


TRENCH BACKFILL REQUIREMENTS:

1. PROPOSED STREETS – REFER TO DETAIL TB-1 OF SECTION 31 FOR BACKFILL REQUIREMENTS ABOVE THE PIPE ZONE.
2. EXISTING STREETS – REFER TO DETAILS TB-1 AND TB-3, TB-3a OF SECTION 31 FOR BACKFILL REQUIREMENTS ABOVE THE PIPE ZONE.

*Richard D. Plecker*  
 RICHARD PLECKER  
 ENVIRONMENTAL UTILITIES DIRECTOR

 ENVIRONMENTAL UTILITIES DEPARTMENT	<b>WATER MAIN TRENCH AND BACKFILL</b>	
	SCALE: NONE REVISED: OCTOBER 2020 DRAWN BY: R. VAN NESS APPROVED BY: RICHARD PLECKER	<b>W-1</b>

NOTES:

BACKFILL SHALL BE MECHANICALLY CONSOLIDATED OR SHOVEL SLICED UNDER THE HAUNCHES OF THE PIPE.

IN ROCKY OR UNYIELDING SOIL, THE TRENCH SHALL BE EXCAVATED A MINIMUM OF 12" BELOW THE PIPE AND THE TRENCH WIDTH SHALL BE INCREASED BY 12".

ONE 12" WIDE STRIP OF BACKFILL TAPE SHALL BE USED FOR EVERY 12" PIPE DIAMETER OR FRACTION THERE OF.

**NOTES:**

NO WATER SHALL BE DRAWN THROUGH THE BACKFLOW DEVICE UNTIL IT HAS BEEN TESTED BY THE ENVIRONMENTAL UTILITIES DEPT.

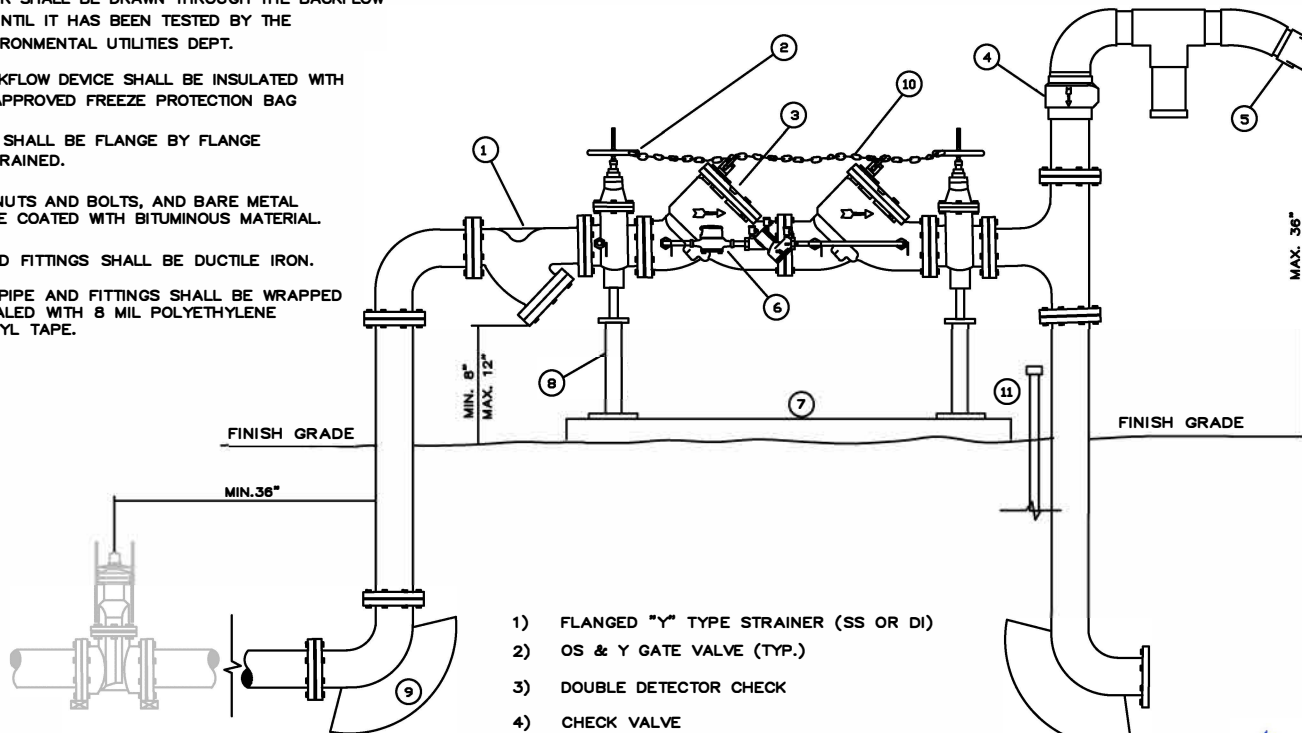
THE BACKFLOW DEVICE SHALL BE INSULATED WITH A CITY APPROVED FREEZE PROTECTION BAG

FITTINGS SHALL BE FLANGE BY FLANGE OR RESTRAINED.

BURIED NUTS AND BOLTS, AND BARE METAL SHALL BE COATED WITH BITUMINOUS MATERIAL.

PIPE AND FITTINGS SHALL BE DUCTILE IRON.

BURIED PIPE AND FITTINGS SHALL BE WRAPPED AND SEALED WITH 8 MIL POLYETHYLENE AND VINYL TAPE.



SEE DETAILS  
W-15 AND W-16  
FOR VALVE

- 1) FLANGED "Y" TYPE STRAINER (SS OR DI)
- 2) OS & Y GATE VALVE (TYP.)
- 3) DOUBLE DETECTOR CHECK
- 4) CHECK VALVE
- 5) SIAMESE 45 DEGREE FDC WITH END CAPS
- 6) WATER METER
- 7) 3 1/2" THICK REINFORCED CONCRETE SLAB. WITH #4 REBAR 12" ON CENTER
- 8) SUPPORTS 2-TYP. SHALL BE BOLTED DOWN WITH A MINIMUM OF TWO BOLTS EACH
- 9) THRUST BLOCK (TYP.)
- 10) 1/4" NON CASE HARDENED CHAIN WITH BREAKAWAY LOCK BETWEEN VALVES.
- 11) VALVE TAMPER SWITCH CONDUIT TO BUILDING FIRE CONTROL ROOM

*Richard D. Plecker*

RICHARD PLECKER  
ENVIRONMENTAL UTILITIES DIRECTOR



ENVIRONMENTAL UTILITIES  
DEPARTMENT

**FIRE PROTECTION  
ASSEMBLY**

SCALE: NONE  
REVISED: JANUARY 2017  
DRAWN BY: R. VAN NESS  
APPROVED BY: RICHARD PLECKER

W-2

**NOTES:**

NO WATER SHALL BE DRAWN THROUGH THE BACKFLOW DEVICE UNTIL IT HAS BEEN TESTED BY THE ENVIRONMENTAL UTILITIES DEPT.

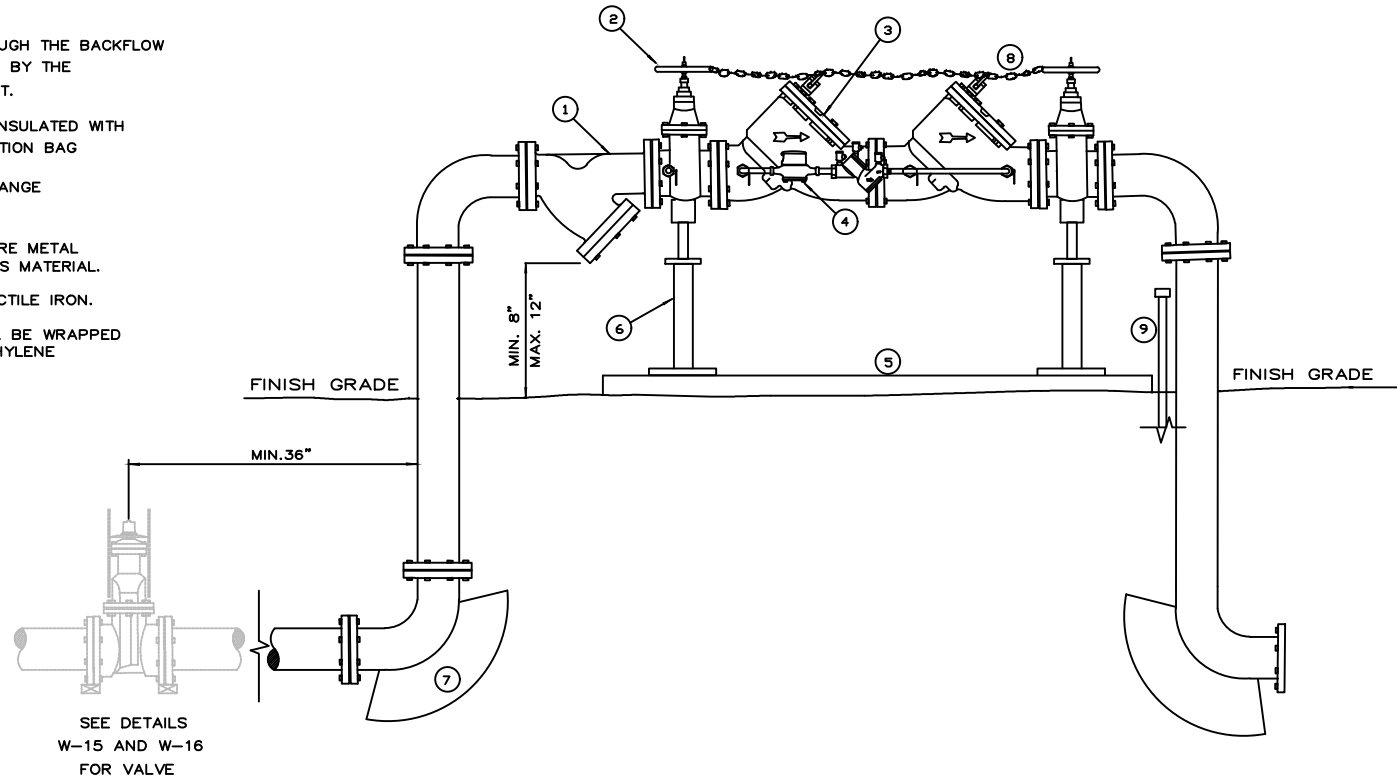
THE BACKFLOW DEVICE SHALL BE INSULATED WITH A CITY APPROVED FREEZE PROTECTION BAG

FITTINGS SHALL BE FLANGE BY FLANGE OR RESTRAINED.

BURIED NUTS AND BOLTS, AND BARE METAL SHALL BE COATED WITH BITUMINOUS MATERIAL.

PIPE AND FITTINGS SHALL BE DUCTILE IRON.

BURIED PIPE AND FITTINGS SHALL BE WRAPPED AND SEALED WITH 8 MIL POLYETHYLENE AND VINYL TAPE.



SEE DETAILS  
W-15 AND W-16  
FOR VALVE

*Richard D. Plecker*

RICHARD PLECKER  
ENVIRONMENTAL UTILITIES DIRECTOR

- 1) FLANGED "Y" TYPE STRAINER (SS OR DI)
- 2) OS & Y GATE VALVE (TYP.)
- 3) DOUBLE DETECTOR CHECK
- 4) WATER METER
- 5) 3 1/2" THICK REINFORCED CONCRETE SLAB W/#4 REBAR 12" ON CENTER.
- 6) SUPPORTS 2-TYP. SHALL BE BOLTED DOWN WITH A MINIMUM OF TWO BOLTS EACH
- 7) THRUST BLOCK (TYP.)
- 8) 1/4" NON CASE HARDENED CHAIN WITH BREAKAWAY LOCK BETWEEN VALVES.
- 9) VALVE TAMPER SWITCH CONDUIT TO BUILDING FIRE CONTROL ROOM.

 CITY OF <b>ROSEVILLE</b> CALIFORNIA	ENVIRONMENTAL UTILITIES DEPARTMENT
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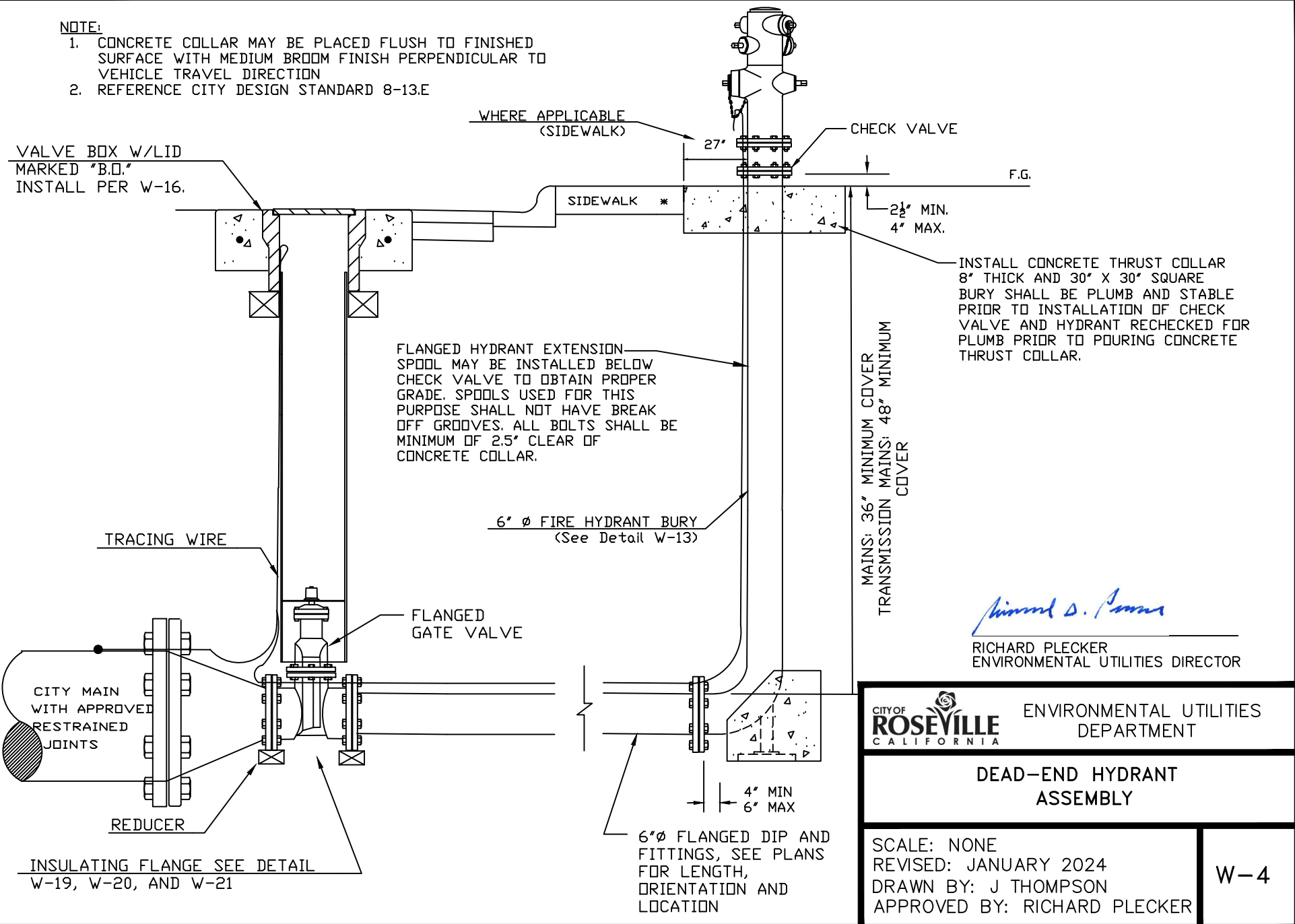
## ONSITE FIRE PROTECTION

SCALE: NONE  
 REVISED: JANUARY 2019  
 DRAWN BY: R. VAN NESS  
 APPROVED BY: RICHARD PLECKER

W-3

**NOTE:**

1. CONCRETE COLLAR MAY BE PLACED FLUSH TO FINISHED SURFACE WITH MEDIUM BROOM FINISH PERPENDICULAR TO VEHICLE TRAVEL DIRECTION
2. REFERENCE CITY DESIGN STANDARD 8-13.E



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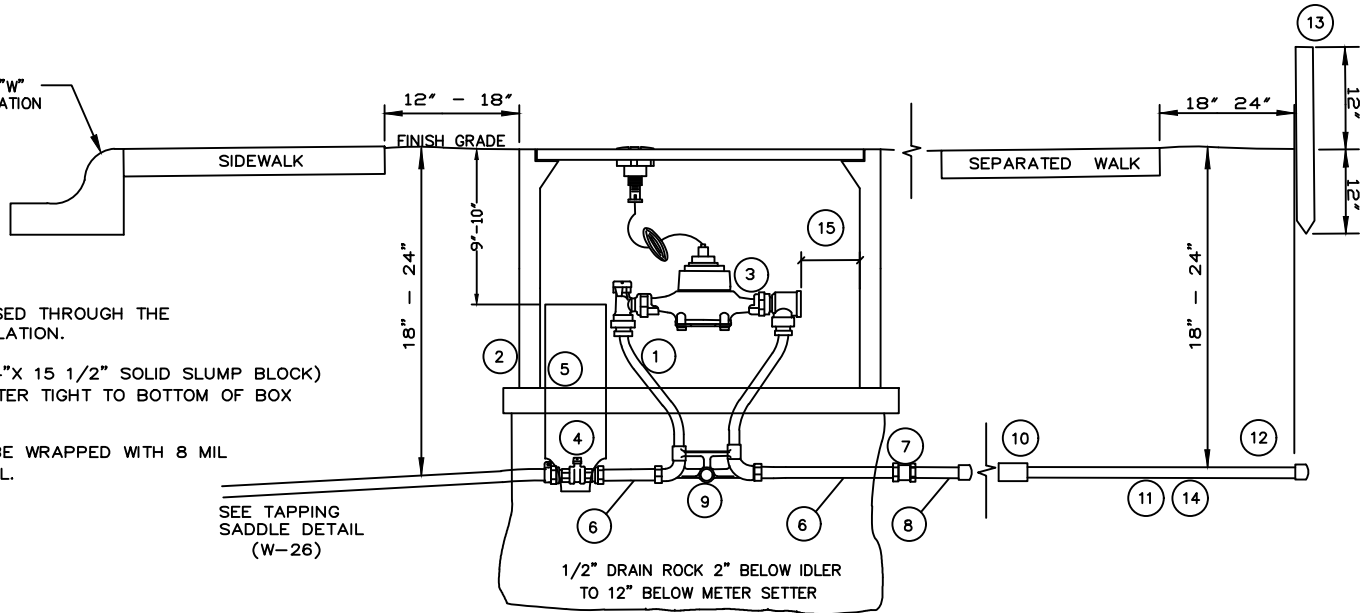
CITY OF ROSEVILLE CALIFORNIA ENVIRONMENTAL UTILITIES DEPARTMENT

**DEAD-END HYDRANT ASSEMBLY**

SCALE: NONE  
 REVISED: JANUARY 2024  
 DRAWN BY: J THOMPSON  
 APPROVED BY: RICHARD PLECKER

W-4

CURB STAMPED "W"  
AT SERVICE LOCATION



**NOTES:**

WATER METERS SHALL BE PURCHASED THROUGH THE CITY. PURCHASE INCLUDES INSTALLATION.

INSTALL CONCRETE BLOCKING (4"x4"x 15 1/2" SOLID SLUMP BLOCK) UNDER ENTIRE UTILITY BOX PERIMETER TIGHT TO BOTTOM OF BOX NO GAPS ALLOWED

BURIED PIPE AND FITTINGS SHALL BE WRAPPED WITH 8 MIL POLYETHYLENE OR APPROVED EQUAL.

SEE TAPPING  
SADDLE DETAIL  
(W-26)

1/2" DRAIN ROCK 2" BELOW IDLER  
TO 12" BELOW METER SETTER

- 1) METER SETTER WITH IDLER
- 2)\* N-30 UTILITY BOX WITH FL 30 METER LID FOR 1" SERVICE
- 3) WATER METER (PURCHASED THROUGH CITY)
- 4) CURB STOP (COMPRESSION X FIPT)
- 5) 4" DIA. BLUE SCHEDULE 40 RISER (NOTCHED OVER PIPE AT BASE)
- 6) 4" METER SPUD
- 7) BRASS COUPLING (FIPT X FIPT)
- 8) 18" BRASS NIPPLE WITH END CAP (FOR ATTACHED SIDEWALK)
- 9) SCH. 40 PVC THROUGH PIPE EYE
- 10) BRASS-PVC ADAPTER
- 11) 1 1/2" PVC
- 12) PVC END CAP
- 13) 2"x2" RDWD. STAKE PAINTED BLUE
- 14) AS AN OPTION, CONTRACTOR MAY INSTALL A 3" SCH 40 SLEEVE PRIOR TO INSTALLATION OF 1-1/2" PVC.
- 15) SETTERS W/VERTICAL CHECK, PROVIDE 1" GAP MIN. THE SETTERS W/HORIZONTAL CHECK, PROVIDE 2" GAP MIN.(NOTCH THE TOP OF THE 4"SCHEDULE 40 RISER TO ACHIEVE 2"GAP).

\* IF LOCATED IN THE DRIVEWAY USE A B1324 BOX W/STEEL CHECKER COVER #B1324-51JH OR APPROVED EQUAL.

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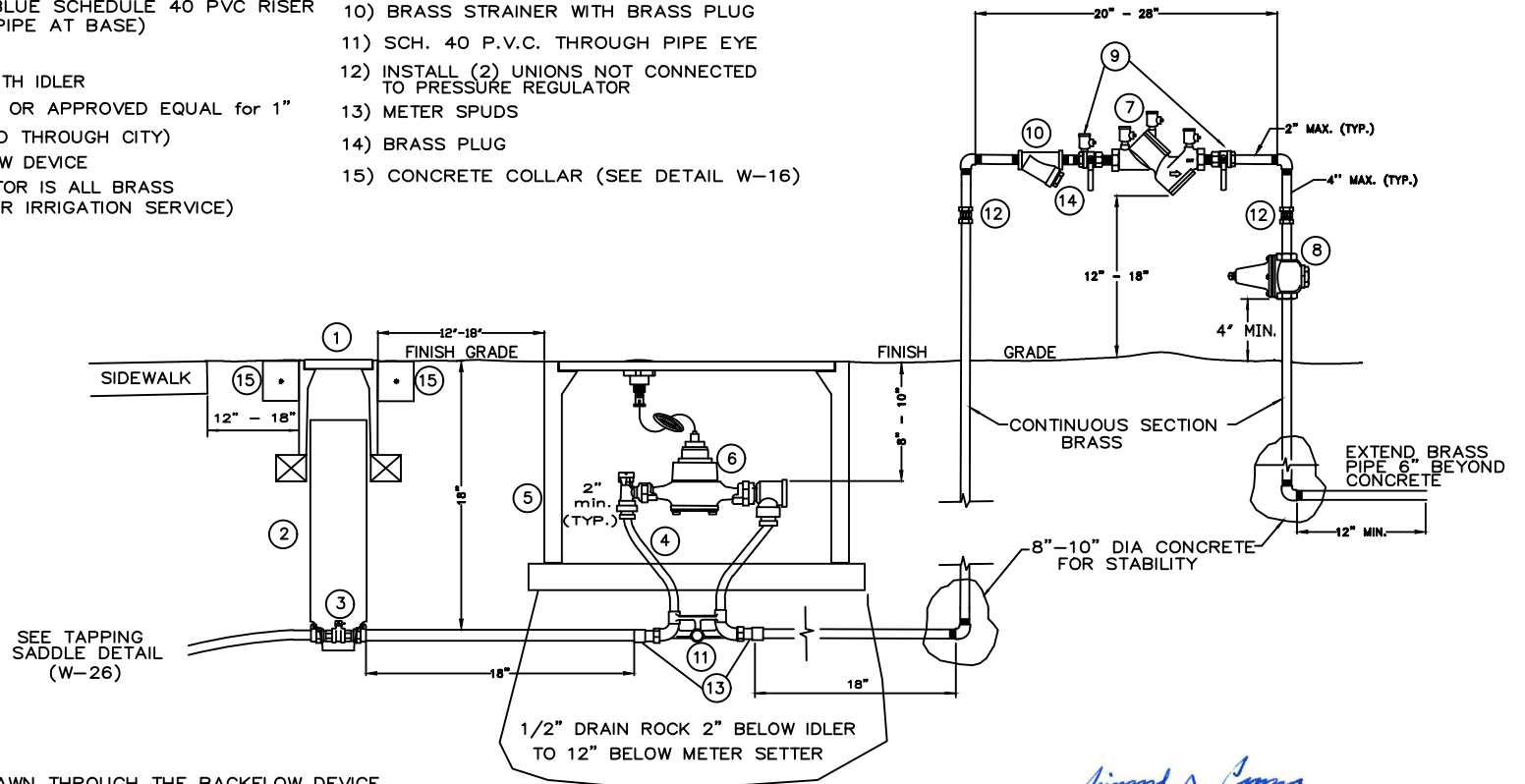
ENVIRONMENTAL UTILITIES  
DEPARTMENT

**RESIDENTIAL 1"  
SERVICE LINE**

SCALE: NONE  
REVISED: JANUARY 2022  
DRAWN BY: J. VAROZZA  
APPROVED BY: RICHARD PLECKER

W-5

- |  |  |
|--|--|
| 1) CONCRETE VALVE BOX (G-5 PER DETAIL W-16)                              | 9) BALL VALVES   |
| 2) 6" CONTINUOUS BLUE SCHEDULE 40 PVC RISER (NOTCHED OVER PIPE AT BASE)  | 10) BRASS STRAINER WITH BRASS PLUG                         |
| 3) CURB STOP   | 11) SCH. 40 P.V.C. THROUGH PIPE EYE                        |
| 4) METER RESETTER WITH IDLER   | 12) INSTALL (2) UNIONS NOT CONNECTED TO PRESSURE REGULATOR |
| 5) N-30 UTILITY BOX OR APPROVED EQUAL for 1"                             | 13) METER SPUDS  |
| 6) METER (PURCHASED THROUGH CITY)  | 14) BRASS PLUG   |
| 7) R.P TYPE BACKFLOW DEVICE  | 15) CONCRETE COLLAR (SEE DETAIL W-16)                      |
| 8) PRESSURE REGULATOR IS ALL BRASS (NOT REQUIRED FOR IRRIGATION SERVICE) |  |



**NOTES:**

NO WATER SHALL BE DRAWN THROUGH THE BACKFLOW DEVICE UNTIL IT HAS BEEN TESTED BY THE ENVIRONMENTAL UTILITIES DEPT.

ALL FITTINGS AND PIPING SHALL BE BRASS BEGINNING AT CURB STOP

IF USED FOR IRRIGATION DO NOT INCLUDE PRESSURE REGULATOR.

INSTALL (3" X 5") CONCRETE BRICK UNDER PERIMETER OF UTILITY BOXES.

WATER METERS SHALL BE PURCHASED THROUGH THE CITY. PURCHASE INCLUDES INSTALLATION.

THE BACKFLOW DEVICE SHALL BE INSULATED WITH A CITY APPROVED FREEZE PROTECTION BAG.

BURIED PIPE AND FITTINGS SHALL BE WRAPPED WITH 8 MIL POLYETHYLENE OR APPROVED EQUAL.

*Richard D. Plecker*

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ENVIRONMENTAL UTILITIES DIRECTOR



ENVIRONMENTAL UTILITIES  
DEPARTMENT

**COMMERCIAL 1"  
SERVICE LINE**

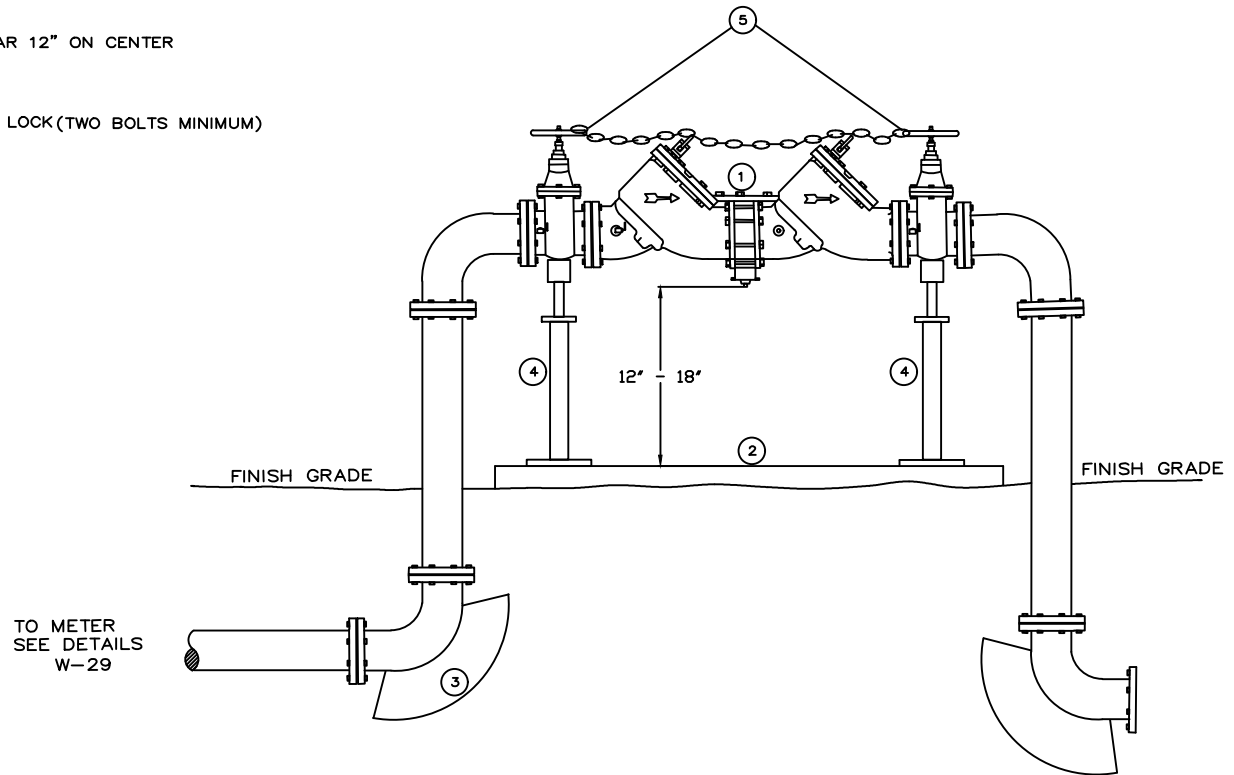
SCALE: NONE  
REVISED: JANUARY 2024  
DRAWN BY: R. VAN NESS  
APPROVED BY: RICHARD PLECKER

W-6



**MATERIALS:**

- 1) R.P. TYPE BACKFLOW DEVICE (CITY APPROVED)
- 2) 4" THICK REINFORCED CONCRETE SLAB WITH #4 REBAR 12" ON CENTER
- 3) THRUST BLOCKS (TYP.)
- 4) SUPPORT STANDS BOLTED INTO CONCRETE
- 5) 1/4" NON-CASE HARDENED CHAIN WITH BREAKAWAY LOCK(TWO BOLTS MINIMUM)



**NOTES:**

NO WATER IS TO BE DRAWN THROUGH THE BACKFLOW DEVICE UNTIL IT HAS BEEN TESTED BY THE ENVIRONMENTAL UTILITIES DEPT.

PIPE SHALL BE DUCTILE IRON.

PIPE AND FITTINGS SHALL BE WRAPPED WITH 8 MIL. POLYETHYLENE

USE CITY APPROVED RESTRAINED JOINTS OR FLANGED SPOOLS

THE BACKFLOW DEVICE SHALL BE INSULATED WITH A CITY APPROVED FREEZE PROTECTION BAG.

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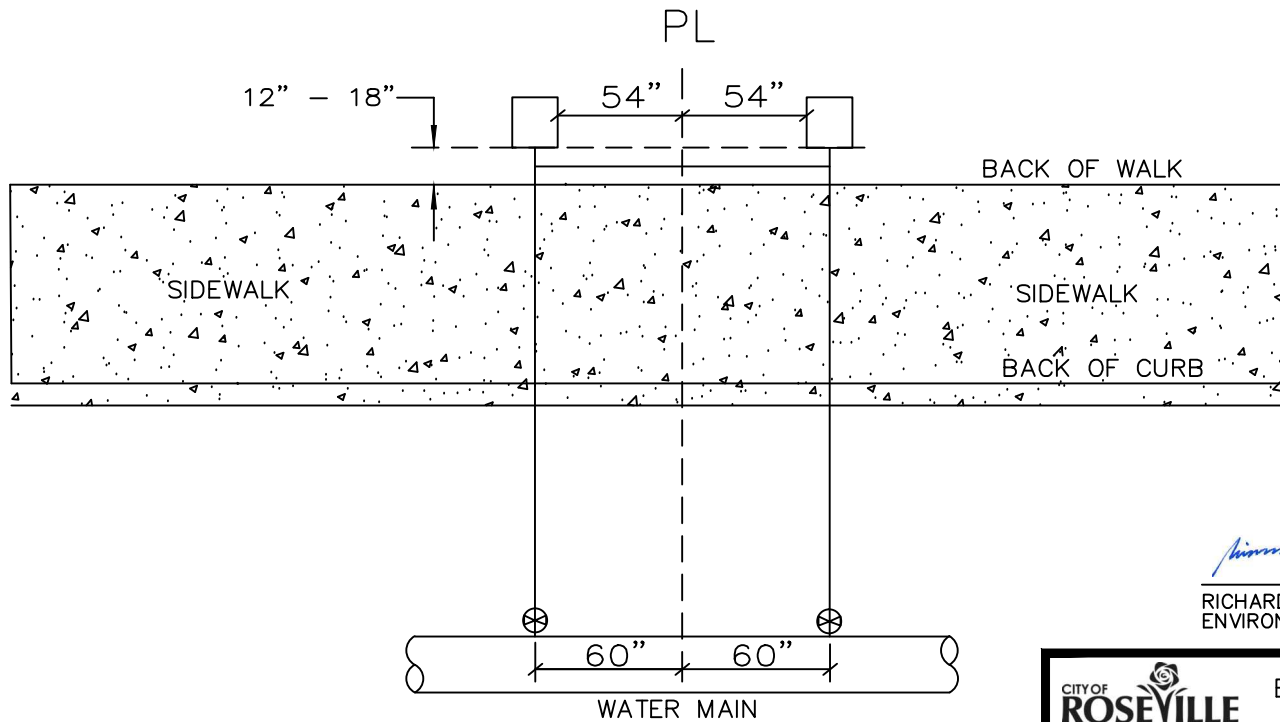
CITY OF  
**ROSEVILLE**  
CALIFORNIA

ENVIRONMENTAL UTILITIES  
DEPARTMENT

**COMMERCIAL 3" & LARGER  
SERVICE**

SCALE: NONE  
REVISED: JANUARY 2023  
DRAWN BY: J THOMPSON  
APPROVED BY: RICHARD PLECKER

W-8



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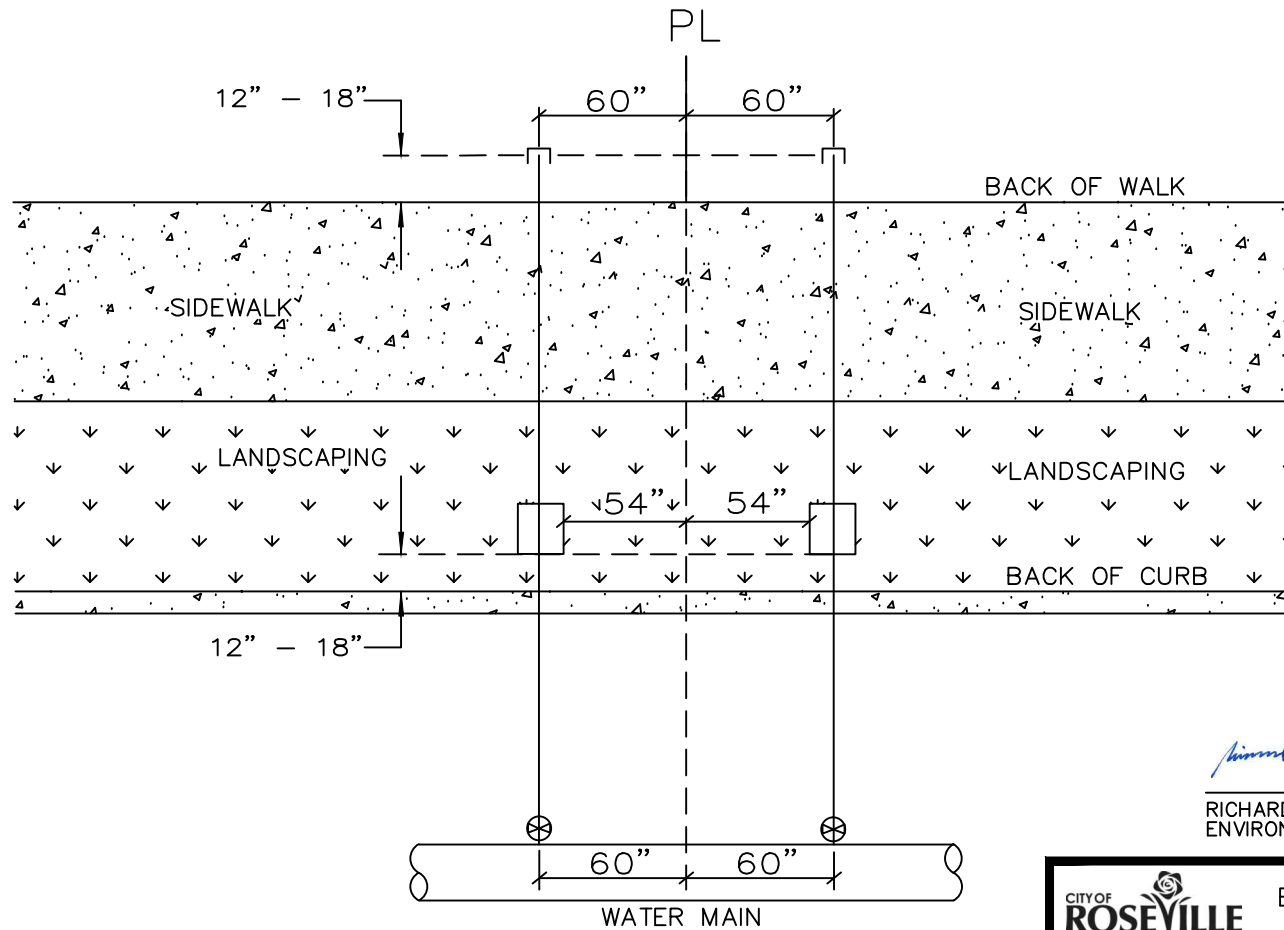
ENVIRONMENTAL UTILITIES  
DEPARTMENT

**RESIDENTIAL WATER SERVICE**

SCALE: NONE  
REVISED: JANUARY 2016  
DRAWN BY: R. VAN NESS  
APPROVED BY: RICHARD PLECKER

W-9

NOTE: REFER TO DETAIL W-18 FOR "WATER SERVICE TRENCH AND BACKFILL"



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ENVIRONMENTAL UTILITIES  
DEPARTMENT

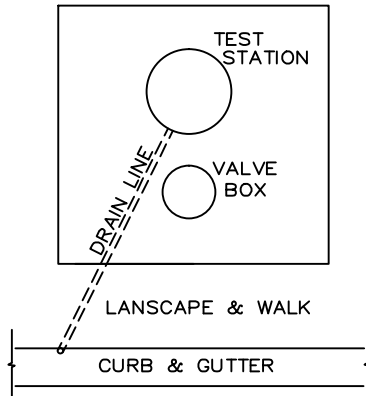
**RESIDENTIAL WATER SERVICE FOR  
SEPARATED SIDEWALKS**

SCALE: NONE  
REVISED: JANUARY 2016  
DRAWN BY: R. VAN NESS  
APPROVED BY: RICHARD PLECKER

**W-10**

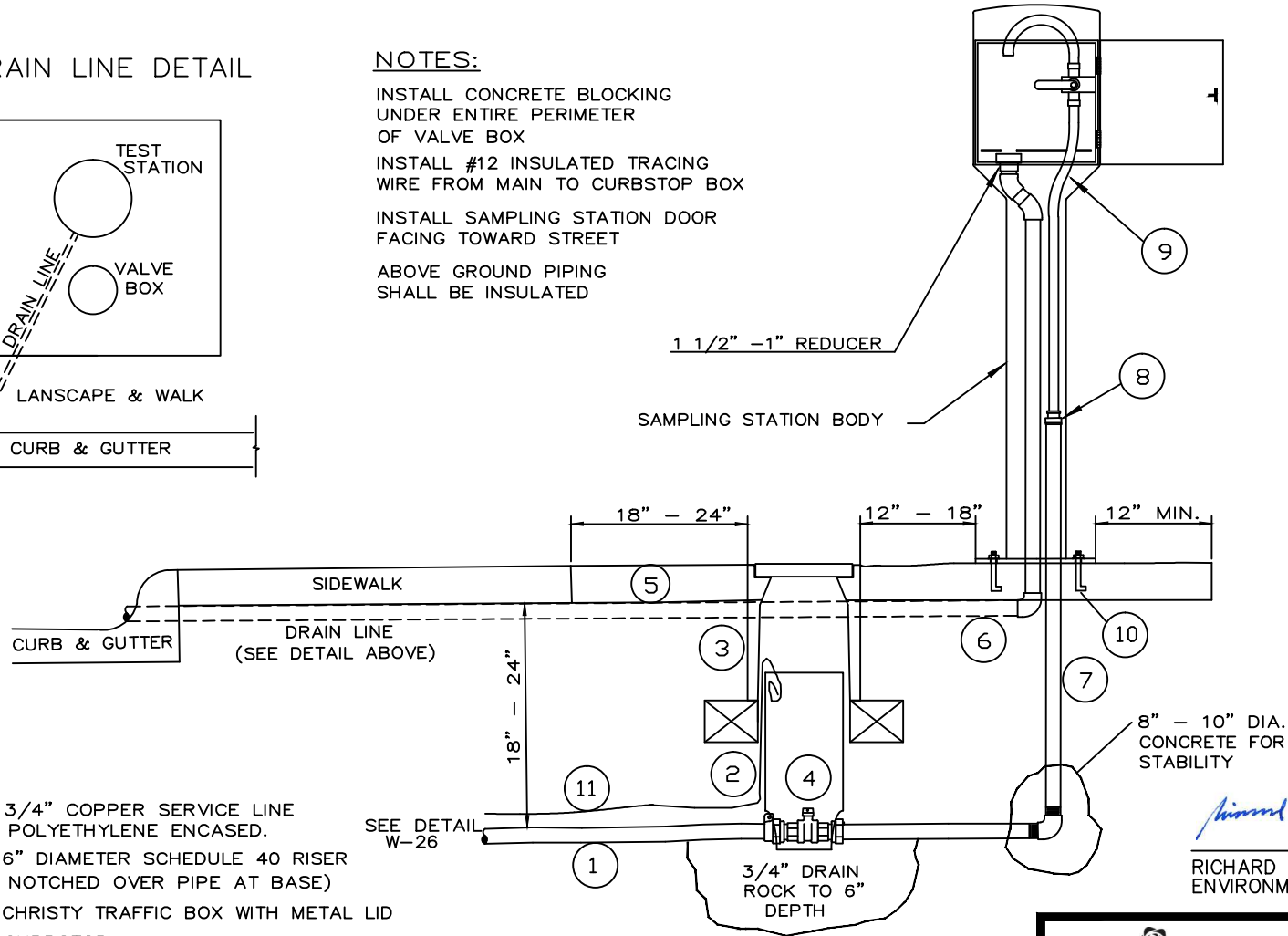
NOTE: REFER TO DETAIL W-18 FOR "WATER SERVICE TRENCH AND BACKFILL"

**DRAIN LINE DETAIL**



**NOTES:**

- INSTALL CONCRETE BLOCKING UNDER ENTIRE PERIMETER OF VALVE BOX
- INSTALL #12 INSULATED TRACING WIRE FROM MAIN TO CURBSTOP BOX
- INSTALL SAMPLING STATION DOOR FACING TOWARD STREET
- ABOVE GROUND PIPING SHALL BE INSULATED



- 1) 3/4" COPPER SERVICE LINE POLYETHYLENE ENCASED.
- 2) 6" DIAMETER SCHEDULE 40 RISER (NOTCHED OVER PIPE AT BASE)
- 3) CHRISTY TRAFFIC BOX WITH METAL LID
- 4) CURBSTOP
- 5) 3 1/2" THICK REINFORCED CONCRETE SLAB
- 6) 1" SCH. 40 PVC DRAIN TO GUTTER
- 7) 3/4" BRASS PIPE
- 8) 3/4" TO 1/2" REDUCER (BRASS)
- 9) 1/2" COPPER TUBING
- 10) (4) ANCHOR BOLTS WITH WASHERS & NUTS
- 11) INSTALL TRACING WIRE FROM MAIN TO CURB STOP. PLACE WIRE OUTSIDE THE RISER, BUT INSIDE THE BOX.

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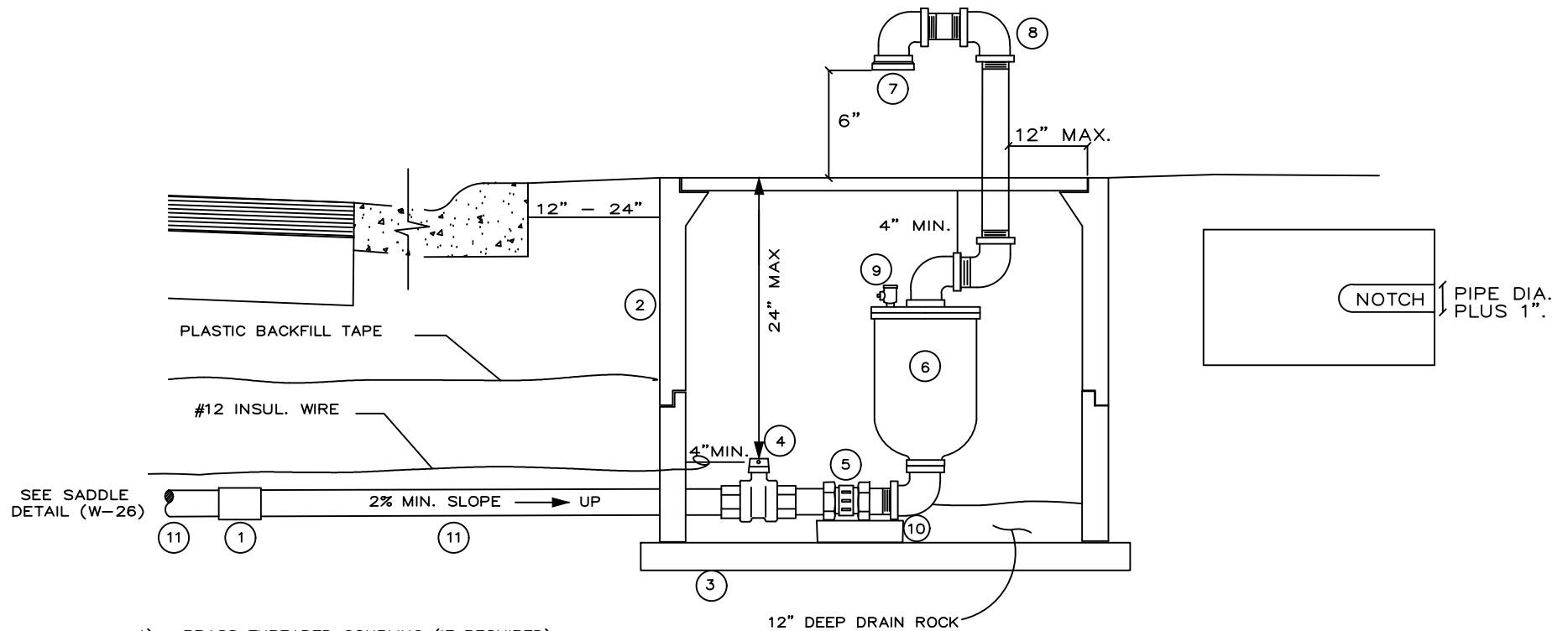


ENVIRONMENTAL UTILITIES  
DEPARTMENT

**SAMPLING STATION**

SCALE: NONE  
REVISED: JANUARY 2016  
DRAWN BY: R. VAN NESS  
APPROVED BY: RICHARD PLECKER

W-11



- 1) BRASS THREADED COUPLING (IF REQUIRED)
- 2) B-40 UTILITY BOX W/TRAFFIC COVER MARKED, "RSVL ARV" IF EXTENSION IS REQ. MOTAR EXTENSION JOINT INSIDE & OUT.
- 3) 3" x 5" CONCRETE BRICK UNDER ENTIRE PERIMETER OF UTILITY BOX.
- 4) CURB STOP
- 5) BRASS UNION
- 6) COMBINATION AIR / VACUUM VALVE
- 7) PVC TERMINATION WITH INSECT/RODENT SCREEN.
- 8) USE SCH 80 PIPE AND FITTINGS ABOVE GROUND. EXPOSED PIPE AND FITTINGS SHALL BE PAINTED SAFETY BLUE TO MATCH CARBOLINE S150.
- 9) 1/4" TEST COCK
- 10) CONCRETE BLOCK FOR SUPPORT
- 11) THREADED BRASS PIPE

**NOTE:**

BURIED PIPE AND FITTINGS SHALL BE WRAPPED WITH 8 MIL POLYETHYLENE OR APPROVED EQUAL.

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ENVIRONMENTAL UTILITIES DIRECTOR



ENVIRONMENTAL UTILITIES  
DEPARTMENT

**1" AND 2" AIR RELEASE  
VALVE ASSEMBLY**

SCALE: NONE  
REVISED: JANUARY 2024  
DRAWN BY: R. VAN NESS  
APPROVED BY: RICHARD PLECKER

W-12

**NOTES:**

FITTINGS SHALL BE DUCTILE IRON

VALVES AND FITTINGS SHALL BE WRAPPED IN 8 MIL. OR THICKER POLYETHYLENE.

BURIED NUTS AND BOLTS SHALL BE COATED WITH A BITUMINOUS MATERIAL. "T" BOLT HEADS DO NOT REQUIRE COATING.

VALVE SHALL BE A MINIMUM OF 15' FROM HYDRANT.

USE APPROVED RESTRAINING JOINTS FROM VALVE TO HYDRANT BURY.

MARK THE LOCATION OF THE HYDRANT WITH A BLUE REFLECTOR PLACED 1' OFF STREET CENTERLINE. HYDRANTS LOCATED AT INTERSECTIONS SHALL BE MARKED ON BOTH STREETS, PER PROVISIONS IN SECTION 84 OF THE CALTRANS SPECIFICATIONS.

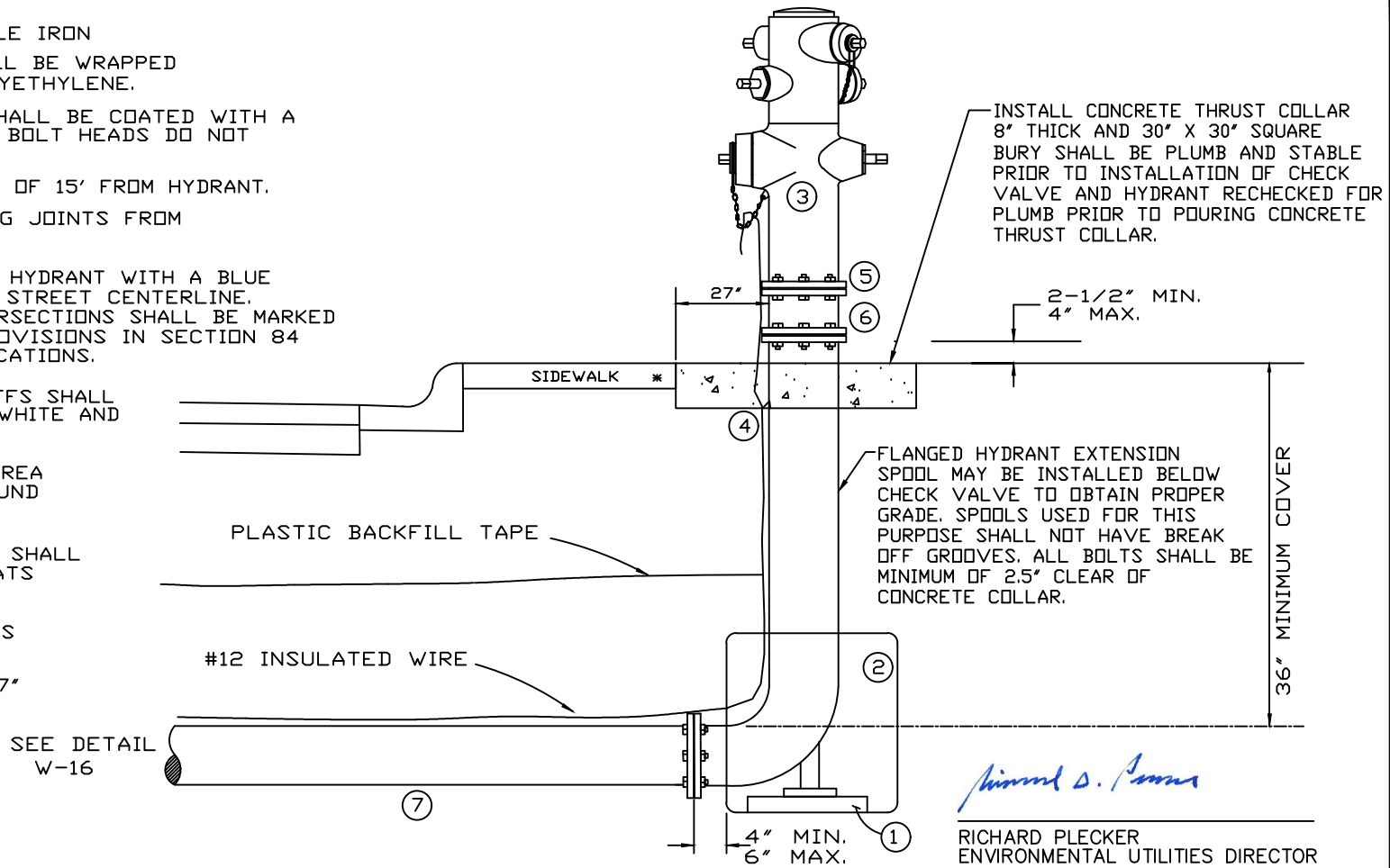
HYDRANTS USED AS BLOW-OFFS SHALL HAVE THE TOP 2" PAINTED WHITE AND BE MARKED WITH AN "X".

A MINIMUM 3 FOOT CLEAR AREA SHALL BE MAINTAINED AROUND THE FIRE HYDRANT.

CITY MAINTAINED HYDRANTS SHALL BE PAINTED WITH TWO COATS SAFTEY-YELLOW.

PRIVATELY OWNED HYDRANTS SHALL BE PAINTED WHITE.

\* - HYDRANTS SHALL BE 27" BEHIND CURB WHEN THE SIDEWALK IS DETACHED.




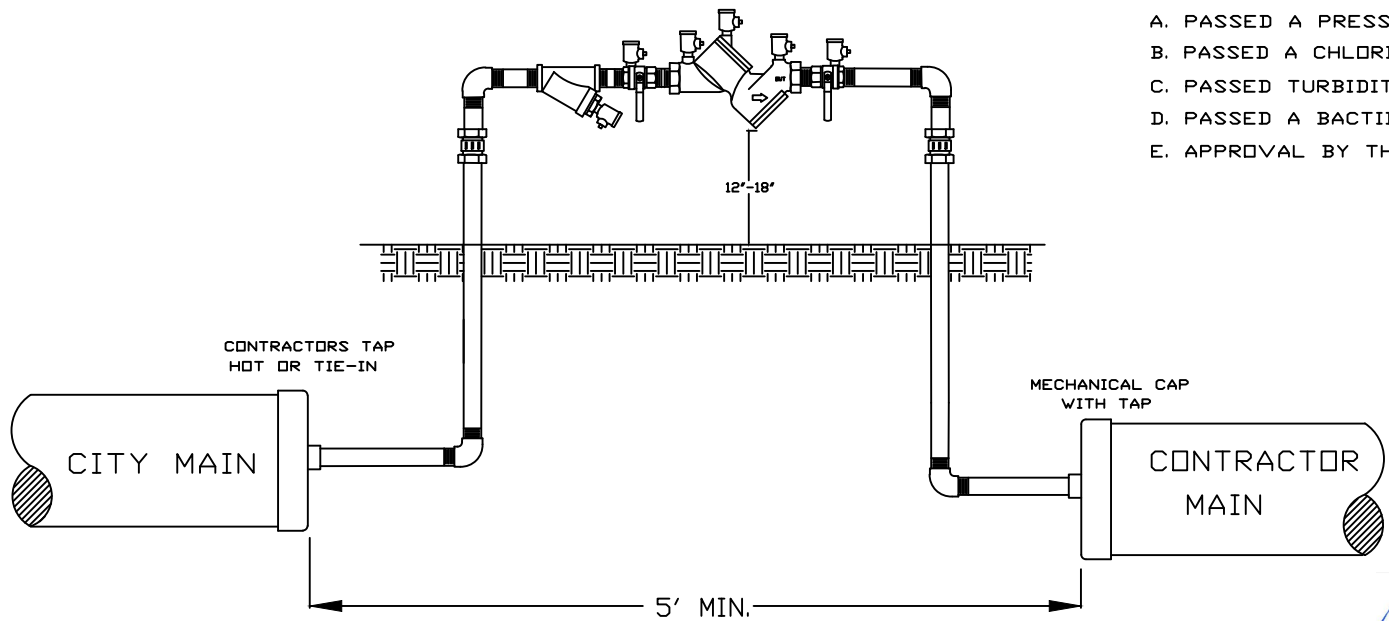
*Richard D. Plecker*

RICHARD PLECKER  
ENVIRONMENTAL UTILITIES DIRECTOR

**MATERIALS:**

- 1) CONCRETE BLOCKING
- 2) CONCRETE SUPPORT AGAINST UNDISTURBED SOIL
- 3) FIRE HYDRANT 6"x 2-1/2"x 2-1/2"x 4-1/2" (LEAD FREE)
- 4) INSTALL CONCRETE THRUST COLLAR 8" THICK AND 30" X 30" SQUARE
- 5) CLOW LP619 BREAK OFF CHECK VALVE OR APPROVED EQUAL
- 6) NON-BREAKAWAY BOLTS
- 7) FULLY RESTRAINED DUCTILE IRON PIPE ENTIRE LENGTH

	ENVIRONMENTAL UTILITIES DEPARTMENT
FIRE HYDRANT ASSEMBLY	
SCALE: NONE REVISED: JANUARY 2024 DRAWN BY: J. THOMPSON APPROVED BY: RICHARD PLECKER	
W-13	



PRIOR TO CONNECTION TO THE CITY MAIN, THE FOLLOWING CONDITIONS SHALL BE MET:

- A. PASSED A PRESSURE TEST
- B. PASSED A CHLORINE TEST
- C. PASSED TURBIDITY TEST
- D. PASSED A BACTII TEST
- E. APPROVAL BY THE EUD INSPECTOR

NOTES:

WATER SHALL ONLY BE DRAWN INTO THE CONTRACTORS MAIN THROUGH A CITY APPROVED RP TYPE BACKFLOW DEVICE WHICH HAS BEEN TESTED AND TAGGED BY THE ENVIRONMENTAL UTILITIES DEPARTMENT.

FINAL SYSTEM COMPONENTS NECESSARY FOR TIE-IN SHALL BE PRE-CHLORINATED AND PRE-FLUSHED IN THE PRESENCE OF AN ENVIRONMENTAL UTILITIES DEPARTMENT INSPECTOR.

UPON COMPLETION OF THE CONDITIONS NOTED ABOVE AND WITH THE APPROVAL OF THE EUD INSPECTOR, CONNECTION TO THE CITY SYSTEM MAY BE MADE. THE EUD INSPECTOR SHALL BE NOTIFIED 48 HOURS PRIOR TO THE START OF WORK.

CONTRACTOR IS TO SIZE JUMPER ADEQUATELY FOR FLUSHING PURPOSES.

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ENVIRONMENTAL UTILITIES DIRECTOR

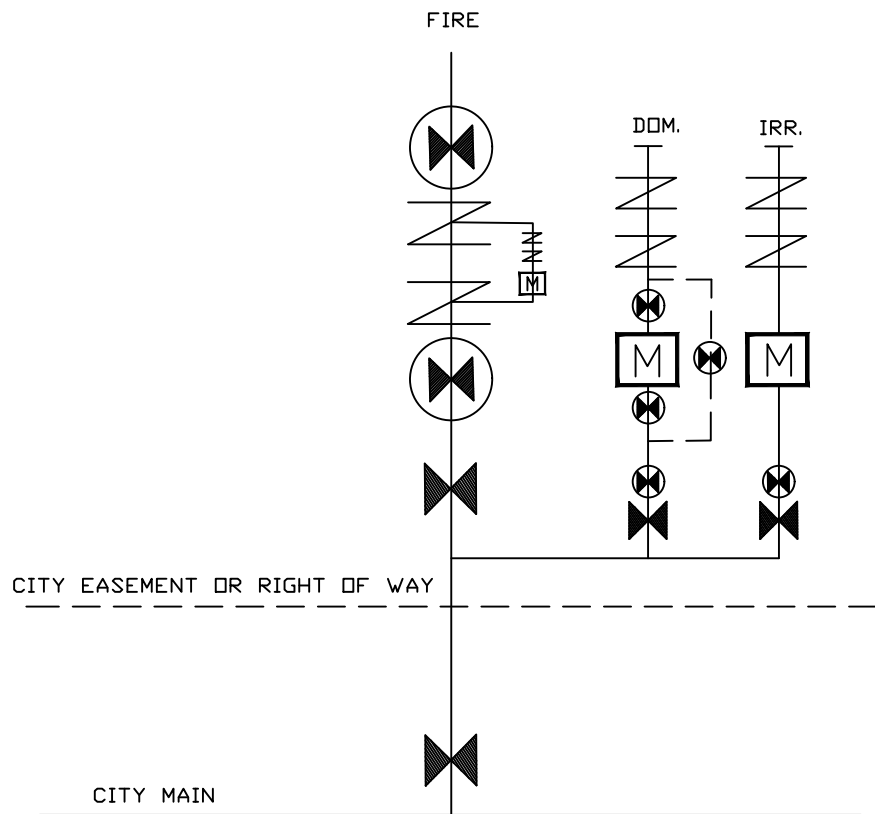


CITY OF ROSEVILLE  
ENVIRONMENTAL UTILITIES DEPT.

CONSTRUCTION WATER DETAIL

SCALE: NONE  
REVISED: JANUARY 2017  
DRAWN BY: R. VAN NESS  
APPROVED BY: RICHARD PLECKER

W-14



**NOTES:**

- 1) RESTRAINT ENTIRE MANIFOLD WITH APPROVED RESTRAINT SYSTEMS.
- 2) TAPS SHALL BE MADE SUCH THAT NO DEAD END LINES RESULT.
- 3) ALL LINES 3" AND LARGER SHALL BE DIP.
- 4) AFTER THE MANIFOLD, UNDERGROUND AND ABOVE, HAS BEEN ACCEPTED, METERS SHALL BE PURCHASED THROUGH THE CITY AND INSTALLED BY CITY CREWS. WATER MAY NOT DRAWN PRIOR TO TESTING AND TAGGING THE BACKFLOW DEVICE BY THE EUD
- 5) PROVIDE A PAD WITHIN THE LIMITS OF THE BACKFLOW MANIFOLD WITH POSITIVE DRAINAGE AND A 2% MAX. SLOPE.
- 6) IN A BACKFLOW MANIFOLD CONFIGURATION THAT INCLUDES DOMESTIC AND IRRIGATION SERVICES, THE IRRIGATION SERVICE TAP SHALL BE DOWNSTREAM OF THE DOMESTIC SERVICE TAP.
- 7) PROVIDE A MINIMUM 3 FOOT SEPARATION BETWEEN BACKFLOWS IN PARALLEL.
- 8) PROVIDE A 3' MINIMUM CLEARANCE FROM TOE OR TOP OF ANY SLOPE. NO SLOPES GREATER THAN 2:1 ADJACENT TO BACKFLOW MANIFOLD. IF THE ABOVE CRITERIA IS NOT MET, A RETAINING WALL IS REQUIRED. THE RETAINING WALL SHALL BE CONSTRUCTED OF CONCRETE OR MASONRY ONLY.
- 9) PROVIDE CURB STOPS AS REQUIRED PER THESE STANDARDS.
- 10) METER LID SHALL BE STENCILLED WITH THE NUMBER ADDRESS IT SERVES. USE WHITE ENAMEL PAINT AND 2" TALL STENCILING.
- 11) A METER BYPASS WITH A LOCKING CURB STOP OR LOCKING VALVE SHALL BE REQUIRED FOR ALL DOMESTIC SERVICES 3" AND LARGER OR WHERE REQUIRED.
- 12) MANIFOLD PIPING SHALL BE A MAXIMUM DEPTH OF 6 FEET.
- 13) MANIFOLD PIPING CONNECTING THE DOMESTIC AND IRRIGATION SERVICES SHALL BE 4" MINIMUM DIP BEYOND THE TEE CONNECTION WITH THE FIRE SERVICE.

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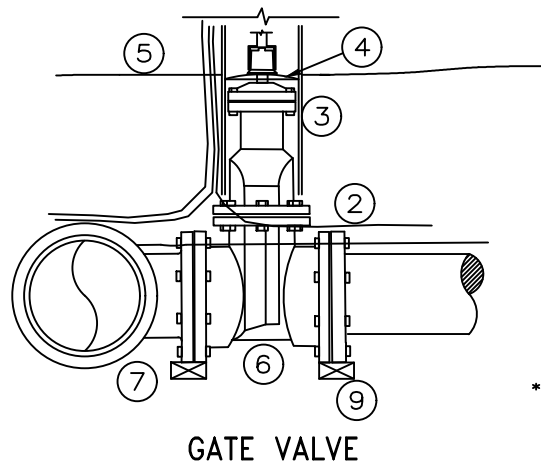
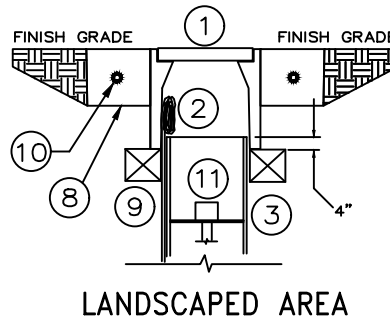
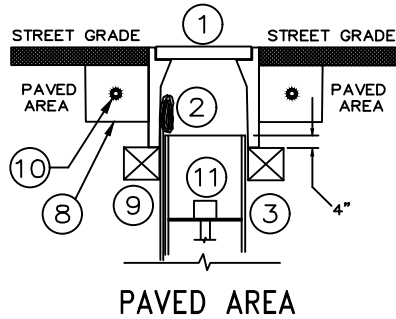
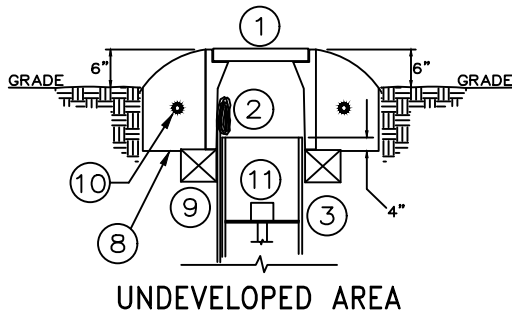


ENVIRONMENTAL UTILITIES  
DEPARTMENT

**BACKFLOW MANIFOLD SCHEMATIC**

SCALE: NONE  
REVISED: JANUARY 2022  
DRAWN BY: R. VAN NESS  
APPROVED BY: RICHARD PLECKER

W-15



### MATERIALS

- 1) CONCRETE VALVE BOX
- 2) #12 INSULATED TRACING WIRE OUTSIDE RISER
- 3) 8" RISER STOCK
- 4) RISER ALIGNER
- 5) PLASTIC BACKFILL TAPE
- 6) GATE VALVE
- 7) DUCTILE IRON TEE
- 8) CONCRETE COLLAR (SEE NOTES) \*
- 9) CONCRETE BRICK (SEE NOTES)
- 10) #4 REBAR AROUND CIRCUM. (TYP.)
- 11) VALVE EXTENSION PER SECTION 81-12.B

\* CONCRETE COLLAR SHALL BE PLACED FLUSH TO FINISH GRADE IN ALL COLLECTORS AND ARTERIALS, OPTIONAL IN ALL OTHER ROADWAYS. FINISH SURFACE SHALL BE MEDIUM BROOM FINISH WITH PATTERN PERPENDICULAR TO VEHICLE TRAVEL DIRECTION. SET COLLAR 1/8" BELOW ADJACENT FINISHED PAVEMENTS.

### NOTES:

TRACING WIRE THROUGH VALVE BOXES SHALL BE PLACED OUTSIDE OF RISER BUT INSIDE OF BOX.

TRACING WIRE SHALL BE SPLICED INSIDE THE VALVE BOX PER (W-17) AND SHALL LOOP WITHIN THE VALVE BOX WITH 18" OF SLACK WIRE

ALL GATE VALVES SHALL BE CENTERED IN A ONE PIECE RISER STOCK WITH THE USE OF A RISER ALIGNER

OPERATOR NUTS DEEPER THAN 40 INCHES FROM FINISH GRADE SHALL REQUIRE A VALVE NUT EXTENSION 2 FEET MINIMUM IN LENGTH.

VALVE BOXES LOCATED IN A PAVED AREA SHALL BE PLACED IN A 6" X 6" CONCRETE COLLAR A MINIMUM OF 3" BELOW PAVEMENT

VALVE BOXES LOCATED IN A LANDSCAPED AREA SHALL BE PLACED IN A 6" X 6" CONCRETE COLLAR AT FINISHED GRADE.

VALVE BOXES LOCATED IN AN UNDEVELOPED AREA SHALL BE PLACED IN A 12" DEEP BY 6" WIDE CONCRETE COLLAR 6 INCHES ABOVE GRADE.

INSTALL (3" X 5" CONCRETE BRICK) UNDER ENTIRE PERIMETER OF BOX.

VALVES AND FITTINGS SHALL BE WRAPPED AND SEALED IN 8 MIL POLYETHYLENE

VALVE RISOR STOCK SHALL BE A MINIMUM OF 4" INSIDE VALVE BOX AND MINIMUM 2" BELOW METAL RING.

*Richard D. Plecker*

RICHARD PLECKER  
ENVIRONMENTAL UTILITIES DIRECTOR

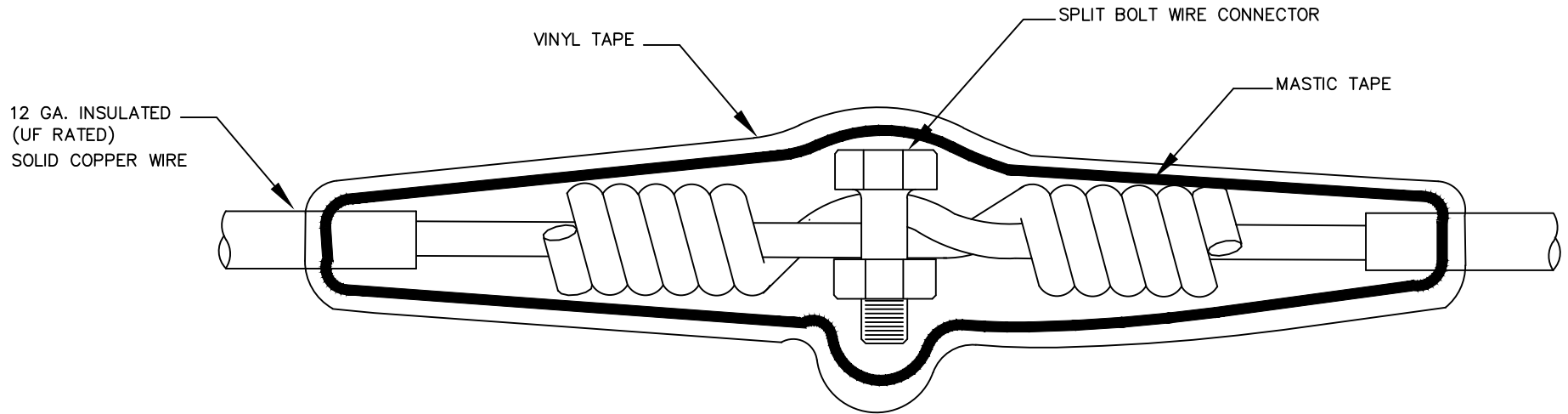
CITY OF  
**ROSEVILLE**  
CALIFORNIA

ENVIRONMENTAL UTILITIES  
DEPARTMENT

## GATE VALVE & BOX

SCALE: NONE  
REVISED: JANUARY 2020  
DRAWN BY: R. VAN NESS  
APPROVED BY: RICHARD PLECKER

W-16



NOTES:

1. TWIST THE WIRE A MINIMUM OF (5) TIMES ON EACH END.
2. INSTALL SPLIT BOLT CONNECTOR.
3. SOLDER WIRE
4. COVER THE ENTIRE SPLICE WITH MASTIC TAPE WRAP
5. WRAP MASTIC WITH VINYL TAPE.
6. WIRE SPLICES SHALL BE LOCATED WITHIN A VALVE BOX PER DETAIL W-16.

*Richard D. Plecker*

RICHARD PLECKER  
ENVIRONMENTAL UTILITIES DIRECTOR

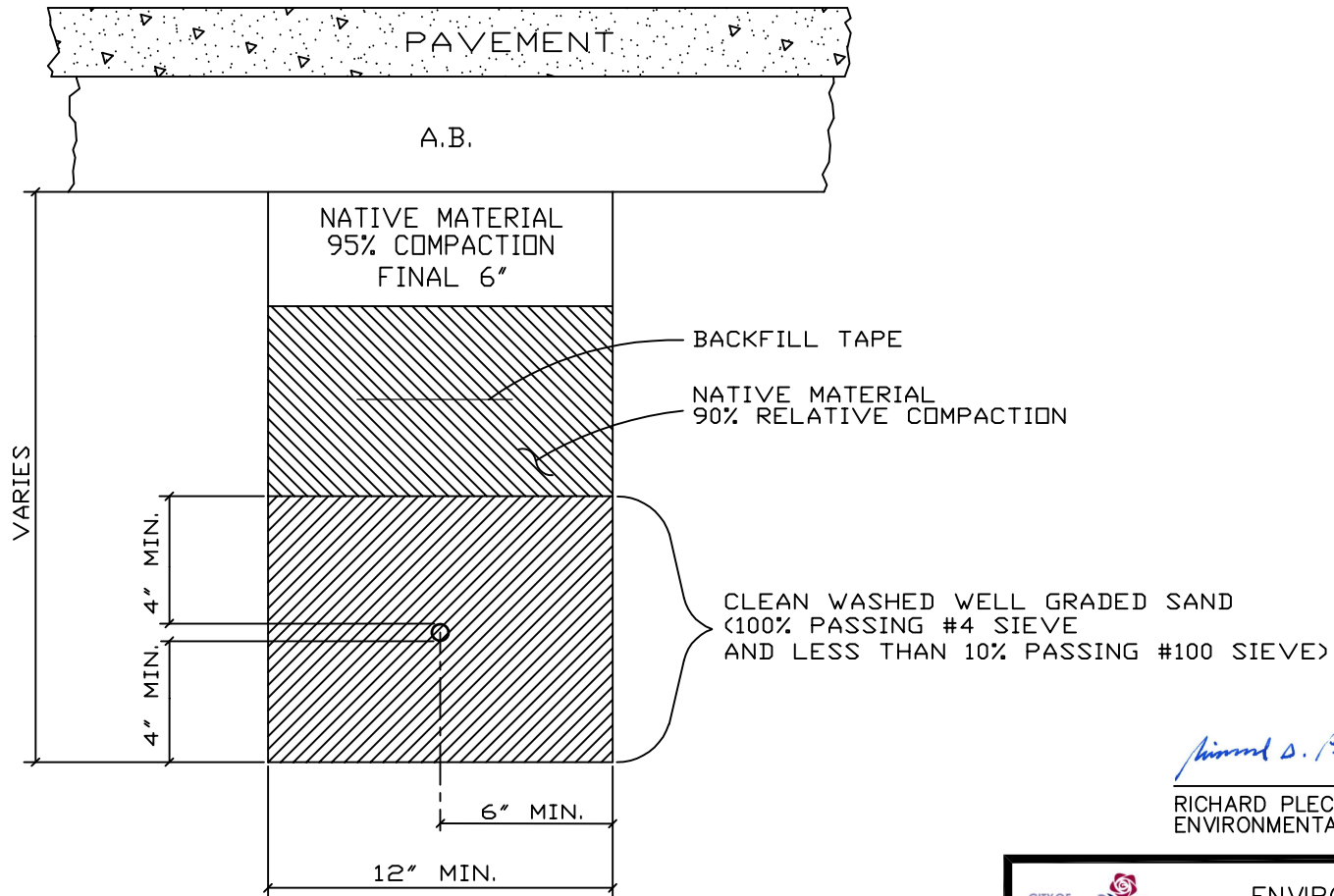
CITY OF  
**ROSEVILLE**  
CALIFORNIA

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## TRACING WIRE SPLICE

SCALE: NONE  
REVISED: JANUARY 2016  
DRAWN BY: R. VAN NESS  
APPROVED BY: RICHARD PLECKER

W-17



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ENVIRONMENTAL UTILITIES DIRECTOR

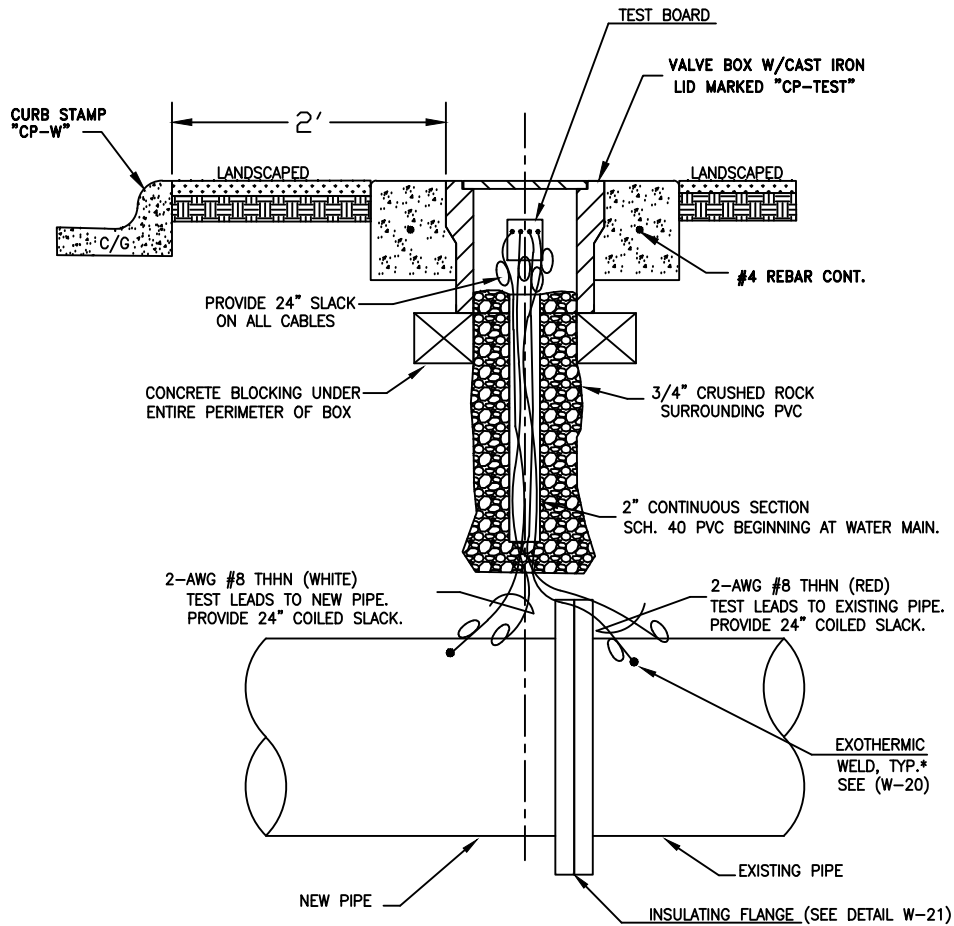


ENVIRONMENTAL UTILITIES  
DEPARTMENT

TRENCH AND BACKFILL FOR ALL  
WATER LINES 2" AND SMALLER

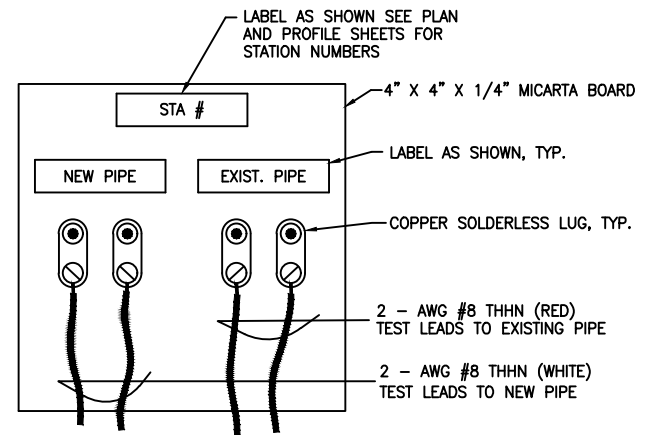
SCALE: NONE  
REVISED: JANUARY 2016  
DRAWN BY: R. VAN NESS  
APPROVED BY: RICHARD PLECKER

W-18



TEST STATION (TYPICAL)

\*FOR VALVES WELD ON FLANGE



TEST STATION BOARD (TYPICAL)

*Richard D. Plecker*

RICHARD PLECKER  
ENVIRONMENTAL UTILITIES DIRECTOR



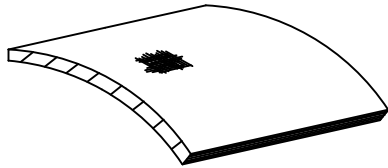
ENVIRONMENTAL UTILITIES  
DEPARTMENT

INSULATING FLANGE TEST STATION

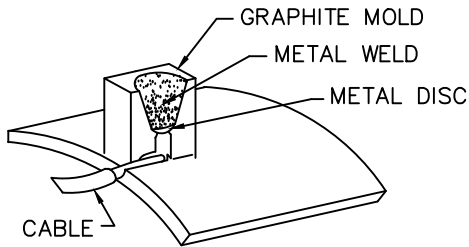
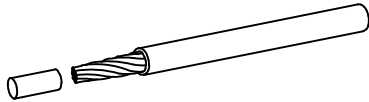
SCALE: NONE  
REVISED: JANUARY 2017  
DRAWN BY: R. VAN NESS  
APPROVED BY: RICHARD PLECKER

W-19

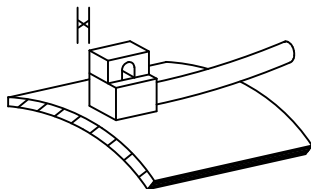
1) FILE TO BARE METAL & CLEAN OVER SURFACE



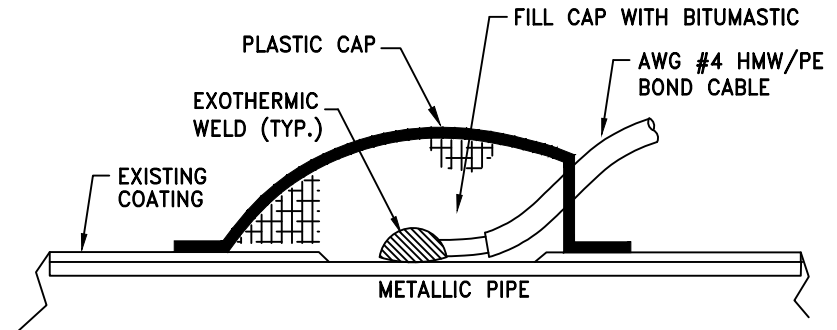
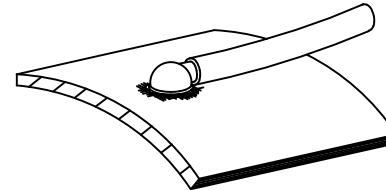
2) STRIP INSULATION FROM WIRE AND ATTACH SLEEVE



3) HOLD MOLD FIRMLY WITH OPENING AWAY FROM OPERATOR, IGNITE WITH FLINT GUN



4) REMOVE SLAG FROM CONNECTION, COVER CONNECTION WITH COMPATIBLE COATING AND CAP OVER ALL EXPOSED METAL



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ENVIRONMENTAL UTILITIES DIRECTOR

NOTE:  
EACH JOINT SHALL HAVE TWO  
SEPARATE WELD WIRES.

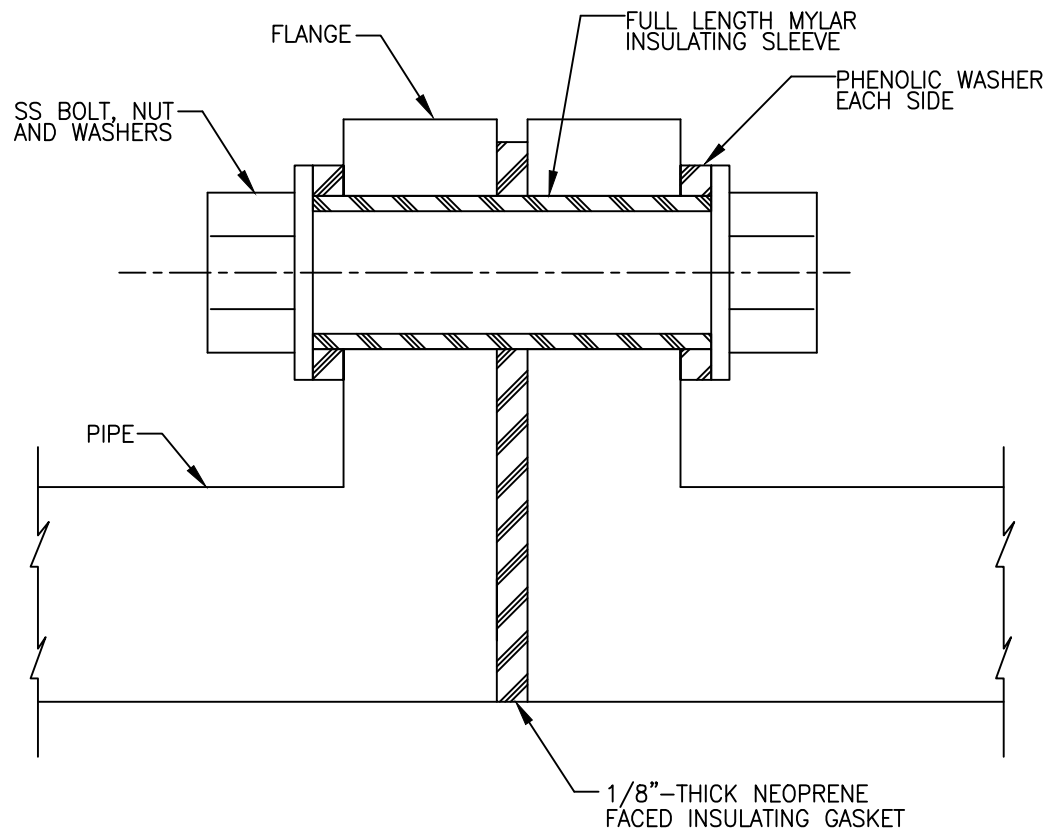


ENVIRONMENTAL UTILITIES  
DEPARTMENT

**EXOTHERMIC WELD**

SCALE: NONE  
REVISED: JANUARY 2016  
DRAWN BY: R. VAN NESS  
APPROVED BY: RICHARD PLECKER

W-20



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ENVIRONMENTAL UTILITIES DIRECTOR

NOTES:

1. DIELECTRIC FLANGE KITS SHALL BE MANUFACTURED BY F.H. MALONEY CP., CALPICO OR APPROVED EQUAL
2. PROVIDE AN INSULATING FLANGE TEST STATION FOR THE INSULATED FLANGE.

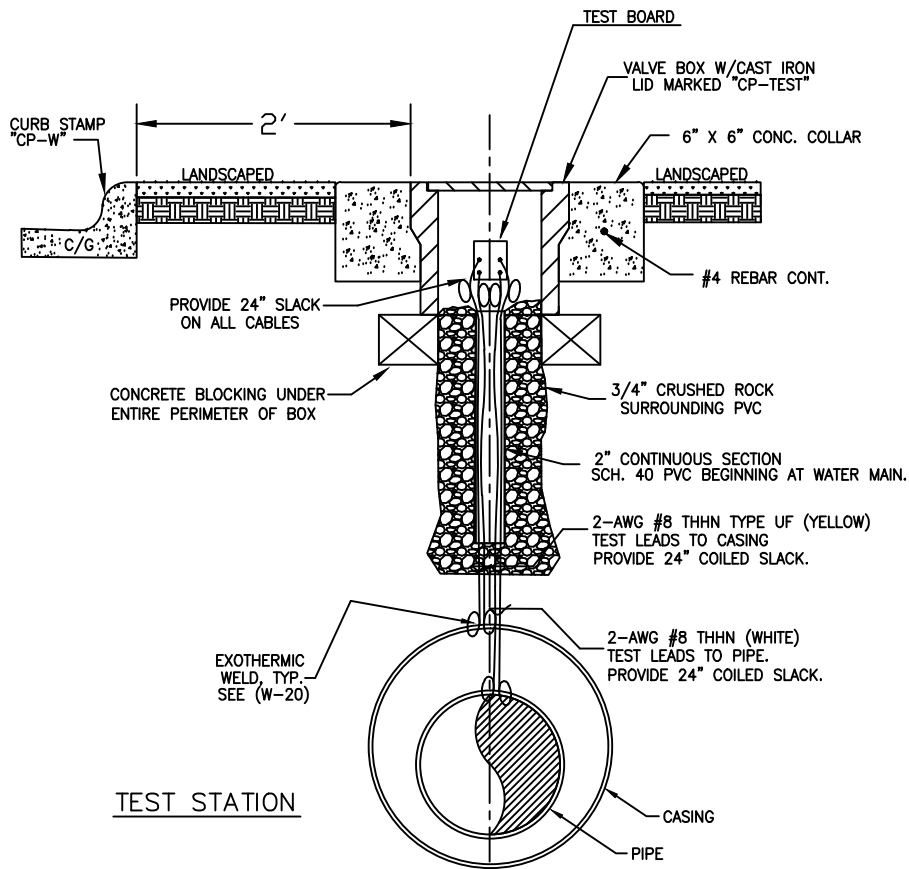
CITY OF  
**ROSEVILLE**  
CALIFORNIA

ENVIRONMENTAL UTILITIES  
DEPARTMENT

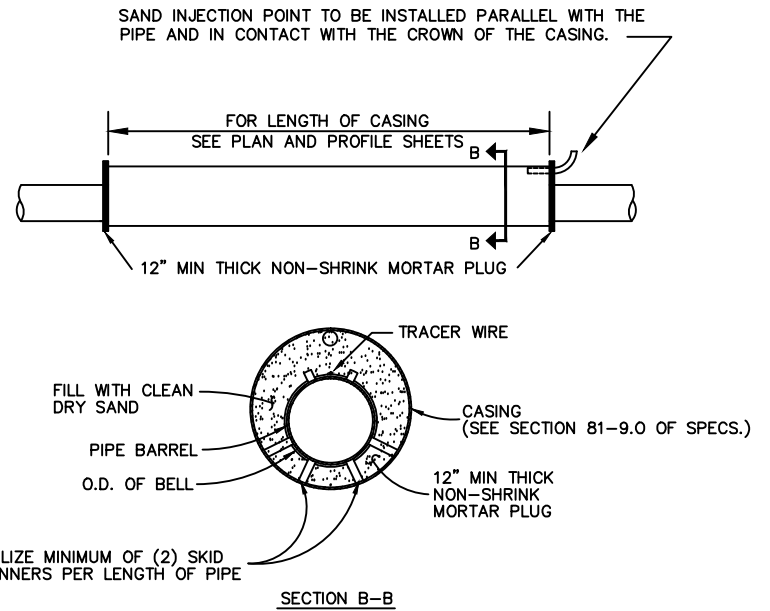
**INSULATED FLANGE**

SCALE: NONE  
REVISED: JANUARY 2015  
DRAWN BY: R. VAN NESS  
APPROVED BY: RICHARD PLECKER

W-21



TEST STATION

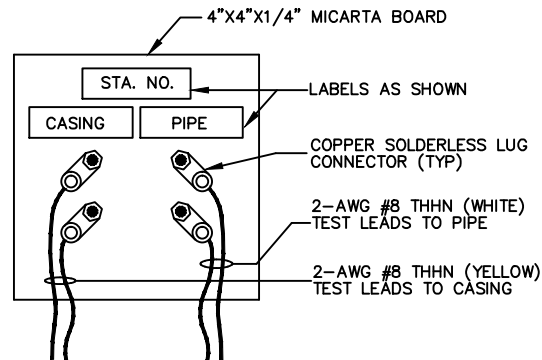


NOTES:

1. THE MINIMUM STRENGTH FOR STEEL CASING SHALL BE 35,000 PSI
2. 18 MIL COAL TAR EPOXY SHALL BE APPLIED ON THE INSIDE & OUTSIDE OF THE STEEL CASING.
3. RESTRAINED PIPE WITHIN CASINGS OR BRIDGES SHALL BE FULLY EXTENDED OR "STRETCHED OUT" TO REMOVE THE SLACK BETWEEN THE JOINTS THE ENTIRE LENGTH OF THE STRUCTURE.

CASING DETAIL

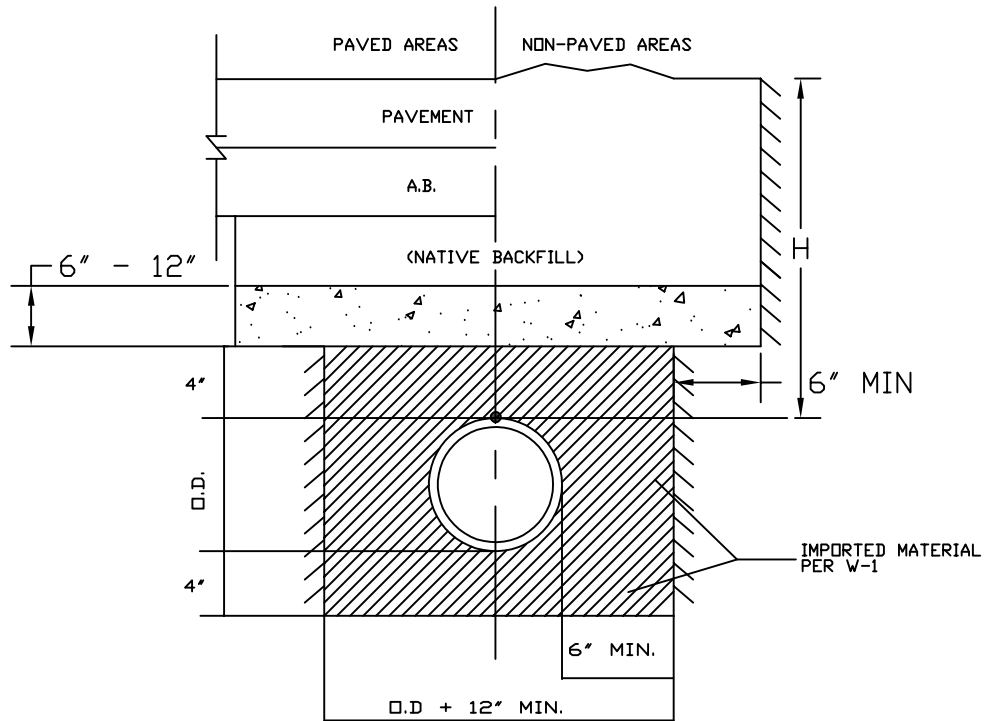
TEST BOARD



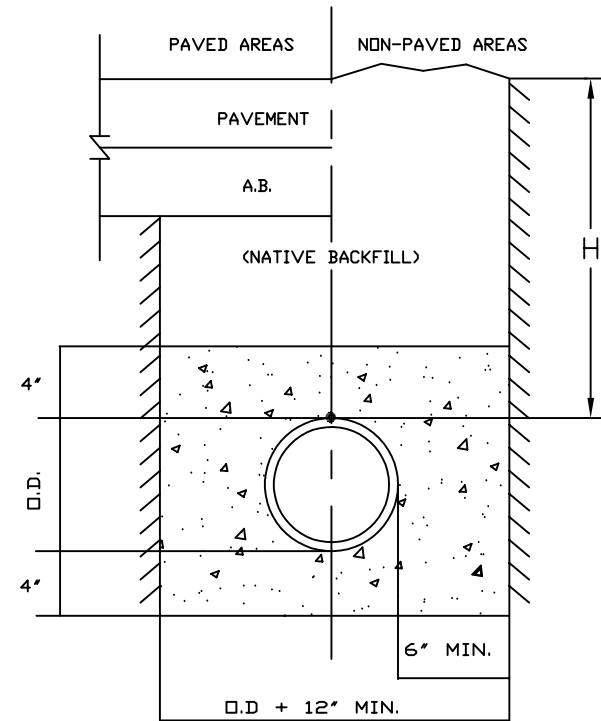
*Richard D. Plecker*

RICHARD PLECKER  
ENVIRONMENTAL UTILITIES DIRECTOR

	ENVIRONMENTAL UTILITIES DEPARTMENT
	CASING & TEST STATION
SCALE: NONE REVISED: JANUARY 2016 DRAWN BY: R. VAN NESS APPROVED BY: RICHARD PLECKER	
W-22	



CONCRETE CAP



CONCRETE ENCASEMENT

APPLICATION:

- WHERE  $30'' < H < 36''$ , USE DIP ONLY
- WHERE  $20'' < H < 30''$ 
  - WITH SERVICES, USE DIP AND CONCRETE CAP
  - WITHOUT SERVICES, USE DIP AND CONCRETE ENCASE (WRAP DIP IN 1/2" CLOSED CELL FOAM PRIOR TO ENCASEMENT)
- WHERE  $H < 20''$ , REDESIGN WATERLINE

NOTE:

THIS DETAIL SHALL BE USED ON A CASE-BY-CASE BASIS WITH THE APPROVAL OF THE EUD DIRECTOR. IN MOST CASES, THE 36" MINIMUM COVER SHALL PREVAIL.

*Richard D. Plecker*

RICHARD PLECKER  
ENVIRONMENTAL UTILITIES DIRECTOR

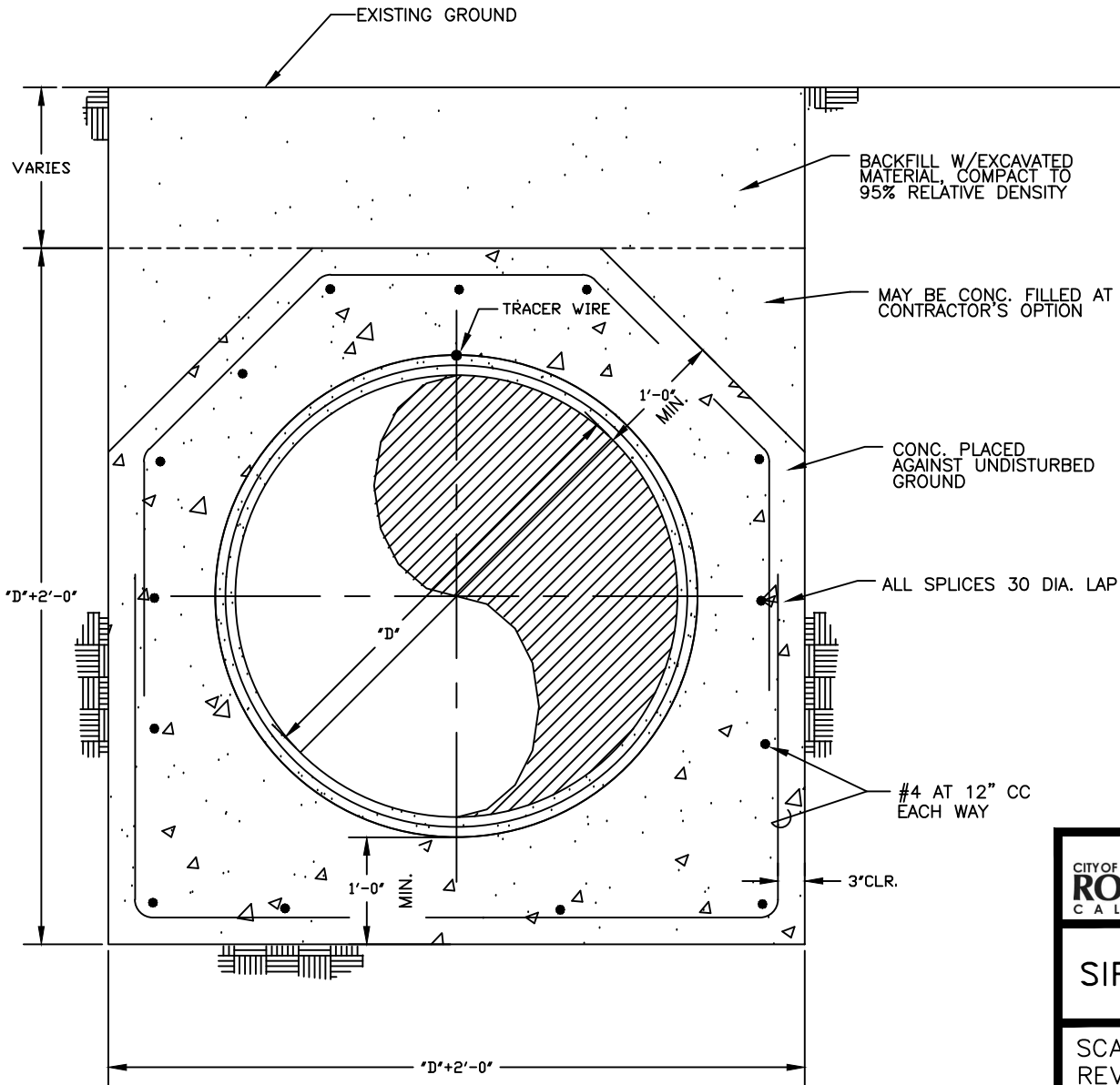


ENVIRONMENTAL UTILITIES  
DEPARTMENT

SHALLOW WATER MAINS

SCALE: NONE  
REVISED: JANUARY 2017  
DRAWN BY: R. VAN NESS  
APPROVED BY: RICHARD PLECKER

W-23



**NOTES:**

1. RESTRAINED PIPE WITHIN CASINGS OR BRIDGES SHALL BE FULLY EXTENDED OR "STRETCHED OUT" TO REMOVE THE SLACK BETWEEN THE JOINTS THE ENTIRE LENGTH OF THE STRUCTURE.

*Richard D. Plecker*

RICHARD PLECKER  
ENVIRONMENTAL UTILITIES DIRECTOR



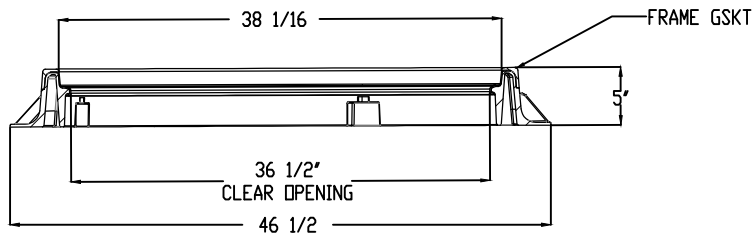
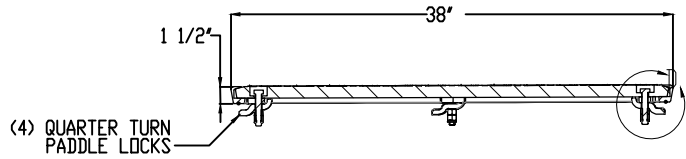
ENVIRONMENTAL UTILITIES  
DEPARTMENT

**SIPHON CONCRETE ENCASEMENT**

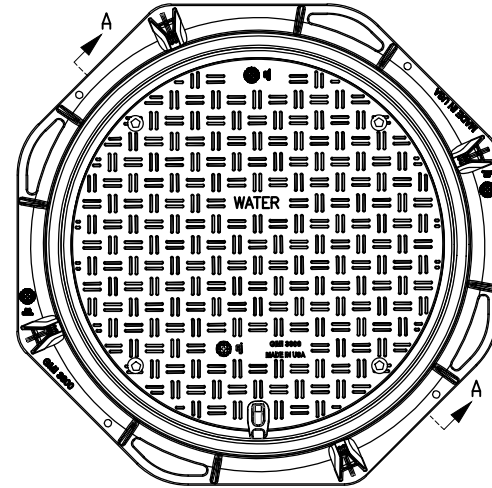
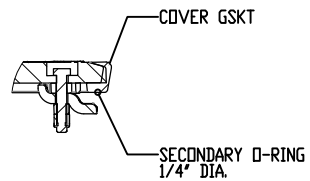
SCALE: NONE  
REVISED: JANUARY 2020  
DRAWN BY: R. VAN NESS  
APPROVED BY: RICHARD PLECKER

W-24

# GMI Cover and Frame Assembly



SECTION A-A



*Richard D. Plecker*

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ENVIRONMENTAL UTILITIES DIRECTOR

CITY OF  
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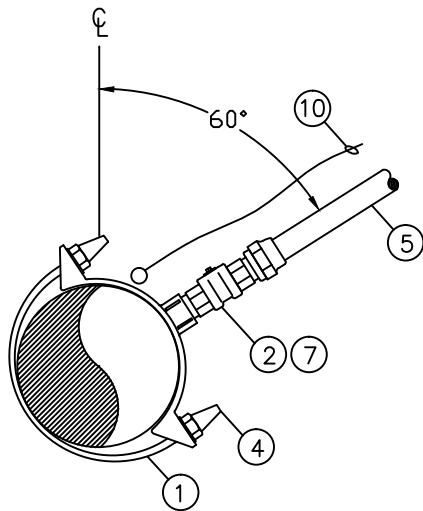
36" MANHOLE RING AND COVER

SCALE: NONE  
REVISED: JANUARY 2017  
DRAWN BY: R. VAN NESS  
APPROVED BY: RICHARD PLECKER

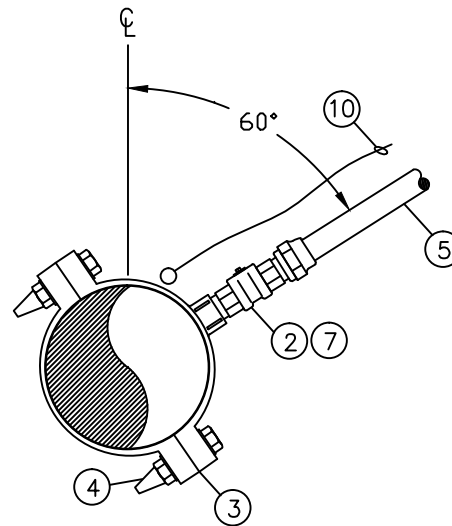
W-25

NOTES:

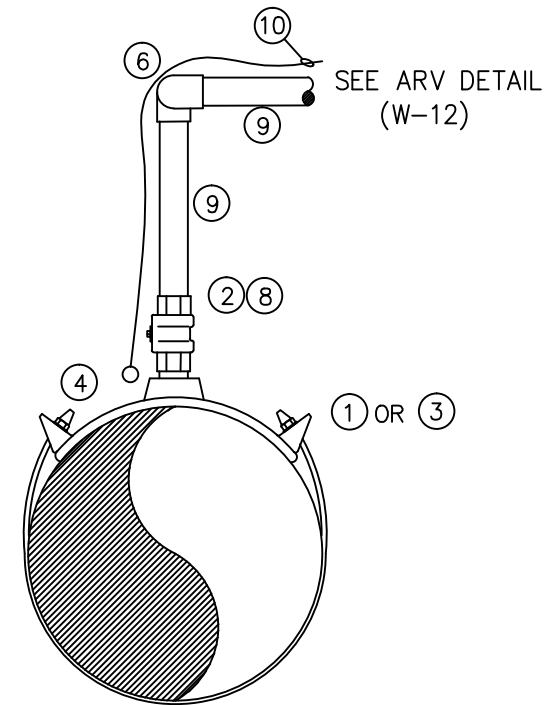
TO CONFORM TO AASHTO M306-05, H-20 AND H-25 EN/24 D4000.



DOUBLE STRAP  
DUCTILE IRON PIPE SADDLE



PVC PIPE SADDLE



ARV SADDLE

MATERIALS:

- 1.) DOUBLE STRAP BRASS SADDLE FOR DUCTILE IRON MAIN
- 2.) INSULATING CORPORATION STOP OR NON INSULATED CORPORATION STOP WITH NYLON BUSHING
- 3.) BRASS SADDLE FOR PVC MAIN
- 4.) ZINC CAPS ON ALL BOLTS (ONLY WITH NON-INSULATED CORPORATION STOP)
- 5.) COPPER SERVICE
- 6.) SWING JOINT (2 - 90° BRASS FITTINGS)
- 7.) CORP STOP W/COMPRESSION COUPLING
- 8.) CORP STOP W/THREADED COUPLING
- 9.) THREADED BRASS PIPE
- 10.) TRACING WIRE (FOR COMMERCIAL SERVICES ONLY)

NOTES:

WRAP CORPORATION STOP AND COPPER SERVICE A MINIMUM OF 3' WITH AN APPROVED DIELECTRIC TAPE AND POLYKEN PRIMER PER MANUFACTURER'S RECOMENDATIONS.

SADDLES SHALL BE WRAPPED IN 8 MIL POLYETHYLENE AND BACKFILLED WITH SAND.

TRACING WIRE SHALL BE REQUIRED ON ARV, HYDRANT RUNS, BLOW OFFS, SERVICES WITHOUT CONTINUOUS COPPER PIPE, AND OTHER MAJOR APPURTENANCES.

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ENVIRONMENTAL UTILITIES DIRECTOR



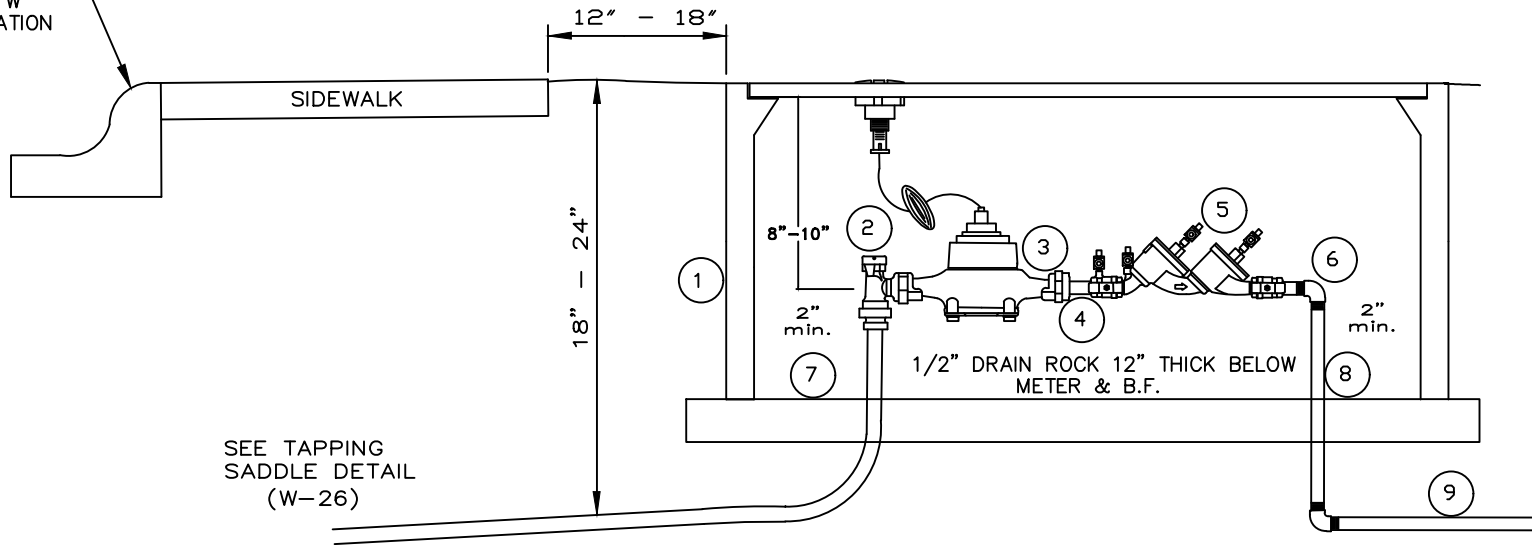
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DEPARTMENT

**SADDLE DETAIL**

SCALE: NONE  
REVISED: JANUARY 2016  
DRAWN BY: R. VAN NESS  
APPROVED BY: RICHARD PLECKER

W-26

CURB STAMPED "W"  
AT SERVICE LOCATION



SEE TAPPING  
SADDLE DETAIL  
(W-26)

NOTES:

WATER METERS SHALL BE PURCHASED THROUGH THE CITY  
PURCHASE INCLUDES INSTALLATION.

INSTALL CONCRETE BLOCKING (4"x4"x 15 1/2" SOLID SLUMP BLOCK)  
UNDER ENTIRE UTILITY BOX PERIMETER.

BURIED PIPE AND FITTINGS SHALL BE WRAPPED WITH 8 MIL  
POLYETHYLENE OR APPROVED EQUAL.

- 1) N 36 UTILITY BOX
- 2) ANGLED METER VALVE W/PADLOCK WINGS (PACK JOINT)
- 3) WATER METER (PURCHASED THROUGH CITY)
- 4) 4" BRASS NIPPLE
- 5) DOUBLE CHECK VALVE (WATTS SERIES 719)
- 6) STREET "L" (BRASS)
- 7) 3" X 5" CONCRETE BRICK  
UNDER ENTIRE PERIMETER OF BOX.
- 8) 12" BRASS NIPPLE
- 9) 18" BRASS NIPPLE (MIN.)

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RICHARD PLECKER  
ENVIRONMENTAL UTILITIES DIRECTOR

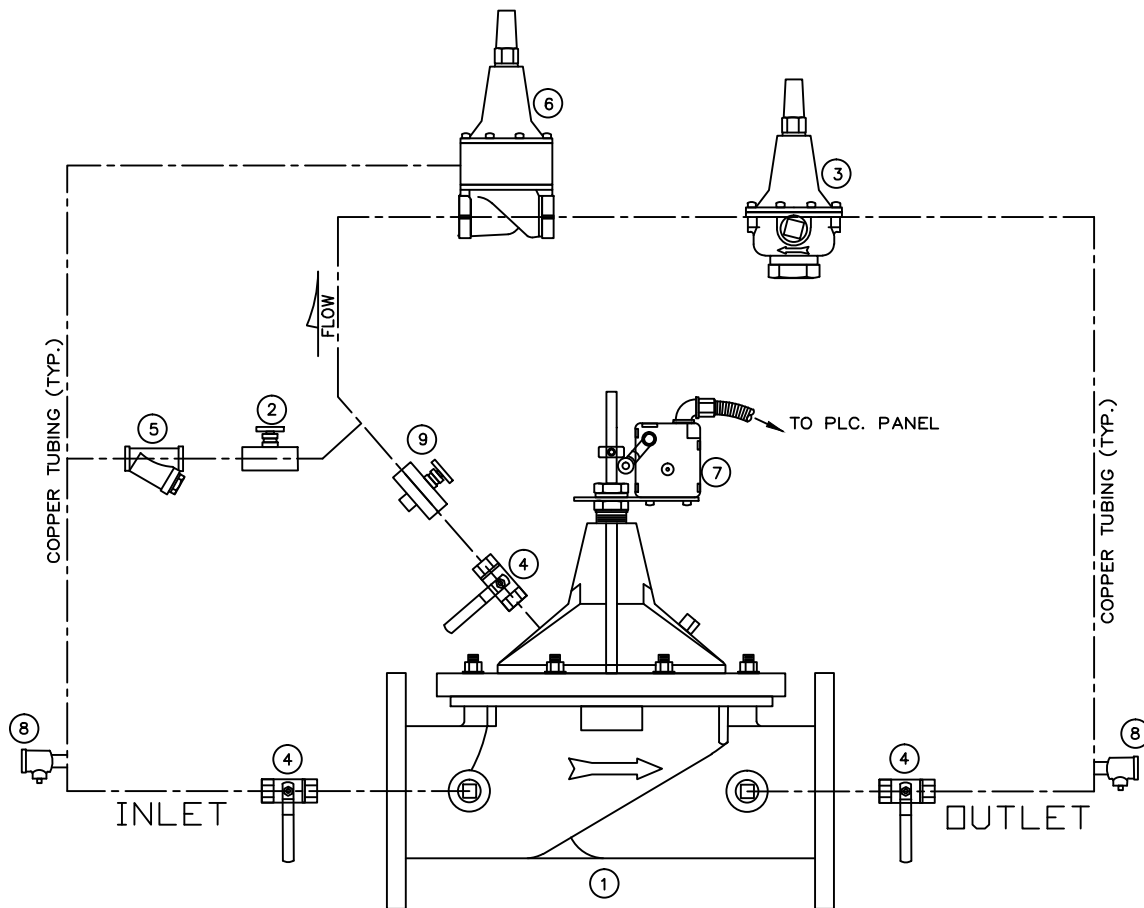
CITY OF  
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CALIFORNIA

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DEPARTMENT

**DUAL WATER USE (POTABLE)  
3/4" & 1" SERVICE LINE**

SCALE: NONE  
REVISED: JANUARY 2017  
DRAWN BY: R. VAN NESS  
APPROVED BY: RICHARD PLECKER

W-27



- 1) MAIN VALVE, STAINLESS STEEL BODY, AMES, CLA VAL
- 2) NEEDLE VALVE, DELTRO
- 3) PRESSURE REDUCING CONTROL, AMES CP-15,
- 4) BALL VALVES, APOLLO OR HOKE
- 5) "Y" STRAINER WITH BRASS PLUG 1/4"NPT
- 6) PRESSURE SUSTAINING VALVE, AMES CP-16,
- 7) OPEN LIMIT SWITCH, MICROSWITCH
- 8) TEST COCK, MIPT 1/4" BRASS
- 9) OPENING SPEED CONTROL, DELTRO

*Richard D. Plecker*

RICHARD PLECKERD  
ENVIRONMENTAL UTILITIES DIRECTOR

NOTES:

CITY APPROVED GATE VALVES SHALL BE PLACED UP AND DOWN STREAM OF MAIN VALVE.

FITTINGS SHALL BE BRASS COMPRESSION TYPE



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DEPARTMENT

COMBINATION PRESSURE REDUCING AND  
PRESSURE SUSTAINING VALVE

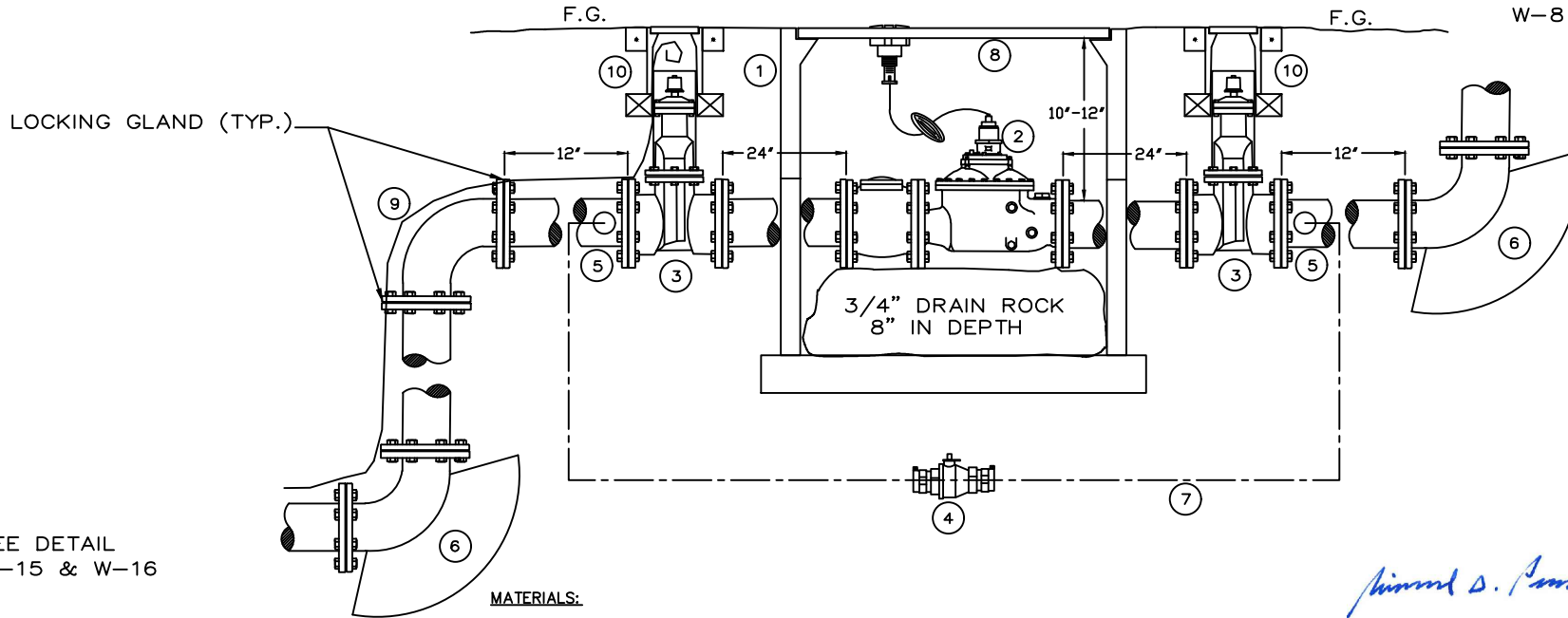
SCALE: NONE  
REVISED: JANUARY 2016  
DRAWN BY: R. VAN NESS  
APPROVED BY: RICHARD PLECKER

W-28

NOTES:

- PIPE SHALL BE DUCTILE IRON FOR 3" AND LARGER.
- INSTALL (3" X 5") CONCRETE BRICK UNDER ENTIRE PERIMETER OF THE UTILITY BOX.
- PIPE AND FITTINGS SHALL BE WRAPPED WITH 8 MIL. POLYETHYLENE
- USE CITY APPROVED RESTRAINED JOINTS OR FLANGED SPOOLS
- WATER METER SHALL BE PURCHASED THROUGH THE CITY. PURCHASE INCLUDES INSTALLATION.
- USE TURBO METER FOR IRRIGATION & COMPOUND METER FOR COMMERCIAL SERVICE.

TO BACKFLOW  
SEE DETAIL  
W-8



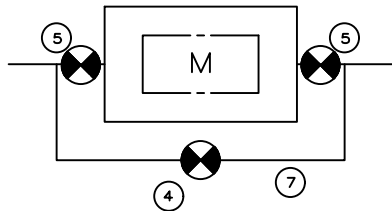
MATERIALS:

- 1) REFER TO METER TABLE IN SECTION 81-16 FOR UTILITY BOX SIZING. WITH EXTENSION. MORTAR EXTENSION JOINT INSIDE AND OUT.
- 2) METER WITH STRAINER (PURCHASED THROUGH CITY) INSTALL IDLER SPOOL DURING INSTALLATION OF METER BOX.
- 3) RESILENT SEAT GATE VALVE (3"-6")
- 4) 2" LOCKING CURB STOP IN G-5 BOX
- 5) 2" DOUBLE STRAP BRASS SADDLE FOR DUCTILE IRON MAIN WITH 2" MIPT BY COMPRESSION ADAPTER
- 6) THRUST BLOCKS (TYP.)
- 7) 2" BYPASS PIPE MATERIAL TO BE SOFT COPPER TYPE K (STICK NOT ROLLED COPPER) AND FITTINGS TO BE BRASS COMPRESSION TYPE.
- 8) METAL TRAFFIC LID WELD MARKED "RSVL WATER"
- 9) TRACING WIRE
- 10) SEE W-16 FOR VALVE BOX AND RISER DETAIL

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RICHARD PLECKER  
ENVIRONMENTAL UTILITIES DIRECTOR

PLAN VIEW:  
METER BYPASS

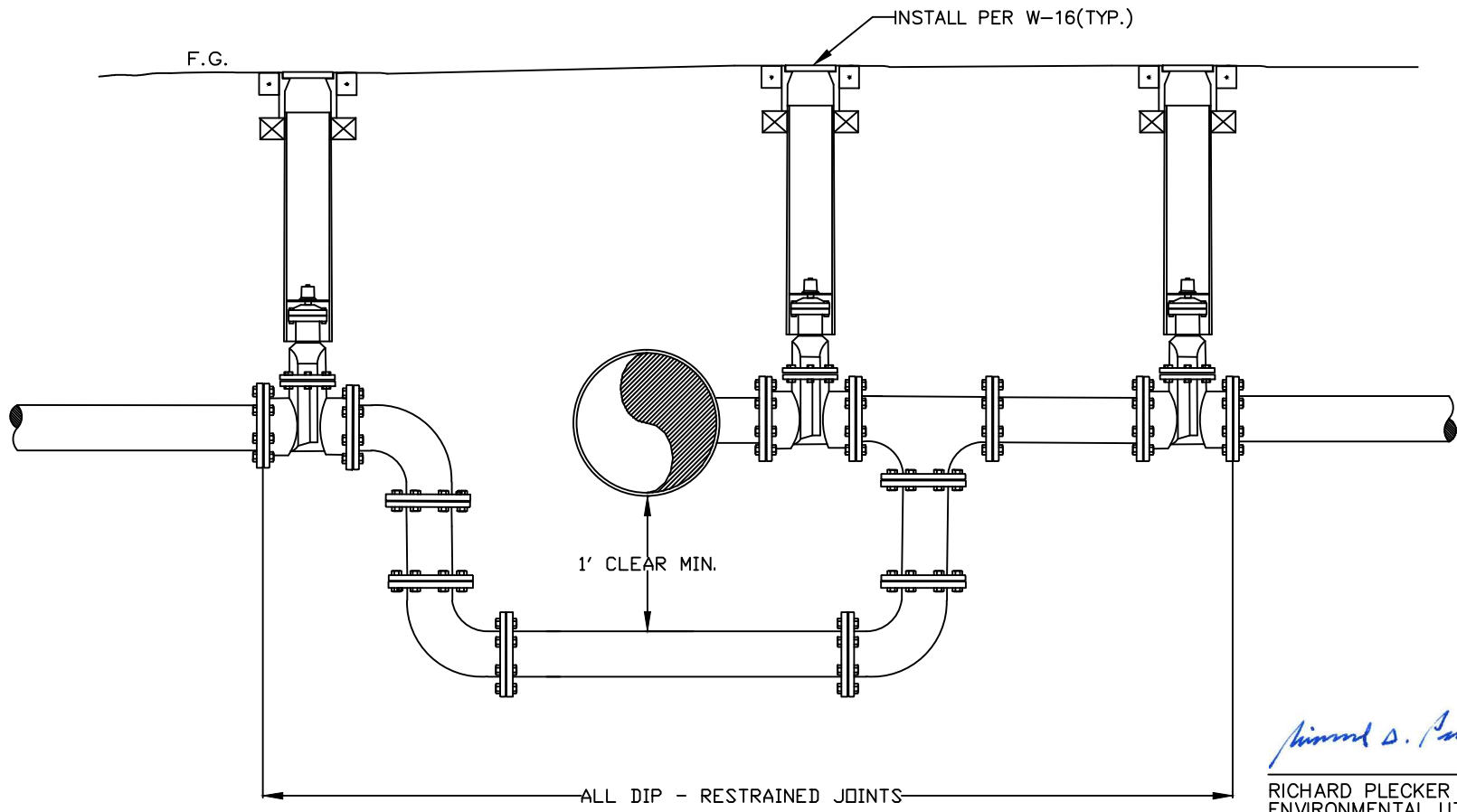


ENVIRONMENTAL UTILITIES  
DEPARTMENT

3", 4", 6", 8" COMPOUND &  
TURBO METER WITH BYPASS

SCALE: NONE  
REVISED: JANUARY 2023  
DRAWN BY: J. THOMPSON  
APPROVED BY: RICHARD PLECKER

W-29



*Richard D. Plecker*

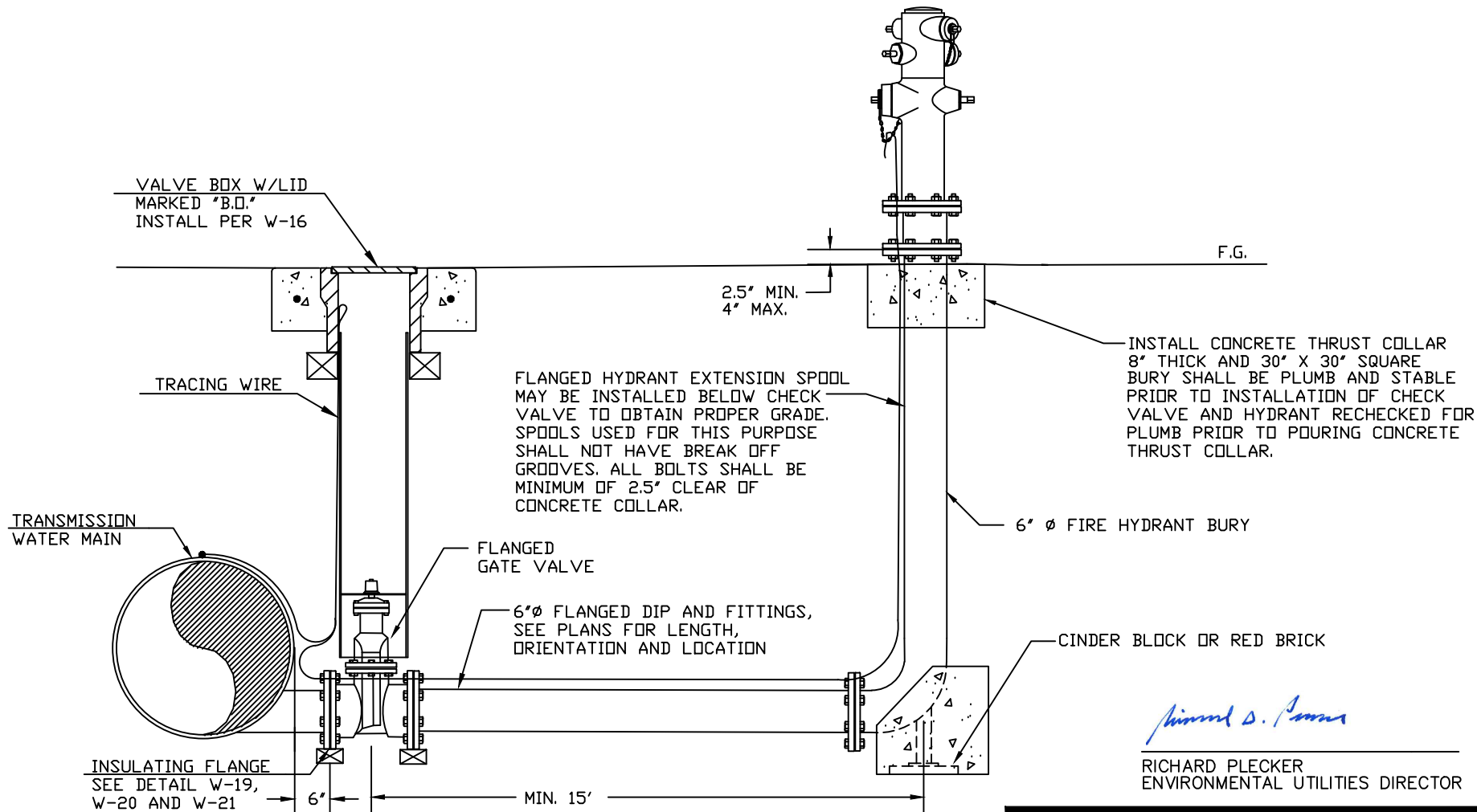
RICHARD PLECKER  
ENVIRONMENTAL UTILITIES DIRECTOR

	ENVIRONMENTAL UTILITIES DEPARTMENT
--	---------------------------------------

FLOW THRU DETAIL

SCALE: NONE  
 REVISED: JANUARY 2016  
 DRAWN BY: R. VAN NESS  
 APPROVED BY: RICHARD PLECKER

W-30



**NOTES:**

1. STATION LOCATIONS SHOWN ON PLANS ARE APPROXIMATE. PLACE BLOW-OFFS ADJACENT TO LOW POINT IN MAIN LINE.
2. ALL FITTINGS SHALL BE DIP.
3. HYDRANT BOLTS SHALL BE BREAK AWAY. INSTALLED NUT SIDE UP AND FILLED WITH 25 YEAR (MIN) SILICONE CAULK.
4. ENTIRE LENGTH TO BE RESTRAINED.
5. CONTRACTOR HAS THE OPTION OF USING MECHANICAL JOINT (MJ) FITTING. IF MJ FITTINGS ARE USED, MEGALUGS SHALL BE INSTALLED.
6. CONCRETE INSTALLED FOR STABILITY.

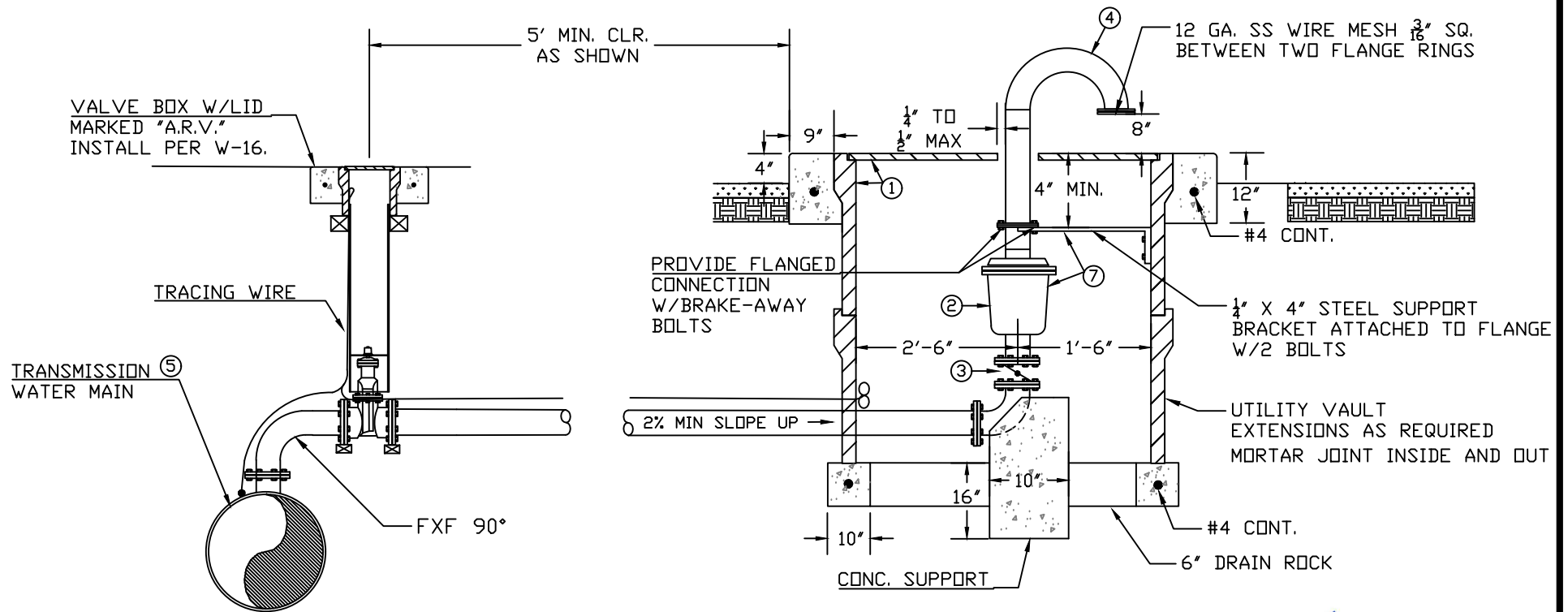


ENVIRONMENTAL UTILITIES  
DEPARTMENT

**TRANSMISSION MAIN HYDRANT BLOW OFF**

SCALE: NONE  
REVISED: JANUARY 2024  
DRAWN BY: JACK VAROZZA  
APPROVED BY: RICHARD PLECKER

W-32



**NOTES:**

1. PRECAST CONC. UTILITY BOX (48"X48" I.D.) WITH GALV. STEEL LID CHECKERED PLATE COVER (2 PIECE SPLIT LID, DESIGNED FOR H2O LOADING) MARKED "RSVL A.R.V." (USE SS HOLD DOWN SCREWS).
2. COMBINATION AIR/VACUUM RELEASE VALVE, PIPING, AND FITTINGS SIZED AS SHOWN ON PLAN & PROFILE SHEETS. (VALVE SHALL BE FLANGED)
3. FLANGED BUTTERFLY VALVE WITH HAND WHEEL OPERATOR.
4. WSP VENT, SCH 40, GALV. AFTER FABRICATION.
5. ARV TO BE PLACED AT HIGH POINT OF PIPE AT SIDE OUTLET FLANGE.
6. RESTRAIN ALL JOINTS BETWEEN C.C.P. AND ARV. RESTRAINED MJ WITH MEGALUG GLANDS MAY BE USED IN LUE OF FLANGED FITTINGS BEYOND G.V.
7. EXPOSED NON-GALVANIZED PIPING, VALVES, AND APPUR. SHALL BE PAINTED WITH TWO PRIMER AND TWO FINISH COATS OF MACHINERY ENAMEL (COLOR TO BE SELECTED BY EUD)
8. ALL BURIED PIPE, FITTINGS, VALVES AND APPUR. SHALL BE DUCTILE IRON AND ENCASED WITH 8 MIL. POLYETHYLENE.
9. CONCRETE INSTALLED FOR STABILITY.

*Richard D. Plecker*

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ENVIRONMENTAL UTILITIES DIRECTOR

CITY OF  
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CALIFORNIA

ENVIRONMENTAL UTILITIES  
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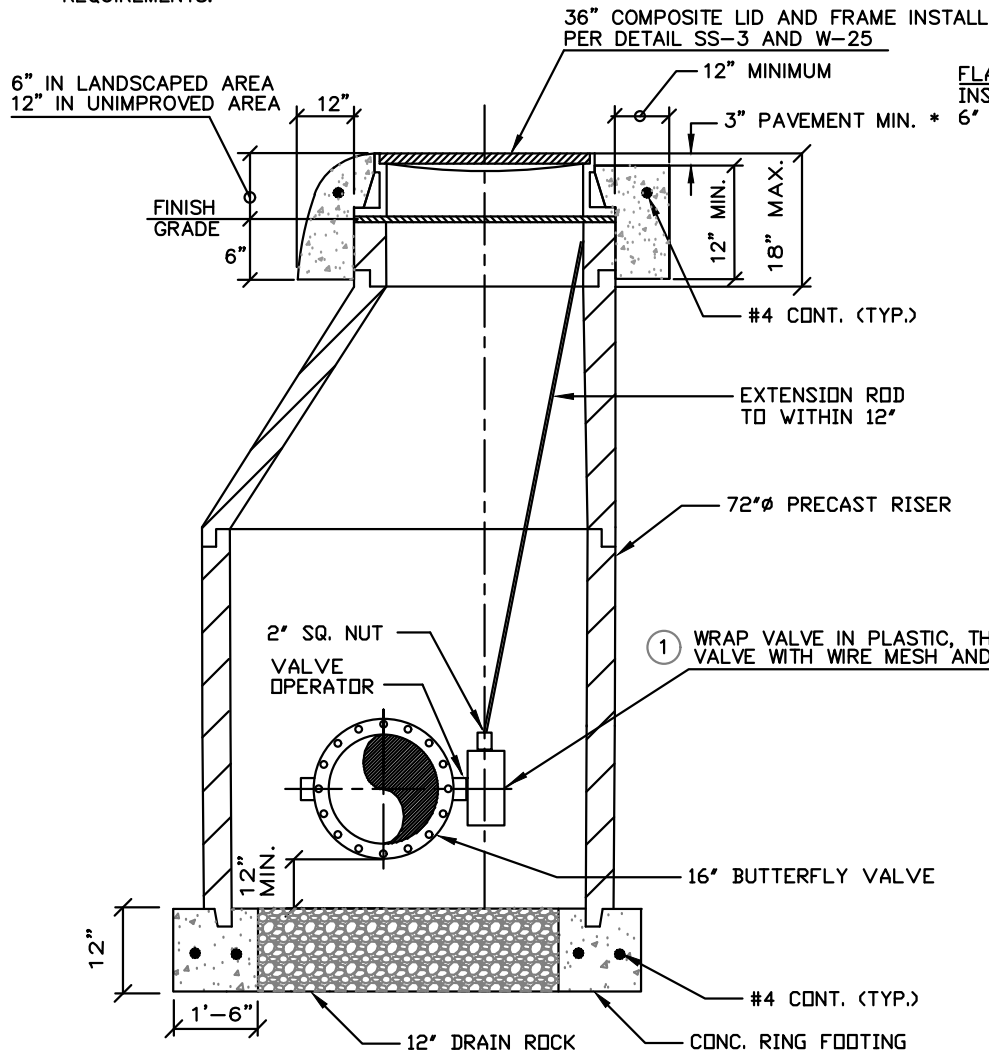
**3" THROUGH 6" ARV**

SCALE: NONE  
REVISED: JANUARY 2020  
DRAWN BY: R. VAN NESS  
APPROVED BY: RICHARD PLECKER

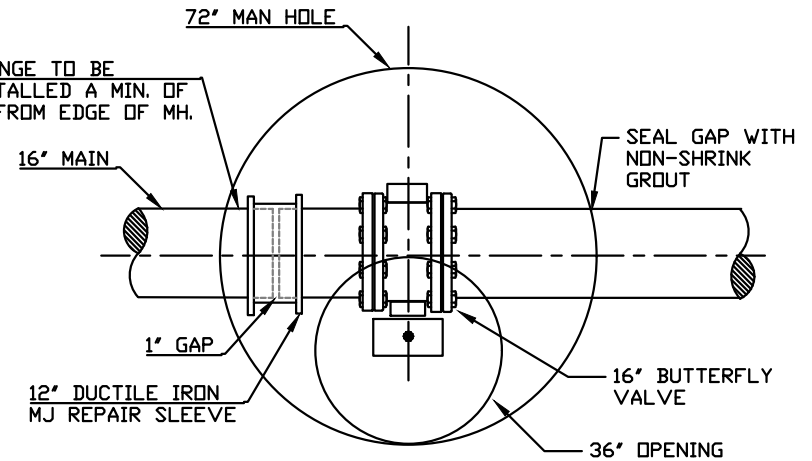
**W-33**

**NOTES**

1. SEE VALVE BONDING DETAIL FOR ADDITIONAL REQUIREMENTS.



FLANGE TO BE INSTALLED A MIN. OF 6" FROM EDGE OF MH.



\* NOTE: CONCRETE AROUND RIM SHALL BE BROUGHT TO FINISH GRADE FOR ALL COLLECTORS AND ARTERIALS, OPTIONAL IN ALL OTHER ROADWAYS. FINISH SURFACE SHALL BE MEDIUM FINISH WITH PATTERN PERPENDICULAR TO TRAVEL DIRECTION.

*Richard D. Plecker*

RICHARD PLECKER  
ENVIRONMENTAL UTILITIES DIRECTOR



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DEPARTMENT

**16" MAINLINE VALVE ENCLOSURE**

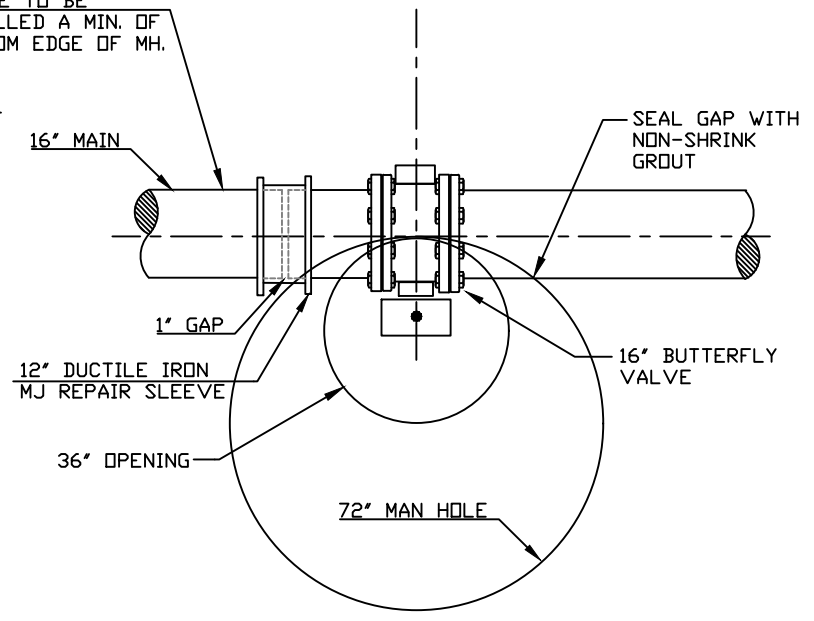
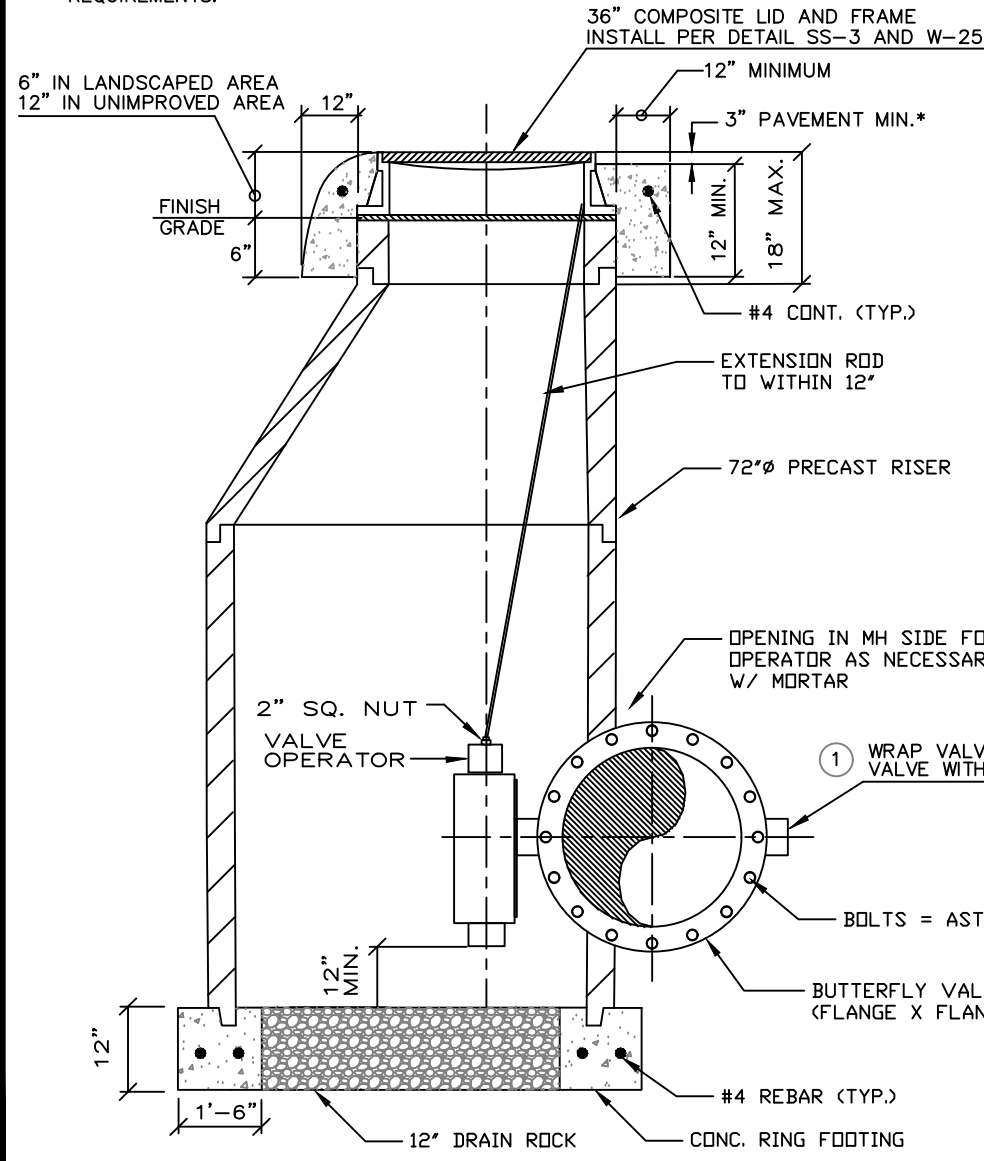
SCALE: NONE  
REVISED: JANUARY 2023  
DRAWN BY: J. THOMPSON  
APPROVED BY: RICHARD PLECKER

W-34

**NOTES**

1. SEE VALVE BONDING DETAIL FOR ADDITIONAL REQUIREMENTS.

FLANGE TO BE INSTALLED A MIN. OF 6" FROM EDGE OF MH.



\* NOTE: CONCRETE COLLAR SHALL BE PLACED FLUSH (WITHIN 1/8") OF FINISH GRADE IN ALL COLLECTORS & ARTERIALS, OPTIONSL FOR ALL OTHER ROADWAYS. FINISH SURFACE SHALL BE MEDIUM BROOM FINISH WITH PATTERN PERPENDICULAR TO VEHICLE TRAVEL DIRECTION.

① WRAP VALVE IN PLASTIC, THEN ENCASE VALVE WITH WIRE MESH AND MORTAR.

*Richard D. Plecker*

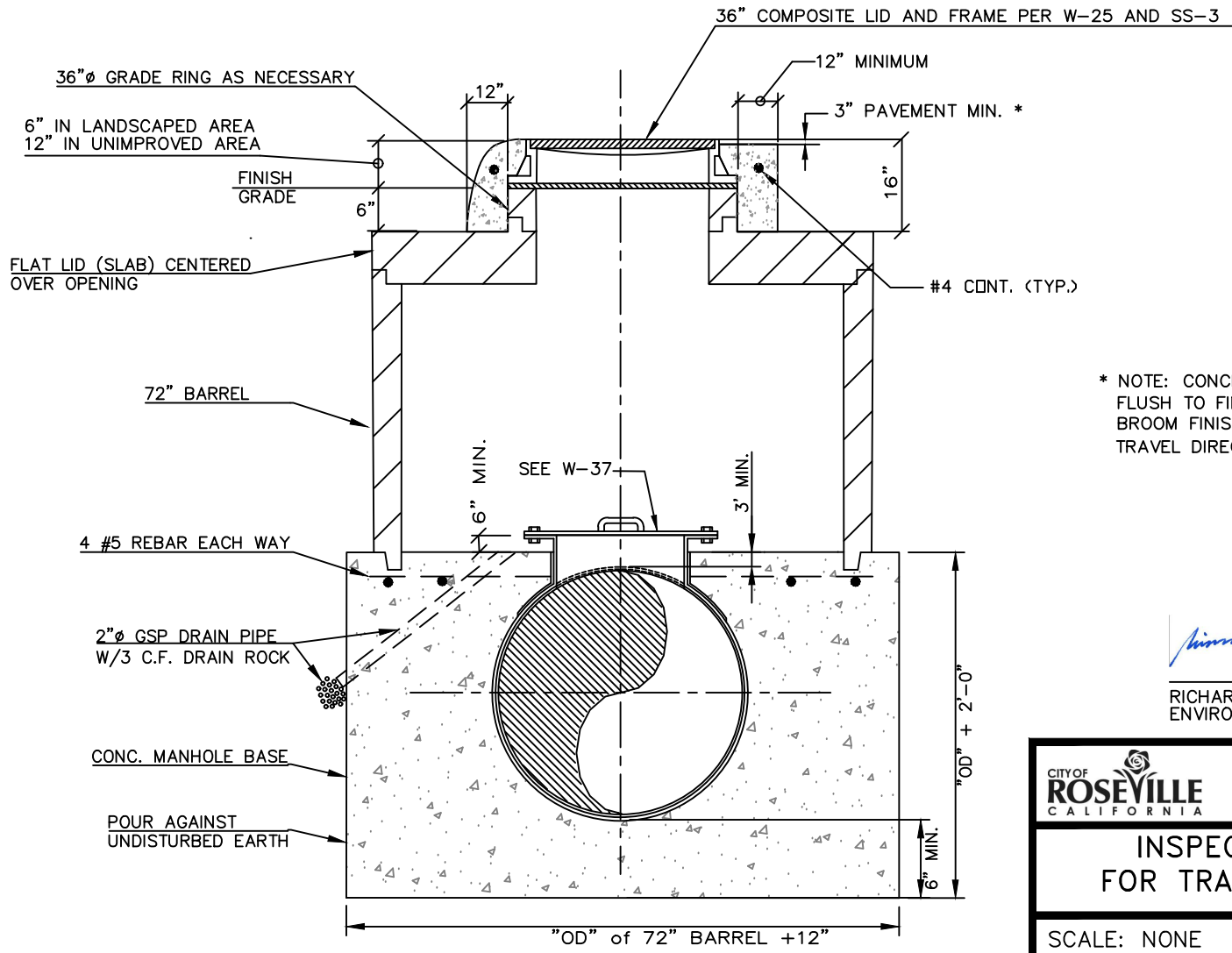
RICHARD PLECKER  
ENVIRONMENTAL UTILITIES DIRECTOR

CITY OF **ROSEVILLE** ENVIRONMENTAL UTILITIES DEPARTMENT  
CALIFORNIA

**24" & LARGER MAINLINE VALVE**

SCALE: NONE  
REVISED: JANUARY 2024  
DRAWN BY: J. THOMPSON  
APPROVED BY: RICHARD PLECKER

**W-35**



\* NOTE: CONCRETE COLLAR MAY BE PLACED FLUSH TO FINISHED SURFACE WITH MEDIUM BROOM FINISH PERPENDICULAR TO VEHICLE TRAVEL DIRECTION.

*Richard D. Plecker*

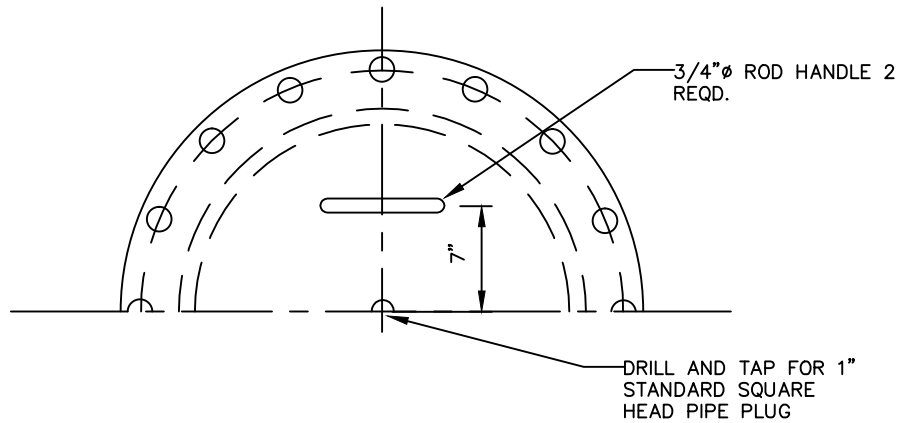
RICHARD PLECKER  
ENVIRONMENTAL UTILITIES DIRECTOR

	ENVIRONMENTAL UTILITIES DEPARTMENT
	INSPECTION MANHOLE FOR TRANSMISSION MAINS

INSPECTION MANHOLE  
FOR TRANSMISSION MAINS

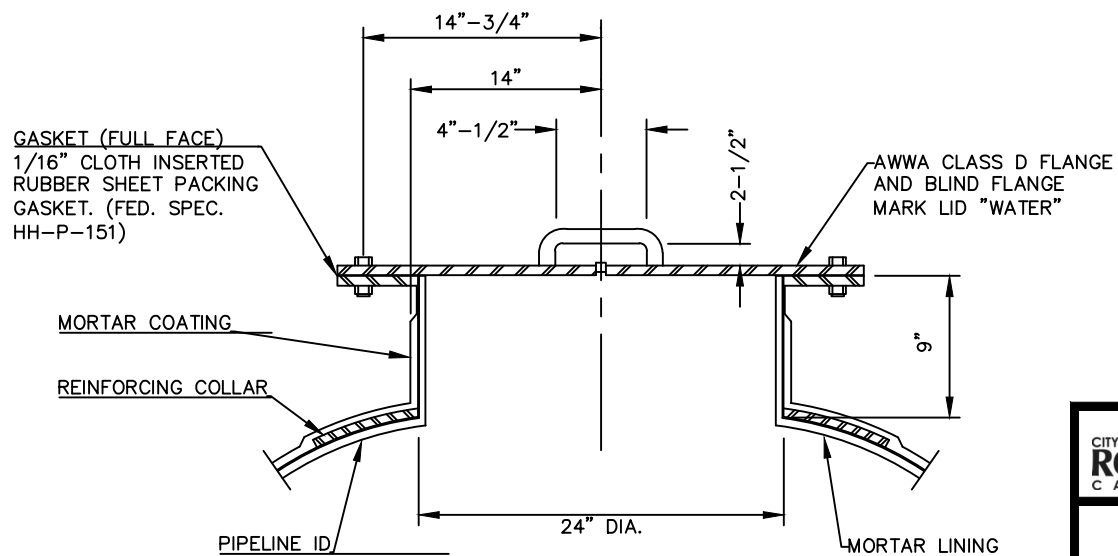
SCALE: NONE  
REVISED: JANUARY 2018  
DRAWN BY: R. VAN NESS  
APPROVED BY: RICHARD PLECKER

W-36



**NOTES**

CONSTRUCT MANHOLE PER AWWA C208 AND C303. DESIGN PRESSURE SHALL MEET OR EXCEED PIPELINE DESIGN PRESSURE.



*Richard D. Plecker*

RICHARD PLECKER  
ENVIRONMENTAL UTILITIES DIRECTOR

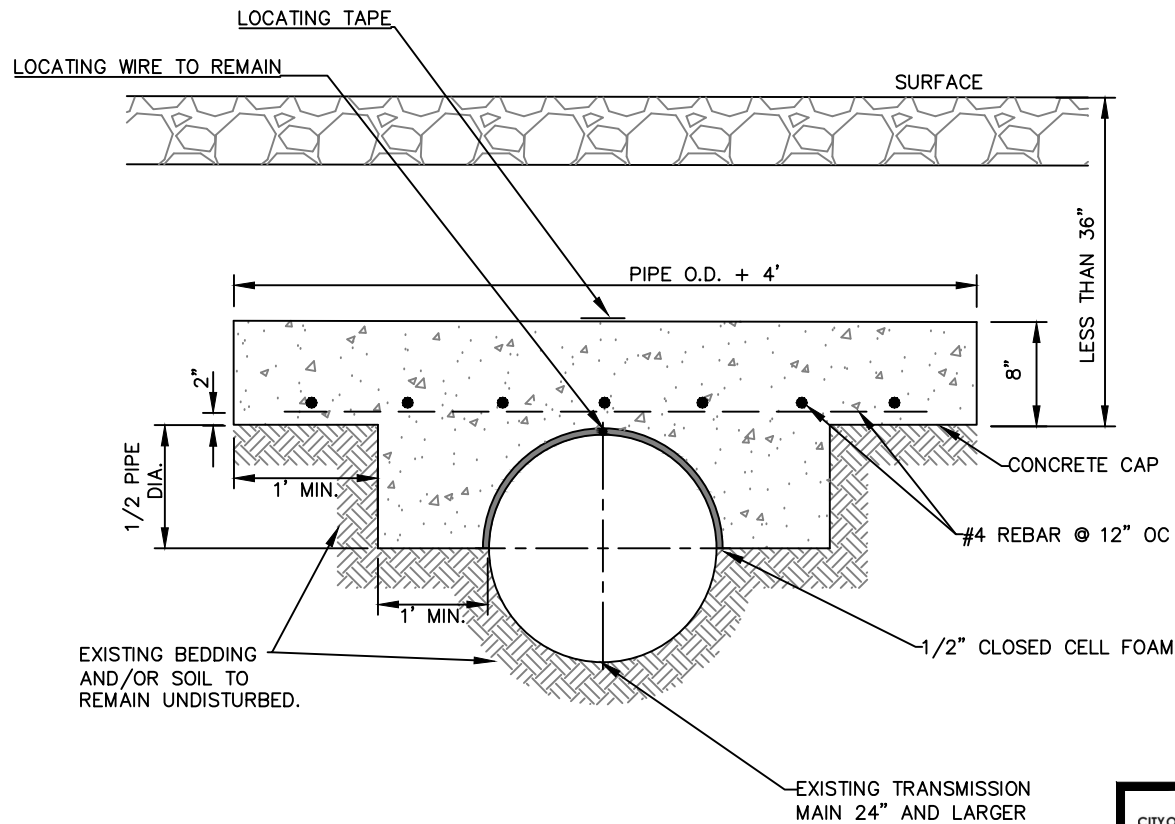


ENVIRONMENTAL UTILITIES  
DEPARTMENT

**INSPECTION PORT  
FOR TRANSMISSION MAINS**

SCALE: NONE  
REVISED: JANUARY 2016  
DRAWN BY: R. VAN NESS  
APPROVED BY: RICHARD PLECKER

W-37



**NOTES**

1. CONCRETE CAP REQUIRED FOR ALL AREAS WITH LESS THAN 36" COVER
2. CONCRETE SHALL BE 5 SACK MIX MECHANICALLY TAMPED TO ELIMINATE VOIDS.

*Richard D. Plecker*

RICHARD PLECKER  
ENVIRONMENTAL UTILITIES DIRECTOR



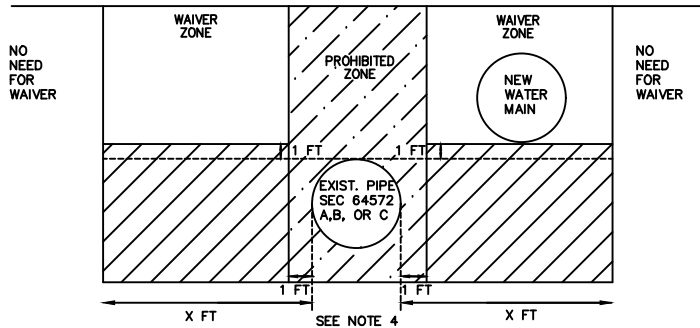
ENVIRONMENTAL UTILITIES  
DEPARTMENT

**CONCRETE CAP ON SHALLOW  
C.C.P. TRANSMISSION MAIN**

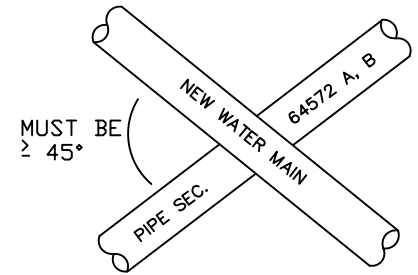
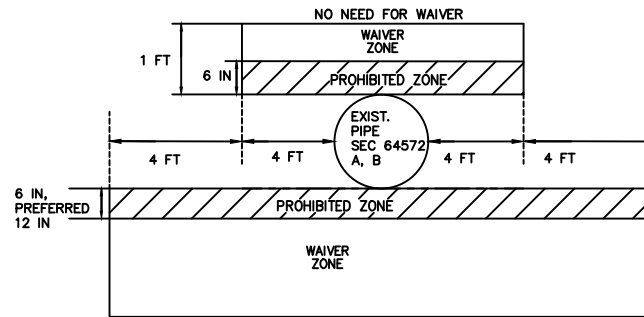
SCALE: NONE  
REVISED: JANUARY 2019  
DRAWN BY: R. VAN NESS  
APPROVED BY: RICHARD PLECKER

W-38

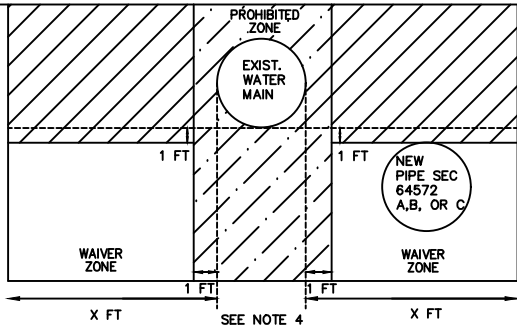
**NEW WATER MAIN PARALLEL CONSTRUCTION**



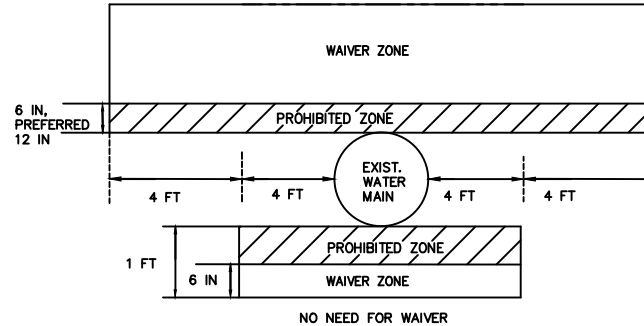
**NEW WATER MAIN CROSSING CONSTRUCTION**



**NEW PIPE SEC. 64572 (A), (B), (C) PARALLEL CONSTRUCTION**



**NEW PIPE SEC. 64572 (A), (B) CROSSING CONSTRUCTION**



**NOTES:**

1. THE CONTRACTOR SHALL FOLLOW THE CITY OF ROSEVILLE STANDARDS AND THE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 22 SECTION 64572 WATER MAIN SEPARATION REQUIREMENTS. SEE CITY DESIGN STANDARDS SECTION 8-13.C FOR DDW WAIVER PROCESS.
2. PARALLEL PIPE INSTALLATION: NO WATER MAINS PARALLEL TO PIPELINES CONVEYING A FLUID LISTED IN CCR TITLE 22 SECTION 64572 SUBSECTIONS (A), (B), OR (C) SHALL BE INSTALLED WITHIN THE WAIVER ZONES WITHOUT SPECIAL APPROVAL FROM THE DDW.
3. DISTANCE X FT EQUALS 10 FT WHEN NON-WATER MAIN PIPELINE CONVEYS A FLUID LISTED IN CCR TITLE 22 SECTION 64572 SUBSECTION (A).
4. DISTANCE OF X FT EQUALS 5 FT (CITY OF ROSEVILLE DESIGN STANDARD SECTION 8-13.A) WHEN NON-WATER MAIN PIPELINE CONVEYS A FLUID LISTED IN CCR TITLE 22 SECTION 64572 SUBSECTION (B) OR (C).
  - a. SEPARATION DISTANCES BETWEEN 4 FT AND 5 FT REQUIRE CITY OF ROSEVILLE ENVIRONMENTAL UTILITIES DIRECTOR APPROVAL. SEPARATION DISTANCES LESS THAN 4 FT ALSO REQUIRE A DDW WAIVER.
5. PIPE CROSSING INSTALLATION: WHEN LOCATED IN THE WAIVER ZONE, THE WATER MAIN SHALL HAVE NO JOINTS WITHIN 8 HORIZONTAL FEET OF THE PIPE CROSSING CONVEYING FLUIDS CLASSIFIED IN CCR TITLE 22 SECTION 64572 SUBSECTIONS (A) AND (B). THE CONTRACTOR MUST WORK WITH THE CITY TO OBTAIN A WAIVER FROM THE DDW TO INSTALL WITHIN THE WAIVER ZONE.
6. NEW WATER MAINS AND NEW PIPELINES CONVEYING A FLUID LISTED IN CCR TITLE 22 SECTION 64572 SUBSECTION (A) SHALL NOT BE INSTALLED IN THE SAME TRENCH.

*Rich Plecker*

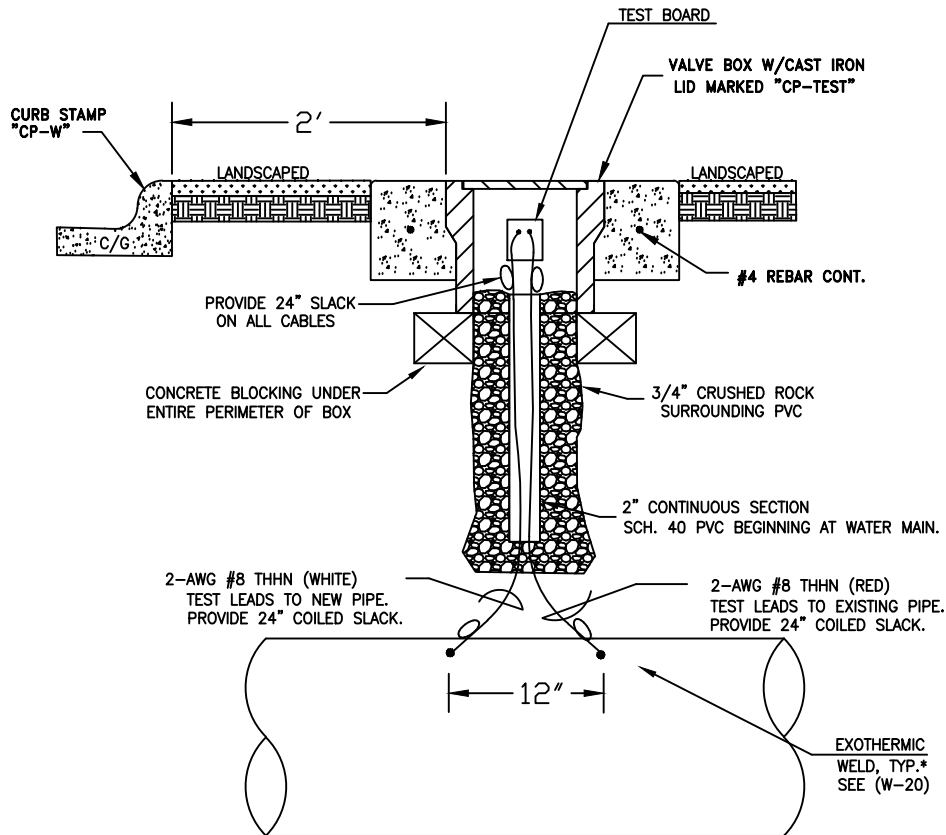
RICH PLECKER  
ENVIRONMENTAL UTILITIES DIRECTOR

CITY OF ROSEVILLE CALIFORNIA ENVIRONMENTAL UTILITIES DEPARTMENT

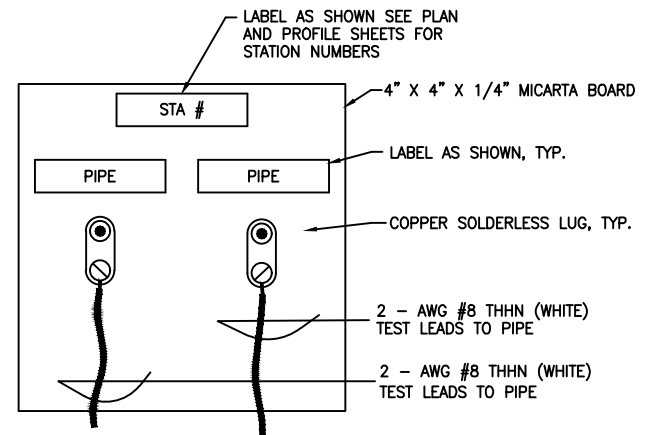
**WATER MAIN AND SEWER MAIN CROSSING**

SCALE: NONE  
REVISED: JANUARY 2023  
DRAWN BY: J. THOMPSON  
APPROVED BY: R. PLECKER

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TEST STATION (TYPICAL)



TEST STATION BOARD (TYPICAL)

*Richard D. Plecker*

RICHARD PLECKER  
ENVIRONMENTAL UTILITIES DIRECTOR

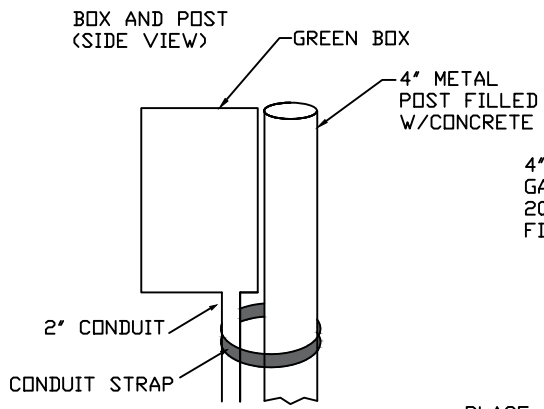


ENVIRONMENTAL UTILITIES  
DEPARTMENT

TEST STATION

SCALE: NONE  
REVISED: JANUARY 2019  
DRAWN BY: D. SAMUELSON  
APPROVED BY: RICHARD PLECKER

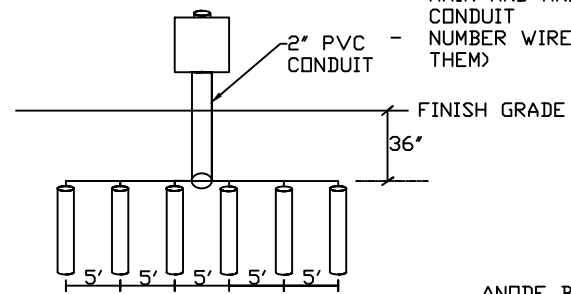
W-40



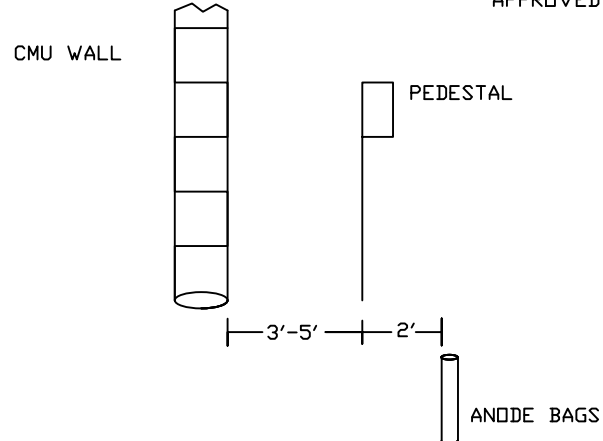
4" DIA. X 6" RIGID SCH. 80 GALVANIZED STEEL POST SET IN 20" DIA. X 24" DEEP CONCRETE. FILL POST WITH CONCRETE

2" DIA. RIGID GALVANIZED STEEL CONDUIT

- PLACE WIRES FROM WATER MAIN AND ANODE BAGS IN CONDUIT
- NUMBER WIRES (LABEL THEM)

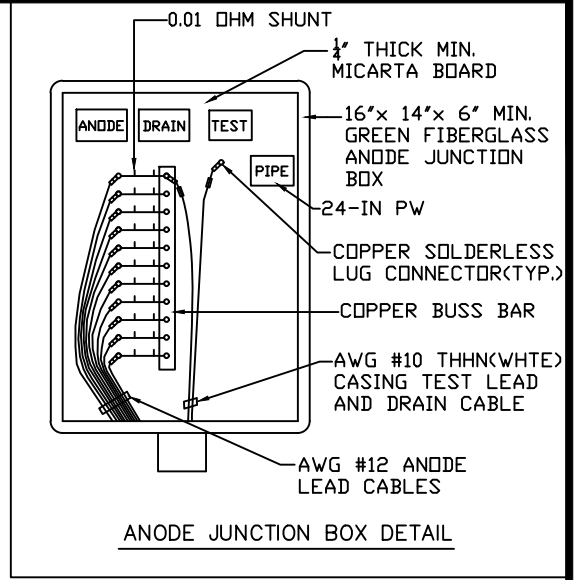
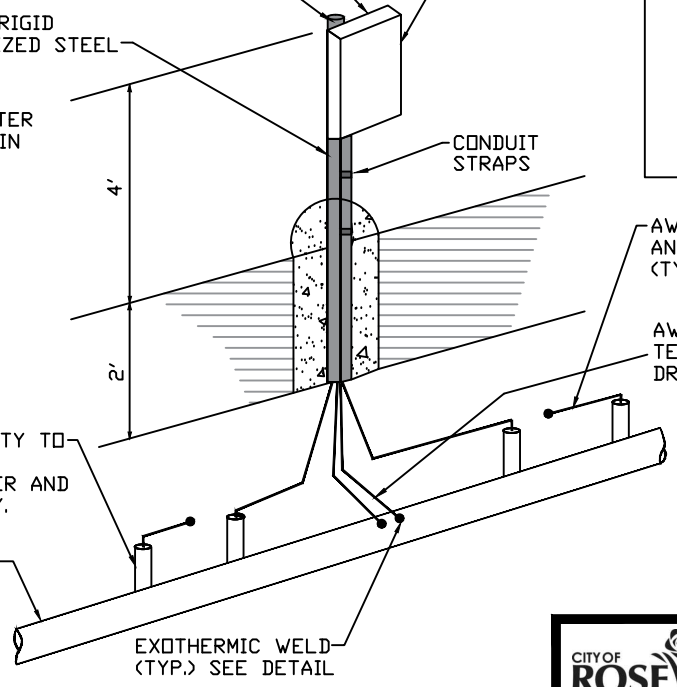


ANODE BAG CAPACITY TO BE DETERMINED BY DESIGNING ENGINEER AND APPROVED BY CITY.



JUNCTION BOX SHALL BE LOCATED 3'-5' FROM SOUNDWALL

GALVANIC ANODE JUNCTION BOX SEE DETAILS



AWG #12 THHN (BLACK) ANODE LEAD CABLE (TYP.)

AWG #10 THHN (WHITE) TEST LEAD AND DRAIN CABLE

*Richard D. Plecker*

RICHARD PLECKER  
ENVIRONMENTAL UTILITIES DIRECTOR

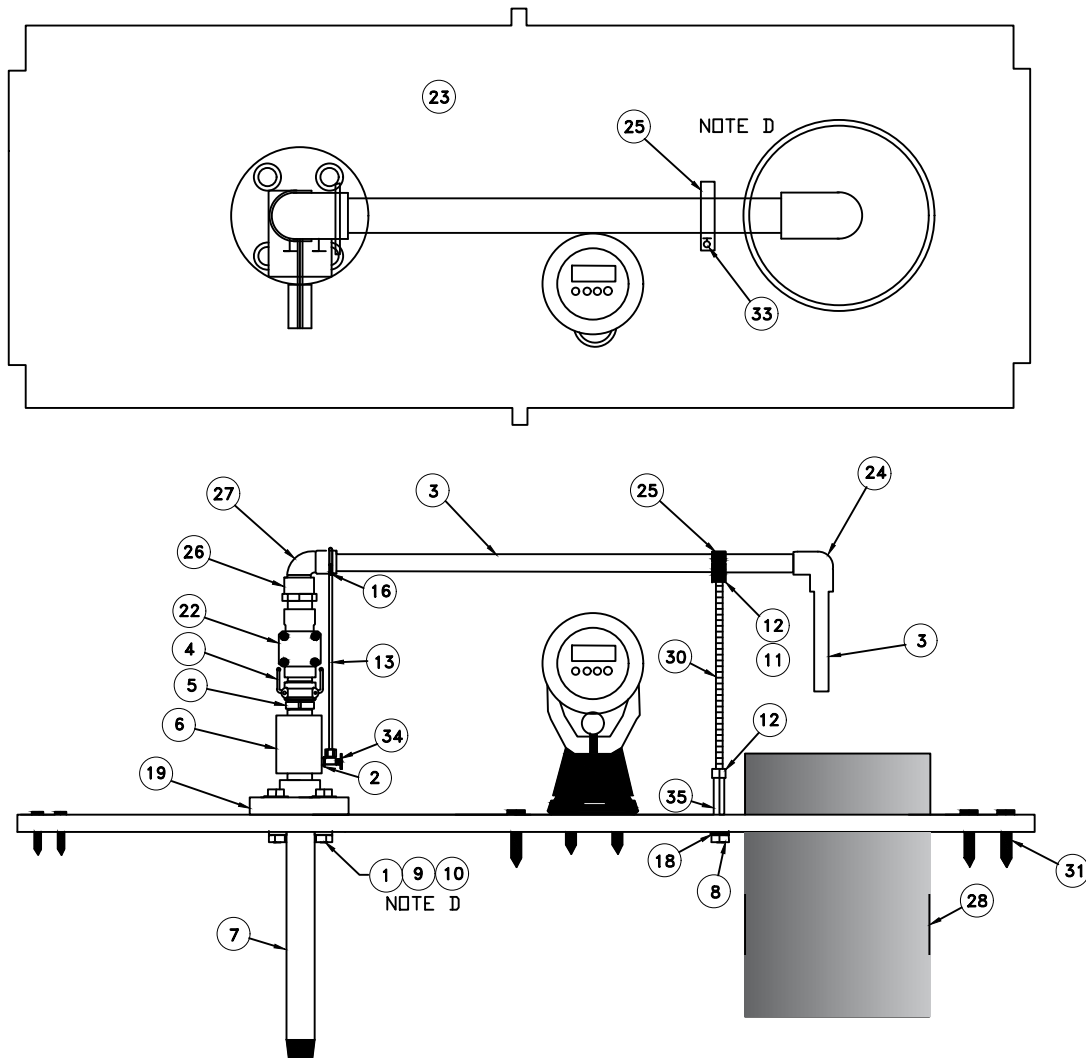


ENVIRONMENTAL UTILITIES DEPARTMENT

GALVANIC ANODE INSTALLATION

SCALE: NONE  
REVISED: FEBRUARY 2022  
DRAWN BY: J. THOMPSON  
APPROVED BY:

W-41



ITEM	DESCRIPTION	NOTES
1	S.S. WASHER FOR THREADED FLANGE	
2	1/4" X 1/8" S.S. HEX BUSHING	
3	1" SCH. 80 PVC PIPE	
4	1" S.S. "B" QUICK DISCONNECT	
5	1" S.S. "F" QUICK DISCONNECT	C
6	1" S.S. COUPLING	
7	1" S.S. PIPE	
8	COUPLING NUT BOLT	
9	S.S. BOLT FOR THREADED FLANGE	
10	S.S. NUT FOR THREADED FLANGE	
11	S.S. LOCK WASHER FOR THREADED FLANGE	
12	3/8"-16 S.S. HEX NUT	
13	1/4" COPPER TUBING	
14	SOLENOID COVER	A,C
15	CONTROLLER COVER	A,C
16	SAMPLING POINT COVER	
18	3/8" S.S. LOCK WASHER	
19	1" SCH. 80 PVC THREADED FLANGE	
20	VALVE CONTROLLER	A
21	9 VOLT BATTERY	A
22	1" PGV VALVE	C
23	9800 WCA FLOOR	
24	1" SCH. 80 PVC ELBOW (GLUE x GLUE)	
25	1" PIPE CLAMP	C
26	1" SCH. 80 PVC ADAPTER (MIP x GLUE)	
27	1" SCH. 80 STREET ELBOW (GLUE x GLUE)	
28	4" SCH. 40 PVC COUPLING	
29	4" SCH. 35 PVC SEWER PIPE	A
30	S.S. THREADED ROD	
31	FLOOR SCREW	
34	90° BRASS NEEDLE VALVE	
35	S.S. COUPLING NUT	

NOTE	DESCRIPTION
A	NOT SHOWN
C	SOLD AS REPLACEMENT PART
D	BOLT ASSEMBLY USED ON ALL SIMILAR HOLES/BRACKETS.

*Richard D. Plecker*

RICHARD PLECKER  
ENVIRONMENTAL UTILITIES DIRECTOR



ENVIRONMENTAL UTILITIES  
DEPARTMENT

## CHLORINE FLUSHING/ MONITORING STATION

SCALE: NONE  
REVISED: JANUARY 2022  
DRAWN BY: J. THOMPSON  
APPROVED BY:

W-42