

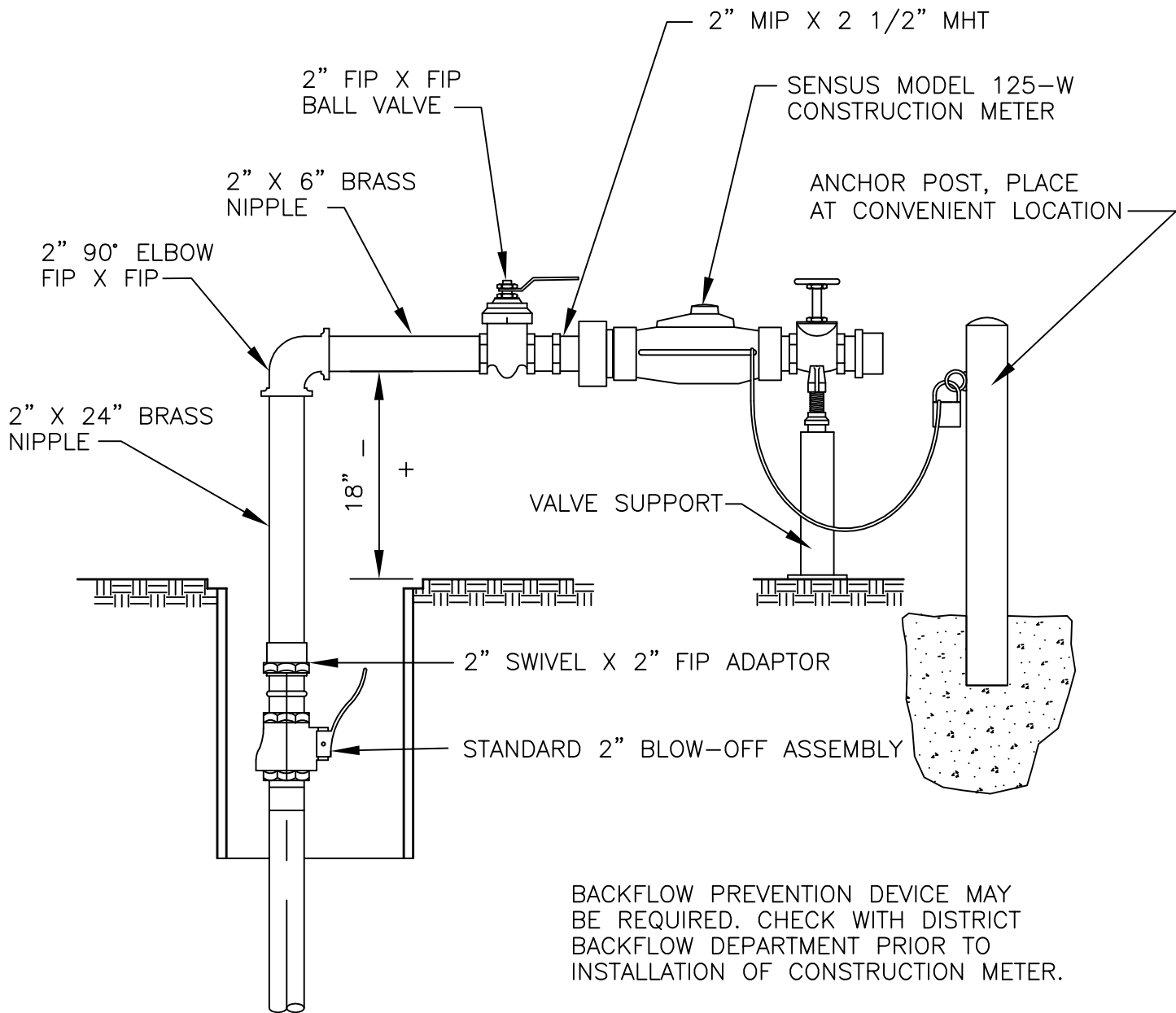
Vallecitos Water District

STANDARD DRAWING INDEX FOR WATER AND SEWER FACILITIES

| Drawing No. | Description |
|--------------------|---|
| W-0 | CONSTRUCTION METER ON A BLOW-OFF |
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| W-2 | 1" AUTOMATIC AIR AND VACUUM VALVE |
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| W-6 | WATER SERVICE CONNECTION (3/4" AND 1" METER) |
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| W-15 | THRUST AND ANCHOR BLOCKS |
| W-16 | GATE VALVE INSTALLATION AND CAP ASSEMBLY |
| W-17 | TRENCH COMPACTION AND BACKFILL |
| W-18 | WARNING TAPE/ TRACER WIRE |
| W-19 | BACKFLOW PREVENTION DEVICE 2" AND SMALLER |
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| W-21 | 1" WATER TEST STATION |
| W-22 | BLANK |
| W-23 | 4" & LARGER BLOW-OFF |
| W-24 | 3" & LARGER AIR RELEASE ASSEMBLY |
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SEWER

| | |
|------|---|
| S-1 | STANDARD MANHOLE |
| S-2 | DROP MANHOLE TYPE "A" |
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| S-4 | STANDARD LATERAL FOR SEWER |
| S-5 | DEEP-CUT LATERAL CONNECTION |
| S-6 | BLANK |
| S-7 | PROPERTY LINE CLEAN-OUT |
| S-8 | DEAD END CLEAN-OUT |
| S-9 | CUT IN FIELD LATERAL |
| S-10 | SUPPORT FOR UNDERCUT V.C. PIPE |
| S-11 | STANDARD CONCRETE CRADLE & EASEMENT |
| S-12 | TRENCH EXCAVATION & BACKFILL FOR SEWERS |
| S-13 | INDUSTRIAL WASTE CONTROL MANHOLE |

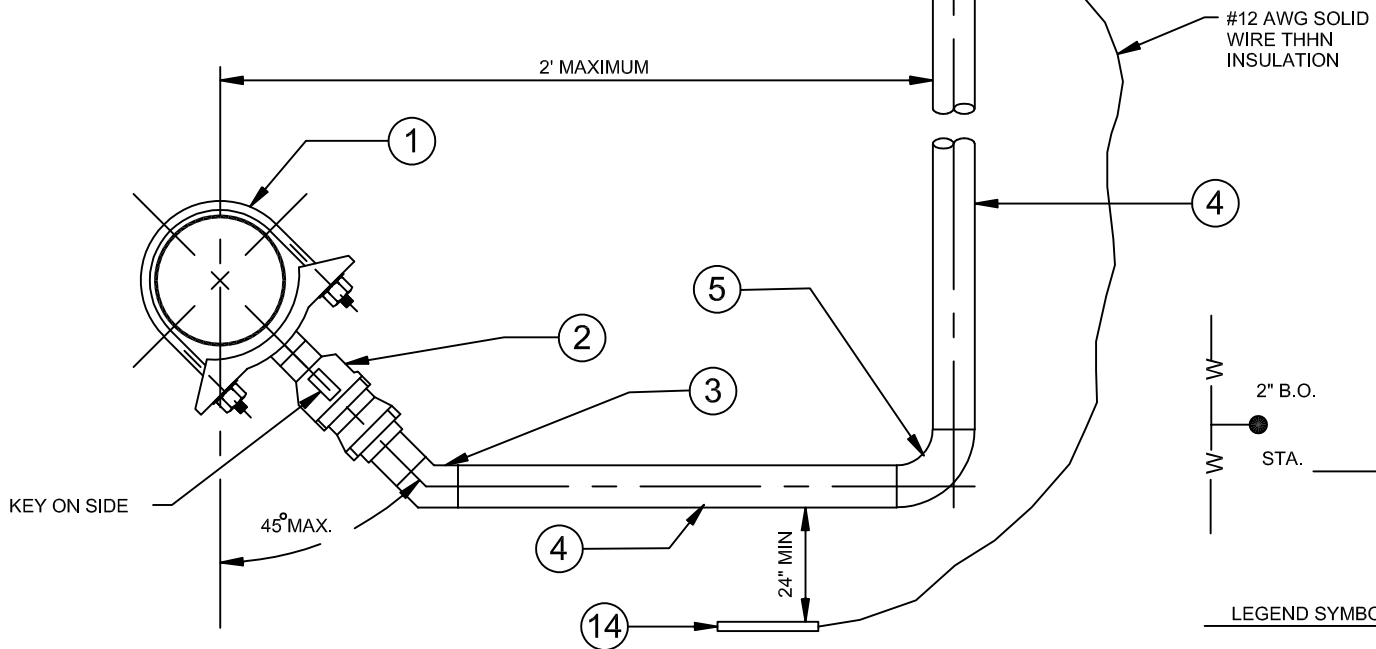
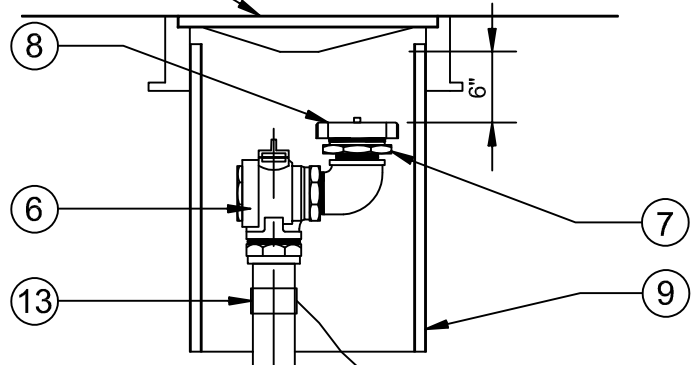
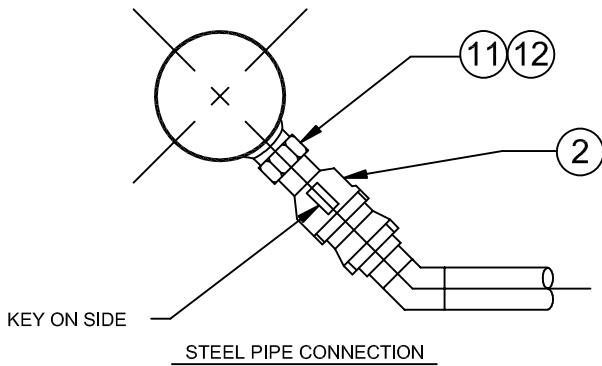
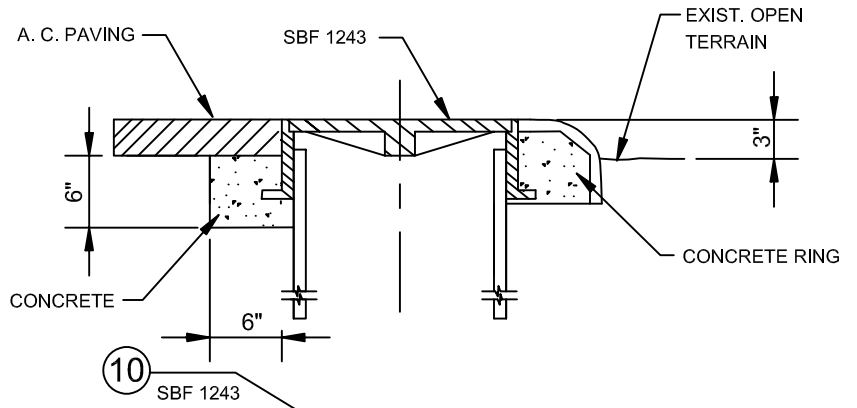


NOTE:
 POST WITH EYE HOOKS REQUIRED FOR
 CHAINING AND LOCKING THE CONSTRUCTION METER.

| REVISIONS | | | VALLECITOS WATER DISTRICT STANDARD DRAWING | DATE: 2-27-18 |
|-------------|----------|---------|---|---------------------------|
| DESCRIPTION | APPROVED | DATE | | BY: P.C. |
| NEW MAP | | 2-28-18 | CONSTRUCTION METER ON A BLOW-OFF | Drawing No. W-0 |
| | | | | |
| | | | | |
| | | | | |

NOTES:

- 1) BLOW-OFF SHALL BE LOCATED TO THE SIDE OF THE STREET NEAREST GUTTER/EDGE.
- 2) ALL JOINTS TO BE 15% SILVER SOLDERED.



| ITEM | MATERIAL | ITEM | MATERIAL |
|------|-------------------------------------|------|---|
| ① | SADDLE | ⑨ | 12" OD X 24" SDR-41 CASING, WHITE |
| ② | BALL CORP STOP | ⑩ | FRAME AND COVER |
| ③ | 2" COPPER 45° ELBOW | ⑪ | 3000# FORGED STEEL HALF COUPLING (ON STEEL PIPE ONLY) |
| ④ | 2" TYPE K SOFT COPPER TUBING | ⑫ | DIELECTRIC INSULATING BUSHING (ON STEEL ONLY) |
| ⑤ | 2" COPPER 90° ELBOW | ⑬ | MECHANICAL GROUNDING CLAMP PER CURRENT VWD MAT. LIST |
| ⑥ | NL BALL VALVE McDONALD 76109BCAPQ 2 | ⑭ | ZINC ANODE PER CURRENT VWD MATERIAL LIST |
| ⑦ | 2" X 2 1/2" FIPT X MHT ADAPTER | | |
| ⑧ | 2 1/2" HOSE CAP W/ CHAIN | | |

| REVISIONS | | |
|-------------------------------|----------|---------|
| DESCRIPTION | APPROVED | DATE |
| ADDED NL BALL VALVE 74606BQ | | 9-8-16 |
| ADDED ZINC ANODE & CLAMP | | 3-27-17 |
| NEW BALL VALVE & REMOVE ELBOW | | 9-13-18 |
| | | |
| | | |

VALLECITOS WATER DISTRICT STANDARD DRAWING

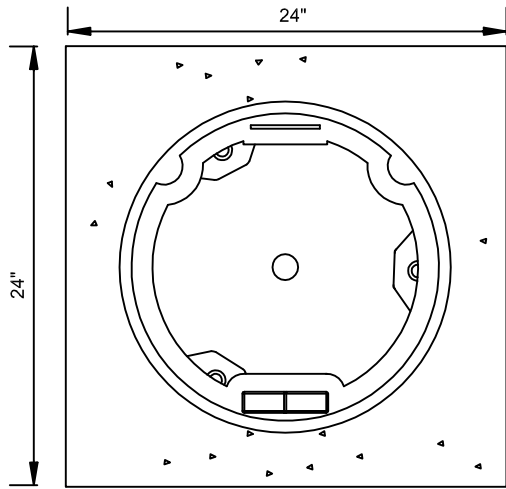
2" BLOW-OFF ASSEMBLY

DATE: JULY 2015

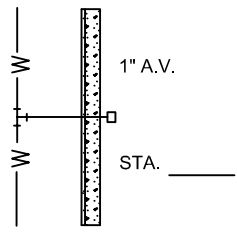
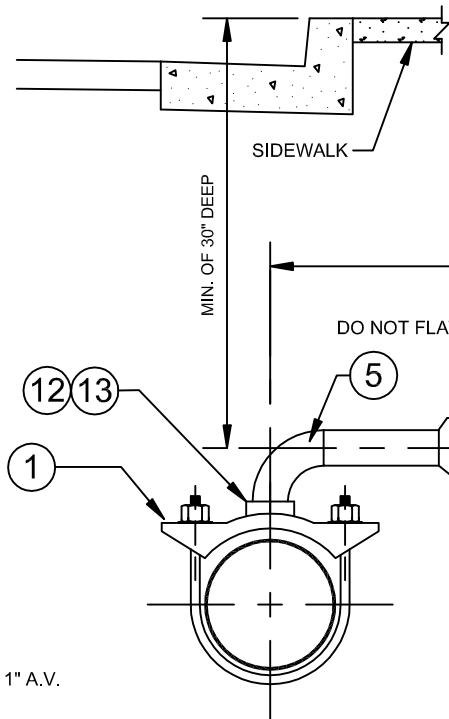
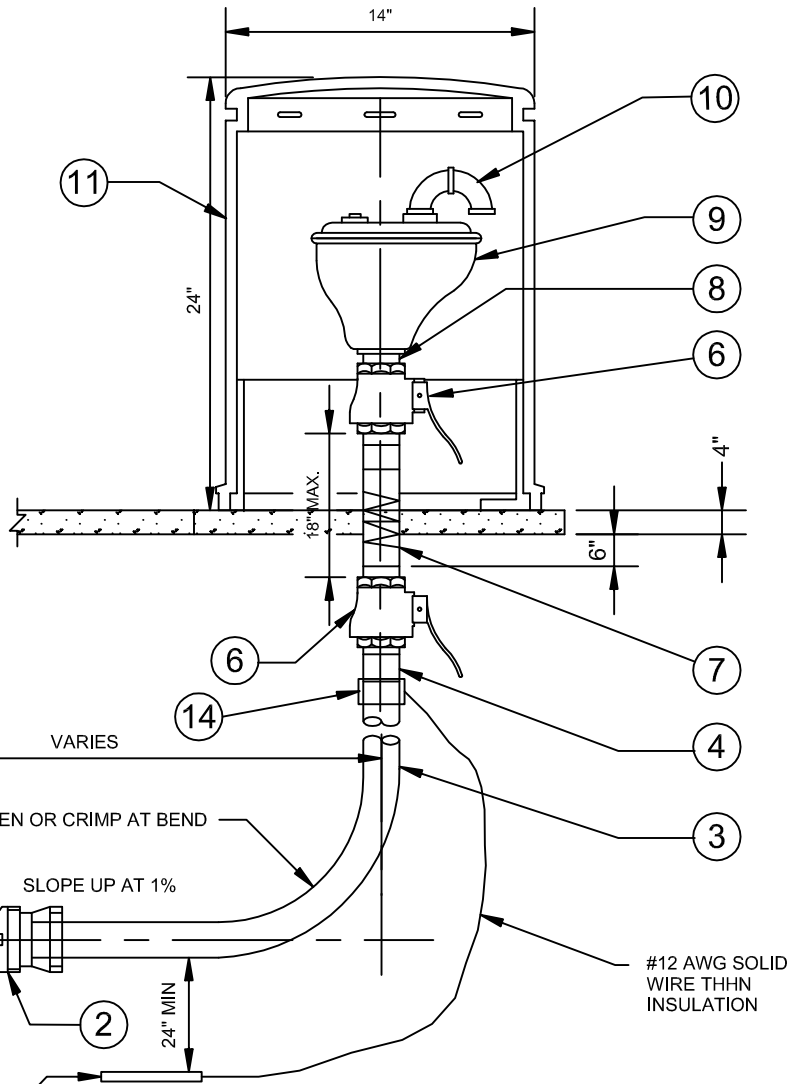
BY: _____

Drawing No.

W-1



TOP VIEW



LEGEND SYMBOL

NOTES:

- 1) ALL PIPE FITTINGS, VALVES, AND COCKS SHALL BE THE SAME SIZE AS AIR VALVE INLET.
- 2) FOR SERVICE INSTALLATIONS GREATER THAN 150psi, ALL COMPRESSION FITTINGS LISTED SHALL BE THREADED
- 3) ALL JOINTS TO BE 15% SILVER SOLDERED.
- 4) FOR STEEL PIPE CONNECTION SEE DRAWING W-26.
- 5) ENCLOSURE MAY BE A COLOR OTHER THAN BLUE IN DESIGN DISTRICTS, WITH VWD APPROVAL. ATTACH "VALLECITOS WATER DISTRICT" TAG TO ENCLOSURE.

| ITEM | MATERIAL | ITEM | MATERIAL |
|------|--|------|---|
| (1) | SADDLE | (9) | COMBINATION AIR AND VACUUM VALVE |
| (2) | BALL CORP STOP | (10) | PVC THREADED STREET ELLS W/ BUG SCREEN |
| (3) | 1" TYPE K SOFT COPPER TUBING | (11) | ENCLOSURE PIPELINE PRODUCTS #VCAS-1424BL |
| (4) | COPPER x MIPT ADAPTER | (12) | 3000# FORGED STEEL HALF COUPLING (ON STEEL PIPE ONLY) |
| (5) | 1" BRASS 90° STREET ELL., MIPxFIP | (13) | DIELECTRIC INSULATING BUSHING (ON STEEL PIPE ONLY) |
| (6) | BALL VALVE W/ HANDLE, FIPxFIP | (14) | MECHANICAL GROUNDING CLAMP PER CURRENT VWD MAT. LIST |
| (7) | 1" X 18" BRASS NIPPLE, WRAPPED W/ 2" X 10 MIL TAPE | (15) | ZINC ANODE PER CURRENT VWD MATERIAL LIST |
| (8) | 1" X CLOSE BRASS NIPPLE | | |

| REVISIONS | | |
|--------------------------|----------|---------|
| DESCRIPTION | APPROVED | DATE |
| SUPPORTS INSIDE CAN | | 5-16-08 |
| COPR STOP LOCATION | | 7-17-07 |
| ENCLOSURE | | 6-9-11 |
| SADDLE | | 3-5-12 |
| ADDED ZINC ANODE & CLAMP | | 3-27-17 |

VALLECITOS WATER DISTRICT STANDARD DRAWING

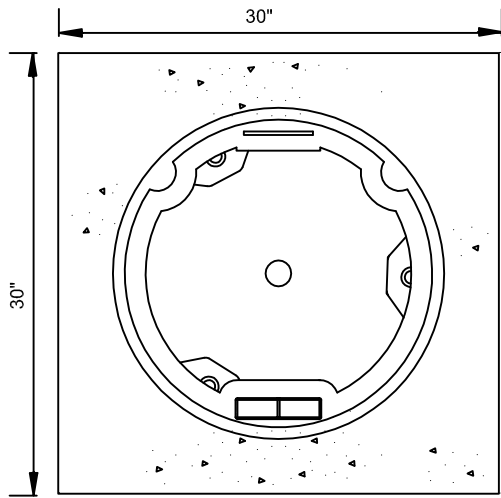
1" AUTOMATIC AIR & VACUUM VALVE

DATE: JULY 2015

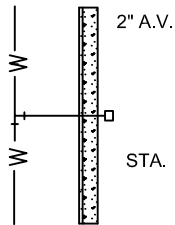
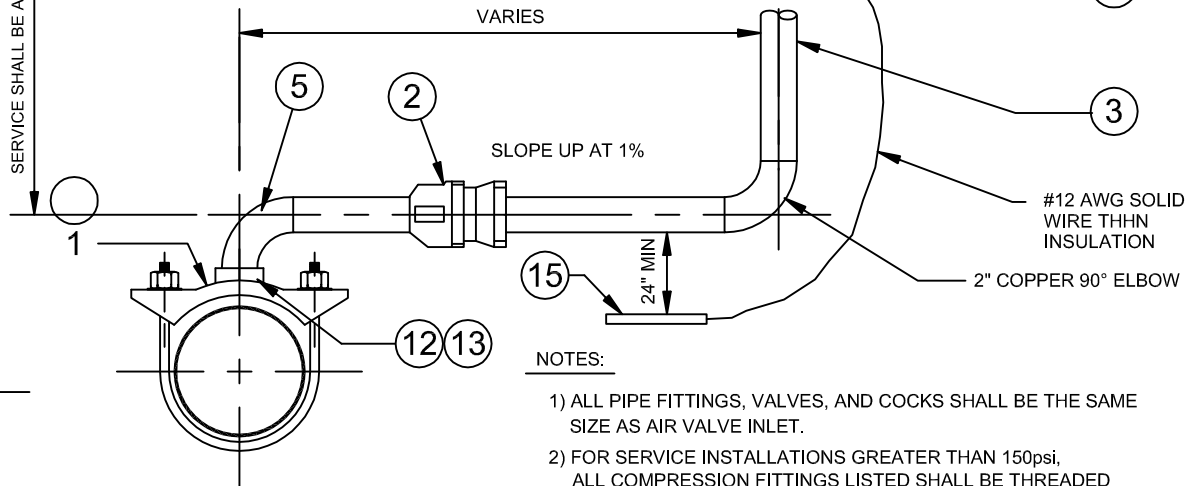
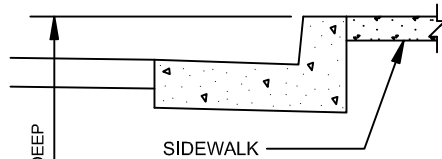
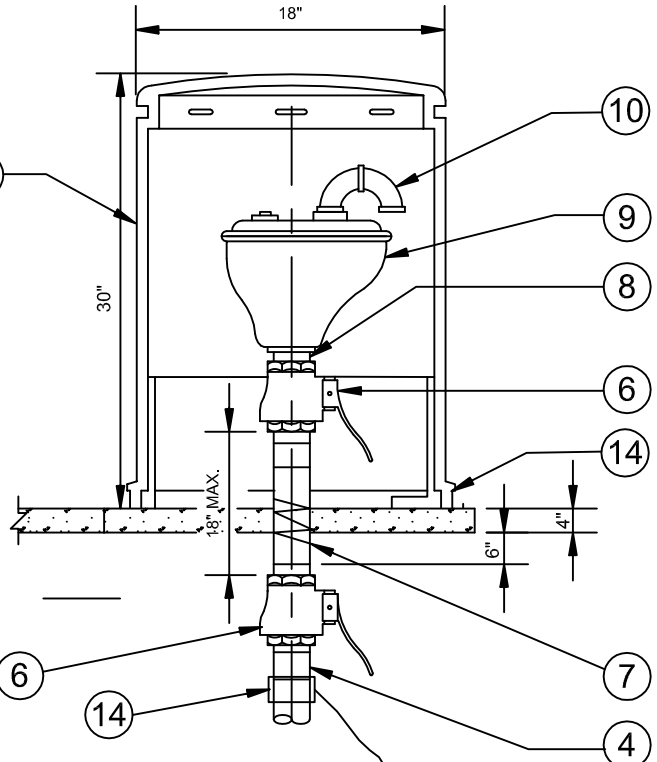
BY:

Drawing No.

W-2



TOP VIEW



LEGEND SYMBOL

NOTES:

- 1) ALL PIPE FITTINGS, VALVES, AND COCKS SHALL BE THE SAME SIZE AS AIR VALVE INLET.
- 2) FOR SERVICE INSTALLATIONS GREATER THAN 150psi, ALL COMPRESSION FITTINGS LISTED SHALL BE THREADED WITH MIP ADAPTERS PER APPROVED MATERIAL LIST.
- 3) ALL JOINTS TO BE 15% SILVER SOLDERED.
- 4) FOR STEEL PIPE CONNECTION SEE DRAWING W-26.
- 5) ENCLOSURE MAY BE A COLOR OTHER THAN BLUE IN DESIGN DISTRICTS, WITH VWD APPROVAL. ATTACH "VALLECITOS WATER DISTRICT" TAG TO ENCLOSURE.

| ITEM | MATERIAL | ITEM | MATERIAL |
|------|---|------|---|
| (1) | DOUBLE STRAP BRONZE SADDLE W/ BRONZE STRAPS | (9) | COMBINATION AIR & VACUUM VALVE |
| (2) | BALL CORP STOP | (10) | PVC THREADED STREET ELLS W/ BUG SCREEN |
| (3) | 2" TYPE K SOFT COPPER TUBING | (11) | ENCLOSURE PIPELINE PRODUCTS #V/CAS-1830BL |
| (4) | COPPER x MIP ADAPTER | (12) | 3000# FORGED STEEL HALF COUPLING (ON STEEL PIPE ONLY) |
| (5) | 2" BRASS 90° STREET ELL., MIPxFIP | (13) | DIELECTRIC INSULATING BUSHING (ON STEEL PIPE ONLY) |
| (6) | BALL VALVE W/ HANDLE, FIPxFIP | (14) | MECHANICAL GROUNDING CLAMP PER CURRENT VWD MAT. LIST |
| (7) | 2" x 18" BRASS NIPPLE / WRAPPED W/ 2" X 10 MIL TAPE | (15) | ZINC ANODE PER CURRENT VWD MATERIAL LIST |
| (8) | 2" CLOSE BRASS NIPPLE | | |

| REVISIONS | | |
|--------------------------|----------|---------|
| DESCRIPTION | APPROVED | DATE |
| SUPPORTS INSIDE CAN | | 5-16-06 |
| COR STOP LOCATION | | 7-17-07 |
| ENCLOSURE | | 6-9-11 |
| 2" COPER 90° ELBOW | | 3-5-12 |
| ADDED ZINC ANODE & CLAMP | | 3-27-17 |

VALLECITOS WATER DISTRICT STANDARD DRAWING

2" AUTOMATIC AIR & VACUUM VALVE

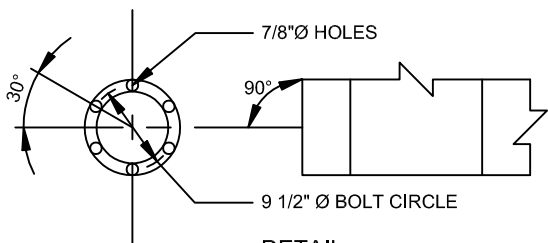
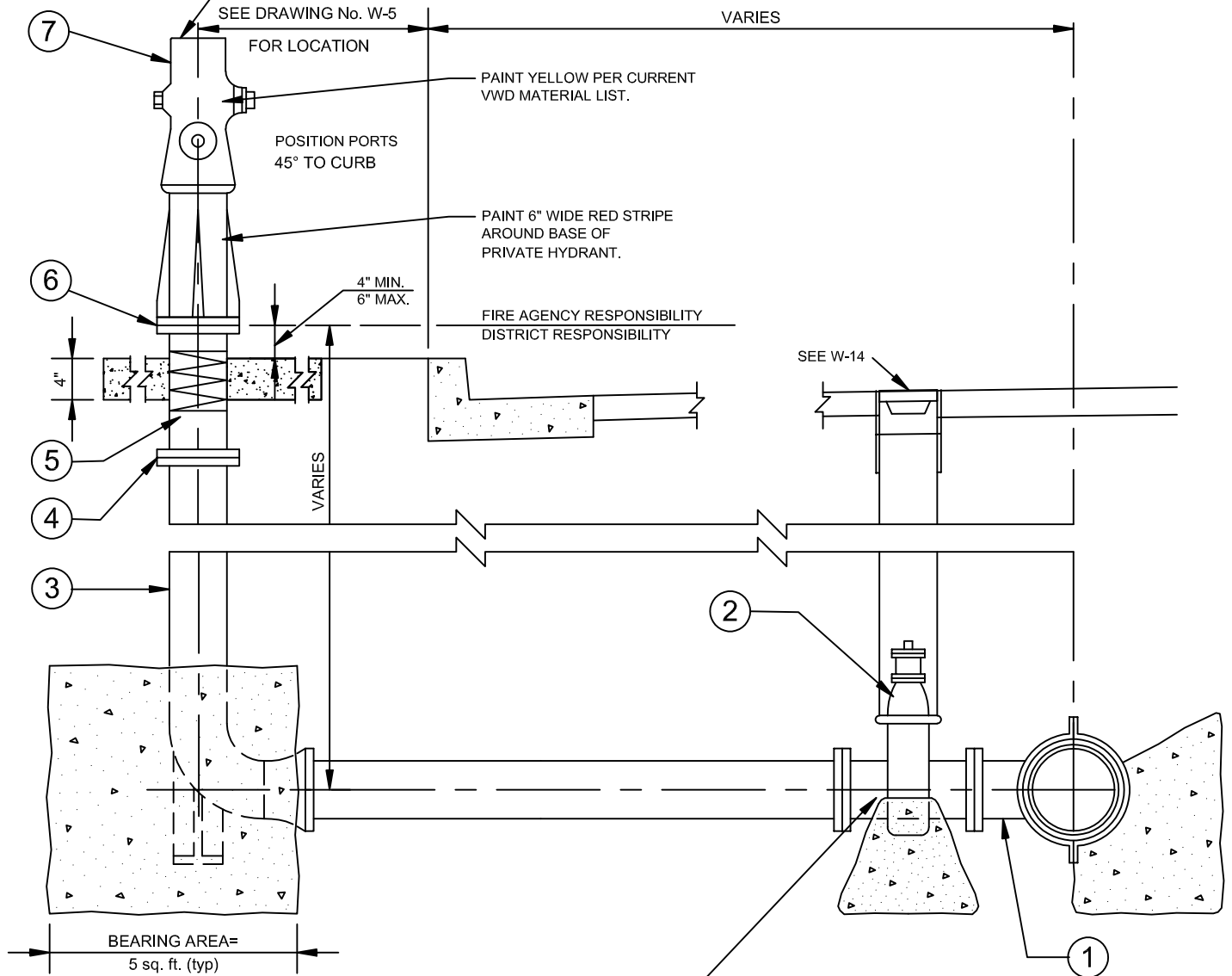
DATE: JULY 2015

BY:

Drawing No.

W-3

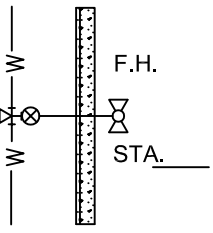
COLOR CODING FOR FIRE FLOWS
WILL BE REQUIRED PER THE DIRECTION
OF LOCAL FIRE JURISDICTION



DETAIL
HYDRANT BASE FLANGE HOLES
AND HYDRANT ELL FLANGE HOLES

NOTES:

- 1) ALL NUTS & BOLTS BELOW GROUND SHALL BE COATED WITH NO-OXIDE GREASE AND VISQUEEN.
- 2) FL x FL VALVES REQUIRE FL x PO ADAPTER PER MATERIALS LIST.
- 3) WARNING TAPE AND TRACER WIRE SHALL BE INSTALLED PER W-18.



LEGEND

| ITEM | MATERIAL | ITEM | MATERIAL |
|------|---|------|--|
| (1) | MAIN SIZE x 6" FLG TEE | (6) | PLATED BREAK-OFF NUTS AND BOLTS W/ RING GASKET |
| (2) | 6" PO x FL VALVE | (7) | FIRE HYDRANT |
| (3) | 6" PO x FL BURY SHORT RADIUS | | |
| (4) | PLATED NUTS AND BOLTS W/ RING GASKET | | |
| (5) | 18" MIN. BREAK-OFF SPOOL, DOUBLE SCORE, W/ 2" x 10 MIL TAPE | | |

| REVISIONS | | |
|---------------------------------|----------|----------|
| DESCRIPTION | APPROVED | DATE |
| REMOVED ADAPTOR & VALVE STEM | | 9-9-16 |
| ADDED PAINT NOTES | | 5-9-17 |
| CLARIFIED AGENCY RESPONSIBILITY | | 11-14-22 |
| ADDED TRACER WIRE NOTE 3 | | 11-29-22 |

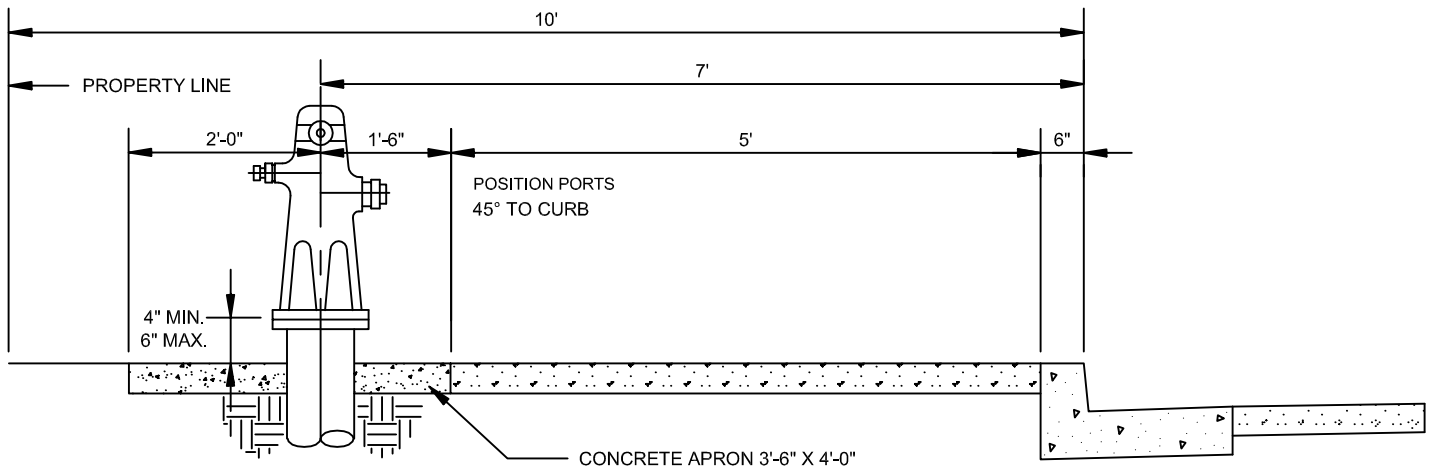
VALLECITOS WATER DISTRICT STANDARD DRAWING

FIRE HYDRANT INSTALLATION

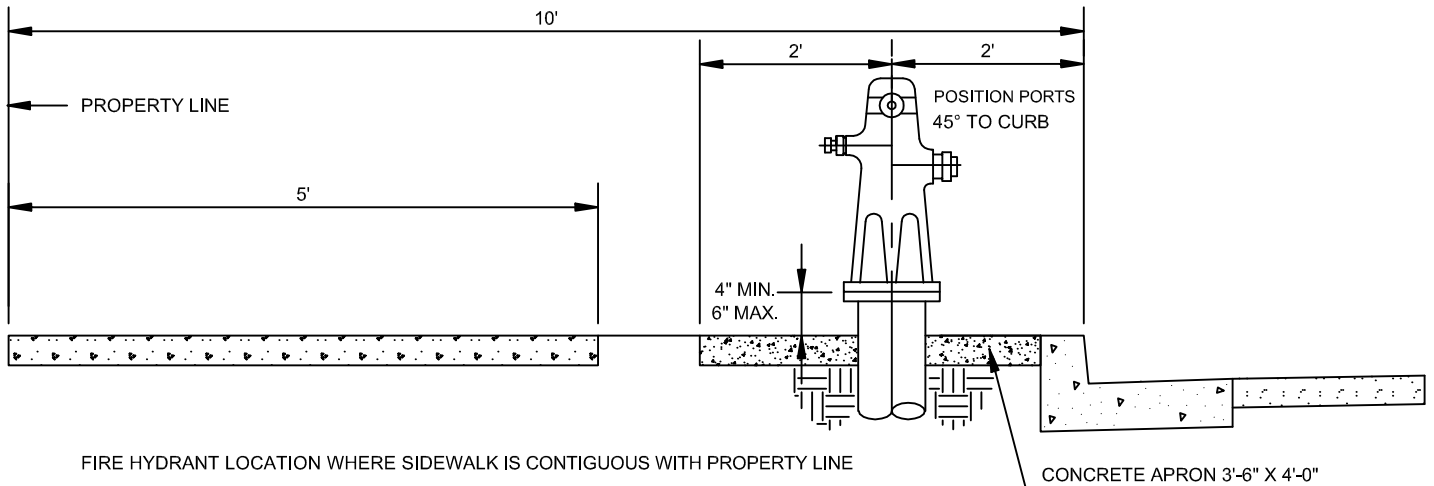
DATE: JAN. 04

BY:

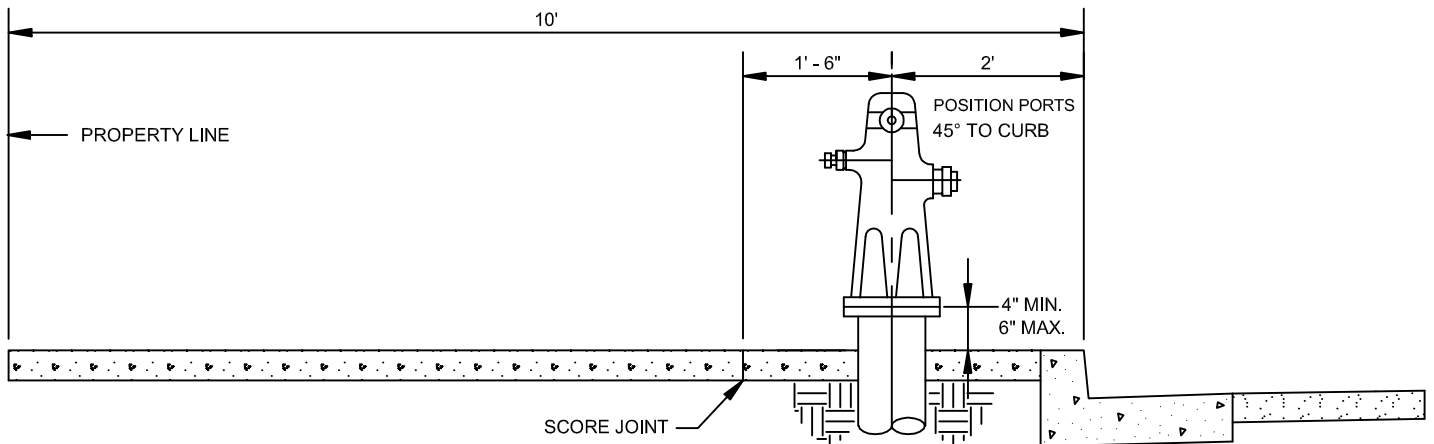
Drawing No.
W-4



FIRE HYDRANT LOCATION WHERE SIDEWALK IS CONTIGUOUS WITH CURB



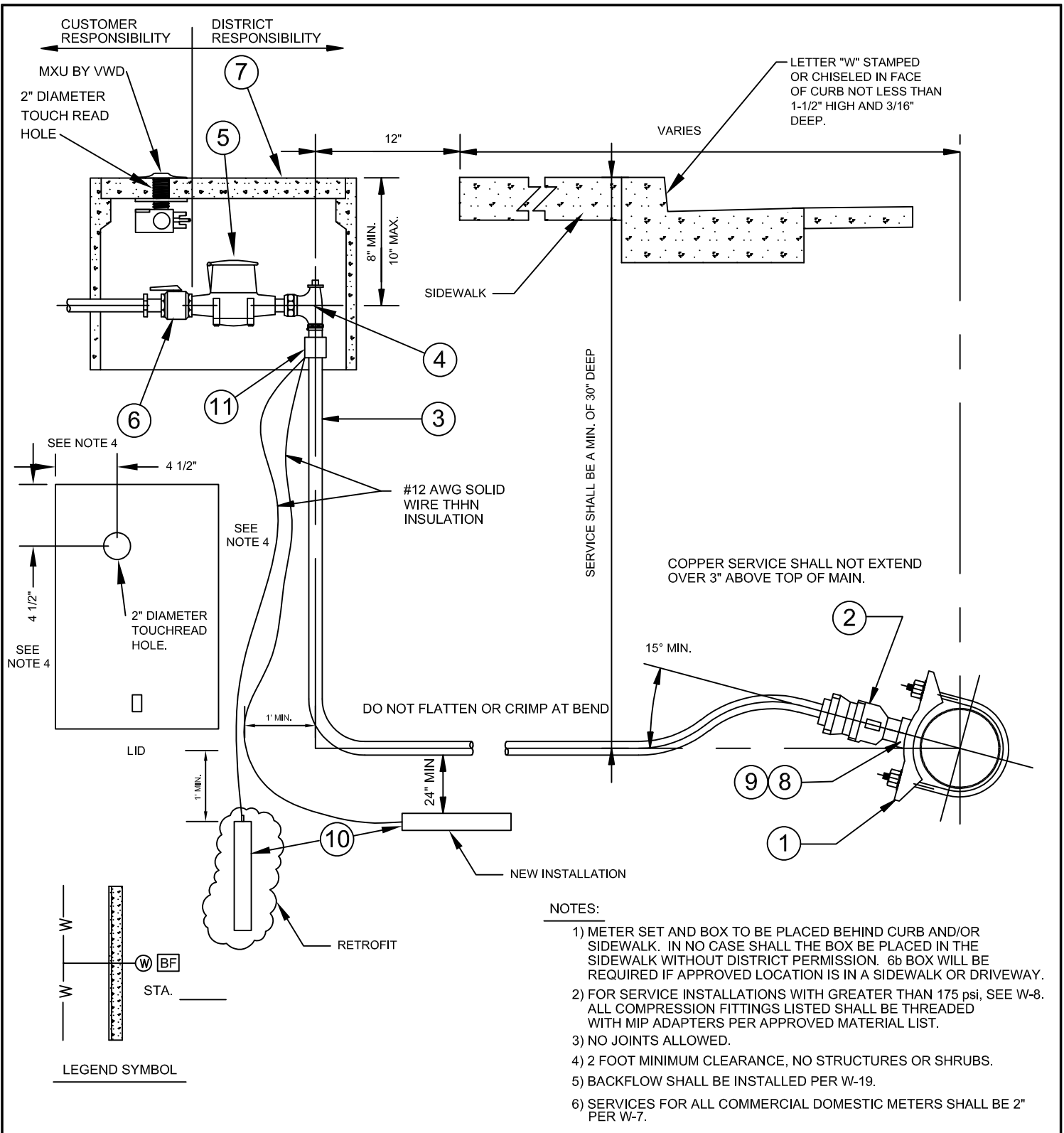
FIRE HYDRANT LOCATION WHERE SIDEWALK IS CONTIGUOUS WITH PROPERTY LINE



FIRE HYDRANT LOCATION WHERE SIDEWALK OCCUPIES FULL WIDTH OF PARKWAY STRIP

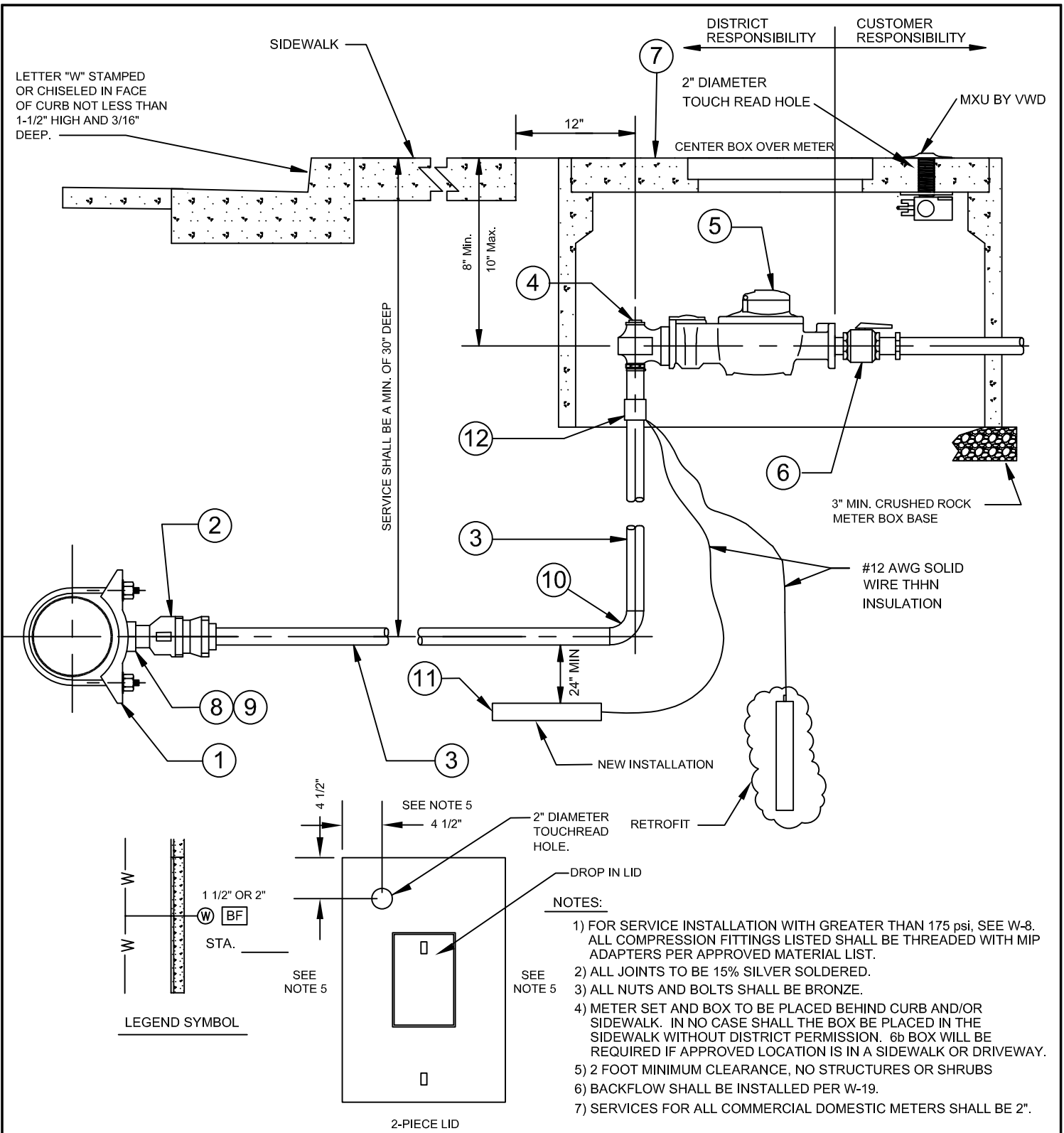
NOTE: A 10' MIN. HORIZONTAL OFFSET FROM EDGE OF DRIVEWAY ENTRANCES IS REQUIRED

| REVISIONS | | | VALLECITOS WATER DISTRICT STANDARD DRAWING | DATE: JAN. 04 |
|----------------------------|----------|---------|--|---------------------------|
| DESCRIPTION | APPROVED | DATE | | BY: |
| POSITION PORTS 45° TO CURB | | 7-17-07 | STANDARD FIRE HYDRANT LOCATIONS WHERE CURBS ARE INSTALLED | Drawing No. W-5 |
| | | | | |
| | | | | |
| | | | | |



| ITEM | MATERIAL | ITEM | MATERIAL |
|------|---|------|--|
| (1) | SADDLE | (6) | BALL VALVE W/ HANDLE |
| (2) | BALL CORP STOP | (7) | POLYMER CONCRETE METER BOX W/ LID |
| (3) | 1" TYPE "K" SOFT COPPER TUBING | (8) | 3000# FORGED STEEL HALF COUPLING (STEEL PIPE ONLY) |
| (4) | BALL ANGLE METER STOP WITH 1 x 3/4 BRASS METER BUSHING FOR 3/4" METER SET | (9) | DIELECTRIC INSULATING BUSHING (STEEL PIPE ONLY) |
| (5) | WATER METER | (10) | ZINC ANODE PER CURRENT VWD MATERIALS LIST |
| | | (11) | MECHANICAL GROUNDING CLAMP PER CURRENT VWD MAT. LIST |

| REVISIONS | | | VALLECITOS WATER DISTRICT STANDARD DRAWING | DATE: JULY 2015 |
|-------------------------------|----------|----------|---|---------------------------|
| DESCRIPTION | APPROVED | DATE | | BY: |
| ADDED CUSTOMER RESPONSIBILITY | | 3/3/23 | WATER SERVICE CONNECTION (3/4" AND 1" METER) | Drawing No. W-6 |
| ANODE & CLAMP, 1x3/4 BUSHING | | 3 & 8-17 | | |
| CHANGED PSI | | 2-28-18 | | |
| ADDED NOTE 4 | | 4/12/21 | | |
| ADDED NOTES 5 & 6 | | 7/27/22 | | |



| ITEM | MATERIAL | ITEM | MATERIAL |
|------|--|------|---|
| 1 | SADDLE | 7 | POLYMER CONCRETE METER BOX W/ 2-PIECE LID |
| 2 | BALL CORP. STOP | 8 | 3000# FORGED STEEL HALF COUPLING (ON STEEL PIPE ONLY) |
| 3 | 2" K - SOFT COPPER TUBING | 9 | DIELECTRIC INSULATING BUSHING (ON STEEL ONLY) |
| 4 | BALL ANGLE METER STOP | 10 | 2" COPPER 90° ELBOW |
| 5 | WATER METER (MFR. DATE WITHIN 1 YEAR OF SCHED. UNLOCK DAY) | 11 | ZINC ANODE PER CURRENT VWD MATERIAL LIST |
| 6 | BALL VALVE W/ HANDLE | 12 | MECHANICAL GROUNDING CLAMP PER CURRENT VWD MAT. LIST |

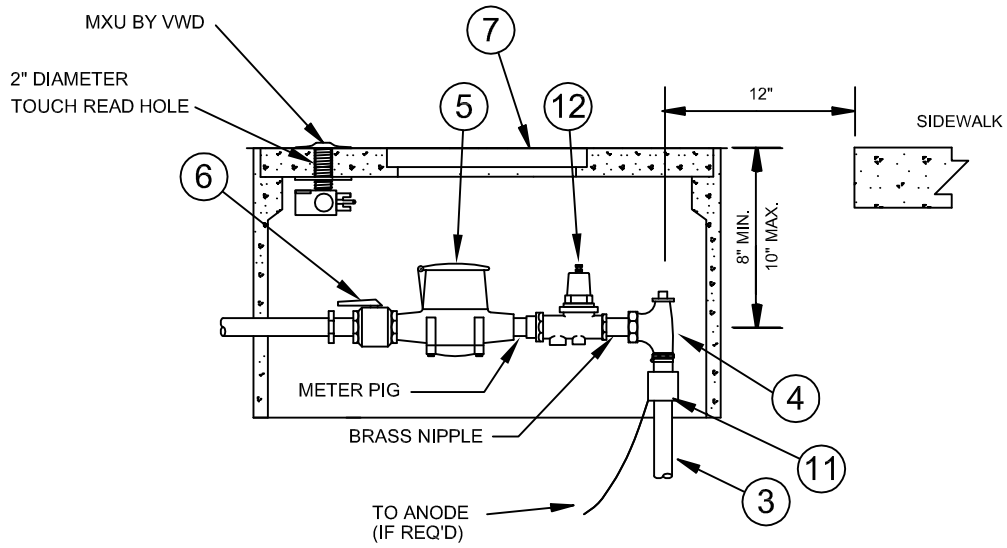
| REVISIONS | | | VALLECITOS WATER DISTRICT STANDARD DRAWING | DATE: JULY 2015 |
|-------------------------------|----------|---------|--|-----------------|
| DESCRIPTION | APPROVED | DATE | | BY: |
| ADDED CUSTOMER RESPONSIBILITY | | 3/3/23 | | |
| ADDED ZINC ANODE & CLAMP | | 3/27/17 | | |
| CHANGED PSI | | 2/28/18 | | |
| ADDED NOTE 5 ABOVE | | 4/12/21 | | |
| ADDED NOTES 6 & 7 | | 7/27/22 | | |

2" WATER SERVICE CONNECTION

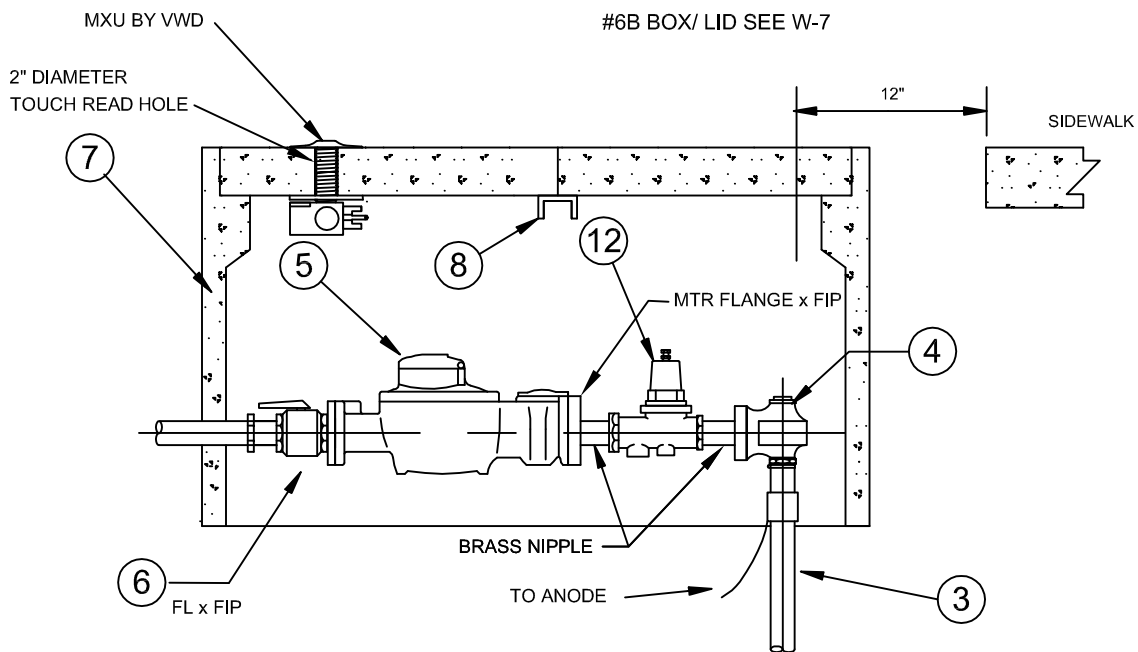
(1-1/2" & 2" METER)

Drawing No.

W-7



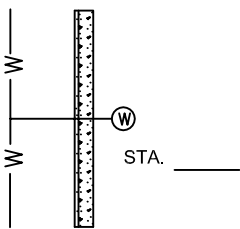
3/4" THROUGH 1" METER W/ REGULATOR,
#6B BOX/ LID SEE W-7



1 1/2" & 2" METER W/ REGULATOR,
ARMORCAST A6001430PCX18
TWO - PIECE LID
OR APPROVED EQUAL

NOTES:

- 1) METER SET AND BOX TO BE PLACED BEHIND CURB AND/OR SIDEWALK. IN NO CASE SHALL THE BOX BE PLACED IN THE SIDEWALK WITHOUT DISTRICT PERMISSION.
- 2) TO PROTECT THE DISTRICT METER, A PRESSURE REGULATOR IS REQUIRED FOR PRESSURES GREATER THAN 175 PSI.
- 3) NO JOINTS ALLOWED



LEGEND SYMBOL

| ITEM | MATERIAL | ITEM | MATERIAL |
|------|---|------|--|
| (1) | SEE W - 6, W - 7 | (7) | POLYMER CONCRETE METER BOX W/ LID |
| (2) | SEE W - 6, W - 7 | (8) | STEEL SUPPORT BEAM |
| (3) | TYPE "K" SOFT COPPER TUBING, PER APP'D SIZE | (9) | |
| (4) | BALL ANGLE METER STOP FIP X FIP | (10) | |
| (5) | WATER METER | (11) | PIPE CLAMP W/ LUG, COVERED W/ DIELECTRIC COATING |
| (6) | BALL VALVE W/ HANDLE | (12) | PRESSURE REGULATOR, SAME SIZE AS METER |

| REVISIONS | | |
|----------------------------|----------|---------|
| DESCRIPTION | APPROVED | DATE |
| POLYMER CONCRETE BOX/ LID | | 2-16-12 |
| ADDED 150 PSI TO TITLE | | 3-27-17 |
| CHANGED 150 PSI TO 175 PSI | | 2-27-18 |
| CHANGED ANGLE METER STOP | | 4-3-18 |

VALLECITOS WATER DISTRICT STANDARD DRAWING

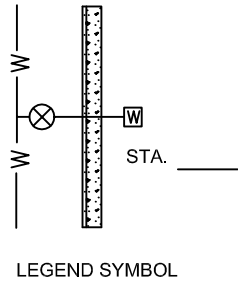
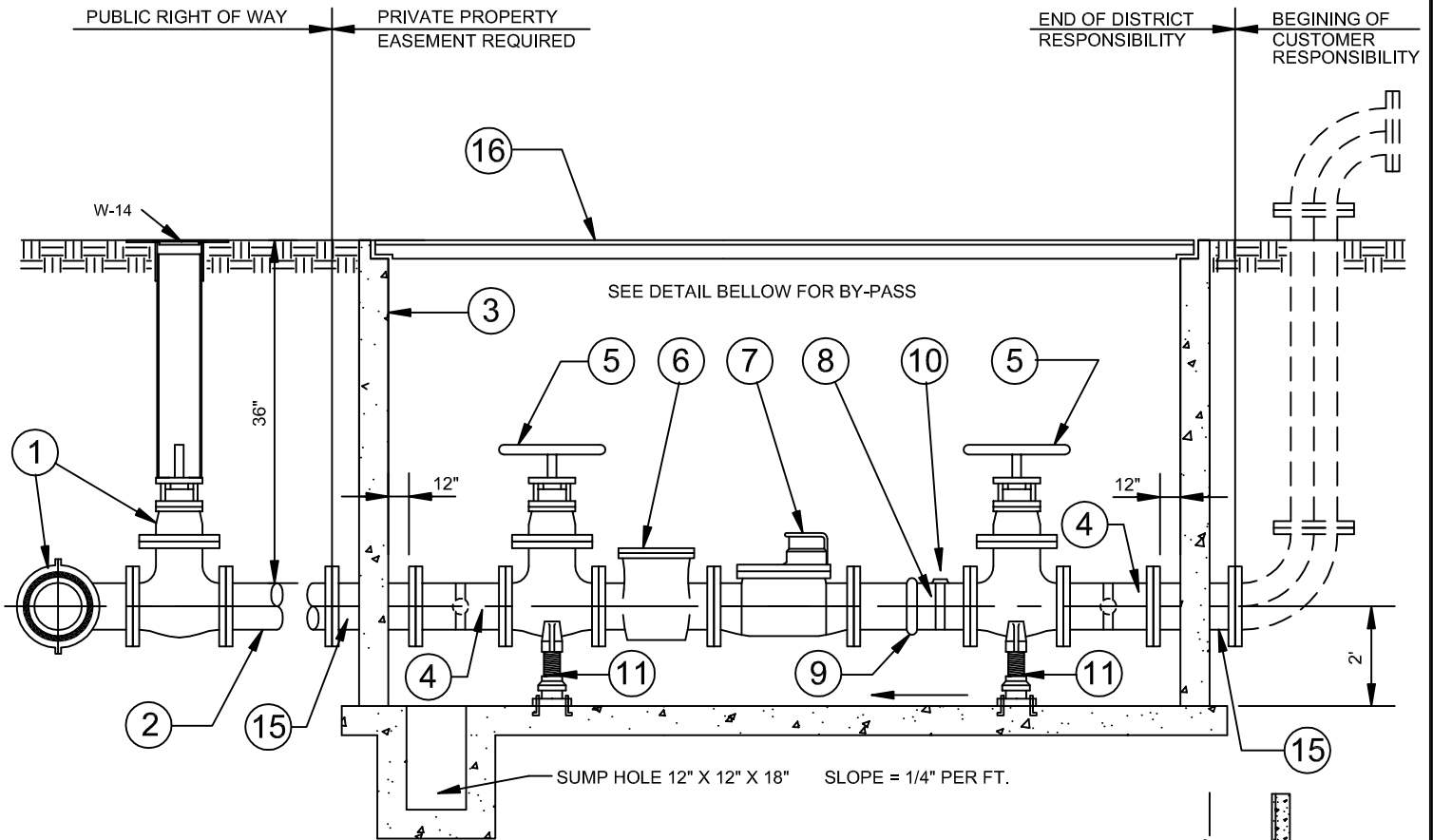
HIGH PRESSURE (175 PSI+)
WATER METER CONNECTION
(3/4" THROUGH 2" METERS)

DATE: JULY 2015

BY:

Drawing No.

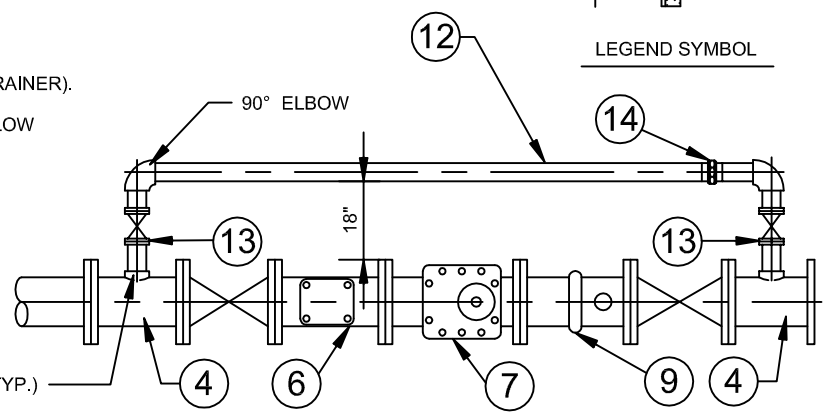
W-8



LEGEND SYMBOL

NOTES:

- 1) SUBSTITUTIONS IN MATERIAL SHALL NOT BE MADE WITHOUT APPROVAL OF THE DISTRICT.
- 2) A MINIMUM OF 24" CLEARANCE SHALL BE MAINTAINED BETWEEN THE VAULT AND ALL FACILITIES.
- 3) PIPE LENGTH SHALL BE VERIFIED IN THE FIELD.
- 4) ALL EXPOSED PIPING AND BOLTS SHALL BE PAINTED BLUE PER CURRENT VWD MATERIAL LIST (EXCLUDING METER AND STRAINER).
- 5) REFER TO STANDARD DRAWINGS FOR INSTALLATION OF BACKFLOW PREVENTION DEVICE.
- 6) 2" OUTLET SHALL BE (3) PIPE DIAMETERS MINIMUM DOWNSTREAM OF THE WATER METER.
- 7) BRASS BOLTS AND NUTS SHALL BE USED FOR ALL CONNECTIONS TO THE WATER METER AND STRAINER.
- 8) ACCESS LADDER REQUIRED IF VAULT IS OVER 3' DEEP PER VWD INSPECTOR'S DIRECTION.



2 1/2" OUTLET W/ 2 1/2" x 2" INS. BUSHING (TYP.)

| ITEM | MATERIAL | ITEM | MATERIAL |
|------|-----------------------------------|------|-------------------------------------|
| (1) | TAPPING GATE VALVE & TEE | (9) | VICTAULIC COUPLING |
| (2) | SPOOL, SAME MATERIAL AS MAIN LINE | (10) | D.I.P. SADDLE |
| (3) | PRE-CAST VAULT | (11) | VALVE SUPPORT STAND W/ SADDLE TOP |
| (4) | D.I.P. SPOOL W/ SADDLE | (12) | 2" HARD COPPER OR RED BRASS BY-PASS |
| (5) | GATE VALVE W / HANDWHEEL | (13) | 2" LOCK WING BALL VALVE, BRASS |
| (6) | STRAINER | (14) | UNION (HARD COPPER OR RED BRASS) |
| (7) | TURBINE METER | (15) | FLANGED SPOOL |
| (8) | FL x VICTAULIC SPOOL | (16) | ALUMINUM, SPRING ASSIST LID |

| REVISIONS | | |
|------------------------------|----------|--------|
| DESCRIPTION | APPROVED | DATE |
| REMOVED VALVE STEM EXTENSION | | 9-9-16 |
| | | |
| | | |
| | | |

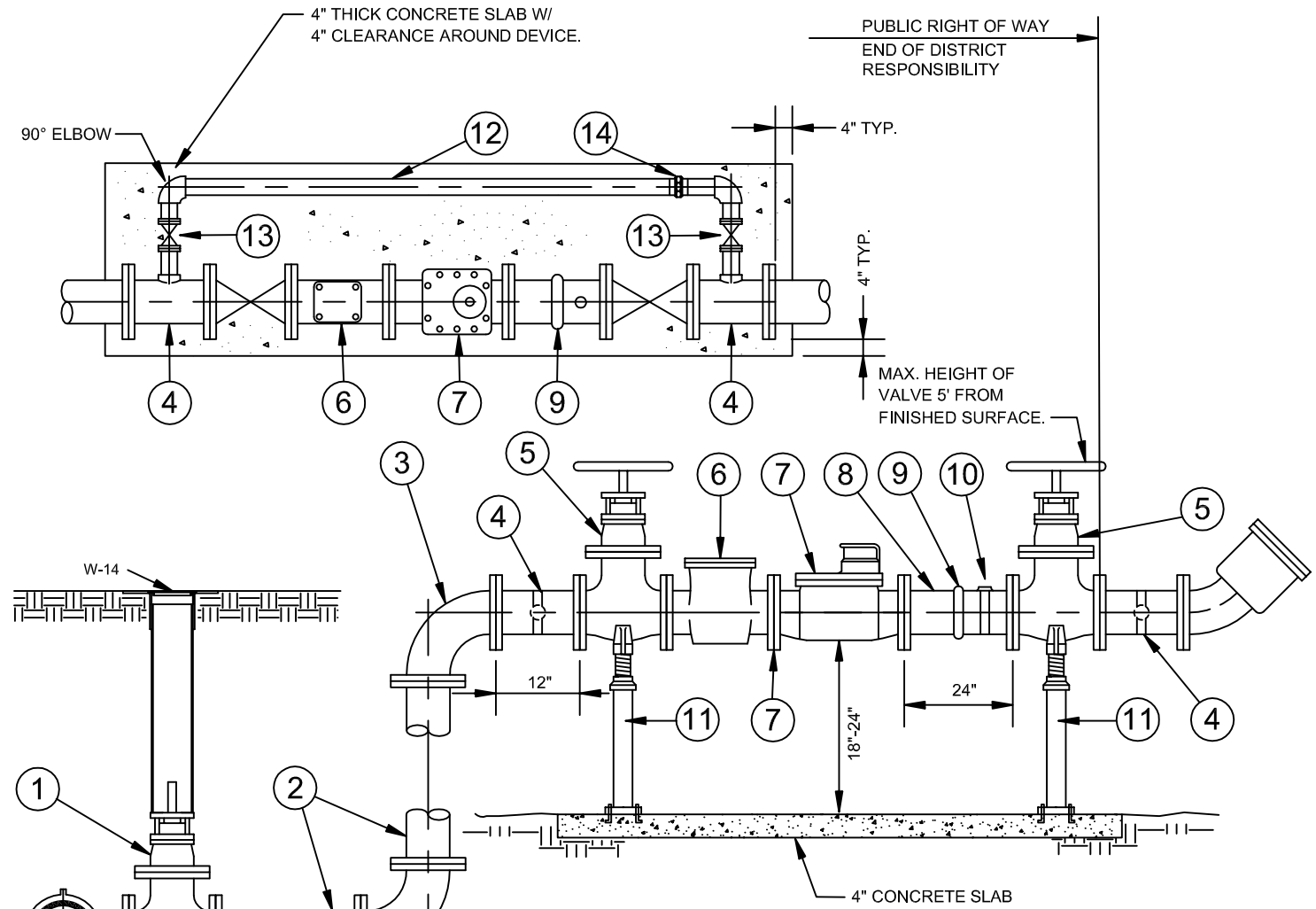
VALLECITOS WATER DISTRICT STANDARD DRAWING

**3" - 4" - 6" METER
(BELOW GROUND)
WITH BY-PASS**

DATE: JULY 2015

BY: _____

Drawing No.
W-9



- NOTES:**
- 1) SUBSTITUTIONS IN MATERIAL SHALL NOT BE MADE WITHOUT APPROVAL OF THE DISTRICT.
 - 2) PIPE LENGTH SHALL BE VERIFIED IN THE FIELD.
 - 3) ALL EXPOSED PIPING AND BOLTS SHALL BE PAINTED BLUE PER CURRENT VWD MATERIAL LIST (EXCLUDING METER AND STRAINER).
 - 4) REFER TO STANDARD DRAWINGS FOR INSTALLATION OF BACKFLOW PREVENTION DEVICE.
 - 5) 2" OUTLET FOR 6" METER INTALLATION SHALL BE (3) PIPE DIAMETERS MINIMUM DOWNSTREAM OF THE WATER METER.
 - 6) BRASS BOLTS AND NUTS SHALL BE USED FOR ALL CONNECTIONS TO THE WATER METER AND STRAINER.
 - 7) USE 4" PIPING AND VALVES FOR 3" & 4" METERS. USE 6" PIPING AND VALVES FOR 6" METER.

| ITEM | MATERIAL | ITEM | MATERIAL |
|------|-----------------------------------|------|-------------------------------------|
| 1 | GATE VALVE | 8 | FL x VICTAULIC SPOOL |
| 2 | SPOOL, SAME MATERIAL AS MAIN LINE | 9 | VICTAULIC COUPLING |
| 3 | FL. 90° ELBOW | 10 | D.I.P. SADDLE |
| 4 | D.I.P. SPOOL W/ SADDLE | 11 | VALVE SUPPORT STAND W/ SADDLE TOP |
| 5 | GATE VALVE W/ HANDWHEEL | 12 | 2" HARD COPPER OR RED BRASS BY-PASS |
| 6 | STRAINER | 13 | 2" LOCK WING BALL VALVE, BRASS |
| 7 | TURBINE METER | 14 | UNION (HARD COPPER OR RED BRASS) |

| REVISIONS | | |
|--|----------|--------|
| DESCRIPTION | APPROVED | DATE |
| REMOVED VALVE RISER STEM & REMOVED 45° ELBOW | | 9-9-16 |
| | | |
| | | |

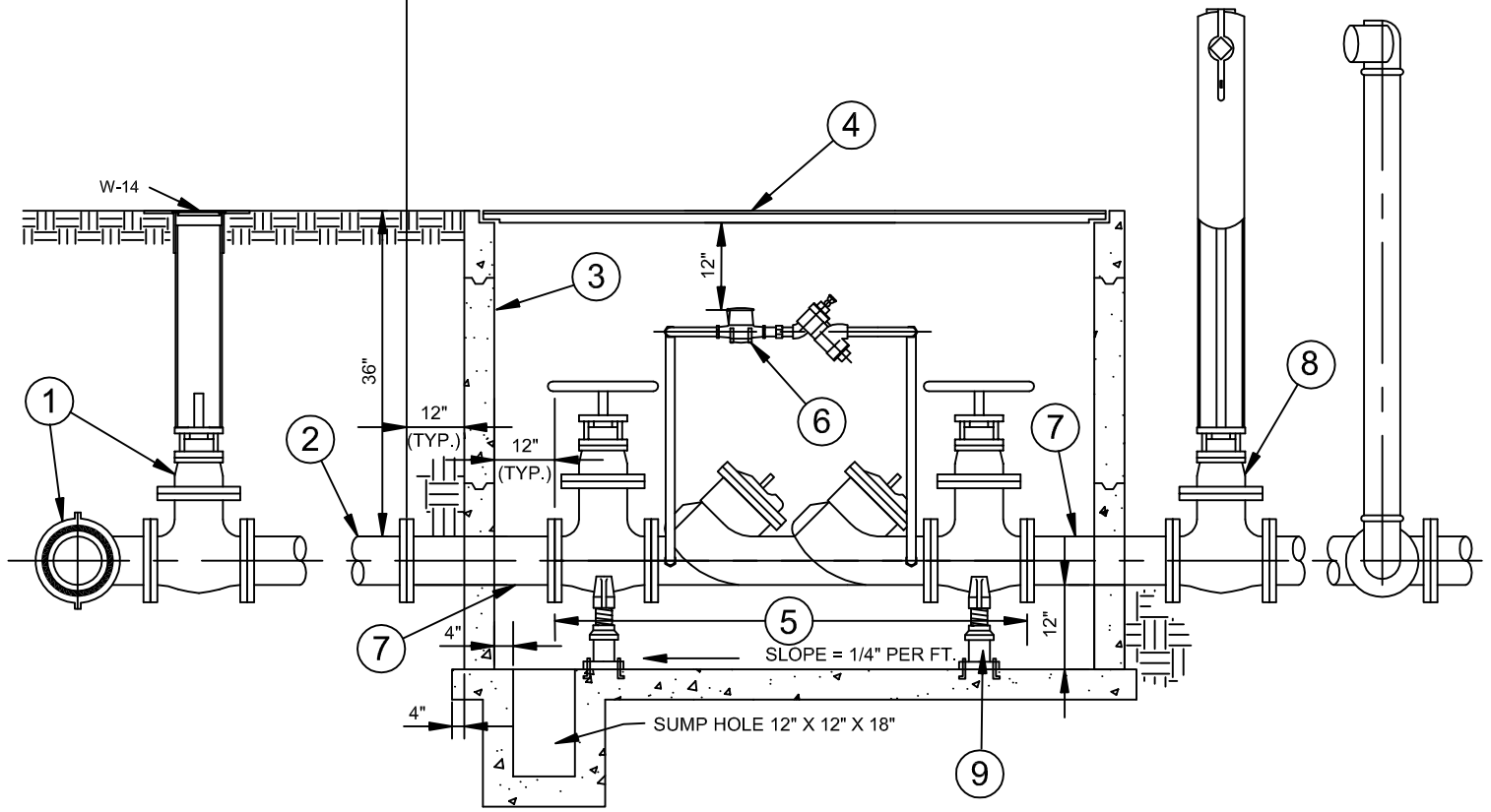
VALLECITOS WATER DISTRICT STANDARD DRAWING

**3" - 4" - 6" METER
(ABOVE GROUND)
WITH BY-PASS**

DATE: JULY 2015
BY:
Drawing No.
W-11

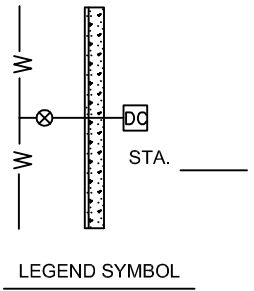
PUBLIC RIGHT OF WAY
END OF DISTRICT RESPONSIBILITY

PRIVATE PROPERTY, EASEMENT REQUIRED
CUSTOMER OWNED



NOTES:

- 1) SUBSTITUTIONS IN MATERIAL SHALL NOT BE MADE WITHOUT APPROVAL OF THE DISTRICT.
- 2) A MINIMUM OF 24" CLEARANCE SHALL BE MAINTAINED BETWEEN THE VAULT AND ALL FACILITIES.
- 3) PIPE LENGTH SHALL BE VERIFIED IN THE FIELD.
- 4) ALL EXPOSED PIPING AND BOLTS SHALL BE PAINTED BLUE PER CURRENT VWD MATERIAL LIST (EXCLUDING BY-PASS PLUMBING & METER)
- 5) BY-PASS METER SHALL BE RAISED TO WITHIN ONE FOOT OF THE VAULT LID.
- 6) ALL BY-PASS PLUMBING SHALL BE HARD COPPER OR RED BRASS AS SUPPLIED BY MANUFACTURER.
- 7) CONTACT THE FIRE PROTECTION DISTRICT FOR SPECIFICATIONS ON FIRE DEPARTMENT CONNECTION.
- 8) ACCESS LADDER REQUIRED FOR VAULTS OVER THREE FEET DEEP.
- 9) DCDA OR RPD, PER STATE HEALTH DEPARTMENT APPROVED LIST, DEVICE TO DETERMINED BY TYPE OF HAZARD.
- 10) BYPASS METER BACKFLOW DEVICE SHALL BE AN INCLUDED COMPONENT OF DETECTOR CHECK ASSEMBLY.



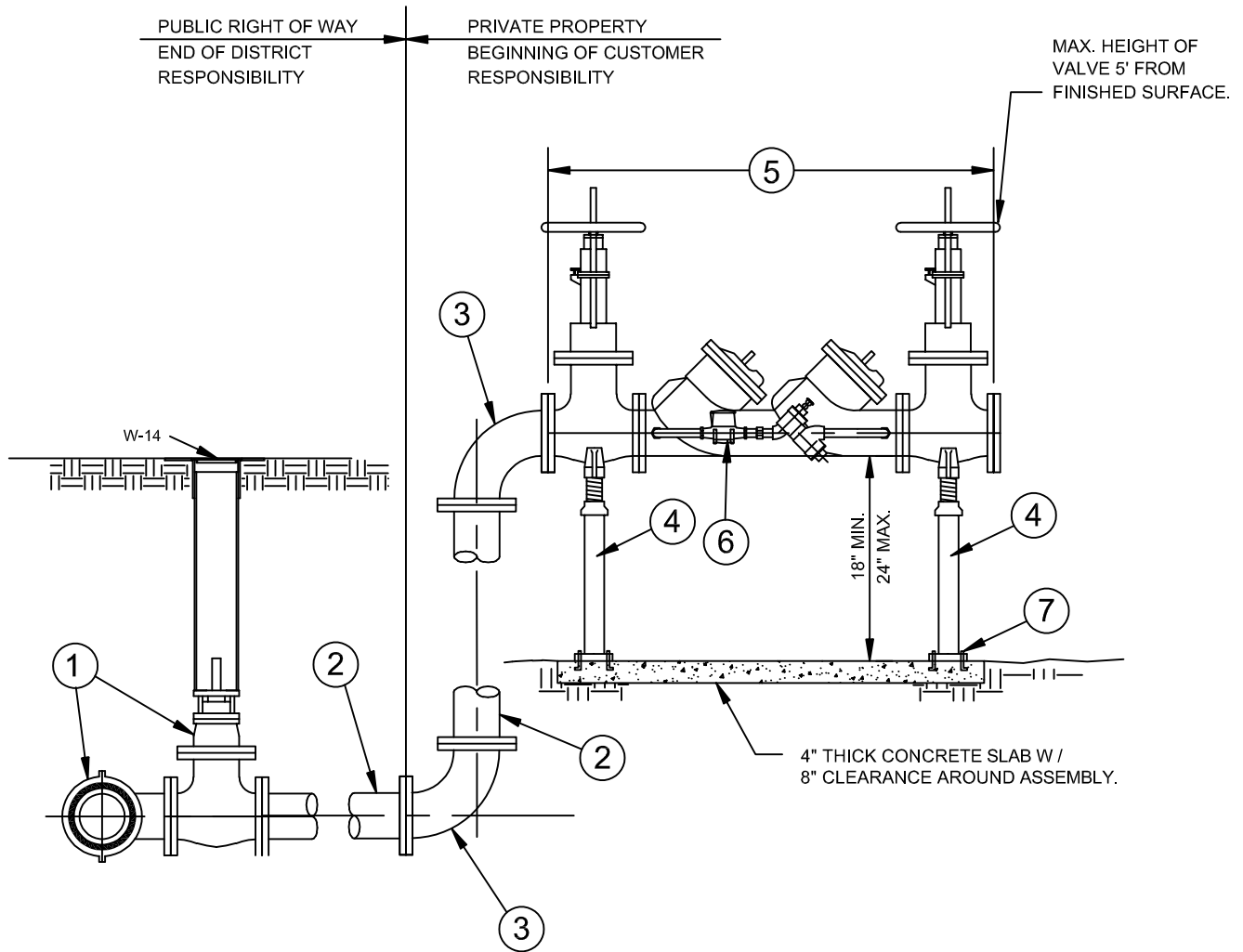
| ITEM | MATERIAL | ITEM | MATERIAL |
|------|--|------|---|
| ① | TAPPING VALVE AND SADDLE | ⑥ | BY-PASS METER W / BACKFLOW |
| ② | PIPE, SAME MATERIAL AS MAIN LINE | ⑦ | FLANGED SPOOL, SAME MATERIAL AS MAIN LINE |
| ③ | PRECAST VAULT | ⑧ | VALVE & INDICATOR POST PER APPROPRIATE FIRE DIST. |
| ④ | ALUMINUM, TWO PIECE SPRING ASSIST LID | ⑨ | VALVE SUPPORT STAND W/ SADDLE TOP AND 3/8" S.S. "L" |
| ⑤ | STATE APPROVED DETECTOR CHECK ASSEMBLY | | ANCHOR BOLTS W/ WASHERS |

| REVISIONS | | |
|--------------------------|----------|--------|
| DESCRIPTION | APPROVED | DATE |
| REMOVED VALVE RISER STEM | | 9-9-16 |
| | | |
| | | |
| | | |

VALLECITOS WATER DISTRICT STANDARD DRAWING

**DETECTOR CHECK ASSEMBLY
(BELOW GROUND)**

DATE: JULY 2015
BY:
Drawing No.
W-12

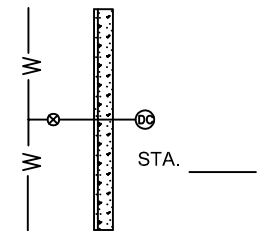


NOTES:

- 1) SUBSTITUTIONS IN MATERIAL SHALL NOT BE MADE WITHOUT APPROVAL OF THE DISTRICT.
- 2) PIPE LENGTH SHALL BE VERIFIED IN THE FIELD.
- 3) ALL EXPOSED PIPING AND BOLTS SHALL BE PAINTED BLUE PER CURRENT VWD MATERIAL LIST (EXCLUDING BY-PASS PLUMBING)
- 4) ALL BY-PASS PLUMBING SHALL BE HARD COPPER OR RED BRASS AS SUPPLIED BY MANUFACTURER.
- 5) CONTACT THE APPROPRIATE FIRE PROTECTION DISTRICT FOR SPECIFICATIONS ON FIRE DEPARTMENT CONNECTION.
- 6) DCDA OR RPDA, PER STATE HEALTH DEPARTMENT APPROVED LIST, DEVICE TO DETERMINED BY TYPE OF HAZARD.
- 7) BYPASS METER BACKFLOW DEVICE SHALL BE AN INCLUDED COMPONENT OF DETECTOR CHECK ASSEMBLY.

UPGRADES:

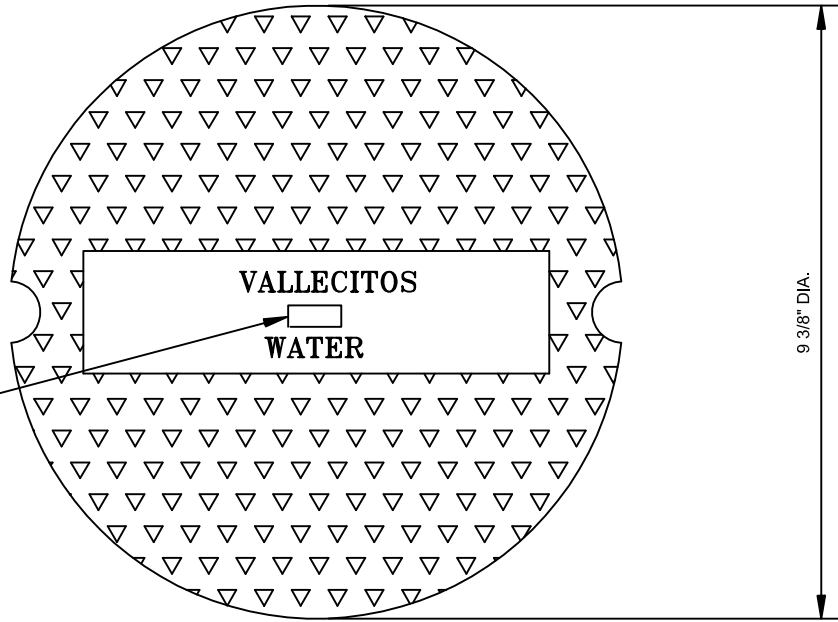
- 1) RE-CONNECTION TO BE MADE ON STRUCTUALLY SOLID EXISTING PIPE MATERIAL (PER VWD INSPECTOR)
- 2) ANY VALVES LOCATED BETWEEN THE DISTRICT VALVE AND PUBLIC RIGHT OF WAY TO BE REMOVED.
- 3) EXISTING FIRE SERVICES LOCATED IN VAULTS MUST BE RELOCATED ABOVE GROUND. VAULT LID AND SIDE WALLS TO BE REMOVED.



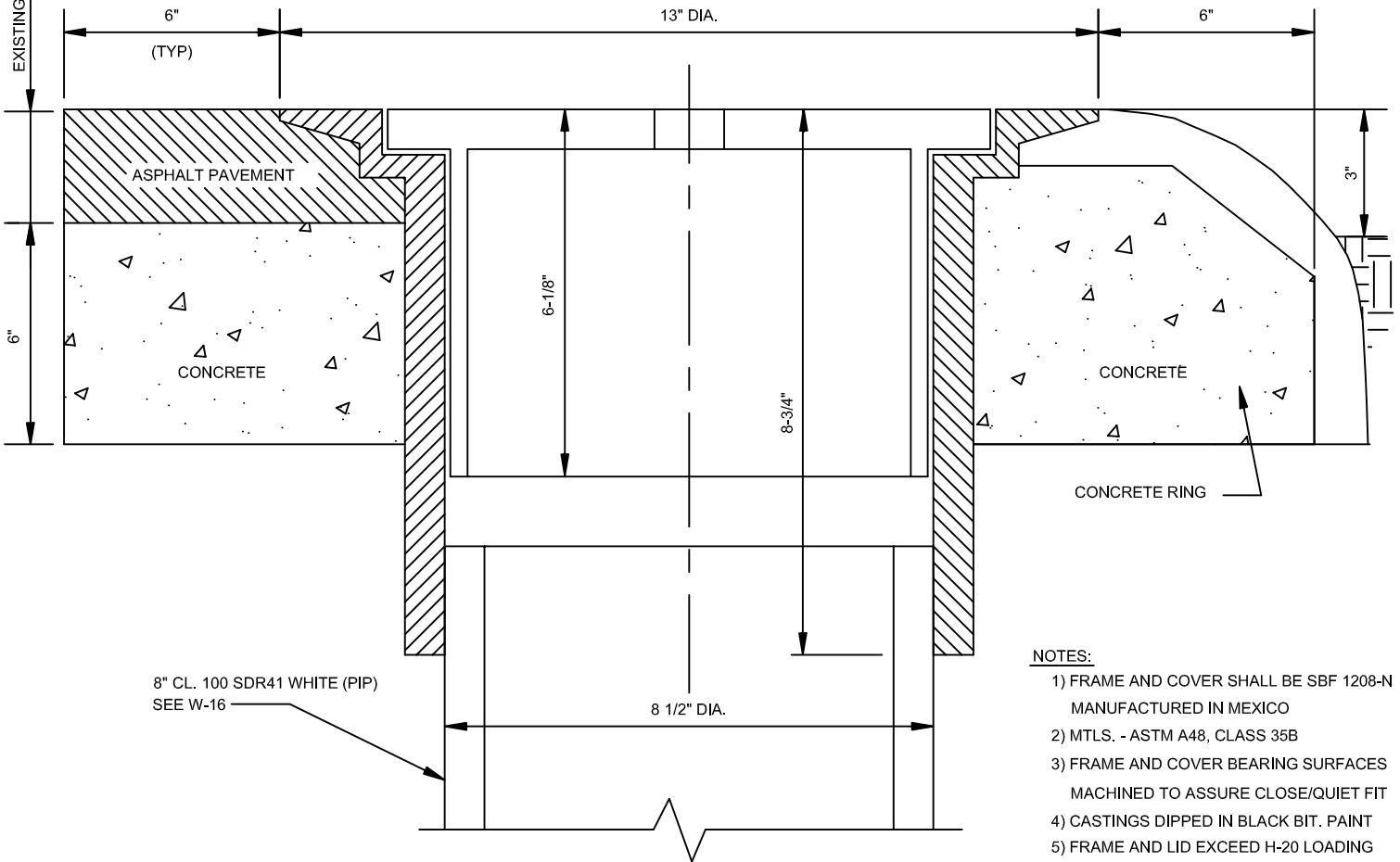
LEGEND SYMBOL

| ITEM | MATERIAL | ITEM | MATERIAL |
|------|--|------|---------------------------------------|
| (1) | TAPPING SLEEVE W/ GATE VALVE & TEE | (6) | BY-PASS METER W/ BACKFLOW |
| (2) | SPOOL, SAME MATERIAL AS MAIN LINE | (7) | 3/8" S.S. "L" ANCHOR BOLTS W/ WASHERS |
| (3) | FL. 90° ELBOW | | |
| (4) | VALVE SUPPORT STAND W/ SADDLE TOP | | |
| (5) | STATE APPROVED DETECTOR CHECK ASSEMBLY | | |

| REVISIONS | | | VALLECITOS WATER DISTRICT STANDARD DRAWING DETECTOR CHECK ASSEMBLY (ABOVE GROUND) | DATE: JULY 2015 |
|----------------------------|----------|----------|--|-----------------|
| DESCRIPTION | APPROVED | DATE | | BY: |
| REMOVED VALVE RISER STEM & | | | | |
| REMOVED 45° ELBOW | | 9-9-16 | | |
| ADDED UPGRADE NOTES | | 10-21-19 | | |
| | | | Drawing No. | |
| | | | W-13 | |



EXISTING PAVING THICKNESS PLUS 1"



- NOTES:**
- 1) FRAME AND COVER SHALL BE SBF 1208-N MANUFACTURED IN MEXICO
 - 2) MTL. - ASTM A48, CLASS 35B
 - 3) FRAME AND COVER BEARING SURFACES MACHINED TO ASSURE CLOSE/QUIET FIT
 - 4) CASTINGS DIPPED IN BLACK BIT. PAINT
 - 5) FRAME AND LID EXCEED H-20 LOADING

| REVISIONS | | |
|----------------------------------|----------|--------|
| DESCRIPTION | APPROVED | DATE |
| ADDED 8" CL. 100 SDR41 WHITE PIP | | 9-9-16 |
| CHANGED MANHOLE NOTE | | 4-3-18 |
| | | |
| | | |
| | | |

VALLECITOS WATER DISTRICT STANDARD DRAWING

VALVE BOX FRAME AND LID

DATE: JULY 2015

BY:

Drawing No.

W-14

FIG. 1

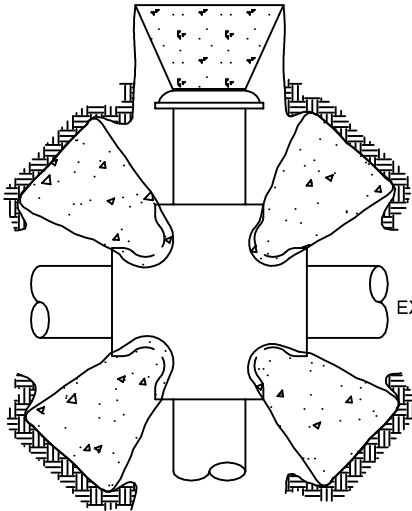


FIG. 2

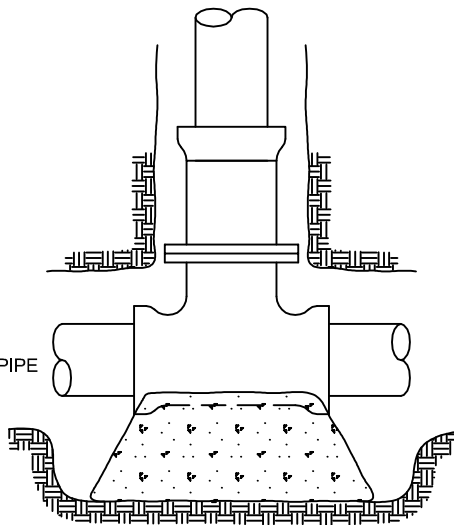
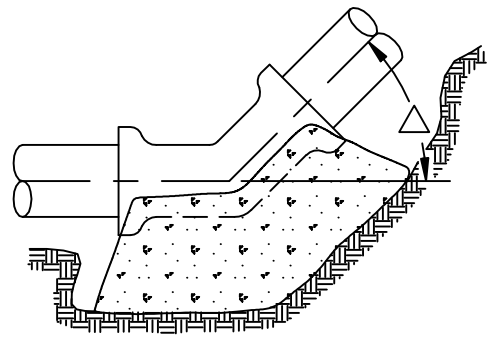


FIG. 3

(HORIZONTAL OR VERTICAL BEND)



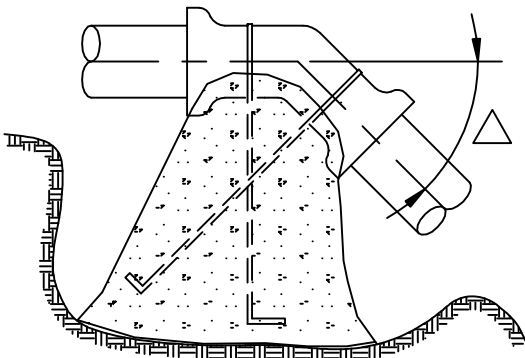
△ = 90°, 45°, 22 1/2°, 11 1/4°

NOTES:

- 1) CONCRETE THRUST BLOCKS SHALL BE CONSTRUCTED IN ALL PIPELINES AT THE LOCATIONS SHOWN HEREON WHERE THE RESPECTIVE FITTINGS AND PLUGS ARE INSTALLED.
- 2) #4 REBAR LOOPS SHALL EXTEND TO THE DEPTH OR WIDTH OF BLOCK. WRAP EXPOSED METAL WITH 10 MIL TAPE PRIOR TO INSTALLTION.
- 3) ALL THRUST BLOCKS TO BE FORMED WITH SAND BAGS.
- 4) FOR CLASS 200 PIPE INCREASE AREAS AND VOLUMES BY 33%.

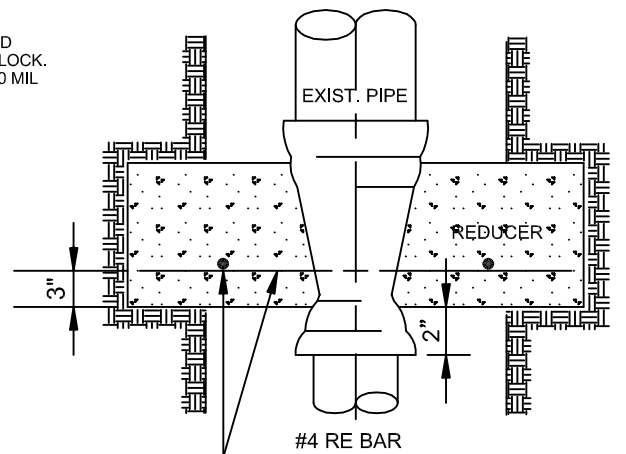
FIG. 4

(VERTICAL BEND ONLY)

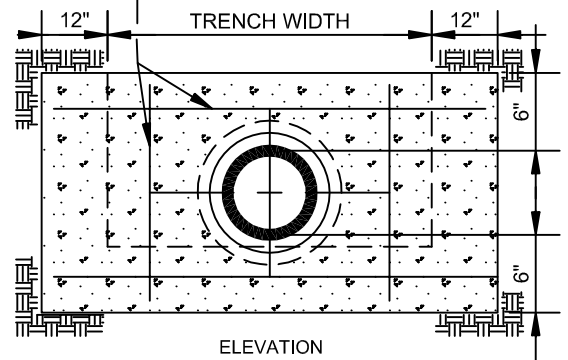


△ = 90°, 45°, 22 1/2°, 11 1/4°

PLAN



#4 RE BAR



ELEVATION

ANCHOR BLOCK

MINIMUMS-SPECIAL DESIGN MAY BE REQUIRED

| SIZE OF PIPE | BEARING AREA IN SQUARE FEET | | | | | | CUBIC FEET | | |
|--------------|-----------------------------|---------|-------------|-------------|-----------------|-----------------|-------------|-----------------|-----------------|
| | FIG 1 | FIG 2 | FIG 3 | | | | FIG 4 | | |
| | CL. 150 | CL. 150 | 90° CL. 150 | 45° CL. 150 | 22 1/2° CL. 150 | 11 1/4° CL. 150 | 45° CL. 150 | 22 1/2° CL. 150 | 11 1/4° CL. 150 |
| 4" | 3 | 3 | 4 | 2 | 1 | 1 | 19 | 10 | 5 |
| 6" | 5 | 5 | 7 | 4 | 2 | 1 | - | 20 | 10 |
| 8" | 9 | 9 | 12 | 7 | 3 | 2 | - | - | 18 |
| 10" | 14 | 14 | 20 | 11 | 6 | 3 | - | - | 30 |
| 12" | 20 | 20 | 29 | 16 | 8 | 4 | - | - | - |
| 14" | 28 | 28 | 39 | 21 | 11 | 5 | - | - | - |

REVISIONS

| DESCRIPTION | APPROVED | DATE |
|---------------|----------|---------|
| #4 REBAR WRAP | | 8-21-07 |
| | | |
| | | |
| | | |

VALLECITOS WATER DISTRICT STANDARD DRAWING

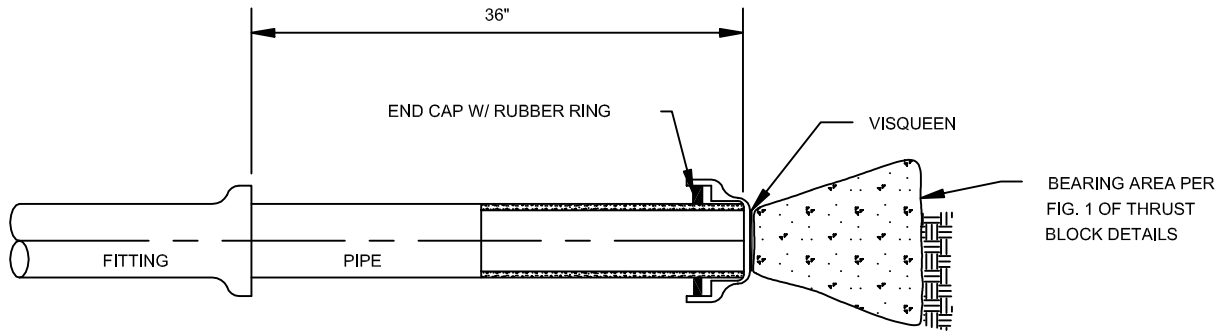
DATE: JAN. 04

THRUST AND ANCHOR BLOCKS

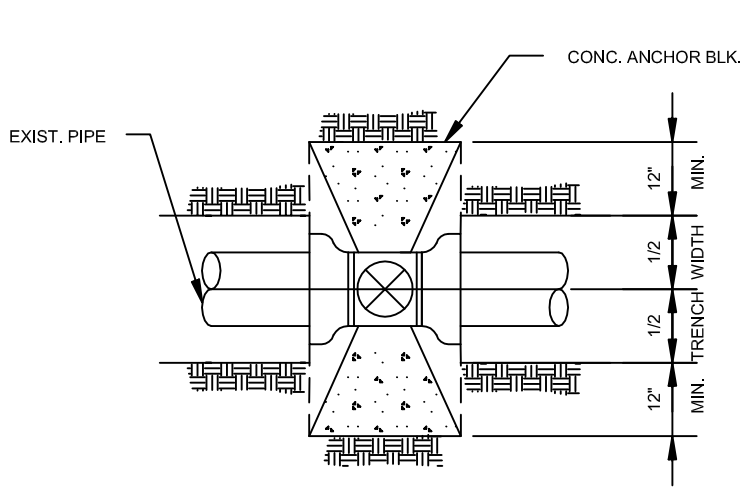
BY:

Drawing No.

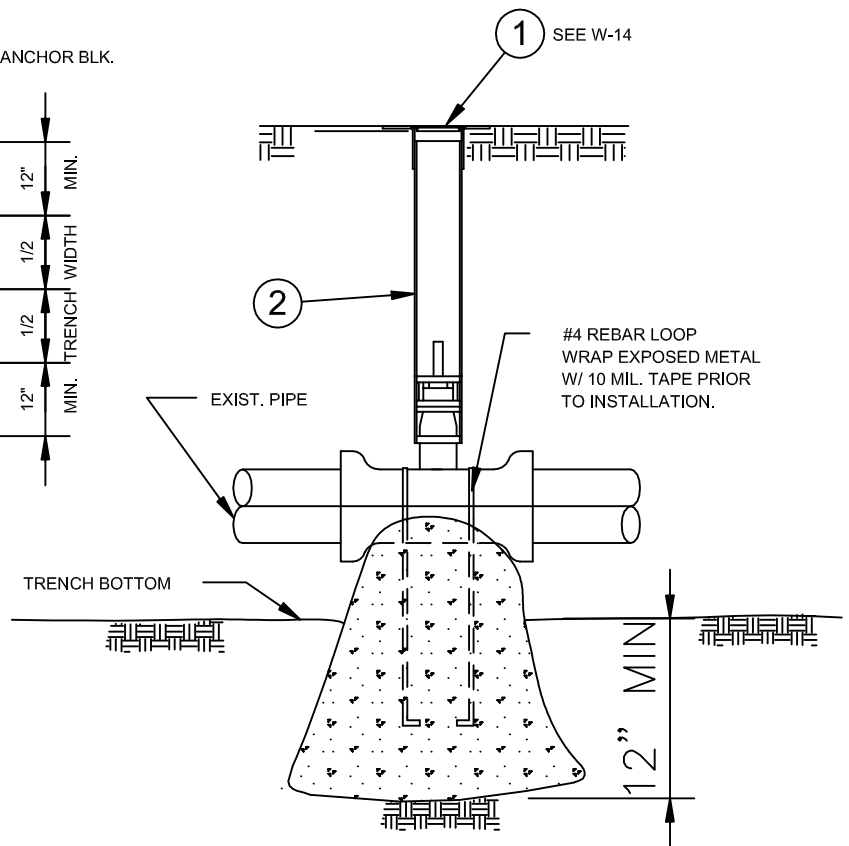
W-15



END CAP ASSEMBLY



PLAN



ELEVATION

NOTES:

- 1) NUTS & BOLTS TO BE COATED WITH NO-OXIDE GREASE AND VISQUEEN.
- 2) GATE VALVES TO COMPLY WITH VALLECITOS WATER DISTRICT SPECIFICATIONS.

| ITEM | MATERIAL | ITEM | MATERIAL |
|------|------------------------------|------|----------|
| ① | VALVE BOX AND COVER | | |
| ② | 8" CL. 100 SDR41-WHITE (PIP) | | |

| REVISIONS | | |
|--------------------------|----------|--------|
| DESCRIPTION | APPROVED | DATE |
| REMOVED VALVE RISER STEM | | 9-9-16 |
| | | |
| | | |
| | | |

VALLECITOS WATER DISTRICT STANDARD DRAWING

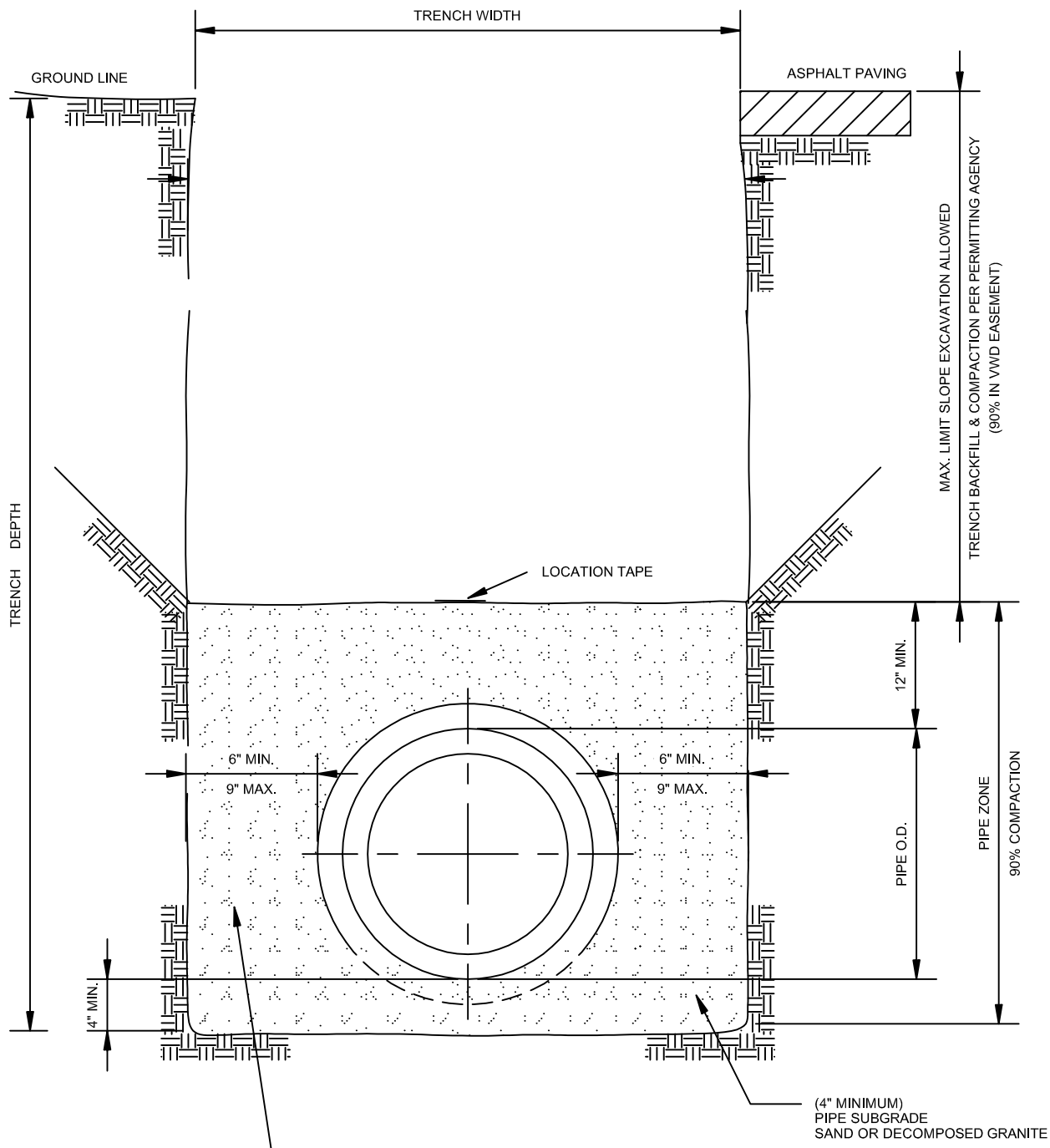
**GATE VALVE INSTALLATION
AND CAP ASSEMBLY**

DATE: JULY 2015

BY:

Drawing No.

W-16

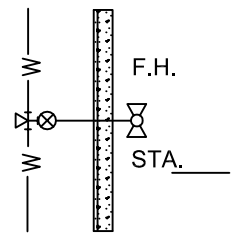
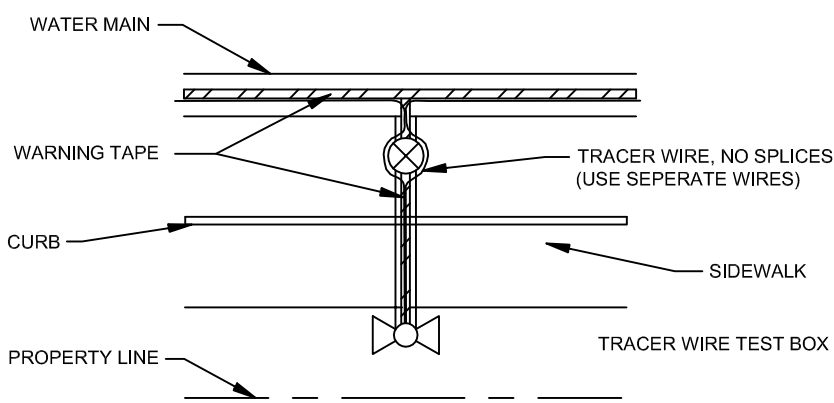
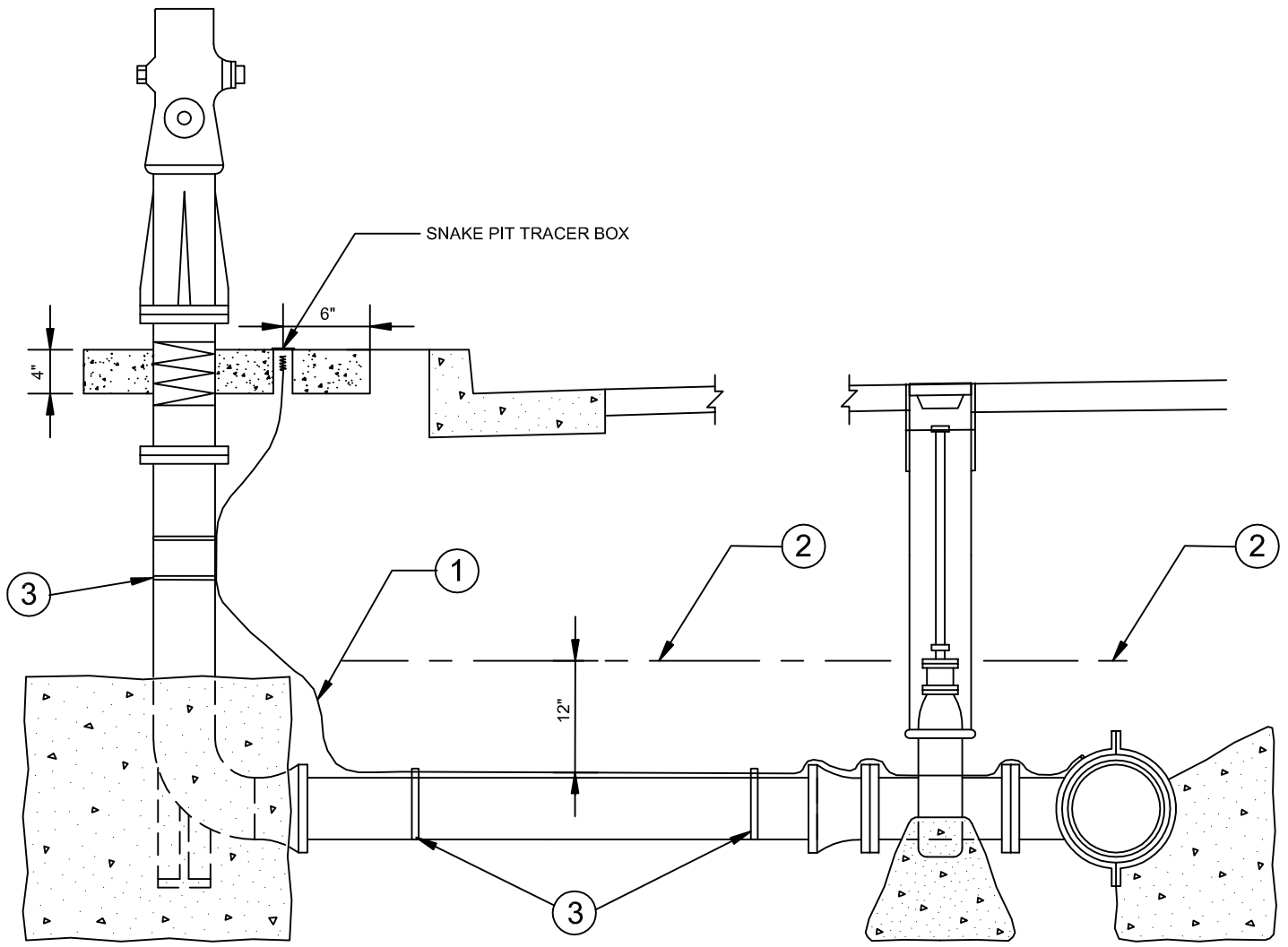


SAND/ D.G. TO BE PLACED IN 6" LAYERS THROUGHOUT PIPE ZONE & THOROUGHLY COMPACTED BEFORE ANY ADDITIONAL BACKFILL SHALL BE PLACED.

NOTES:

- 1) LOCATION TAPE TO BE 12" ABOVE PIPE REFER TO MATERIAL LIST.

| REVISIONS | | | VALLECITOS WATER DISTRICT STANDARD DRAWING | DATE: JAN. 04 |
|-------------|----------|------|--|---------------|
| DESCRIPTION | APPROVED | DATE | | BY: |
| | | | TRENCH COMPACTION AND BACKFILL | Drawing No. |
| | | | | W-17 |
| | | | | |
| | | | | |
| | | | | |



| ITEM | MATERIAL | ITEM | MATERIAL |
|------|--|------|----------|
| (1) | 10 GA. INSULATED TRACER WIRE (PVC ???) | ○ | |
| (2) | WARNING TAPE | ○ | |
| (3) | TAPE | ○ | |
| ○ | | ○ | |
| ○ | | ○ | |

| REVISIONS | | |
|-------------|----------|------|
| DESCRIPTION | APPROVED | DATE |
| | | |
| | | |
| | | |
| | | |

VALLECITOS WATER DISTRICT STANDARD DRAWING

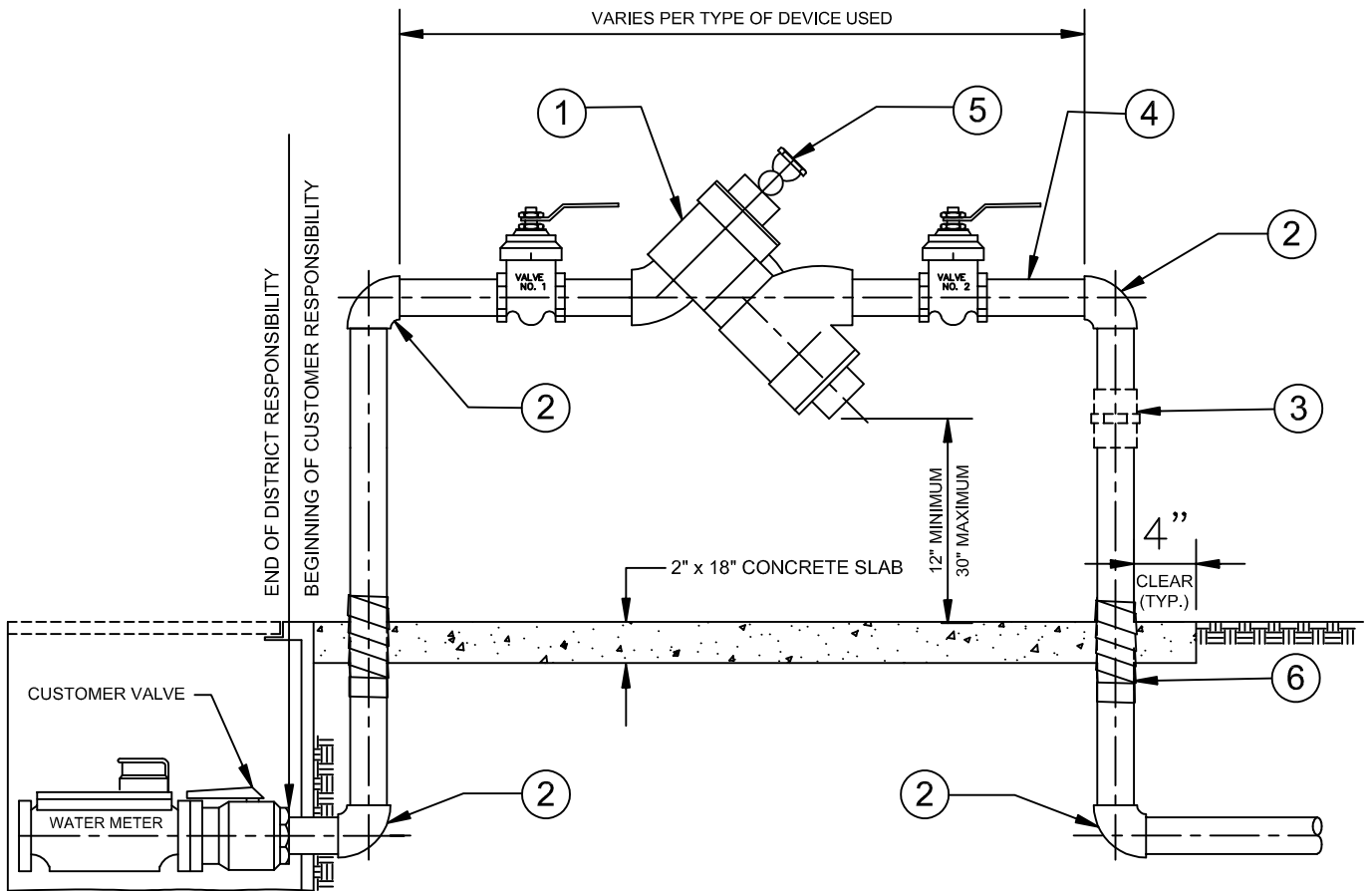
WARNING IDENTIFICATION TAPE AND TRACER WIRE INSTALLATION FOR FIRE HYDRANTS

DATE: July, 11

BY:

Drawing No.

W-18



NOTES:

- 1) ALL INSTALLATIONS SHALL BE ABOVE GROUND. THE BACK FLOW DEVICE SHALL BE NO MORE THAN 1/2" GREATER THAN THE METER SIZE.
- 2) ALL BACKFLOW PREVENTION DEVICES SHALL BE AS CLOSE TO THE WATER METER AS POSSIBLE. IF BACKFLOW CANNOT BE INSTALLED DIRECTLY BEHIND METER, THE SERVICE BETWEEN THE METER & BACKFLOW SHALL HAVE A 3-4" PIPE SLEEVE ENCASED IN CONCRETE.
- 3) THE BACKFLOW PREVENTION DEVICE SHALL BE SELECTED FROM APPROVED STATE OF CALIFORNIA-DEPARTMENT OF HEALTH SERVICES LIST ON FILE WITH THE DISTRICT.
- 4) NO CONNECTIONS SHALL BE MADE BETWEEN THE WATER METER AND THE BACKFLOW PREVENTION DEVICE.
- 5) TYPE OF BACKFLOW PREVENTION DEVICE SHALL BE BASED ON THE DEGREE OF HAZARD.
- 6) APPROPRIATE TEST COCKS SHALL BE IN PLACE AT ALL TIMES.
- 7) DISTRICT SHALL HAVE ACCESS TO BACKFLOW PREVENTION DEVICE AT ALL TIMES.
- 8) CONCRETE PAD SHALL BE A MINIMUM OF 18" WIDE.
- 9) REFER TO STANDARD DRAWINGS FOR INSTALLATION OF WATER METER AND SERVICE.
- 10) PIPING MATERIAL SHALL BE RED BRASS, OR "K", OR "L", COPPER PIPING.
- 11) ALTHOUGH THE DISTRICT REQUIRES THE USE OF RED BRASS OR RIGID COPPER PIPING, AGRICULTURAL SERVICES, IN NON-TRAFFIC AREAS, MAY USE SCHEDULE 80 UV RESISTANT PVC PIPING MATERIALS WITH PRIOR APPROVAL OF THE DISTRICT.

| ITEM | MATERIAL | ITEM | MATERIAL |
|------|---|------|--|
| ① | BACKFLOW PREVENTION DEVICE | ④ | NIPPLE, VARIES IN LENGTH |
| ② | 90° ELBOW | ⑤ | TEST COCK (4 REQUIRED) |
| ③ | THREADED UNION RECOMMENDED, BUT NOT REQUIRED (FOR REMOVAL AND REPAIR OF DEVICE) | ⑥ | RED BRASS OR RIGID COPPER WRAPPED W / 2" X 10 MIL TAPE |

| REVISIONS | | |
|-----------------------------|----------|---------|
| DESCRIPTION | APPROVED | DATE |
| EDITED NOTE 1 | | 5-9-17 |
| MODIFIED SLAB REMOVED UNION | | 8-24-22 |
| | | |
| | | |

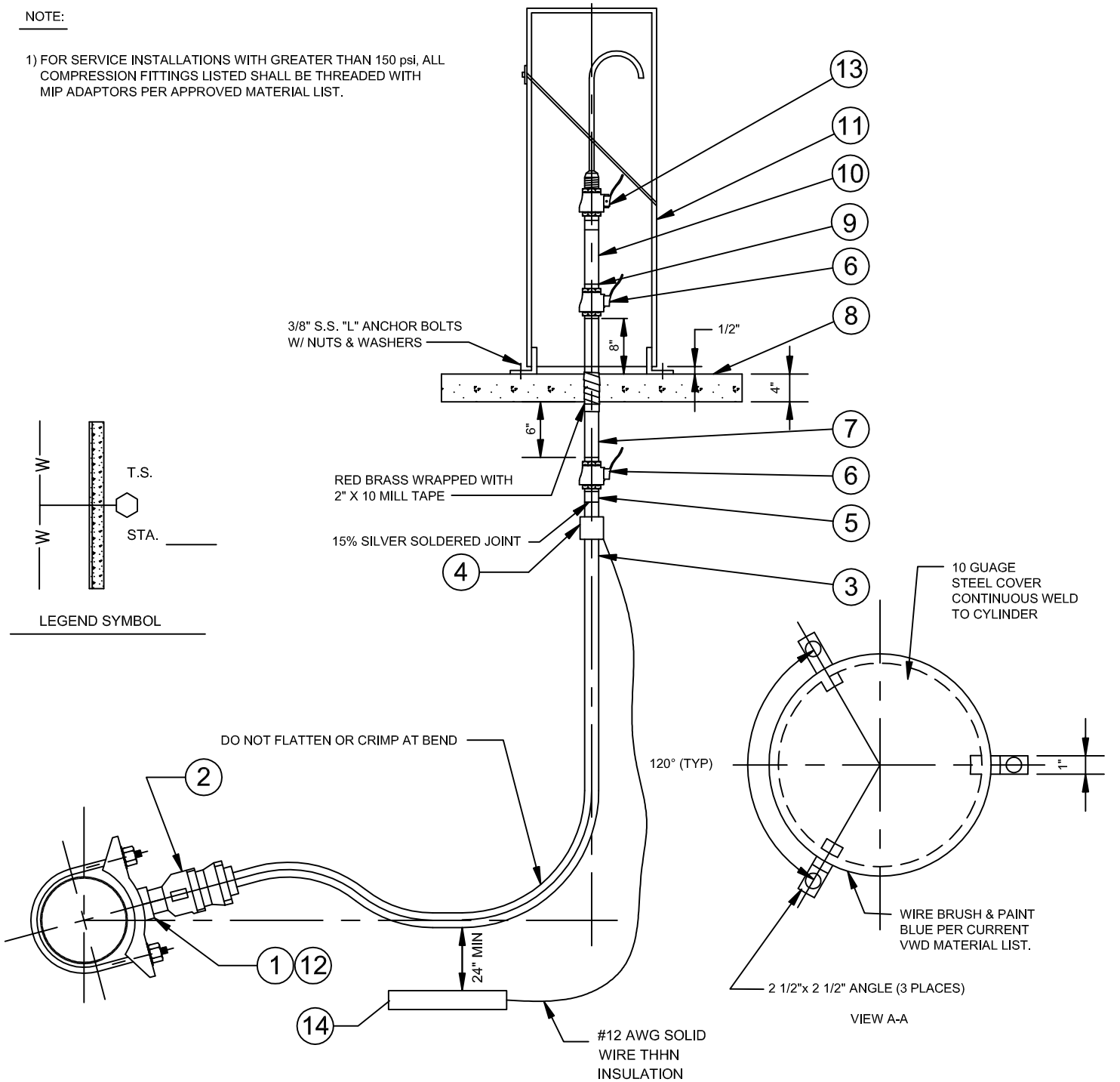
VALLECITOS WATER DISTRICT STANDARD DRAWING

**BACKFLOW PREVENTION DEVICE
2" AND SMALLER**

DATE: JULY 2015
BY:
Drawing No.
W-19

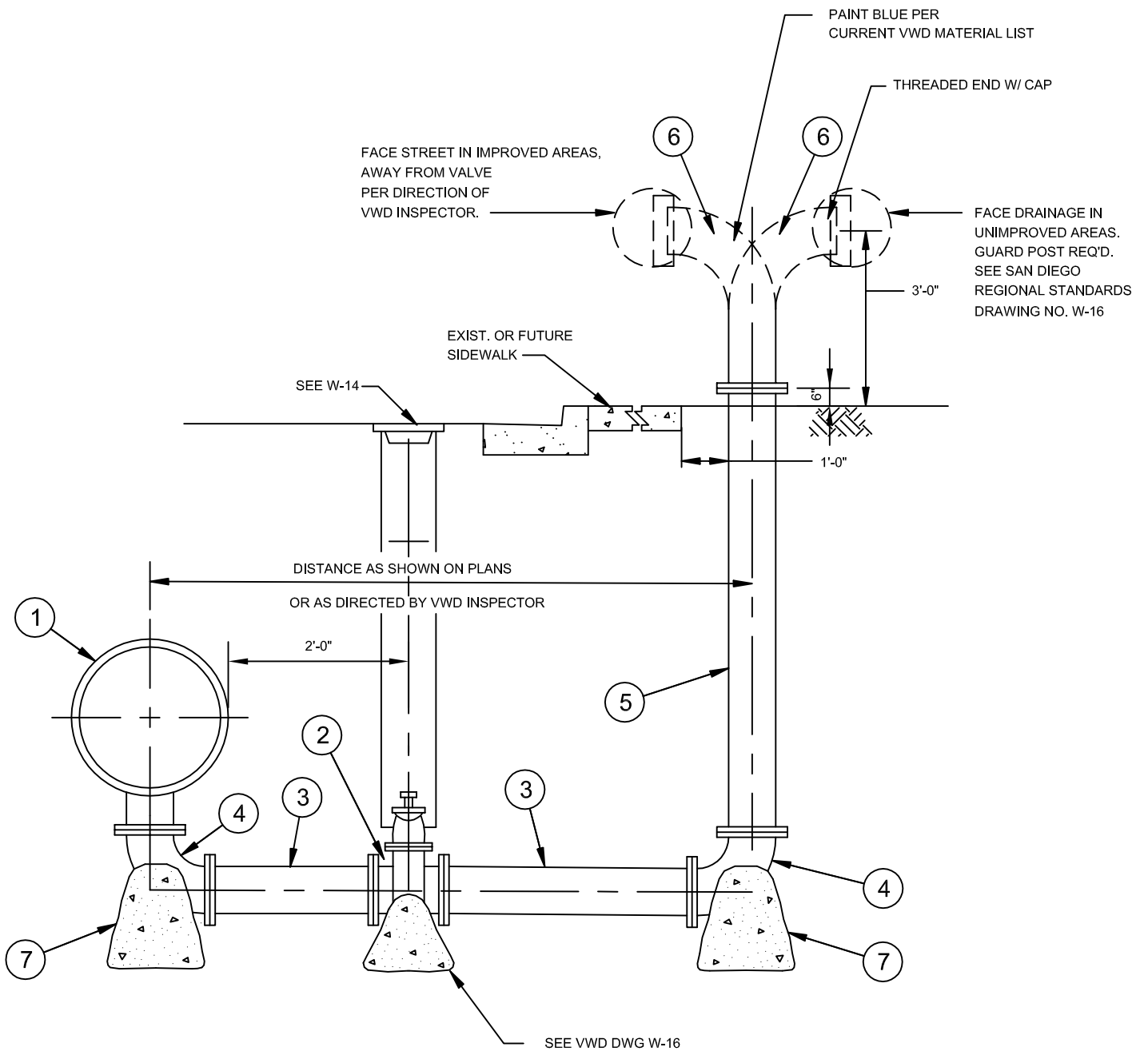
NOTE:

1) FOR SERVICE INSTALLATIONS WITH GREATER THAN 150 psi, ALL COMPRESSION FITTINGS LISTED SHALL BE THREADED WITH MIP ADAPTORS PER APPROVED MATERIAL LIST.



| ITEM | MATERIAL | ITEM | MATERIAL |
|------|---|------|---|
| (1) | DOUBLE STRAP BRONZE SERVICE CLAMP | (8) | 24" x 24" x 4" CONCRETE PAD |
| (2) | 1" BALL CORP STOP | (9) | 1" x 1/2" BRASS BUSHING |
| (3) | 1" K - SOFT COPPER TUBING | (10) | 1/2" X 18" BRASS NIPPLE |
| (4) | MECHANICAL GROUNDING CLAMP PER CURRENT VWD MATERIALS LIST | (11) | PIPELINE PRODUCTS WTS-858E |
| (5) | MIP ADAPTOR | (12) | 3000# FORGED STEEL HALF COUPLING W/ DIELECTRIC BUSHING (STEEL ONLY) |
| (6) | BALL VALVE W/ HANDLE, FIP x FIP | (13) | 1/2" S.S. KORALEEN PART #0004 COMPLETE |
| (7) | 1" X 18" RED BRASS RISER | (14) | ZINK ANODE PER CURRENT VWD MATERIAL LIST |

| REVISIONS | | | VALLECITOS WATER DISTRICT STANDARD DRAWING | DATE: JULY 2015 |
|--------------------------|----------|--------|--|-----------------|
| DESCRIPTION | APPROVED | DATE | | BY: |
| ADDED ZINC ANODE & CLAMP | | 5-9-17 | | Drawing No. |
| EDITED NOTES | | 5-9-17 | | W-21 |
| EDITED ITEM 13 | | 4-3-18 | | |
| | | | | |



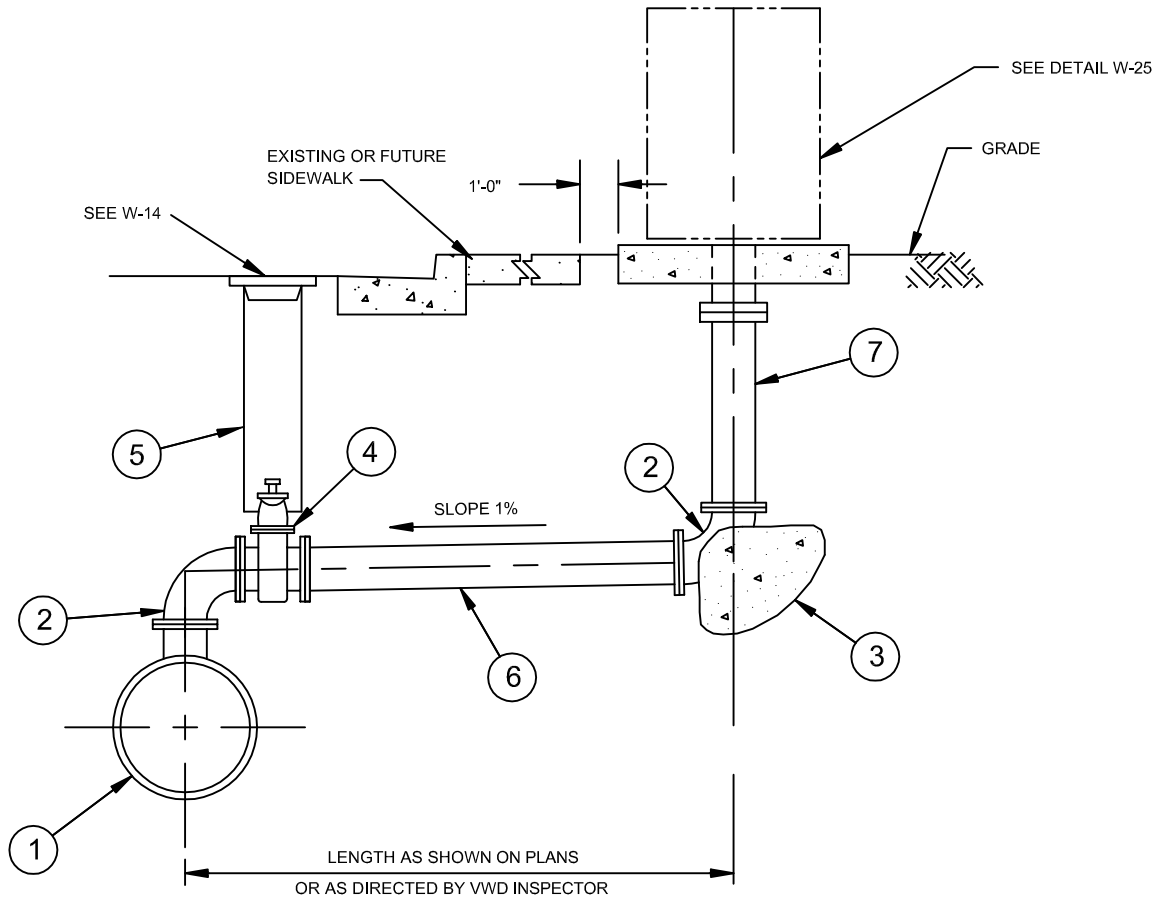
NOTE:

1) PIPE MATERIAL SHALL BE SAME AS MAIN.

| ITEM | MATERIAL | ITEM | MATERIAL |
|------|-----------------------------|------|---------------------------------|
| ① | WATER MAIN W/ FLG'D OUTLET. | ⑤ | RISER, FL x FL. |
| ② | GATE VALVE, FLG'D. | ⑥ | 90° ELBOW W/ MIP THREADS & CAP |
| ③ | PIPE SPOOL PIECE, FL x FL. | ⑦ | THRUST BLOCK, PER VWD DWG W-15. |
| ④ | 90 DEGREE FL. ELBOW | | |

| REVISIONS | | | VALLECITOS WATER DISTRICT STANDARD DRAWING | DATE: JULY 2015 |
|--------------------------|----------|--------|--|-----------------|
| DESCRIPTION | APPROVED | DATE | | BY: |
| REMOVED VALVE RISER STEM | | 9-9-16 | | Drawing No. |
| | | | | W-23 |
| | | | | |

4" AND LARGER BLOW-OFF



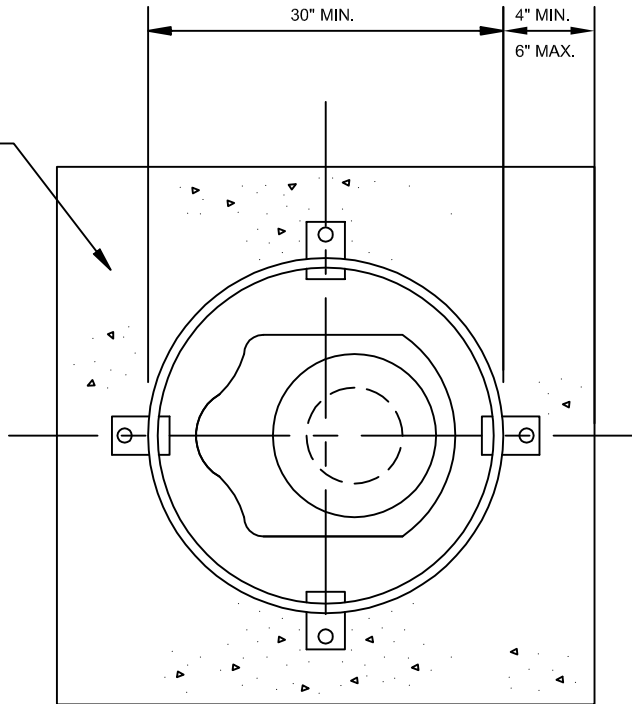
NOTE:
 1) PIPE MATERIAL SHALL BE SAME AS MAIN.

| ITEM | MATERIAL | ITEM | MATERIAL |
|------|---------------------------------|------|----------------------------|
| (1) | WATER MAIN W/ FLG'D OUTLET. | (5) | 8" CL 100, SDR41 WHITE |
| (2) | 90° BEND, FLG'D | (6) | PIPE SPOOL PIECE, FL x FL. |
| (3) | THRUST BLOCK, PER VWD DWG W-15. | (7) | PIPE RISER, FL x FL. |
| (4) | GATE VALVE, FLG'D | | |

| REVISIONS | | | VALLECITOS WATER DISTRICT STANDARD DRAWING 3" AND LARGER AIR RELEASE ASSEMBLY | DATE: JULY 2015 |
|--------------------------|----------|--------|--|-----------------|
| DESCRIPTION | APPROVED | DATE | | BY: |
| REMOVED VALVE RISER STEM | | 9-9-16 | | |
| | | | | |
| | | | | |

| | |
|-------------|------|
| Drawing No. | W-24 |
|-------------|------|

SQUARE
CONCRETE PAD

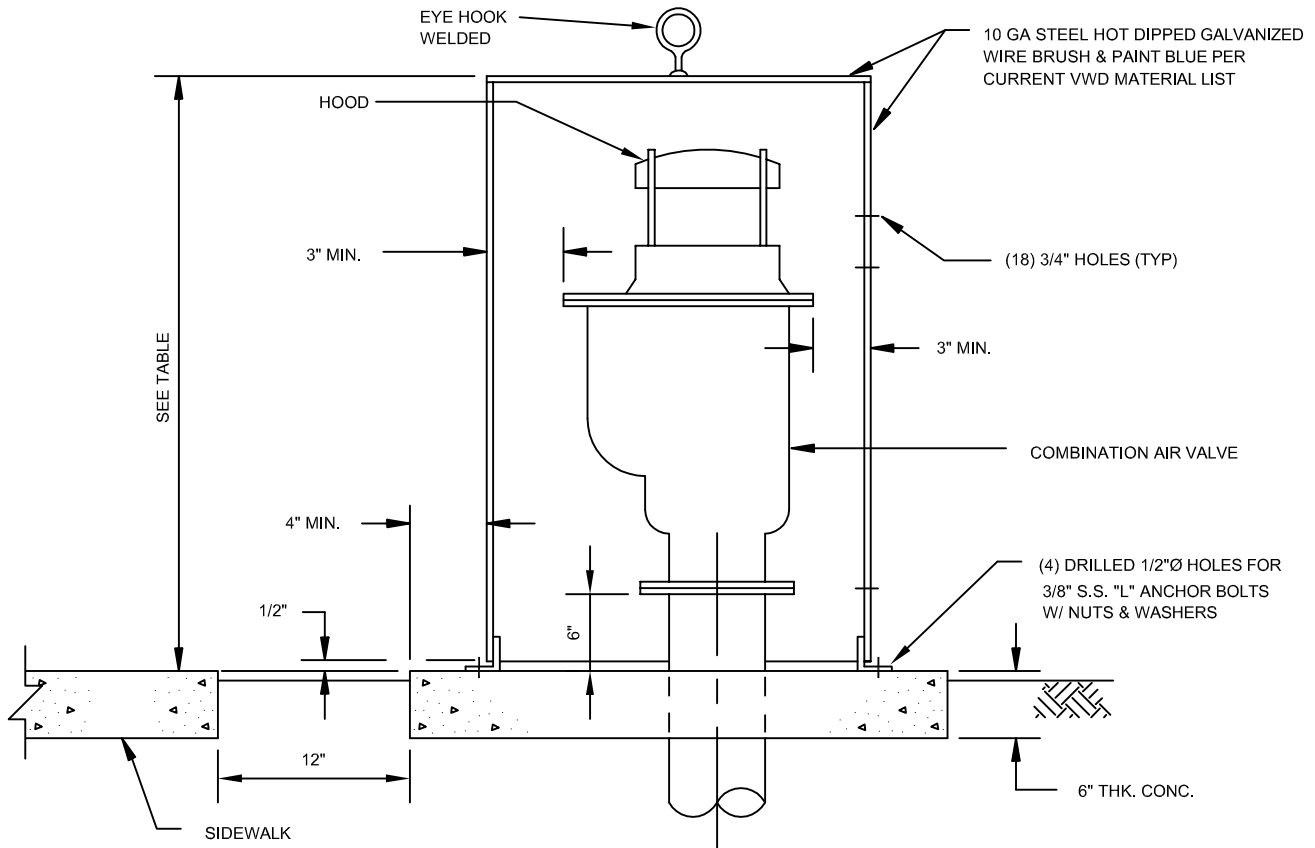


TABLE

| SIZE | HEIGHT | DIAMETER |
|------|--------|----------|
| 3" | 30" | 30" |
| 4" | 36" | 30" |
| 6" | 36" | 30" |
| 8" | 36" | 30" |

EYE HOOK
WELDED

10 GA STEEL HOT DIPPED GALVANIZED
WIRE BRUSH & PAINT BLUE PER
CURRENT VWD MATERIAL LIST



REVISIONS

| DESCRIPTION | APPROVED | DATE |
|--------------------------------|----------|---------|
| SUPPORTS INSIDE CAN & EYE HOOK | | 5-16-06 |
| | | |
| | | |
| | | |
| | | |

VALLECITOS WATER DISTRICT STANDARD DRAWING

3" & LARGER AIR RELEASE/ ENCLOSURE

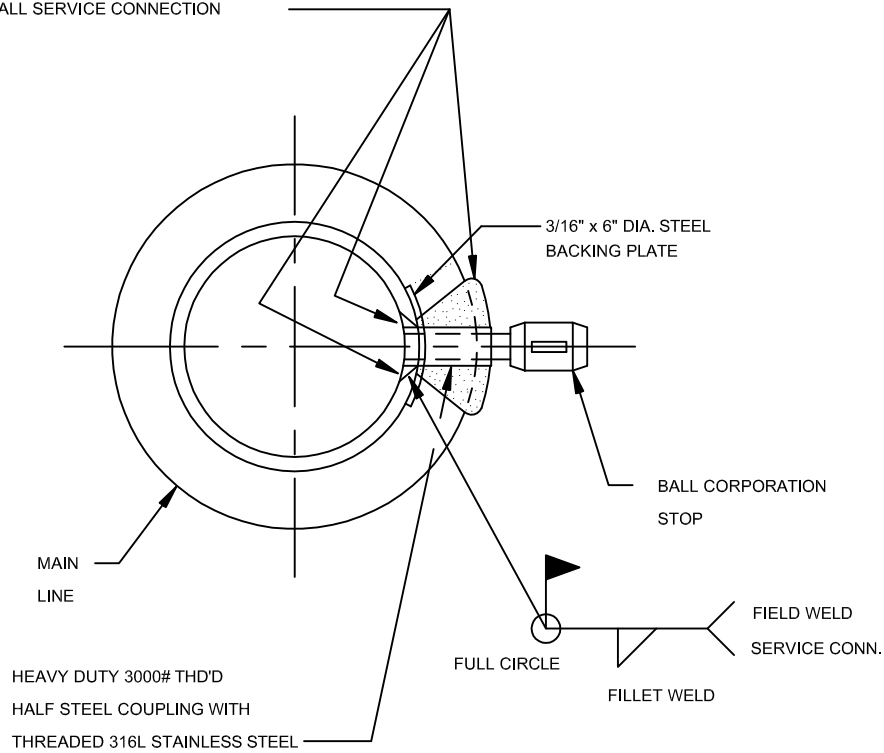
DATE: JAN. 04

BY:

Drawing No.

W-25

REMOVE AND REPLACE COATING
AND LINING AS NECESSARY TO
INSTALL SERVICE CONNECTION



| REVISIONS | | |
|--------------------------|----------|---------|
| DESCRIPTION | APPROVED | DATE |
| OPERATOR LOCATION | | 7-24-07 |
| COUPLING AND STEEL PLATE | | 3-28-17 |
| | | |
| | | |
| | | |

VALLECITOS WATER DISTRICT STANDARD DRAWING

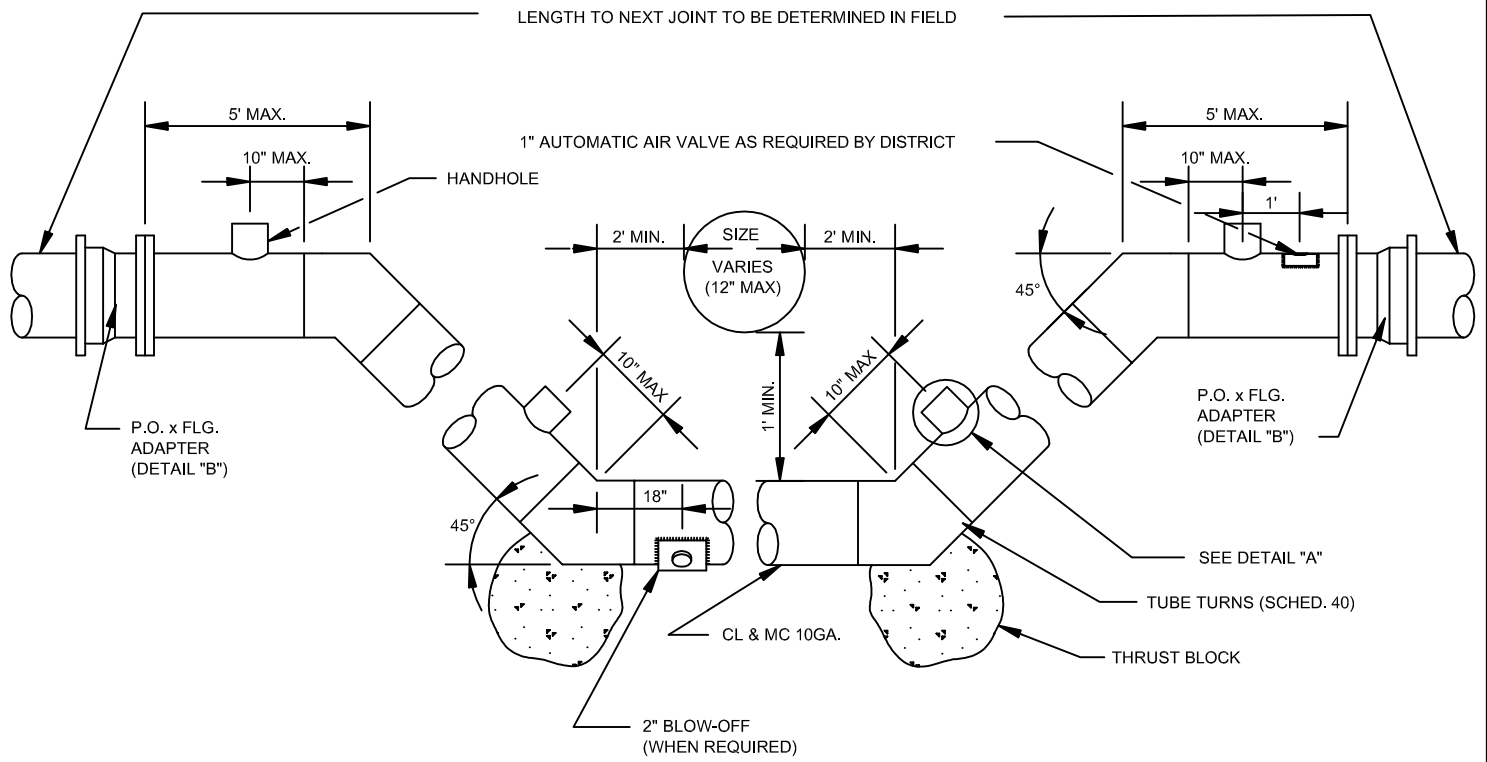
SERVICE CONNECTION FOR STEEL PIPE

DATE: JAN. 04

BY:

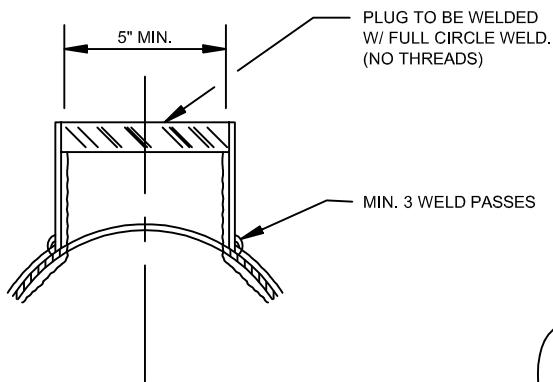
Drawing No.

W-26

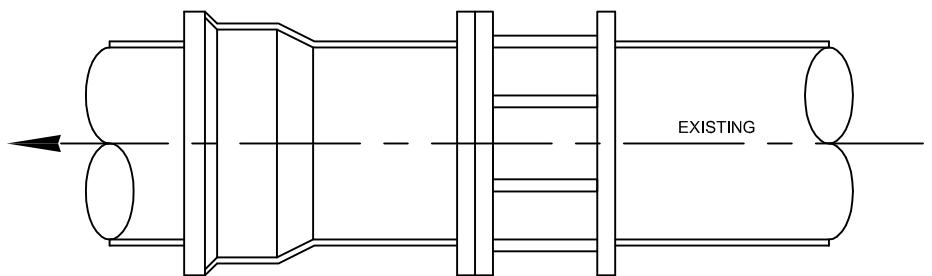


NOTES:

- 1) ALL FLANGES TO BE WELDED IN FIELD, PER A.W.W.A. C-207.
- 2) ALL STEEL PIPE, FIELD WELDING' AND REPAIRS, SHALL BE PER A.W.W.A. C-205 & C-206.
- 3) INSTALL HANDHOLE W/ PLUG MIN. OF 6" FROM EACH WELDED JOINT, DETAIL "A"

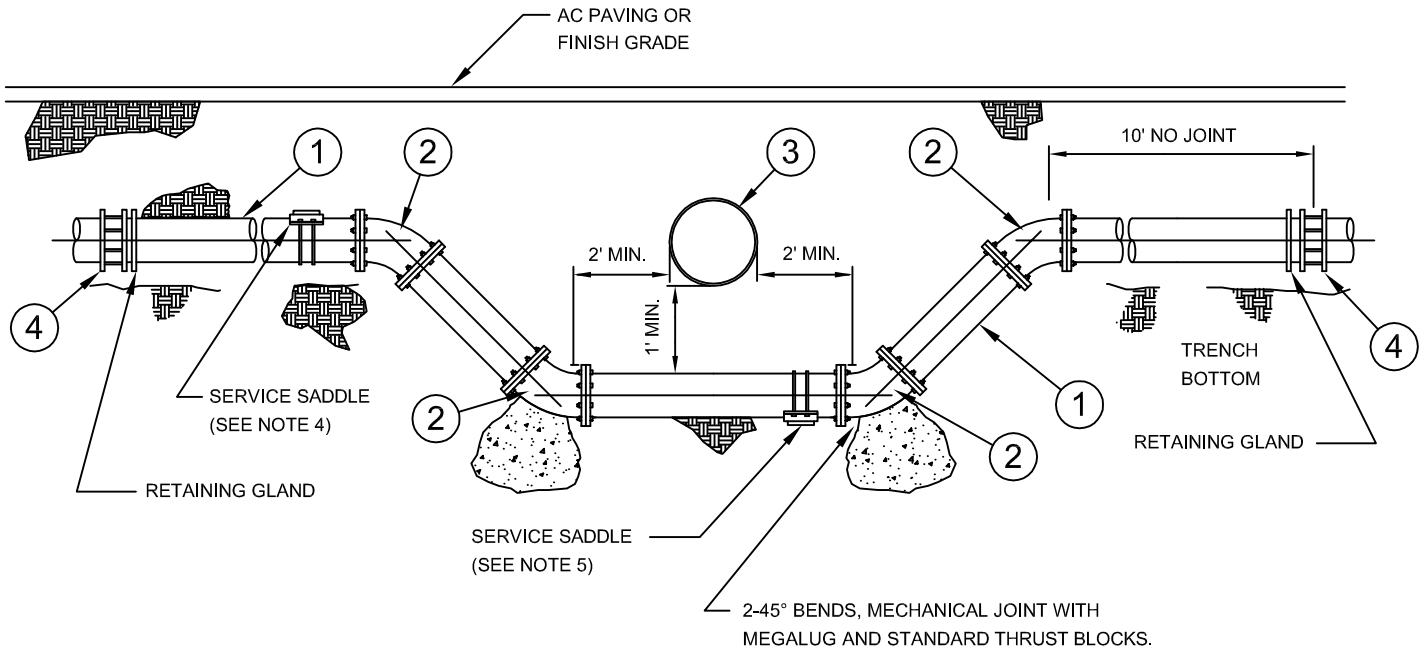


DETAIL "A"
(HANDHOLE)



DETAIL "B"
(P.O. x FLG ADAPTER)

| REVISIONS | | | VALLECITOS WATER DISTRICT STANDARD DRAWING | DATE: JAN. 04 |
|-------------|----------|------|--|---------------|
| DESCRIPTION | APPROVED | DATE | | BY: |
| | | | UTILITY CROSSING (STEEL WATER PIPE) | Drawing No. |
| | | | | W-27 |
| | | | | |
| | | | | |
| | | | | |

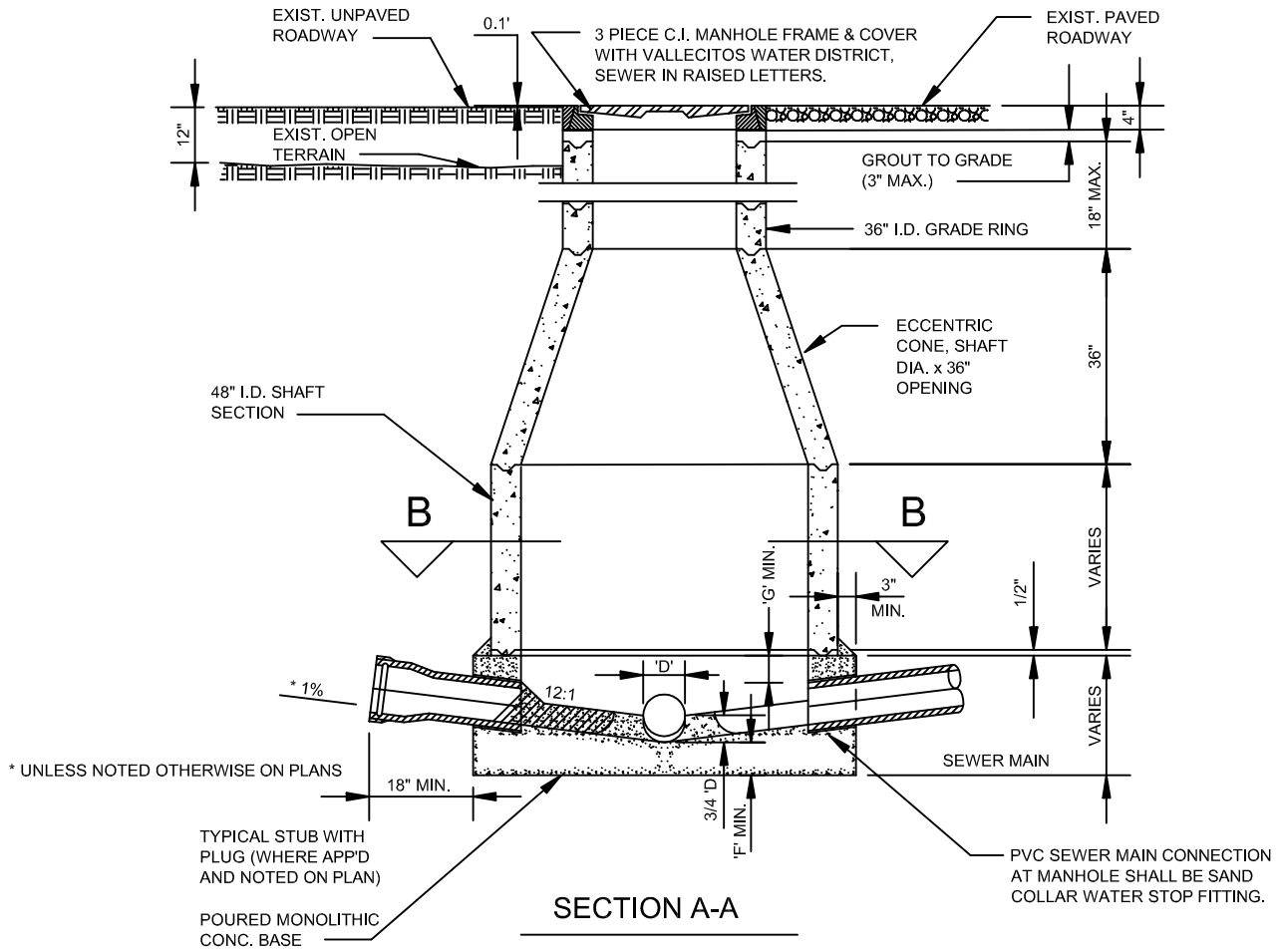


NOTES:

- 1) ALL PIPE JOINTS AT 45-DEGREE BENDS SHALL BE RESTRAINED
- 2) THE THRUST AND ANCHOR BLOCKS SHALL BE PER VWD STD. DWG. W-15.
- 3) DIP INSTALLATION SHALL BE DOUBLE ENCASED POLYETHYLENE WRAPPING PER VWD STANDARDS SECTION 15056 PART 3 C4
- 4) AN AUTOMATIC AIR AND VACUUM VALVE SHALL BE INSTALLED ON THE HIGH POINT OF THE OFFSET AS SPECIFIED ON THE PLAN OR DIRECTED BY VWD INSPECTOR.
- 5) A BLOW OFF MAY BE REQUIRED AT THE LOW POINT OF THE OFFSET AS SPECIFIED ON THE PLAN OR DIRECTED BY VWD INSPECTOR.
- 6) IF BOTTOM LENGTH EXCEEDS 18 FEET, CONNECT PIPE SECTIONS WITH MECHANICAL JOINT RETAINING GLAND.

| ITEM | MATERIAL | ITEM | MATERIAL |
|------|--------------------------------------|------|--|
| (1) | PER DISTRICT ENGINEER | (3) | UTILITY CONDUIT |
| (2) | 45° BEND MECHANICAL JOINT RESTRAINED | (4) | TRANSITION COUPLING PER DISTRICT INSPECTOR |

| REVISIONS | | | VALLECITOS WATER DISTRICT STANDARD DRAWING | DATE: JULY 2015 |
|------------------|----------|--------|---|-----------------|
| DESCRIPTION | APPROVED | DATE | | BY: |
| CHANGES TO NOTES | | 4-3-18 | UTILITY CROSSING (PCV C-900) (DUCTILE IRON PIPE) | Drawing No. |
| | | | | W-28 |
| | | | | |
| | | | | |



* UNLESS NOTED OTHERWISE ON PLANS

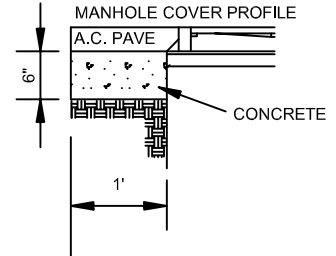
TYPICAL STUB WITH PLUG (WHERE APP'D AND NOTED ON PLAN)

POURED MONOLITHIC CONC. BASE

SECTION A-A

NOTES

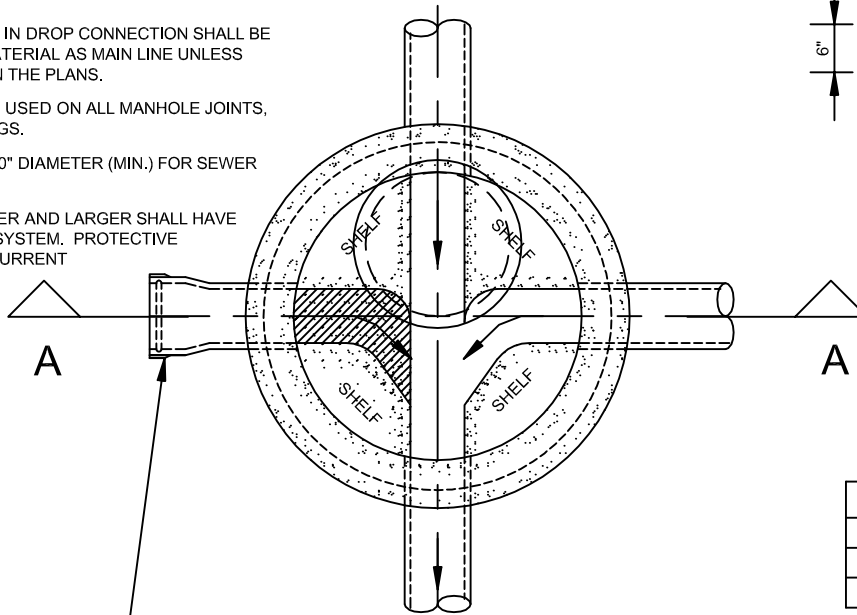
- 1) ALL PIPE AND FITTINGS IN DROP CONNECTION SHALL BE THE SAME SIZE AND MATERIAL AS MAIN LINE UNLESS OTHERWISE SHOWN ON THE PLANS.
- 2) BITSUMASTIC SHALL BE USED ON ALL MANHOLE JOINTS, EXCLUDING GRADE RINGS.
- 3) MANHOLES SHALL BE 60" DIAMETER (MIN.) FOR SEWER MAIN 15" AND LARGER.
- 4) MANHOLES 60" DIAMETER AND LARGER SHALL HAVE A PROTECTIVE LINING SYSTEM. PROTECTIVE LINING SHALL BE PER CURRENT VWD STANDARD SPECIFICATIONS.



MINIMUM DIMENSIONS:
(All Manhole Types)

| 'D' | 'F' | 'G' |
|------------|-----|-----|
| 6" to 8" | 6" | 4" |
| 10" to 15" | 6" | 4" |
| 18" to 27" | 12" | 4" |

DIMENSIONS 'F' & 'G' SHALL BE USED FOR 'D' (INSIDE DIA. OF PIPE) OF THE LARGEST PIPE IN THE MANHOLE.

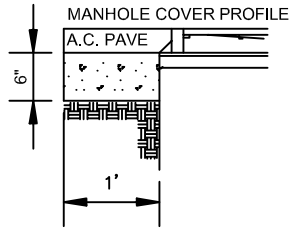
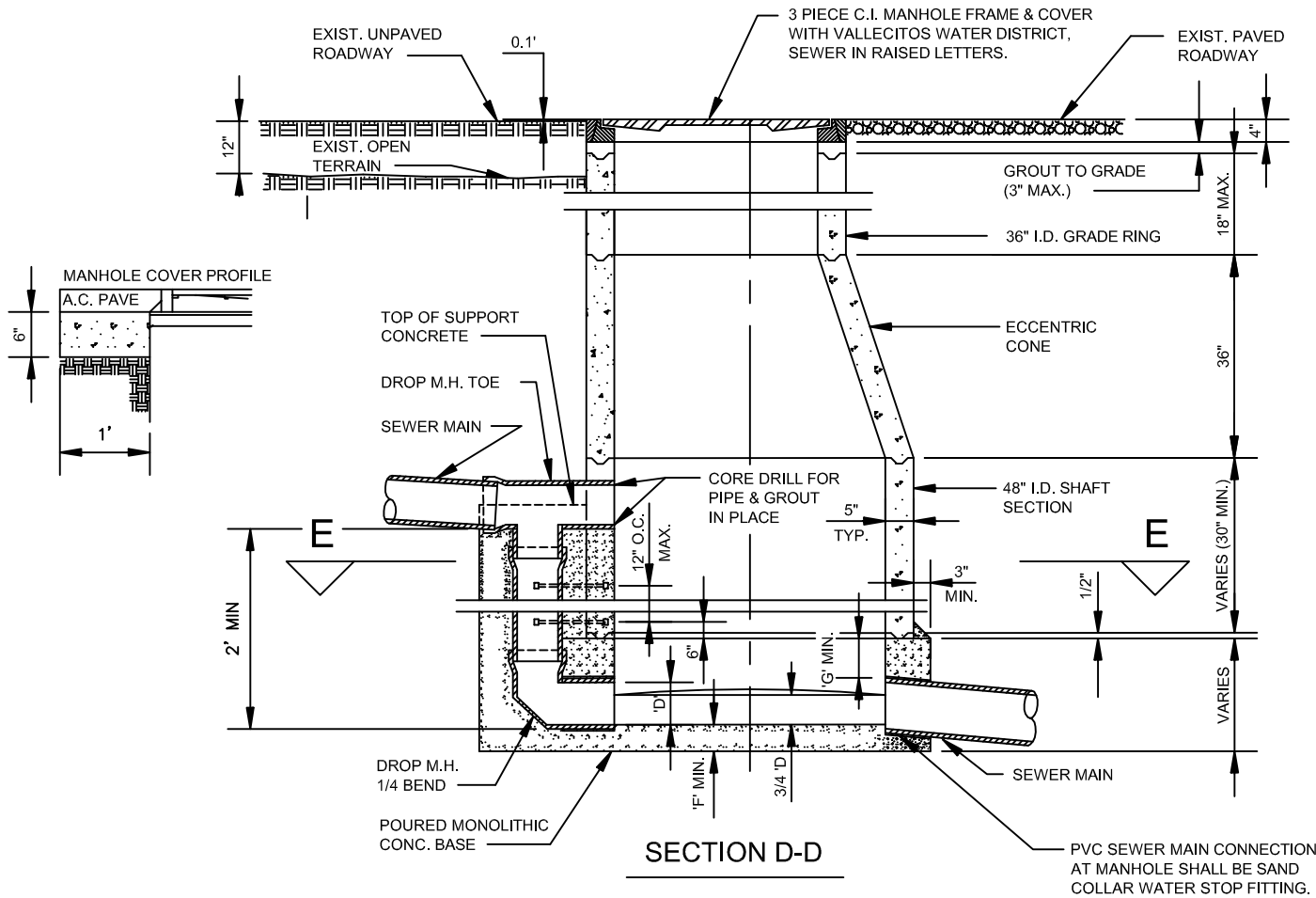


SECTION B-B

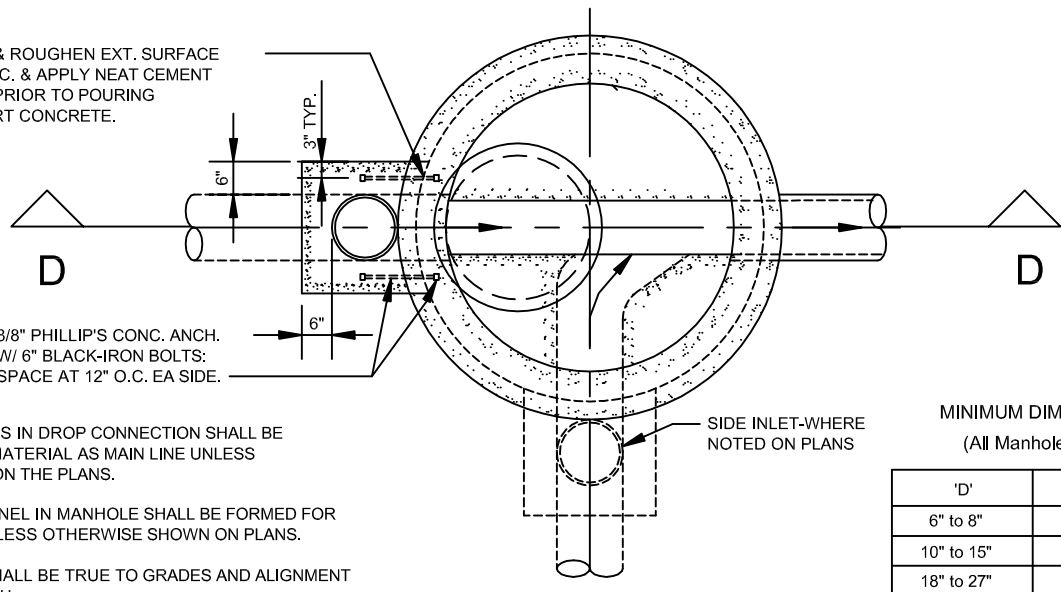
NOTE:

SHEAR COUPLINGS ARE REQUIRED WHEN BELLED ENDS ARE NOT USED.

| REVISIONS | | | VALLECITOS WATER DISTRICT STANDARD DRAWING | DATE: JULY 2015 |
|---------------------------------|----------|----------|--|-------------------------|
| DESCRIPTION | APPROVED | DATE | | STANDARD MANHOLE |
| REMOVE STEPS & REVISE "F" & "G" | | 7-24-07 | | |
| ROTATED SECTION | | 10-17-11 | | |
| PROTECTIVE LINING NOTE ADDED | | 3-27-17 | | |
| | | | | Drawing No. |
| | | | | S-1 |



CLEAN & ROUGHEN EXT. SURFACE OF CONC. & APPLY NEAT CEMENT PASTE PRIOR TO POURING SUPPORT CONCRETE.



NOTES:

- 1) ALL PIPE AND FITTINGS IN DROP CONNECTION SHALL BE THE SAME SIZE AND MATERIAL AS MAIN LINE UNLESS OTHERWISE SHOWN ON THE PLANS.
- 2) DROP SECTION CHANNEL IN MANHOLE SHALL BE FORMED FOR 8" DIAMETER PIPE UNLESS OTHERWISE SHOWN ON PLANS.
- 3) CHANNEL INVERTS SHALL BE TRUE TO GRADES AND ALIGNMENT AND FINISHED SMOOTH.
- 4) SHEAR COUPLINGS ARE REQUIRED WHEN BELLED ENDS ARE NOT USED.
- 5) BITSUMASTIC SHALL BE USED ON ALL MANHOLE JOINTS, EXCLUDING GRADE RINGS.

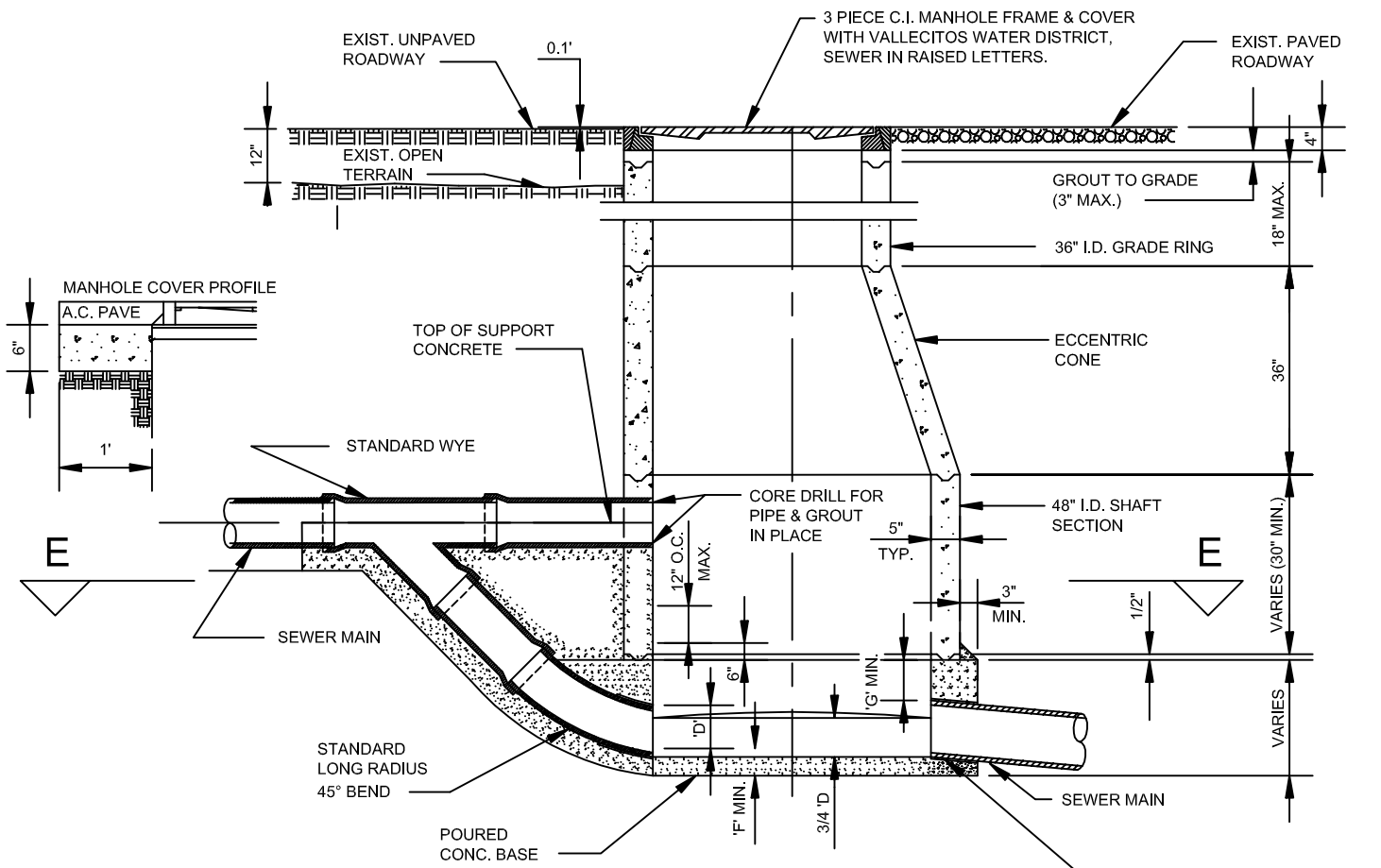
MINIMUM DIMENSIONS:
(All Manhole Types)

| 'D' | 'F' | 'G' |
|------------|-----|-----|
| 6" to 8" | 6" | 4" |
| 10" to 15" | 6" | 4" |
| 18" to 27" | 12" | 4" |

DIMENSIONS 'F' & 'G' SHALL BE USED FOR 'D' (INSIDE DIA. OF PIPE) OF THE LARGEST PIPE IN THE MANHOLE.

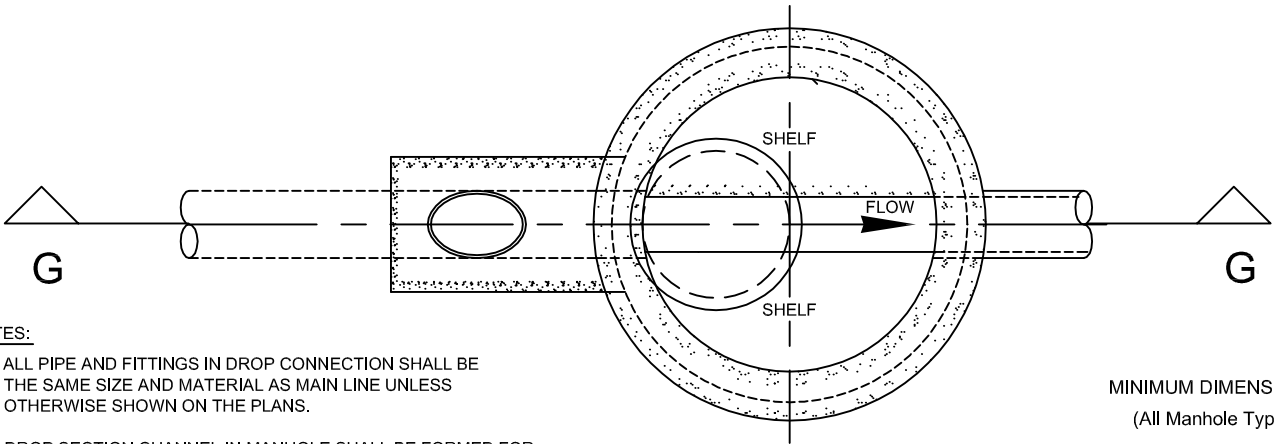
TYPE "A" DROP MANHOLE TO BE USED ONLY UPON APPROVAL OF DISTRICT ENGINEER.

| REVISIONS | | | VALLECITOS WATER DISTRICT STANDARD DRAWING | DATE: JULY 2015 |
|---------------------------------|----------|----------|--|------------------------------|
| DESCRIPTION | APPROVED | DATE | | DROP MANHOLE TYPE "A" |
| REMOVE STEPS & REVISE "F" & "G" | | 7-24-07 | | |
| ROTATED SECTION | | 10-27-11 | | |
| ADDED APPROVAL NOTE | | 3-27-17 | | |
| | | | | |
| | | | | Drawing No. S-2 |



SECTION G-G

PVC SEWER MAIN CONNECTION AT MANHOLE SHALL BE SAND COLLAR WATER STOP FITTING.



SECTION H-H

NOTES:

- 1) ALL PIPE AND FITTINGS IN DROP CONNECTION SHALL BE THE SAME SIZE AND MATERIAL AS MAIN LINE UNLESS OTHERWISE SHOWN ON THE PLANS.
- 2) DROP SECTION CHANNEL IN MANHOLE SHALL BE FORMED FOR 8" DIAMETER PIPE UNLESS OTHERWISE SHOWN ON PLANS.
- 3) CHANNEL INVERTS SHALL BE TRUE TO GRADES AND ALIGNMENT AND FINISHED SMOOTH.
- 4) IF DISTANCE 'C' IS GREATER THAN 4'-0" USE MANHOLE TYPE 'A'.
- 5) SHEAR COUPLINGS ARE REQUIRED WHEN BELLED ENDS ARE NOT USED.
- 6) BITSUMASTIC SHALL BE USED ON ALL MANHOLE JOINTS, EXCLUDING GRADE RINGS.

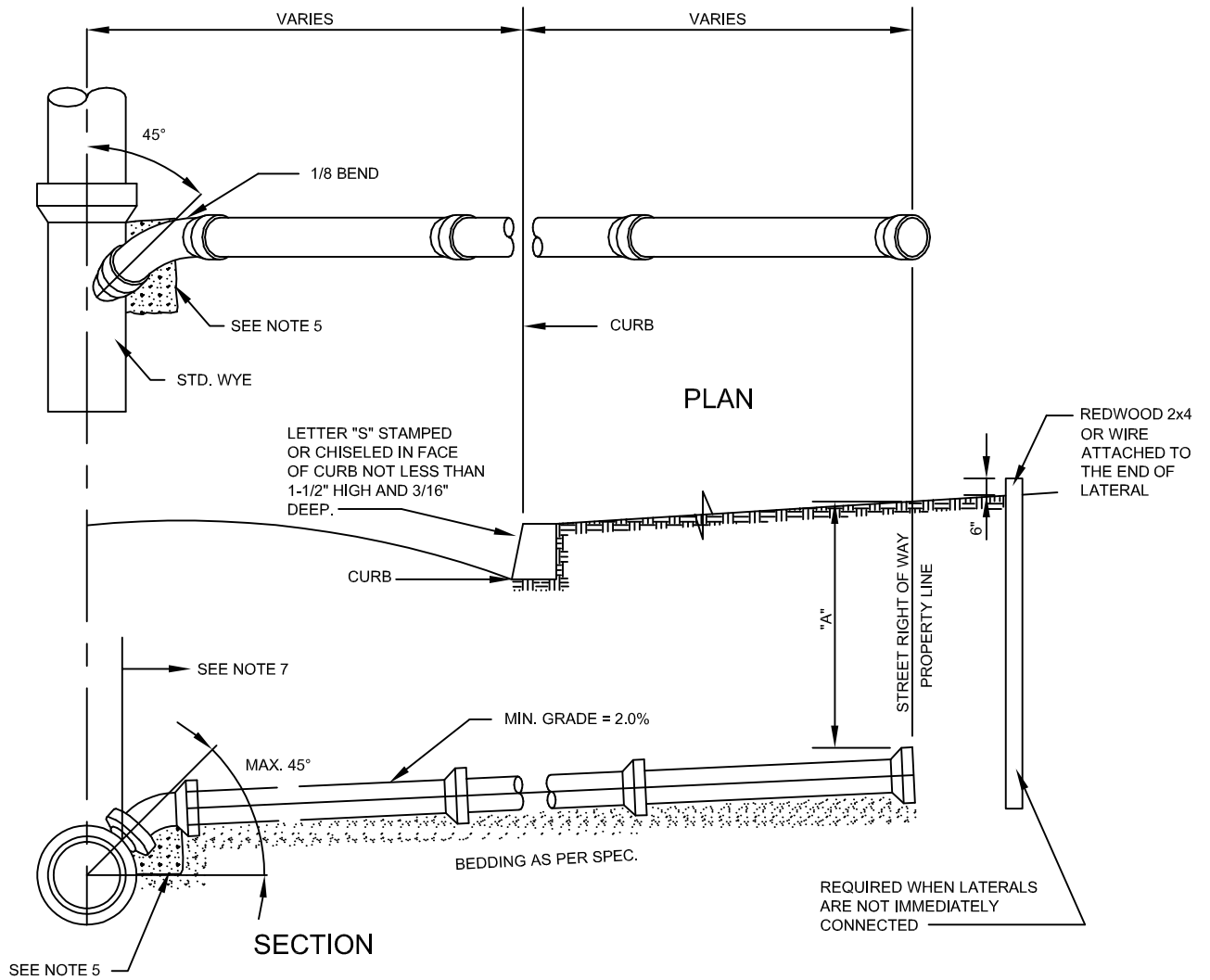
MINIMUM DIMENSIONS:
(All Manhole Types)

| 'D' | 'F' | 'G' |
|------------|-----|-----|
| 6" to 8" | 6" | 4" |
| 10" to 15" | 6" | 4" |
| 18" to 27" | 12" | 4" |

DIMENSIONS 'F' & 'G' SHALL BE USED FOR 'D' (INSIDE DIA. OF PIPE) OF THE LARGEST PIPE IN THE MANHOLE.

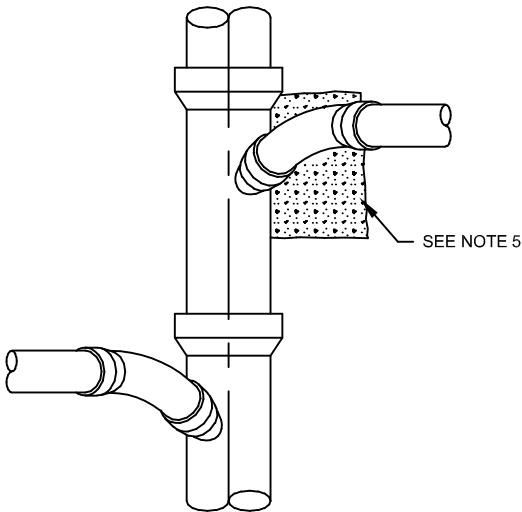
TYPE "B" DROP MANHOLE TO BE USED ONLY UPON APPROVAL OF DISTRICT ENGINEER.

| REVISIONS | | | VALLECITOS WATER DISTRICT STANDARD DRAWING | DATE: JAN. 04 |
|---------------------------------|----------|----------|--|------------------------------|
| DESCRIPTION | APPROVED | DATE | | DROP MANHOLE TYPE "B" |
| REMOVE STEPS & REVISE "F" & "G" | | 7-24-07 | | |
| ROTATED SECTION | | 10-27-11 | | |
| | | | | |
| | | | | |
| | | | | Drawing No. |
| | | | | S-3 |

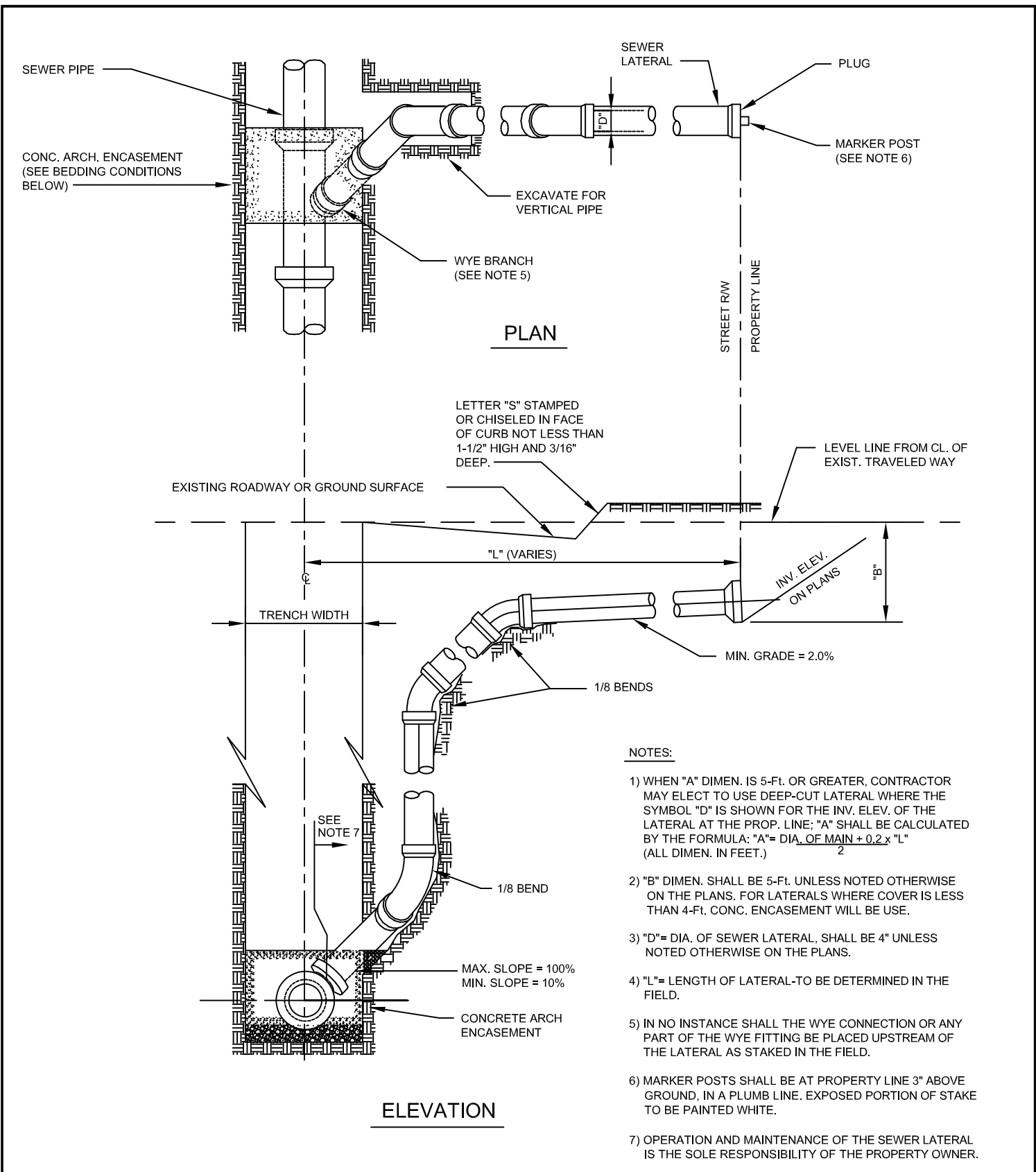


NOTES:

- 1) FINAL APPROVAL WILL NOT BE GRANTED UNLESS THE LETTER "S" IS STAMPED ON CURB AS NOTED ABOVE, AT CORRECT STATION.
- 2) FINAL APPROVAL WILL NOT BE GRANTED UNLESS THE SEWER LATERALS COMPLY FULLY WITH THIS DRAWING.
- 3) ALL LATERALS MUST HAVE STATION AND INVERT ELEV. AT PROPERTY LINE NOTED ON "AS-BUILT" DRAWING, OR FINAL APPROVAL WILL NOT BE GRANTED.
- 4) PROPERTY LINE CLEAN OUTS WILL BE REQUIRED ON ALL LATERALS IF WATER IS NOT SERVED BY THE WVD.
- 5) CONCRETE SUPPORT OF SEWER LATERALS, REQUIRED ON HOT TAPS ONLY.
- 6) "A" DIMEN. SHALL BE 5-Ft. UNLESS NOTED OTHERWISE ON THE PLANS. FOR LATERALS WHERE COVER IS LESS THAN 4-Ft. CONC. ENCASEMENT WILL BE USE.
- 7) OPERATION AND MAINTENANCE OF THE SEWER LATERAL IS THE SOLE RESPONSIBILITY OF THE PROPERTY OWNER.

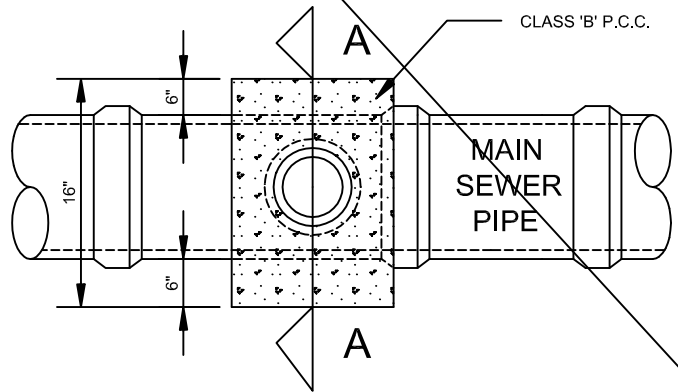
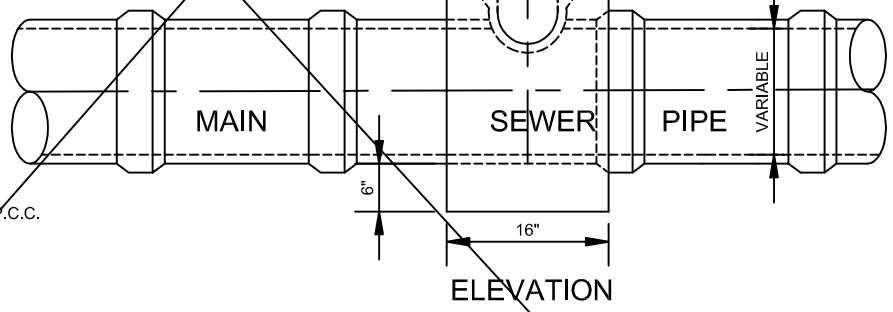
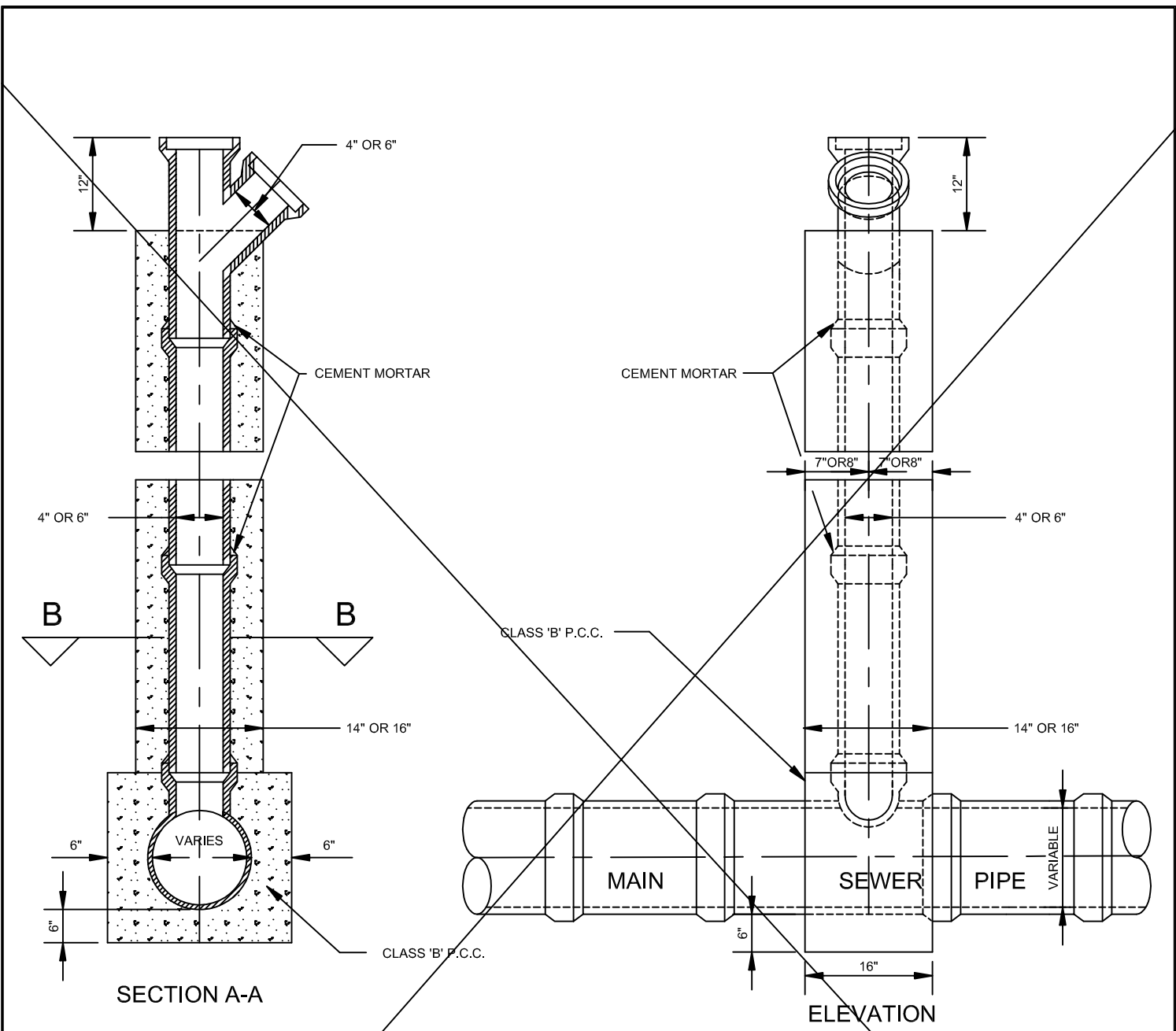


| REVISIONS | | | VALLECITOS WATER DISTRICT STANDARD DRAWING | DATE: JULY 2015 |
|------------------|----------|---------|--|---------------------------|
| DESCRIPTION | APPROVED | DATE | | BY: |
| ADDED MIN. GRADE | | 1/30/17 | STANDARD LATERAL FOR SEWER | Drawing No. S-4 |
| ADDED NOTE 7 | | 3/2/23 | | |
| | | | | |
| | | | | |



DEEP CUT LATERALS TO BE USED ONLY
UPON APPROVAL OF DISTRICT ENGINEER.

| REVISIONS | | | VALLECITOS WATER DISTRICT STANDARD DRAWING | DATE: JULY 2015 |
|--------------|----------|--------|--|---------------------------|
| DESCRIPTION | APPROVED | DATE | | BY: |
| ADDED NOTE 7 | | 3/2/23 | DEEP-CUT LATERAL CONNECTION | Drawing No. S-5 |
| | | | | |
| | | | | |
| | | | | |



NOTES:

- 1.) THE UPPER END OF THE CHIMNEY PIPE SHALL BE 8" BELOW THE GRADE OF THE LOWER CURB. UNLESS OTHERWISE SPECIFIED.
- 2.) WHERE ONE OR TWO HOUSES CONNECTIONS ARE TO BE JOINED TO THE CHIMNEY PIPE, USE A SINGLE 'Y' BRANCH. WHERE THREE HOUSE CONNECTIONS ARE TO BE JOINED, USE A DOUBLE 'Y' BRANCH.
- 3.) WHERE THE CHIMNEY PIPE IS TO BE USED FOR A SINGLE HOUSE CONNECTION FACE 'Y' TOWARD PROPERTY TO BE SERVED; WHERE USE FOR HOUSE CONNECTIONS ON BOTH SIDES OF THE SEWER, THE HOUSE CONNECTION ON THE RIGHT SIDE OF THE SEWER, (LOOKING UP GRADE) SHALL BE CONNECTED TO THE 'Y' BRANCH BY A 1/8 BEND AND THE HOUSE CONNECTION ON THE LEFT SIDE SHALL BE CONNECTED TO THE UPPER END OF THE CHIMNEY BY 4" OR 6" 1/4 BEND. UNLESS OTHERWISE SPECIFIED.
- 4.) CHIMNEY PIPE USE ONLY UPON APPROVAL OF THE DISTRICT ENGINEER.

| REVISIONS | | |
|-------------|----------|------|
| DESCRIPTION | APPROVED | DATE |
| | | |
| | | |
| | | |
| | | |

VALLECITOS WATER DISTRICT STANDARD DRAWING

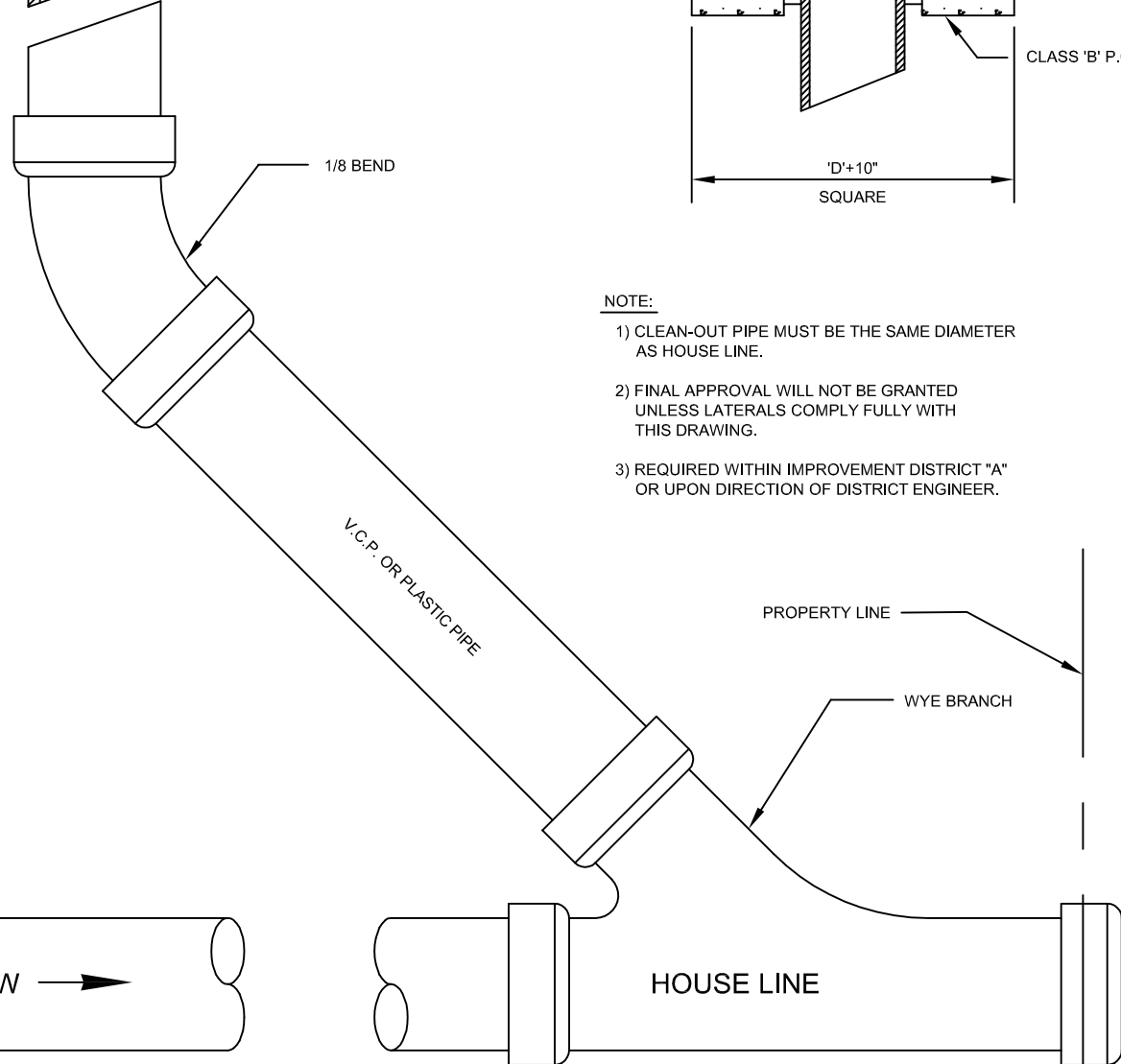
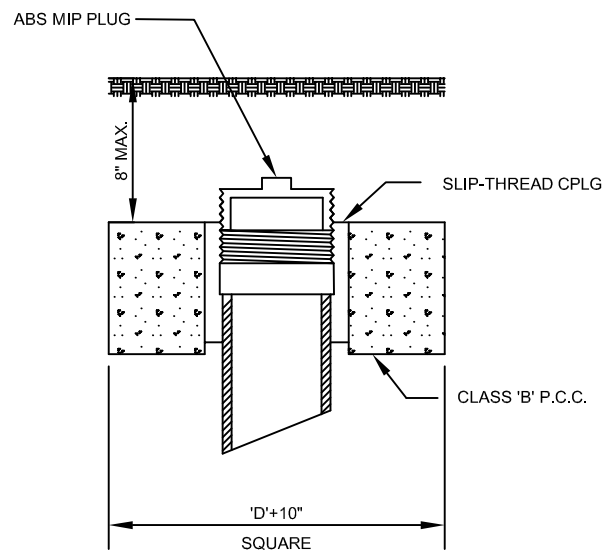
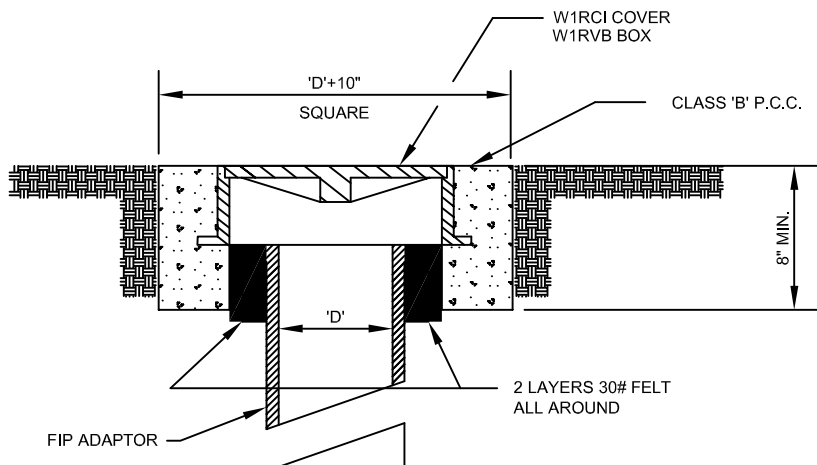
DATE: JAN. 04

BY:

CHIMNEY PIPE

Drawing No.

S-6



- NOTE:**
- 1) CLEAN-OUT PIPE MUST BE THE SAME DIAMETER AS HOUSE LINE.
 - 2) FINAL APPROVAL WILL NOT BE GRANTED UNLESS LATERALS COMPLY FULLY WITH THIS DRAWING.
 - 3) REQUIRED WITHIN IMPROVEMENT DISTRICT "A" OR UPON DIRECTION OF DISTRICT ENGINEER.

SECTIONAL PLAN B-B

| REVISIONS | | |
|---------------|----------|---------|
| DESCRIPTION | APPROVED | DATE |
| THREADED PLUG | | 8-21-07 |
| BOX AND COVER | | 6-01-11 |
| | | |
| | | |
| | | |

VALLECITOS WATER DISTRICT STANDARD DRAWING

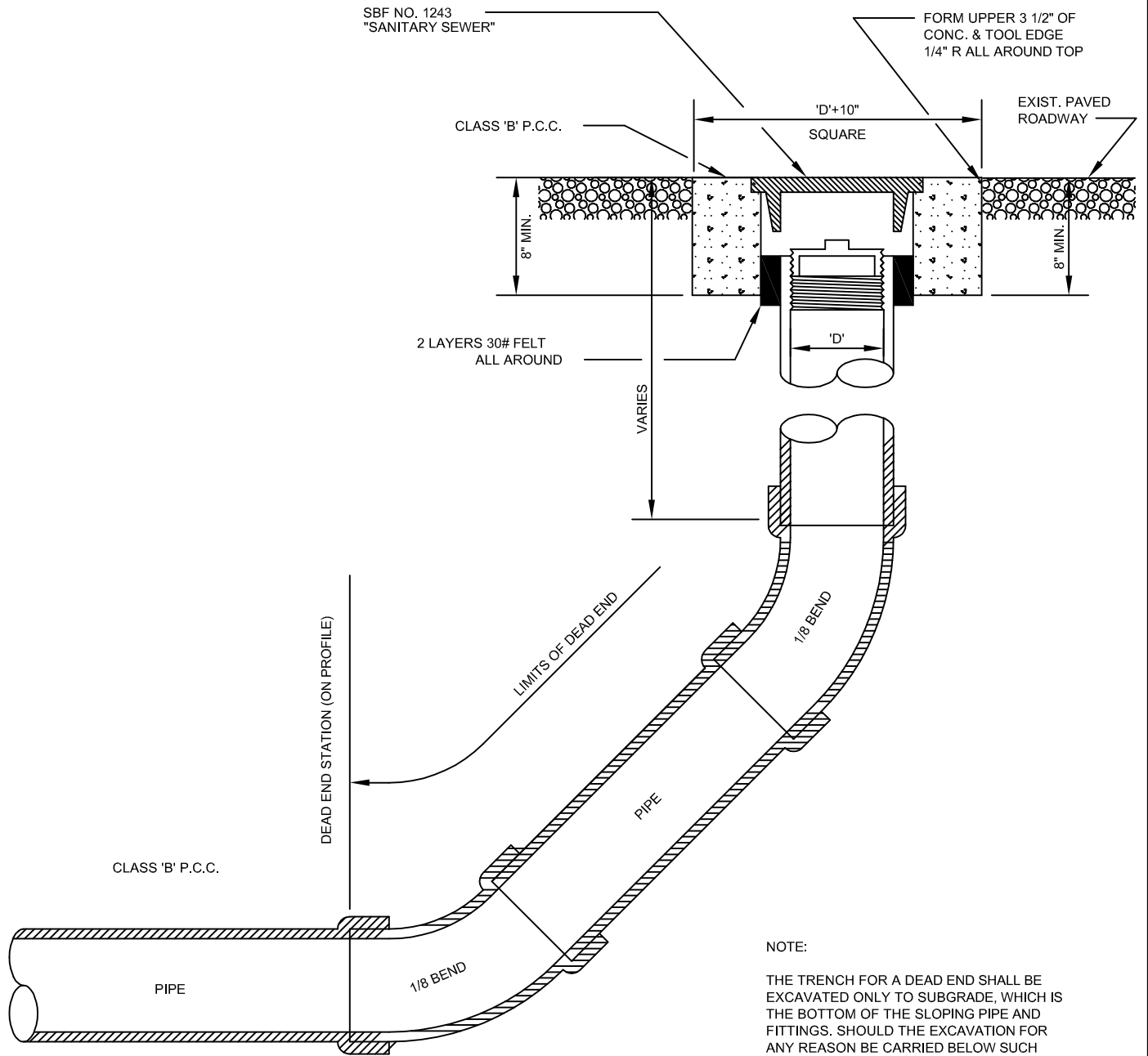
PROPERTY LINE CLEANOUT

DATE: JAN. 04

BY:

Drawing No.

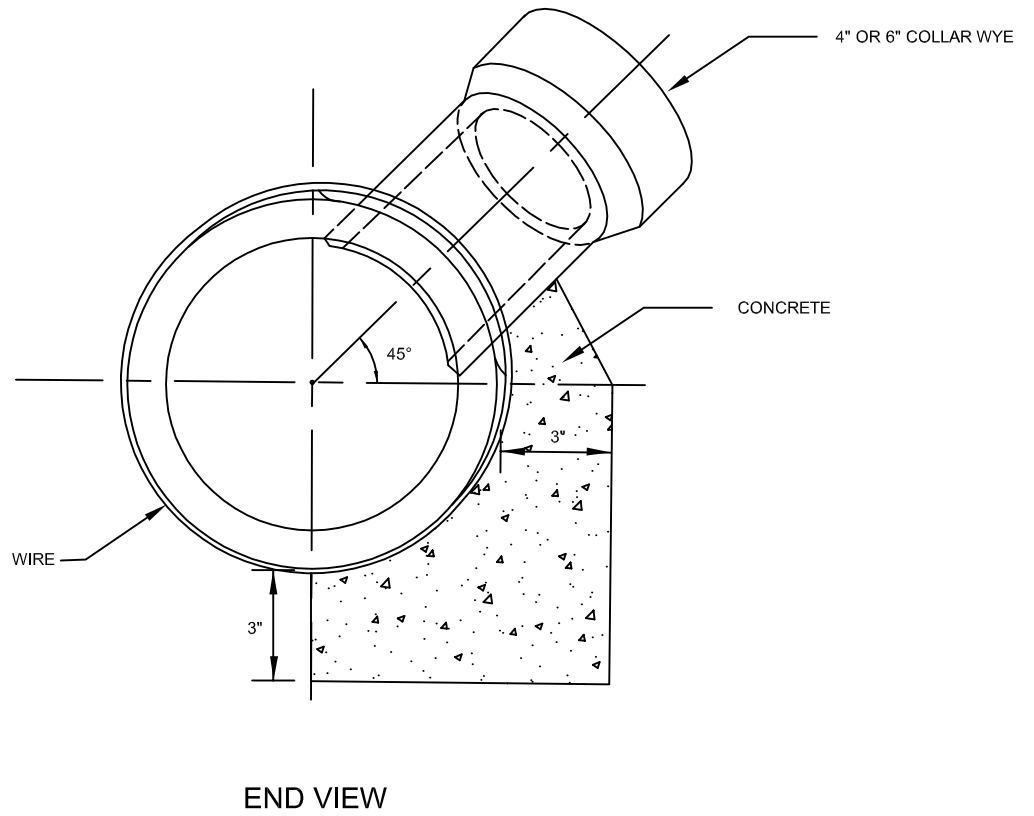
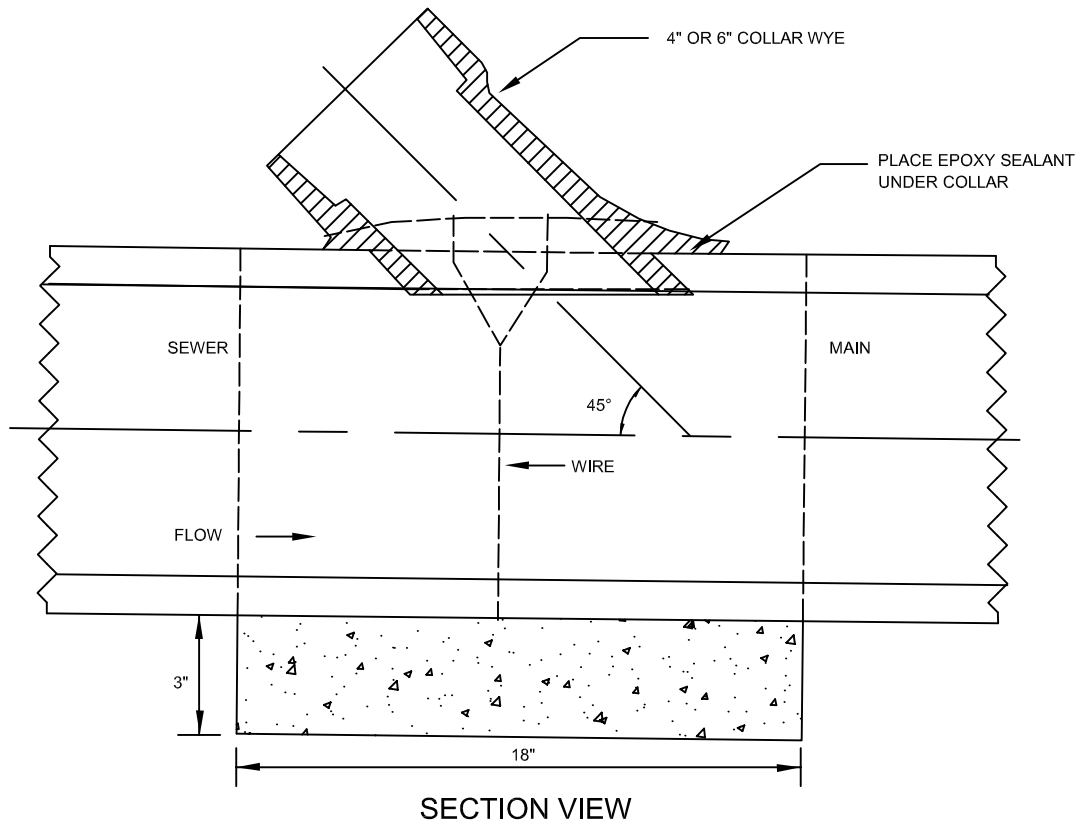
S-7



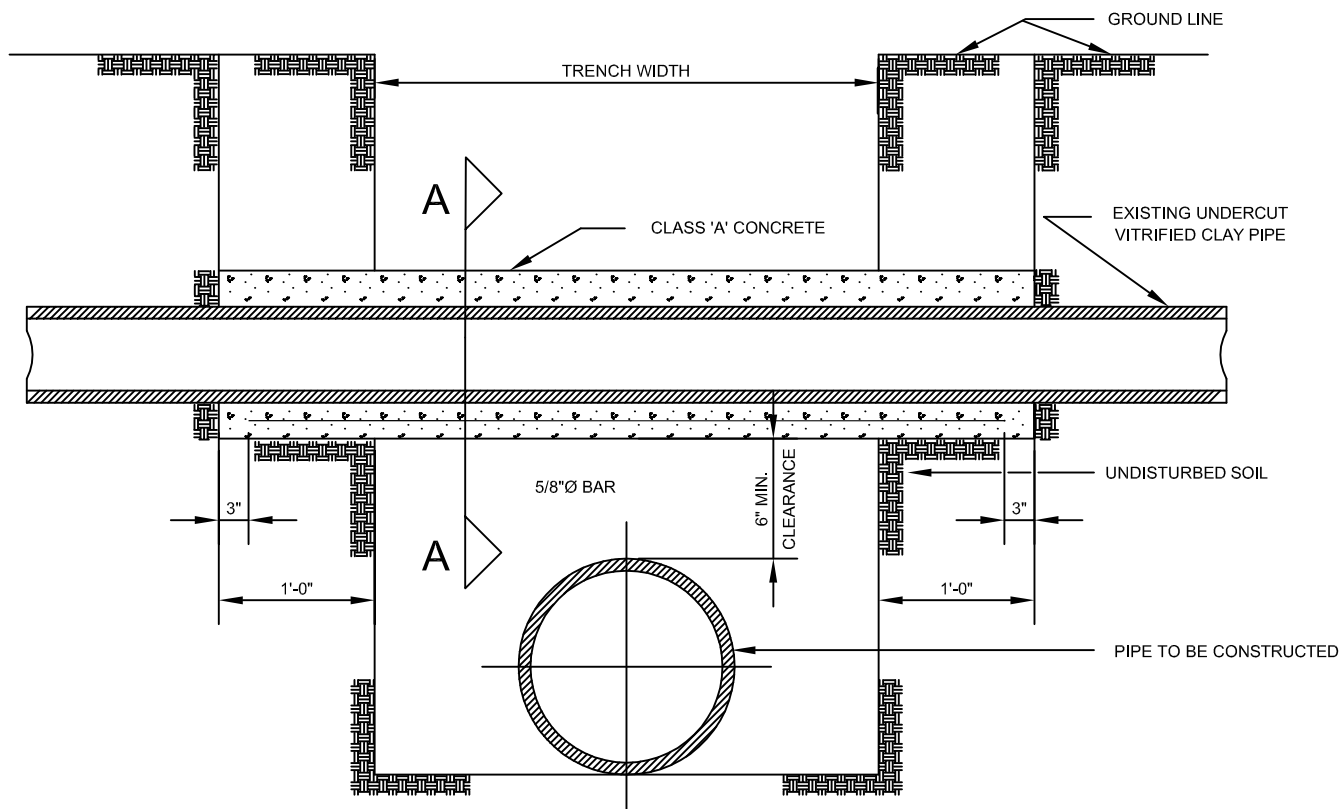
NOTE:
 THE SEWER MAIN SHALL BE LAID FOR THE FULL LENGTH AND DEPTH SHOWN ON THE PLANS AND PROFILE TO THE POINT MARKED DEAD END (D.E.)

NOTE:
 THE TRENCH FOR A DEAD END SHALL BE EXCAVATED ONLY TO SUBGRADE, WHICH IS THE BOTTOM OF THE SLOPING PIPE AND FITTINGS. SHOULD THE EXCAVATION FOR ANY REASON BE CARRIED BELOW SUCH A GRADE, IT SHALL BE REFILLED TO GRADE WITH TYPE 'A' CRUSHED ROCK WHICH SHALL BE TAMPED FIRM AND UNYIELDING. SHOULD A FIRM AND UNYIELDING FOUNDATION BE UNOBTAINABLE BY THIS METHOD, A PARTIAL CONCRETE CRADLE SHALL BE EMPLOYED.

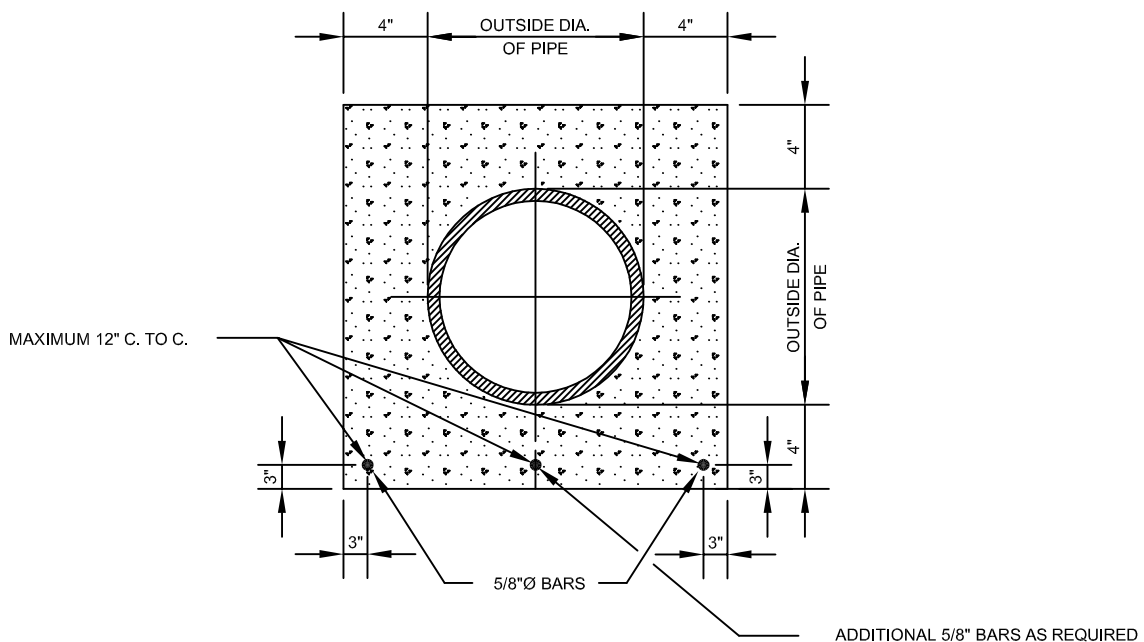
| REVISIONS | | | VALLECITOS WATER DISTRICT STANDARD DRAWING | DATE: JAN. 04 |
|---------------|----------|---------|--|---------------------------|
| DESCRIPTION | APPROVED | DATE | | BY: |
| THREADED PLUG | | 6-13-11 | DEAD END CLEAN-OUT | Drawing No. S-8 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |



| REVISIONS | | | VALLECITOS WATER DISTRICT STANDARD DRAWING | DATE: JAN. 04 |
|-------------------------|----------|---------|--|---------------|
| DESCRIPTION | APPROVED | DATE | | BY: |
| CONCRETE CRADLE & EPOXY | | 8-23-07 | CUT IN FIELD LATERAL | Drawing No. |
| | | | | S-9 |
| | | | | |
| | | | | |



TYPICAL SECTION



SECTION A-A

| REVISIONS | | |
|-------------|----------|------|
| DESCRIPTION | APPROVED | DATE |
| | | |
| | | |
| | | |
| | | |

VALLECITOS WATER DISTRICT STANDARD DRAWING

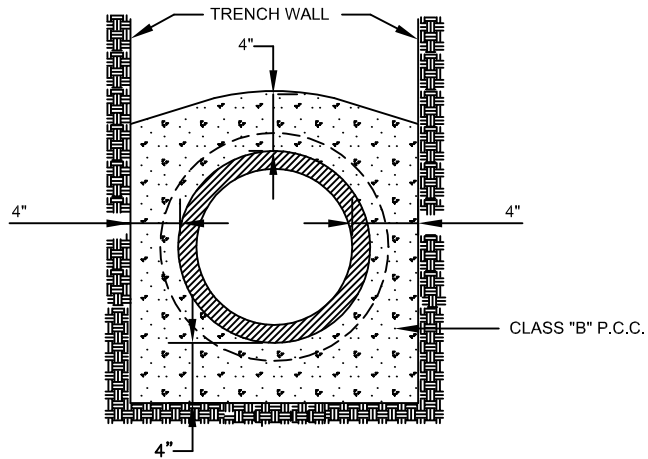
SUPPORT FOR UNDERCUT V.C. PIPE

DATE: JAN. 04

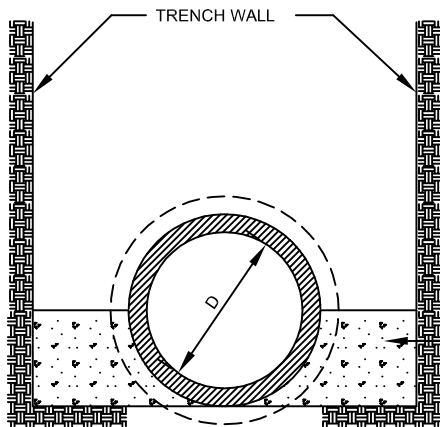
BY:

Drawing No.

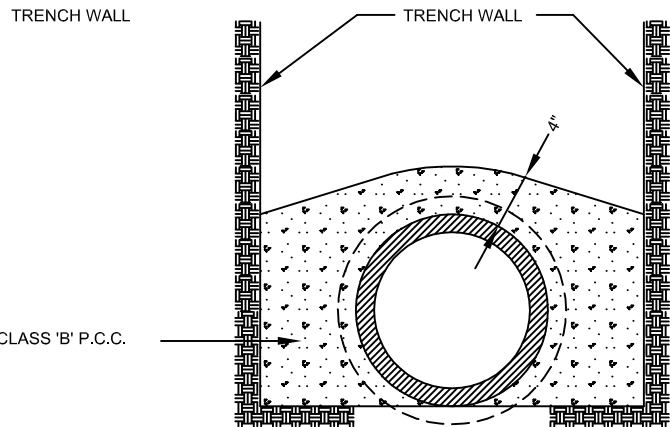
S-10



NO. 1
CONCRETE ENCASEMENT



CONCRETE CRADLE

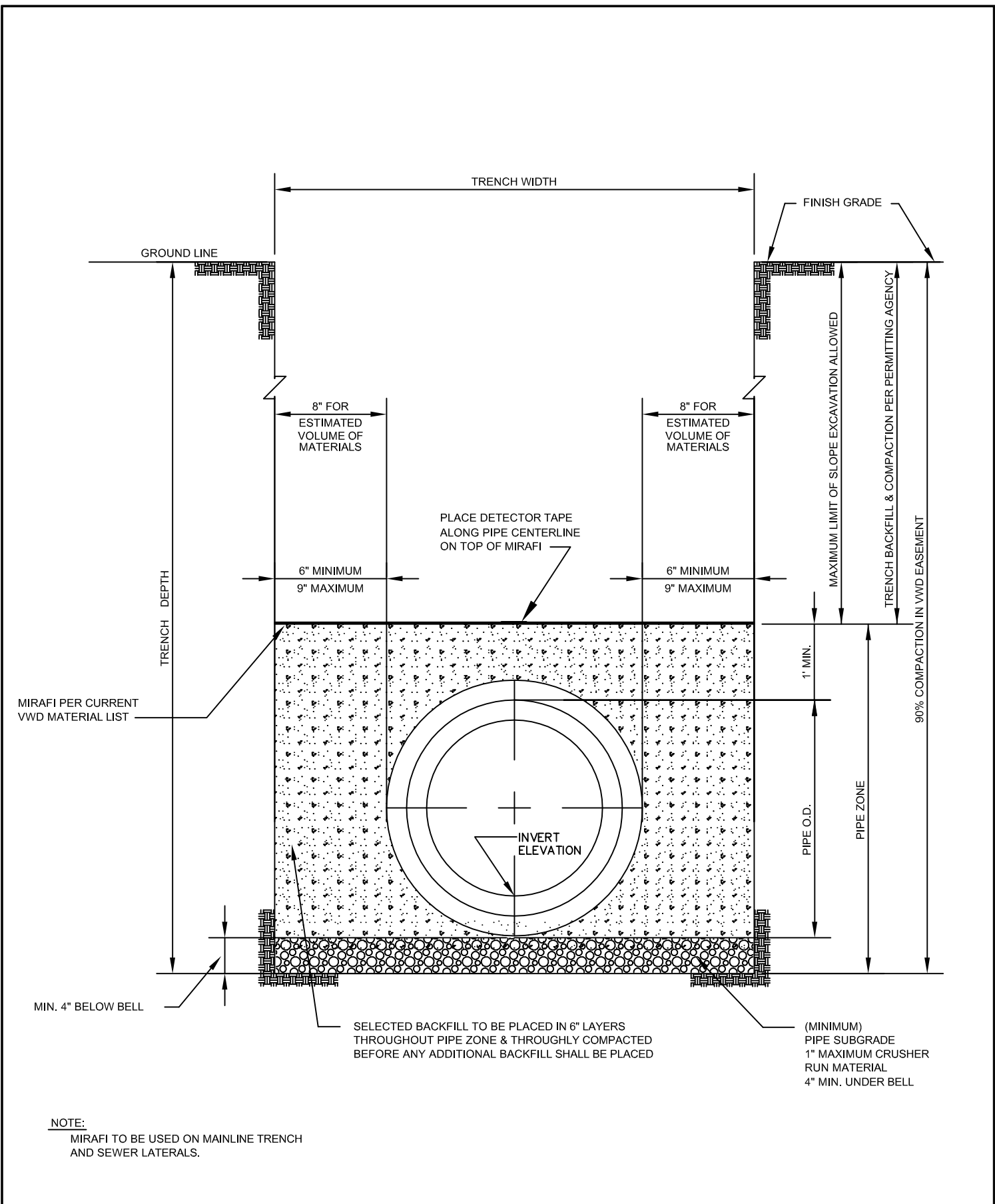


NO. 2
CONCRETE ENCASEMENT

NOTE:

WHERE TRENCH WIDTH EXCEEDS THE WIDTH SPECIFIED IN THE SPECIFICATIONS, CONTRACTOR SHALL FURNISH AND PLACE AT HIS OWN EXPENSE, A CRADLE AS SHOWN ABOVE.

| REVISIONS | | | VALLECITOS WATER DISTRICT STANDARD DRAWING | DATE: JAN. 04 |
|-------------|----------|------|--|---------------|
| DESCRIPTION | APPROVED | DATE | | BY: |
| | | | STANDARD CONCRETE CRADLE AND ENCASEMENT | Drawing No. |
| | | | | S-11 |
| | | | | |
| | | | | |
| | | | | |



NOTE:

MIRAFI TO BE USED ON MAINLINE TRENCH AND SEWER LATERALS.

| REVISIONS | | |
|---------------|----------|---------|
| DESCRIPTION | APPROVED | DATE |
| DETECTOR TAPE | | 8-21-07 |
| ADDED MIRAFI | | 3-28-17 |
| | | |
| | | |
| | | |

VALLECITOS WATER DISTRICT STANDARD DRAWING

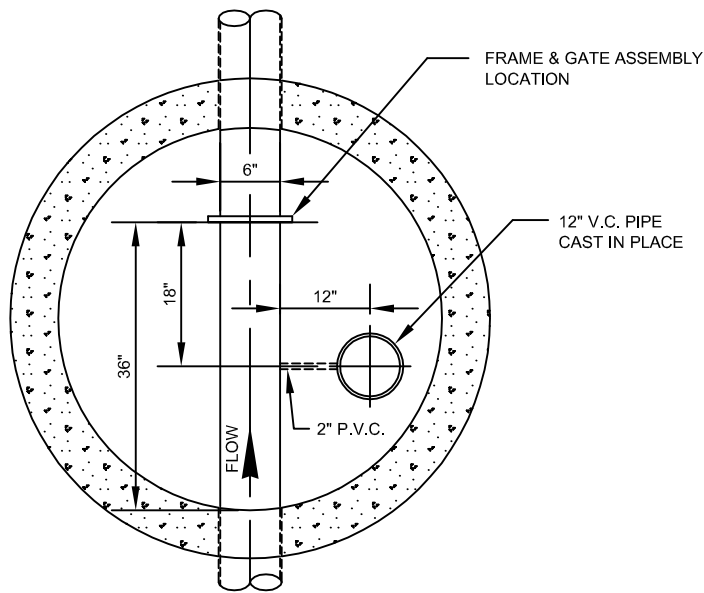
TRENCH EXCAVATION & BACKFILL FOR SEWERS

DATE: JULY 2015

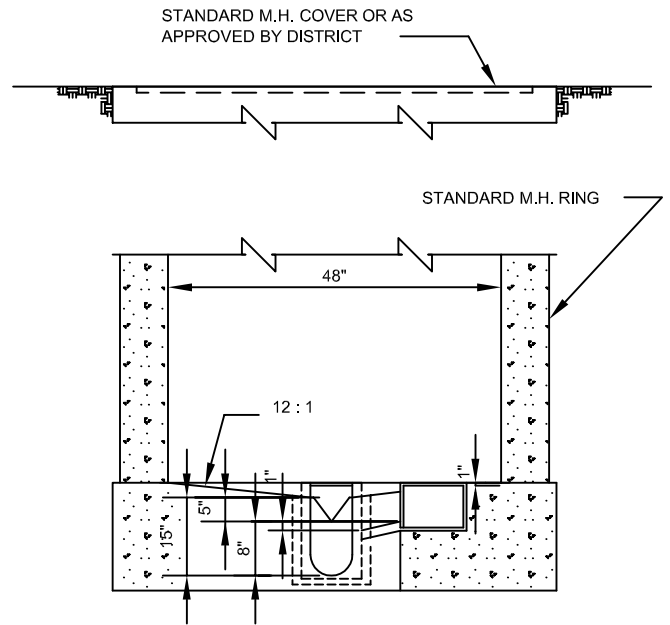
BY:

Drawing No.

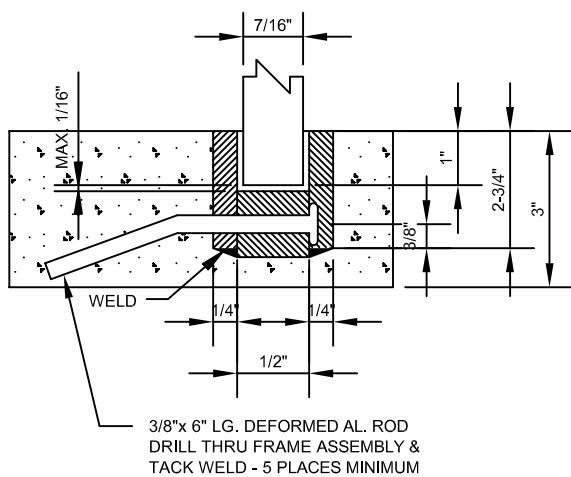
S-12



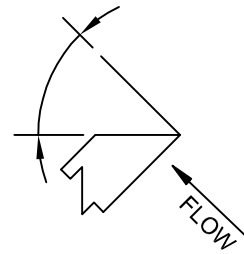
PLAN



SECTION

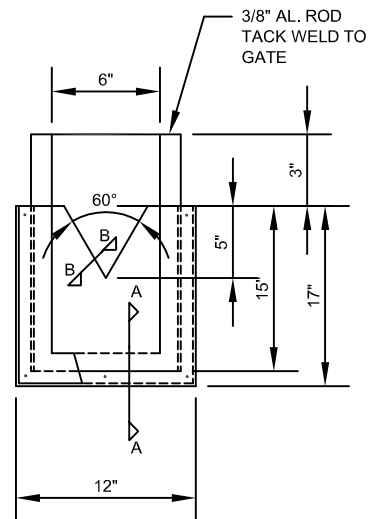


SECTION A-A



SECTION B-B

A RECORDER MAY BE REQUIRED TYPE AND MODEL PER DISTRICT



FRAME & GATE ASSEMBLY

NOTE: ALL MATERIAL FOR GATE AND FRAME TO BE ALUMINUM PLATE

NOTES:

- 1) CONSTRUCT CONTROL MANHOLE ON STRAIGHT RUN OF SEWER PIPE. FLOW SHALL BE STRAIGHT THROUGH AS SHOWN.
- 2) BOTTOM OF V-NOTCH MUST ALWAYS BE ABOVE MAXIMUM POSSIBLE LEVEL IN DOWNSTREAM CHANNEL TO PREVENT SUBMERGED DISCHARGE CONDITIONS.
- 3) THE CONTROL MANHOLE SHALL BE A MINIMUM SIZE OF 4 FOOT SQUARE INSIDE OR 4 FOOT INSIDE DIAMETER AND CONSTRUCTED OF CONCRETE BLOCK, BRICK, STANDARD MANHOLE RINGS OR POURED CONCRETE.
- 4) CONTROL MANHOLE PLANS ARE TO BE SUBMITTED TO THE ENGINEERING DEPARTMENT OF THE VALLECITOS WATER DISTRICT FOR APPROVAL.
- 5) FOR 6" OR 8" LINES ONLY.
- 6) FOR FLOWS OF 10,000 TO 100,000 PER DAY. FOR FLOWS OTHER THAN THOSE SPECIFIED, CONTACT THE DISTRICT.

| REVISIONS | | | VALLECITOS WATER DISTRICT STANDARD DRAWING | DATE: JAN. 04 |
|---------------------------------|----------|---------|--|----------------------------------|
| DESCRIPTION | APPROVED | DATE | | INDUSTRIAL WASTE CONTROL MANHOLE |
| DELETE STEPS / REV. MISC. NOTES | | 8-21-07 | Drawing No. | |
| | | | S-13 | |
| | | | | |
| | | | | |