



Cucamonga Valley  
Water District

## **STANDARD DRAWINGS**

FOR THE CONSTRUCTION  
OF SYSTEM FACILITIES

LATEST REVISION: 4-17-2025

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

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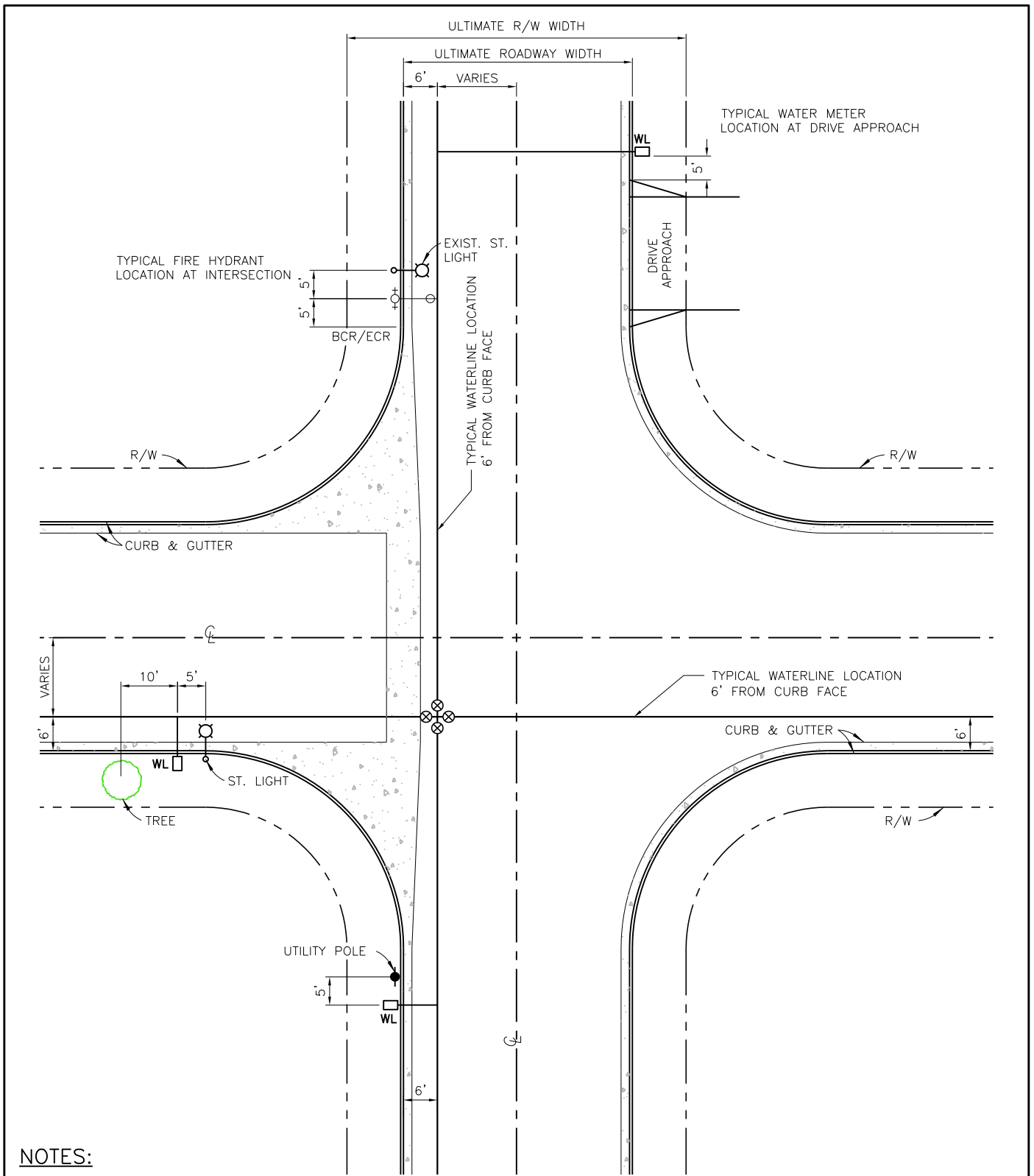






Cucamonga Valley  
Water District

**100 - WATER DRAWINGS**  
FOR THE CONSTRUCTION  
OF SYSTEM FACILITIES




**NOTES:**

1. WATERLINE SIZE TO BE DETERMINED BY CUCAMONGA VALLEY WATER DISTRICT.
2. GATE VALVES AND VALVE BOX ASSEMBLY SHALL NOT BE LOCATED IN CONCRETE GUTTER.

| REV. | DESCRIPTION | DATE | APP'D |
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**Cucamonga Valley Water District**  
**TYPICAL WATERLINE AND WATER LATERAL LAYOUT**



**Cucamonga Valley Water District**  
 ENGINEERING DEPARTMENT  
 10440 ASHFORD STREET, RANCHO CUCAMONGA, CA 91729  
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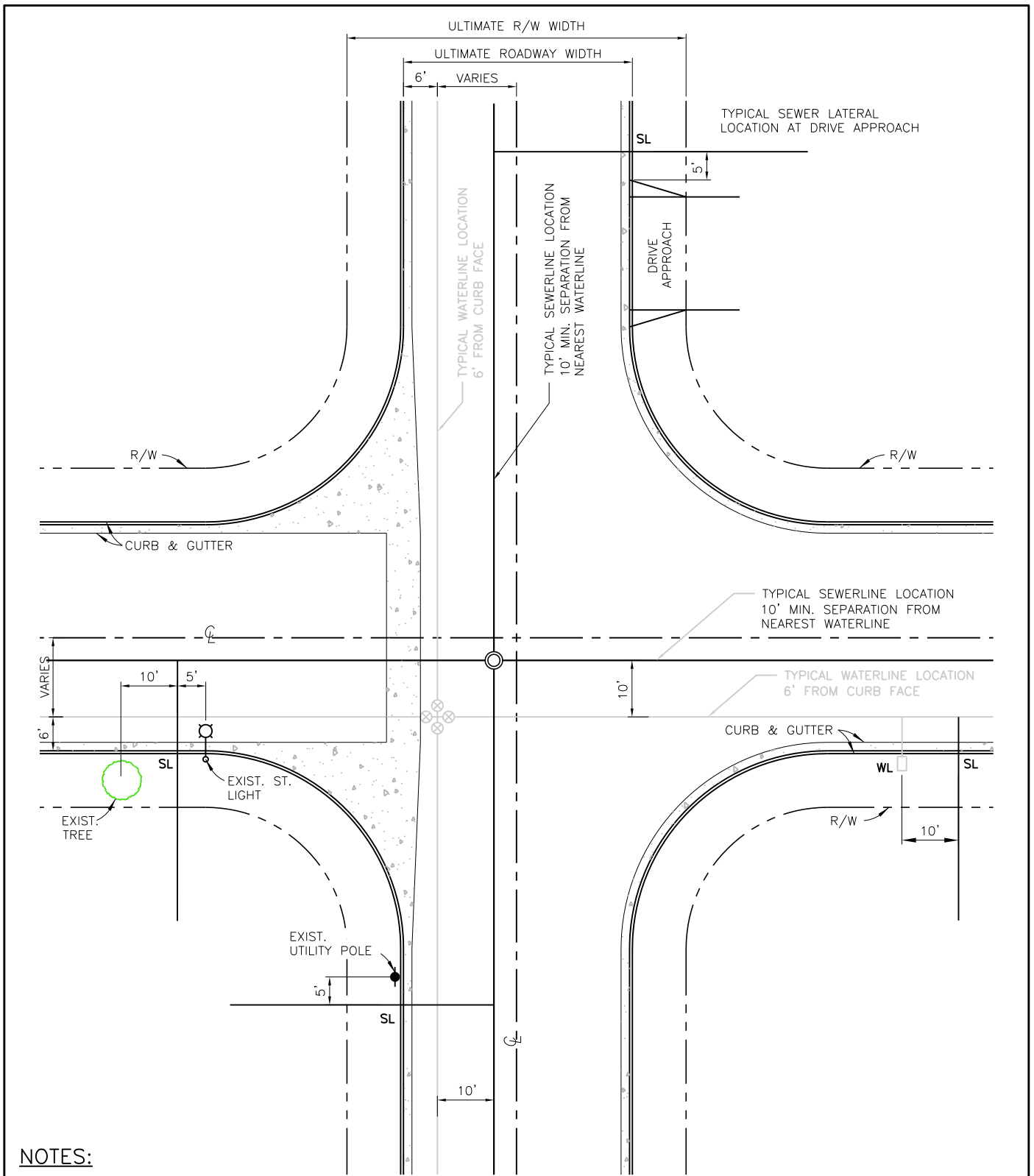
APPROVED BY:



TUAN TRUONG, P.E.,  
 ENGINEERING MANAGER

4-17-25  
 DATE

STD. DWG.  
**101-A**  
 SHT. 1 OF 1



**NOTES:**

1. WATERLINE SIZE TO BE DETERMINED BY CUCAMONGA VALLEY WATER DISTRICT.
2. GATE VALVES AND VALVE BOX ASSEMBLY SHALL NOT BE LOCATED IN CONCRETE GUTTER.

| REV. | DESCRIPTION | DATE | APP'D |
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**Cucamonga Valley Water District**  
**TYPICAL SEWERLINE AND SEWER LATERAL LAYOUT**

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

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 ENGINEERING MANAGER

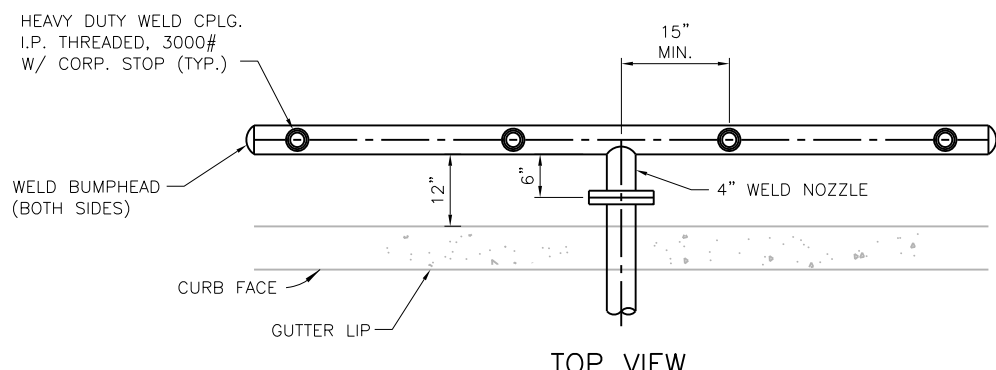
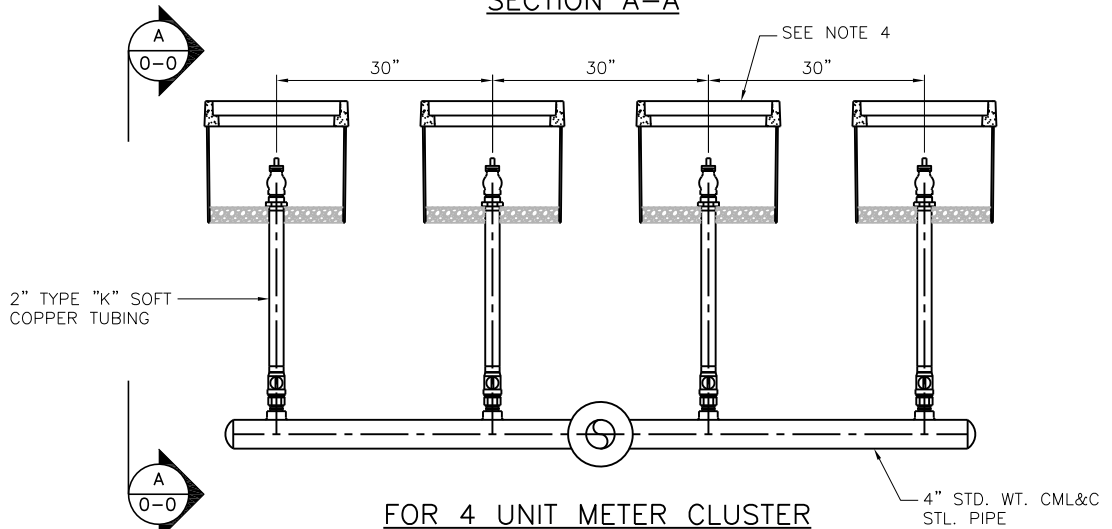
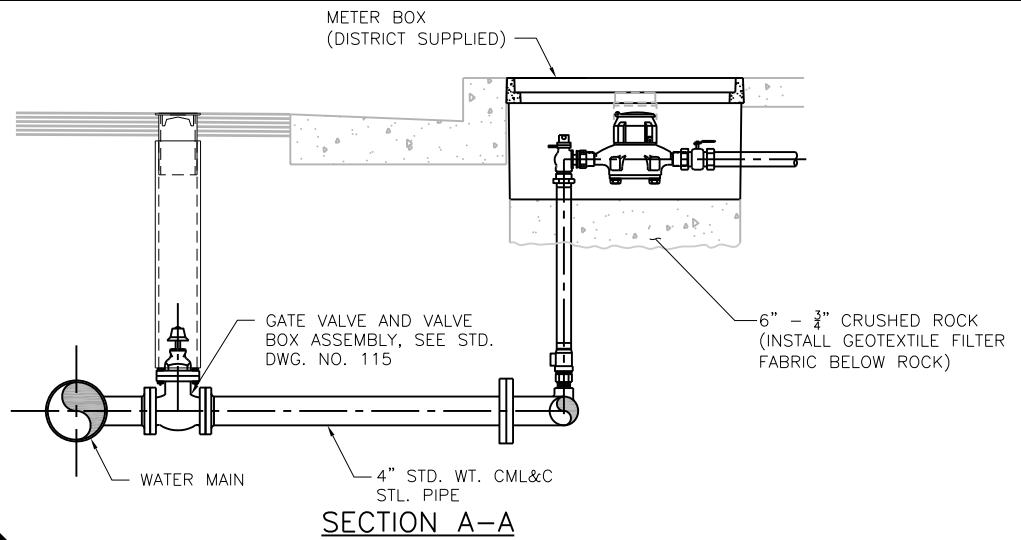
4-17-25  
 DATE

STD. DWG.  
**101-B**  
 SHT. 1 OF 1









- NOTES:**
1. NUMBER AND SIZES OF METERS IN CLUSTER TO BE CALLED OUT ON THE PLANS.
  2. NUMBERS REFER TO PRODUCTS. APPROVED EQUALS MAY BE SUBSTITUTED.
  3. 1" ANGLE STOP TO BE USED FOR BOTH 3/4" AND 1" METERS. BUSHINGS PER SERVICE INFORMATION TABLE ON STD. DWG. 102 TO BE USED FOR 3/4" AND 1" METERS.
  4. INSTALL BEHIND SIDEWALK IF 3 OR MORE METER BOXES.
  5. WHEN POSSIBLE METER BOX SHALL BE PLACED IN LANDSCAPE AREA.


## Cucamonga Valley Water District

### METER CLUSTER USING 4" MANIFOLDS



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\_\_\_\_\_  
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4-17-25  
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STD. DWG.  
104  
 SHT. 1 OF 1

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Cucamonga Valley Water District

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Water District

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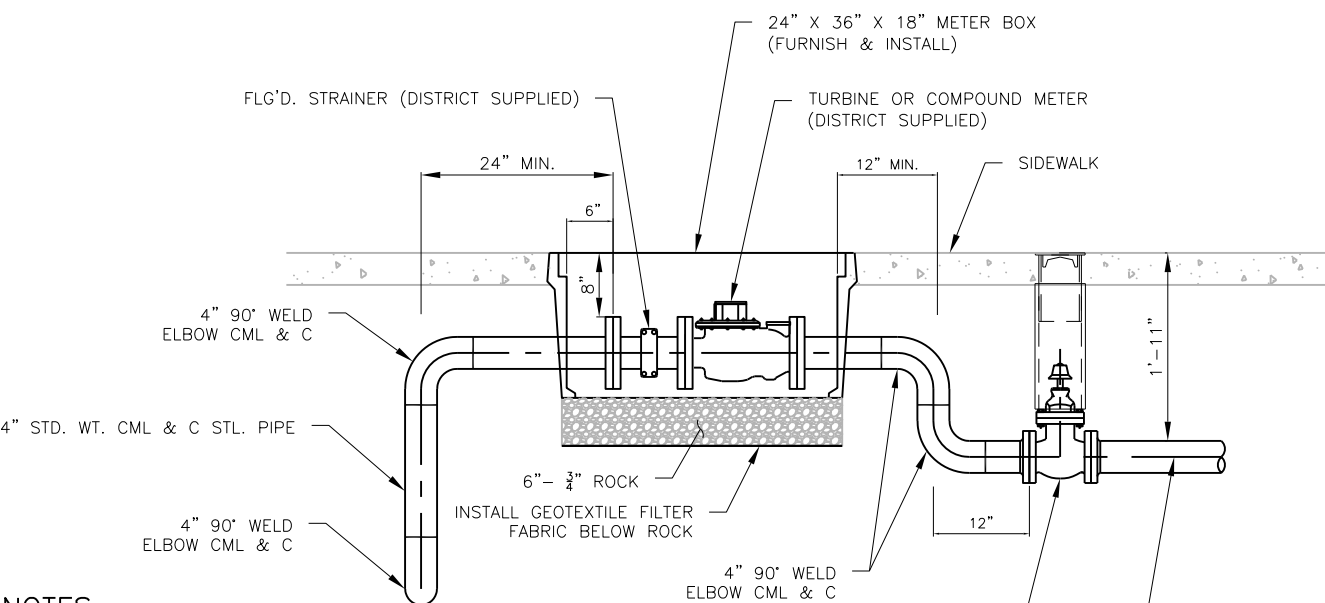
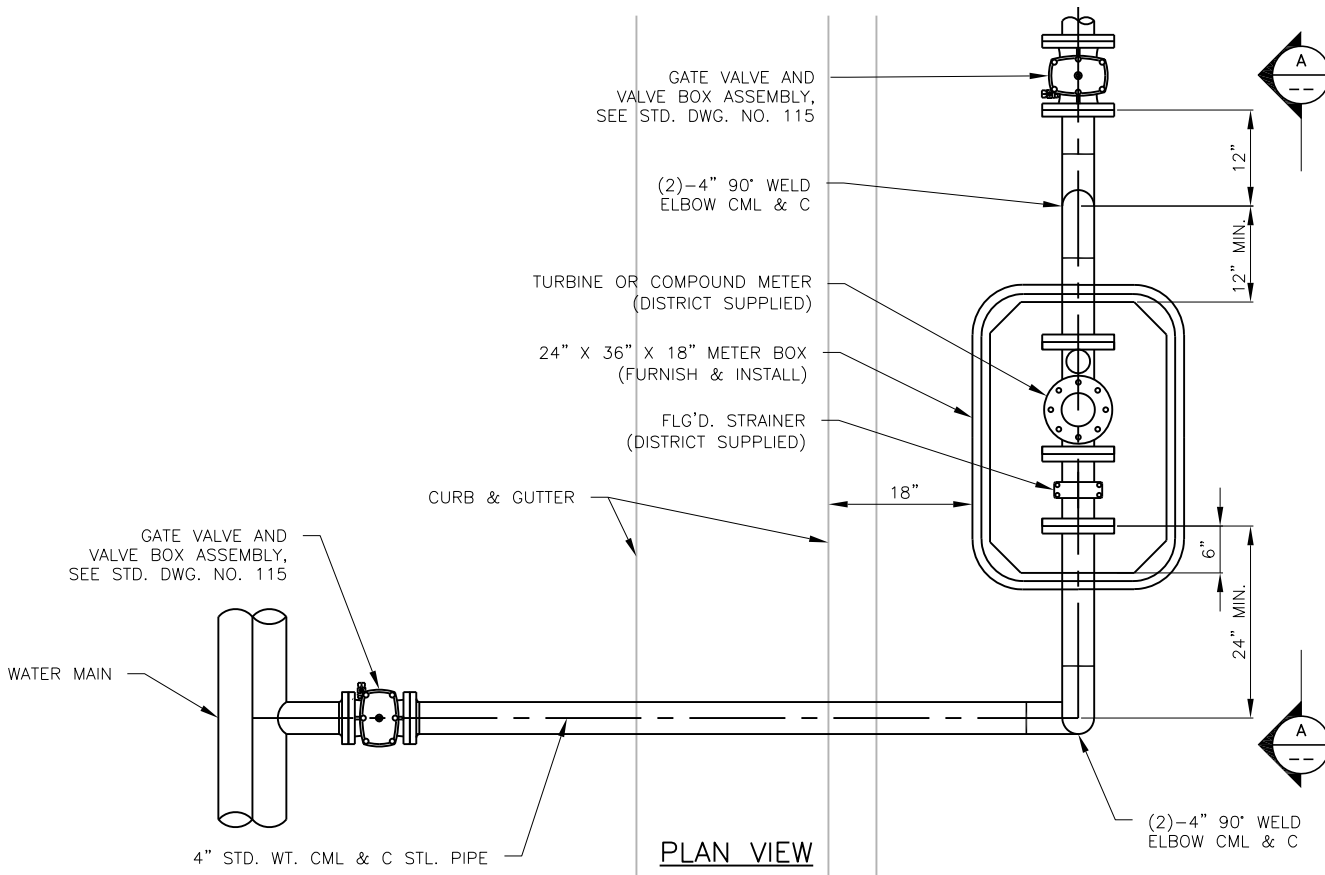
TUAN TRUONG, P.E.,  
ENGINEERING MANAGER

DATE

STD. DWG.

105

SHT. 1 OF 1



**NOTES:**

1. FOR 3" SERVICE, USE 4" CML & C STL. PIPE AND INSTALL BELL REDUCER AT METER.
2. 39" X 54" X 24" METER BOX WILL BE REQUIRED FOR 4" COMPOUND METER.

**SECTION A-A**

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**Cucamonga Valley Water District**  
**TYPICAL 3 AND 4 INCH WATER SERVICE TURBINE OR COMPOUND**

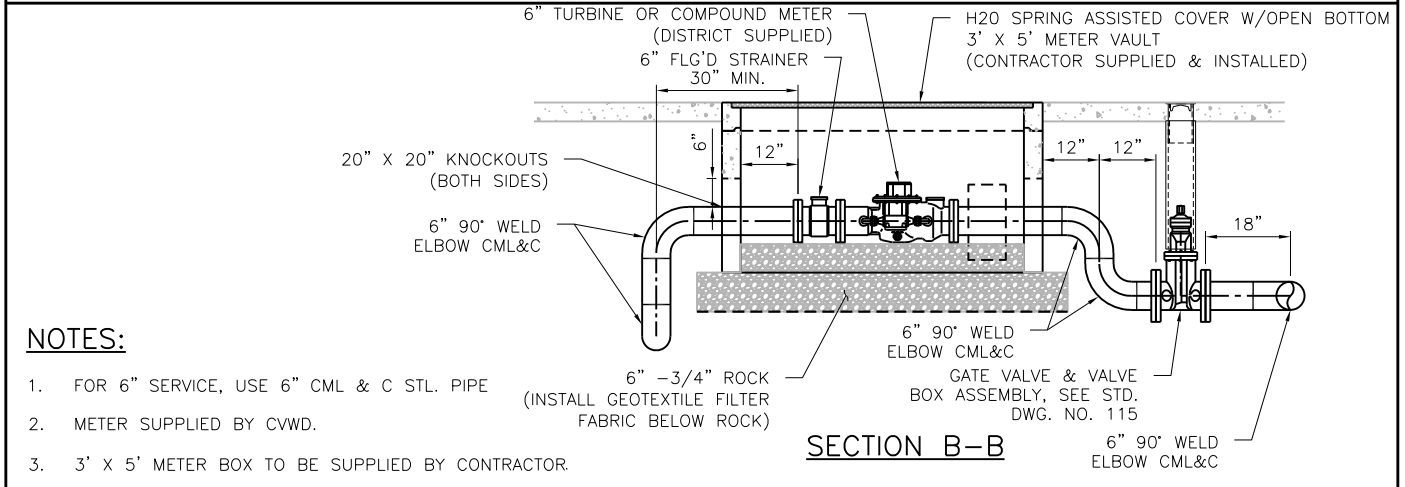
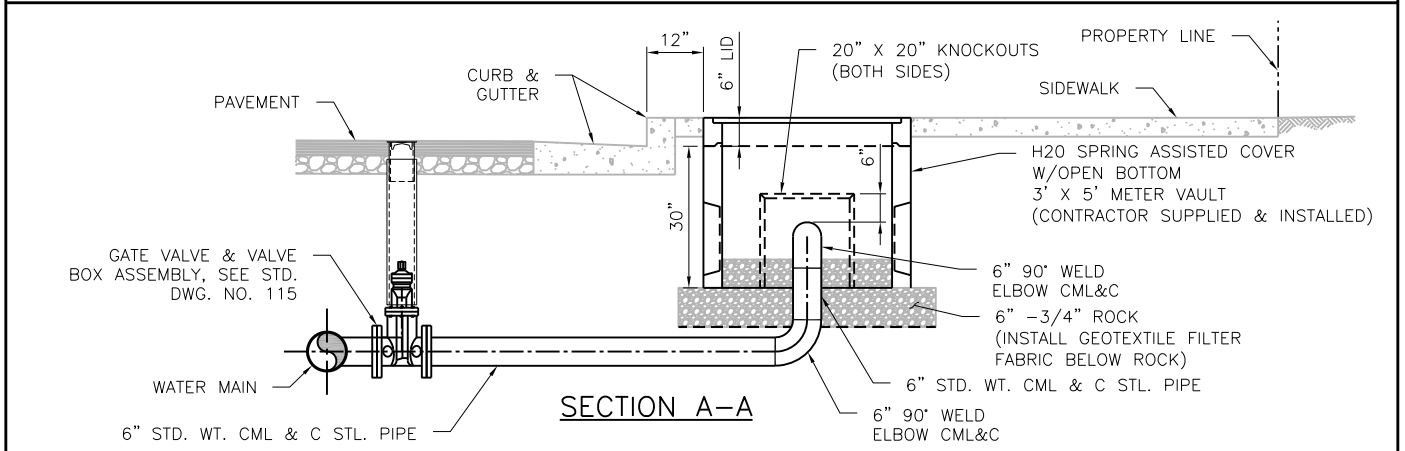
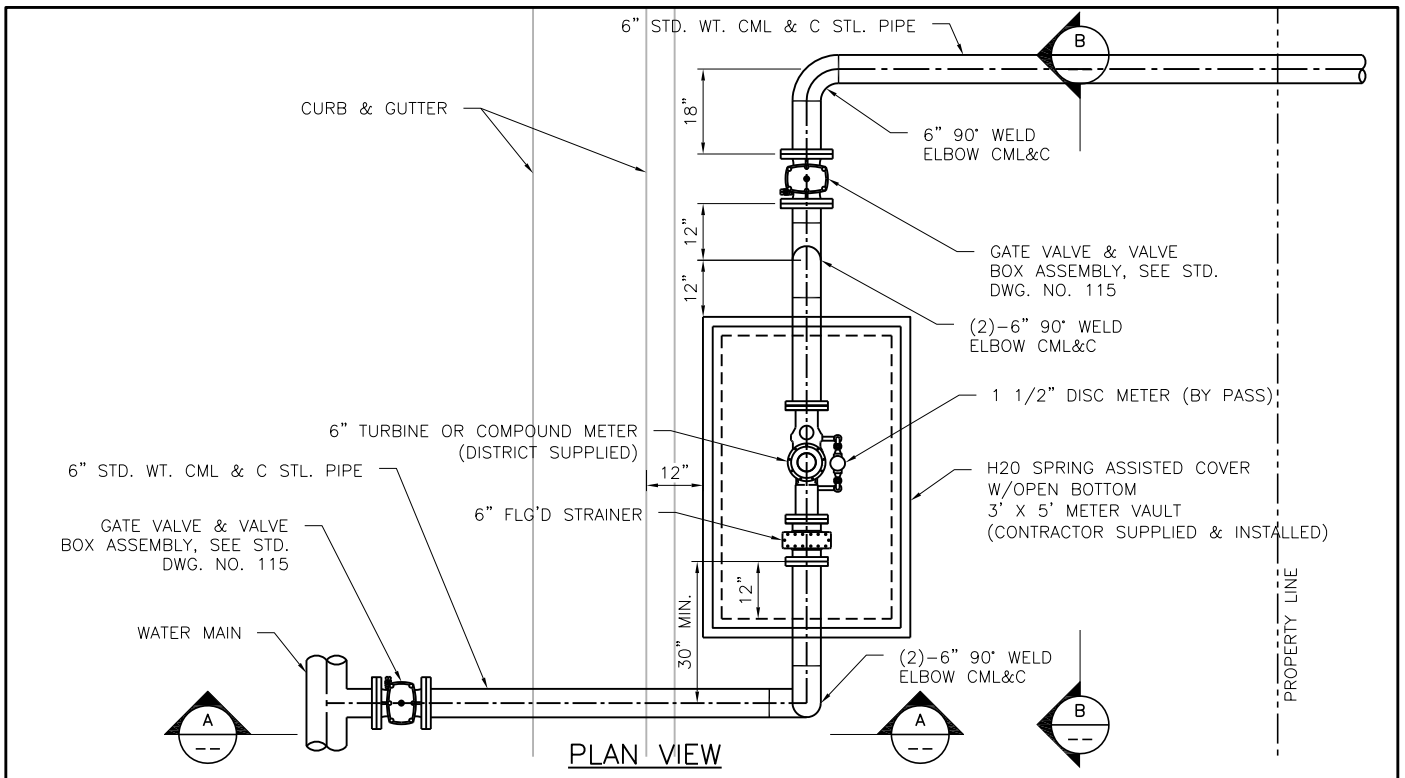
**Cucamonga Valley Water District**  
 ENGINEERING DEPARTMENT  
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APPROVED BY:

TUAN TRUONG, P.E.,  
 ENGINEERING MANAGER

4-17-25  
 DATE

STD. DWG.  
**106**  
 SHT. 1 OF 1




**NOTES:**

1. FOR 6" SERVICE, USE 6" CML & C STL. PIPE
2. METER SUPPLIED BY CWVD.
3. 3' X 5' METER BOX TO BE SUPPLIED BY CONTRACTOR.

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## Cucamonga Valley Water District

### TYPICAL 6-INCH WATER SERVICE TURBINE OR COMPOUND



**Cucamonga Valley Water District**

ENGINEERING DEPARTMENT  
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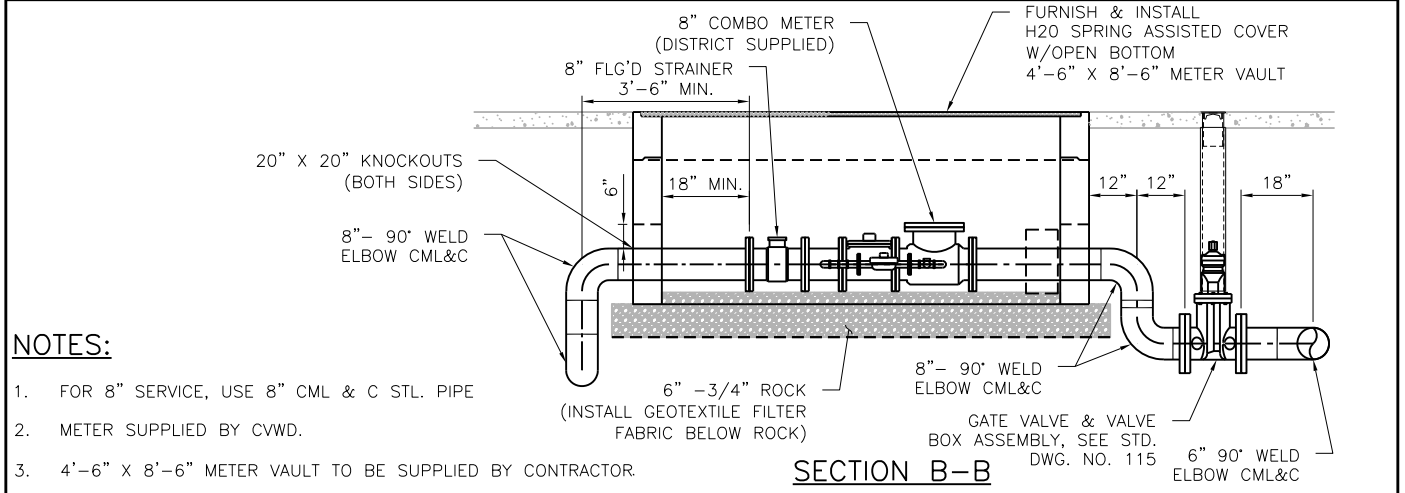
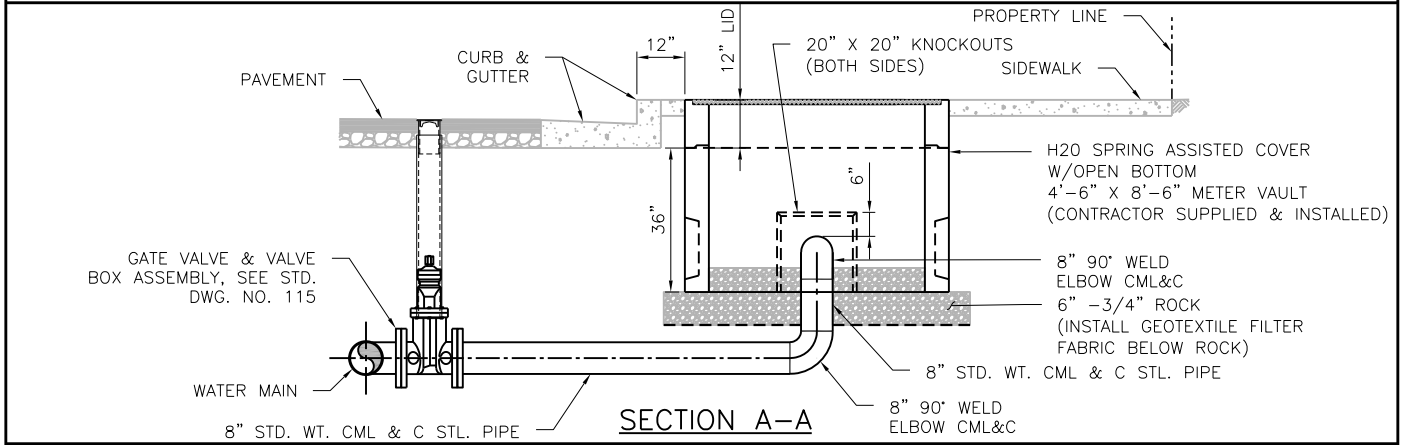
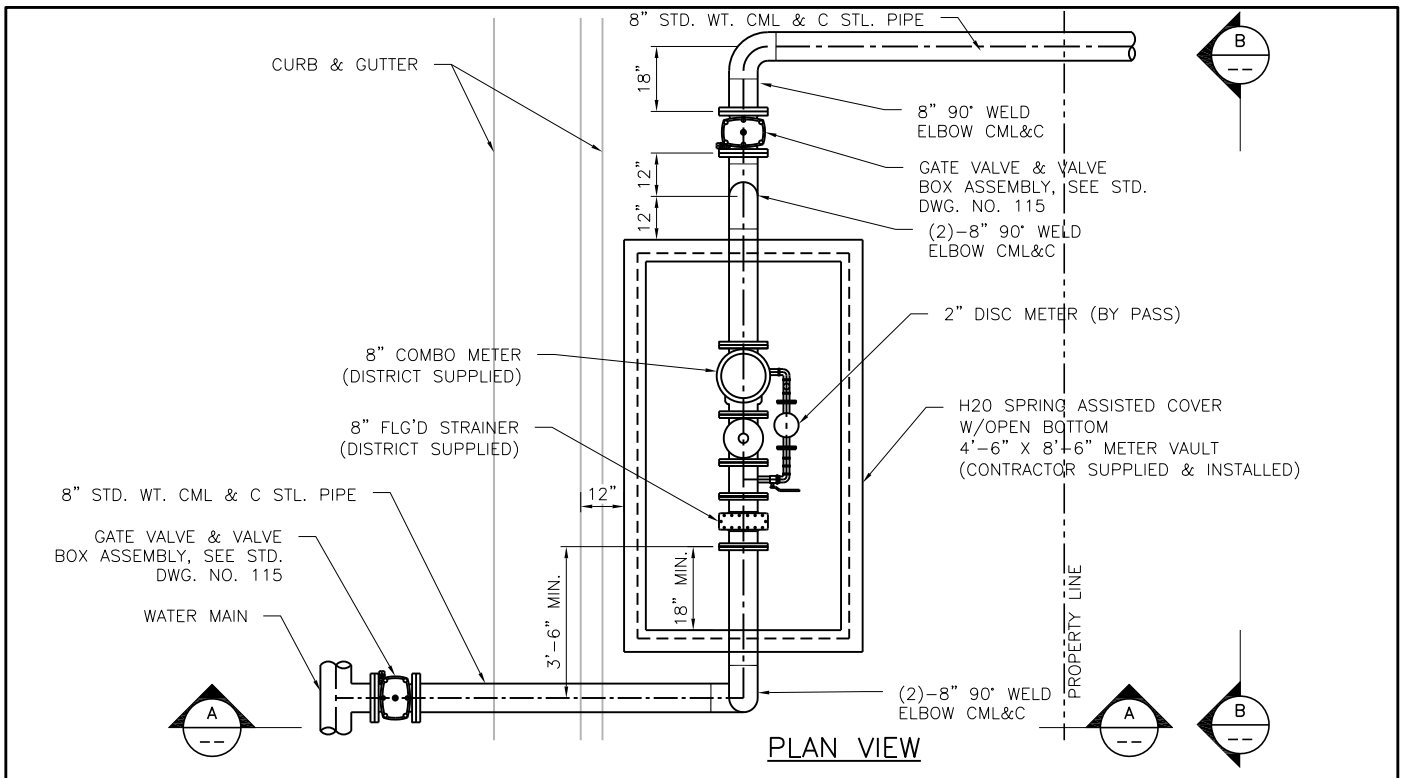
TUAN TRUONG, P.E.,  
ENGINEERING MANAGER

4-17-25  
DATE

STD. DWG.

# 107-A

SHT. 1 OF 1



**NOTES:**

1. FOR 8" SERVICE, USE 8" CML & C STL. PIPE
2. METER SUPPLIED BY CVDW.
3. 4'-6" X 8'-6" METER VAULT TO BE SUPPLIED BY CONTRACTOR.

| REV. | DESCRIPTION | DATE | APP'D |
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## Cucamonga Valley Water District

### TYPICAL 8-INCH WATER SERVICE COMBO METER WITH STRAINER

**Cucamonga Valley Water District**

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10440 ASHFORD STREET, RANCHO CUCAMONGA, CA 91729  
(909) 987-2591

APPROVED BY:

*Juan*

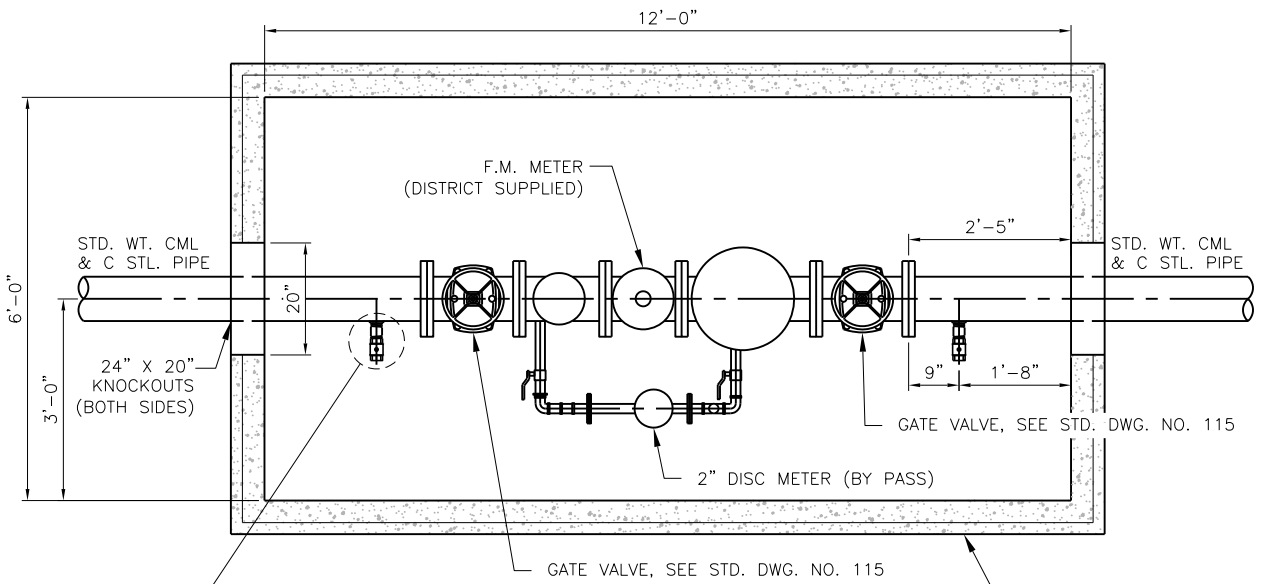
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ENGINEERING MANAGER

4-17-25  
DATE

STD. DWG.

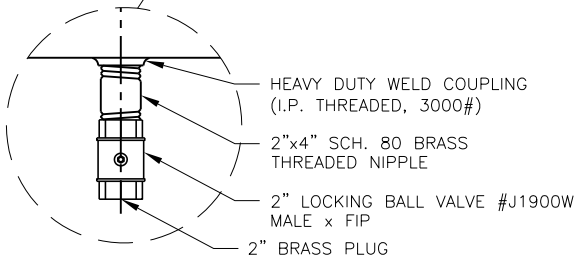
# 107-B

SHT. 1 OF 1



**PLAN VIEW**

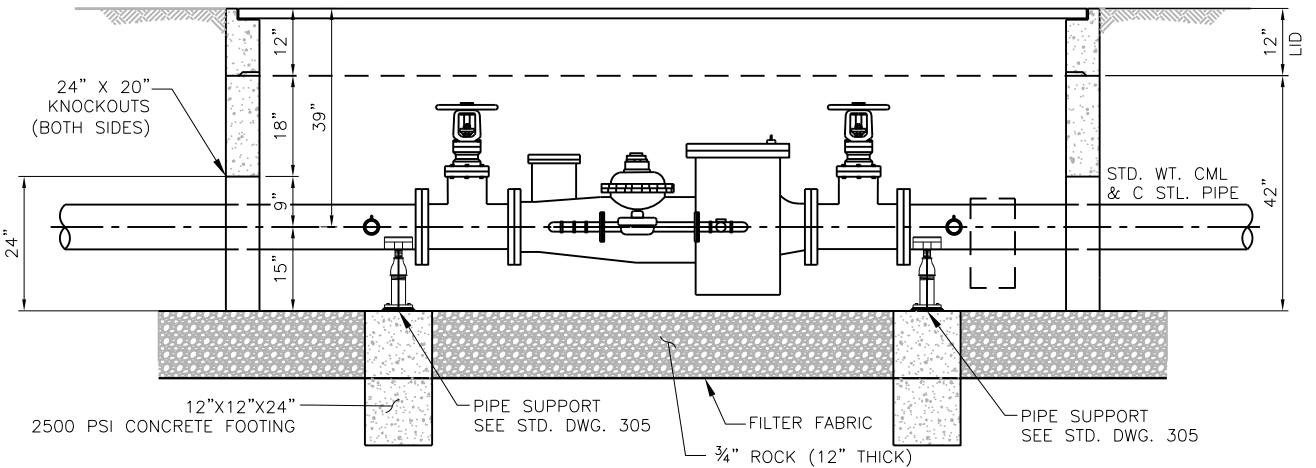
PRECAST 6'-0" X 12'-0" OPEN BOTTOM VAULT W/ H2O SPRING ASSISTED COVER (CONTRACTOR SUPPLIED & INSTALLED)



**2" BY-PASS ASSEMBLY**

| FILTER FABRIC MATERIAL   |             |                |
|--|-------------|----------------|
| PROPERTY   | ASTM METHOD | PROPERTY VALUE |
| WEIGHT, OZ. PER SQ. YD., MIN.                                      | D 19104     | 4              |
| ELONGATION, %, MIN.  | D 463230    | 30             |
| GRAB TENSILE STRENGTH, LBS., MIN.                                  | D 463290    | 90             |
| PERMITTIVITY, SEC., MIN.   | D 4491.05   | 0.05           |
| TOUGHNESS, LBS., MIN. (PERCENT ELONGATION X GRAB TENSILE STRENGTH) | -           | 4000           |

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**SECTION VIEW**

**NOTE:**  
1. PIPE SIZE SHALL BE PER APPROVED PLANS.

# Cucamonga Valley Water District

## TYPICAL F.M. WATER SERVICE 6 - INCH AND 8 - INCH



**Cucamonga Valley Water District**

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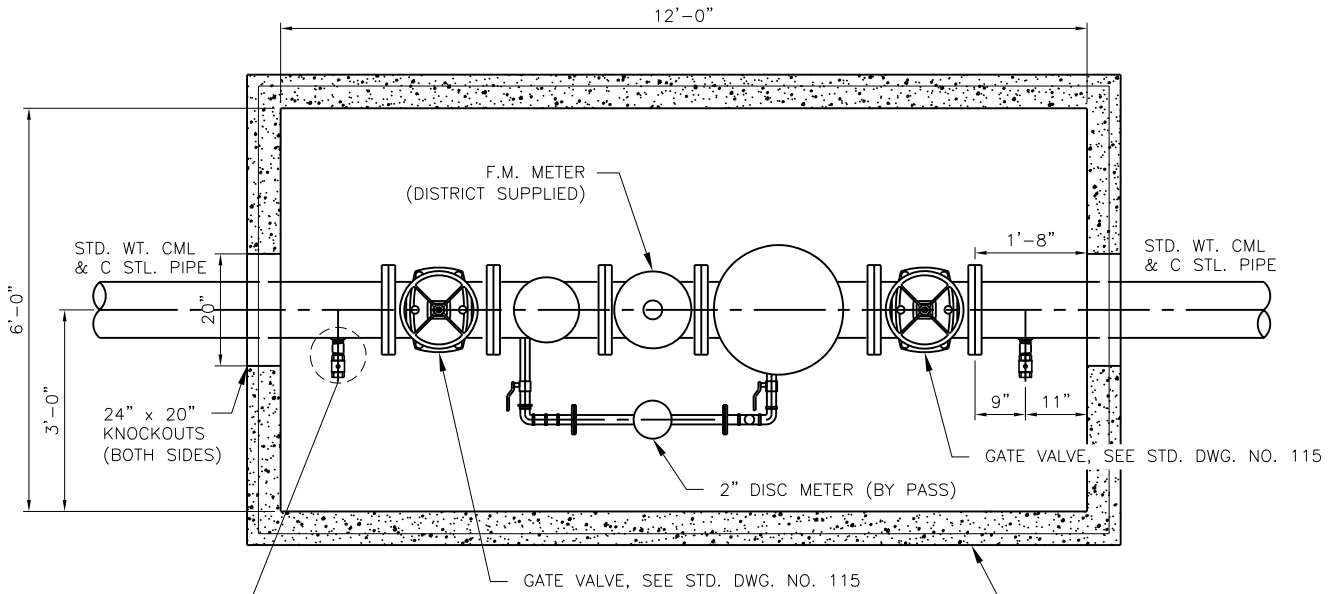
TUAN TRUONG, P.E.,  
ENGINEERING MANAGER

4-17-25  
DATE

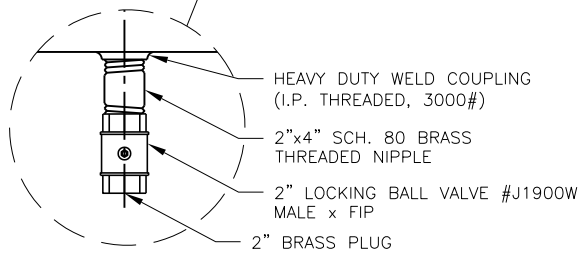
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SHT. 1 OF 1



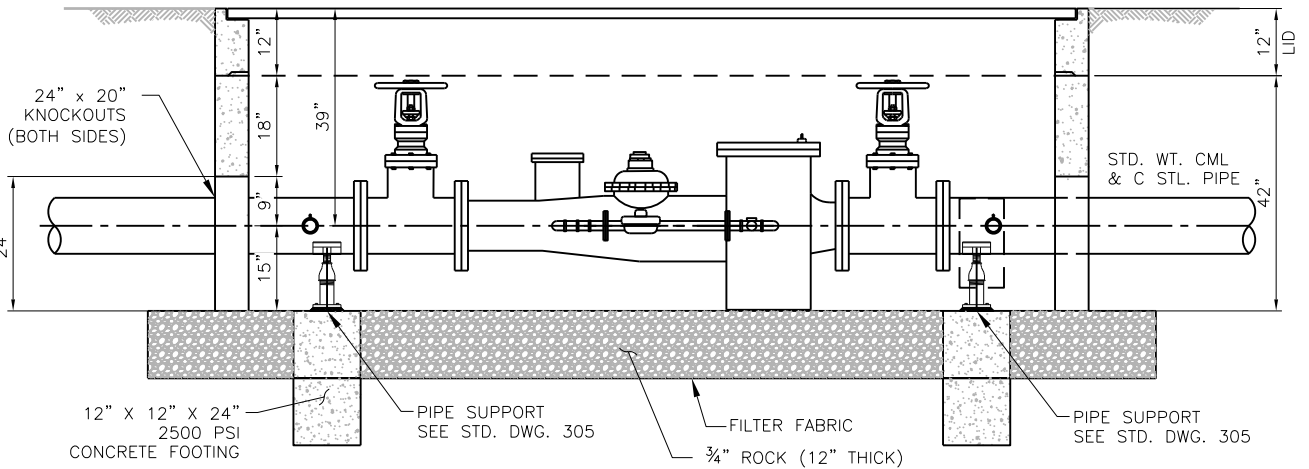
**PLAN VIEW**



**2" BY-PASS ASSEMBLY**

**FILTER FABRIC MATERIAL**

| PROPERTY   | ASTM METHOD | PROPERTY VALUE |
|--|-------------|----------------|
| WEIGHT, OZ. PER SQ. YD., MIN.                                      | D 19104     | 4              |
| ELONGATION, %, MIN.  | D 463230    | 30             |
| GRAB TENSILE STRENGTH, LBS., MIN.                                  | D 463290    | 90             |
| PERMITTIVITY, SEC., MIN.   | D 4491.05   | 0.05           |
| TOUGHNESS, LBS., MIN. (PERCENT ELONGATION X GRAB TENSILE STRENGTH) | -           | 4000           |



**SECTION VIEW**

NOTE:  
PIPE SIZE SHALL BE PER APPROVED PLANS

**Cucamonga Valley Water District**  
**TYPICAL F.M. WATER SERVICE 10 - INCH**



**Cucamonga Valley Water District**

ENGINEERING DEPARTMENT  
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(909) 987-2591

APPROVED BY:

*Juan*

TUAN TRUONG, P.E.,  
ENGINEERING MANAGER

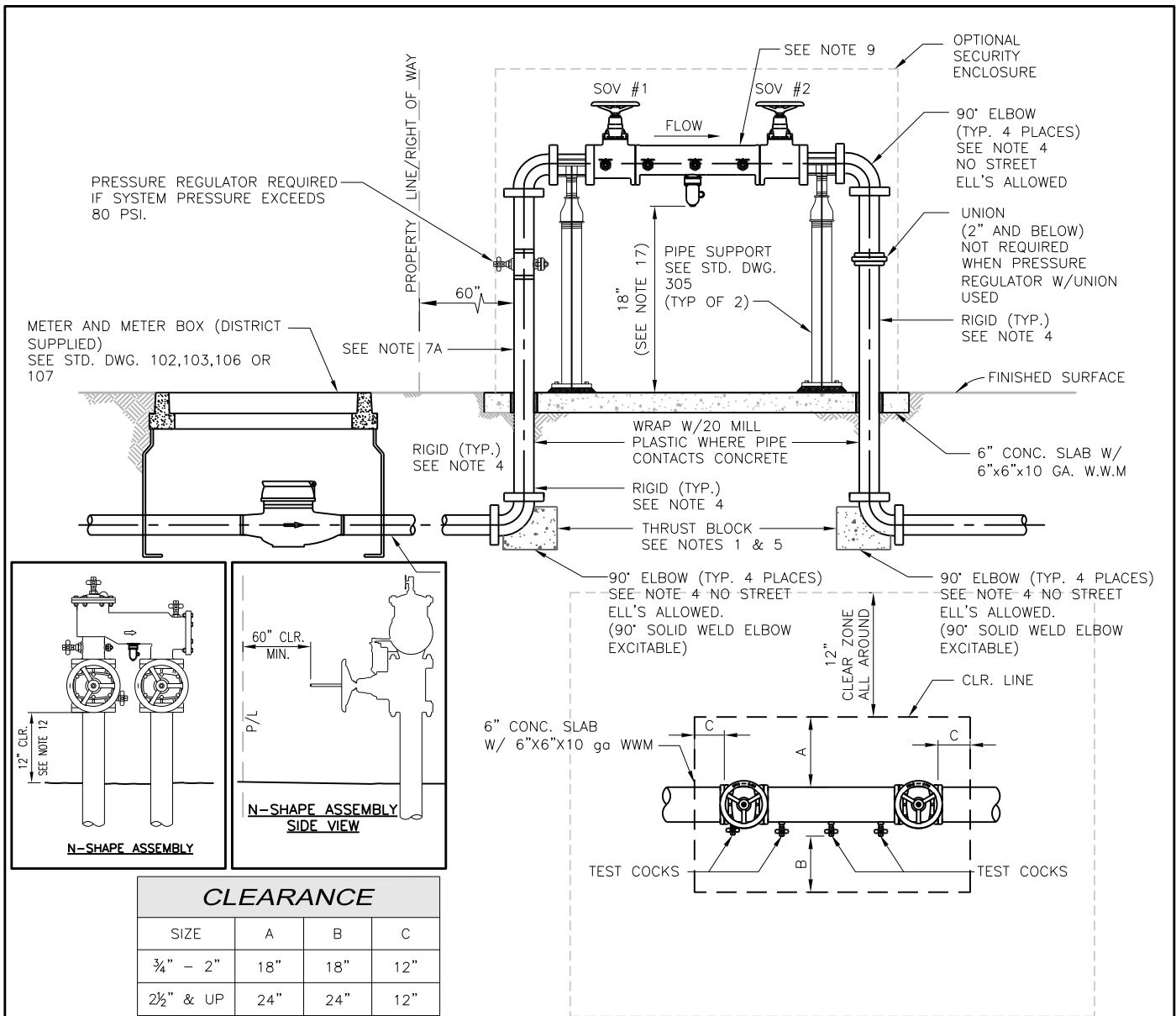
4-17-25  
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STD. DWG.

**109**

SHT. 1 OF 1





| CLEARANCE |     |     |     |
|-----------|-----|-----|-----|
| SIZE      | A   | B   | C   |
| ¾" - 2"   | 18" | 18" | 12" |
| 2½" & UP  | 24" | 24" | 12" |

### NOTES:

- LOCATION, TYPE, AND INSTALLATION OF BACKFLOW ASSEMBLY SHALL BE APPROVED BY THE DISTRICTS INSPECTOR.
- DISTRICT TO INSTALL METER, DEVELOPER TO INSTALL ALL OTHER REQUIRED MATERIAL.
- NO CONNECTIONS OR TEES SHALL BE ALLOWED BETWEEN METER AND ASSEMBLY.
- ALL PIPE AND RELATED FITTINGS SHALL BE AS FOLLOWS:
  - 3-INCH AND BELOW - COPPER TYPE K RIGID OR, BRASS.
  - 4-INCH AND ABOVE - SCHEDULE 40 CEMENT LINED STANDARD STEEL, CML & C.
- ALL ABOVE GROUND APPURTENANCES SHALL BE PAINTED AS FOLLOWS:
  - STEEL PIPE, DUCTILE IRON PIPE, ONE COAT OF PRIMER AND 2 COATS OF RUSTOLEUM-ALMOND.
- RESILIENT SEATED SHUT-OFF VALVES AND TEST COCKS REQUIRED.
- PRESSURE REGULATOR TO BE INSTALLED UPSTREAM OF BACKFLOW PREVENTOR IF REQUIRED BY PLUMBING CODE. (80 PSI.)
  - IF PRESSURE REGULATION IS REQUIRED THEN DELETE DOWNSTREAM UNION IF APPLICABLE.
- BACKFLOW PREVENTORS TO BE SAME SIZE AS METER.
- ALL ASSEMBLIES SHALL BE USC, FCC&HR APPROVED.
- PIPE SUPPORTS AS REQUIRED ON 2.5" AND ABOVE
- ALL PIPING BETWEEN METER AND BACKFLOW ASSEMBLY TO BE FLUSHED BEFORE BACKFLOW IS INSTALLED AND MUST BE WITNESSED BY DISTRICT INSPECTOR.
- N-SHAPE ASSEMBLY 12" CLR. TO BOTTOM OF HAND WHEEL.
- NO CONNECTION UNTIL AFTER 90° DOWN STREAM FITTING.
- INSTALL THRUST BLOCK PER STD. DWG. 304.
- WRAP ALL BURIED BOLTS WITH WAX TAPE PER STD. DWG. 115
- NO PIPE DOPE TO BE USED ON THREADS (TEFLON TAPE ONLY)
- 18" CLEAR FROM THE FINISHED GRADE

## Cucamonga Valley Water District

### TYPICAL BACKFLOW INSTALLATION FOR DOMESTIC AND LANDSCAPE USE



**Cucamonga Valley  
Water District**

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*Juan*

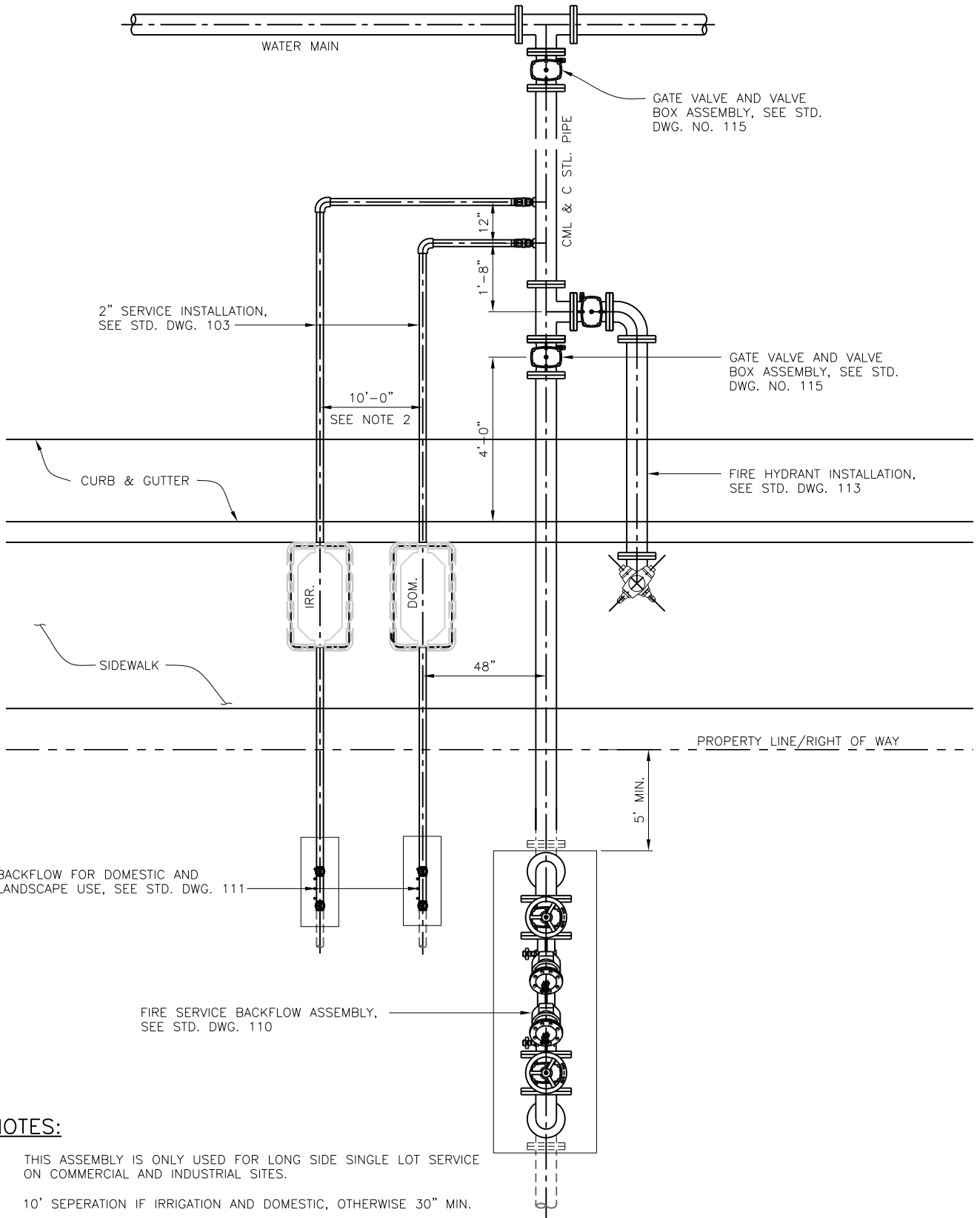
TUAN TRUONG, P.E.,  
ENGINEERING MANAGER

STD. DWG.

4-17-25  
DATE

111

SHT. 1 OF 1



| REV. | DESCRIPTION | DATE | APP'D |
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**NOTES:**

1. THIS ASSEMBLY IS ONLY USED FOR LONG SIDE SINGLE LOT SERVICE ON COMMERCIAL AND INDUSTRIAL SITES.
2. 10' SEPERATION IF IRRIGATION AND DOMESTIC, OTHERWISE 30" MIN.


## Cucamonga Valley Water District

### TYPICAL MANIFOLD SERVICE FOR COMMERCIAL AND INDUSTRIAL



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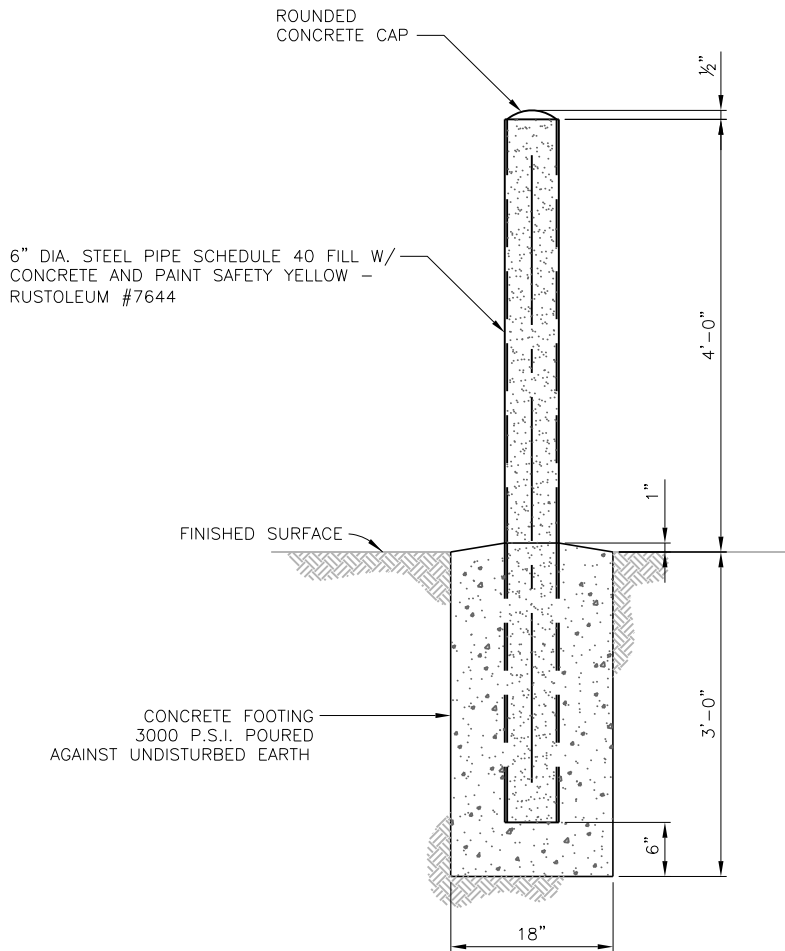
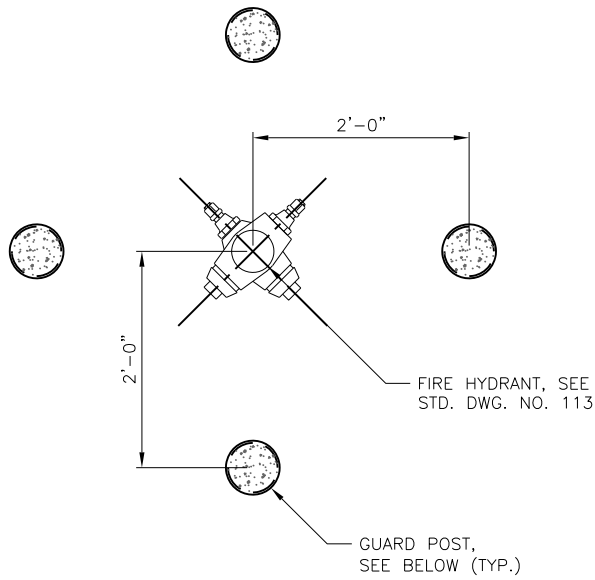


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 TUAN TRUONG, P.E.,  
 ENGINEERING MANAGER

4-17-25  
DATE

STD. DWG.  
112  
 SHT. 1 OF 1






| REV. | DESCRIPTION | DATE | APP'D |
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# Cucamonga Valley Water District

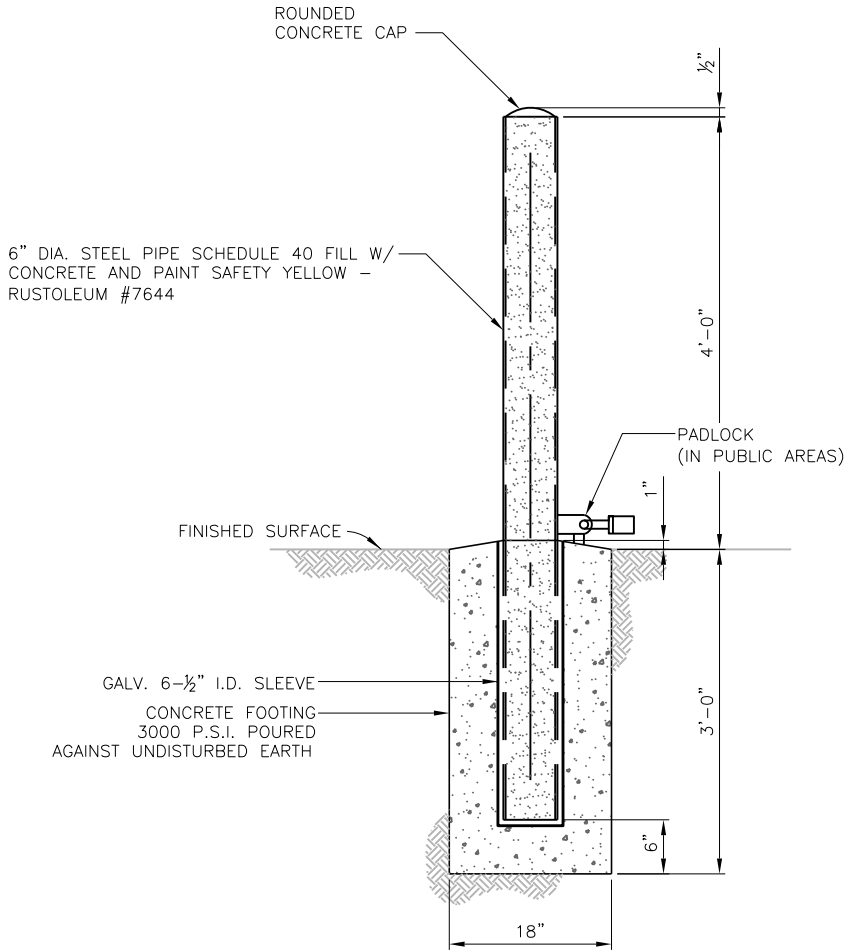
## FIRE HYDRANT BARRICADE

**Cucamonga Valley Water District**  
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4-17-25  
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**114-A**  
 SHT. 1 OF 2



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# Cucamonga Valley Water District

## REMOVABLE BARRICADES



**Cucamonga Valley  
Water District**

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(909) 987-2591

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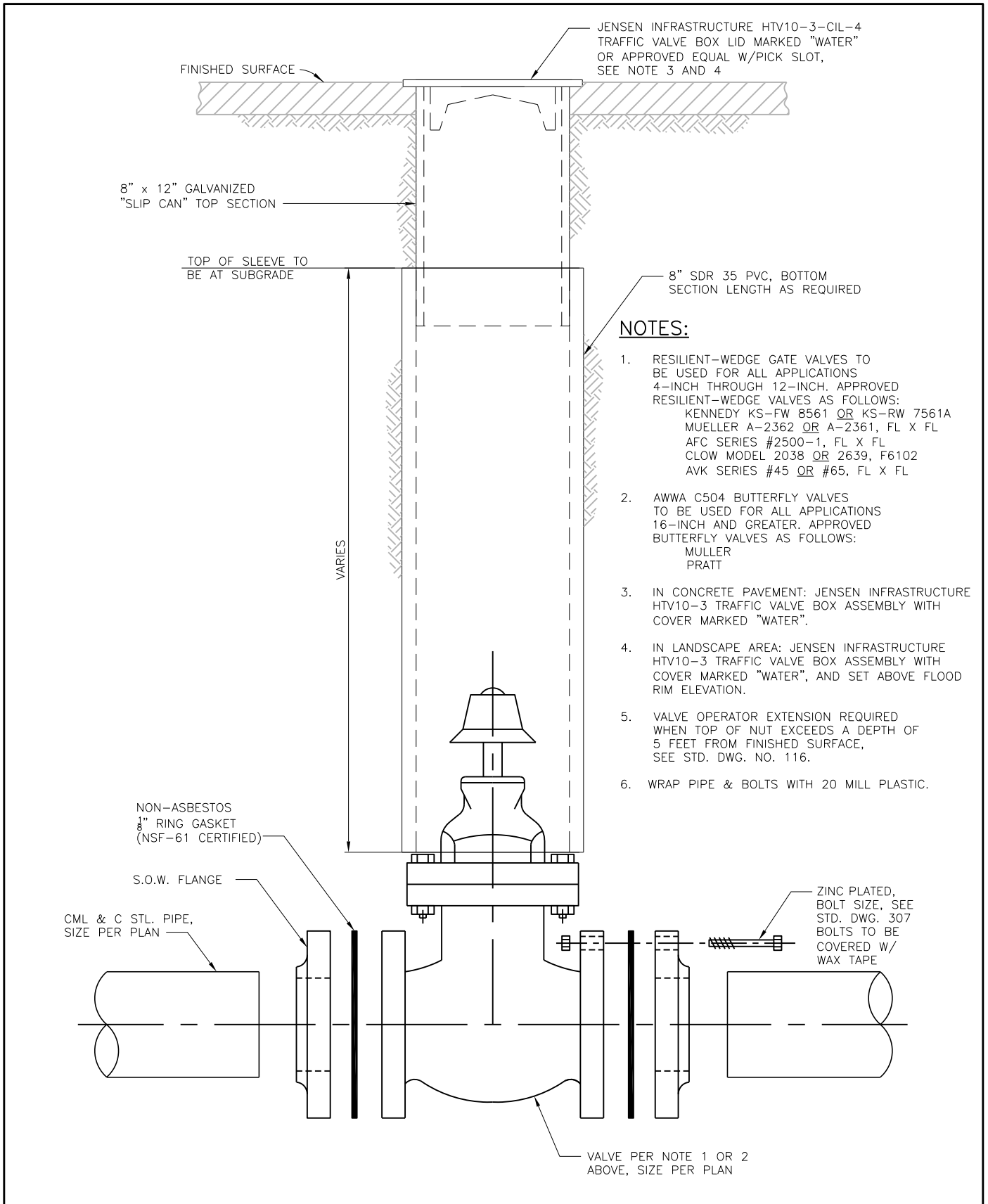
4-17-25  
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**114-B**

SHT. 1 OF 1

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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.

**Cucamonga Valley Water District**  
**VALVE AND BOX ASSEMBLY**

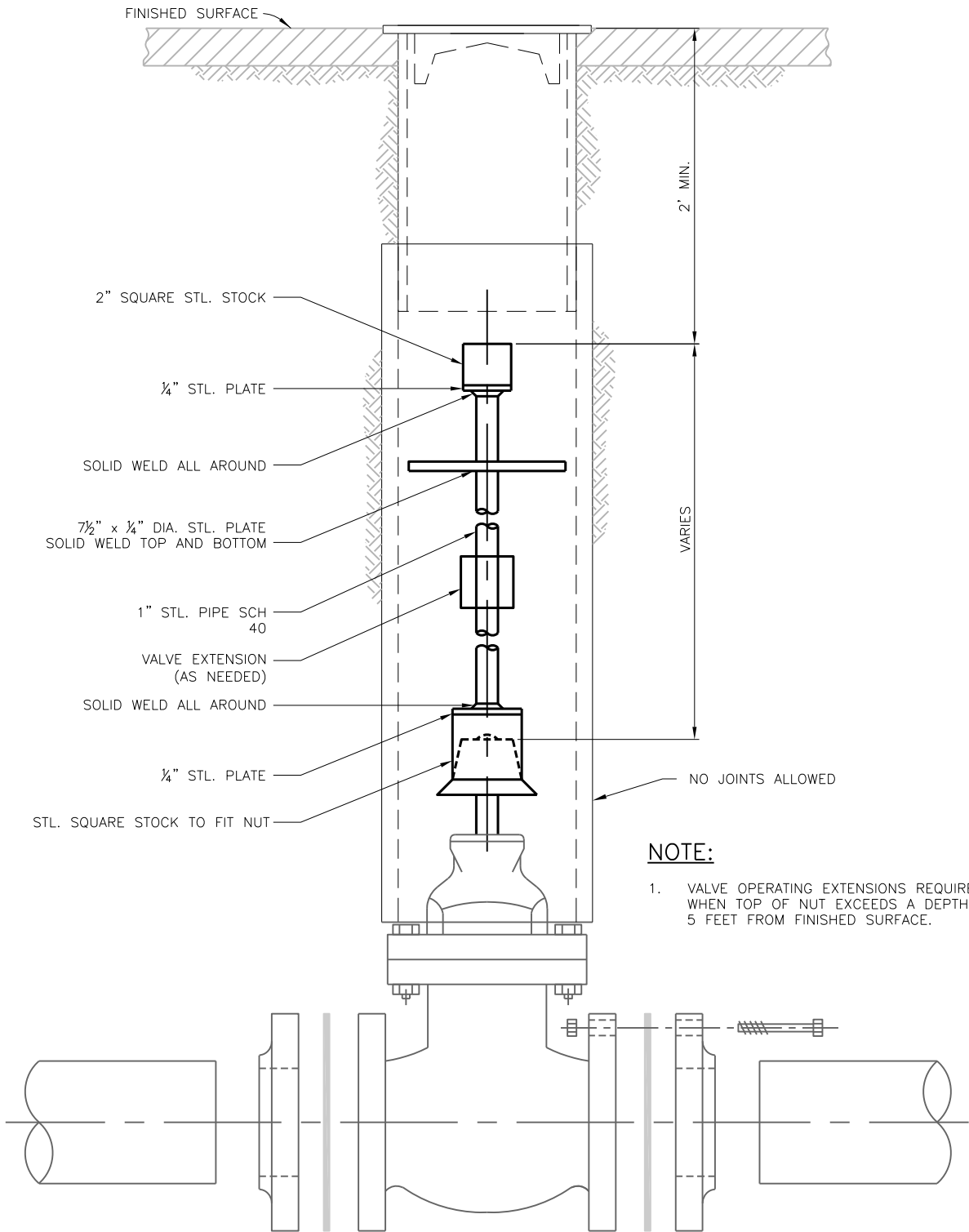
**Cucamonga Valley Water District**  
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APPROVED BY: 

TUAN TRUONG, P.E.,  
ENGINEERING MANAGER

11-10-25  
DATE

STD. DWG.  
**115**  
SHT. 1 OF 1



- FINISHED SURFACE
- 2" SQUARE STL. STOCK
- 1/4" STL. PLATE
- SOLID WELD ALL AROUND
- 7 1/2" x 1/4" DIA. STL. PLATE  
SOLID WELD TOP AND BOTTOM
- 1" STL. PIPE SCH 40
- VALVE EXTENSION  
(AS NEEDED)
- SOLID WELD ALL AROUND
- 1/4" STL. PLATE
- STL. SQUARE STOCK TO FIT NUT

**NOTE:**

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

| REV. | DESCRIPTION | DATE | APP'D |
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# Cucamonga Valley Water District

## VALVE OPERATOR EXTENSION



APPROVED BY:

TUAN TRUONG, P.E.,  
ENGINEERING MANAGER

4-17-25  
DATE

STD. DWG.

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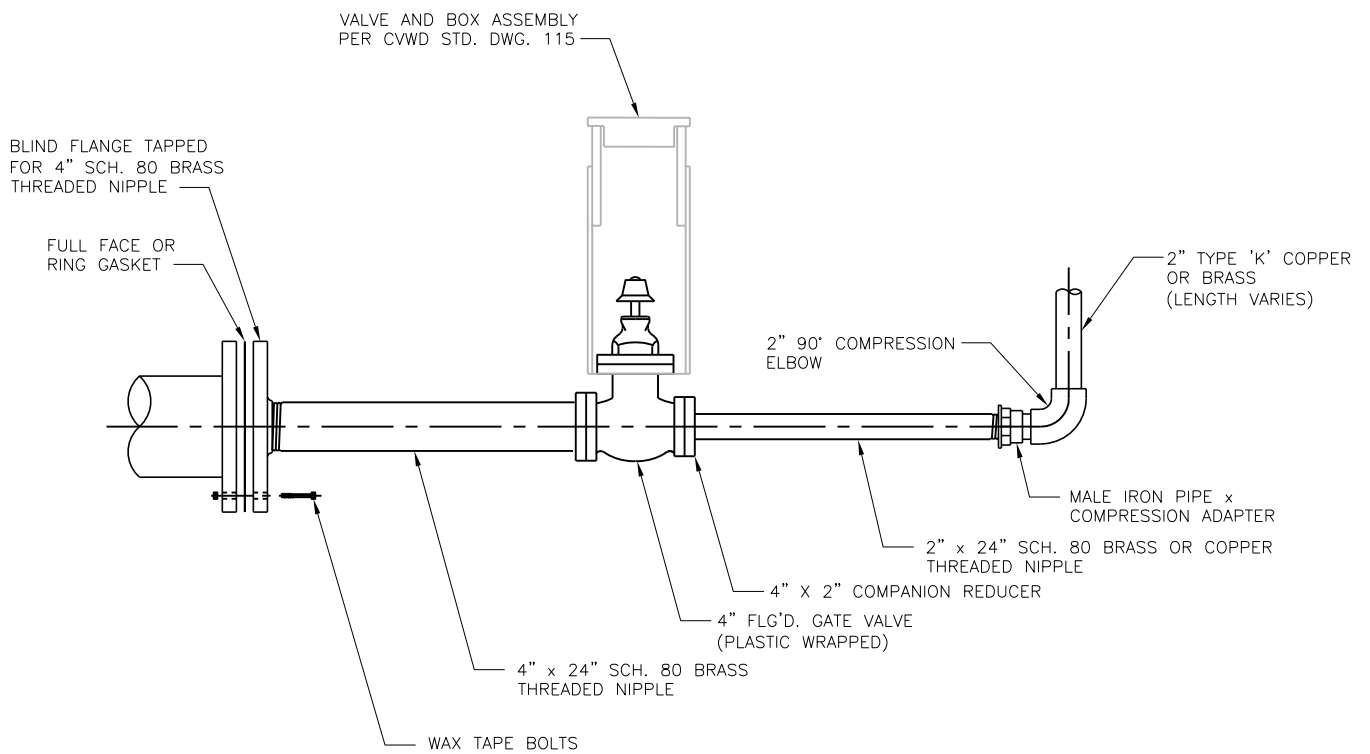
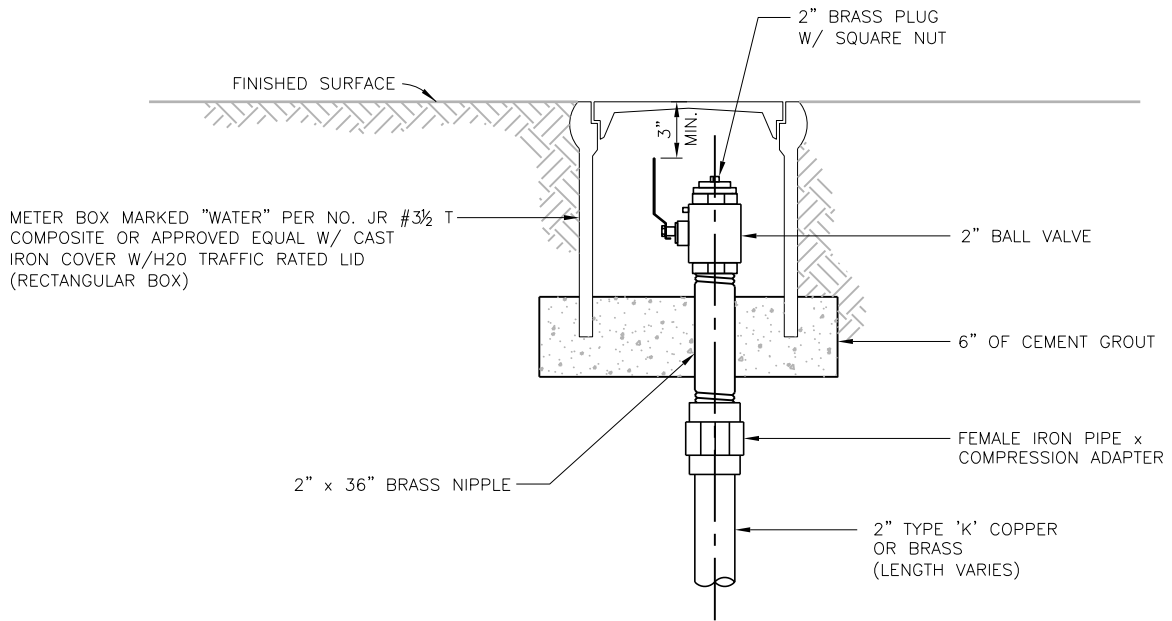
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Cucamonga Valley Water District

NOT USED

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|  <p><b>Cucamonga Valley Water District</b><br/> <small>ENGINEERING DEPARTMENT<br/>         10440 ASHFORD STREET, RANCHO CUCAMONGA, CA 91729<br/>         (909) 987-2591</small></p> | <p>APPROVED BY: _____<br/>         TUAN TRUONG, P.E.,<br/>         ENGINEERING MANAGER</p> <p>DATE _____</p> | <p>STD. DWG.<br/> <b>117</b><br/>         SHT. 1 OF 1</p> |
|--|--|---|



**NOTE:**

1. IF A VALVE IS TO BE SET AT THE END OF A LINE, THE REMOVABLE BLOW-OFF ASSEMBLY MAY BE BOLTED TO THE FLANGE ON THE VALVE.
2. IF BUTTERFLY VALVE, ADD 1' SPOOL BETWEEN BLIND FLANGE AND VALVE.

# Cucamonga Valley Water District

## REMOVABLE BLOW-OFF END OF MAINLINE

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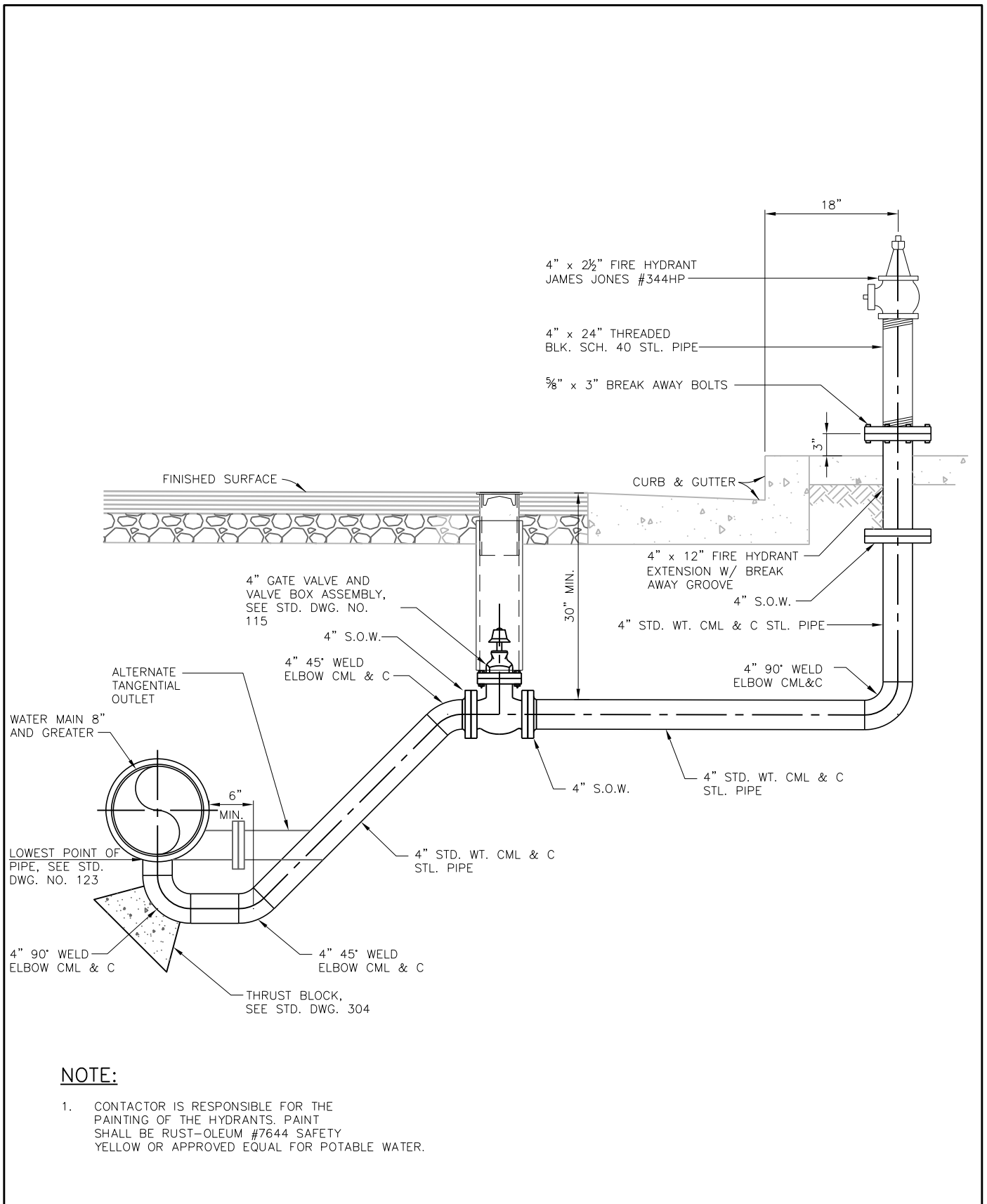
**Cucamonga Valley Water District**  
 ENGINEERING DEPARTMENT  
 10440 ASHFORD STREET, RANCHO CUCAMONGA, CA 91729  
 (909) 987-2591

APPROVED BY:

\_\_\_\_\_  
 TUAN TRUONG, P.E.,  
 ENGINEERING MANAGER

12-22-25  
DATE

STD. DWG.  
118  
 SHT. 1 OF 1




**NOTE:**

1. CONTACTOR IS RESPONSIBLE FOR THE PAINTING OF THE HYDRANTS. PAINT SHALL BE RUST-OLEUM #7644 SAFETY YELLOW OR APPROVED EQUAL FOR POTABLE WATER.

| DATE | APP'D | DESCRIPTION | REV. |
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## Cucamonga Valley Water District

### BLOW OFF ASSEMBLY 4 INCH AND ABOVE



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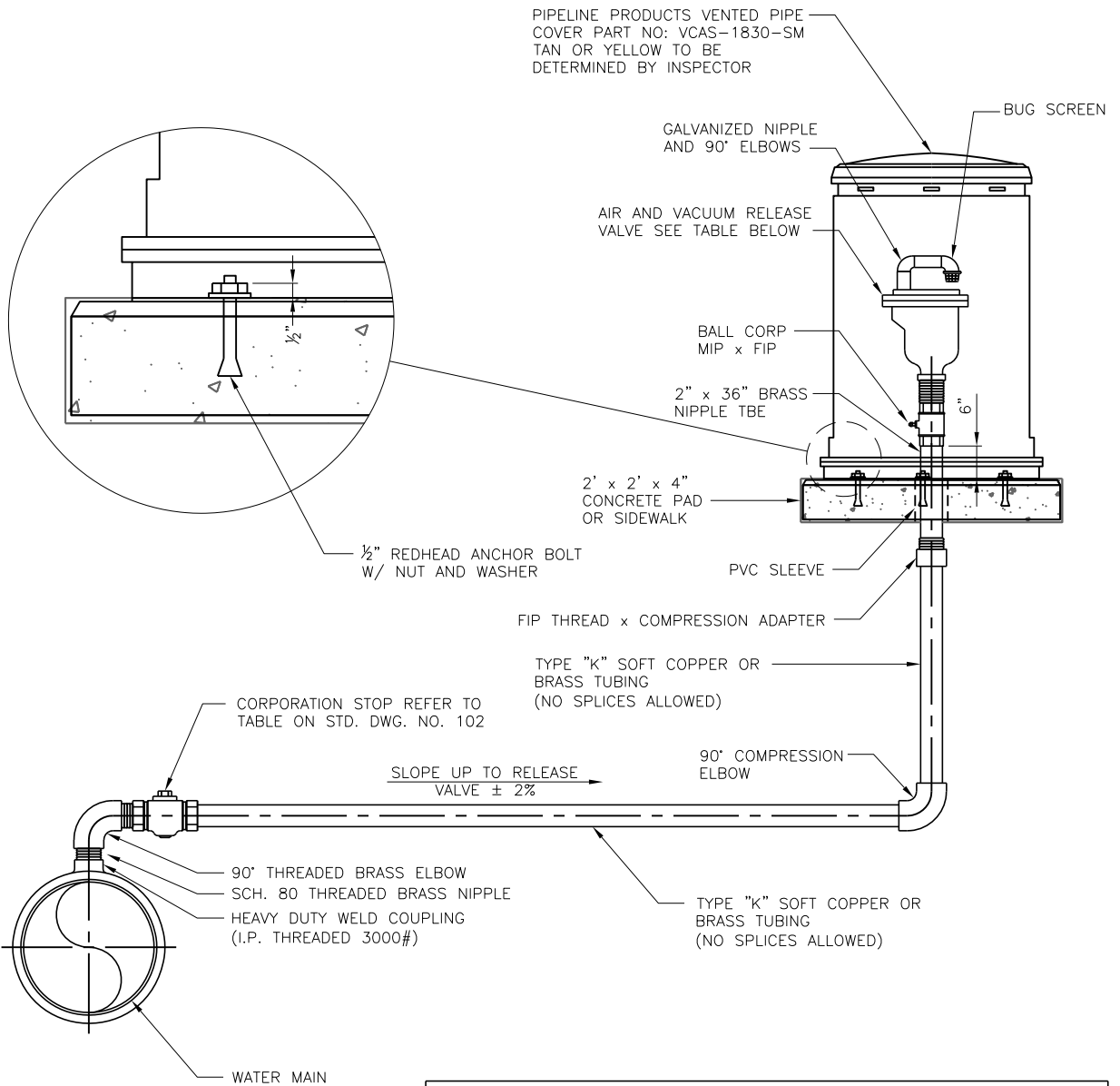
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4-17-25  
DATE

STD. DWG.  
119  
 SHT. 1 OF 1



| 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.


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# Cucamonga Valley Water District

## AIR VACUUM RELEASE VALVE



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**120**  
SHT. 1 OF 1

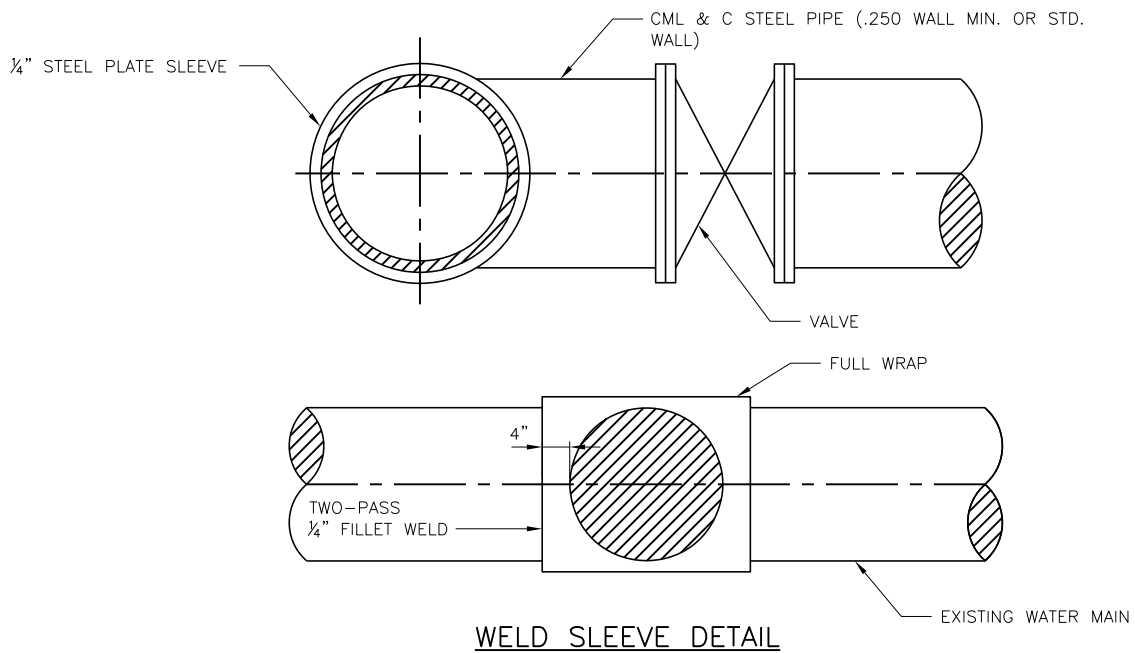
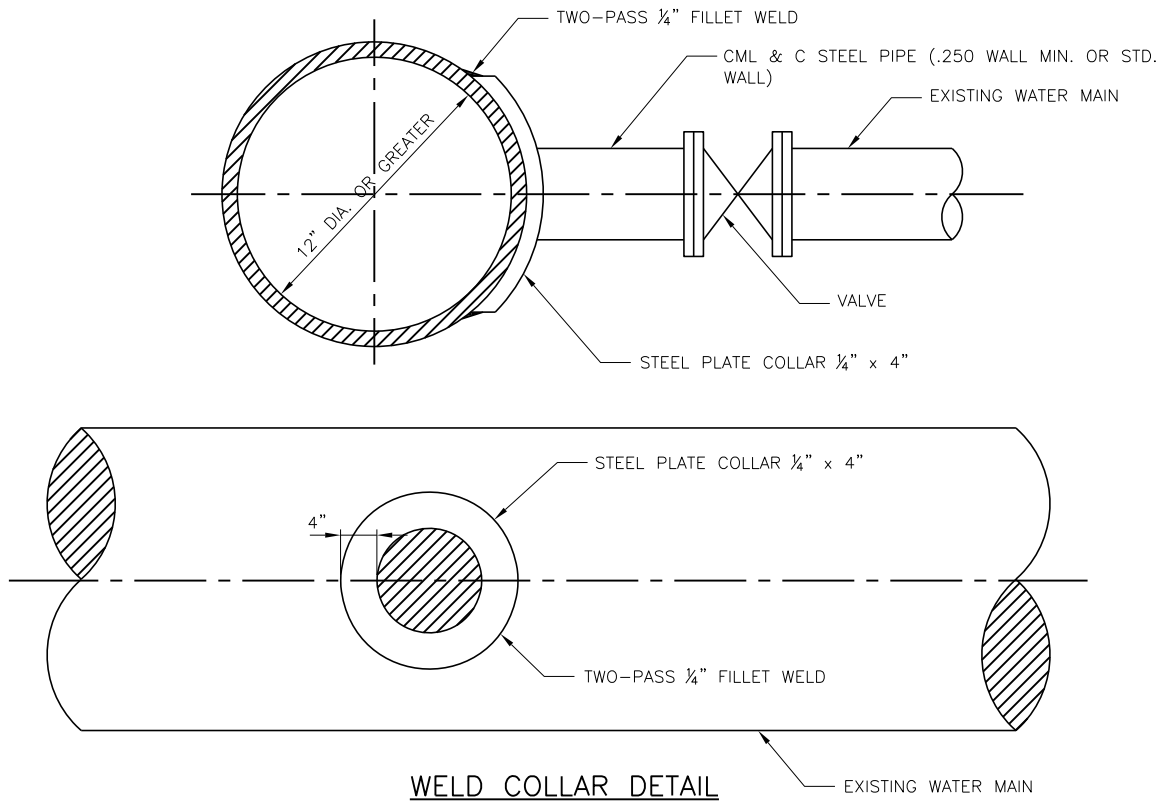
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Cucamonga Valley Water District

NOT USED

|  |  |   |
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|  <p><b>Cucamonga Valley Water District</b><br/> <small>ENGINEERING DEPARTMENT<br/>         10440 ASHFORD STREET, RANCHO CUCAMONGA, CA 91729<br/>         (909) 987-2591</small></p> | <p>APPROVED BY: _____<br/>         TUAN TRUONG, P.E.,<br/>         ENGINEERING MANAGER</p> <p>DATE _____</p> | <p>STD. DWG.<br/> <b>121</b><br/>         SHT. 1 OF 1</p> |
|--|--|---|



**NOTES:**

1. WHEN HOT TAPPING TO AN EXISTING WATER MAIN OF THE SAME SIZE, A WELD SLEEVE WILL BE INSTALLED AROUND PIPE.
2. ALL PIPE 12" OR LARGER REQUIRES STEEL PLATE COLLAR 1/4" X 2" FOR 2" TAP.

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## Cucamonga Valley Water District

### WELD COLLAR AND WELD SLEEVE



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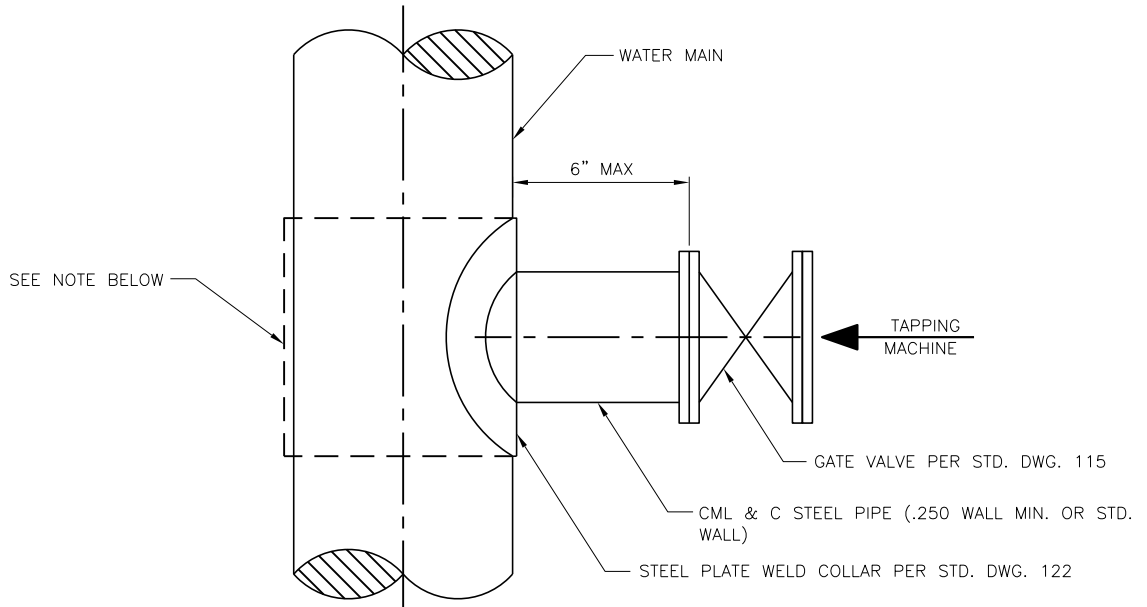
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4-17-25  
DATE

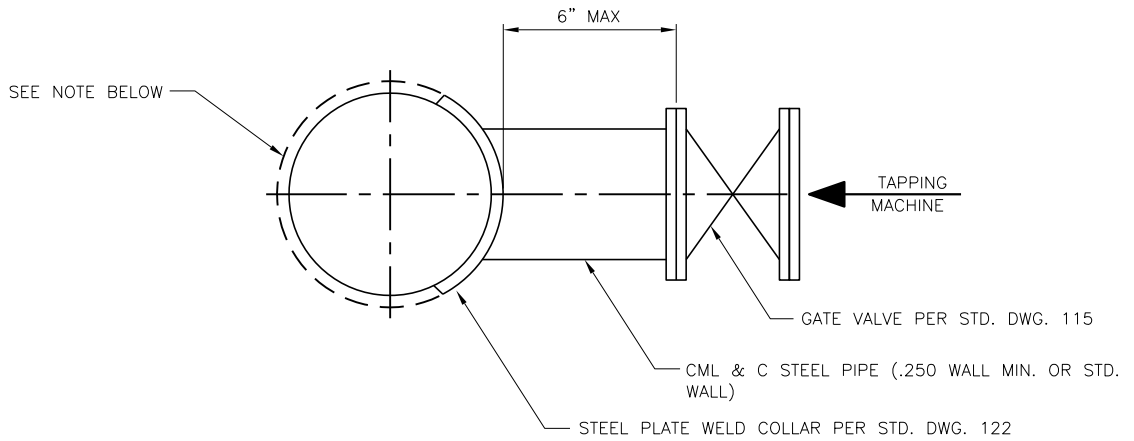
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**122**

SHT. 1 OF 1



PLAN VIEW



SECTION VIEW

NOTE:

1. HOT TAPS OF THE SAME SIZE AS THAT OF THE WATER MAIN: A FULL WRAP STEEL PLATE WELD SLEEVE WILL BE REQUIRED AROUND THE WATER MAIN PER STD. DWG. 122.

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# Cucamonga Valley Water District

## HOT TAP DETAIL



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DATE

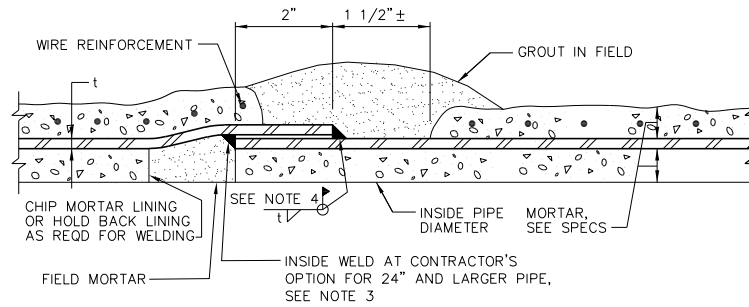
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**123**

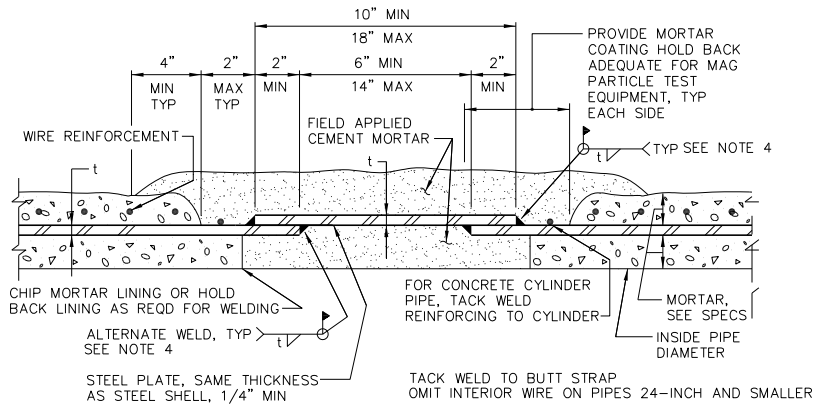
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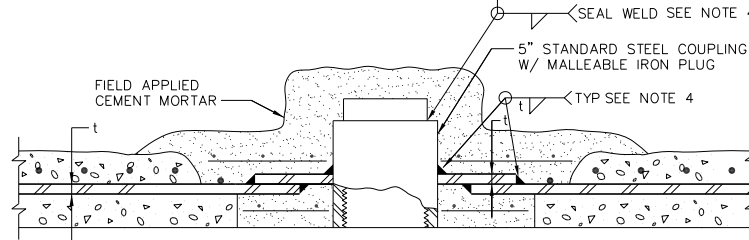




**SINGLE / DOUBLE LAP WELDED JOINT**



**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

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**Cucamonga Valley Water District**

**MORTAR LINED & COATED STEEL PIPE JOINT DETAIL**



**Cucamonga Valley Water District**

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STD. DWG.

**126**

4-17-25  
DATE

SHT. 1 OF 1



Cucamonga Valley  
Water District

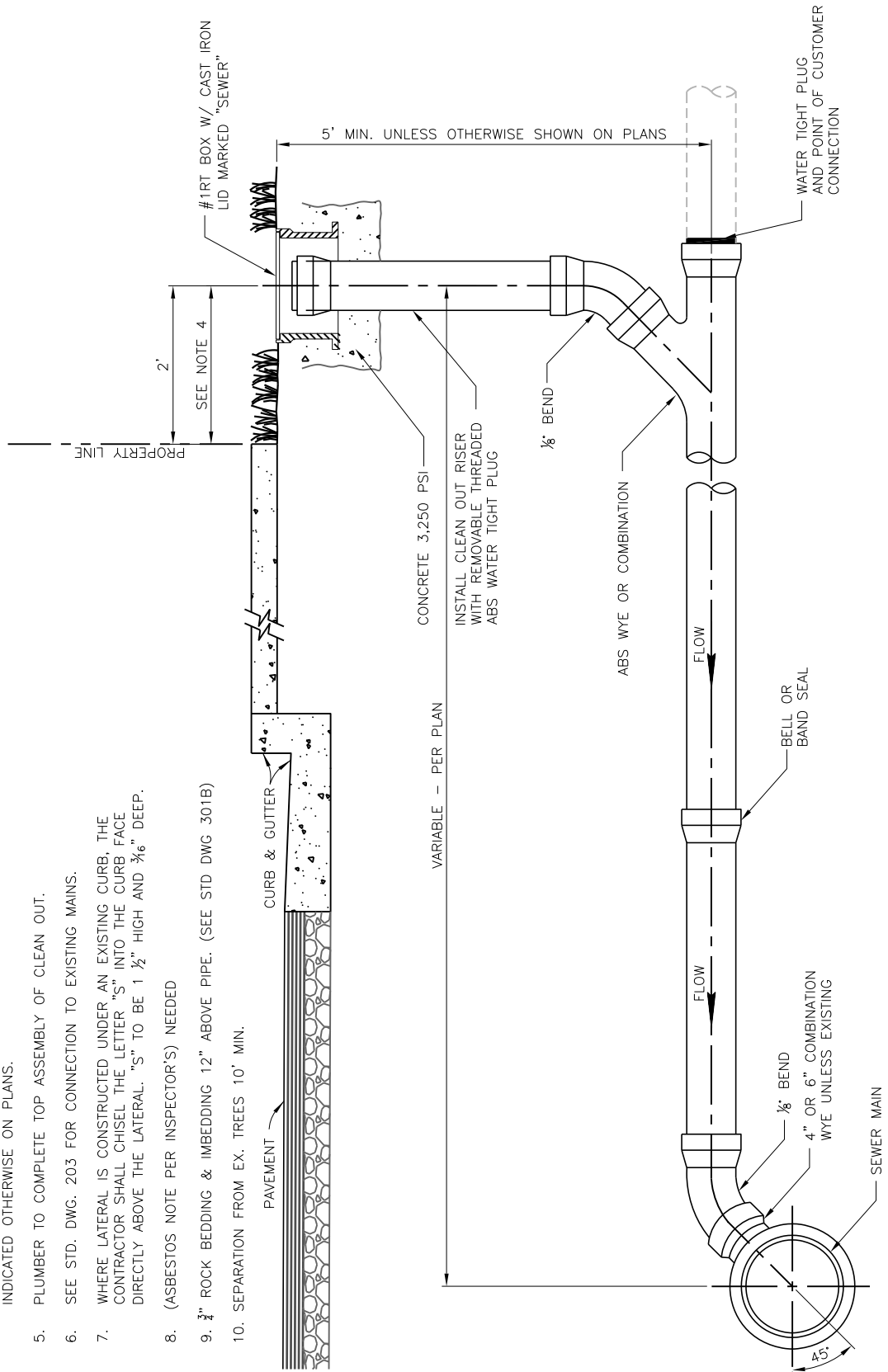
**200 - SEWER DRAWINGS**

FOR THE CONSTRUCTION  
OF SYSTEM FACILITIES

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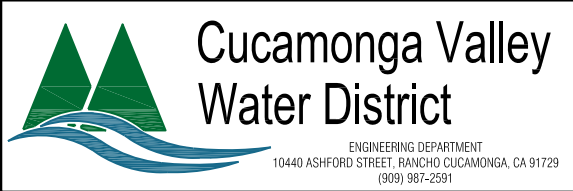
**NOTES:**


- SEWER LATERAL SHALL HAVE MINIMUM SLOPE OF 1/4" PER FOOT.
- SEWER LATERALS SHALL BE SAME MATERIAL AS SEWER MAIN UP TO WYE AT PROPERTY LINE.
- SIZE DETERMINED PER UPC SECT. 403, TABLE 4-3.
- LOCATE CLEANOUT BOX ON OR BEHIND PROPERTY LINE UNLESS INDICATED OTHERWISE ON PLANS.
- PLUMBER TO COMPLETE TOP ASSEMBLY OF CLEAN OUT.
- SEE STD. DWG. 203 FOR CONNECTION TO EXISTING MAINS.
- WHERE LATERAL IS CONSTRUCTED UNDER AN EXISTING CURB, THE CONTRACTOR SHALL CHISEL THE LETTER "S" INTO THE CURB FACE DIRECTLY ABOVE THE LATERAL. "S" TO BE 1 1/2" HIGH AND 3/16" DEEP.
- (ASBESTOS NOTE PER INSPECTOR'S) NEEDED
- 3/4" ROCK BEDDING & IMBEDDING 12" ABOVE PIPE. (SEE STD DWG 301B)
- SEPARATION FROM EX. TREES 10' MIN.



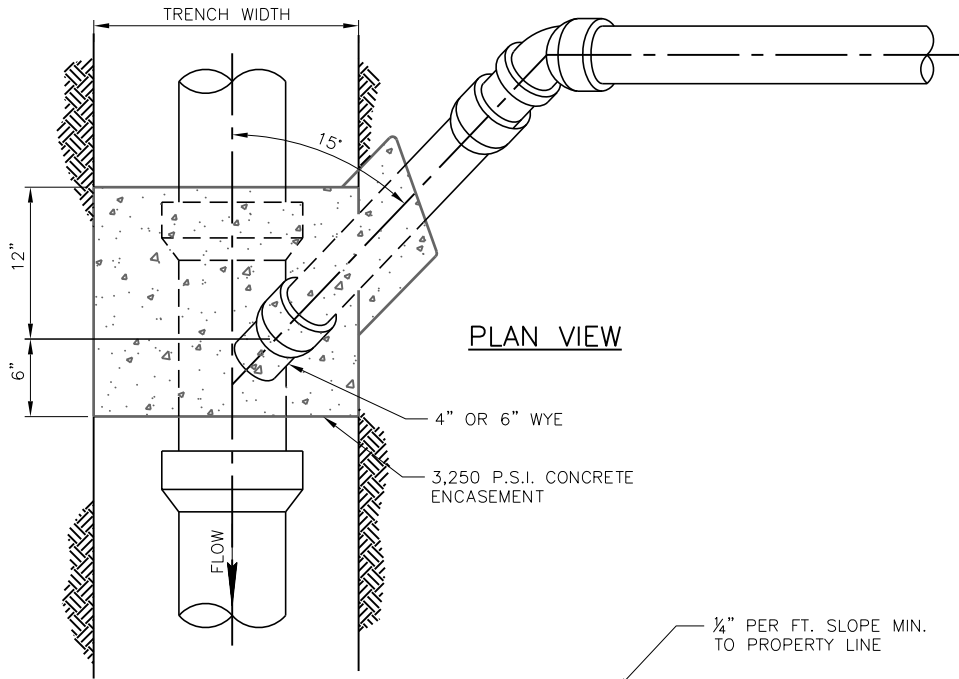
# Cucamonga Valley Water District

## SEWER LATERAL

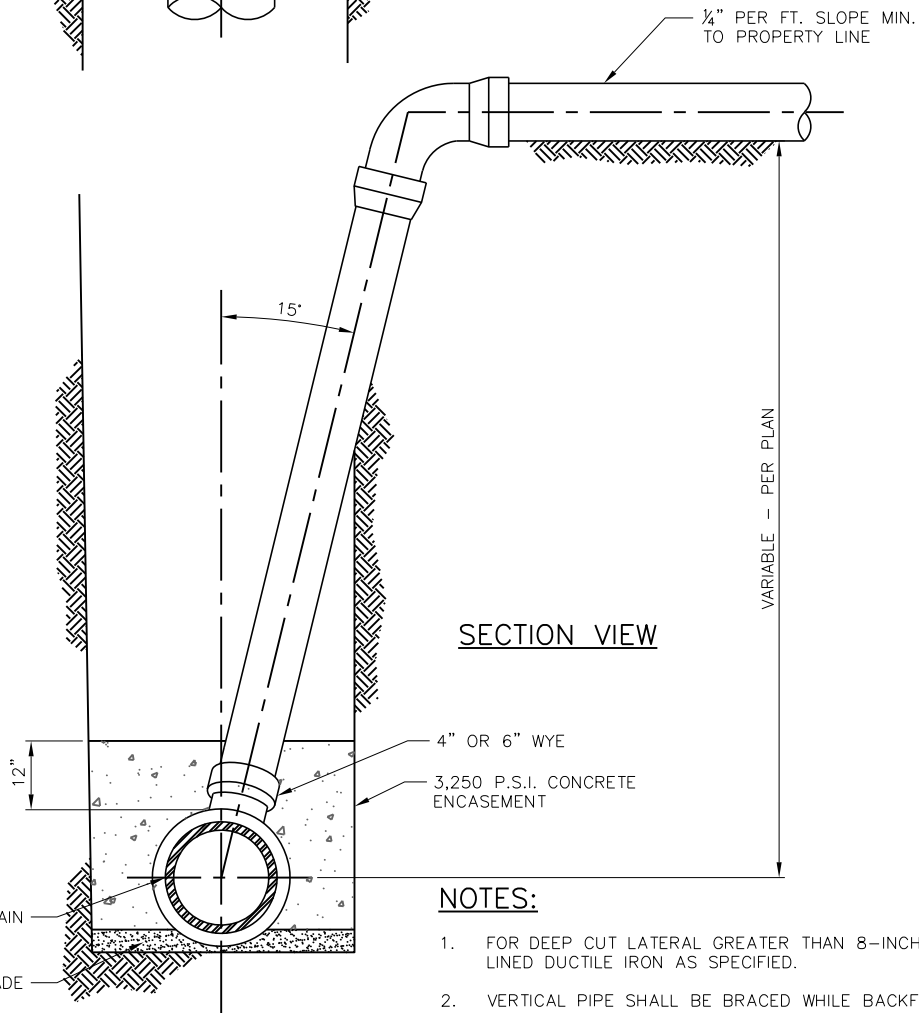


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 ENGINEERING MANAGER

STD. DWG.  
201  
 4-17-25  
 DATE  
 SHT. 1 OF 1



**PLAN VIEW**



**SECTION VIEW**

**NOTES:**

1. FOR DEEP CUT LATERAL GREATER THAN 8-INCH USE EPOXY LINED DUCTILE IRON AS SPECIFIED.
2. VERTICAL PIPE SHALL BE BRACED WHILE BACKFILLING TRENCH.
3. MODIFY CONNECTION PER DRAWING 203 FOR EXISTING MAIN CONNECTIONS

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# Cucamonga Valley Water District

## DEEP CUT SEWER LATERAL



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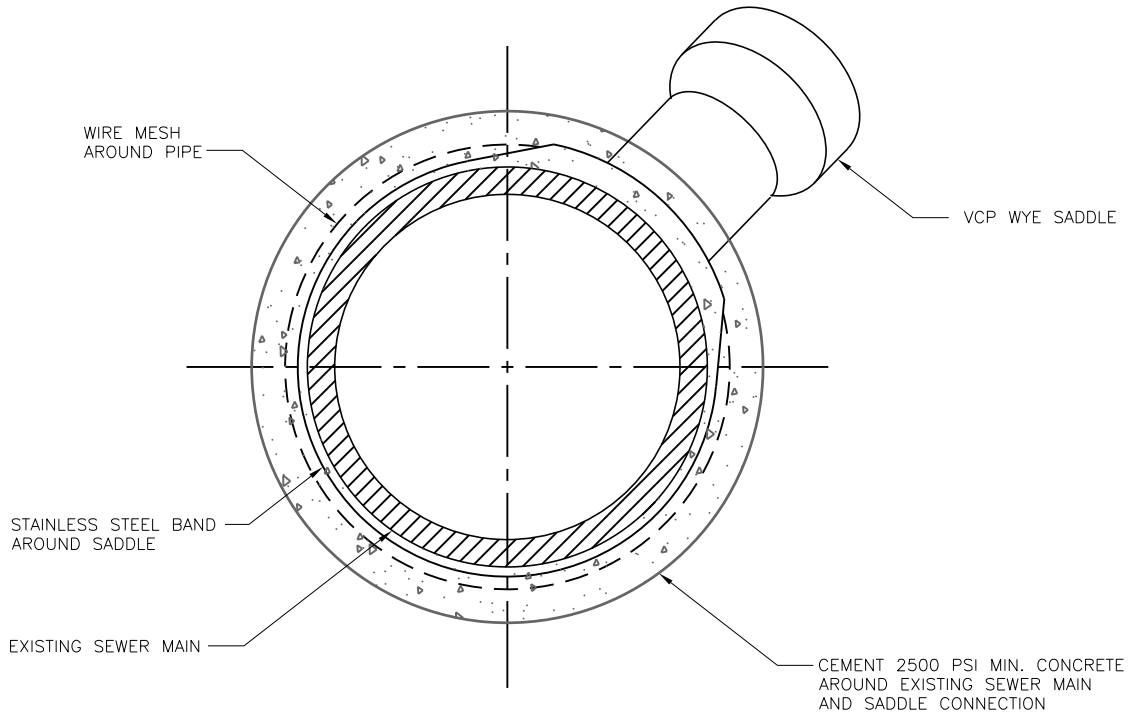
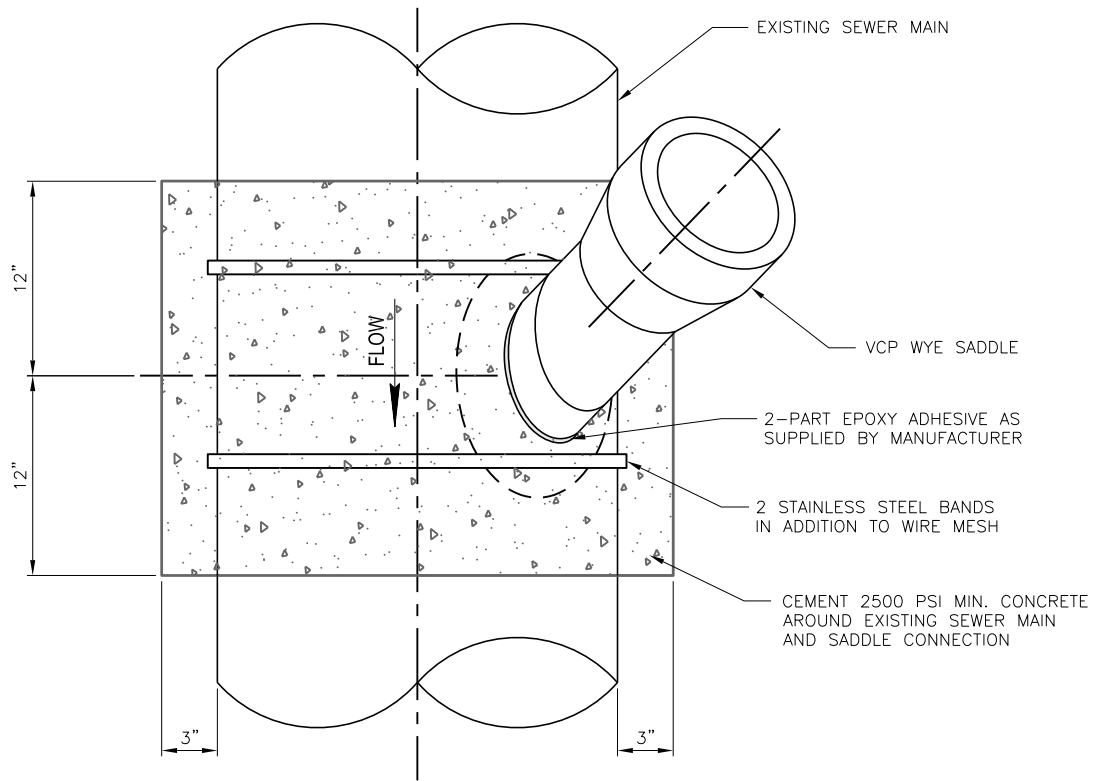
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4-17-25  
DATE

STD. DWG.

**202**

SHT. 1 OF 1



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## Cucamonga Valley Water District

### VCP WYE SADDLE ON EXISTING MAIN



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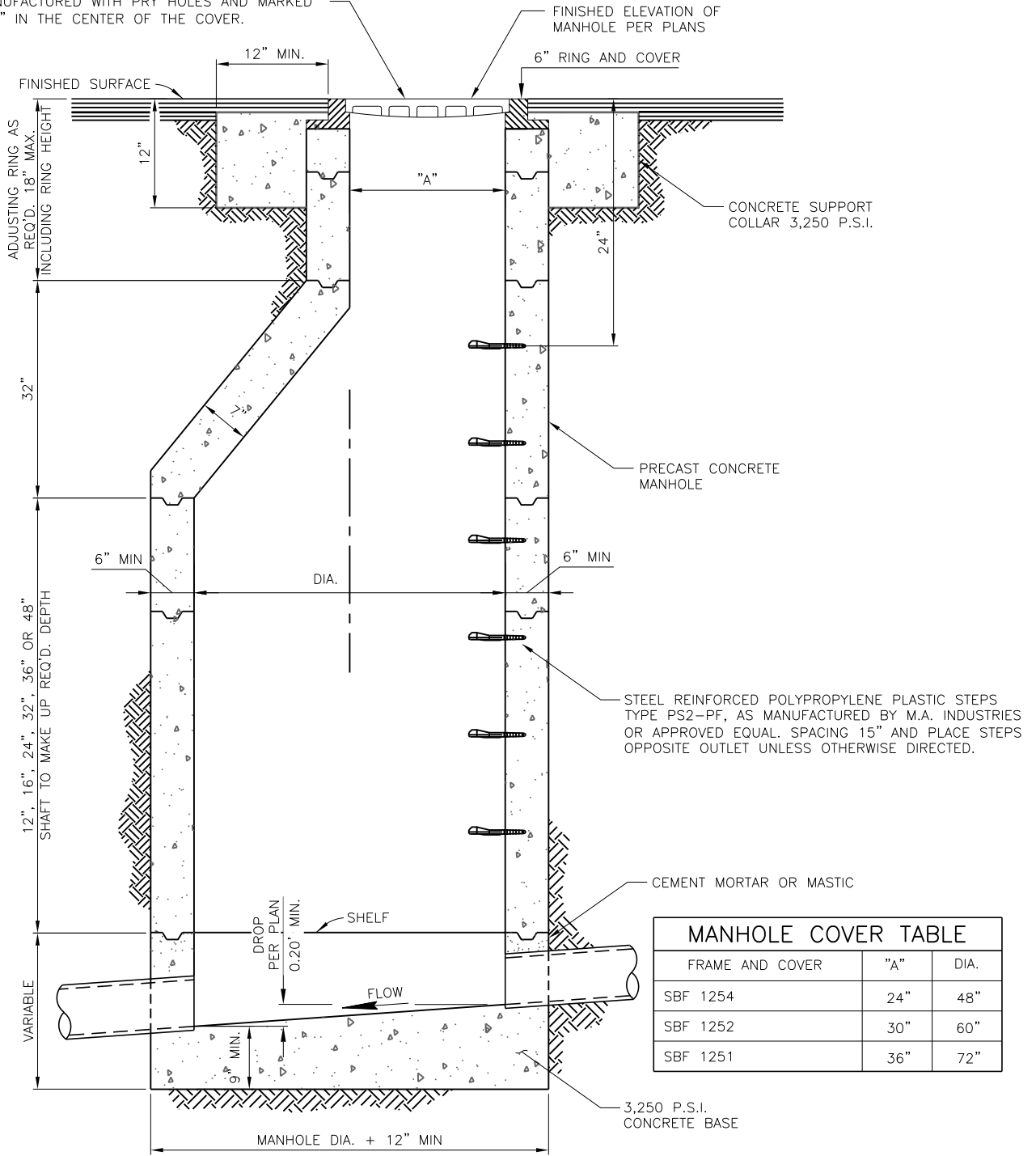
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STD. DWG.

**203**

SHT. 1 OF 1

SOUTHBAY FOUNDRY MANHOLE FRAME AND COVER PER MANHOLE COVER TABLE 204-B. MANHOLE COVER SHALL BE MANUFACTURED WITH PRY HOLES AND MARKED "SEWER" IN THE CENTER OF THE COVER.



SECTION VIEW

NOTE: ALL MANHOLES 15' OR GREATER IN DEPTH SHALL BE 60" DIA. ALL M.H ON SEWERS 15" DIA OR GREATER SHALL BE 60" DIA.

SEE STD. DWG. 204-B FOR PLAN VIEW OF BASE, MANHOLE COVER TABLE AND NOTES.

# Cucamonga Valley Water District

## MANHOLE



**Cucamonga Valley Water District**

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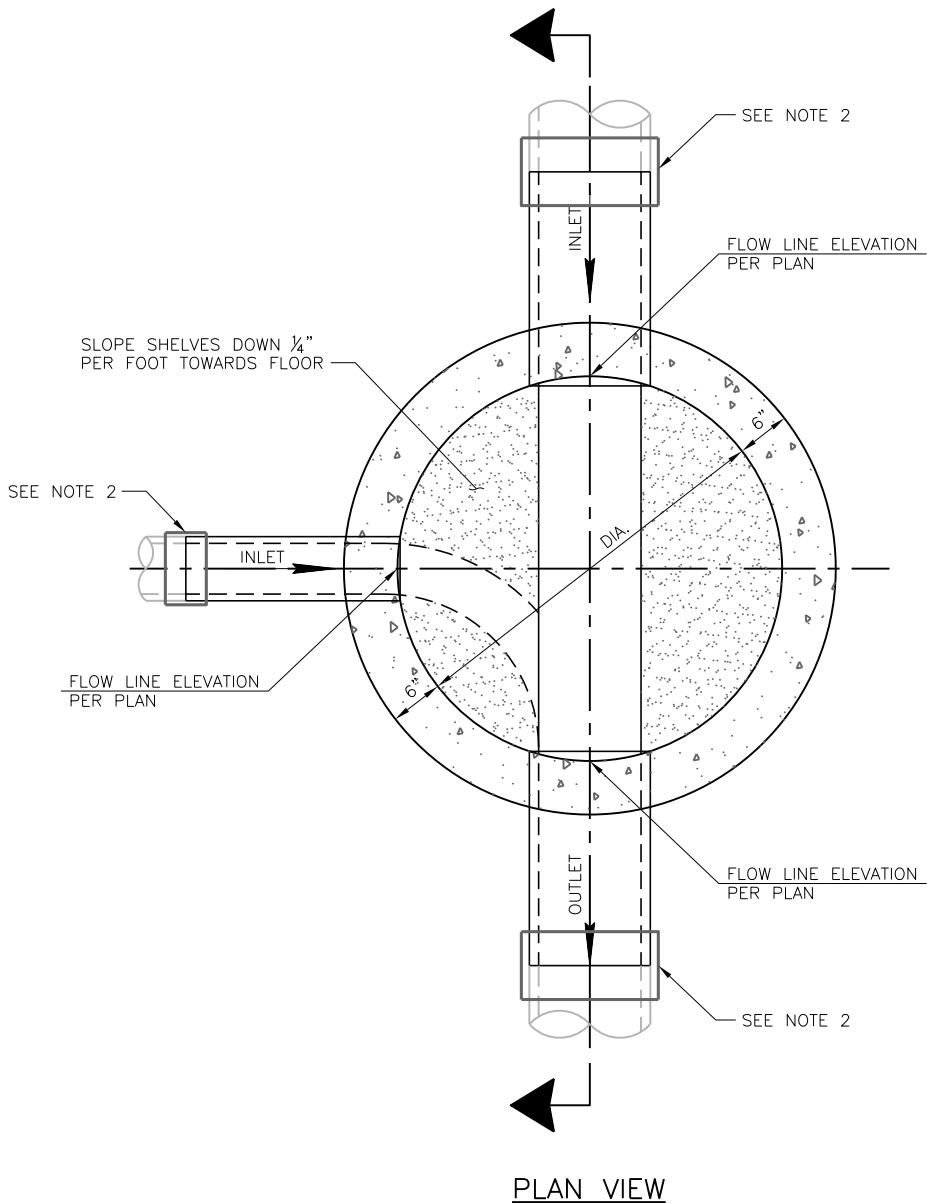
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STD. DWG.

**204-A**

SHT. 1 OF 2

| REV. | DESCRIPTION | DATE | APP'D |
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PLAN VIEW

**NOTES:**

1. SUFFICIENT MORTAR SHALL BE APPLIED ACROSS ENTIRE FACE OF JOINT SO THAT WHEN PRECAST UNITS ARE PLACED ON TOP OF ONE ANOTHER, THE MORTAR WILL SQUEEZE OUT BOTH THE INSIDE AND OUTSIDE WALL FACES.
2. A 24-INCH LONG STUB WITH A STAINLESS STEEL REPAIR COUPLING SHALL BE INSTALLED ENTERING AND EXITING THE MANHOLE.
3. ALL MANHOLES INSTALLED IN AN EASEMENT OR IN PRIVATE PROPERTY SHALL REQUIRE A "BOLT DOWN" TYPE RING AND COVER ASSEMBLY.
4. 1" OVER THE O.D. ON NEW CORE DRILL

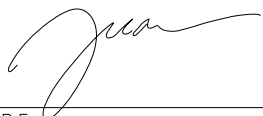
| MANHOLE COVER TABLE |     |      |
|---------------------|-----|------|
| FRAME AND COVER     | "A" | DIA. |
| SBF 1254            | 24" | 48"  |
| SBF 1252            | 30" | 60"  |
| SBF 1251            | 36" | 72"  |

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**Cucamonga Valley Water District**

**MANHOLE**

**Cucamonga Valley Water District**  
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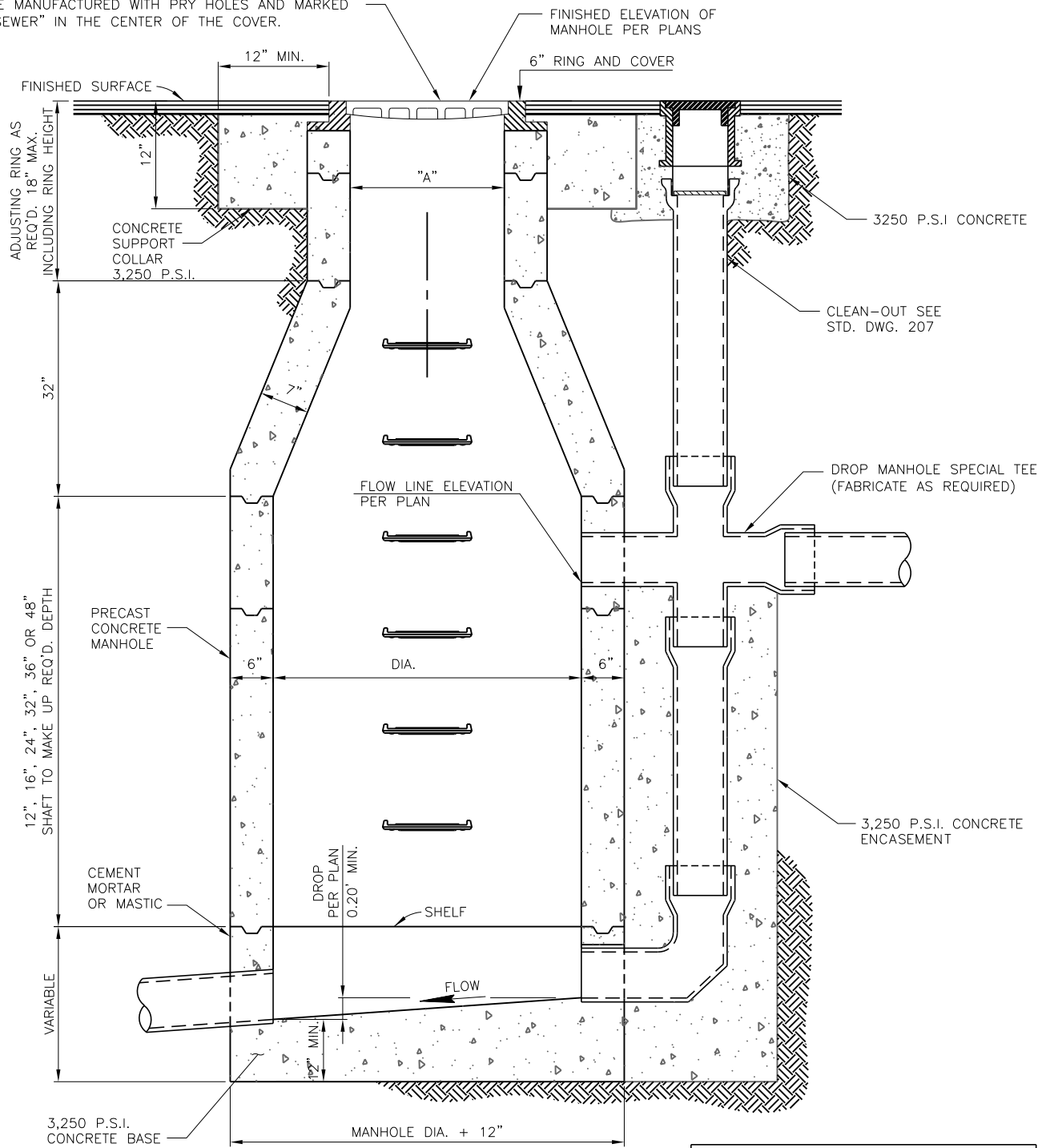
4-17-25  
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STD. DWG.

**204-B**

SHT. 2 OF 2

SOUTHBAY FOUNDRY MANHOLE FRAME AND COVER PER MANHOLE COVER TABLE. MANHOLE COVER SHALL BE MANUFACTURED WITH PLY HOLES AND MARKED "SEWER" IN THE CENTER OF THE COVER.



SECTION VIEW

| MANHOLE COVER TABLE |     |      |
|---------------------|-----|------|
| FRAME AND COVER     | "A" | DIA. |
| SBF 1254            | 24" | 48"  |
| SBF 1252            | 30" | 60"  |
| SBF 1251            | 36" | 72"  |

SEE STD. DWG. 205-B FOR PLAN VIEW OF BASE, MANHOLE COVER TABLE AND NOTES.

# Cucamonga Valley Water District

## DROP MANHOLE



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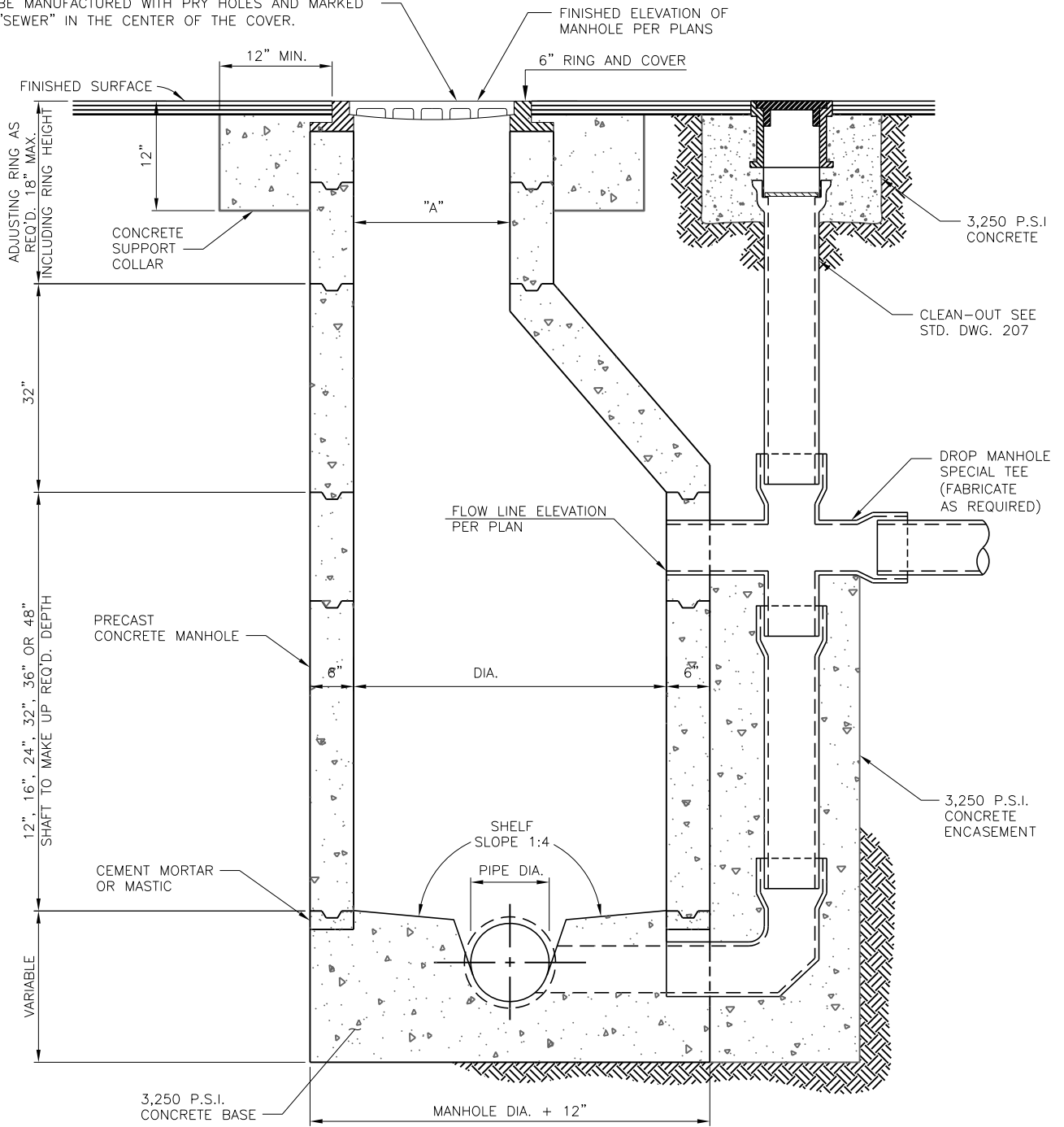
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SOUTHBAY FOUNDRY MANHOLE FRAME AND COVER PER MANHOLE COVER TABLE. MANHOLE COVER SHALL BE MANUFACTURED WITH PRY HOLES AND MARKED "SEWER" IN THE CENTER OF THE COVER.



SECTION VIEW

| MANHOLE COVER TABLE |     |      |
|---------------------|-----|------|
| FRAME AND COVER     | "A" | DIA. |
| SBF 1254            | 24" | 48"  |
| SBF 1252            | 30" | 60"  |
| SBF 1251            | 36" | 72"  |

SEE STD. DWG. 206-B FOR PLAN VIEW OF BASE, MANHOLE COVER TABLE AND NOTES.

# Cucamonga Valley Water District

## SIDE ENTRY DROP MANHOLE



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Water District**

ENGINEERING DEPARTMENT  
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APPROVED BY:

*Juan*

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ENGINEERING MANAGER

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DATE

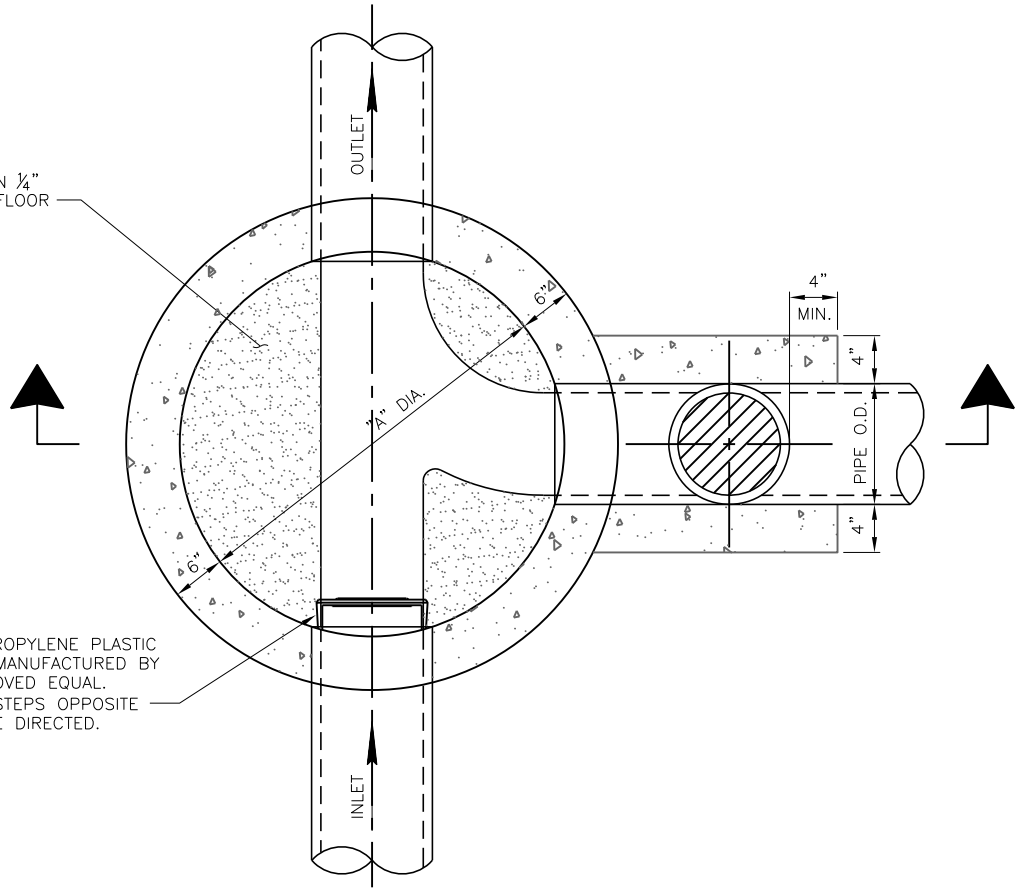
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**206-A**

SHT. 1 OF 2

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SLOPE SHELVES DOWN 1/4" PER FOOT TOWARDS FLOOR



STEEL REINFORCED POLYPROPYLENE PLASTIC STEPS TYPE PS2-PF, AS MANUFACTURED BY M.A. INDUSTRIES OR APPROVED EQUAL. SPACING 15" AND PLACE STEPS OPPOSITE OUTLET UNLESS OTHERWISE DIRECTED.

PLAN VIEW

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| FRAME AND COVER | "A" | DIA. |
|-----------------|-----|------|
| SBF 1254        | 24" | 48"  |
| SBF 1252        | 30" | 60"  |
| SBF 1251        | 36" | 72"  |

# Cucamonga Valley Water District

## SIDE ENTRY DROP MANHOLE



**Cucamonga Valley Water District**

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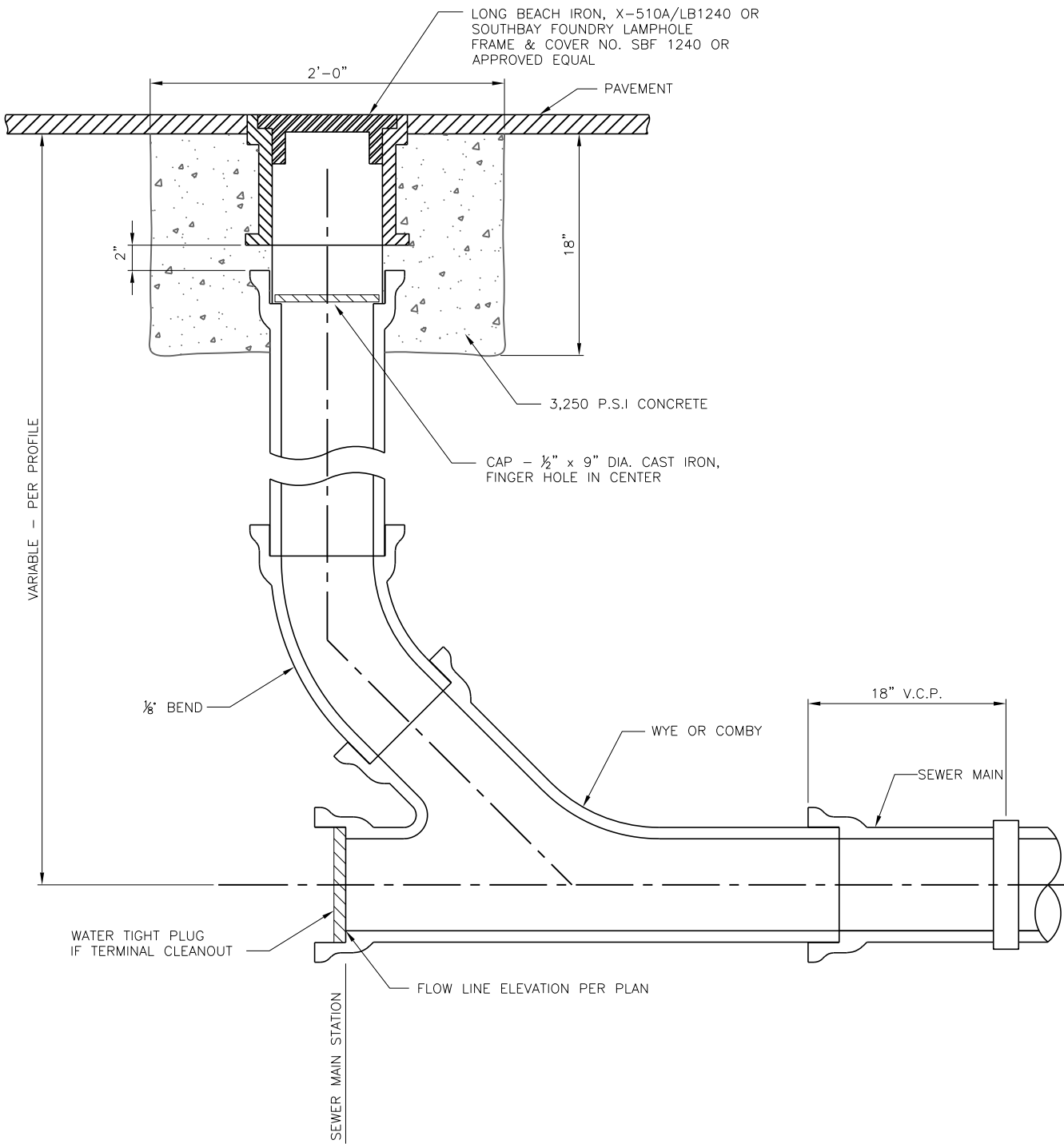
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ENGINEERING MANAGER

4-17-25  
DATE

STD. DWG.

**206-B**

SHT. 2 OF 2




**NOTE:**

1. SEE PLAN FOR STATION AND INVERT ELEVATION. PIPE AND FITTINGS SHALL BE OF THE SAME MATERIAL AS THE MAIN LINE SEWER.

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# Cucamonga Valley Water District

## SEWER CLEAN OUT



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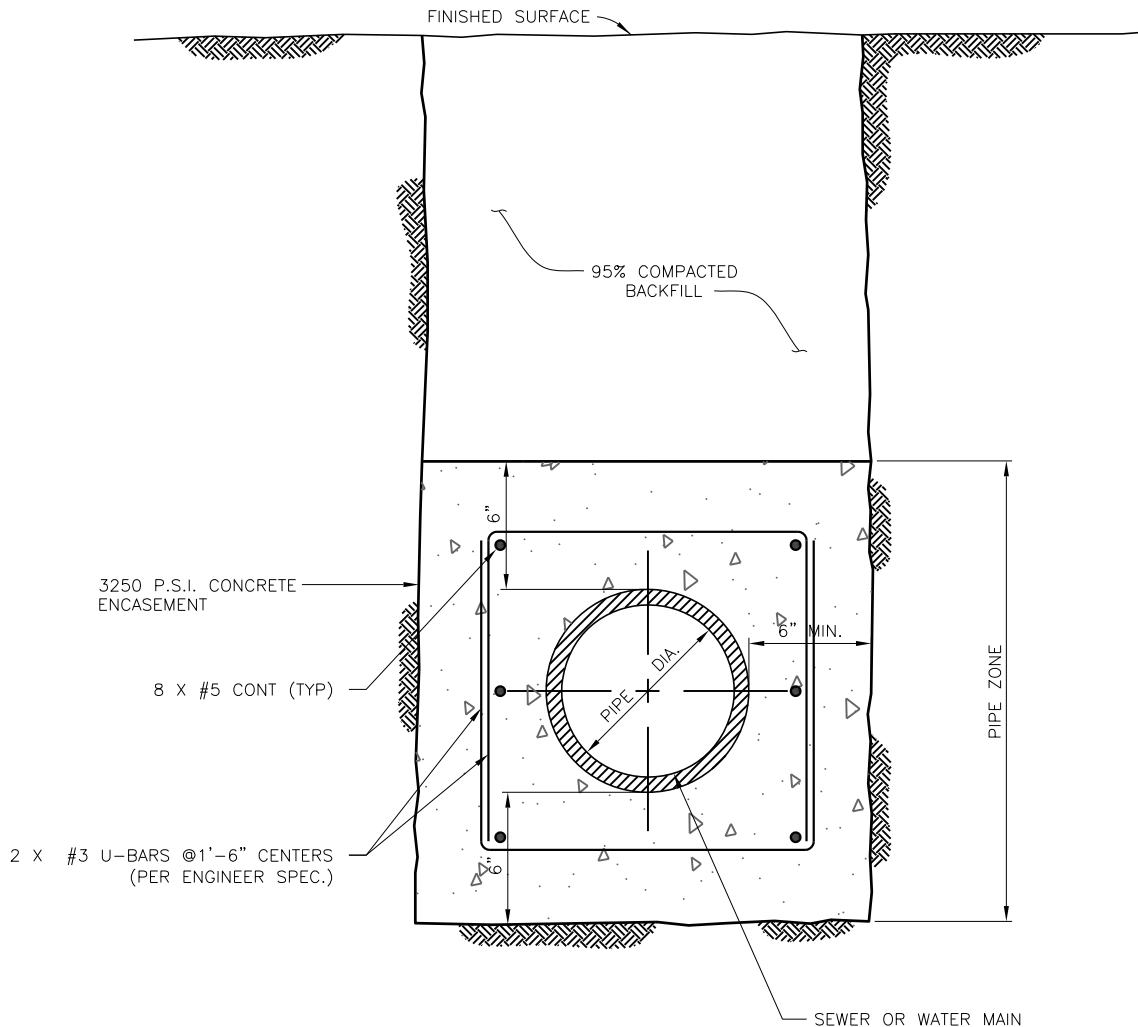
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4-17-25  
 DATE

STD. DWG.

# 207

SHT. 1 OF 1



3250 P.S.I. CONCRETE  
ENCASEMENT

8 X #5 CONT (TYP)

2 X #3 U-BARS @1'-6" CENTERS  
(PER ENGINEER SPEC.)

**NOTES:**

1. GRANULAR BEDDING FROM SELECTED TRENCH SIDE MATERIAL TO BE USED FOR BACKFILL AND COMPACTED 95%.
2. CONCRETE ENCASEMENT SHALL BE 3000 P.S.I. CONCRETE POURED AGAINST UNDISTURBED EARTH.
3. LENGTH OF CONCRETE ENCASEMENT PER PLAN.
4. WHEN THE PIPELINE IS PROTECTED WITH POLYETHYLENE TUBE ENCASEMENT, THE CONCRETE ENCASEMENT IS TO COVER THE POLYETHYLENE ENCASEMENT.

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## Cucamonga Valley Water District

### CONCRETE ENCASEMENT DETAIL



**Cucamonga Valley  
Water District**

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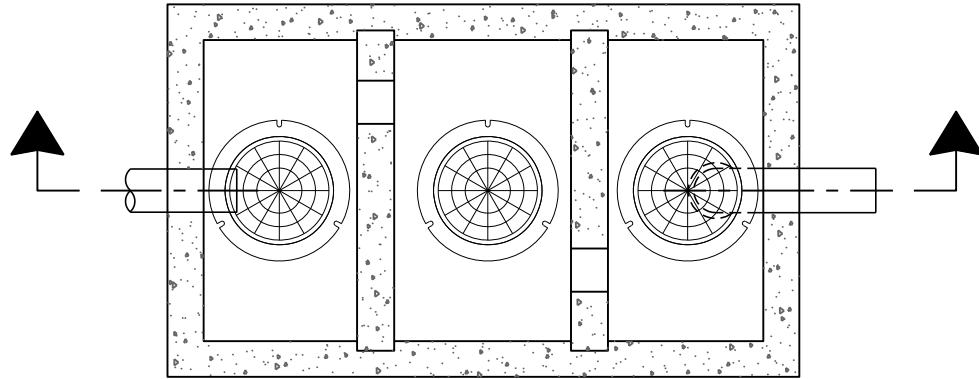
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4-17-25  
DATE

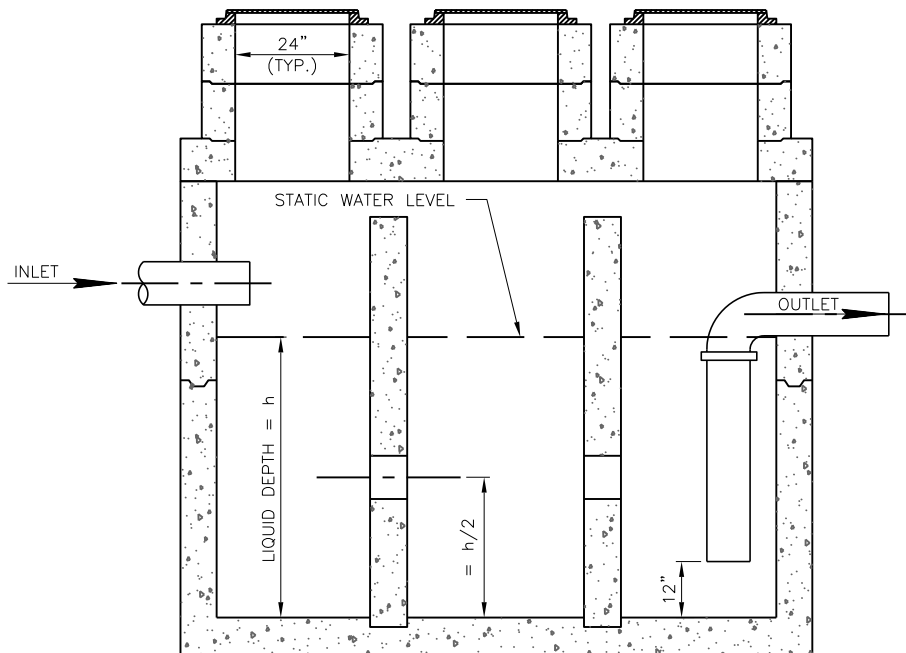
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**208**

SHT. 1 OF 1



PLAN VIEW



SECTION VIEW

NOTES:

1. SIZE AND TYPE OF INTERCEPTOR SHALL BE APPROVED BY THE CUCAMONGA VALLEY WATER DISTRICT ENGINEERING DEPARTMENT PRIOR TO INSTALLATION.
2. ALL SURFACE WATER MUST DRAIN AWAY FROM THE INTERCEPTOR.
3. THE INTERCEPTOR SHALL BE ACCESSIBLE TO DISTRICT INSPECTORS AT ALL TIMES.
4. CONTRACTOR/INSTALLER MUST CALL THE DISTRICT ENGINEERING DEPARTMENT AND SCHEDULE AN INSPECTION AT LEAST 24 HOURS IN ADVANCE OF INTERCEPTOR INSTALLATION.
5. NO ELECTRICAL MECH GREASE INTERCEPTOR
6. NO LIFT STATION PUMPING EQUIPMENT MAY BE ATTACHED TO THE INFLUENT DOWN STREAM

| REV. | DESCRIPTION | DATE | APP'D |
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## Cucamonga Valley Water District

### SAND AND OIL INTERCEPTOR



APPROVED BY:

TUAN TRUONG, P.E.,  
ENGINEERING MANAGER

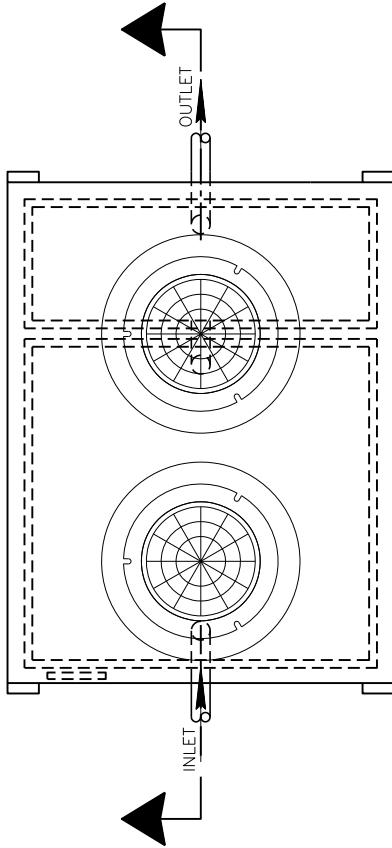
4-17-25  
DATE

STD. DWG.

209

SHT. 1 OF 1

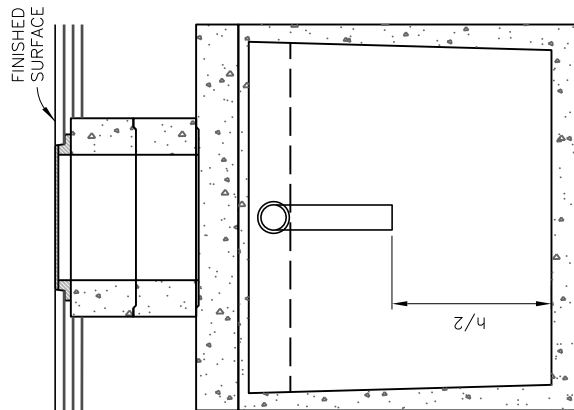
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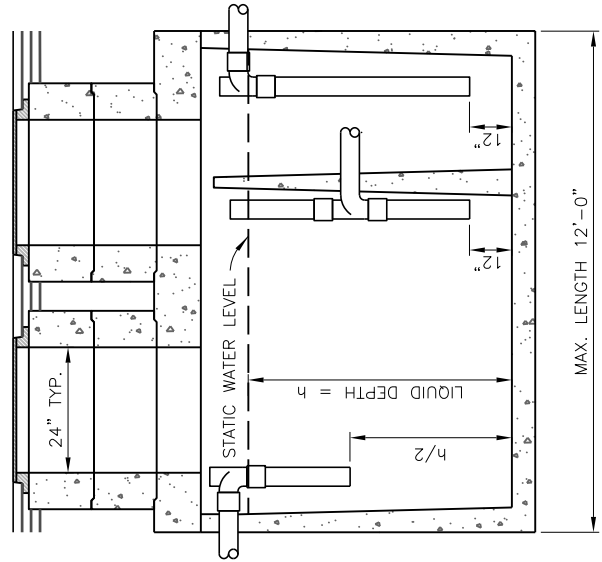
PLAN VIEW

NOTES:

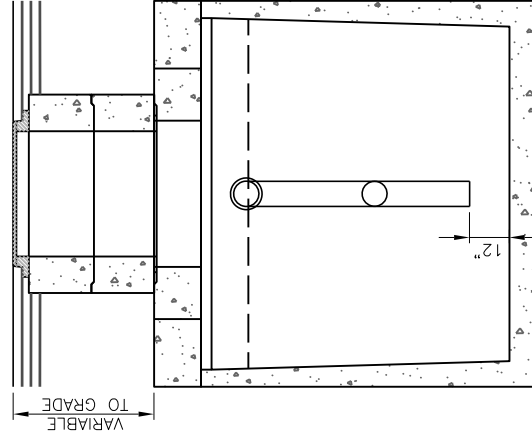
1. SIZE AND TYPE OF INTERCEPTOR SHALL BE APPROVED BY THE CUCAMONGA VALLEY WATER DISTRICT ENGINEERING DEPARTMENT PRIOR TO INSTALLATION.
2. ALL SURFACE WATER MUST DRAIN AWAY FROM THE INTERCEPTOR.
3. THE INTERCEPTOR SHALL BE ACCESSIBLE TO DISTRICT INSPECTORS AT ALL TIMES.
4. CONTRACTOR/INSTALLER MUST CALL THE DISTRICT ENGINEERING DEPARTMENT AND SCHEDULE AN INSPECTION AT LEAST 24 HOURS IN ADVANCE OF INTERCEPTOR INSTALLATION.



INLET  
END VIEW



SECTION VIEW



OUTLET  
END VIEW

# Cucamonga Valley Water District

## GREASE INTERCEPTOR W/2 MANHOLES EXTENDED TO GRADE



**Cucamonga Valley  
Water District**

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

APPROVED BY:

TUAN TRUONG, P.E.,  
ENGINEERING MANAGER

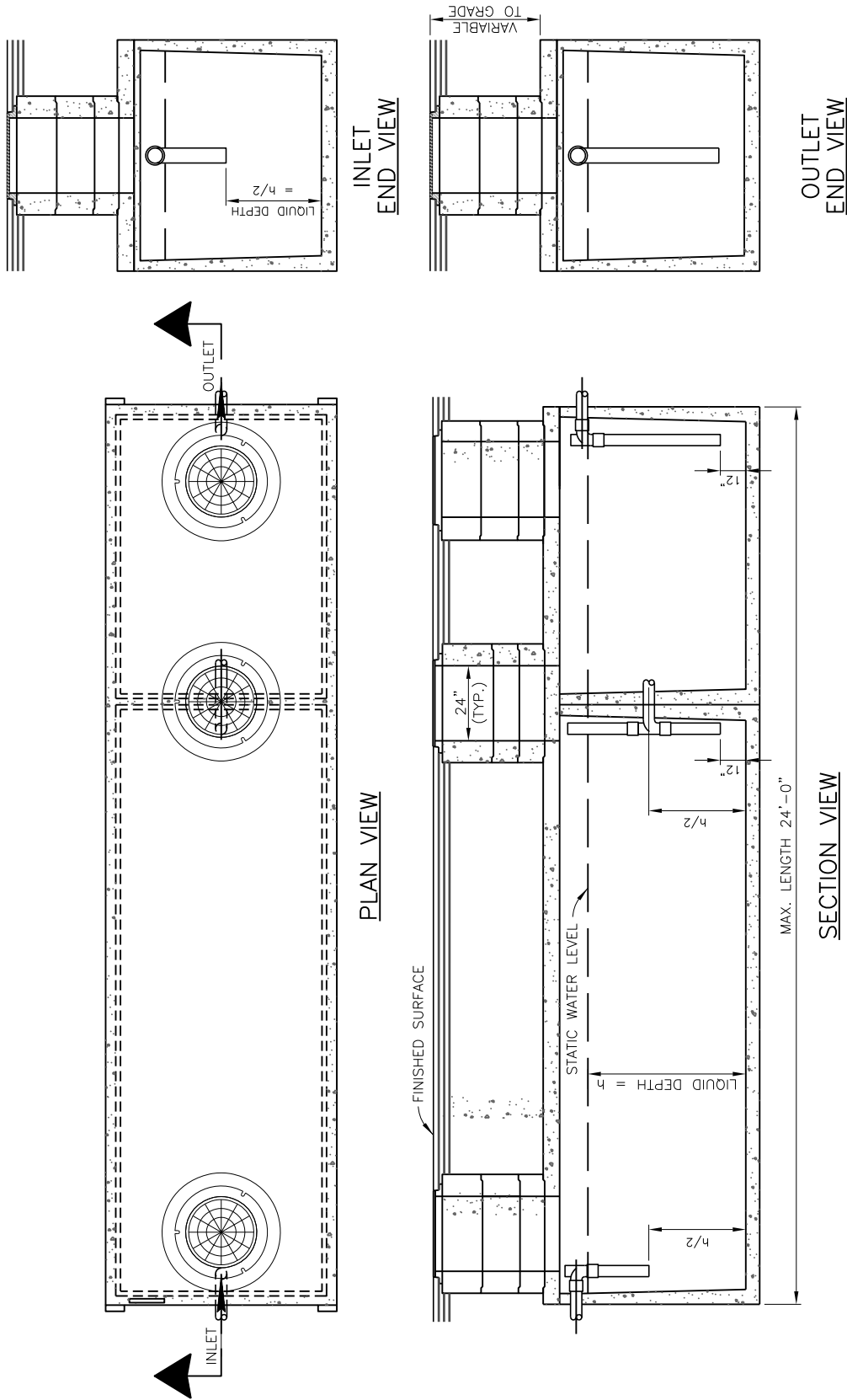
4-17-25  
DATE

STD. DWG.

**210**

SHT. 1 OF 1

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**NOTES:**

1. SIZE AND TYPE OF INTERCEPTOR SHALL BE APPROVED BY THE CUCAMONGA VALLEY WATER DISTRICT ENGINEERING DEPARTMENT PRIOR TO INSTALLATION.
2. ALL SURFACE WATER MUST DRAIN AWAY FROM THE INTERCEPTOR.
3. THE INTERCEPTOR SHALL BE ACCESSIBLE TO DISTRICT INSPECTORS AT ALL TIMES.
4. CONTRACTOR/INSTALLER MUST CALL THE DISTRICT ENGINEERING DEPARTMENT AND SCHEDULE AN INSPECTION AT LEAST 24 HOURS IN ADVANCE OF INTERCEPTOR INSTALLATION.

## Cucamonga Valley Water District

### GREASE INTERCEPTOR W/3 MANHOLES EXTENDED TO GRADE



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

APPROVED BY: 

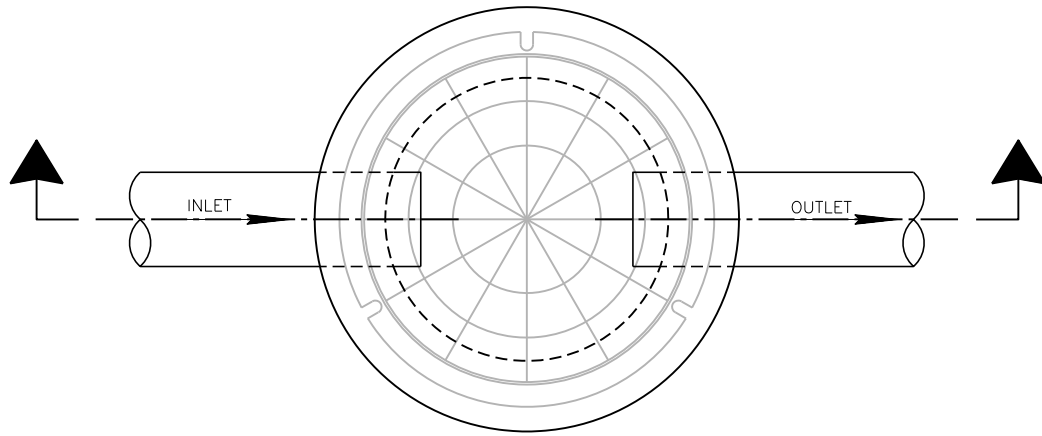
TUAN TRUONG, P.E.,  
ENGINEERING MANAGER

4-17-25  
DATE

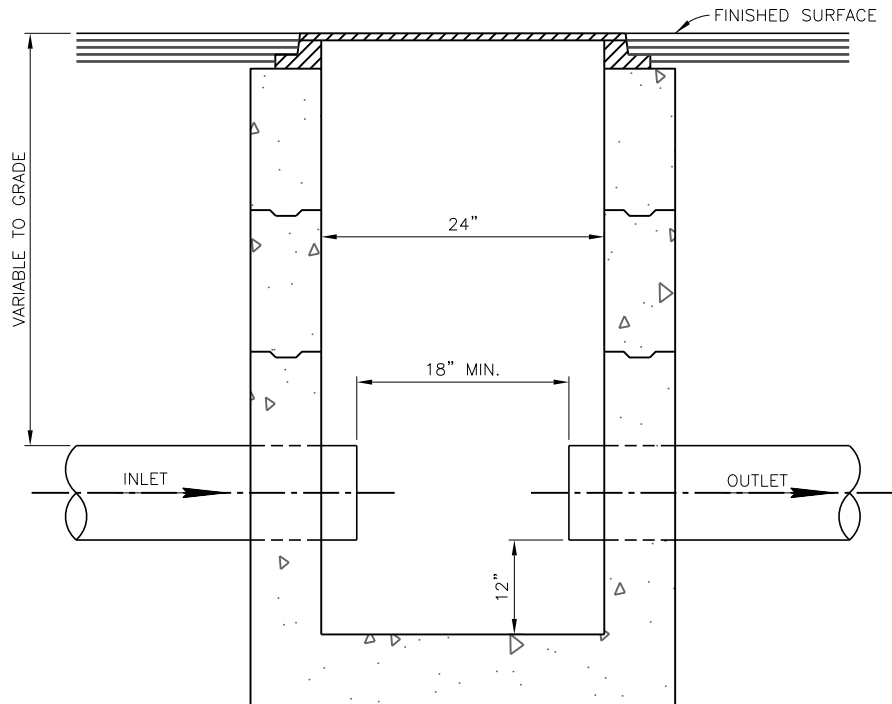
STD. DWG.

# 211

SHT. 1 OF 1



PLAN VIEW



SECTION VIEW

**NOTES:**

1. SIZE AND TYPE OF SAMPLE BOX SHALL BE APPROVED BY THE CUCAMONGA VALLEY WATER DISTRICT ENGINEERING DEPARTMENT PRIOR TO INSTALLATION.
2. ALL SURFACE WATER MUST DRAIN AWAY FROM THE SAMPLE BOX.
3. THE SAMPLE BOX SHALL BE ACCESSIBLE TO DISTRICT INSPECTORS AT ALL TIMES.
4. CONTRACTOR/INSTALLER MUST CALL THE DISTRICT ENGINEERING DEPARTMENT AND SCHEDULE AN INSPECTION AT LEAST 24 HOURS IN ADVANCE OF SAMPLE BOX INSTALLATION.

| REV. | DESCRIPTION | DATE | APP'D |
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# Cucamonga Valley Water District

## SAMPLE BOX



**Cucamonga Valley  
Water District**

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

APPROVED BY:

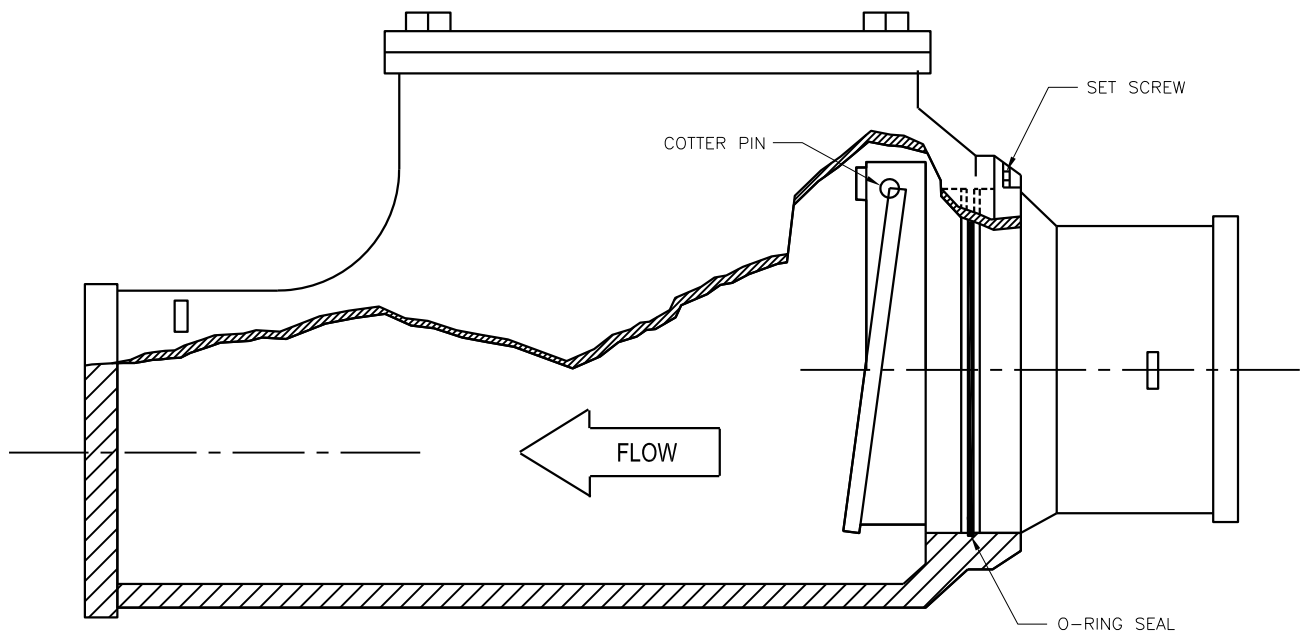
TUAN TRUONG, P.E.,  
ENGINEERING MANAGER

4-17-25  
DATE

STD. DWG.

212

SHT. 1 OF 1



**NOTE:**

1. BACKWATER VALVES SHALL BE INSTALLED ON CUSTOMER'S SERVICE LATERAL. TYPE OF ACCESS WAY SHALL BE PER THE LOCAL BUILDING INSPECTOR. LOCATION SHALL BE ACCESSIBLE FOR INSPECTION AT ALL TIMES.
2. MUST HAVE MAINTENANCE ACCESS AVAILABLE AT GRADE.

**APPROVED BACKWATER VALVES:**

1. SMITH NO. 7012 OR 7022
2. NDS. NO. 475 OR 675
3. WATTS PBF-382 OR PBF-386
4. ZERN NO. Z-1095

| REV. | DESCRIPTION | DATE | APP'D |
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# Cucamonga Valley Water District

## SEWER BACKWATER 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

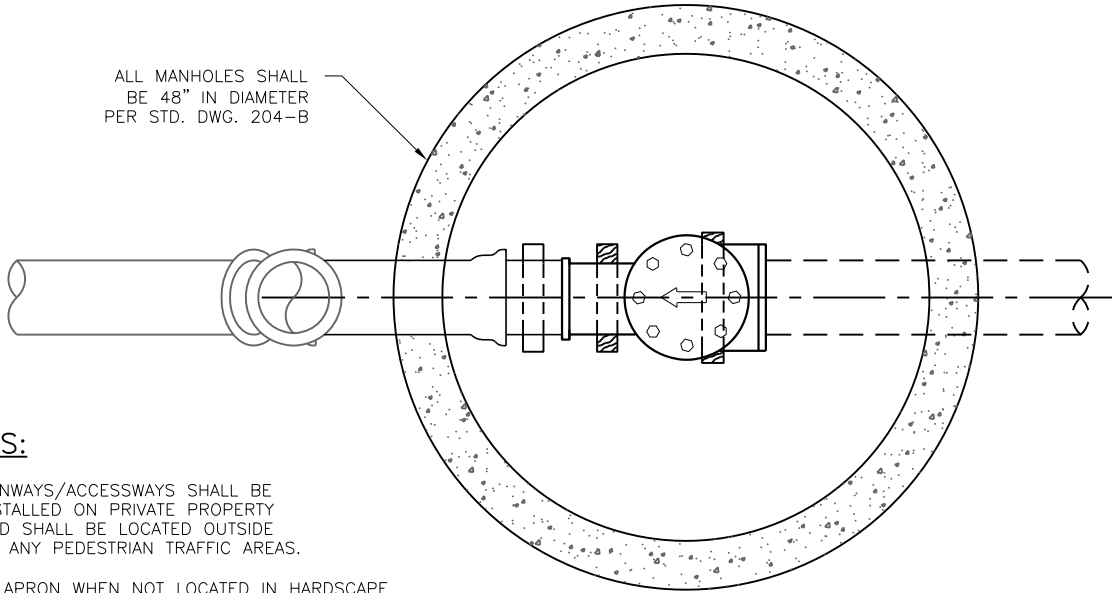
4-17-25  
DATE

STD. DWG.

**213**

SHT. 1 OF 1

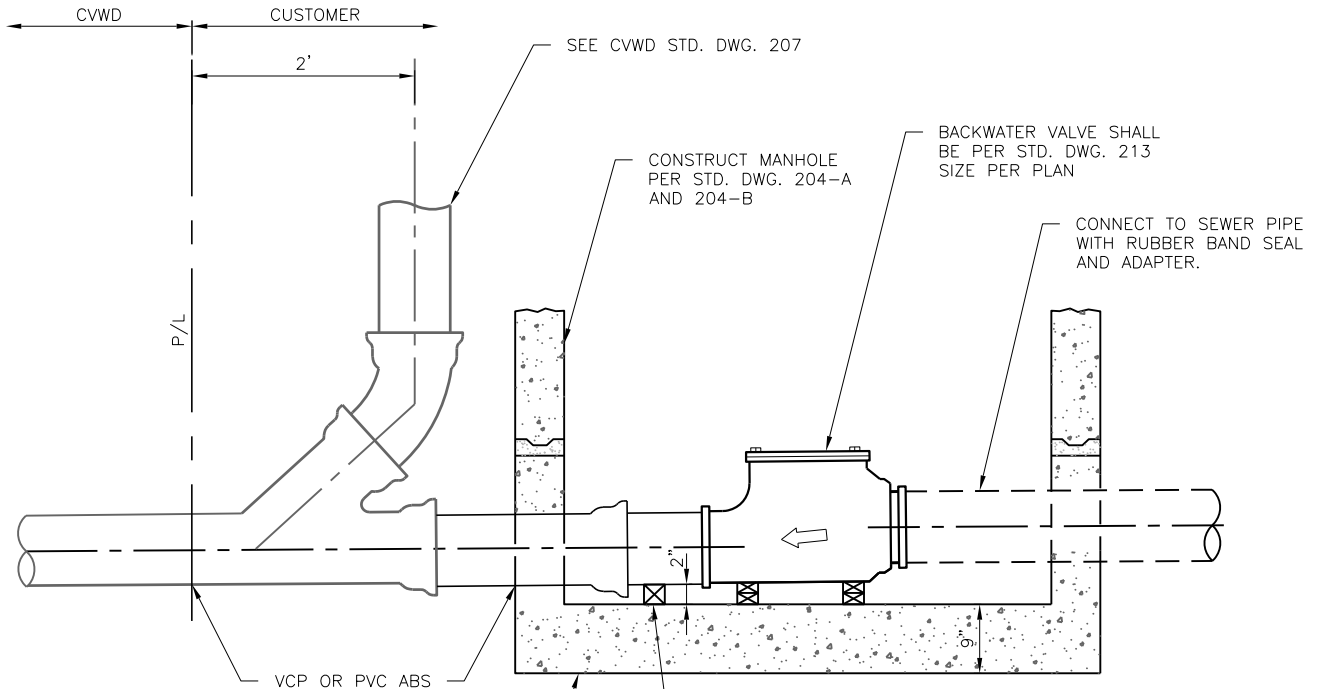
ALL MANHOLES SHALL BE 48" IN DIAMETER PER STD. DWG. 204-B



**NOTES:**

1. MANWAYS/ACCESSWAYS SHALL BE INSTALLED ON PRIVATE PROPERTY AND SHALL BE LOCATED OUTSIDE OF ANY PEDESTRIAN TRAFFIC AREAS.
2. 2' APRON WHEN NOT LOCATED IN HARDSCAPE

**PLAN**




**SECTION**

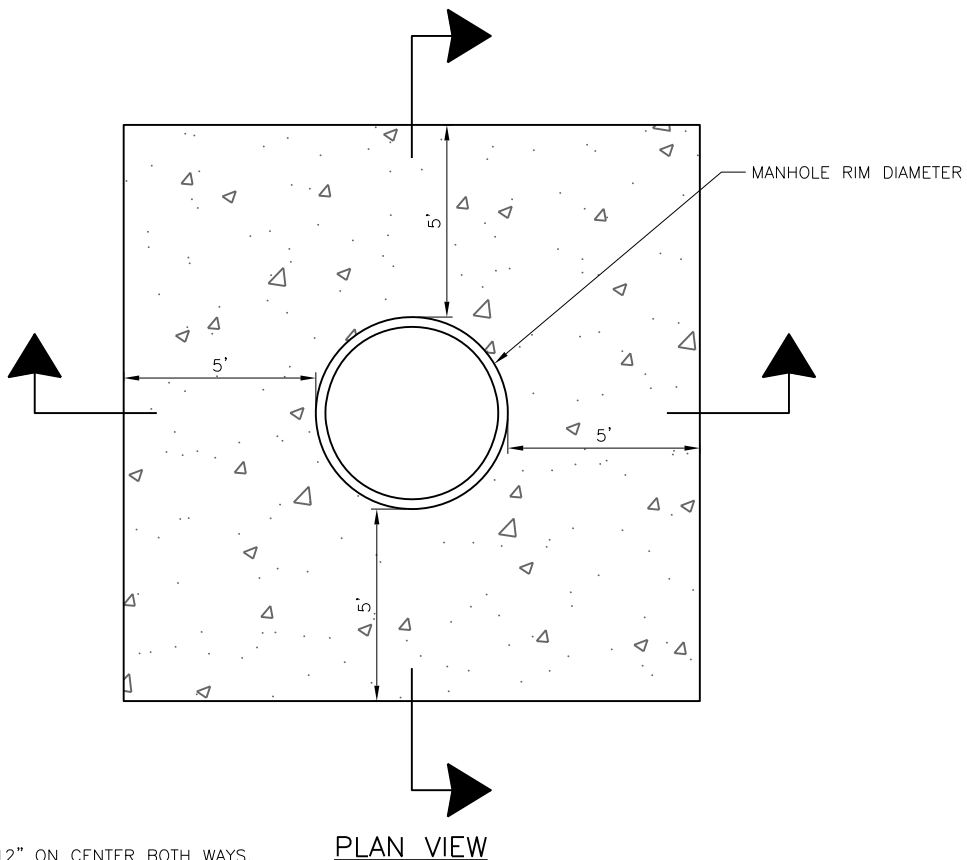
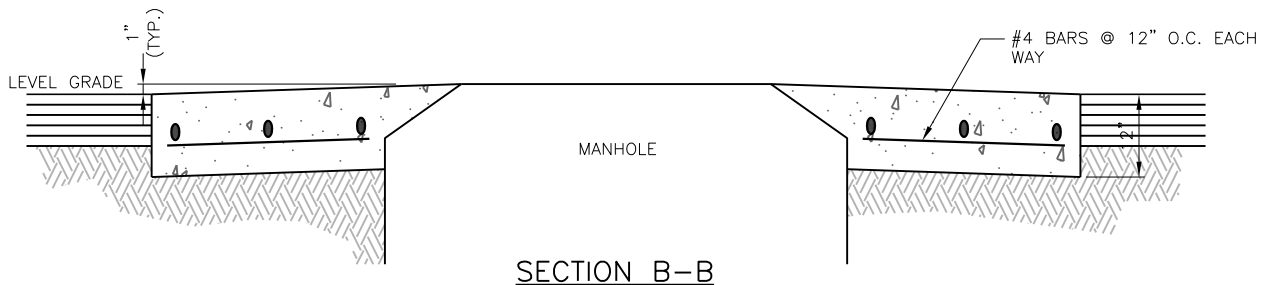
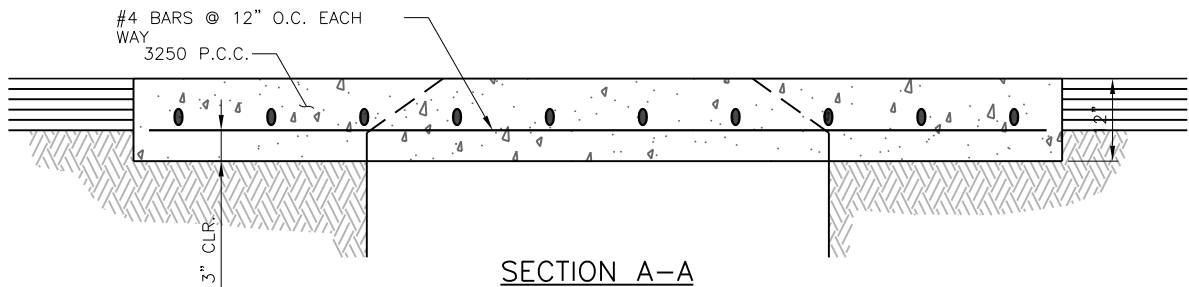
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**Cucamonga Valley Water District**  
**BACKWATER VALVE - MANHOLE INSTALLATION**

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

APPROVED BY:  
  
 TUAN TRUONG, P.E.,  
 ENGINEERING MANAGER

STD. DWG.  
**214**  
 4-17-25  
 DATE  
 SHT. 1 OF 1



**NOTES:**

1. PLACE #4 REBAR 12" ON CENTER BOTH WAYS.
2. REBAR SHALL BE GRADE 60.
3. CONCRETE SHALL BE 3,250 P.S.I. CLASS A.

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# Cucamonga Valley Water District

## MANHOLE APRON



**Cucamonga Valley Water District**

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

APPROVED BY:

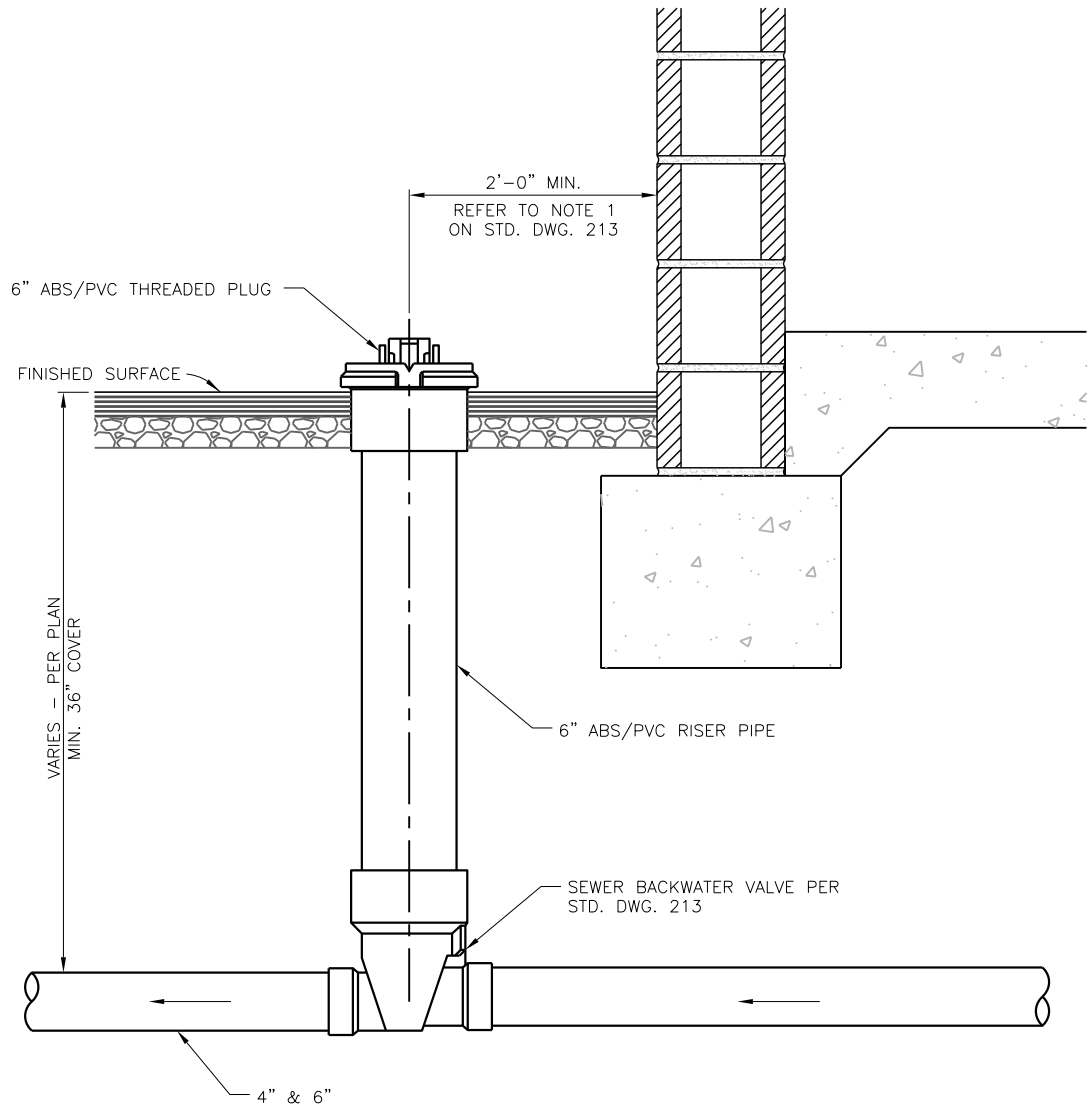
TUAN TRUONG, P.E.,  
ENGINEERING MANAGER

4-17-25  
DATE

STD. DWG.

**215**

SHT. 1 OF 1



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**Cucamonga Valley Water District**  
**EXTENDABLE BACKWATER 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

4-17-25  
DATE

STD. DWG.

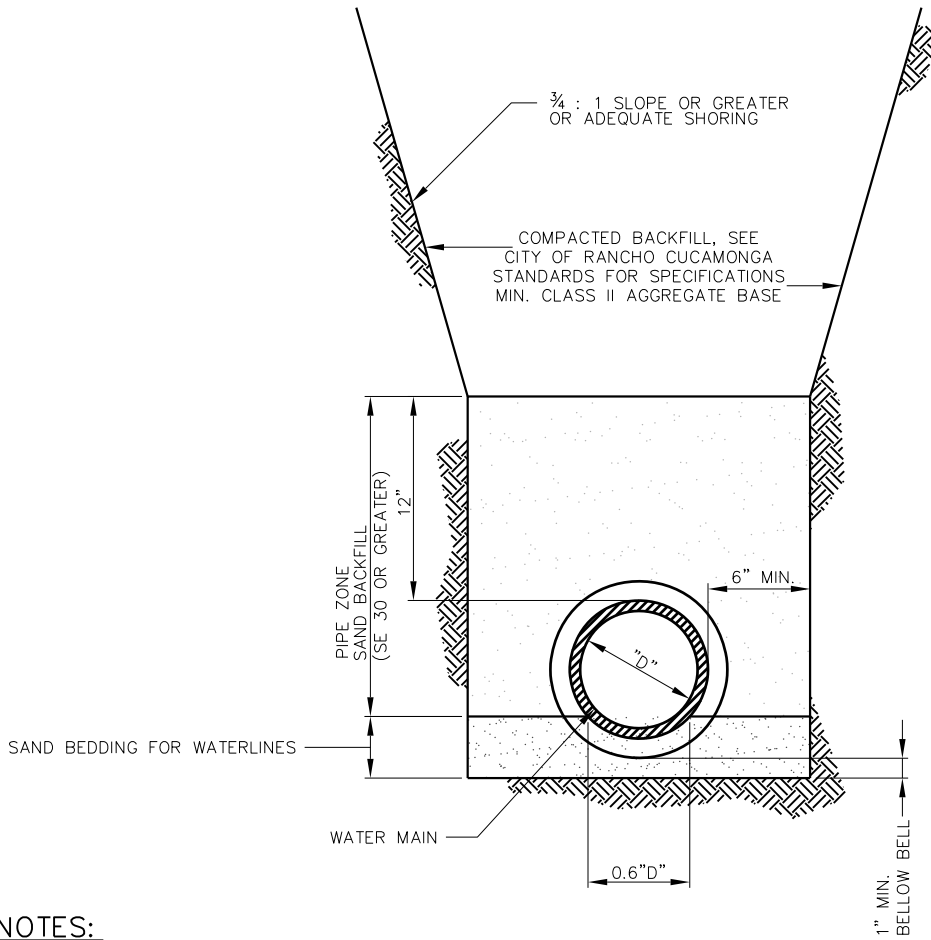
**216**

SHT. 1 OF 1



Cucamonga Valley  
Water District

**300 - MISC. DRAWINGS**  
FOR THE CONSTRUCTION  
OF SYSTEM FACILITIES



**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.

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**Cucamonga Valley Water District**  
**WATER TYPICAL TRENCH SECTION**

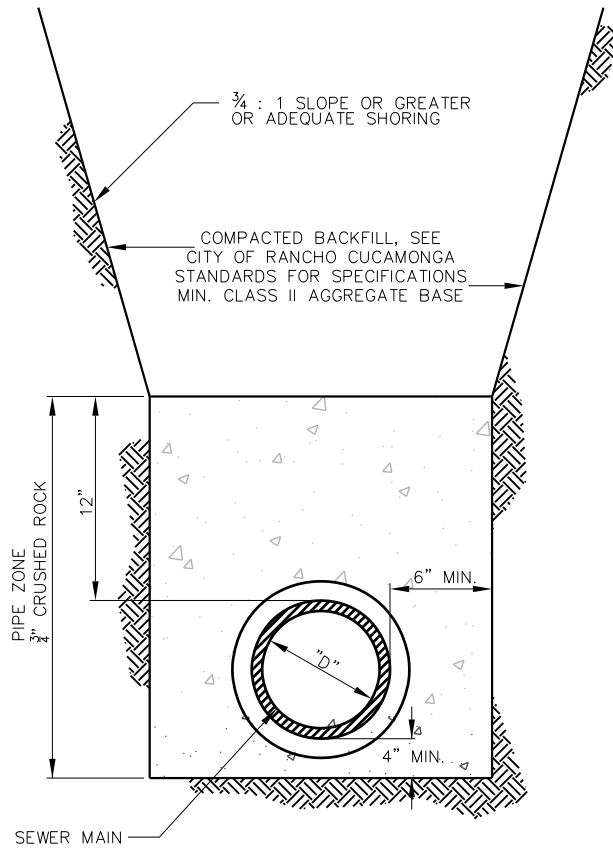
**Cucamonga Valley Water District**  
 ENGINEERING DEPARTMENT  
 10440 ASHFORD STREET, RANCHO CUCAMONGA, CA 91729  
 (909) 987-2591

APPROVED BY:

\_\_\_\_\_  
 TUAN TRUONG, P.E.,  
 ENGINEERING MANAGER

4-17-25  
 DATE

STD. DWG.  
**301-A**  
 SHT. 1 OF 2



**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 90% IN ALL ZONES UNLESS OTHERWISE SPECIFIED.
4. TRENCH STABILITY TO CONFORM TO CAL-OSHA REQUIREMENTS.

| REV. | DESCRIPTION | DATE | APP'D |
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**Cucamonga Valley Water District**  
SEWER TYPICAL TRENCH SECTION



**Cucamonga Valley Water District**

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

APPROVED BY:

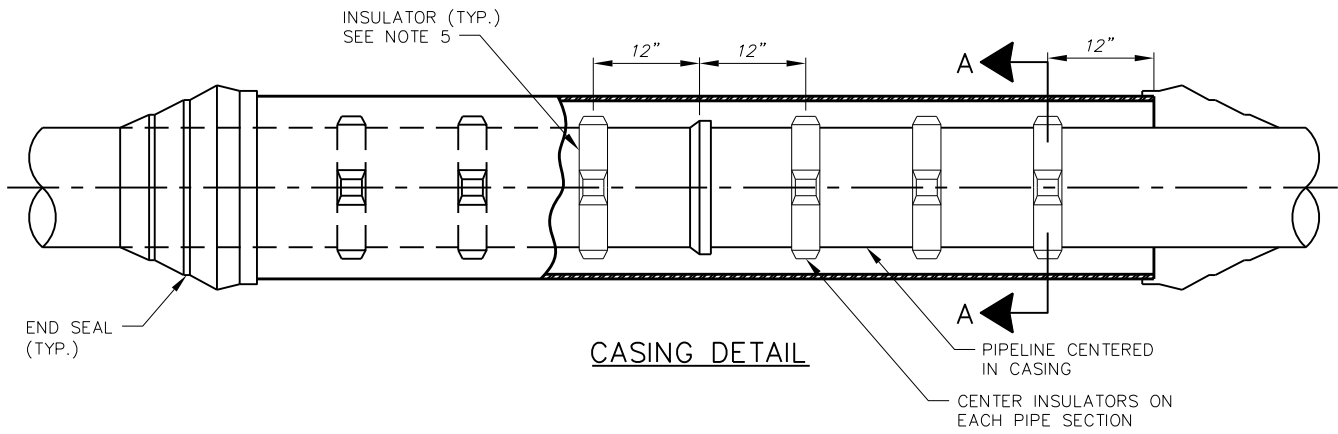
TUAN TRUONG, P.E.,  
ENGINEERING MANAGER

4-17-25  
DATE

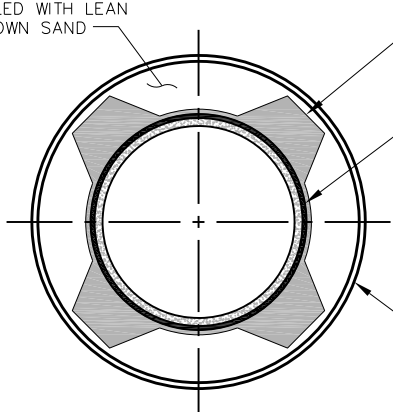
STD. DWG.

**301-B**

SHT. 2 OF 2



PLANS WILL DESIGNATE WHETHER CASING TO BE FILLED WITH LEAN GROUT OR AIR BLOWN SAND



USE POLYETHYLENE CASING INSULATORS WITH POLYETHYLENE SKIDS. ALL BOLTS AND BANDS SHALL BE TYPE 304 STAINLESS STEEL

PIPE CENTERED IN CASING.

STEEL CASING PIPE WITH MIN. PLATE THICKNESS AND MINIMUM OUTSIDE DIAMETER PER SCHEDULE HEREON

SECTION A-A

| CASING TABLE  |             |                |
|---------------|-------------|----------------|
| PIPE DIAMETER | CASING SIZE |                |
|               | DIAMETER    | MIN. WALL THK. |
| 6"            | 12 3/4"     | 3/8"           |
| 8"            | 20"         | 3/8"           |
| 10"           | 20"         | 3/8"           |
| 12"           | 24"         | 3/8"           |
| 16"           | 30"         | 3/8"           |
| 18"           | 30"         | *              |
| 24"           | 42"         | *              |
| 30"           | 48"         | *              |
| 36"           | 60"         | *              |
| 42"           | 60"         | *              |

\* CASING WALL THICKNESSES FOR PIPE DIAMETERS 18" AND ABOVE SHALL BE APPROVED BY CVWD.

**NOTES:**

1. ALL STEEL CASING PIPE JOINTS SHALL BE WELDED FULL CIRCUMFERENCE.
2. PERIPHERY OF CASING TO BE PRESSURE GROUTED.
3. CARRIER PIPE SHALL BE AIR TESTED PRIOR TO FILLING CASING WITH GROUT OR BLOWN SAND.
4. UPSTREAM AND DOWNSTREAM ELEVATIONS TO BE VERIFIED PRIOR TO FILLING CASING.
5. SPACING BETWEEN THE CASING INSULATORS SHALL BE PER THE MANUFACTURES RECOMMENDATIONS EXCEPT THAT THERE SHALL BE AT LEAST 3 CASING INSULATORS PER PIPE SECTION, ONE 12" FROM EACH JOINT AND ONE CENTERED. ADDITIONALLY, ONE INSULATOR SHALL BE INSTALLED 12" FROM EACH END OF THE CASING.
6. BOTH ENDS OF THE CASING BETWEEN THE CASING AND CARRIER PIPE SHALL BE SEALED WATERTIGHT USING AN END SEAL. BANDS SHALL BE TYPE 304 STAINLESS STEEL.

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# Cucamonga Valley Water District

## WATER AND SEWER CASING DETAIL

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

APPROVED BY:

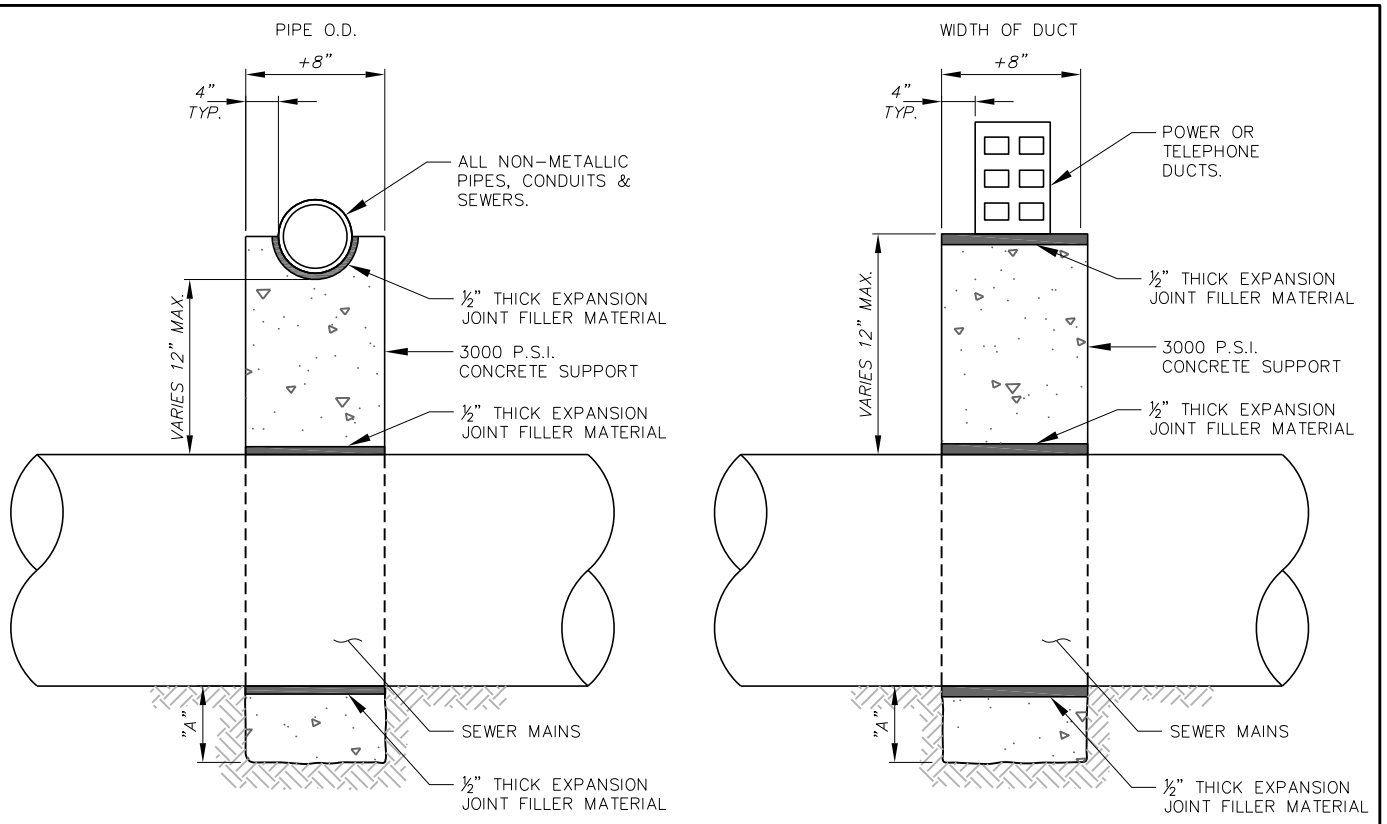
TUAN TRUONG, P.E.,  
 ENGINEERING MANAGER

STD. DWG.

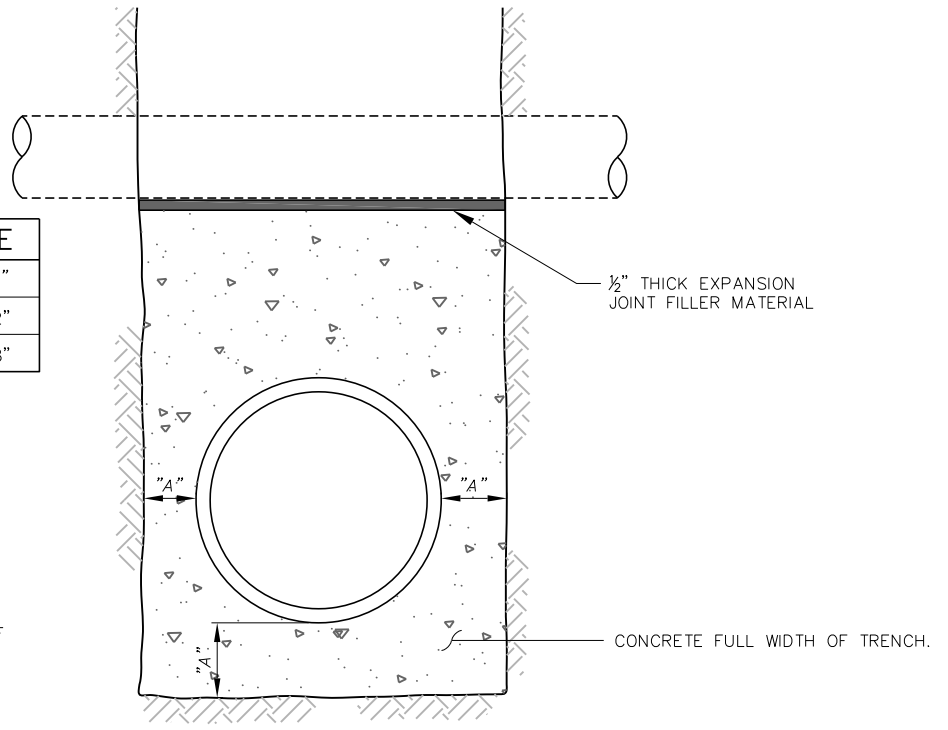
**302**

4-17-25  
 DATE

SHT. 1 OF 1



PROFILE VIEWS



SECTION VIEW

| ENCASEMENT TABLE   |     |
|--------------------|-----|
| PIPE DIA.          | "A" |
| LESS THAN 30-INCH  | 12" |
| 30-INCH OR GREATER | 18" |

**NOTE:**  
REFER TO STD DWG 306A & 306B

- NOTES:**
- BACKFILL TO BE BROUGHT UP UNIFORMLY ON BOTH SIDES OF CONCRETE SUPPORT.

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## Cucamonga Valley Water District

### UNDERGROUND UTILITY SUPPORT

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

APPROVED BY:

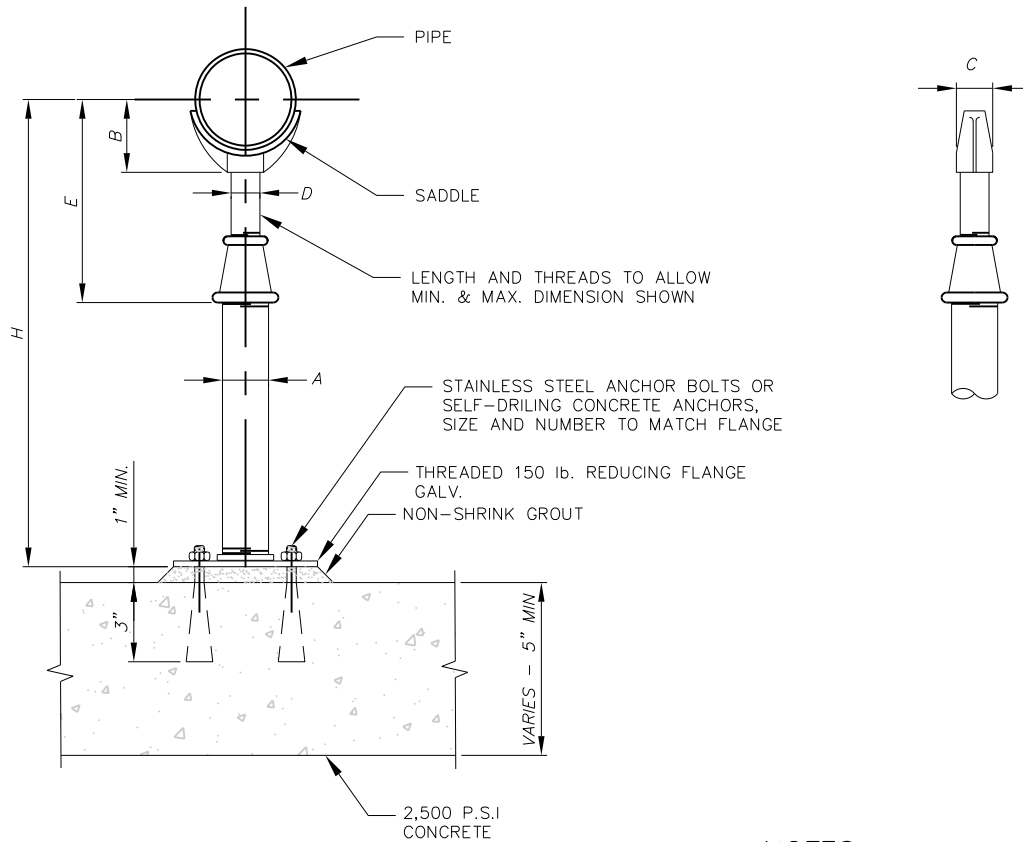
TUAN TRUONG, P.E.,  
ENGINEERING MANAGER

4-17-25  
DATE

STD. DWG.  
**303**  
SHT. 1 OF 1



| ADJUSTABLE PIPE SADDLE<br>SUPPORT SCHEDULE<br>DIMENSIONS IN INCHES |          |             |       |          |         |          |          |         |          |
|--|----------|-------------|-------|----------|---------|----------|----------|---------|----------|
| PIPE SIZE  | WEIGHT   |             | A     | B        | D       | E        |          | WIDTH C | MAX LOAD |
|  | COMPLETE | SADDLE ONLY |       |          |         | MINIMUM  | MAXIMUM  |         |          |
| 2 1/2  | 9.0      | 4.8         | 2 1/2 | 3 1/2    | 1 1/2   | 8        | 13       | 3       | 1,800    |
| 3  | 9.2      | 5.0         |       | 3 3/4    |         | 8 1/4    | 13 1/4   |         |          |
| 3 1/2  | 9.4      | 5.2         |       | 4        |         | 8 1/2    | 13 1/2   |         |          |
| 4  | 15.0     | 7.6         | 3     | 4 1/4    | 2 1/2   | 9 1/4    | 14       | 3 5/8   | 3,800    |
| 5  | 16.7     | 8.3         |       | 4 7/8    |         | 10       | 14 3/4   |         |          |
| 6  | 17.7     | 10.3        |       | 5 1/2    |         | 10 1/2   | 15 1/4   |         |          |
| 8  | 20.2     | 12.8        |       | 6 7/8    |         | 11 3/4   | 16 1/2   |         |          |
| 10   | 25.2     | 17.8        |       | 8 1/2    |         | 13 1/2   | 18 1/4   |         |          |
| 12   | 29.0     | 21.6        |       | 9 15/16  |         | 15       | 19 3/4   |         |          |
| 14   | 40.2     | 38.0        | 4     | 10 15/16 | 3       | 16 1/4   | 20 3/4   | 4 5/8   | 5,300    |
| 16   | 53.2     | 42.0        |       | 12 3/8   |         | 17 3/4   | 22 1/4   |         |          |
| 18   | 70.8     | 51.0        | 6     | 13 7/8   | 3 1/2   | 19 1/2   | 24       | 6 3/4   | 6,700    |
| 20   | 104.8    | 85.0        |       | 15 3/8   |         | 21       | 25 1/2   |         |          |
| 22   | 121.0    | 98.0        |       | 15 1/2   |         | 21 5/16  | 25 13/16 |         |          |
| 24   | 137.0    | 110.0       |       | 17 15/16 | 23 3/4  | 28 1/4   |          |         |          |
| 26   | 154.0    | 130.0       |       | 18 1/2   | 24 5/16 | 28 13/16 |          |         |          |
| 30   | 170.0    | 150.0       |       | 21 5/16  | 27      | 31 1/2   |          |         |          |
| 32   | 181.0    | 161.1       | 4     | 22 1/2   | 8 3/4   | 28 1/4   | 32 3/4   | 8 3/4   | 7,300    |
| 36   | 249.0    | 229.0       |       | 24 1/2   |         | 30 1/4   | 34 3/4   |         |          |



**NOTES:**

1. PIPE SUPPORT SHALL BE ANVIL # 264, OR APPROVED EQUAL.

| REV. | DESCRIPTION | DATE | APP'D |
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# Cucamonga Valley Water District

## ADJUSTABLE PIPE SUPPORT



**Cucamonga Valley  
Water District**

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

APPROVED BY:

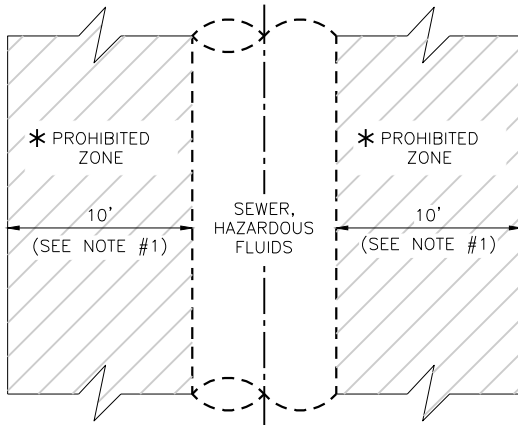
TUAN TRUONG, P.E.,  
ENGINEERING MANAGER

4-17-25  
DATE

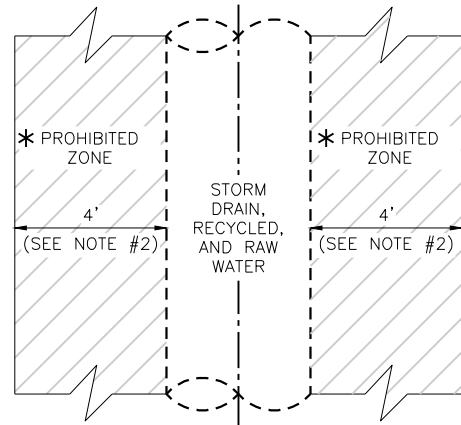
STD. DWG.

**305**

SHT. 1 OF 1

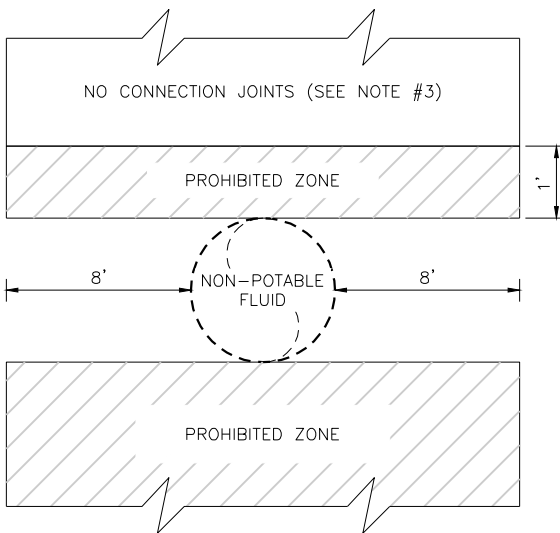


**NEW WATER  
PARALLEL CONSTRUCTION**



**NEW WATER  
PARALLEL CONSTRUCTION**

\* NEW WATER MAIN IN THIS ZONE REQUIRE STATE WATER RESOURCES CONTROL BOARD (SWRCB)/ DIVISION OF DRINKING WATER (DDW) APPROVAL.



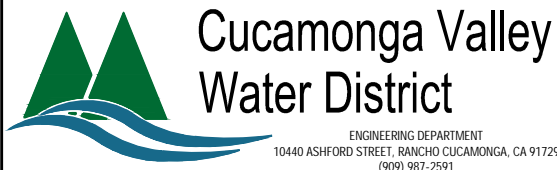
**NEW WATER  
PERPENDICULAR CROSSING**

**NOTES:**

- PARALLEL CONSTRUCTION:** NEW DOMESTIC WATER MAINS SHALL NOT BE INSTALLED IN THE SAME TRENCH AS, AND SHALL BE AT LEAST TEN (10) FEET HORIZONTALLY FROM AND ONE (1) FOOT VERTICALLY ABOVE, ANY PARALLEL SEWER OR HAZARDOUS FLUIDS PIPELINES.
- PARALLEL CONSTRUCTION:** NEW DOMESTIC WATER MAINS SHALL BE INSTALLED AT LEAST FOUR (4) FEET HORIZONTALLY FROM, AND ONE (1) FOOT VERTICALLY ABOVE, ANY PARALLEL STORM DRAIN, RECYCLED, OR RAW WATER PIPELINES.
- PERPENDICULAR CROSSING:** IF CROSSING A NON-POTABLE FLUID PIPELINE, WATER MAIN SHALL BE CONSTRUCTED AT AN ANGLE OF NO LESS THAN 45-DEGREES, AND AT LEAST ONE (1) FOOT VERTICALLY ABOVE THAT PIPELINE WHERE NEW WATER MAINS MUST CROSS. NO CONNECTION JOINTS SHALL BE MADE IN THE WATER MAIN WITHIN EIGHT (8) HORIZONTAL FEET OF NON-POTABLE FLUID PIPELINE.
- NEW WATER MAINS SHALL NOT BE INSTALLED WITHIN 100 HORIZONTAL FEET OF THE NEAREST EDGE OF ANY SANITARY LANDFILL, WASTEWATER DISPOSAL POND, OR HAZARDOUS WASTE DISPOSAL SITE, OR WITHIN 25 HORIZONTAL FEET OF THE NEAREST EDGE OF ANY CESSPOOL, SEPTIC TANK, SEWAGE LEACH FIELD, SEEPAGE PIT, UNDERGROUND HAZARDOUS MATERIAL STORAGE TANK, OR GROUNDWATER RECHARGE PROJECT SITE.
- THE MINIMUM SEPARATION DISTANCES SHALL BE MEASURED FROM THE NEAREST OUTSIDE EDGE OF EACH PIPE BARREL.

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**Cucamonga Valley Water District  
WATER MAIN SEPARATION STANDARDS**



APPROVED BY:

TUAN TRUONG, P.E.,  
ENGINEERING MANAGER

7-30-25  
DATE

STD. DWG.

**306**

SHT. 1 OF 1





Cucamonga Valley  
Water District

**400 - RECYCLED WATER**  
FOR THE CONSTRUCTION  
OF SYSTEM FACILITIES

# RECYCLED WATER

## GENERAL NOTES:



RECYCLED WATER DISTRIBUTION MAINS SHALL CONFORM TO THE DOMESTIC STEEL WATERLINE STANDARD DRAWINGS AND SEPARATION'S WITH THE FOLLOWING ADDITIONAL REQUIREMENTS OF THE RECYCLED WATER STANDARDS

1. ALL RECYCLED WATER MAINS SHALL BE PURPLE CMC & CML STEEL PIPE OR PURPLE SLEEVING MARKED RECYCLED WATER OR PAINTED PURPLE.
2. ALL BARE RECYCLED WATER PIPING SHALL HAVE PURPLE SLEEVING MARKED "RECYCLED WATER".
3. ALL RECYCLED WATER PIPING MUST HAVE DETECTABLE 6-INCH WIDE RECYCLED PIPE TAPE, 12-INCH WIDE RECYCLED PIPE TAPE FOR ALL MAINLINES.
4. ALL ABOVE GROUND RECYCLED PIPING APPURTENANCES MUST BE PAINTED PURPLE
5. ALL VALVES, SERVICES, AIR/VAC'S AND BLOW-OFF'S SHALL BE PURPLE TAGGED IN ENGLISH AND SPANISH.  
"WARNING – RECYCLED WATER, DO NOT DRINK"  
"AVISO – AGUA IMPURA, NO TOMAR"

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## Cucamonga Valley Water District

### RECYCLED WATER GENERAL NOTES

|   |   |  |
|---|---|--|
|  <p style="text-align: center;"><b>Cucamonga Valley<br/>Water District</b></p> <p style="text-align: center; font-size: small;">ENGINEERING DEPARTMENT<br/>10440 ASHFORD STREET, RANCHO CUCAMONGA, CA 91729<br/>(909) 987-2591</p> | <p>APPROVED BY:</p> <div style="text-align: center;"> <br/> <hr style="width: 100%;"/>                 TUAN TRUONG, P.E.,<br/>ENGINEERING MANAGER             </div> <p style="text-align: right;">4-17-25<br/>DATE</p> | <p>STD. DWG.</p> <h1 style="font-size: 2em;">400-A</h1> <p>SHT. 1 OF 2</p> |
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# RECYCLED WATER

## GENERAL NOTES:


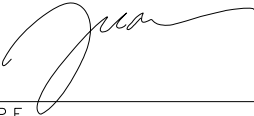
### FOR THE USE OF RECYCLED WATER FOR ON SITE IRRIGATION

- 1) CONTRACTOR MUST SUBMIT 1 HARD COPY OF THE IRRIGATION PLANS AND 1 PDF COPY OF THE IRRIGATION PLANS WITH STANDARD DRAWINGS #400B - #410 & #402 ON THE DETAIL SHEET TO CVWD FOR APPROVAL, BEFORE CONSTRUCTING THE IRRIGATION SYSTEM.
- 2) A PRE-CONSTRUCTION MEETING WITH THE IRRIGATION CONTRACTOR PRIOR TO STARTING TO BUILD THE SYSTEM.
- 3) CVWD RECYCLED WATER APPLICATION AND PERMIT MUST BE FILLED OUT AND RETURNED TO CVWD PRIOR TO SERVICE BEING ACTIVATED.
- 4) A CONSTRUCTION METER AND A TEMPORARY APPROVED RP BACKFLOW DEVICE PER STD DRAWING # 408 MUST BE INSTALLED AND BE TESTED BY CVWD PRIOR TO THE WATER BEING TURNED ON. A TEMPORARY HI- LINE OFF THIS CONSTRUCTION METER & BACKFLOW DEVICE WILL BE USED TO BUILD THE IRRIGATION SYSTEM.
- 5) TEMPORARY POTABLE WATER SYSTEM WILL BE USED UNTIL THE RECYCLED IRRIGATION SYSTEM HAS BEEN COMPLETED.
- 6) BOTH THE RECYCLED WATER IRRIGATION SYSTEM AS WELL AS THE POTABLE WATER SYSTEM MUST PASS A CROSS - CONNECTION TEST BY CVWD PRIOR TO RECYCLED WATER BEING TURNED ON FOR SERVICE.
- 7) CVWD WILL INSPECT ALL RECYCLED WATER IRRIGATION MAIN LINES PRIOR TO BEING BURIED.
- 8) PRESSURE TESTING OF ALL MAINLINES AT 150 PSI FOR 2 HOURS & MUST BE INSPECTED BY CVWD.
- 9) ALL PIPING MUST BE PURPLE AND BE MARKED FOR RECYCLED WATER USE, INCLUDING DRIP SYSTEM PIPING.
- 10) ALL IRRIGATION MATERIALS MUST BE MARKED FOR RECYCLED WATER USE.
- 11) VALVE BOXES MUST BE PURPLE FROM TOP TO BOTTOM AND MARKED FOR RECYCLED WATER USE.
- 12) TYPE K COPPER PIPE OR BRASS PIPE MUST BE USED AND BE SLEEVED WITH PURPLE PLASTIC WRAP AND MARKED FOR RECYCLED WATER FROM THE BACK SIDE OF RECYCLED WATER METER TO 3FT PASSED PROPERTY LINE.
- 13) QUICK COUPLERS MUST BE MARKED FOR RECYCLED WATER AND HAVE A LOCKING TOP.
- 14) SITE MUST HAVE AT LEAST FOUR QUICK COUPLERS INSTALLED FOR CROSS - CONNECTION TESTING.
- 15) NO BACKFLOW DEVICES NEEDED ON A RECYCLED WATER SYSTEM, IN PLACE OF THE BACKFLOW DEVICE, A WYE STRAINER, PRESSURE REGULATOR, A BALL VALVE AND A QUICK COUPLER, MUST BE INSTALLED PER STANDARD DRAWING #410.
- 16) ABSOLUTELY NO HOSE BIBS OF ANY KIND SHALL BE INSTALLED TO A RECYCLED WATER SYSTEM.
- 17) NO LOOPED IRRIGATION SYSTEMS SHALL BE PERMITTED, ONE SERVICE, ONE SYSTEM.
- 18) THE HORIZONTAL DISTANCE BETWEEN THE POTABLE WATER LINE & RECYCLED WATER LINE SHALL BE 10FT. THE VERTICAL DISTANCE BETWEEN THE POTABLE WATER LINE AND THE RECYCLED WATER LINE SHALL BE 1FT. PER STANDARD DRAWINGS 306A & 306B.
- 19) A RECYCLED WATER LINE THAT CROSSES OVER A POTABLE WATER LINE MUST BE SLEEVED WITH SCHEDULE 40 PURPLE PVC PIPE TWICE THE DIAMETER OF THE RECYCLED WATER LINE & MUST EXTEND 5FT ON BOTH SIDES, FOR A TOTAL OF 10FT.
- 20) CVWD WILL SUPPLY THE RECYCLED WATER DO NOT DRINK SIGNS ONLY AND THEY MUST BE INSTALLED BY THE CONTRACTOR PER STANDARD DRAWING # 402.
- 21) SEPARATION OF PROPERTY MUST BE BY WALLS OR CONCRETE MOW STRIPS.
- 22) DRINKING FOUNTAINS, PICNIC TABLES AND BENCHES SHALL NOT BE CONSTRUCTED IN AREAS WHERE RECYCLED WATER WILL COME IN CONTACT FROM OVER SPRAY.
- 23) CONTRACTOR MUST PROVIDE A COLOR CODED IRRIGATION SITE MAP & AS BUILT PLANS ON COMPLETION.
- 24) COVERAGE TESTING MUST BE COMPLETED AND PASSED WITH THE CONTRACTOR WITHIN 48 HOURS AFTER THE RECYCLED WATER HAS BEEN TURNED ON FOR SERVICE.
- 25) ALL RECYCLED WATER SITES MUST HAVE A POTABLE WATER SHUT - OFF VALVE JUST OUTSIDE THE BUILDING WITH A HOSE BIB.

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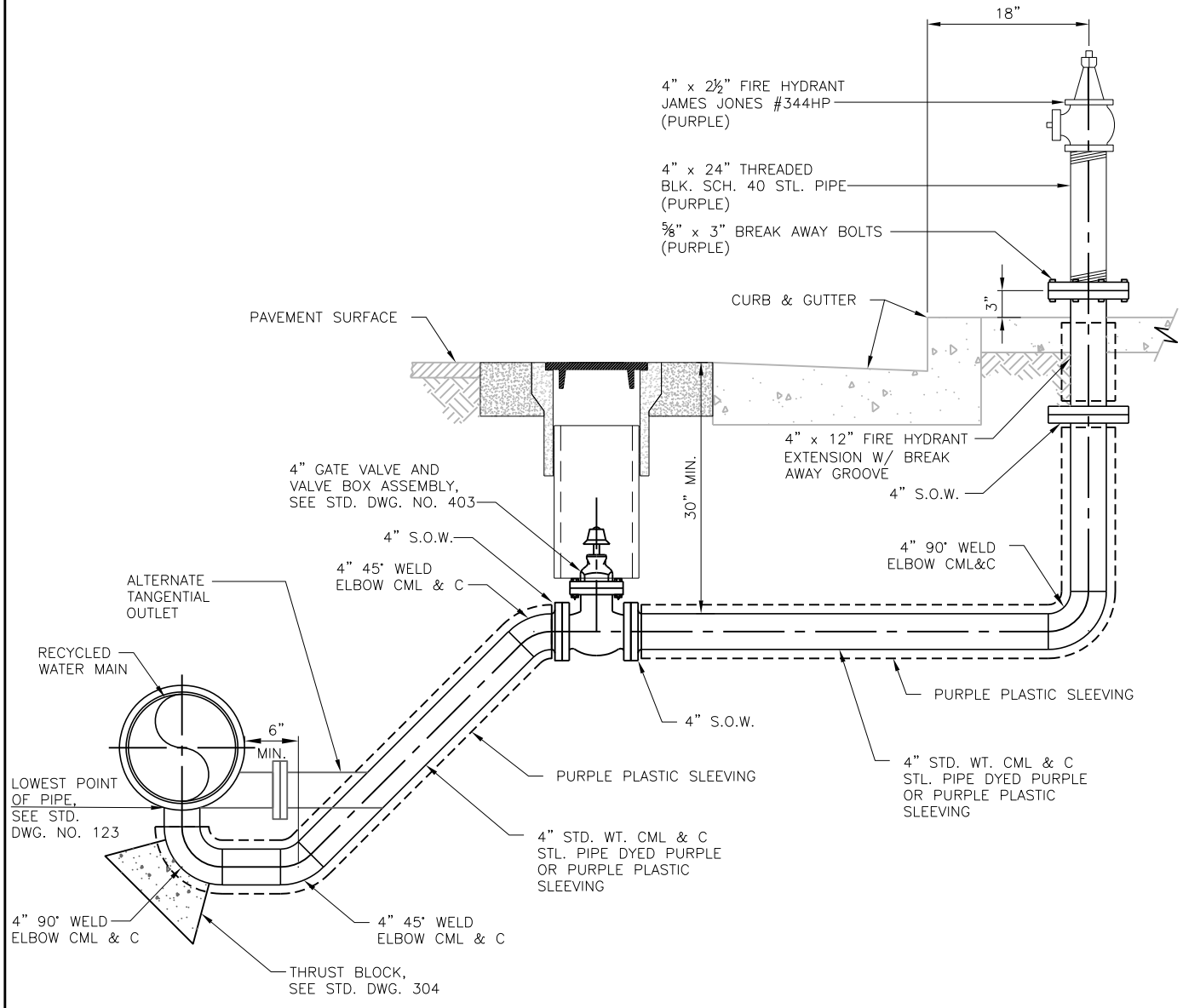
## Cucamonga Valley Water District

### RECYCLED WATER GENERAL NOTES

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|  <p style="text-align: center;"><b>Cucamonga Valley Water District</b></p> <p style="text-align: center; font-size: small;">ENGINEERING DEPARTMENT<br/>10440 ASHFORD STREET, RANCHO CUCAMONGA, CA 91729<br/>(909) 987-2591</p> | <p>APPROVED BY:</p> <div style="text-align: center;"> <br/> <hr/>                 TUAN TRUONG, P.E.,<br/>                 ENGINEERING MANAGER             </div> <p style="text-align: right;">4-17-25<br/>DATE</p> | <p>STD. DWG.</p> <h1 style="font-size: 2em;">400-B</h1> <p>SHT. 2 OF 2</p> |
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# Cucamonga Valley Water District

## RECYCLED WATER - BLOW OFF ASSEMBLY



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

APPROVED BY:



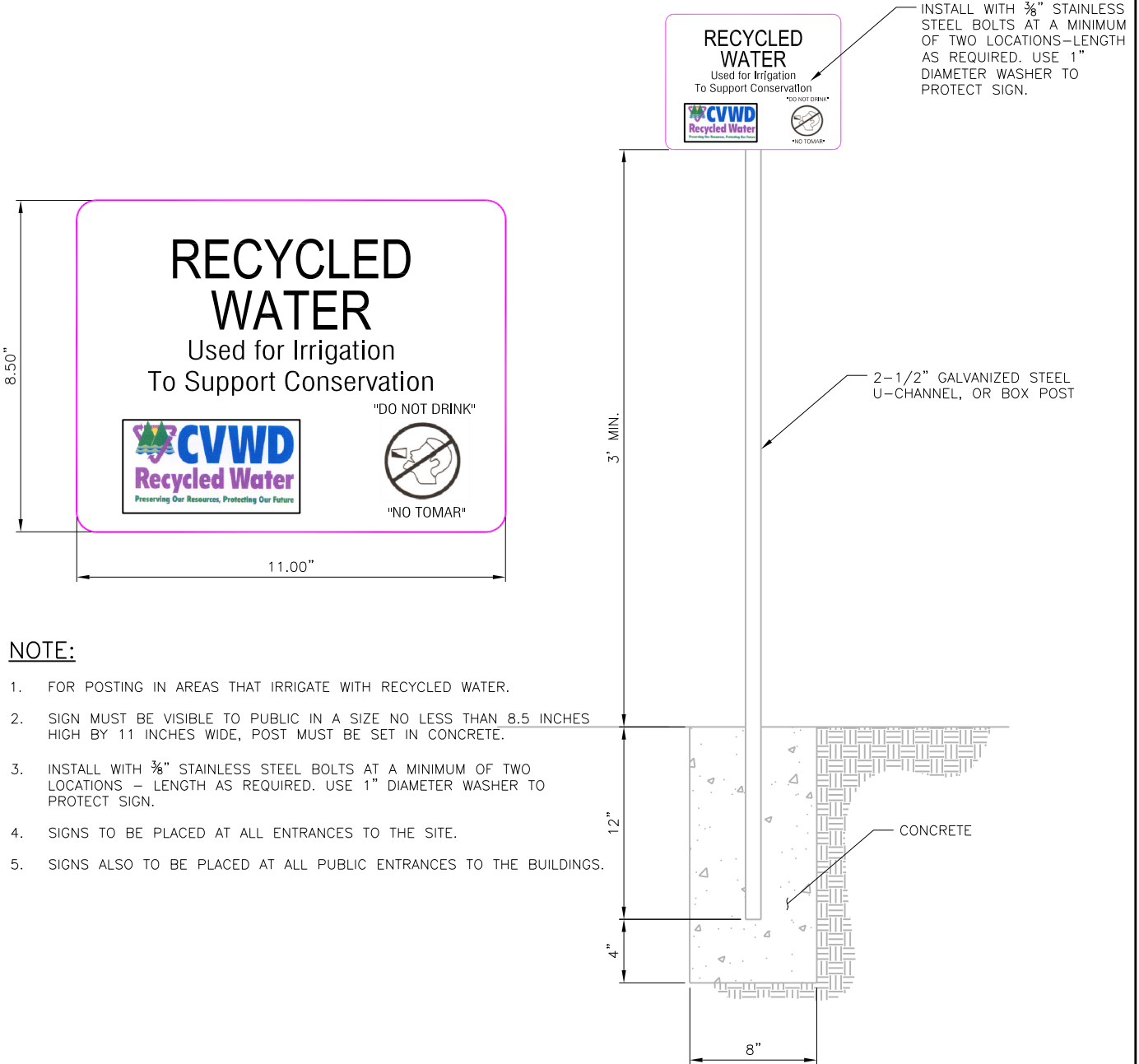
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 ENGINEERING MANAGER

4-17-25  
DATE

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401-B  
 SHT. 1 OF 1

**NOTE:**

1. RERQUIRED SIGNAGE FOR RECYCLED WATER USE AREAS: ALL USE AREAS ACCESSIBLE TO THE PUBLIC SHALL BE POSTED WITH SIGNS (MINIMUM 2 PER METER) THAT ARE VISIBLE TO THE PUBLIC IN A SIZE NO LESS THAN 8.5 INCHES HIGH BY 11 INCHES WIDE.
2. ALL PROPER SIGNAGE, AS SHOWN MUST BE IN PLACE PRIOR TO ISSUANCE OF METER FOR YOUR SYSTEM. FAILURE TO INSTALL THE REQUIRED SIGNAGE PER WATER DISTRICT STANDARDS WILL DELAY YOUR METER SET. IF A SYSTEM IS FOUND TO BE OPERATING ON A JUMPER OR METER WITHOUT THE PROPER SIGNS INSTALLED, YOU WILL BE GIVEN 48 HOURS NOTICE TO INSTALL PROPER SIGN BEFORE THE WATER DISTRICT WILL "LOCK OFF" THE SERVICE. EXISTING PLANT MATERIAL MAY WITHER AND DIE AS RESULT OF A METER BEING LOCKED OFF.



**NOTE:**

1. FOR POSTING IN AREAS THAT IRRIGATE WITH RECYCLED WATER.
2. SIGN MUST BE VISIBLE TO PUBLIC IN A SIZE NO LESS THAN 8.5 INCHES HIGH BY 11 INCHES WIDE, POST MUST BE SET IN CONCRETE.
3. INSTALL WITH  $\frac{3}{8}$ " STAINLESS STEEL BOLTS AT A MINIMUM OF TWO LOCATIONS – LENGTH AS REQUIRED. USE 1" DIAMETER WASHER TO PROTECT SIGN.
4. SIGNS TO BE PLACED AT ALL ENTRANCES TO THE SITE.
5. SIGNS ALSO TO BE PLACED AT ALL PUBLIC ENTRANCES TO THE BUILDINGS.

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**Cucamonga Valley Water District**  
**RECYCLED WATER SIGNAGE**

**Cucamonga Valley Water District**  
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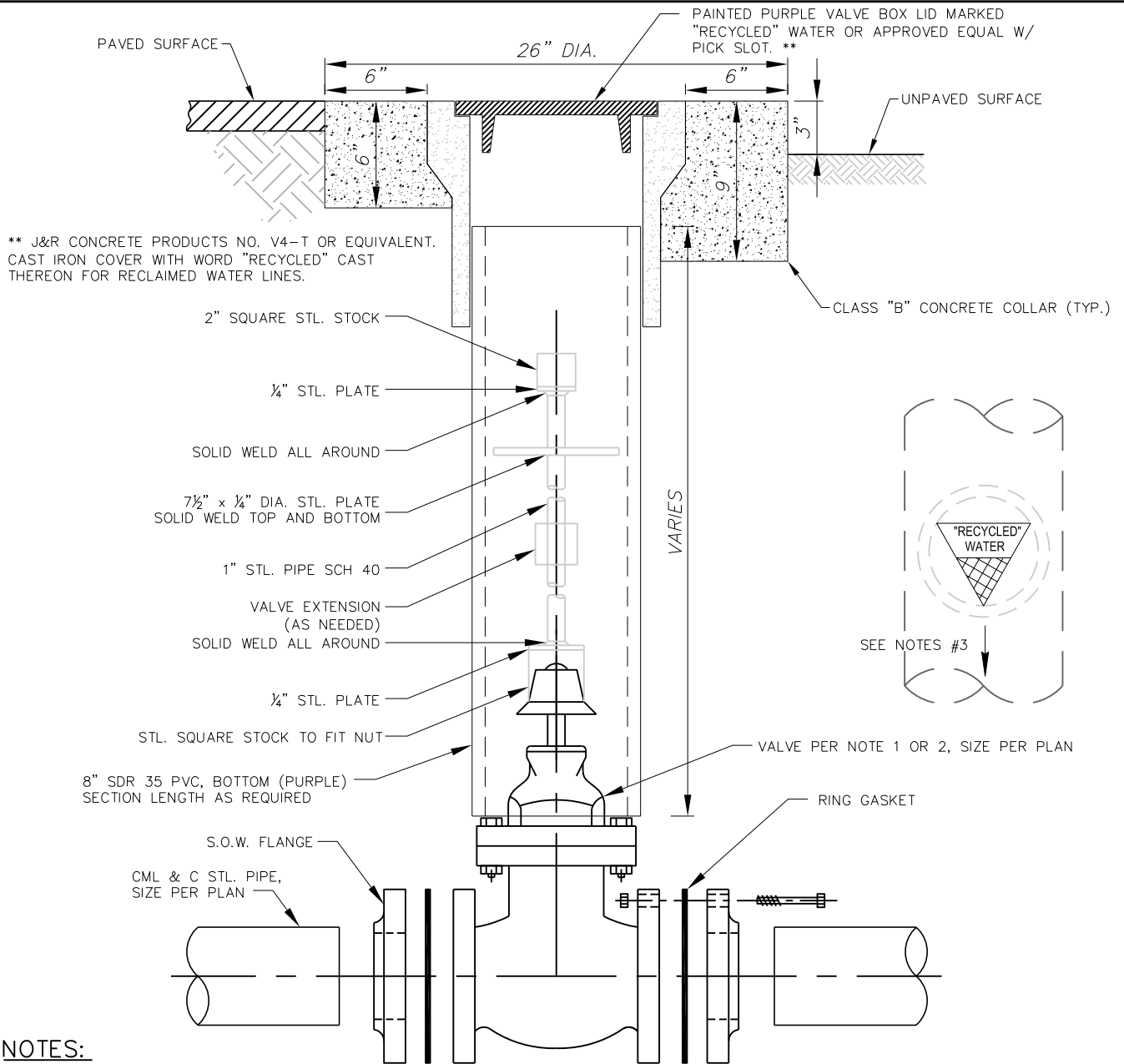
TUAN TRUONG, P.E.,  
ENGINEERING MANAGER

4-17-25  
DATE

STD. DWG.

402

SHT. 1 OF 1



**NOTES:**

- 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
- AWWA APPROVED BUTTERFLY VALVES TO BE USED FOR ALL APPLICATIONS 16-INCH AND GREATER. APPROVED BUTTERFLY VALVES AS FOLLOWS:  
PRATT  
MUELLER
- STAMP CONCRETE COLLAR WITH DIRECTION ARROW, VALVE TYPE (SEE NOTE 6), RW, VALVE SIZE AND DEPTH.
- VALVE BOX ASSEMBLY IN LANDSCAPE AREA SHALL BE SET ABOVE FLOOD RIM ELEVATION.
- VALVE OPERATOR EXTENSION REQUIRED WHEN TOP OF NUT EXCEEDS A DEPTH OF 5 FEET FROM FINISHED SURFACE, SEE STD. DWG. NO. 108.
- STAMP INTERIOR OF VALVE LID SKIRT WITH VALVE SIZE AND TYPE (G.V. FOR GATE VALVES, B.F.V. FOR BUTTERFLY VALVES). LETTERING SHALL BE BLACK AND A MINIMUM OF 3" IN HEIGHT.

**Cucamonga Valley Water District**  
**RECYCLED WATER VALVE ASSEMBLY**



**Cucamonga Valley Water District**

ENGINEERING DEPARTMENT  
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APPROVED BY:

*Juan*

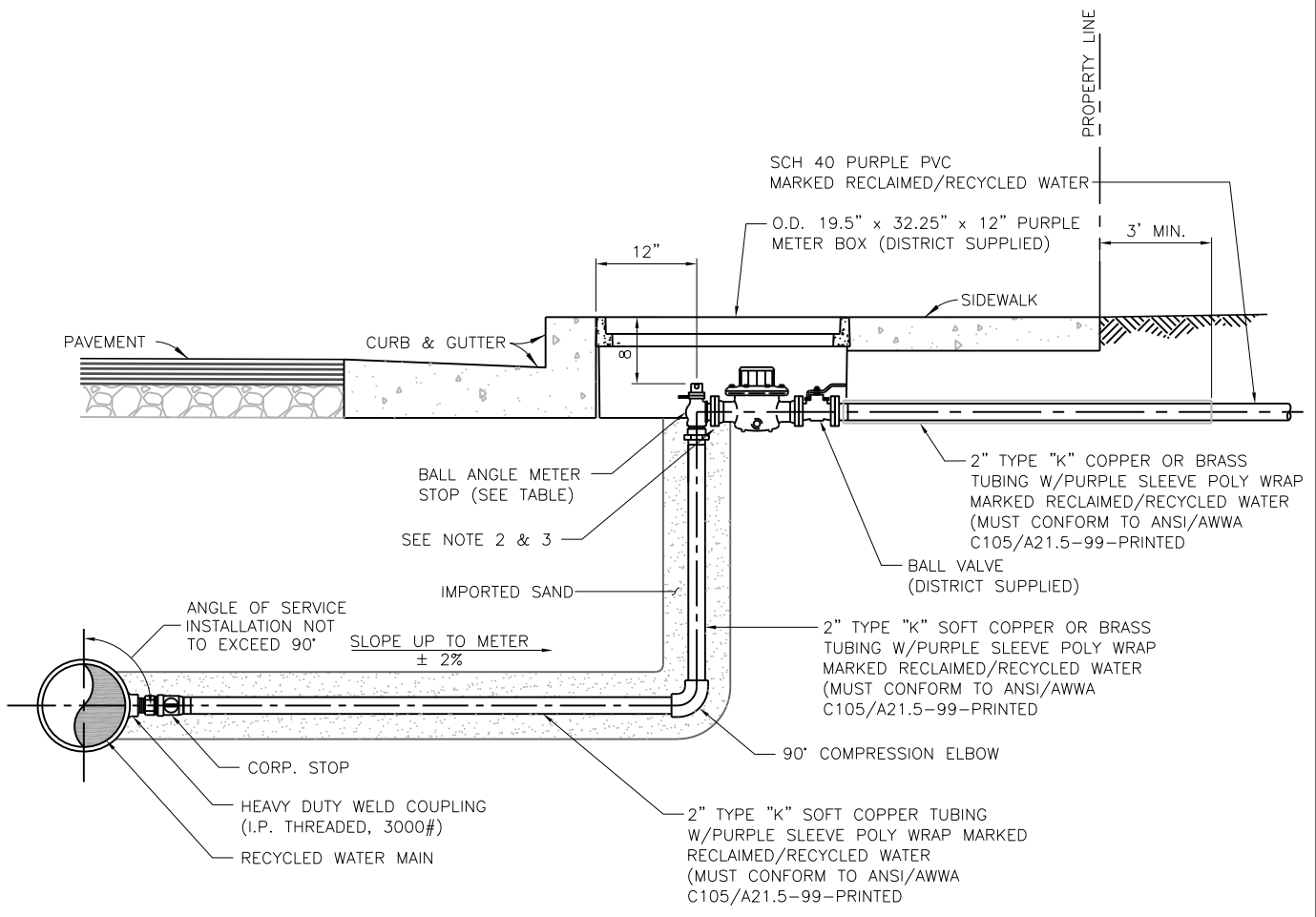
TUAN TRUONG, P.E.,  
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**1", 1½" AND 2" METERS**


**NOTES:**

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

**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", 1 ½", 2" | B25028N         | B24276N               | E1935SG         | E1975WSG              | 74704BQ         | 74602BQ               | FB1100-x-Q-NL   | BFA43-xxxW-Q-NL       |

**Cucamonga Valley Water District  
TYPICAL RECYCLED WATER SERVICE 1 INCH, 1.5 INCH, AND 2 INCH**



**Cucamonga Valley Water District**  
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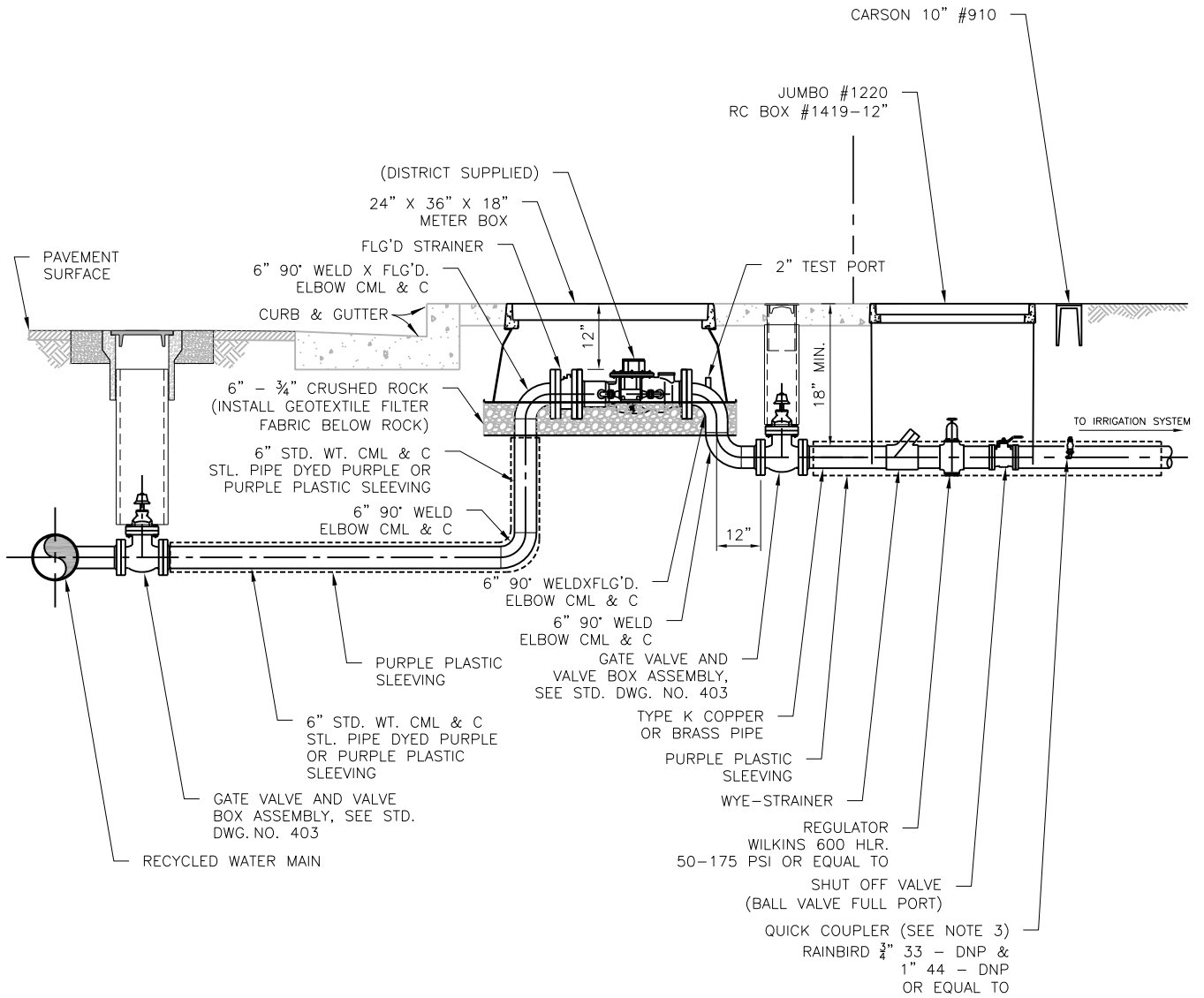
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**NOTES:**

1. USE SAME SIZE METER AS CML & C STL. PIPE SIZE.
2. METER AND METER BOX SUPPLIED BY CVWD.
3. QUICK COUPLER NEEDS 8" ROUND VALVE BOX BY CARSON OR EQUAL @ POINT OF CONNECTION (AS SHOWN) & @ END OF SYSTEM FOR TESTING. QUICK COUPLER SIZE @ CONTRACTORS OPTION.
4. ALL BOXES MUST BE PURPLE FOR RECYCLED WATER USE TOP AND BOTTOM.

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## Cucamonga Valley Water District


### TYPICAL RECYCLED WATER SERVICE STRAINER 3 INCH AND 10 INCH



**Cucamonga Valley  
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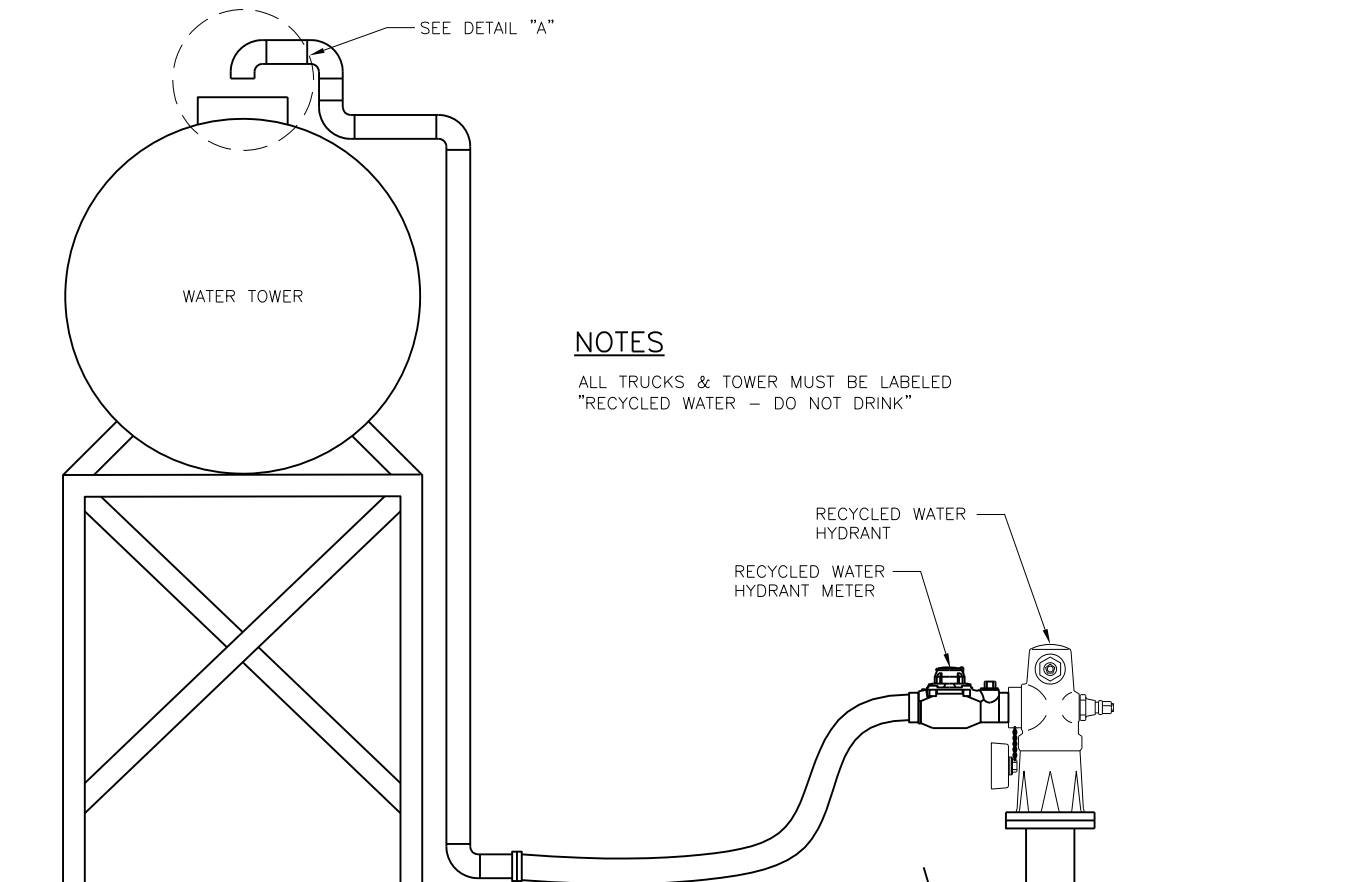
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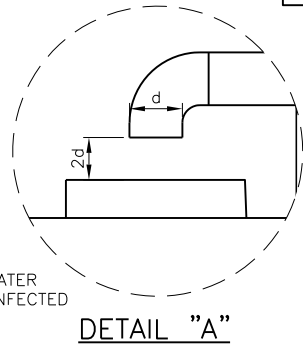
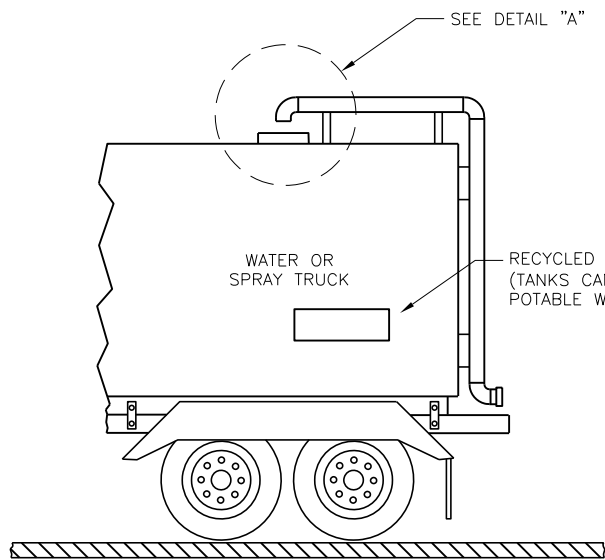
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**NOTES**

ALL TRUCKS & TOWER MUST BE LABELED  
"RECYCLED WATER - DO NOT DRINK"



**NOTES:**

1. AIR GAP DISTANCE BETWEEN BOTTOM END OF WATER PIPE AND FLOOD RIM OF INLET WATER TANK MUST BE TWICE (2) THE DIAMETER OF WATER PIPE.

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**Cucamonga Valley Water District**  
**INSTALLATION OF RECYCLED WATER PIPE TO WATER TRUCK AND TOWERS**

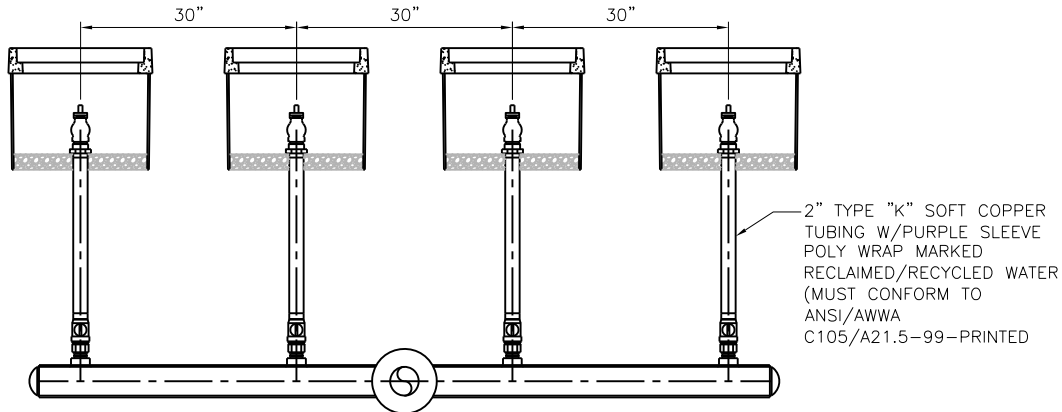
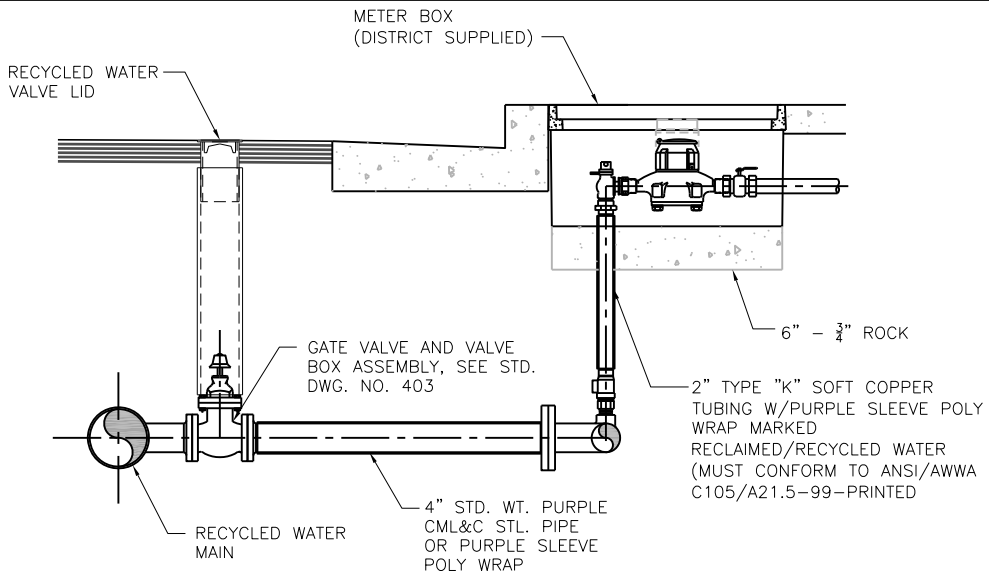
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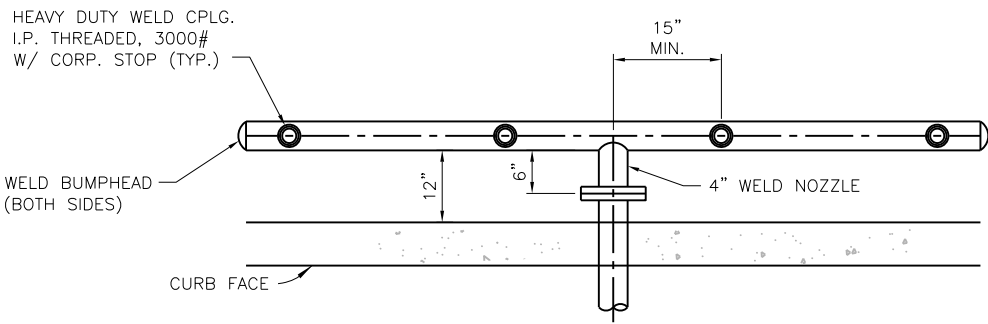
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 ENGINEERING MANAGER

4-17-25  
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**406**  
 SHT. 1 OF 1



FOR 4 UNIT METER CLUSTER



PLAN VIEW

NOTES:

1. NUMBER AND SIZES OF METERS IN CLUSTER TO BE CALLED OUT ON THE PLANS.
2. NUMBERS REFER TO PRODUCTS. APPROVED EQUALS MAY BE SUBSTITUTED.
3. 3/4\"/>

**"WARNING - RECYCLED WATER, DO NOT DRINK"**  
**"AVISO - AGUA IMPURA, NO TOMAR"**

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# Cucamonga Valley Water District

## RECYCLED WATER METER CLUSTER



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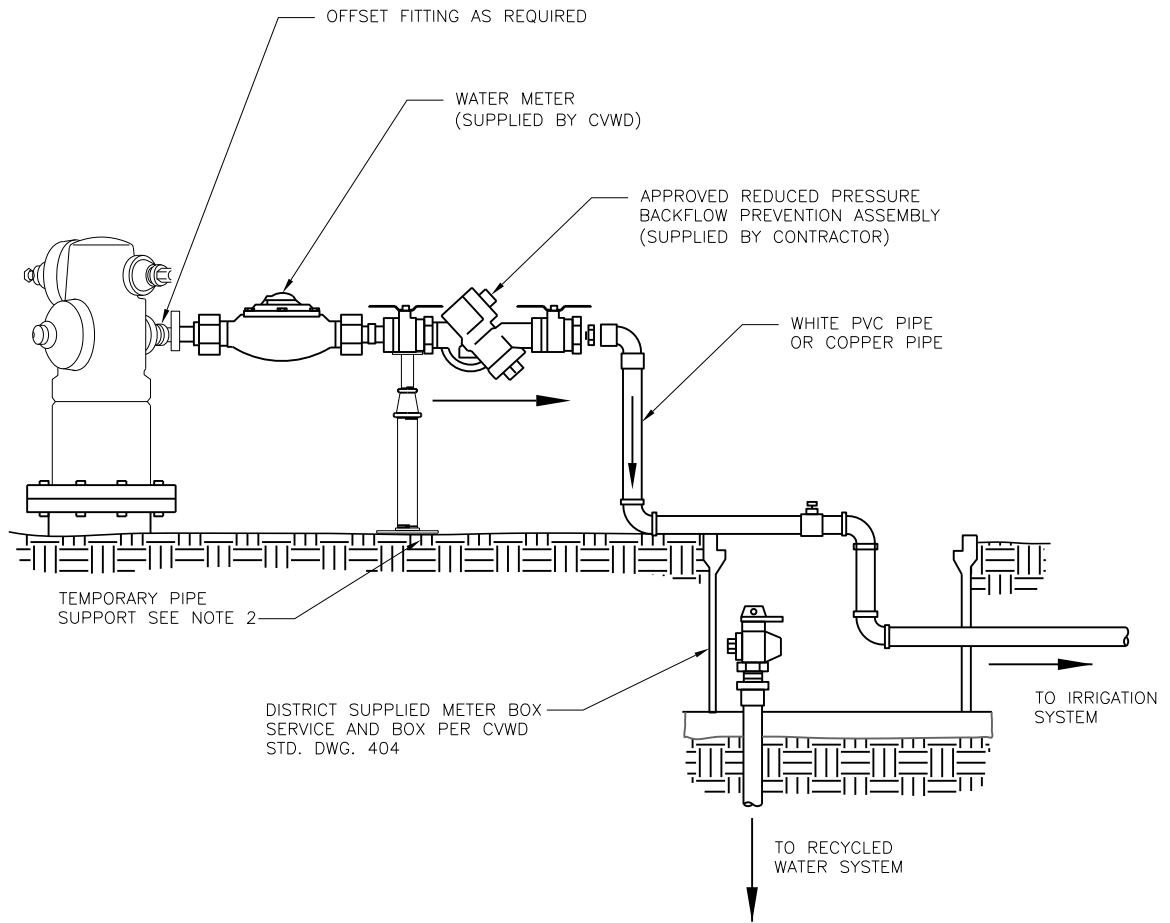
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**NOTES:**

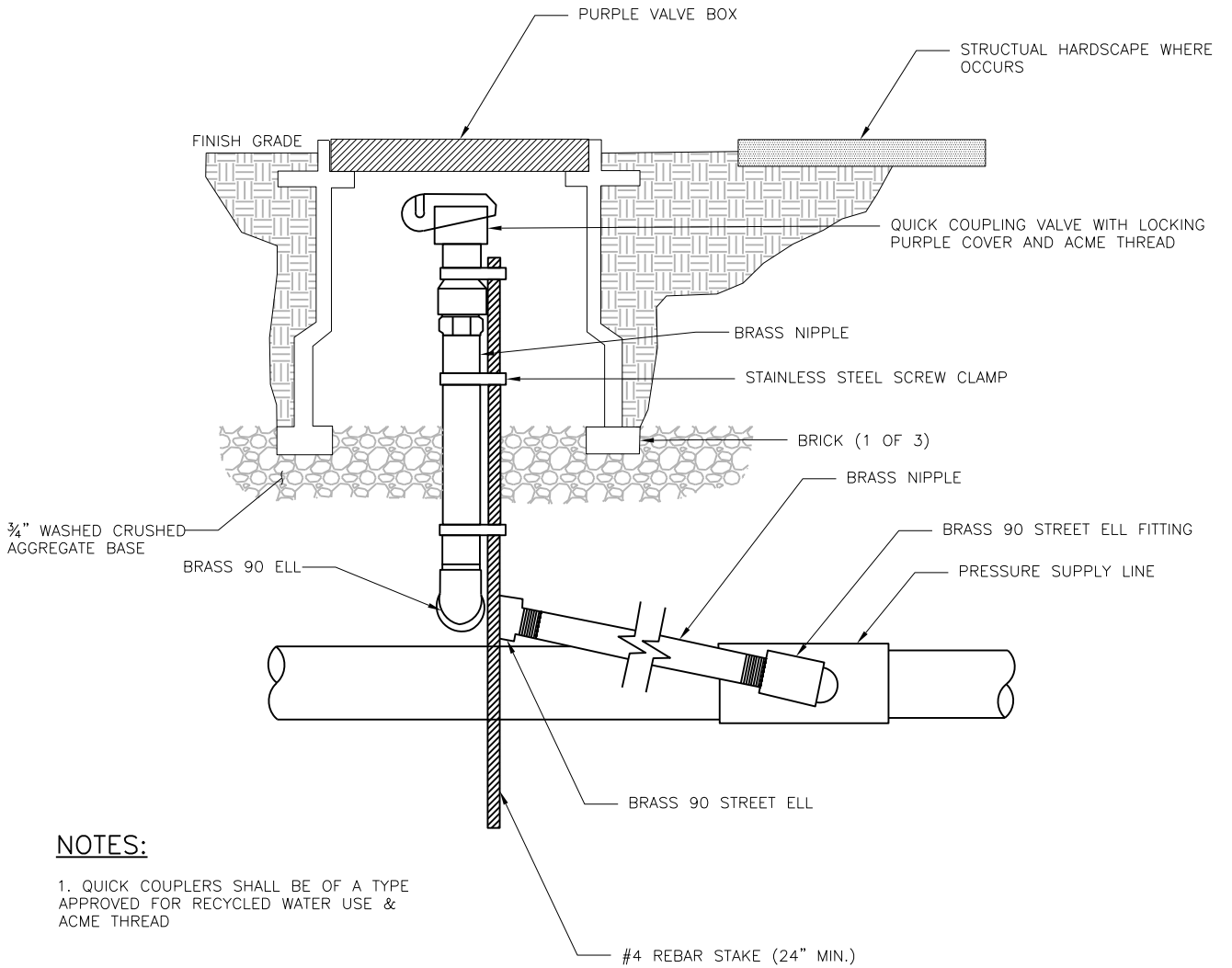
1. CUSTOMER WILL SUPPLY NECESSARY FITTINGS FOR BACKFLOW CONFIGURATION.
2. A SUPPORT FOR THE BACKFLOW PREVENTION DEVICE MUST BE INSTALLED USING ANY SUITABLE MATERIAL (PIPELINE PRODUCTS OR EQUIVALENT).
3. NO PART OF THE INSTALLATION SHOULD PROTRUDE INTO TRAFFIC OR POSE A SAFETY HAZARD TO PEDESTRIANS OR VEHICLES. IF NECESSARY, PLACE SAFETY WARNING DEVICES.
4. USE A HYDRANT METER WRENCH TO OPERATE THE HYDRANT. WHEN USING THE SERVICE, SLOWLY OPEN AND CLOSE THE HYDRANT TO PREVENT WATER HAMMER, INCLUDING VALVE AT END OF HOSE.
5. FINAL CONNECTION FROM METER TO BACKFLOW AND TESTING OF THE BACKFLOW SHALL BE THE RESPONSIBILITY OF THE APPLICANT. ONCE METER IS SET, APPLICANT SHALL HAVE BACKFLOW TESTED AND CERTIFIED BY CVWD APPROVED BACKFLOW TESTER AND A COPY OF THE TEST SHALL BE EMAILED TO BACKFLOW@CVWDWATER.COM. THE BACKFLOW MUST REMAIN IN PLACE AND WILL REQUIRE RE-TESTING IF REMOVED OR RELOCATED.
6. RP REDUCED PRESSURE BACKFLOW ASSEMBLY MUST BE FOUND ON THE USC FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH LIST OF APPROVED BACKFLOW PREVENTION ASSEMBLIES. THE RP BACKFLOW DEVICE MUST BE "LEAD-FREE".
7. BACKFLOWS SHALL NOT BE INSTALLED WITHIN OR UPON PUBLIC SIDEWALKS. FOR INSTALLATIONS LOCATED WITHIN SIDEWALK OR WITHIN CITY RIGHT OF WAY (INCLUDING BUT NOT LIMITED TO BIKE LANE AND TRAFFIC LANE). EVIDENCE OF A CITY ENCROACHMENT PERMIT SHALL BE REQUIRED AT THE TIME OF THE CVWD APPLICATION.
8. THIS STANDARD DRAWING SHALL BE CONSISTENT AND MEET THE REQUIREMENTS OF CVWD APPLICATION AND AGREEMENT FOR TEMPORARY CONSTRUCTION WATER METER.

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## Cucamonga Valley Water District

### TEMPORARY HI-LINE POTABLE WATER SERVICE CONNECTION

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**NOTES:**

1. QUICK COUPLERS SHALL BE OF A TYPE APPROVED FOR RECYCLED WATER USE & ACME THREAD

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# Cucamonga Valley Water District

## QUICK COUPLING VALVE



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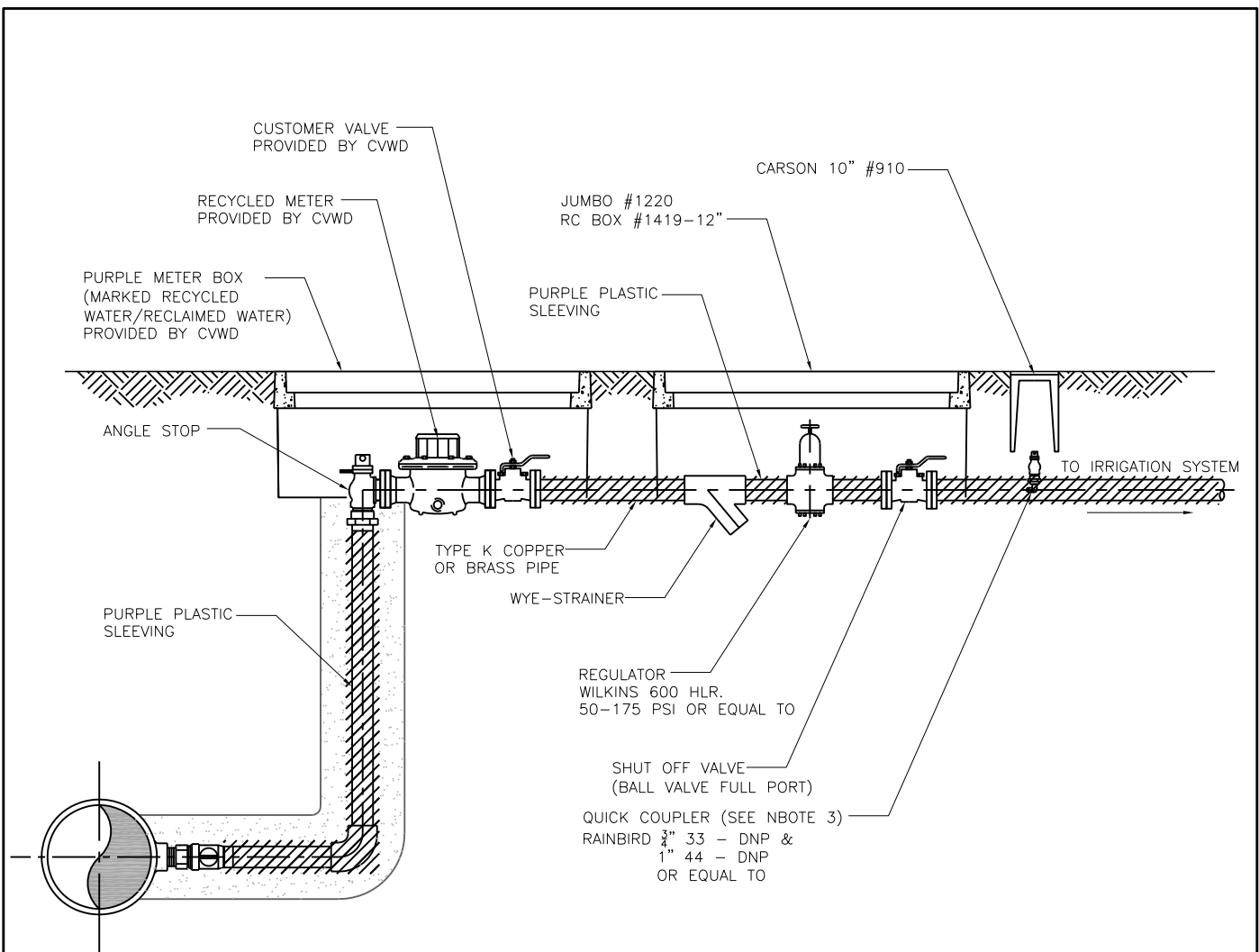
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4-17-25  
 DATE

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**409**

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**1" & 2" METER NOTES:**

1. 1" AND ABOVE USE JUMBO CARSON PURPLE BOX OR EQUAL WHEN NEEDED
2. 2 3/4" AND BELOW MAY USE A SERIES OF MEDIUM TO SMALL CARSON VALVE BOXES
3. QUICK COUPLER NEEDS 8" ROUND VALVE BOX BY CARSON OR EQUAL @POINT OF CONNECTION (AS SHOWN) & @ END OF SYSTEM FOR TESTING. QUICK COUPLER SIZE @ CONTRACTORS OPTION.
4. ALL HARDWARE SHALL BE TAGED WITH RECYCLED WATER NOTIFICATION (ENGLISH AND SPANISH)
5. ALL BOXES MUST BE PURPLE FOR RECYCLED WATER USE TOP AND BOTTOM

| REV. | DESCRIPTION | DATE | APP'D |
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**Cucamonga Valley Water District**

**TYPICAL RECYCLED WATER SERVICE 1.5 INCH AND 2 INCH TO 6 INCH**

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

APPROVED BY:

\_\_\_\_\_  
 TUAN TRUONG, P.E.,  
 ENGINEERING MANAGER

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