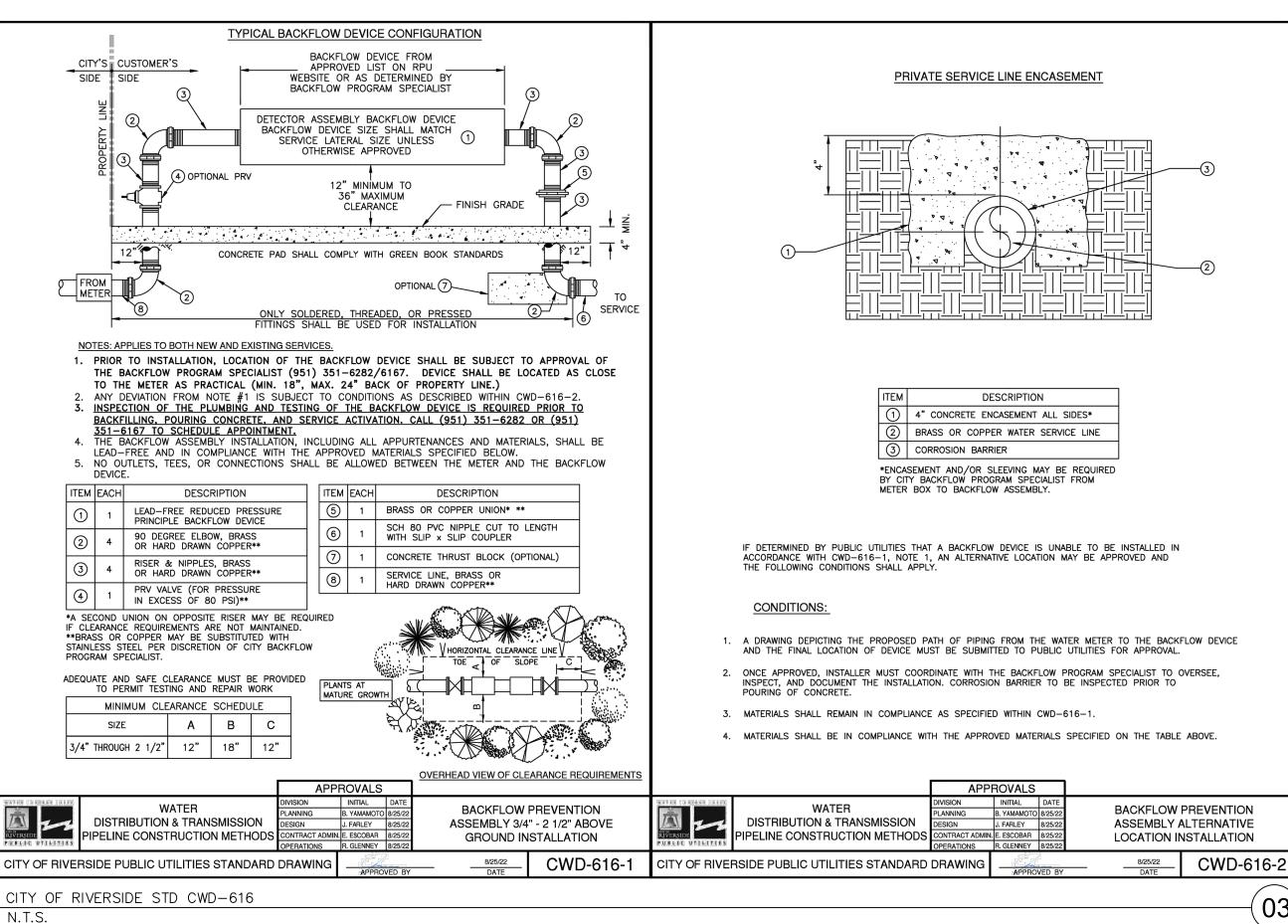
PROJECT

SHEET TITLE

DETAILS

SHEET NUMBER C7.2

ISSUE FOR 100% DD: 3/28/2025



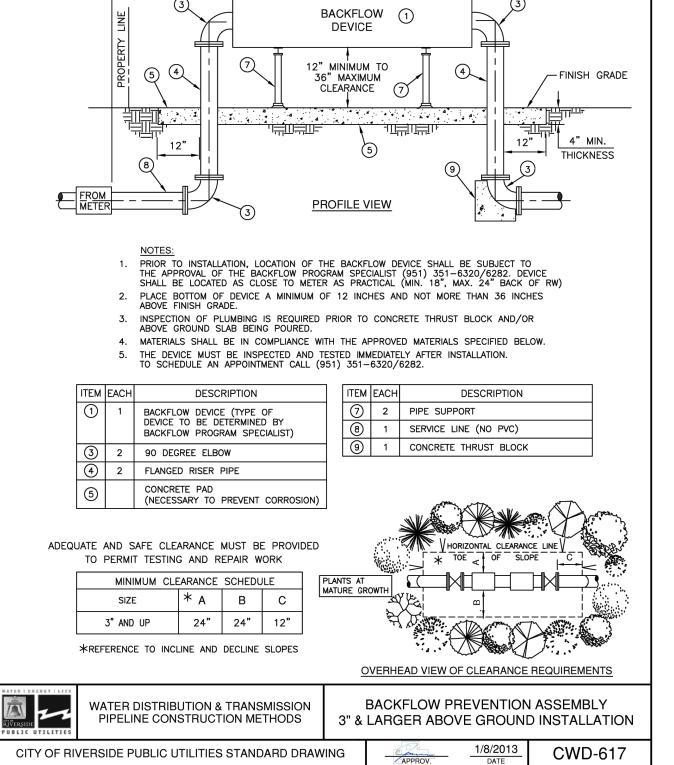


Exhibit 8 - Project Plans PR-2024-001751 (CUP,DR)