
STANDARD DETAILS



Springs Hill Special Utility District

5510 S. St. Hwy. 123 Bypass
Seguin, TX 78155

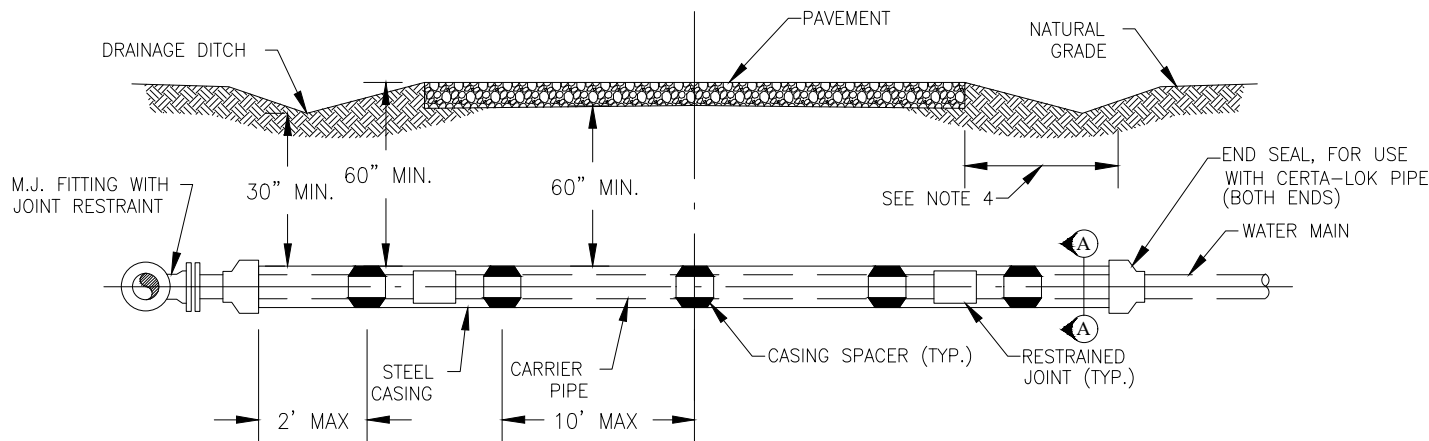
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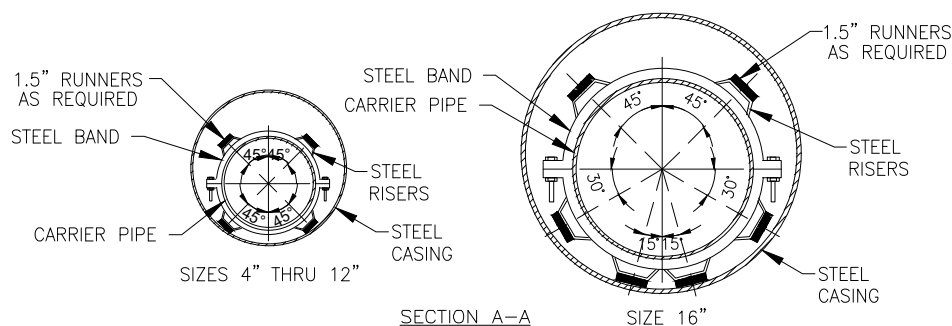
NOVEMBER 2025

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NOT TO SCALE



CARRIER PIPE			STEEL CASING					CASING SPACERS	
NOMINAL SIZE (IN)	PIPE OUTSIDE DIAMETER (IN)	RESTRAINT OUTSIDE DIA.(IN)	MIN. NOMINAL SIZE(IN)	OUTSIDE DIAMETER (IN)	INSIDE DIAMETER (IN)	WALL THICKNESS (IN)	WEIGHT CLASS	BAND WIDTH	No. OF RUNNERS PER TIE
4	4.80	9.25	18	18	17.25	0.375	STANDARD	8"	2 TOP, 2 BOTTOM
6	6.90	11.25	18	18	17.25	0.375	STANDARD	8"	2 TOP, 2 BOTTOM
8	9.05	14.75	24	24	23.25	0.375	STANDARD	8"	2 TOP, 2 BOTTOM
12	13.20	16.90	24	24	23.24	0.375	STANDARD	8"	2 TOP, 2 BOTTOM
16	17.40	25.51	30	30	29.25	0.375	STANDARD	8"	2 TOP, 4 BOTTOM

NOTES:

- CARRIER PIPE SHALL CONFORM TO AWWA C900/ C909, WITH RESTRAINED JOINTS SUITABLE FOR INSTALLATION INSIDE A CASING.
- STEEL CASING SHALL BE STANDARD WEIGHT OR HEAVIER PIPE CONFORMING TO ASTM A-36, ASTM A-568, ASTM A-135, ASTM A-139 OR OTHER ACCEPTABLE STANDARD SPECIFICATION. PIPE SHALL BE COATED AND LINED IN ACCORDANCE WITH AWWA C-210 OR APPROVED EQUAL. PIPE JOINTS SHALL BE WELDED IN ACCORDANCE WITH AWWA C-206. STEEL CASING SHALL BE NEW OR USED IN GOOD CONDITION ACCEPTABLE TO SPRINGS HILL SPECIAL UTILITY DISTRICT AND TO THE ROADWAY AUTHORITY.
- SUBSEQUENT CASING SPACERS SHALL BE INSTALLED WITH A MINIMUM OF THREE PER PIPE JOINT, SPACED NO MORE THAN 10 FEET APART FOR 4" TO 14" PIPE AND NO MORE THAN 8 FEET APART FOR 16" TO 30" PIPE. AT LEAST ONE SPACER SHALL BE LOCATED WITHIN 2 FEET OF EACH END OF THE CASING.
- CASING PIPE SHALL EXTEND A MINIMUM OF 10 FT. PAST EDGE OF PAVEMENT ALONG TXDOT ROADWAYS AND A MINIMUM OF 5 FT. PAST EDGE OF PAVEMENT ALONG ALL OTHER ROADWAYS UNLESS OTHERWISE DIRECTED BY ENGINEER OR REGULATORY AUTHORITY.
- CASING SPACERS SHALL BE MADE FROM T-304 STEEL OF A MINIMUM 14 GAUGE THICKNESS.
- CASING SPACERS SHALL HAVE A SYNTHETIC RUBBER OR PVC LINER TO INSULATE THE PIPELINE FROM THE SPACER.
- CASING SPACERS SHALL HAVE A 1.5" WIDE GLASS REINFORCED PLASTIC OR UHMW POLYMER RUNNERS TO INSULATE THE SPACER FROM THE CASING

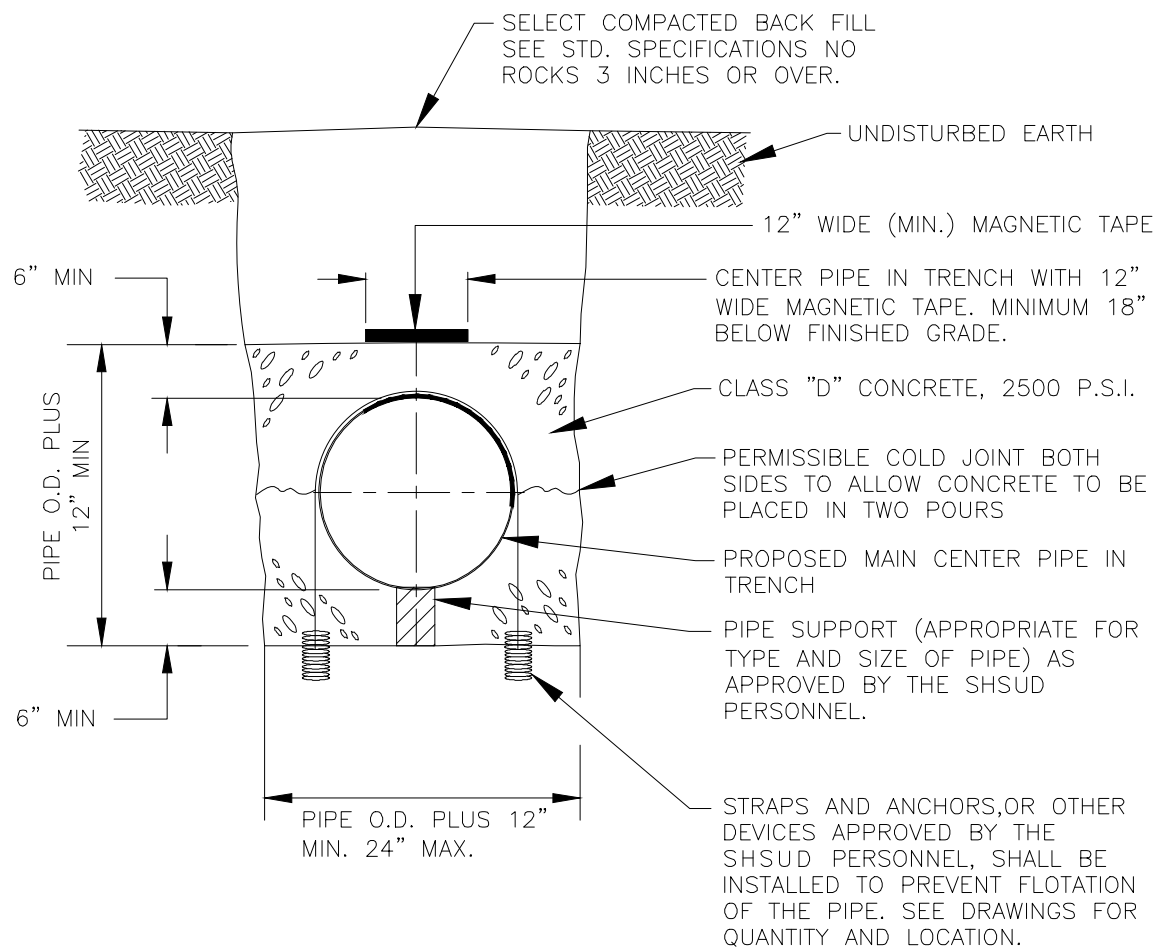
SPRINGS HILL SPECIAL UTILITY DISTRICT

CASING DETAIL

DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-1



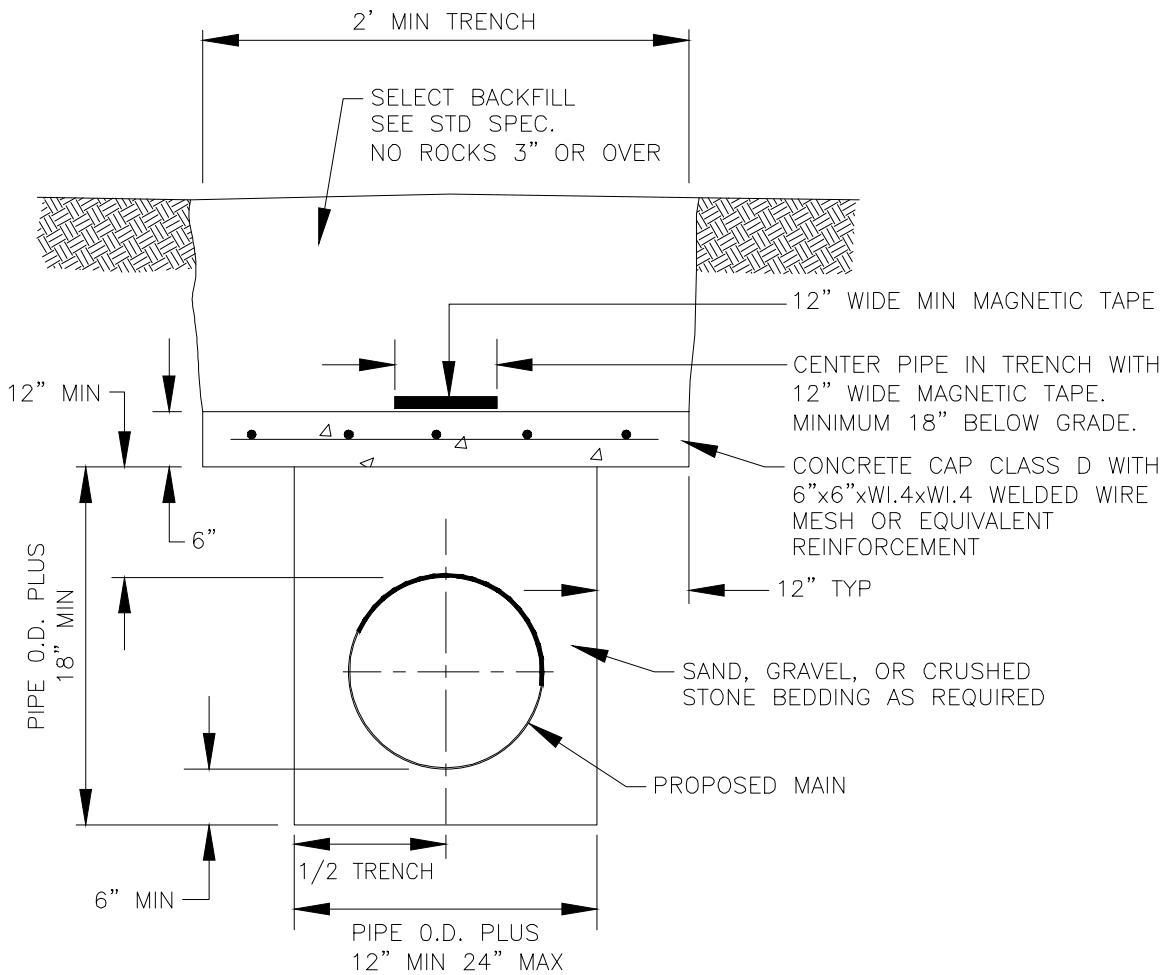
SPRINGS HILL SPECIAL UTILITY DISTRICT

CONCRETE ENCASEMENT

DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-2



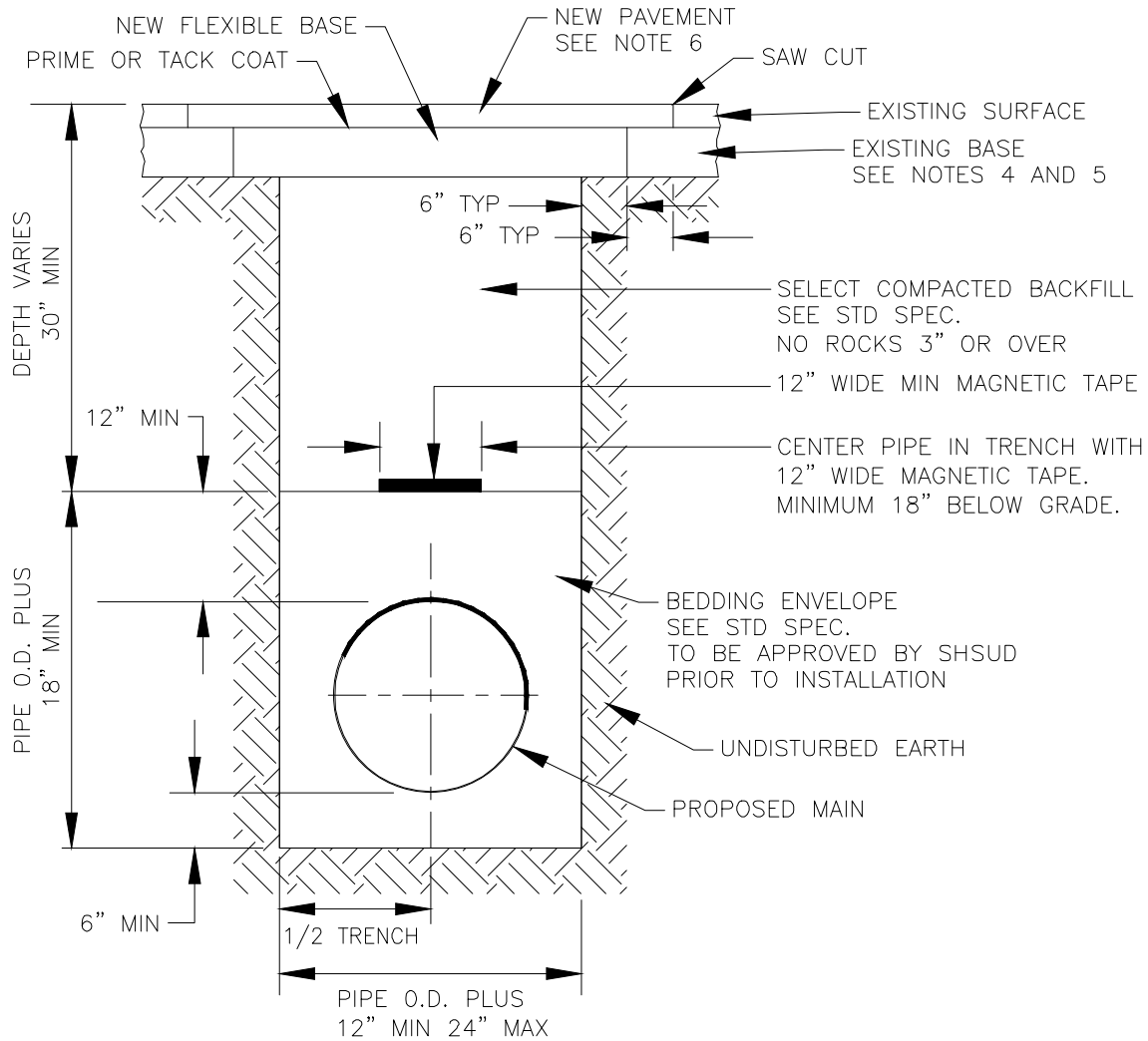
SPRINGS HILL SPECIAL UTILITY DISTRICT

CONCRETE TRENCH CAP

DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-3



NOTES:

1. THE EXISTING PAVING SURFACE SHALL BE SAW CUT IN A STRAIGHT LINE, A MINIMUM OF 12 INCHES WIDER THAN THE UNDISTURBED SIDES OF THE TRENCH, SYMMETRICAL ABOUT THE CENTERLINE OF THE EXCAVATION.
2. ANY CONCRETE PAVING SHALL BE CUT 6 INCHES WIDER THAN THE UNDISTURBED SIDES OF THE EXCAVATION.
3. IF EXCAVATION AREA IS OPEN FOR TEMPORARY PUBLIC USE, THE SURFACE SHALL BE MAINTAINED LEVEL WITH ADJACENT RIDING SURFACE WITH COLD MIX OR TEMPORARY HOT MIX ASPHALTIC CONCRETE.
4. ROAD BASE AND SURFACE MATERIALS IN THE TRENCH CUT SHALL BE REPLACED IN KIND, OF EQUAL THICKNESS, OR WITH MINIMUM BASE THICKNESS OF 10 INCHES WHICHEVER IS GREATER.
5. ALL DAMAGED AREAS OF PAVEMENT OUTSIDE THE TRENCH CUT AREA SHALL BE REMOVED AND REPLACED WITH MINIMUM OF 8 INCHES OF BASE OR MATCH EXISTING, WHICHEVER IS GREATER.
6. SURFACE PAVEMENT SHALL BE OF THE KIND AND THICKNESS AS EXISTING, OR MINIMUM 2 INCHES, WHICHEVER IS GREATER.
7. ALL WATER LINES SHALL HAVE A MINIMUM PRESSURE CLASS OF 200 PSI.

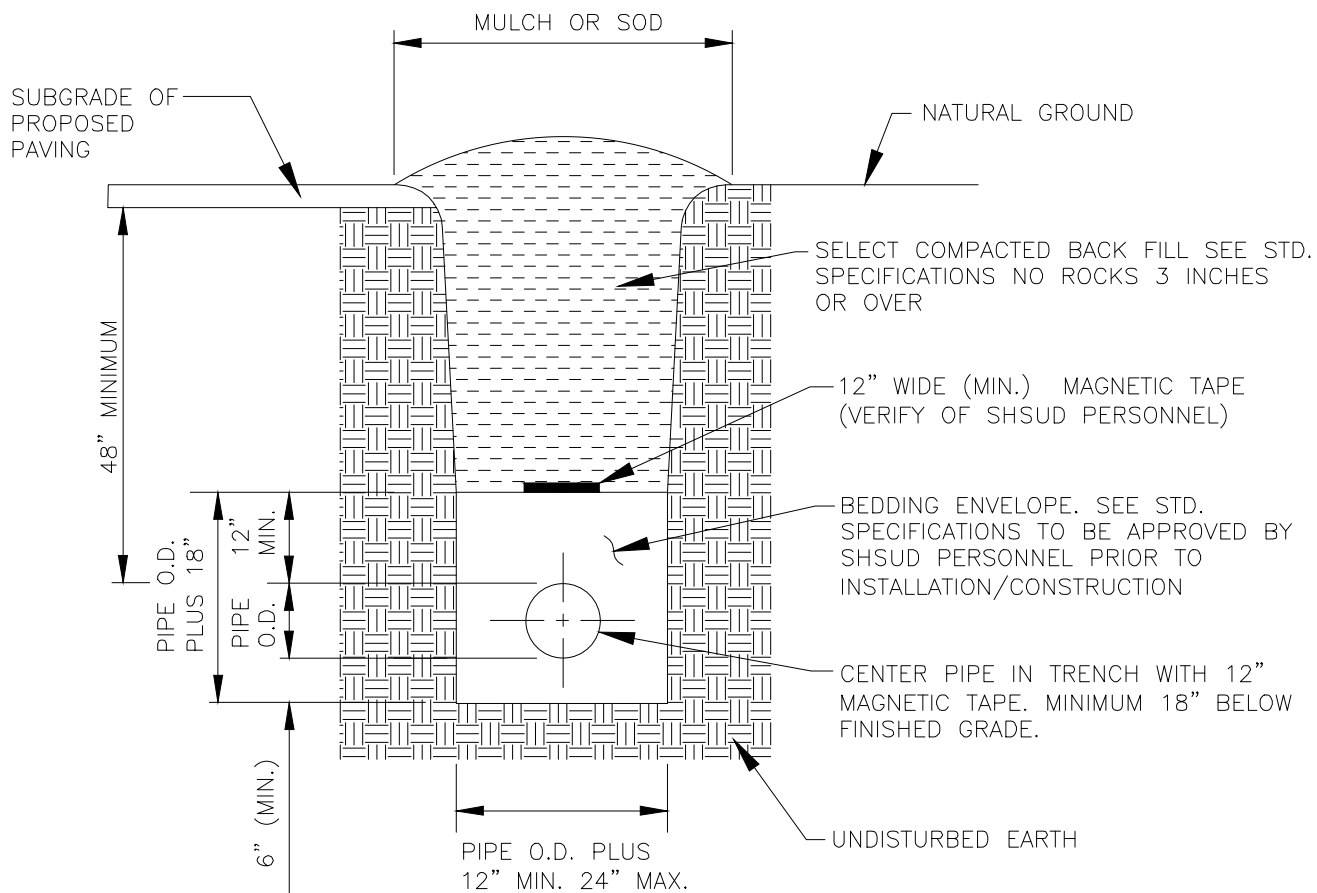
SPRINGS HILL SPECIAL UTILITY DISTRICT

TRENCH WITH PAVED SURFACE

DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-4



NOTES:

1. ALL WATER LINES SHALL HAVE A MINIMUM PRESSURE CLASS OF 200 P.S.I.
2. BEDDING AND BACKFILL SHALL BE COMPACTED TO 90% STANDARD PROCTOR

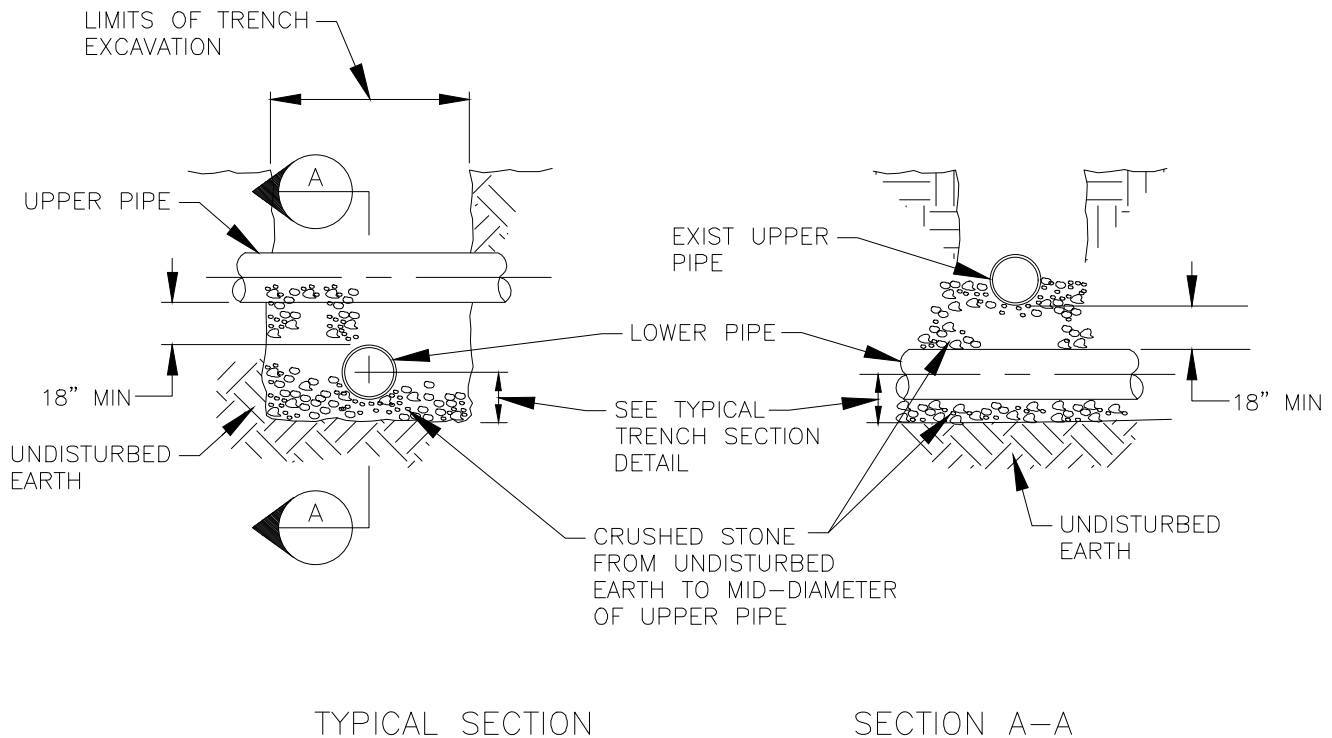
SPRINGS HILL SPECIAL UTILITY DISTRICT

TRENCH WITH UNFINISHED SURFACE

DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-5



NOTES:

1. WATER MAINS CROSSING WASTE WATER LINES SHALL MAINTAIN A MINIMUM 18-INCH VERTICAL SEPARATION, MEASURED OUTSIDE-TO-OUTSIDE. ALL CROSSINGS MUST COMPLY WITH 30 TAC § 290.44 (e).
2. WHERE WATER MAINS CROSS OTHER UTILITIES (e.g., GAS, ELECTRIC, STORM SEWER), A MINIMUM 18-INCH VERTICAL SEPARATION SHALL BE MAINTAINED, AND CONFIGURATIONS WITH THE WATER MAIN BELOW OTHER UTILITIES SHOULD BE AVOIDED WHEN POSSIBLE.
3. A FULL JOINT OF PIPE SHALL BE CENTERED OVER OR UNDER THE CROSSING TO KEEP JOINTS AS FAR AS PRACTICAL FROM THE INTERSECTING UTILITY.
4. BEDDING MATERIAL MUST BE APPROVED BY SHSUD PERSONAL PRIOR TO START OF WORK.
5. WATER MAINS AT CREEK OR DRAINAGE DITCH CROSSINGS SHALL BE STEEL ENCASED AND/OR ENCASED IN 6" CONCRETE TO WITHIN 10 FEET BEYOND THE EDGE OF THE CROSSING AREA.

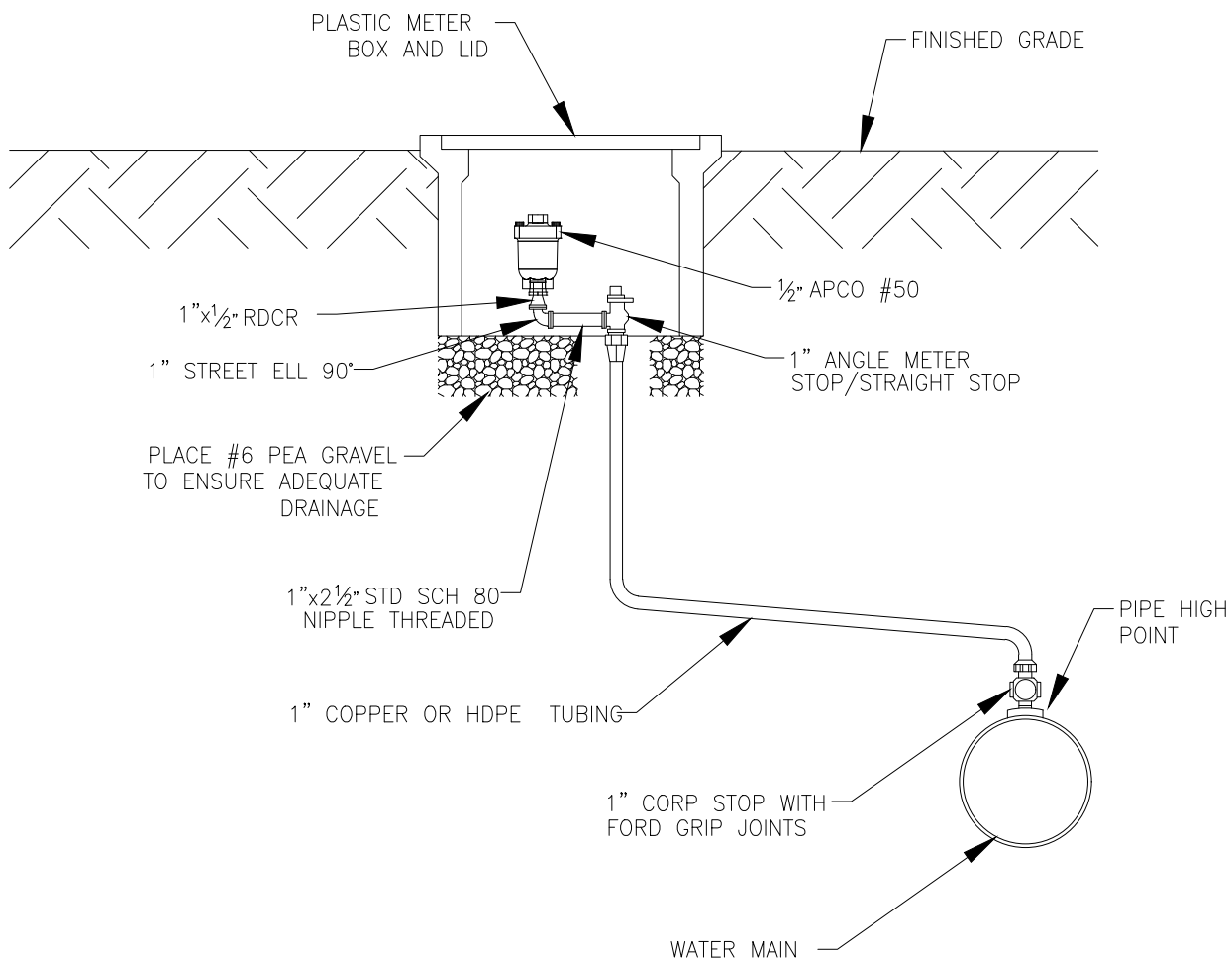
SPRINGS HILL SPECIAL UTILITY DISTRICT

UTILITY CROSSING

DATE:
03/03/2010

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STANDARD NO.
WA-6



NOTES:

1. ALL CORPS AND ANGLE STOPS TO BE LEFT OPEN.
2. BLOW OFF MAIN BEFORE INSTALLING AIR VALVE.

SPRINGS HILL SPECIAL UTILITY DISTRICT

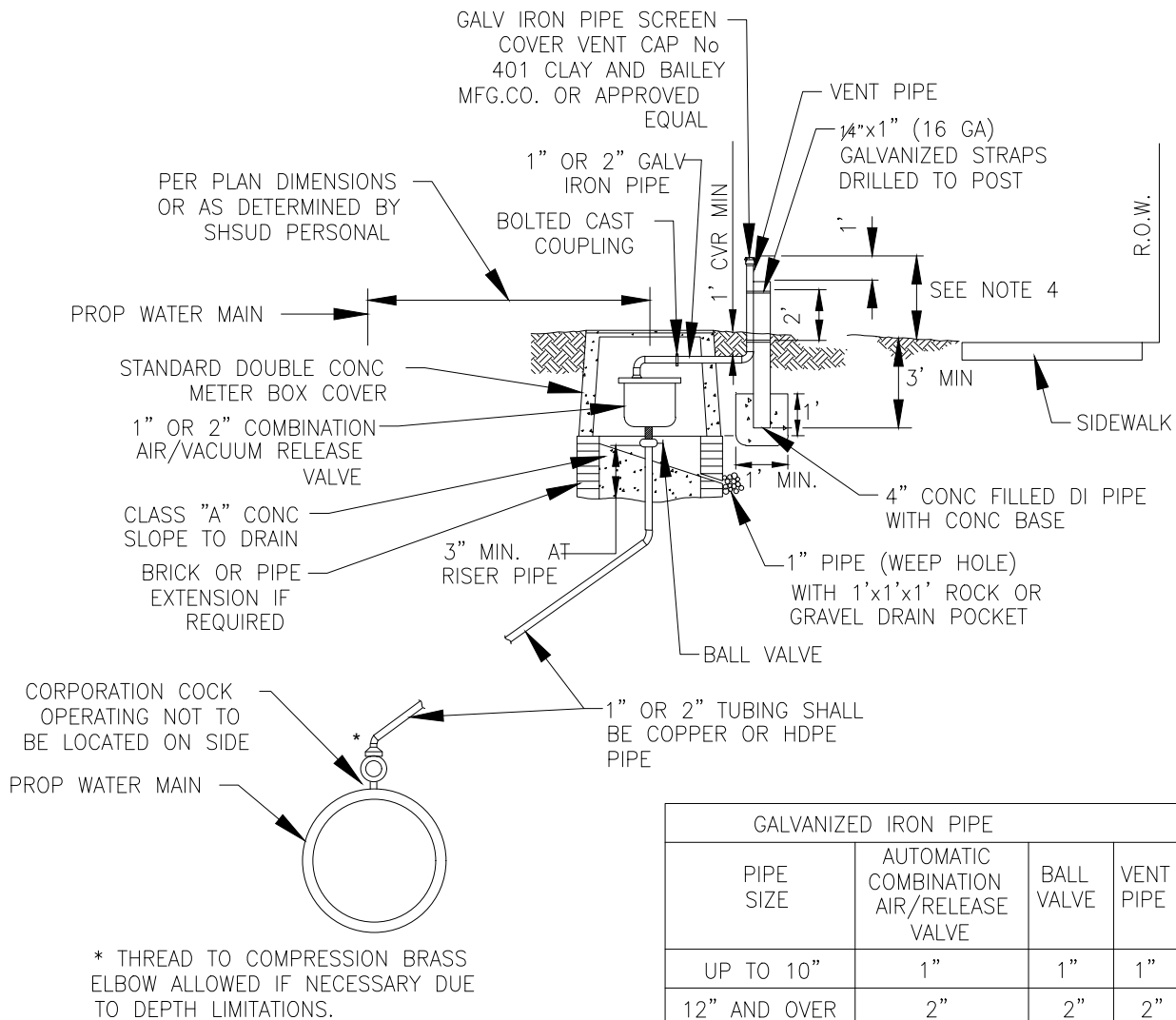
STANDARD $\frac{1}{2}$ " AIR RELEASE VALVE INSTALLATION

DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-7

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NOTES:

1. EXTERIOR SURFACES OF EXPOSED AIR VENT PIPE AND D.I. SUPPORT PIPE SHALL BE PAINTED WITH RUST-OLEUM ACRYLIC 5225 (SAFETY BLUE), OR EQUAL, PER COATING MANUFACTURER INSTRUCTIONS PRIOR TO INSTALLATION.
2. AIR VENT PIPE INSTALLATION SHALL BE AS NEAR AS PRACTICAL TO RIGHT-OF-WAY LINE OR EASEMENT LINE AS INDICATED ON PLANS (VERIFY LOCATION WITH SHSUD PERSONNEL).
3. CONCRETE METER BOX PENETRATION SHALL BE CORE BIT DRILLED. VOID SHALL BE FILLED BY PRESS-SEAL GASKET CORP. PSX RESILIENT CONNECTOR MEETING ASTM C923 OR APPROVED EQUAL.
4. IN UNDEVELOPED AND DEVELOPED AREAS, THE AIR RELEASE SHALL BE 5 FEET IN HEIGHT SUPPORTED BY 4" STEEL PIPE WHICH HAS BEEN PAINTED BLUE AND FILLED WITH CONCRETE. IN DEVELOPED AREAS THE AIR RELEASE SHALL BE 8" TO 12" IN HEIGHT AND LOCATED NOT TO CONFLICT WITH SIDEWALK.
5. AUTOMATIC COMBINATION AIR/VACUUM VALVE SHALL BE INSTALLED IN A MANNER WHICH WILL ALLOW REMOVAL OF ASSEMBLY WITHOUT REMOVAL OF THE CONCRETE METER BOX.
6. NO VALVES SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS, DRIVEWAYS, OR ROADWAYS. SHSUD WILL NOT BE RESPONSIBLE FOR ANY DAMAGES TO CONCRETE OR PAVED AREAS IF DEVELOPER DOES NOT COMPLY.

SPRINGS HILL SPECIAL UTILITY DISTRICT

1" OR 2" VENTED AUTOMATIC COMBINATION
AIR/VACUUM RELEASE VALVE

DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-8

NOTES:

1. ALL PIPE IN PRESSURE REDUCING VALVE/BYPASS INSTALLATION TO BE THREADED BRASS OR FLANGED DUCTILE IRON PIPE.
2. PRESSURE REDUCER VALVE SHALL BE IN ACCORDANCE WITH SHSUD STANDARDS.
3. LID SHALL BE 6" ABOVE ADJACENT FINISHED GRADE.
4. IF VALVE IS NOT ATTACHED TO THE FLANGED FITTING, ALL FITTINGS WILL BE MEGA LUGGED RETAINED GLANDS OR APPROVED EQUIVALENT.
5. PROVIDE THE ALTITUDE/ELEVATION AND THE PRESSURE ON THE LOW SIDE OF THE PRV TO SHSUD.
6. VERTICAL GATE VALVES TO BE WHEEL OPERATED.
7. ALL DISMANTLING FITTINGS TO BE ON THE DOWN STREAM SIDE.
8. ALL UPSTREAM OR HIGH PRESSURE MATERIALS TO BE FLANGED.
9. ALL NON-FLANGED PIPE TO BE INSTALLED WITH MEGA LUG RETAINER GLAND OR APPROVED EQUIVALENT.
10. ALL VALVES WILL HAVE JACK STAND SUPPORT.
11. ALL POINTS "A" THROUGH "C" SHALL HAVE A MINIMUM CLEARANCE OF 16 INCHES.
12. NO VALVES SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS, DRIVEWAYS, OR ROADWAYS. SHSUD WILL NOT BE RESPONSIBLE FOR ANY DAMAGES TO CONCRETE OR PAVED AREAS IF DEVELOPER DOES NOT COMPLY.

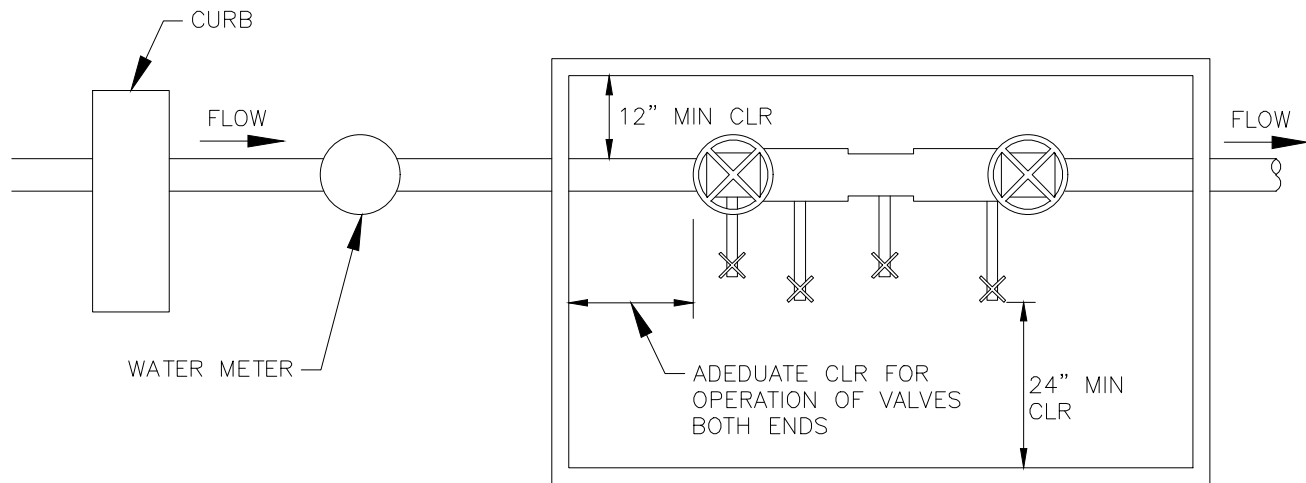
SPRINGS HILL SPECIAL UTILITY DISTRICT

DUAL PRV INSTALLATION
SHEET 2 OF 2

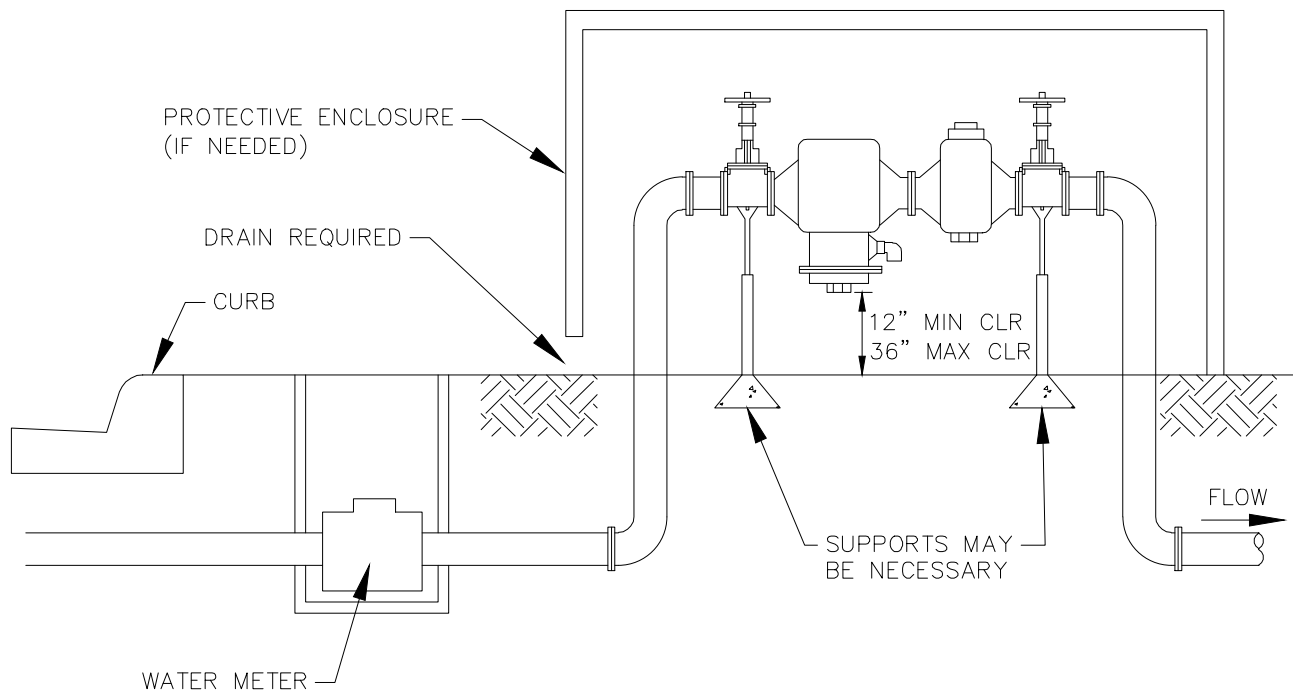
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STANDARD NO.
WA-9



PLAN VIEW



ABOVE GROUND

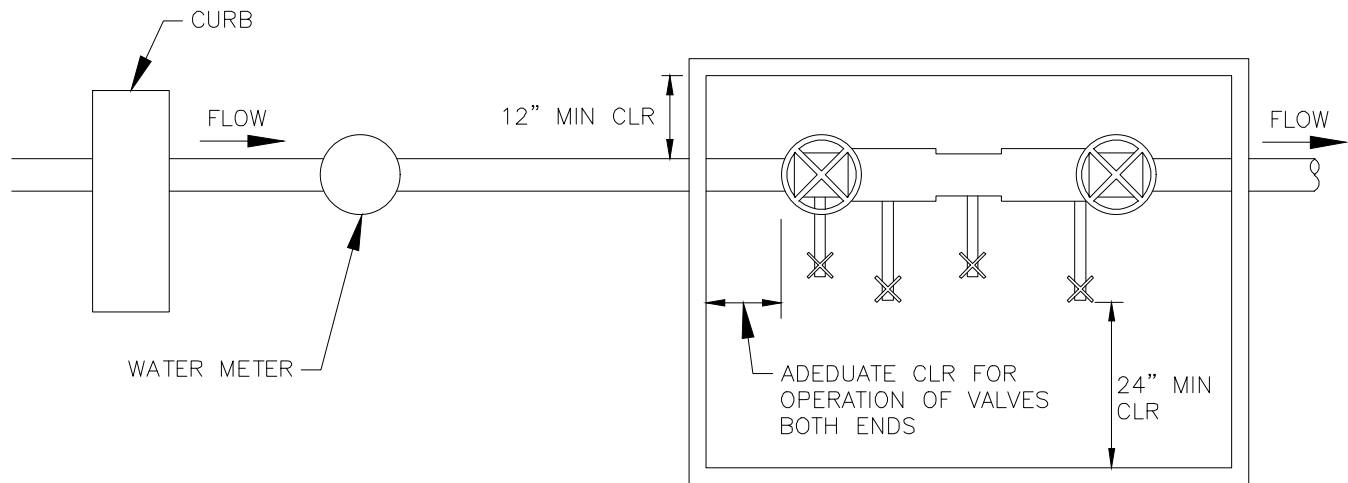
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REDUCE PRESSURE PRINCIPLE
BACKFLOW PREVENTER

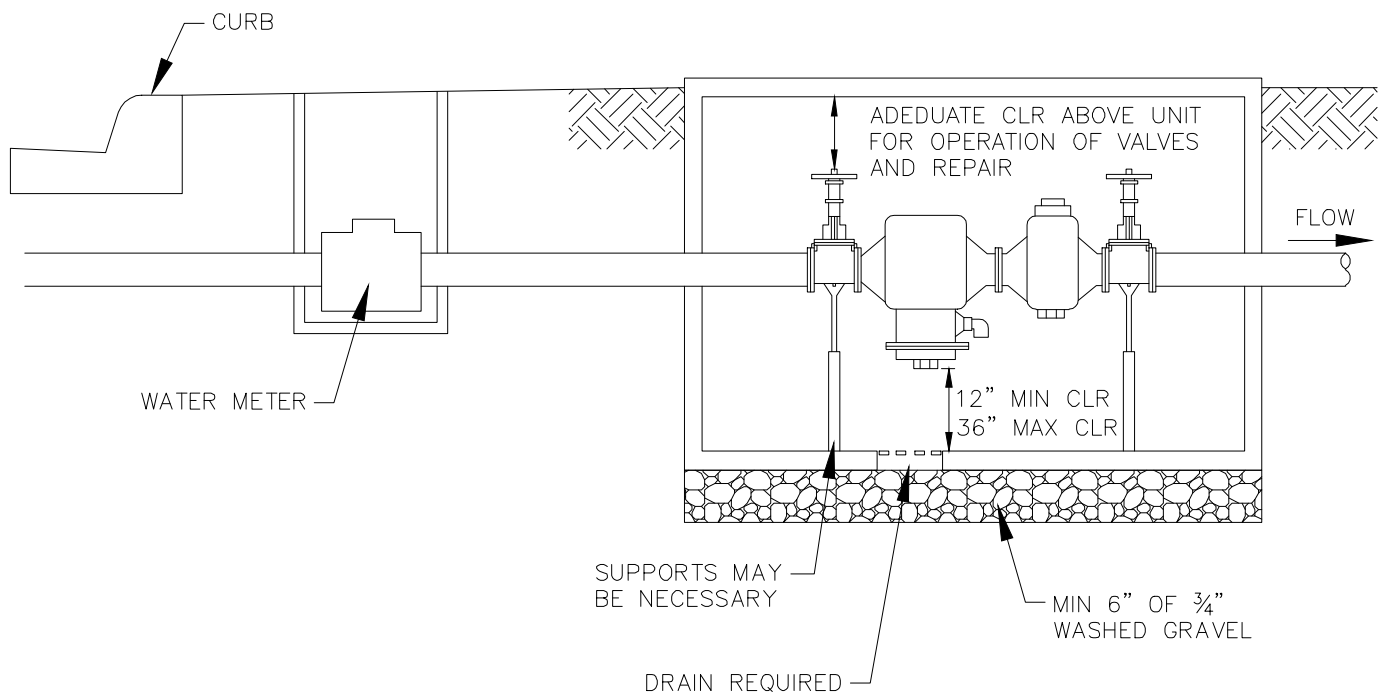
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STANDARD NO.
WA-10



PLAN VIEW



BELOW GROUND

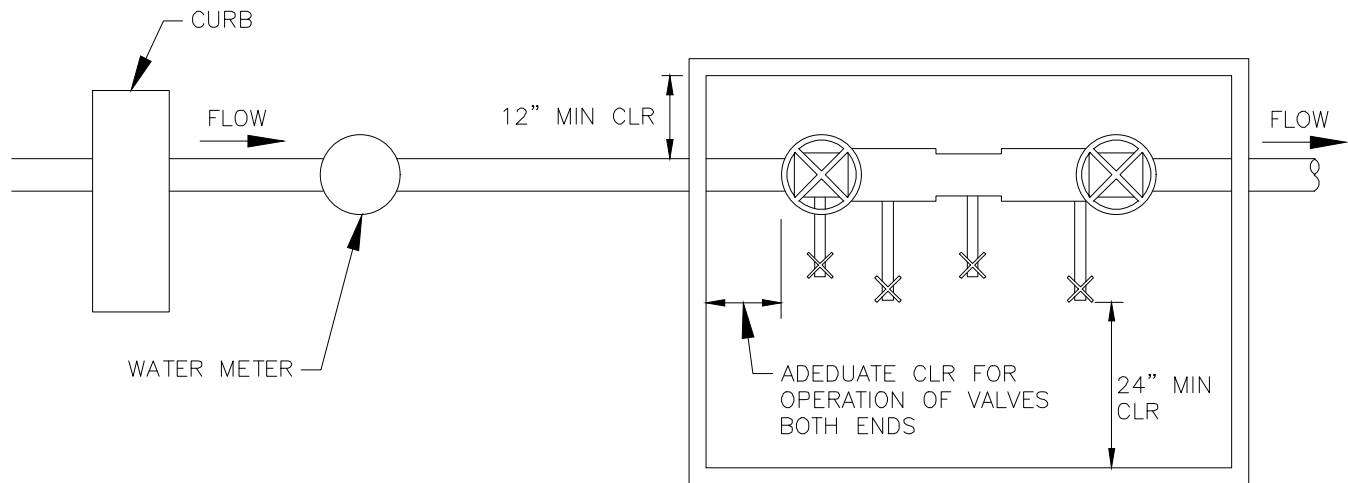
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REDUCE PRESSURE PRINCIPLE
BACKFLOW PREVENTER

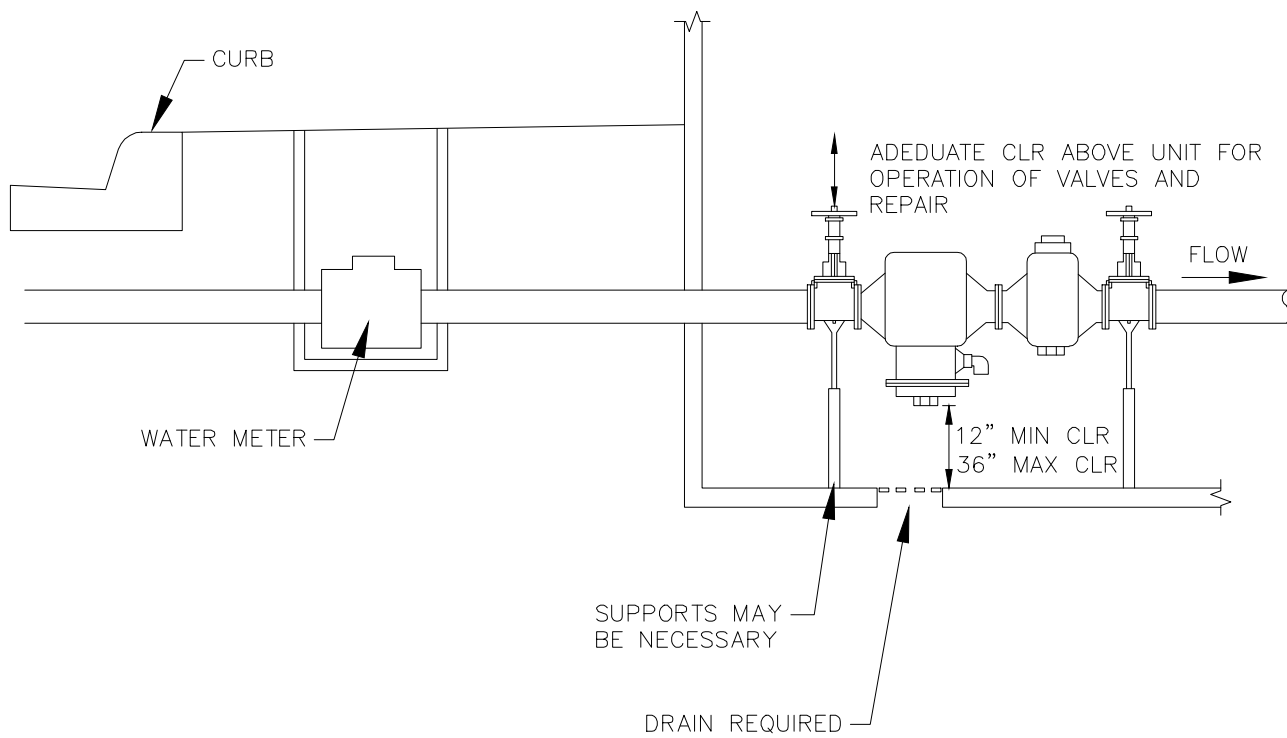
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STANDARD NO.
WA-11



PLAN VIEW



IN BUILDING

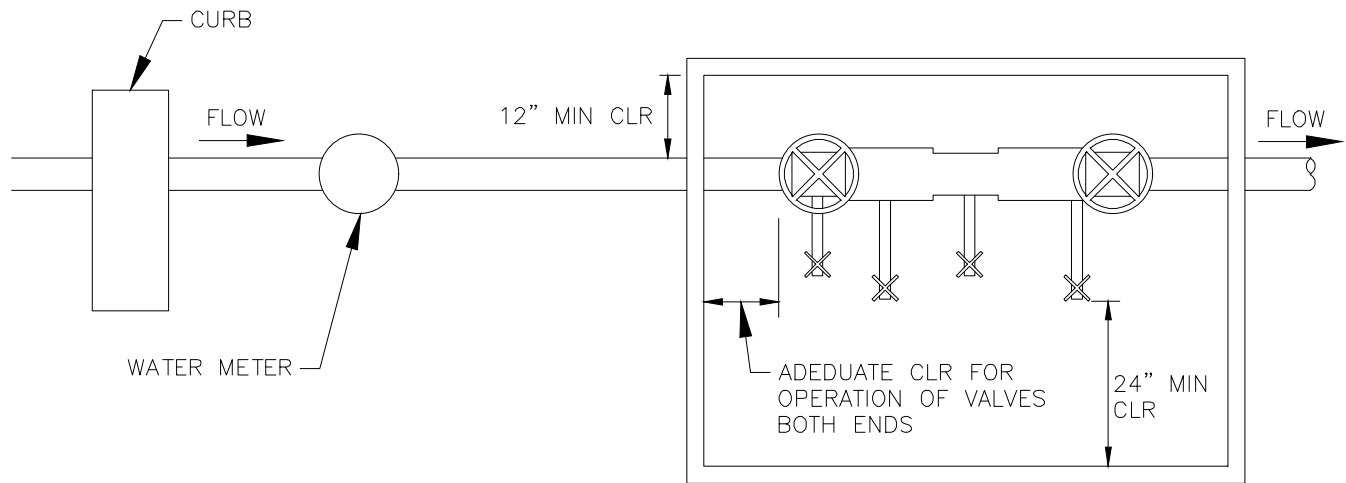
SPRINGS HILL SPECIAL UTILITY DISTRICT

REDUCE PRESSURE PRINCIPLE
BACKFLOW PREVENTER

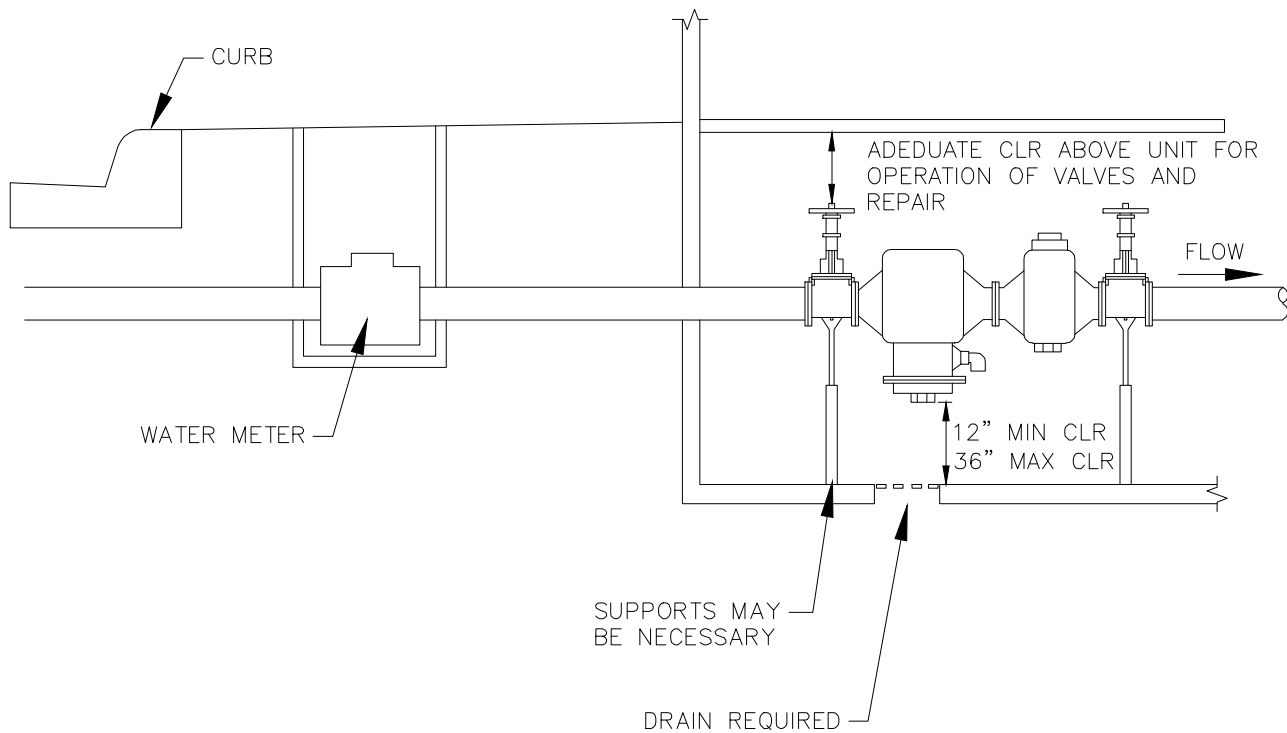
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STANDARD NO.
WA-12



PLAN VIEW



IN BASEMENT

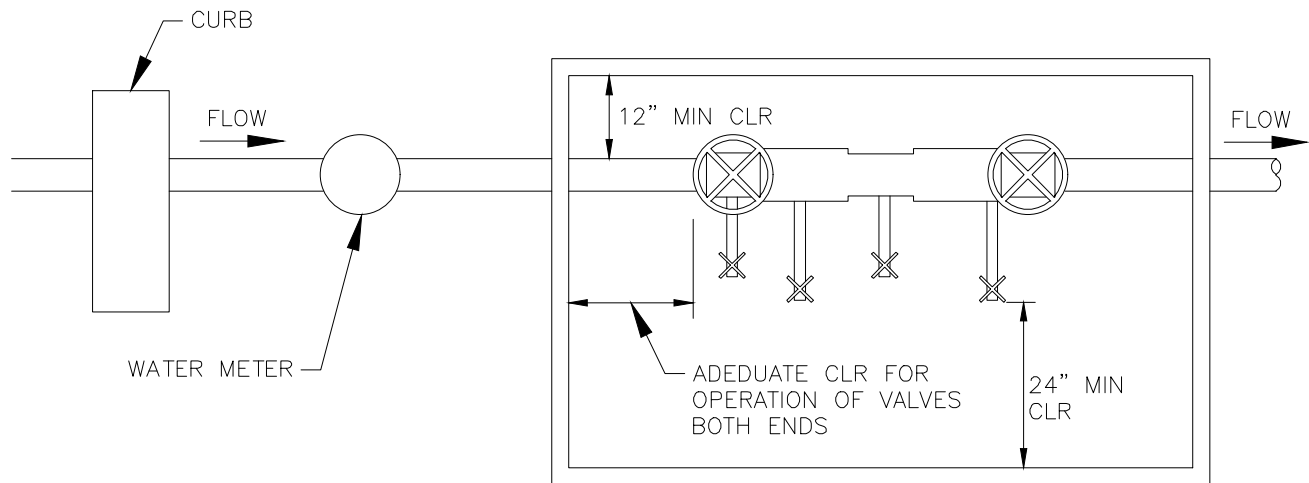
SPRINGS HILL SPECIAL UTILITY DISTRICT

REDUCE PRESSURE PRINCIPLE
BACKFLOW PREVENTER

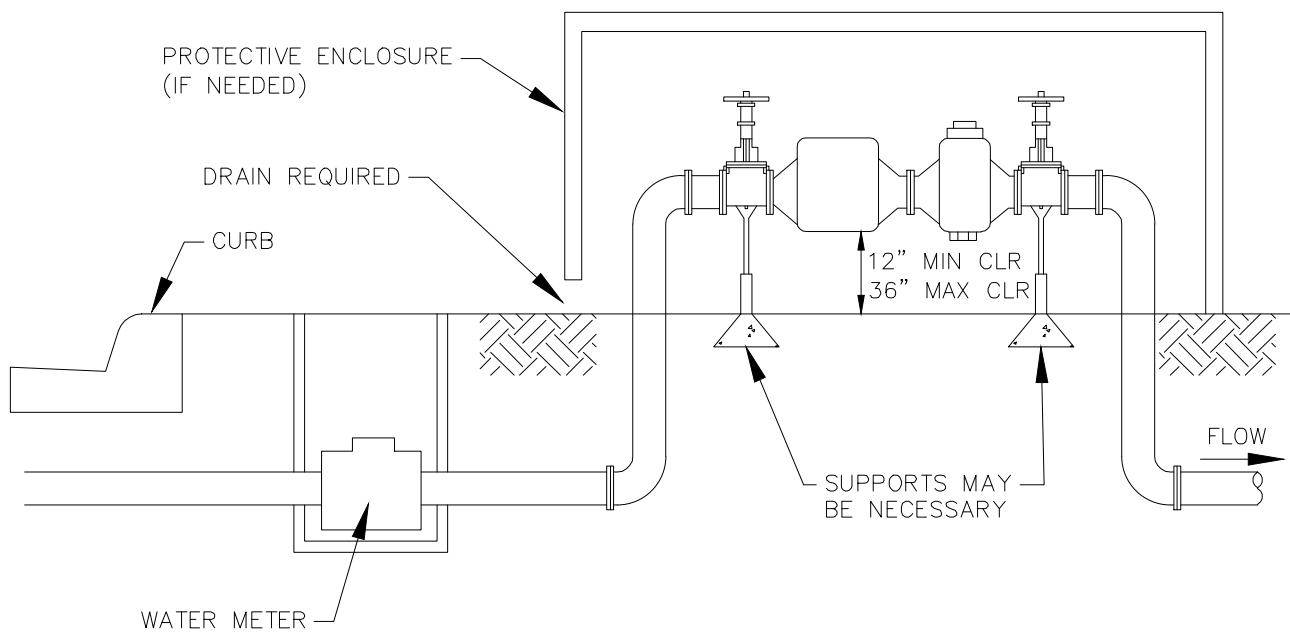
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STANDARD NO.
WA-13



PLAN VIEW



ABOVE GROUND

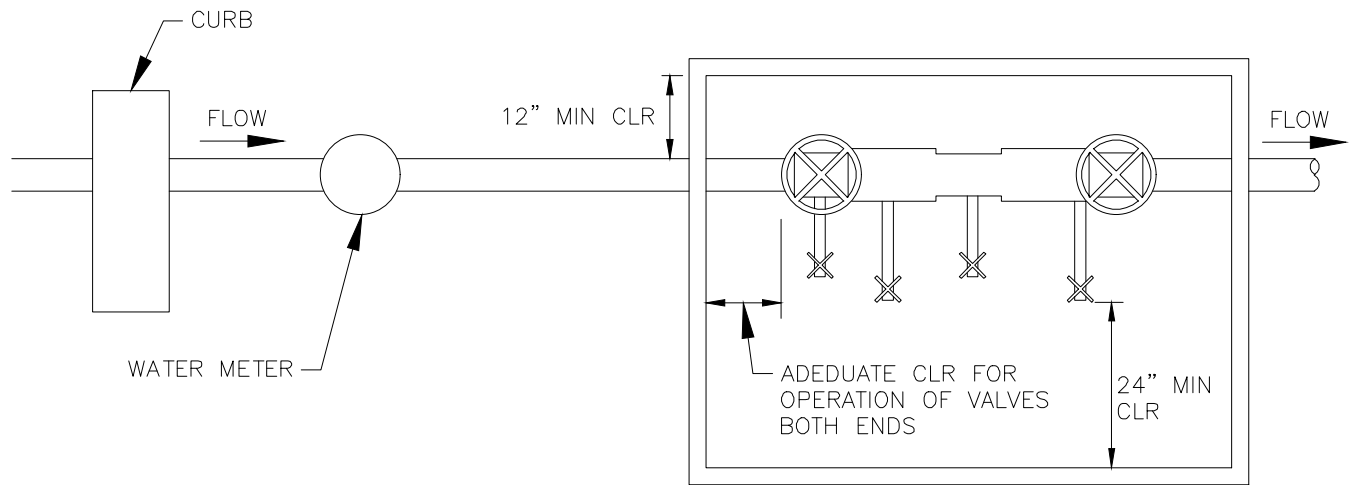
SPRINGS HILL SPECIAL UTILITY DISTRICT

DOUBLE CHECK VALVE BACKFLOW PREVENTER

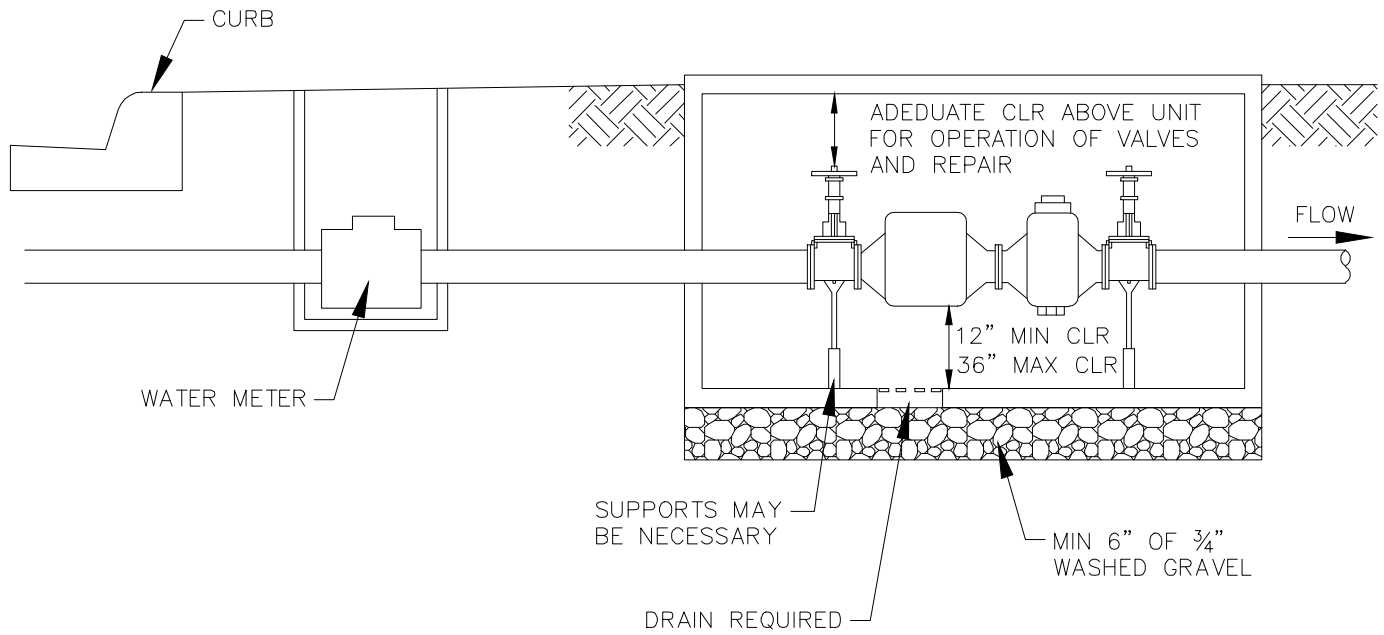
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WA-14



PLAN VIEW



BELOW GROUND

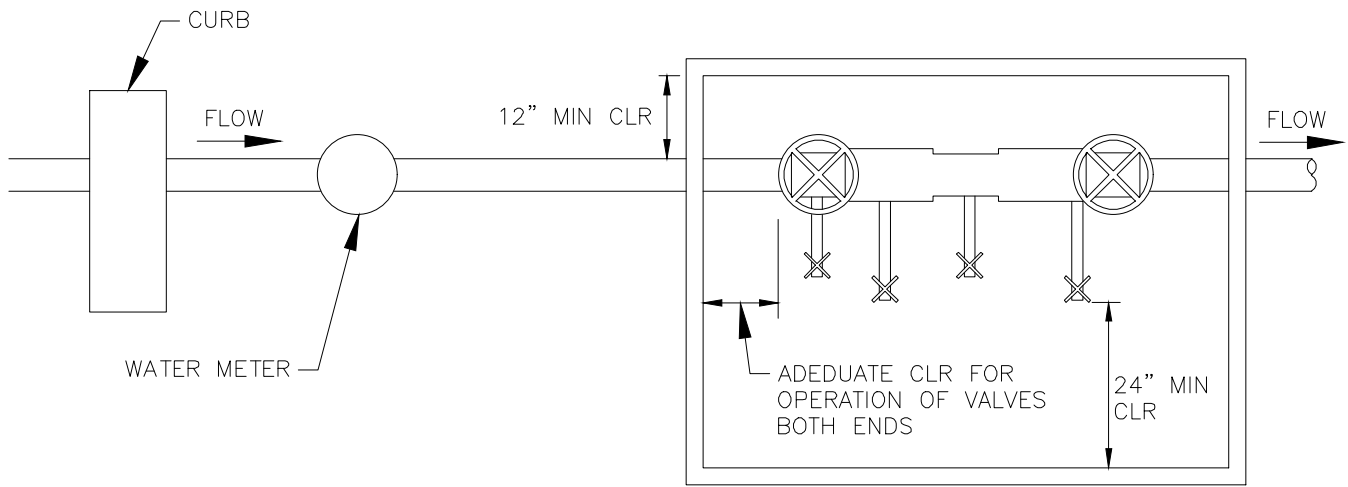
SPRINGS HILL SPECIAL UTILITY DISTRICT

DOUBLE CHECK VALVE BACKFLOW PREVENTER

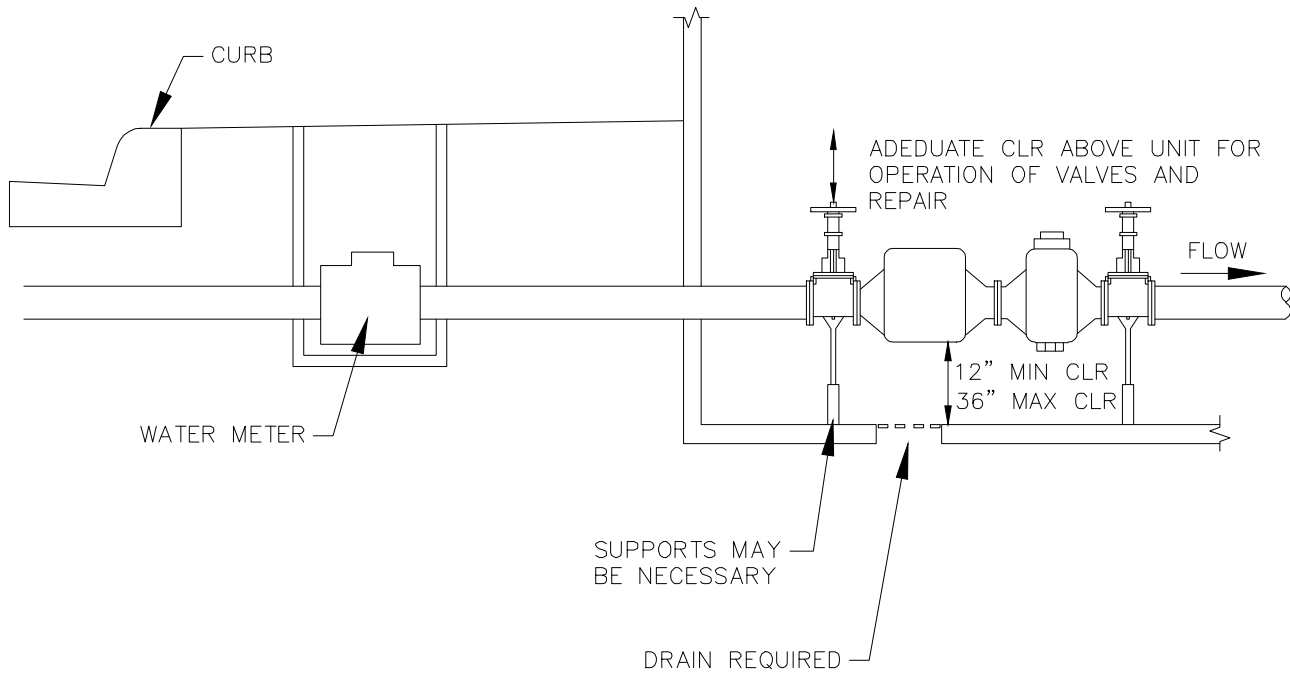
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STANDARD NO.
WA-15



PLAN VIEW



IN BUILDING

SPRINGS HILL SPECIAL UTILITY DISTRICT

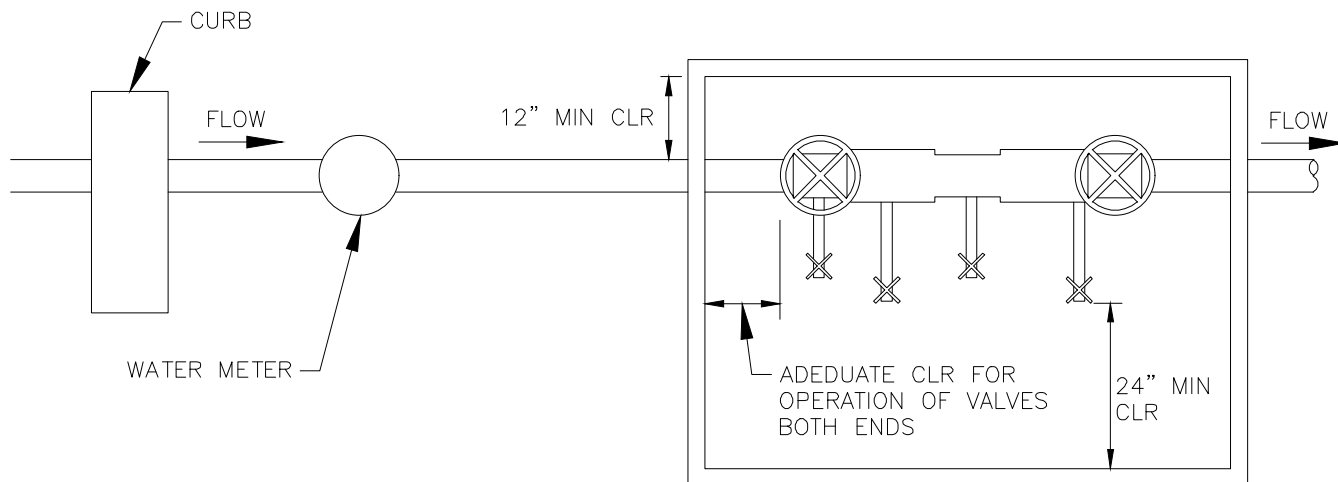
DOUBLE CHECK VALVE BACKFLOW PREVENTER

DATE:
03/03/2010

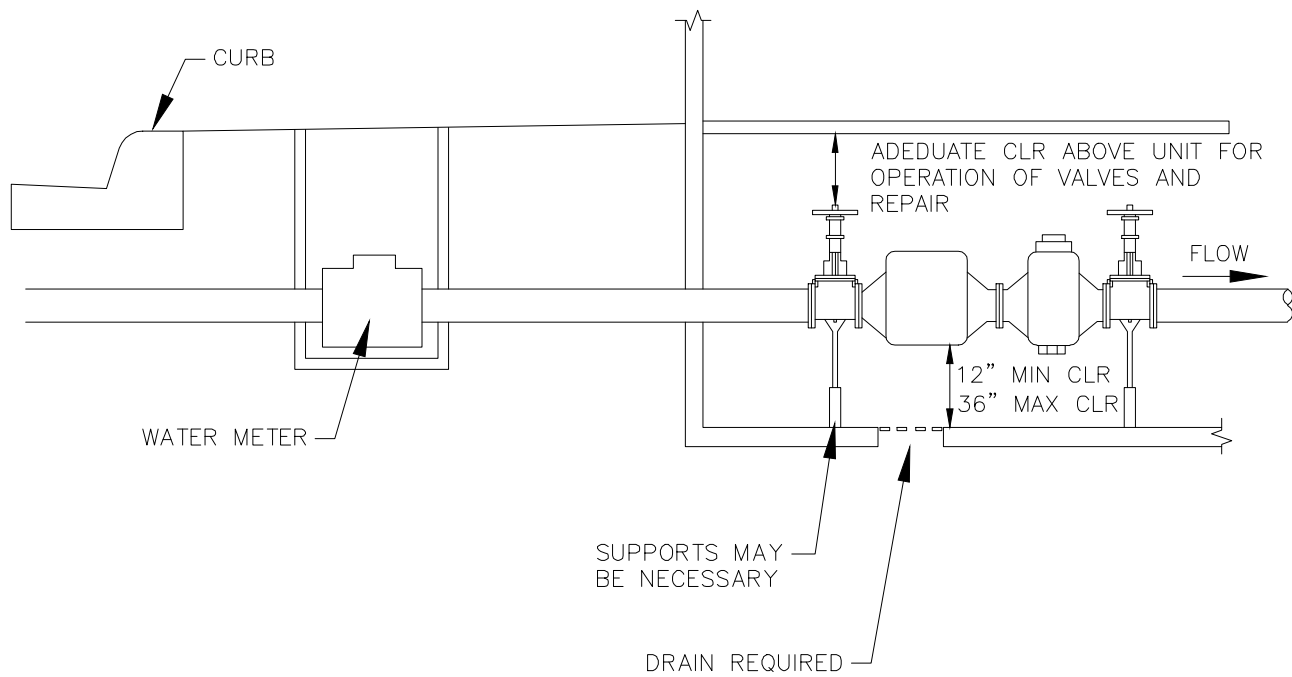
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STANDARD NO.
WA-16

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PLAN VIEW



IN BASEMENT

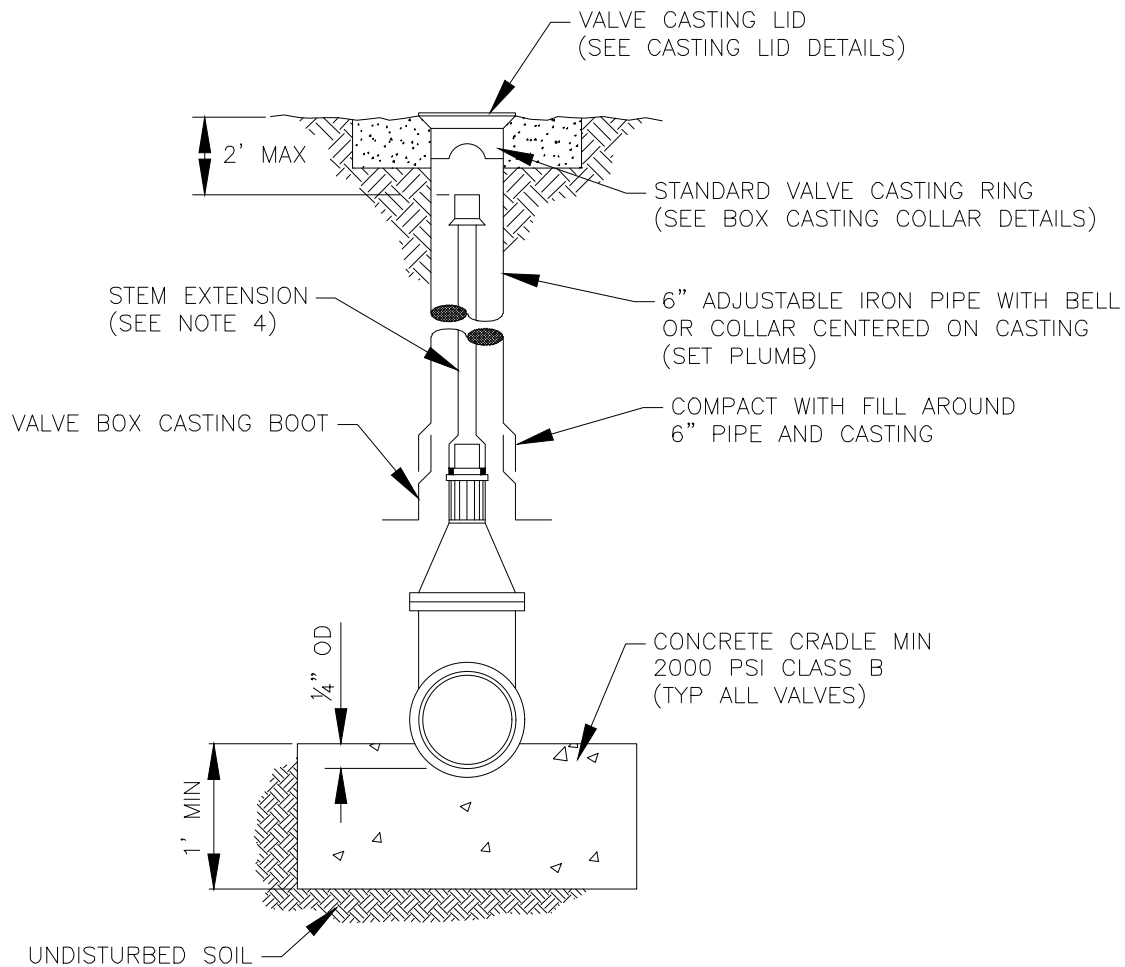
SPRINGS HILL SPECIAL UTILITY DISTRICT

DOUBLE CHECK VALVE BACKFLOW PREVENTER

DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-17



ELEVATION

NOTES:

1. WELD SOCKET 2½" X 2" DEEP TO 1" (SCH. 40) ROUND STEM EXTENSION. FITTED ON OPERATING NUT, SCH. 80 FOR LENGTHS OVER 10'.
2. STANDARD VALVE CASTING RING AND METAL LID IN UNPAVED AREAS.
3. NUT AT TOP OF VALVE EXTENSION ROD SHALL BE SQUARE 2" LONG WELDED TO TOP OF ROD.
4. VALVE EXTENSIONS ARE REQUIRED ON ALL VALVES THAT EXCEED 3 FEET DEEP FROM FINISHED GRADE. VALVE EXTENSIONS SHALL BE PLACED SUCH THAT THE EXTENSION NUT IS BETWEEN 18 TO 24 INCHES FROM FINISHED GRADE.
5. NO VALVES SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS, DRIVEWAYS, OR ROADWAYS. SHSUD WILL NOT BE RESPONSIBLE FOR ANY DAMAGES TO CONCRETE OR PAVED AREAS IF DEVELOPER DOES NOT COMPLY.

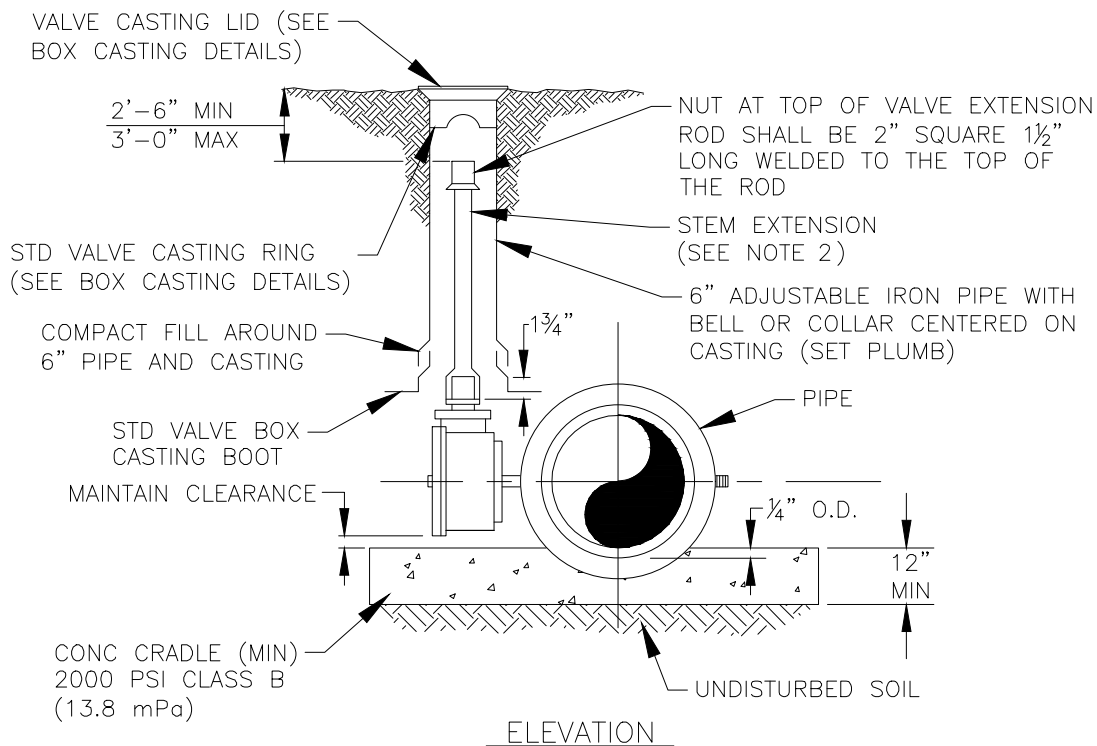
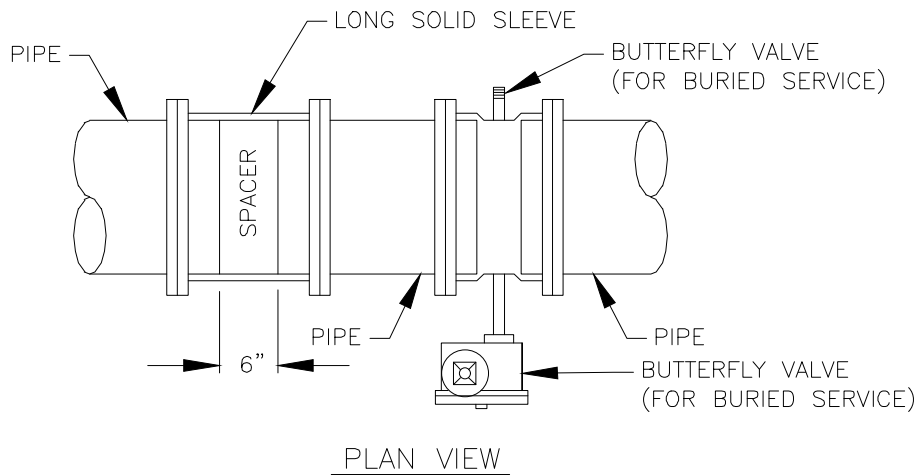
SPRINGS HILL SPECIAL UTILITY DISTRICT

4" TO 24" VERTICAL GATE VALVE
WITH BOX ASSEMBLY

DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-18



NOTES:

1. WELD SOCKET $2\frac{5}{8}$ "x $1\frac{1}{4}$ " DEEP TO $1\frac{1}{8}$ " SOLID ROUND STEM EXTENSION.
2. VALVE EXTENSIONS ARE REQUIRED ON ALL VALVES THAT EXCEED 3 FEET DEEP FROM FINISHED GRADE. VALVE EXTENSIONS SHALL BE PLACED SUCH THAT THE EXTENSION WITH BOX ASSEMBLY IS NOT BETWEEN 18 TO 24 INCHES FROM FINISHED GRADE.
3. NO VALVES SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS, DRIVEWAYS, OR ROADWAYS. SHSUD WILL NOT BE RESPONSIBLE FOR ANY DAMAGES TO CONCRETE OR PAVED AREAS IF DEVELOPER DOES NOT COMPLY.

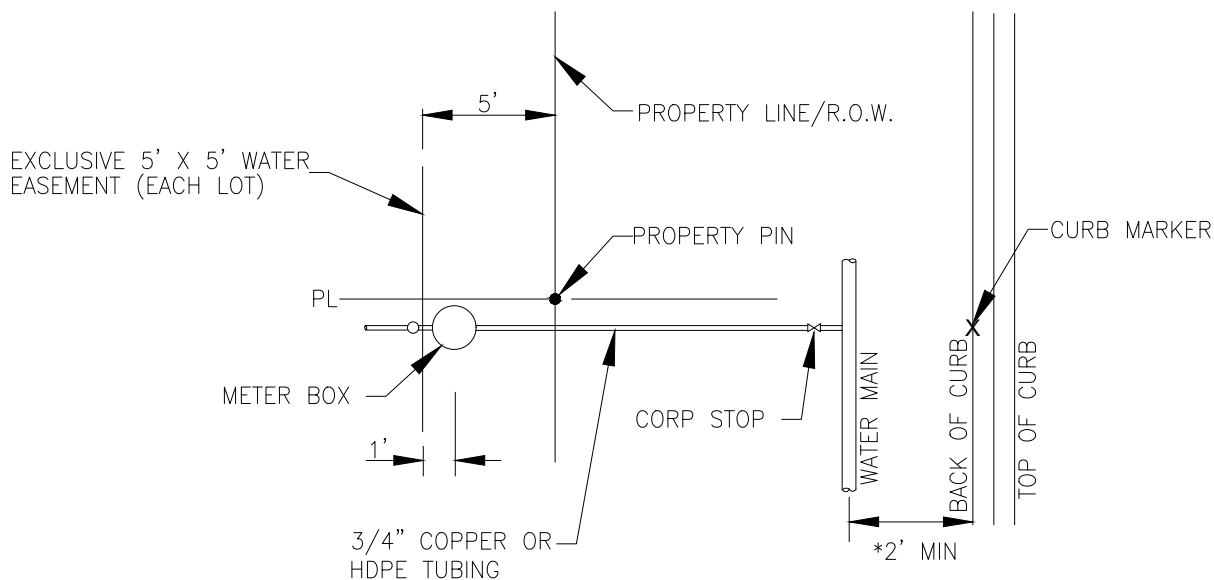
SPRINGS HILL SPECIAL UTILITY DISTRICT

36" AND UP BUTTERFLY VALVE
WITH BOX ASSEMBLY

DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-19



*THIS DIMENSION MAY BE INCREASED BY WIDTH OF SIDEWALK, IF SIDEWALK IS LOACED AT CURB.

NOTES:

1. INSTALLATIONS SHALL BE MADE IN ACCORDANCE WITH INFORMATION SHOWN ON APPLICABLE STANDARD DRAWINGS AND WILL BE INSPECTED BY SHSUD CONSTRUCTION INSPECTION PERSONNEL.
2. CUSTOMER ALSO INSTALLS WATER LINES INCLUDING FITTINGS AND VALVES ON BOTH SIDES OF METER, INSTALL METER BOXES AND COVERS. ALL IN ACCORDANCE WITH INFORMATION ON APPLICABLE STANDARD DRAWING. A VENTED SPACER MAY BE USED TO ASSURE PROPER SPACING AND ALIGNMENT OF METER FITTINGS.
3. CUSTOMER IS RESPONSIBLE FOR METER BOX AND PIPING SYSTEM UNTIL METER IS INSTALLED AND WATER IS CONNECTED. ANY MISSING OR DAMAGED PARTS SHALL BE REINSTALLED BY CUSTOMER WHO SHALL GUARANTEE, FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE, THAT CONNECTIONS TO SHSUD SYSTEMS ARE FREE FROM DEFECTS IN WORKMANSHIP OR MATERIAL. CUSTOMER ALSO HAS THE RESPONSIBILITY TO ASSURE THAT ALL VALVES AND STOPS, METER BOX AND REMAIN CLEAR OF SIDEWALKS AND OTHER OBSTRUCTIONS.
4. SHSUD ACTIVITY IS LIMITED TO INSTALLATION OF THE WATER METER AND INSPECTION OF CONNECTIONS TO SHSUD WATER SYSTEMS. FOR MAINTENANCE PURPOSES, SHSUD RESPONSIBILITY ENDS AT THE CUSTOMER'S WATER CUT – OFF VALVE.
5. NO METER BOX SHALL BE SET IN SIDEWALK OR DRIVEWAY AREA WITHOUT WRITTEN APPROVAL FROM SHSUD.
6. PIPING AND TUBING IN STREET RIGHT-OF-WAY AND IN EASEMENT AREA SHALL BE BEDDED IN GRANULAR MATERIAL AS REQUIRED IN THE SPECIFICATIONS. SERVICE LINES SHALL HAVE A MINIMUM COVER BELOW FINAL GRADE OF 30 – INCHES.
7. AN 'X' OR 'M' MARKER SHALL BE CUT WITH A CONCRETE SAW TO MARK THE LOCATION OF THE SERVICE METER. THE MARKER SHALL BE STAINED A BLUE COLOR.
8. NO METERS SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS, DRIVEWAYS, OR ROADWAYS. SHSUD WILL NOT BE RESPONSIBLE FOR ANY DAMAGES TO CONCRETE OR PAVED AREAS IF DEVELOPER DOES NOT COMPLY.

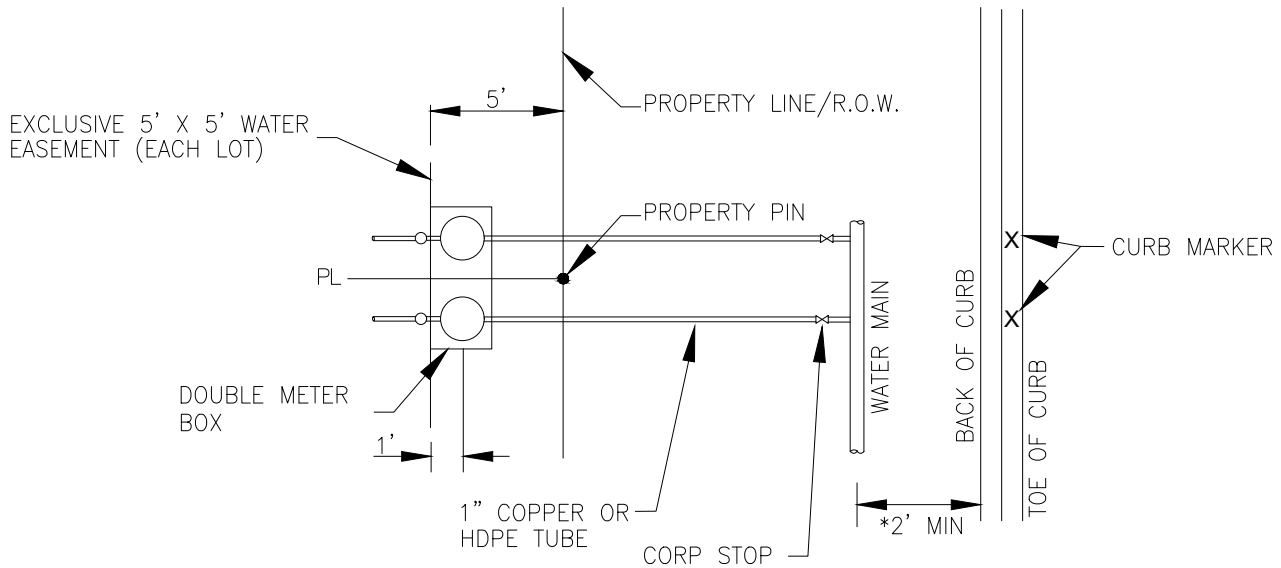
SPRINGS HILL SPECIAL UTILITY DISTRICT

SINGLE WATER SERVICE CONNECTION

DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-21



*THIS DIMENSION MAY BE INCREASED BY WIDTH OF SIDEWALK, IF SIDEWALK IS LOACED AT CURB.

NOTES:

1. INSTALLATIONS SHALL BE MADE IN ACCORDANCE WITH INFORMATION SHOWN ON APPLICABLE STANDARD DRAWINGS AND WILL BE INSPECTED BY SHSUD CONSTRUCTION INSPECTION PERSONNEL.
2. CUSTOMER ALSO INSTALLS WATER LINES INCLUDING FITTINGS AND VALVES ON BOTH SIDES OF METER, INSTALL METER BOXES AND COVERS. ALL IN ACCORDANCE WITH INFORMATION ON APPLICABLE STANDARD DRAWING. A VENTED SPACER MAY BE USED TO ASSURE PROPER SPACING AND ALIGNMENT OF METER FITTINGS.
3. CUSTOMER IS RESPONSIBLE FOR METER BOX AND PIPING SYSTEM UNTIL METER IS INSTALLED AND WATER IS CONNECTED. ANY MISSING OR DAMAGED PARTS SHALL BE REINSTALLED BY CUSTOMER WHO SHALL GUARANTEE, FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE, THAT CONNECTIONS TO SHSUD SYSTEMS ARE FREE FROM DEFECTS IN WORKMANSHIP OR MATERIAL. CUSTOMER ALSO HAS THE RESPONSIBILITY TO ASSURE THAT ALL VALVES AND STOPS, METER BOX AND REMAIN CLEAR OF SIDEWALKS AND OTHER OBSTRUCTIONS.
4. SHSUD ACTIVITY IS LIMITED TO INSTALLATION OF THE WATER METER AND INSPECTION OF CONNECTIONS TO SHSUD WATER SYSTEMS. FOR MAINTENANCE PURPOSES, SHSUD RESPONSIBILITY ENDS AT THE CUSTOMER'S WATER CUT – OFF VALVE.
5. NO METER BOX SHALL BE SET IN SIDEWALK OR DRIVEWAY AREA WITHOUT WRITTEN APPROVAL FROM SHSUD.
6. PIPING AND TUBING IN STREET RIGHT-OF-WAY AND IN EASEMENT AREA SHALL BE BEDDED IN GRANULAR MATERIAL AS REQUIRED IN THE SPECIFICATIONS. SERVICE LINES SHALL HAVE A MINIMUM COVER BELOW FINAL GRADE OF 30 – INCHES.
7. AN 'X' OR 'M' MARKER SHALL BE CUT WITH A CONCRETE SAW TO MARK THE LOCATION OF THE SERVICE METER. THE MARKER SHALL BE STAINED A BLUE COLOR.
8. NO METERS SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS, DRIVEWAYS, OR ROADWAYS. SHSUD WILL NOT BE RESPONSIBLE FOR ANY DAMAGES TO CONCRETE OR PAVED AREAS IF DEVELOPER DOES NOT COMPLY.

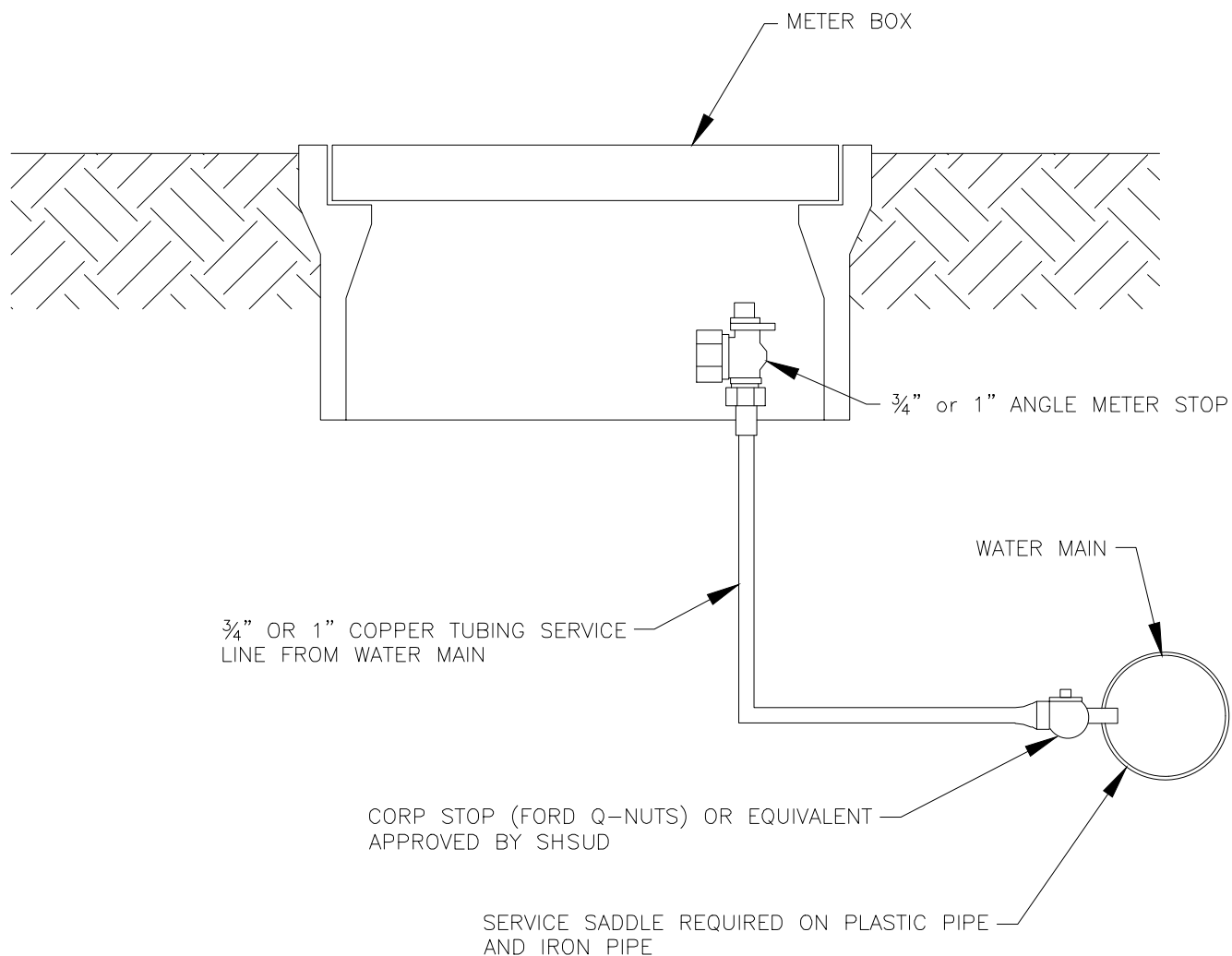
SPRINGS HILL SPECIAL UTILITY DISTRICT

DOUBLE WATER SERVICE CONNECTION

DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-22



NOTES:

1. NO METERS SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS, DRIVEWAYS, OR ROADWAYS. SHSUD WILL NOT BE RESPONSIBLE FOR ANY DAMAGES TO CONCRETE OR PAVED AREAS IF DEVELOPER DOES NOT COMPLY.

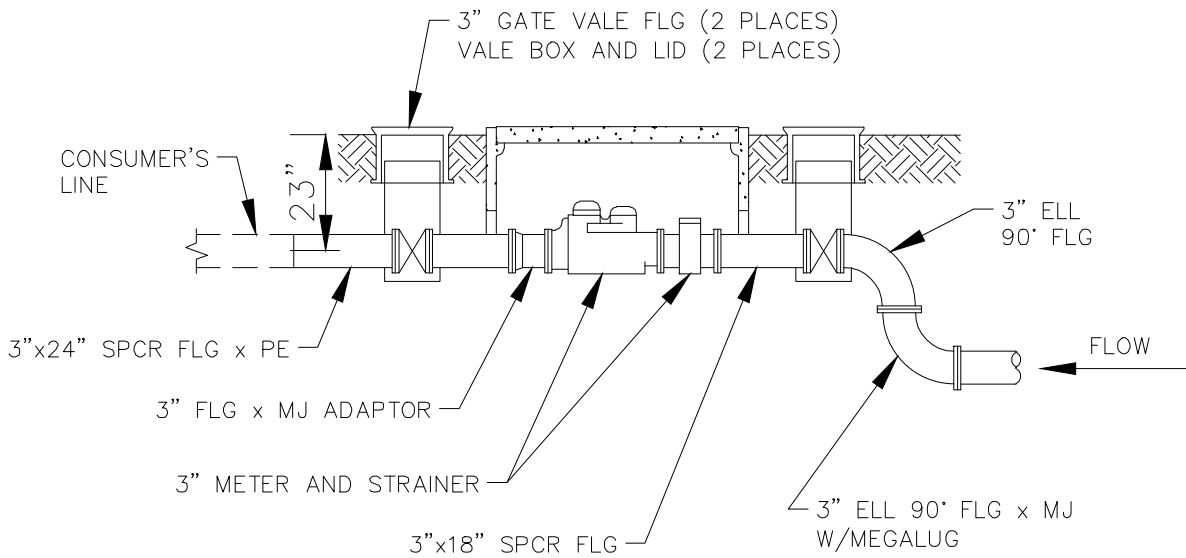
SPRINGS HILL SPECIAL UTILITY DISTRICT

$\frac{3}{4}$ " AND 1" SERVICE INSTALLATION

DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-23



NOTES:

1. NO METERS SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS, DRIVEWAYS, OR ROADWAYS. SHSUD WILL NOT BE RESPONSIBLE FOR ANY DAMAGES TO CONCRETE OR PAVED AREAS IF DEVELOPER DOES NOT COMPLY.

SPRINGS HILL SPECIAL UTILITY DISTRICT

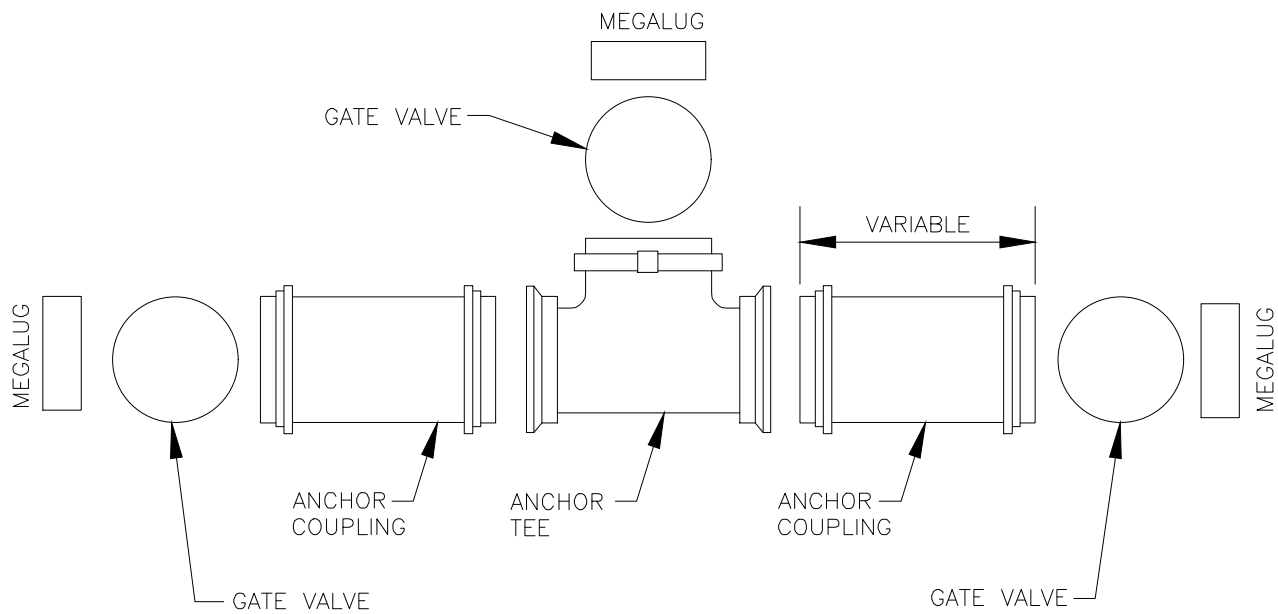
STANDARD 3" SERVICE
CONNECTION INSTALLATION

DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-24

F:\SPRINGS HILL WSC\PROJECTS\22-018-AUS SPRINGS HILL WSC\DRAWINGS\DETAILS\ALL DETAILS-20250930.DWG



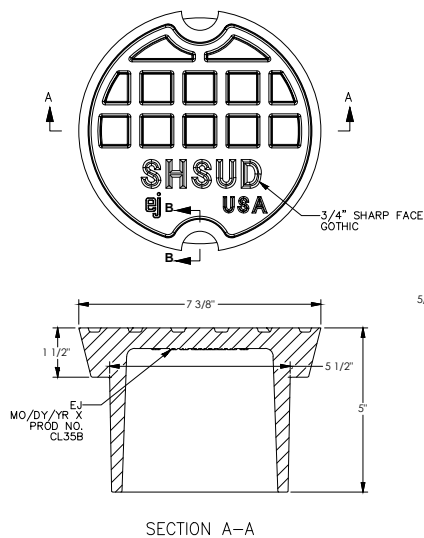
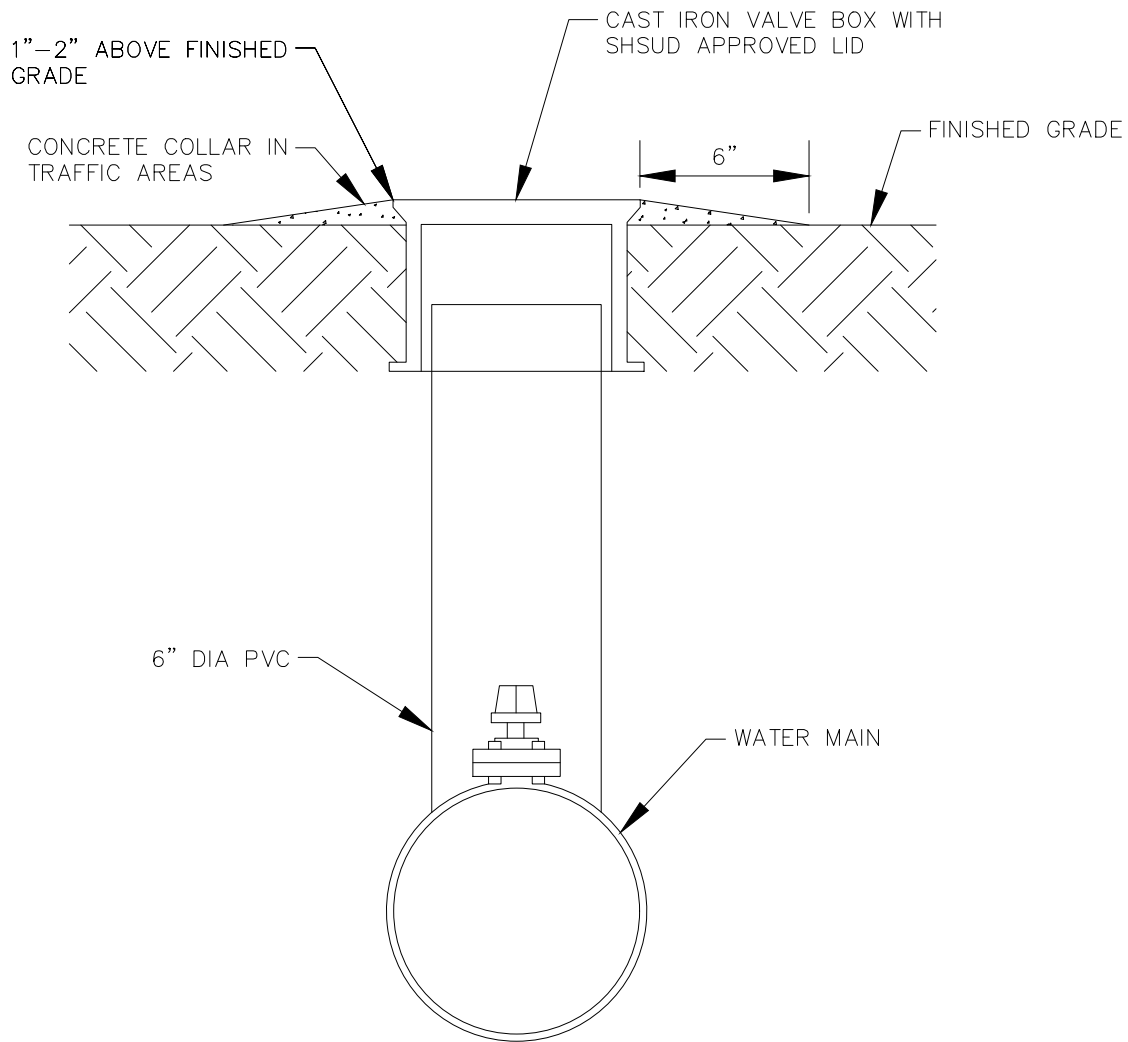
SPRINGS HILL SPECIAL UTILITY DISTRICT

STANDARD VALVE BANK INSTALLATION

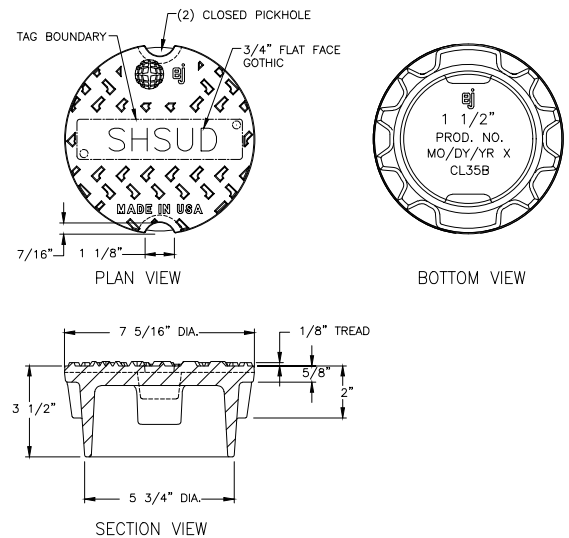
DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-25



71 Valve Box Cover



6800 Valve Box Cover

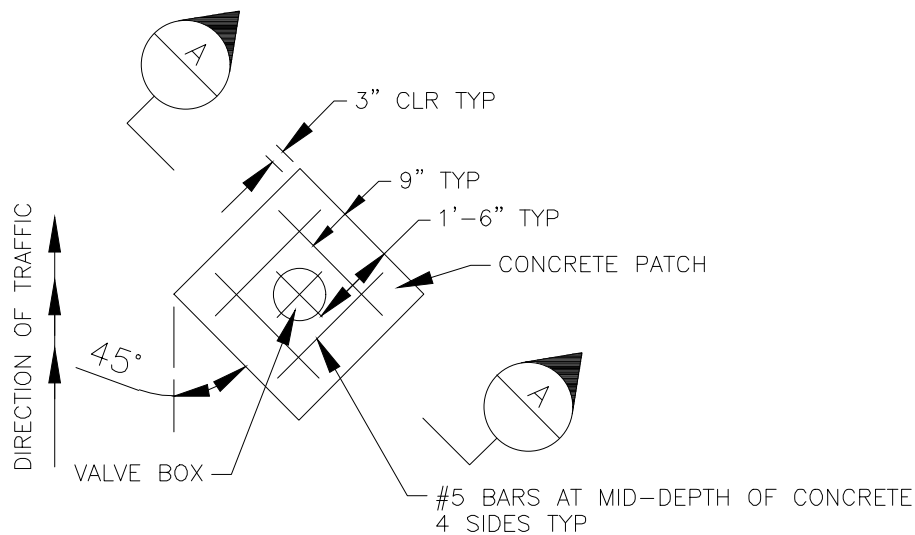
SPRINGS HILL SPECIAL UTILITY DISTRICT

STANDARD VALVE BOX INSTALLATION

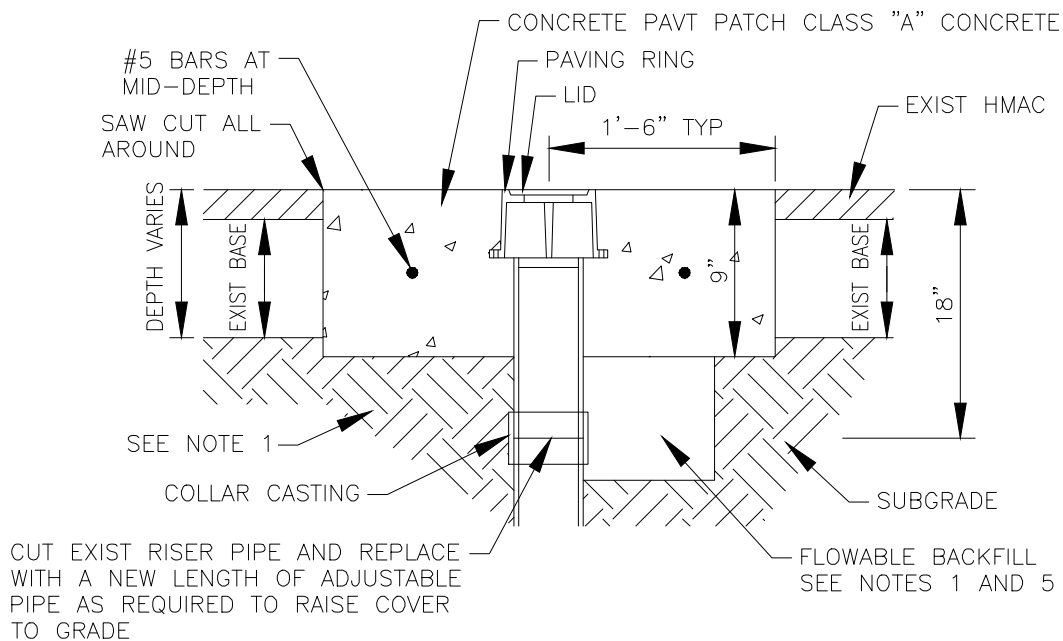
DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-26



PLAN VIEW



SECTION A-A

NOTES:

1. SUBGRADE SHALL BE COMPACTED AS PER SPECIFICATIONS.
2. VALVE CASTINGS SHALL BE ADJUSTED TO GRADE AFTER FINAL LIFT OF OVERLAY IS IN PLACE.
3. CLEAN VALVE BOX OF ALL DEBRIS DOWN TO THE BASE OF THE VALVE.
4. REMOVE EXISTING RISER PIPE DOWN 18" AND REPLACE TO THE NEW ELEVATION USING NEW ADJUSTABLE PIPE AND A CASTING.
5. WHERE CAST IRON CASTINGS TO BE REMOVED REQUIRE EXCAVATION GREATER THAN 20" DEEP. CONTRACTOR MAY ELECT TO FILL EXCAVATION WITH CONTROLLED LOW STRENGTH MATERIAL TO THE UNDERSIDE OF THE CONCRETE PAVEMENT PATCH IN LIEU OF COMPACTED BACKFILL.
6. REINFORCING STEEL SHALL MEET SPECIFICATIONS FOR REINFORCING STEEL.

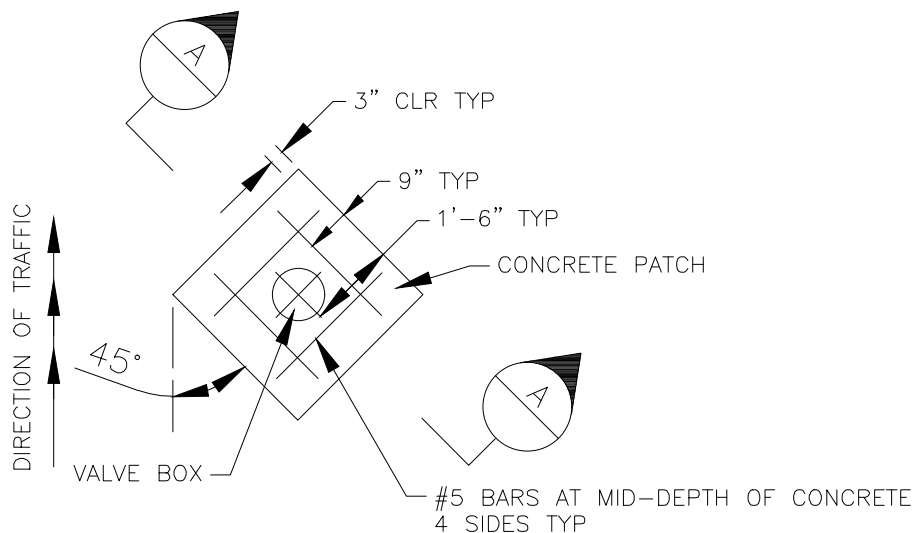
SPRINGS HILL SPECIAL UTILITY DISTRICT

VALVE BOX TO GRADE WITH
FULL DEPTH CONCRETE

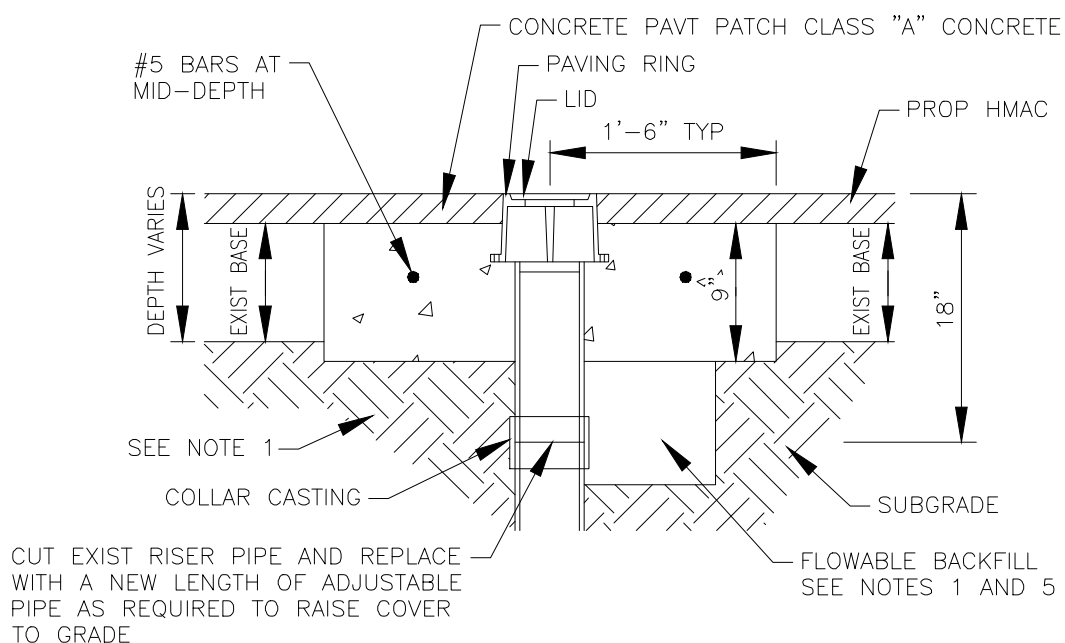
DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-27



PLAN VIEW



SECTION A-A

NOTES:

1. SUBGRADE SHALL BE COMPACTED AS PER SPECIFICATIONS.
2. VALVE CASTINGS SHALL BE ADJUSTED TO GRADE AFTER FINAL LIFT OF OVERLAY IS IN PLACE.
3. CLEAN VALVE BOX OF ALL DEBRIS DOWN TO THE BASE OF THE VALVE.
4. REMOVE EXISTING RISER PIPE DOWN 18" AND REPLACE TO THE NEW ELEVATION USING NEW ADJUSTABLE PIPE AND A CASTING.
5. WHERE CAST IRON CASTINGS TO BE REMOVED REQUIRE EXCAVATION GREATER THAN 20" DEEP. CONTRACTOR MAY ELECT TO FILL EXCAVATION WITH CONTROLLED LOW STRENGTH MATERIAL TO THE UNDERSIDE OF THE CONCRETE PAVEMENT PATCH IN LIEU OF COMPACTED BACKFILL.
6. REINFORCING STEEL SHALL MEET SPECIFICATIONS FOR REINFORCING STEEL.

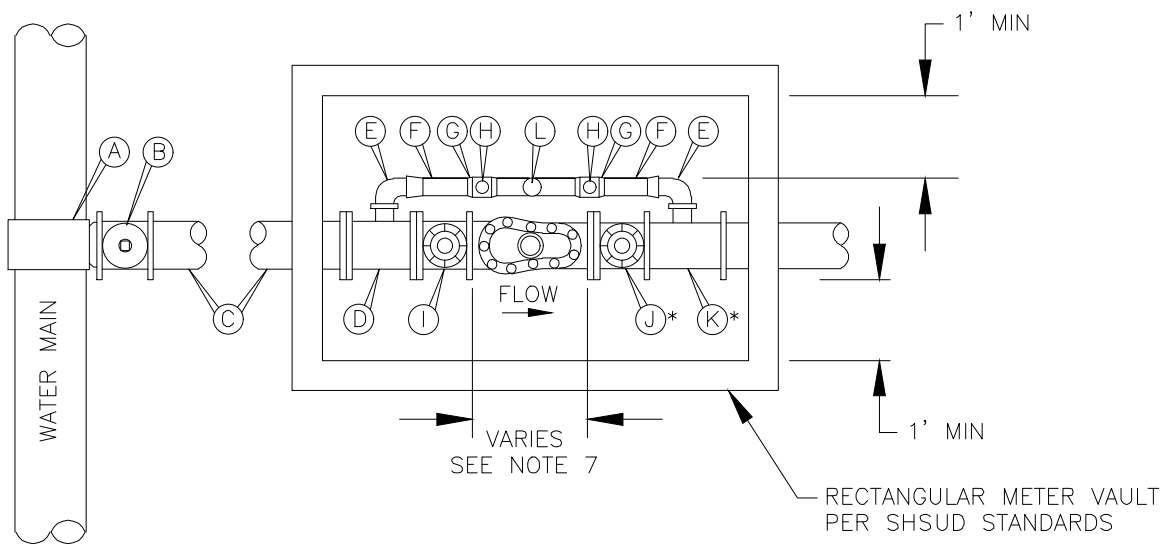
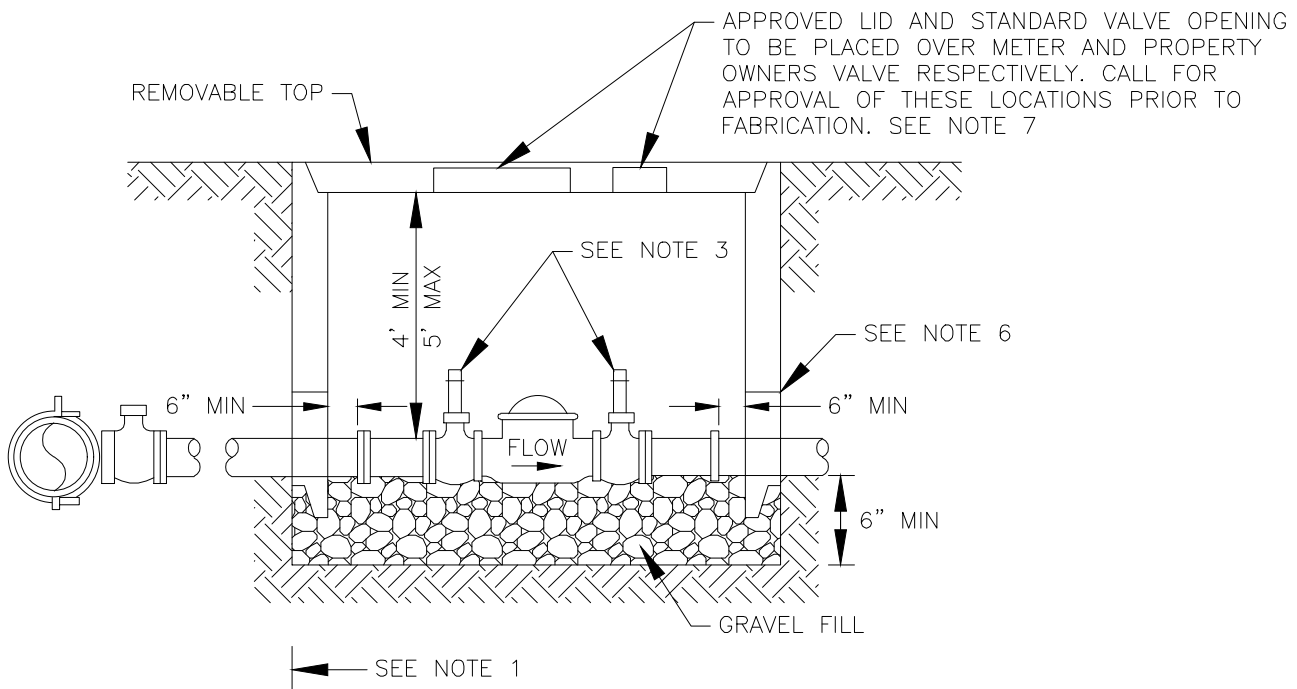
SPRINGS HILL SPECIAL UTILITY DISTRICT

VALVE BOX TO GRADE WITH CONCRETE
AND HOT MIX ASPHALT CONCRETE

DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-28



SPRINGS HILL SPECIAL UTILITY DISTRICT

INSTALLATION DETAILS FOR 3", 4" AND 6"
COMPOUND METERS SHEET 1 OF 2

DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-29

MATERIALS:

- A. APPROVED TAPPING SLEEVE
 - B. TAPPING VALVE (GATE) IRON BODY WITH M.J. OUTLET
 - C. DUCTILE IRON OR CAST IRON PIPE NOT LESS THAN 4" DIAMETER
 - D. TAPPED CAST IRON TEE – M.J. x SPIGOT
 - *E. COPPER TO MALE IRON PIPE QUARTER BEND COUPLINGS.
 - F. 2" COPPER PIPE
 - G. COPPER TO MALE IRON PIPE FITTING
 - H. 2" BRASS BALL VALVE
 - I. SHUT OFF VALVE (GATE) CAST IRON MIN 4" FLANGED x M.J.
 - *J. CUSTOMER'S VALVE (GATE) CAST IRON FLANGED
 - *K. TAPPED CAST IRON TEE
 - L. METER ON 2" COPPER BY-PASS LINE
 - * VALVE AND FITTING TO BE FURNISHED AND INSTALLED BY CUSTOMER.
- ITEMS D & K MAY BE LOCATED OUTSIDE THE BOX

NOTES:

1. BOX MUST BE BEHIND CURB AND/OR WALK AND OUT OF VEHICULAR TRAFFIC.
2. PIPE AND FITTINGS TO BE DUCTILE IRON OR CAST IRON EXCEPT AS NOTED. NO PLASTIC PIPE. NO SOLDERED JOINTS.
3. NO RISING STEM OR WHEEL OPERATED VALVES EXCEPT ON 2" BY-PASS VALVES.
4. ROD RESTRAINT IS REQUIRED AT ALL MECHANICAL OR PUSH ON TYPE JOINTS.
5. TOP OF BOX MUST BE 1" ABOVE GROUND OR FLUSH WITH PAVEMENT SURFACE.
6. METER BOX TO BE SET AFTER METER IS INSTALLED. SIDE NOTCHES IN BOX TO BE FILLED WITH MORTAR AFTER INSTALLATION OF PIPE.
7. CONTACT SHSUD FOR METER LENGTH, APPROVED TYPE OF LID AND LOCATION OF OPENINGS IN TOP OF BOX.
8. ANY WORK BY CUSTOMER ON THE CITY SIDE OF THE METER REQUIRES PLANS BY A TEXAS REGISTERED/LICENSED PROFESSIONAL ENGINEER.
9. WHERE THERE IS A LOOPED SYSTEM WITH MORE THAN ONE METER, APPROVED CHECK VALVES SHALL BE INSTALLED DOWNSTREAM OF THE PROPERTY OWNERS GATE VALVE (J) AT EACH METER. BACKFLOW PREVENTERS MAY BE REQUIRED WITHIN THE SYSTEM BY THE BUILDING INSPECTION DEPARTMENT.
10. NO METERS SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS, DRIVEWAYS, OR ROADWAYS. SHSUD WILL NOT BE RESPONSIBLE FOR ANY DAMAGES TO CONCRETE OR PAVED AREAS IF DEVELOPER DOES NOT COMPLY.

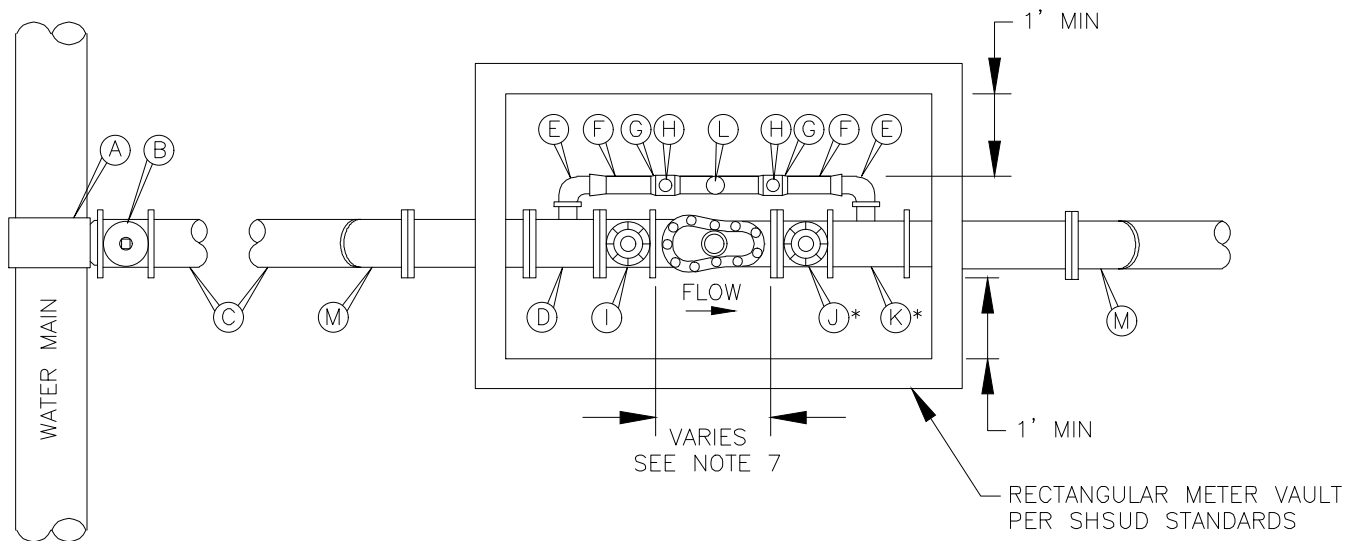
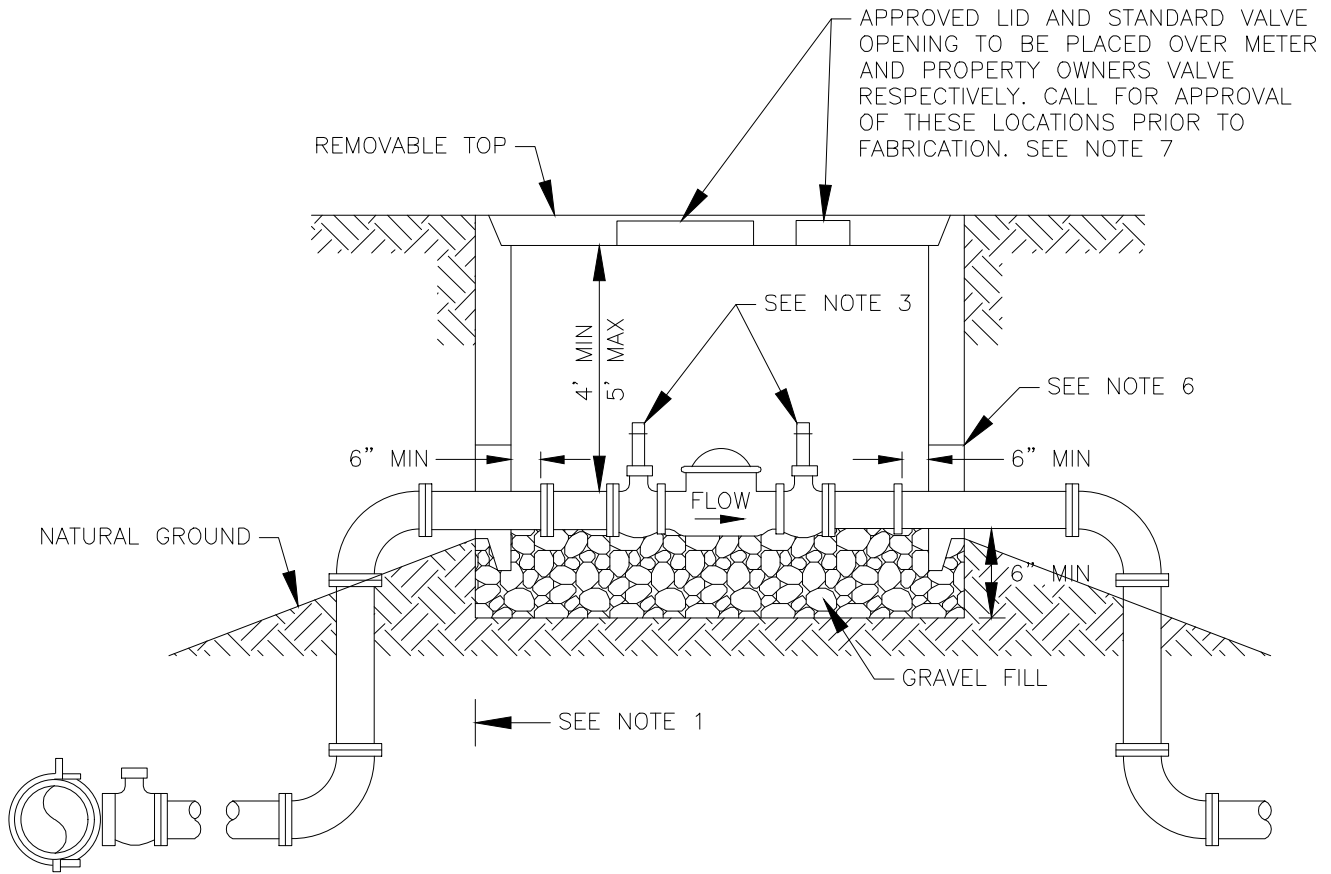
SPRINGS HILL SPECIAL UTILITY DISTRICT

INSTALLATION DETAILS FOR 3", 4" AND 6"
COMPOUND METERS SHEET 2 OF 2

DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-29



MATERIALS:

- A. APPROVED TAPPING SLEEVE
- B. TAPPING VALVE (GATE) IRON BODY WITH M.J. OUTLET
- C. DUCTILE IRON OR CAST IRON PIPE NOT LESS THAN 4" DIAMETER
- D. TAPPED CAST IRON TEE – M.J. x SPIGOT
- *E. COPPER TO MALE IRON PIPE QUARTER BEND COUPLINGS.
- F. 2" COPPER PIPE
- G. COPPER TO MALE IRON PIPE FITTING
- H. 2" BRASS BALL VALVE
- I. SHUT OFF VALVE (GATE) CAST IRON MIN 4" FLANGED x M.J.
- *J. CUSTOMER'S VALVE (GATE) CAST IRON FLANGED
- *K. TAPPED CAST IRON TEE
- L. METER ON 2" COPPER BY-PASS LINE
- M. 90° BEND
- * VALVE AND FITTING TO BE FURNISHED AND INSTALLED BY CUSTOMER.
- ITEMS D & K MAY BE LOCATED OUTSIDE THE BOX

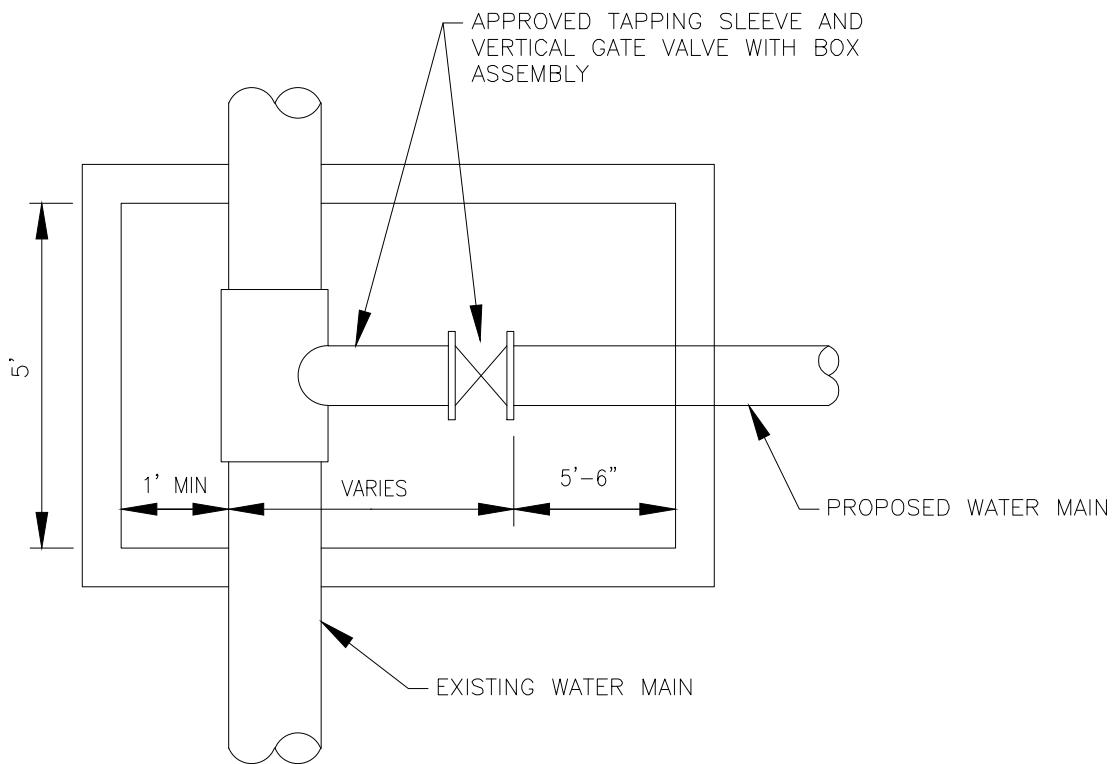
NOTES:

1. BOX MUST BE BEHIND CURB AND/OR WALK AND OUT OF VEHICULAR TRAFFIC.
2. PIPE AND FITTINGS TO BE DUCTILE IRON OR CAST IRON EXCEPT AS NOTED. NO PLASTIC PIPE. NO SOLDERED JOINTS.
3. NO RISING STEM OR WHEEL OPERATED VALVES EXCEPT ON 2" BY-PASS VALVES.
4. ROD RESTRAINT IS REQUIRED AT ALL MECHANICAL OR PUSH ON TYPE JOINTS.
5. TOP OF BOX MUST BE 1" ABOVE GROUND OR FLUSH WITH PAVEMENT SURFACE.
6. METER BOX TO BE SET AFTER METER IS INSTALLED. SIDE NOTCHES IN BOX TO BE FILLED WITH MORTAR AFTER INSTALLATION OF PIPE.
7. CONTACT SHSUD FOR METER LENGTH, APPROVED TYPE OF LID AND LOCATION OF OPENINGS IN TOP OF BOX.
8. ANY WORK BY CUSTOMER ON THE CITY SIDE OF THE METER REQUIRES PLANS BY A TEXAS REGISTERED/LICENSED PROFESSIONAL ENGINEER.
9. WHERE THERE IS A LOOPED SYSTEM WITH MORE THAN ONE METER, APPROVED CHECK VALVES SHALL BE INSTALLED DOWNSTREAM OF THE PROPERTY OWNERS GATE VALVE (J) AT EACH METER. BACKFLOW PREVENTERS MAY BE REQUIRED WITHIN THE SYSTEM BY THE BUILDING INSPECTION DEPARTMENT.
10. NO METERS SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS, DRIVEWAYS, OR ROADWAYS. SHSUD WILL NOT BE RESPONSIBLE FOR ANY DAMAGES TO CONCRETE OR PAVED AREAS IF DEVELOPER DOES NOT COMPLY.

SPRINGS HILL SPECIAL UTILITY DISTRICT

INSTALLATION DETAILS FOR 3", 4" AND 6"
COMPOUND METERS ABOVE GRD SHEET 2 OF 2

DATE: 03/03/2010	REVISIONS: 09/24/2025	STANDARD NO. WA-30
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NOTE:

1. NO SIZE ON SIZE ALLOWED, MAKE WET CONNECTION.

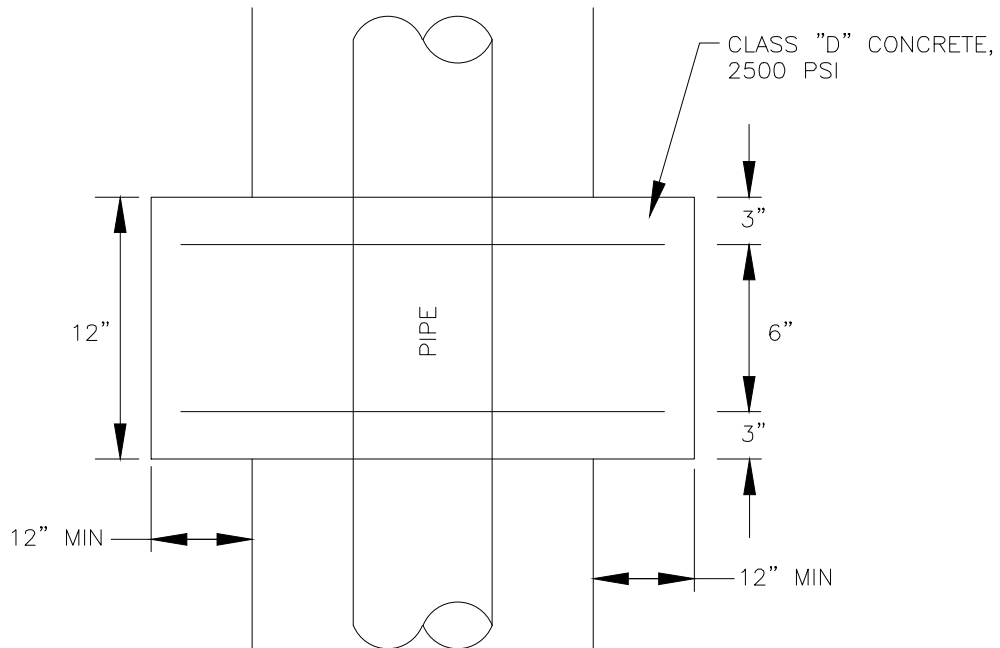
SPRINGS HILL SPECIAL UTILITY DISTRICT

MINIMUM EXCAVATION CLEARANCE FOR
INSTALLATION OF PRESSURE TAP DETAIL

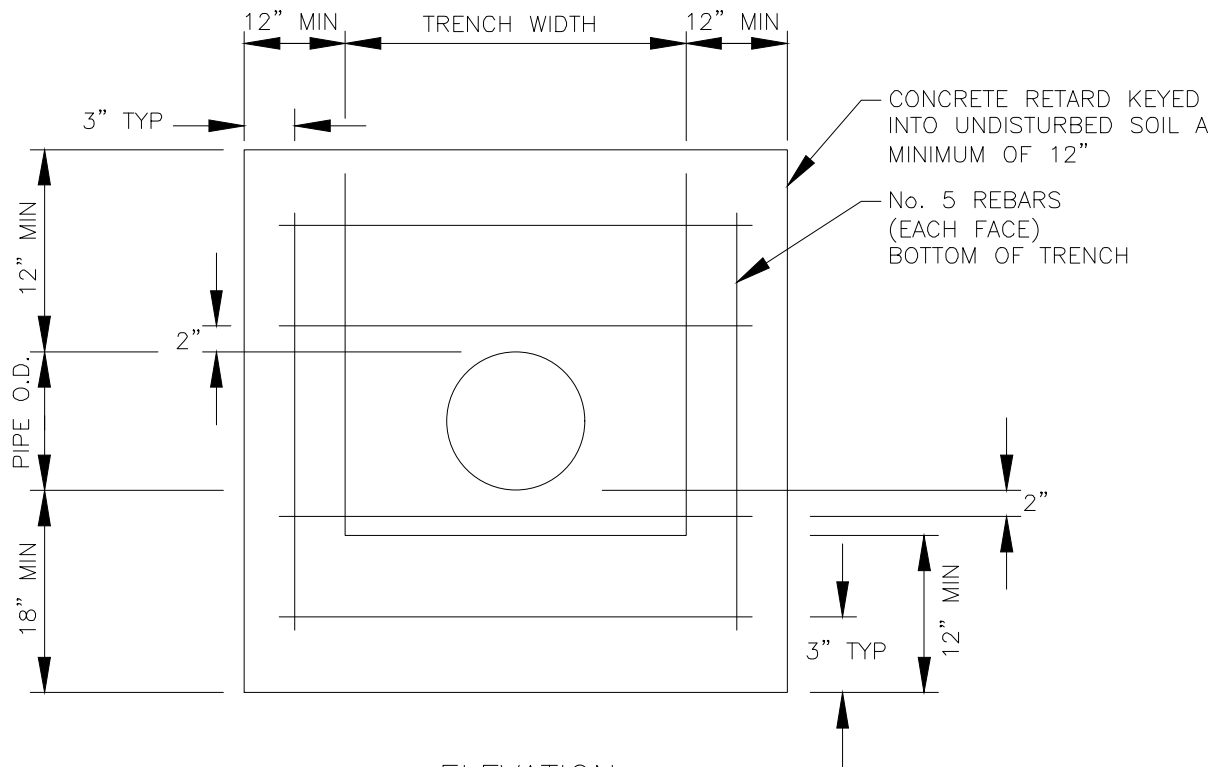
DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-31



TOP VIEW



ELEVATION

NOTE:

1. RETARDS ARE TO BE USED AT ALL GRADES 10 PERCENT OR OVER.
(MINIMUM 20 FOOT SPACING)

SPRINGS HILL SPECIAL UTILITY DISTRICT

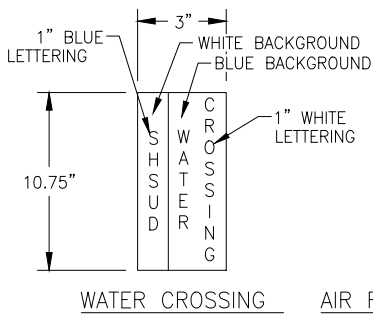
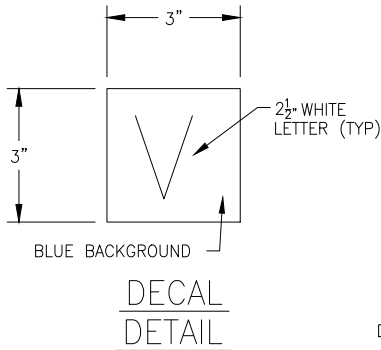
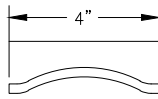
CONCRETE RETARD

DATE:
03/03/2010

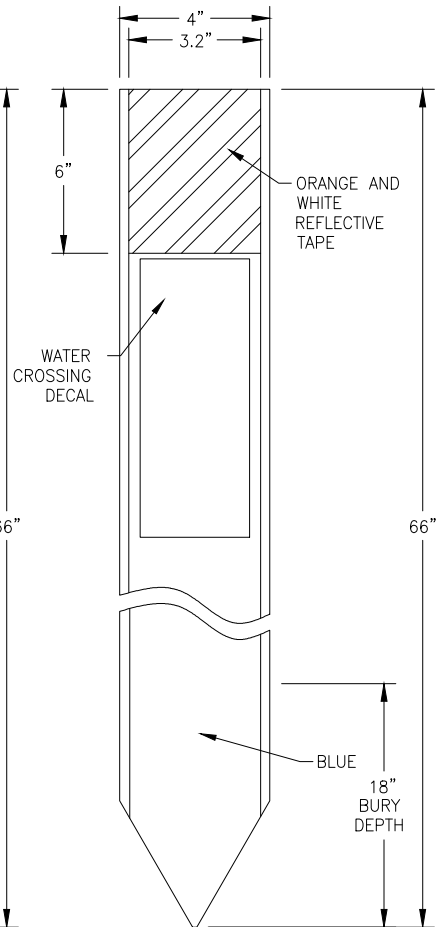
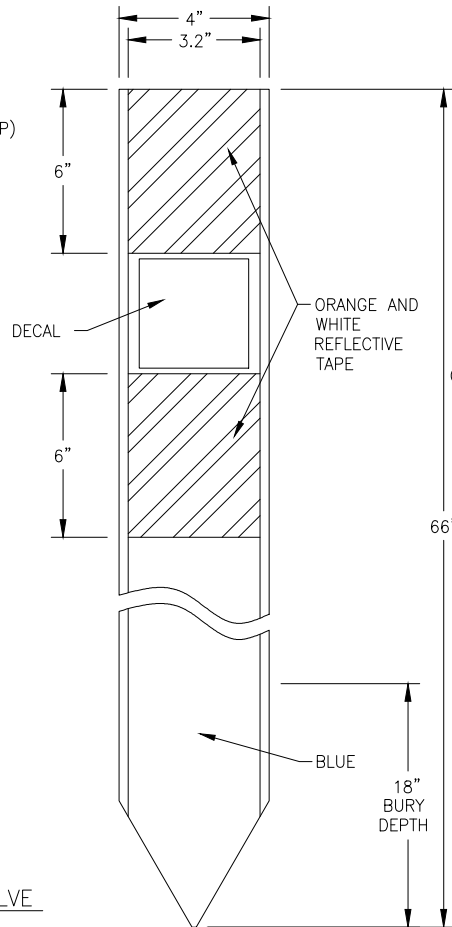
REVISIONS:
09/24/2025

STANDARD NO.
WA-32

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DECALS



MARKER DETAIL

NOTES:

1. MARKERS SHALL BE 66" COMPOSITE POSTS SIMILAR TO RHINO FIBERCURVE COMPOSITE MARKER POST.
2. MARKERS SHALL BE PLACED AT ALL GATE VALVES, FLUSHING VALVES, & AIR RELEASE VALVES PER ITEM DETAIL.
3. MARKERS SHALL BE PLACED AT WATER METERS AS SPECIFIED ON PLANS.
4. PIPELINE MARKERS SHALL BE PLACED ON R.O.W./FENCE LINE AT ALL ROAD CROSSINGS.

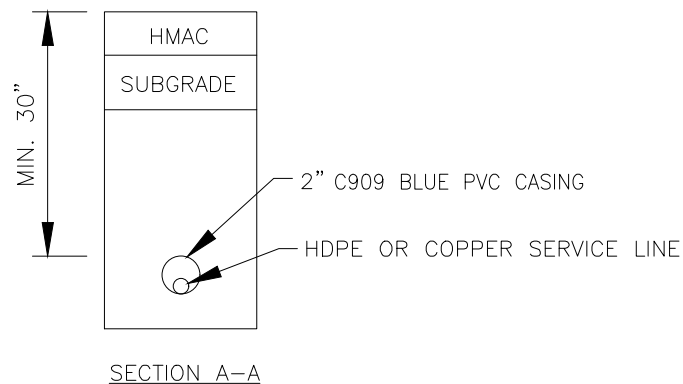
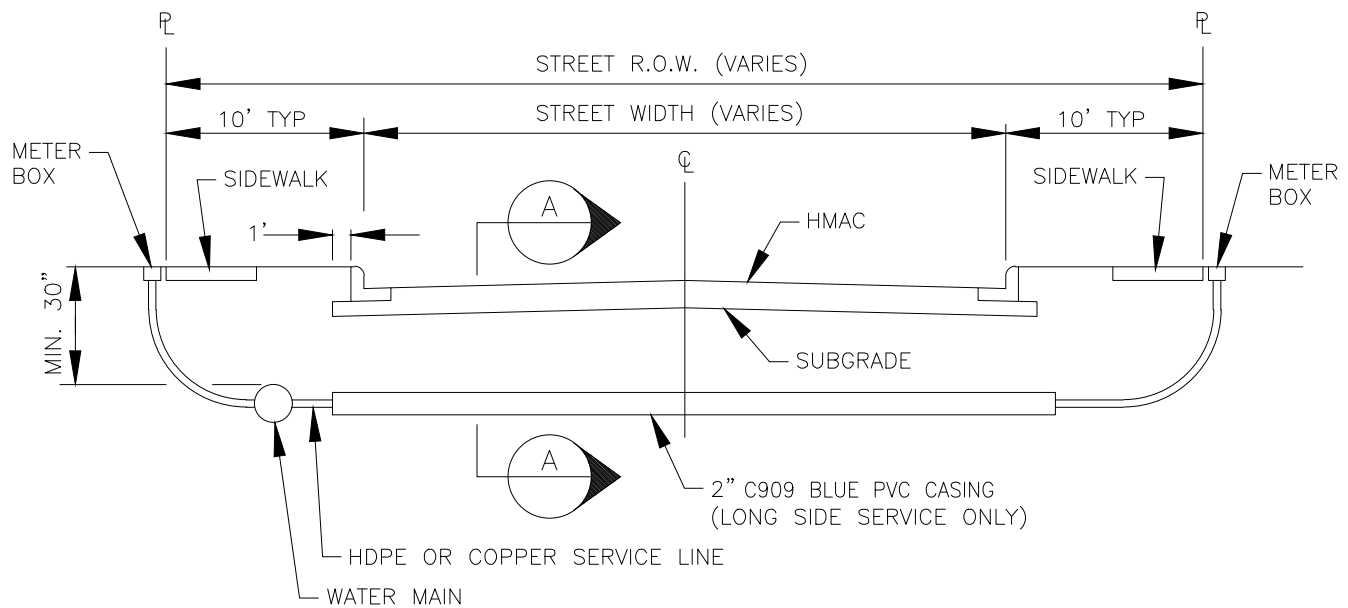
SPRINGS HILL SPECIAL UTILITY DISTRICT

WATER INFRASTRUCTURE MARKER

DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-33



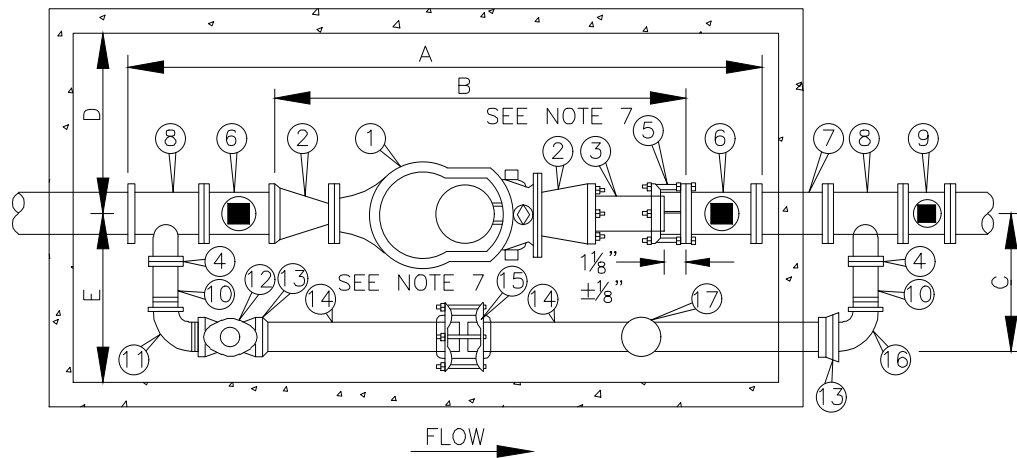
SPRINGS HILL SPECIAL UTILITY DISTRICT

P.E. WATER SERVICE CASING

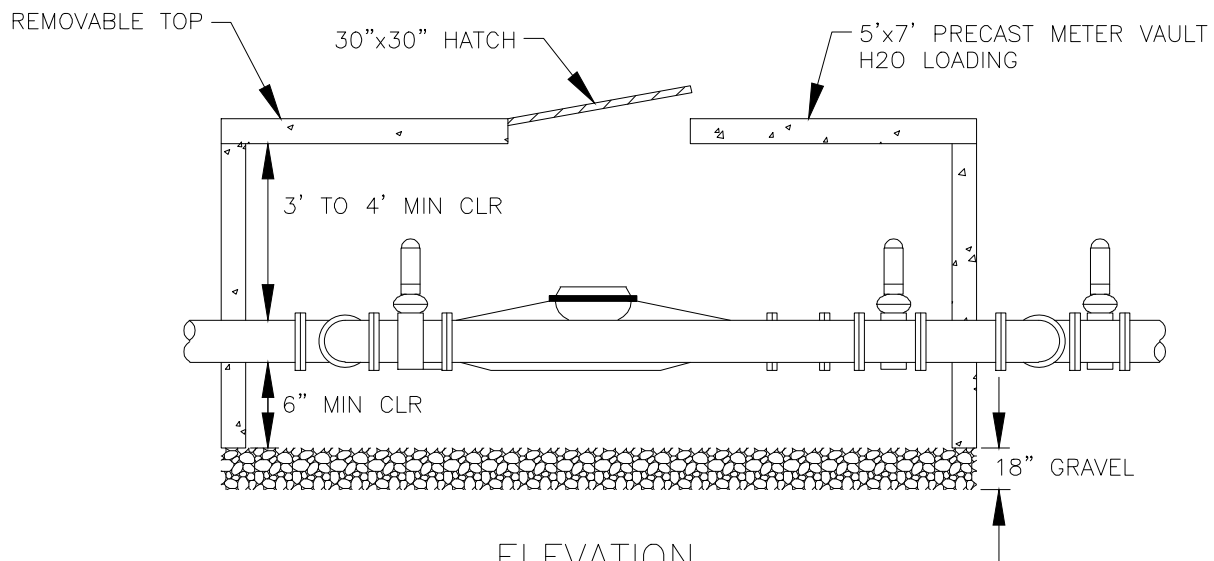
DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-34



PLAN VIEW



ELEVATION

No	NAME	LENGTH
A	OVERALL LENGTH	76"
B	METER + SPOOL + FCA	44½"
C	CENTERLINE OF MAIN TO OUTSIDE OF BYPASS	15"
D	CENTERLINE OF MAIN TO INSIDE OF VAULT	30"
E	CENTERLINE OF MAIN TO INSIDE OF VAULT	30"

SPRINGS HILL SPECIAL UTILITY DISTRICT

3" METER INSTALLATION SHEET 1 OF 2

DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-35

No	NAME	LENGTH
1	3" METER	*17"
2	4"x3" FLANGED REDUCER	7"
3	4" FLANGED x PLAIN END	12"
4	4" COMPANION FLANGE	
5	4" FLANGED COUPLING ADAPTER	5"
6	4" GATE VALVE SQUARE NUT	9"
7	4" FLANGED SPOOL	12" MIN
8	4"x4"x2" FLANGED TEE	13"
9	PROPERTY OWNER'S 4" GATE VALVE SQUARE NUT	9"
10	2"x8" BRASS NIPPLE	8"
11	2" STREET ELBOW 90°	
12	2" BRASS GATE VALVE	
13	COPPER TO IRON PIPE FITTING	
14	2" COPPER OR BRASS PIPE	
15	2" COUPLING	
16	2" ELBOW 90° BRASS	
17	BYPASS METER (SIZE PER SHSUD)	

* DIMENSIONS SUBJECT TO CHANGE. CHECK WITH INSPECTOR

NOTES:

1. PIPE AND METER SIZE SHALL BE AS DETERMINED BY OWNER. APPROVAL BY SHSUD AND FIRE DEPARTMENT. PLANS MUST BE PREPARED BY A LICENSED ENGINEER IF INSTALLATION IN RIGHT-OF-WAY IS BY OTHER THAN CITY FORCES.
2. METER VAULT MUST BE BEHIND CURB AND/OR WALK AND OUT OF VEHICULAR TRAFFIC.
3. MAIN LINE AND BYPASS VALVES WILL BE RESILIENT SEAT TYPE WITH CORROSION RESISTANT FUSION BANDED EPOXY COATING INSIDE AND OUTSIDE, NON-RISING STEM. MAIN LINE VALVES SHALL HAVE SQUARE OPERATING NUTS. BYPASS VALVE WILL HAVE A HANDWHEEL. PROPERTY OWNER'S VALVE MUST BE LOCATED OUTSIDE THE SHSUD METER VAULT.
4. APPROVAL WILL BE NEEDED IF HEIGHT OF VAULT EXCEEDS 72". METER MUST BE MODIFIED TO READ FROM TOP OF VAULT.
5. HATCH OPENING WILL BE 30"x30".
6. IRON PIPE TAPPING SLEEVE IN STREET RIGHT-OF-WAY SHALL BE IMBEDDED IN GRANULAR MATERIALS AS REQUIRED BY SHSUD STANDARD SPECIFICATIONS. BACKFILL ABOVE GRANULAR BEDDING AS REQUIRED.
7. DOUBLE HARNESS MJ WITH TIE RODS. ALL OTHER FITTINGS INSIDE VAULT WILL BE FLANGED.
8. CONTACT SHSUD OFFICE PRIOR TO INSTALLATION OF COMPOUND METERS FOR PROPER DOMESTIC DEMANDS.
9. NOTCHES WHERE PIPING GOES THROUGH VAULT SHALL BE FILLED WITH MORTAR.
10. THE TOP OF THE METER VAULT SHALL BE AT AN ELEVATION SUCH THAT THE SURROUNDING GROUND SLOPES AWAY FROM THE VAULT.
11. NO METERS SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS, DRIVEWAYS, OR ROADWAYS. SHSUD WILL NOT BE RESPONSIBLE FOR ANY DAMAGES TO CONCRETE OR PAVED AREAS IF DEVELOPER DOES NOT COMPLY.

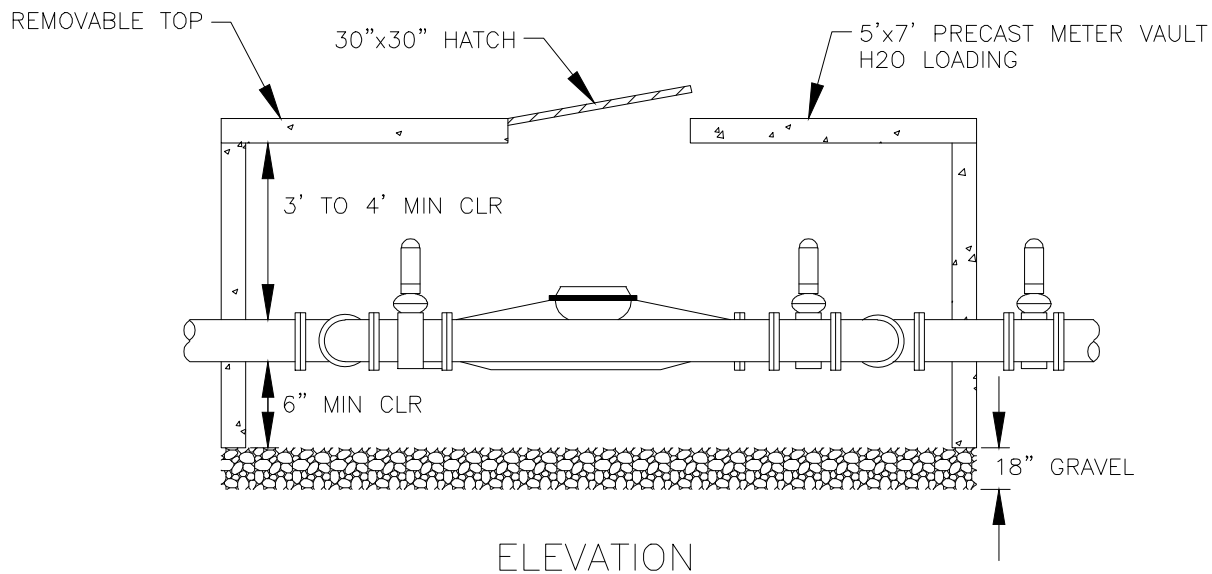
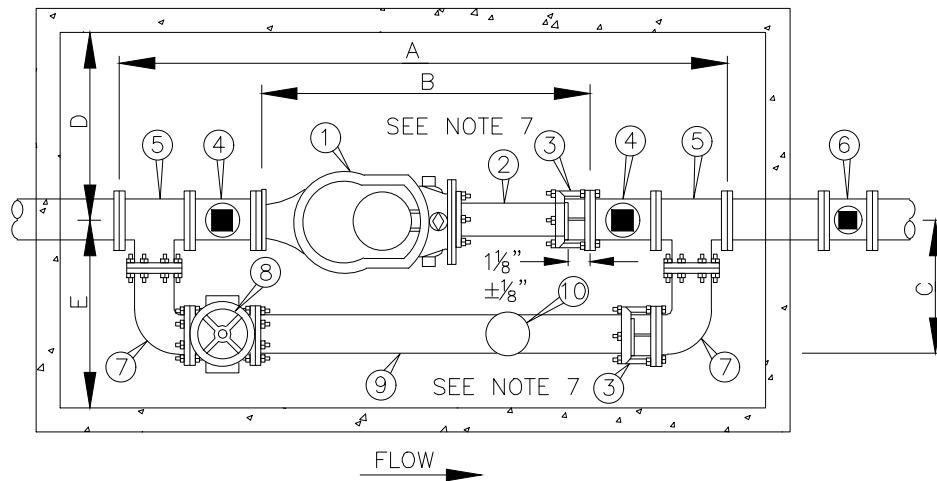
SPRINGS HILL SPECIAL UTILITY DISTRICT

3" METER INSTALLATION SHEET 2 OF 2

DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-35



No	NAME	LENGTH
A	OVERALL LENGTH	79"
B	METER + NIPPLE + FCA	34½"
C	CENTERLINE OF MAIN TO OUTSIDE OF BYPASS	17½"
D	CENTERLINE OF MAIN TO INSIDE OF VAULT	30"
E	CENTERLINE OF MAIN TO INSIDE OF VAULT	30"

SPRINGS HILL SPECIAL UTILITY DISTRICT

4" METER INSTALLATION SHEET 1 OF 2

DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-36

No	NAME	LENGTH
1	4" METER	*21"
2	4" FLANGED x PLAIN END	12"
3	4" FLANGED COUPLING ADAPTER	5"
4	4" GATE VALVE SQUARE NUT	9"
5	4"x4"x4" FLANGED TEE	13"
6	PROPERTY OWNER'S 4" GATE VALVE SQUARE NUT	9"
7	4" FLANGED LONG RADIUS ELBOW 90°	
8	4" BYPASS GATE VALVE WITH HANDWHEEL	9"
9	4" BYPASS DUCTILE IRON PIPE	
10	BYPASS METER (SIZE PER SHSUD)	

* DIMENSIONS SUBJECT TO CHANGE. CHECK WITH INSPECTOR

NOTES:

- PIPE AND METER SIZE SHALL BE AS DETERMINED BY OWNER. APPROVAL BY SHSUD AND FIRE DEPARTMENT. PLANS MUST BE PREPARED BY A LICENSED ENGINEER IF INSTALLATION IN RIGHT-OF-WAY IS BY OTHER THAN CITY FORCES.
- METER VAULT MUST BE BEHIND CURB AND/OR WALK AND OUT OF VEHICULAR TRAFFIC.
- MAIN LINE AND BYPASS VALVES WILL BE RESILIENT SEAT TYPE WITH CORROSION RESISTANT FUSION BANDED EPOXY COATING INSIDE AND OUTSIDE, NON-RISING STEM. MAIN LINE VALVES SHALL HAVE SQUARE OPERATING NUTS. BYPASS VALVE WILL HAVE A HANDWHEEL. PROPERTY OWNER'S VALVE MUST BE LOCATED OUTSIDE THE SHSUD METER VAULT.
- APPROVAL WILL BE NEEDED IF HEIGHT OF VAULT EXCEEDS 72". METER MUST BE MODIFIED TO READ FROM TOP OF VAULT.
- HATCH OPENING WILL BE 30"x30".
- IRON PIPE TAPPING SLEEVE IN STREET RIGHT-OF-WAY SHALL BE IMBEDDED IN GRANULAR MATERIALS AS REQUIRED BY SHSUD STANDARD SPECIFICATIONS. BACKFILL ABOVE GRANULAR BEDDING AS REQUIRED.
- DOUBLE HARNESS MJ WITH TIE RODS. ALL OTHER FITTINGS INSIDE VAULT WILL BE FLANGED.
- CONTACT SHSUD OFFICE PRIOR TO INSTALLATION OF COMPOUND METERS FOR PROPER DOMESTIC DEMANDS.
- NOTCHES WHERE PIPING GOES THROUGH VAULT SHALL BE FILLED WITH MORTAR.
- THE TOP OF THE METER VAULT SHALL BE AT AN ELEVATION SUCH THAT THE SURROUNDING GROUND SLOPES AWAY FROM THE VAULT.
- NO METERS SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS, DRIVEWAYS, OR ROADWAYS. SHSUD WILL NOT BE RESPONSIBLE FOR ANY DAMAGES TO CONCRETE OR PAVED AREAS IF DEVELOPER DOES NOT COMPLY.

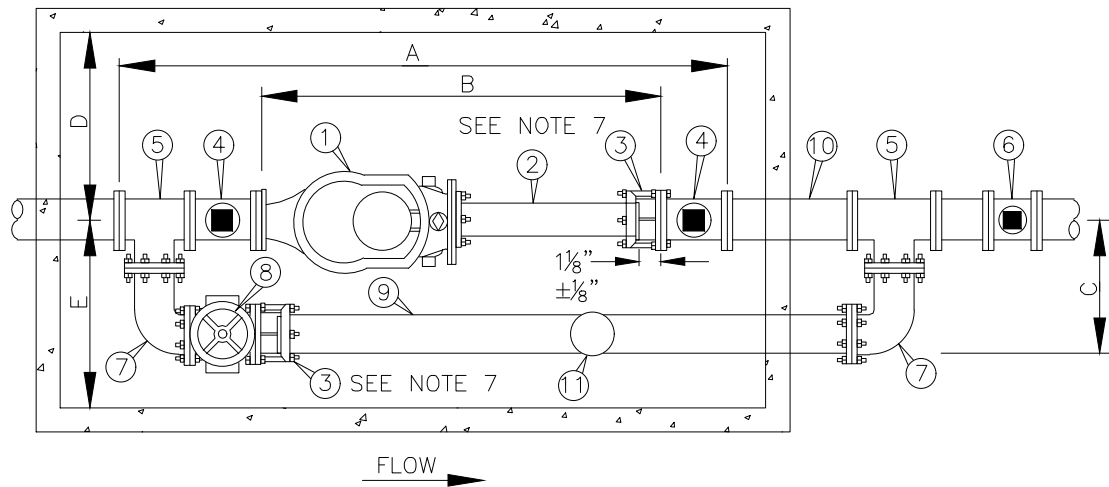
SPRINGS HILL SPECIAL UTILITY DISTRICT

4" METER INSTALLATION SHEET 2 OF 2

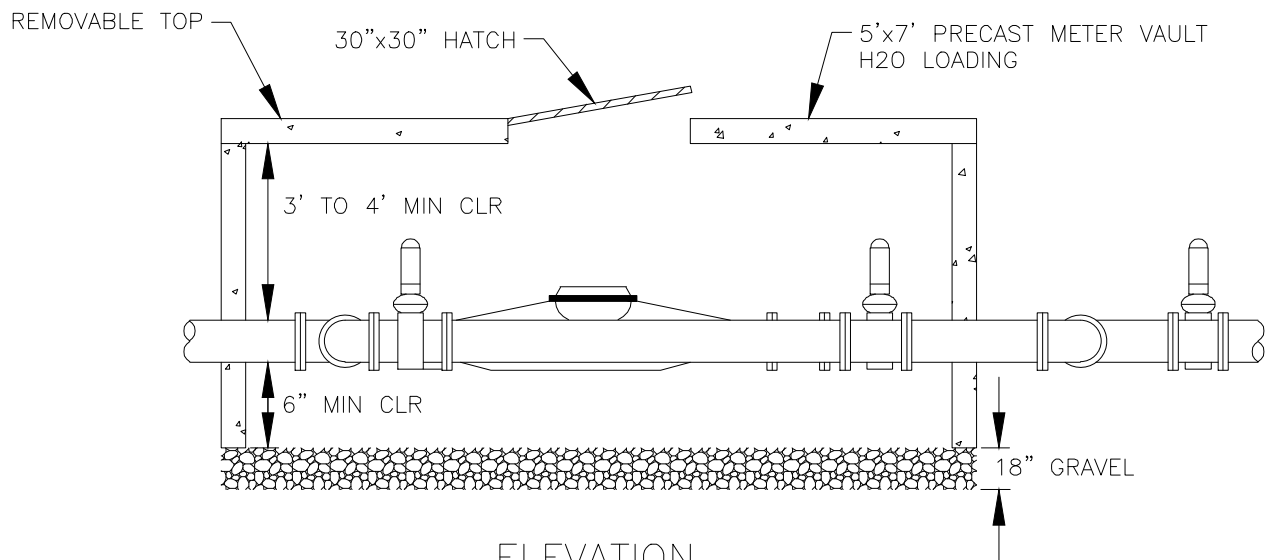
DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-36



PLAN VIEW



ELEVATION

No	NAME	LENGTH
A	OVERALL LENGTH	74 $\frac{3}{4}$ "
B	METER + NIPPLE + FCA	37 $\frac{1}{2}$ "
C	CENTERLINE OF MAIN TO OUTSIDE OF BYPASS	17 $\frac{1}{2}$ "
D	CENTERLINE OF MAIN TO INSIDE OF VAULT	30"
E	CENTERLINE OF MAIN TO INSIDE OF VAULT	30"

SPRINGS HILL SPECIAL UTILITY DISTRICT

6" METER INSTALLATION SHEET 1 OF 2

DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-37

No	NAME	LENGTH
1	6" METER	*24"
2	6" FLANGED x PLAIN END	12"
3	6" FLANGED COUPLING ADAPTER	5"
4	6" GATE VALVE SQUARE NUT	10½"
5	6"x6"x6" FLANGED TEE	5"
6	PROPERTY OWNER'S 6" GATE VALVE SQUARE NUT	10½"
7	6" FLANGED ELBOW 90°	
8	6" BYPASS GATE VALVE WITH HANDWHEEL	10½"
9	6" BYPASS DUCTILE IRON PIPE	
10	6" FLANGED SPOOL	
11	BYPASS METER (SIZE PER SHSUD)	

* DIMENSIONS SUBJECT TO CHANGE. CHECK WITH INSPECTOR

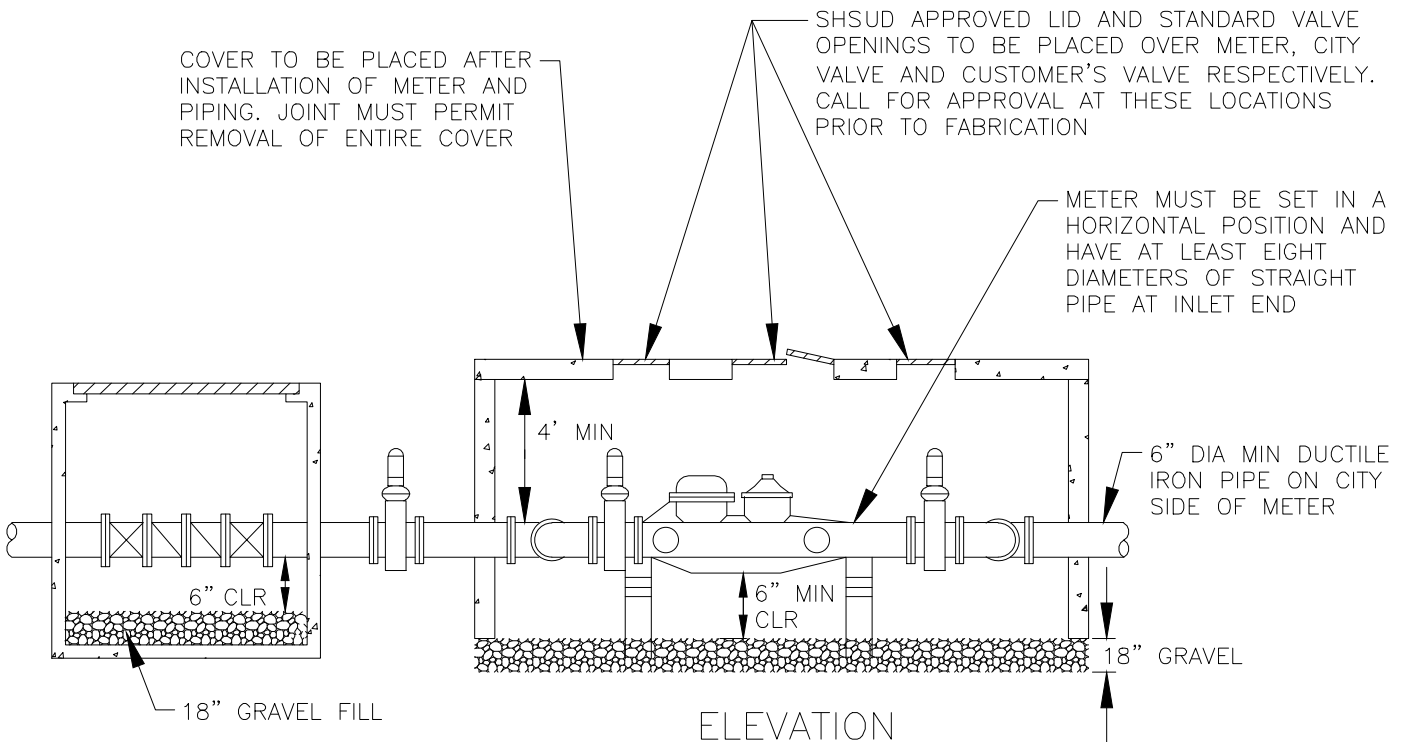
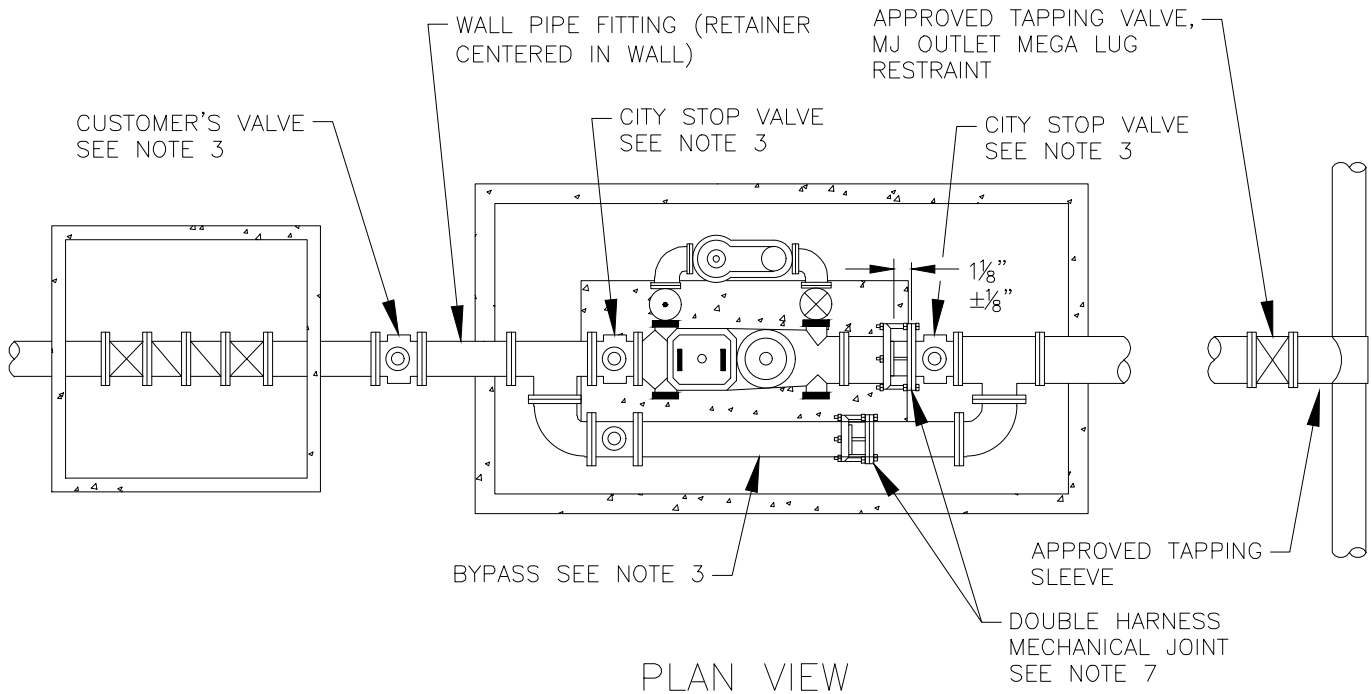
NOTES:

- PIPE AND METER SIZE SHALL BE AS DETERMINED BY OWNER. APPROVAL BY SHSUD AND FIRE DEPARTMENT. PLANS MUST BE PREPARED BY A LICENSED ENGINEER IF INSTALLATION IN RIGHT-OF-WAY IS BY OTHER THAN CITY FORCES.
- METER VAULT MUST BE BEHIND CURB AND/OR WALK AND OUT OF VEHICULAR TRAFFIC.
- MAIN LINE AND BYPASS VALVES WILL BE RESILIENT SEAT TYPE WITH CORROSION RESISTANT FUSION BANDED EPOXY COATING INSIDE AND OUTSIDE, NON-RISING STEM. MAIN LINE VALVES SHALL HAVE SQUARE OPERATING NUTS. BYPASS VALVE WILL HAVE A HANDWHEEL. PROPERTY OWNER'S VALVE MUST BE LOCATED OUTSIDE THE SHSUD METER VAULT.
- APPROVAL WILL BE NEEDED IF HEIGHT OF VAULT EXCEEDS 72". METER MUST BE MODIFIED TO READ FROM TOP OF VAULT.
- HATCH OPENING WILL BE 30"x30".
- IRON PIPE TAPPING SLEEVE IN STREET RIGHT-OF-WAY SHALL BE IMBEDDED IN GRANULAR MATERIALS AS REQUIRED BY SHSUD STANDARD SPECIFICATIONS. BACKFILL ABOVE GRANULAR BEDDING AS REQUIRED.
- DOUBLE HARNESS MJ WITH TIE RODS. ALL OTHER FITTINGS INSIDE VAULT WILL BE FLANGED.
- CONTACT SHSUD OFFICE PRIOR TO INSTALLATION OF COMPOUND METERS FOR PROPER DOMESTIC DEMANDS.
- NOTCHES WHERE PIPING GOES THROUGH VAULT SHALL BE FILLED WITH MORTAR.
- THE TOP OF THE METER VAULT SHALL BE AT AN ELEVATION SUCH THAT THE SURROUNDING GROUND SLOPES AWAY FROM THE VAULT.
- NO METERS SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS, DRIVEWAYS, OR ROADWAYS. SHSUD WILL NOT BE RESPONSIBLE FOR ANY DAMAGES TO CONCRETE OR PAVED AREAS IF DEVELOPER DOES NOT COMPLY.

SPRINGS HILL SPECIAL UTILITY DISTRICT

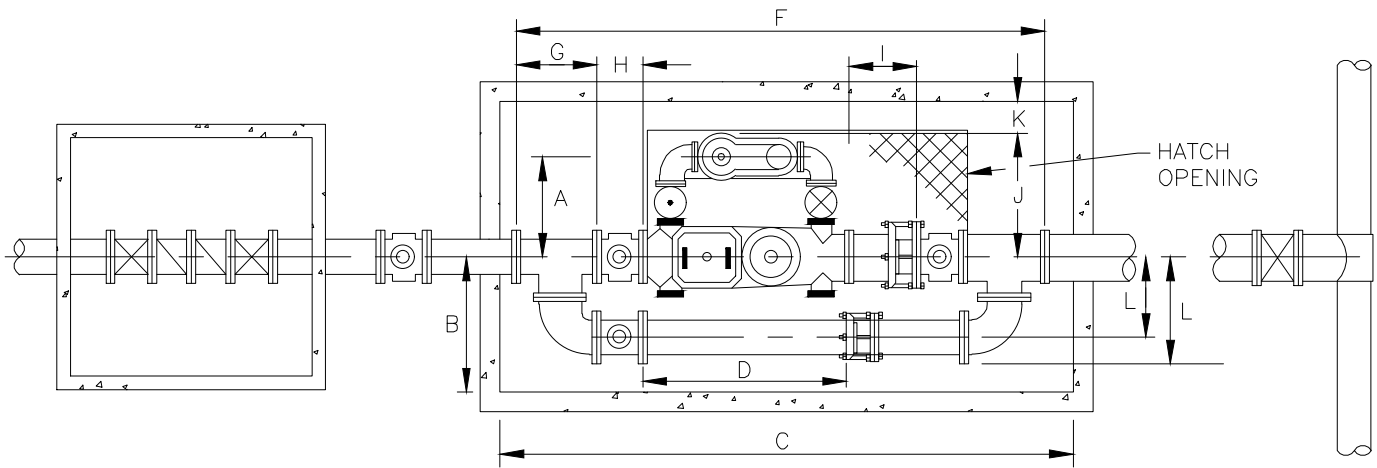
6" METER INSTALLATION SHEET 2 OF 2

DATE: 03/03/2010	REVISIONS: 09/24/2025	STANDARD NO. WA-37
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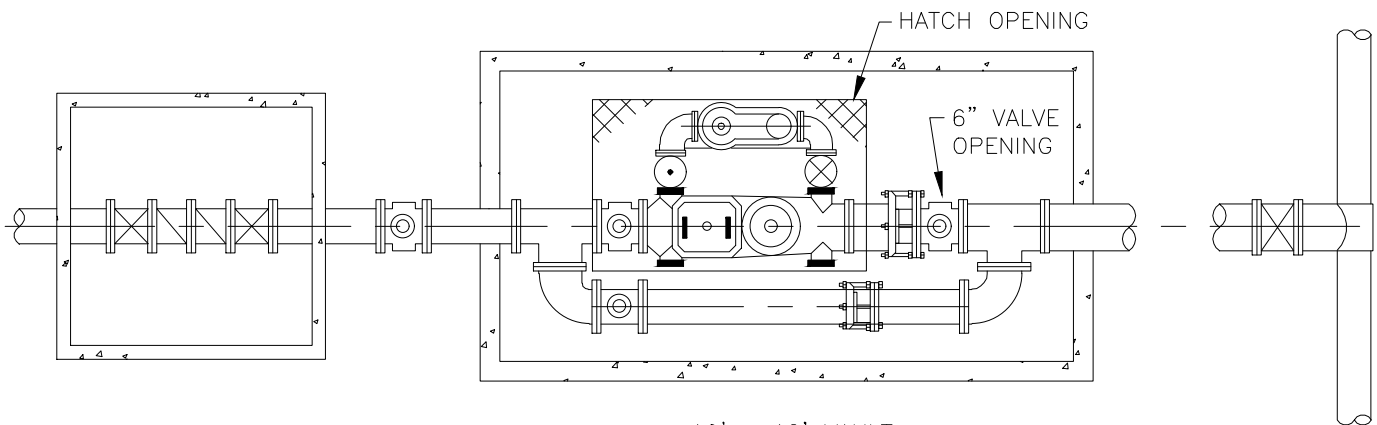


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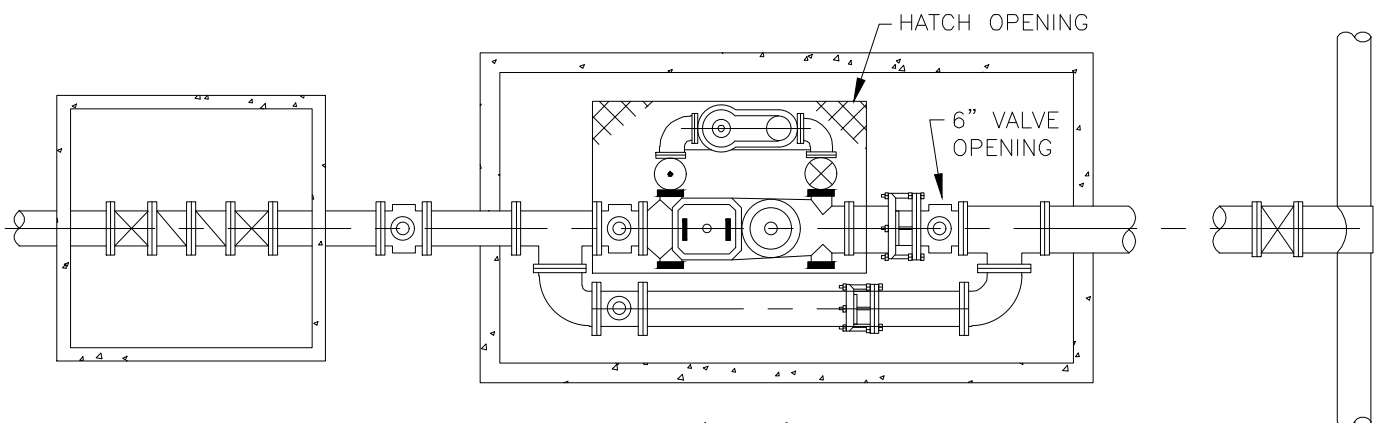
LATERAL DRAIN LINES WILL BE REQUIRED IF SURROUNDING
CONDITIONS CAUSE WATER TO COLLECT IN THE VAULT



8' x 12' VAULT
LOCATION OF 4' x 6'
HATCH OPENING FOR
6"x3"x3/4" METER



10' x 12' VAULT
LOCATION OF 4' x 6'
HATCH OPENING FOR
8"x4"x1" METER



15' x 10' VAULT
LOCATION OF 4' x 6'
HATCH OPENING FOR
10"x10"x6"x1 1/2" AND
10"x12"x6"x1 1/2" METERS

METER AND BOX DIMENSIONS (INCHES)

WATER METER SIZE	A	B	C	D	E	F	G	H	I	J	K	L
6 x 3	60	36	144	45	15	114	16	10½	13	27	33	22
8 x 4	72	48	144	53	8	127	18	11½	13	33	39	25
10 x 10 x 6	72	48	180	68	13	154	22	13	13	42	30	30
10 x 12 x 6	72	48	180	68	10	160	24	14	13	42	30	34

WATER METER SIZE	SIZE OF BY-PASS	BY-PASS VALVE W/HANDWHEEL	MAIN LINE VALVE WITH SQUARE OPERATING NUT
6 x 3	6"	6"	6"
8 x 4	8"	8"	8"
10 x 10 x 6	10"	10"	10"
10 x 12 x 6	12"	12"	12"

MINIMUM NUMBER OF TIE RODS

PIPE SIZE INCHES	WORKING PRESSURE PSI (A)					
	50	75	100	125	150	200
3, 4, & 6	2	2	2	2	2	2
8	2	2	2	2	4	4
10	2	2	4	4	4	6
12	2	4	4	4	6	6
14	2	4	4	6	8	10
16	4	4	6	8	8	12
18	4	6	8	10	10	(b)
20	4	6	8	10	12	(b)
24	6	10	12	16	(b)	(b)
30	6	8	10	12	14	18
36	8	10	14	16	20	(b)
42	6	8	12	14	16	22
48	8	10	14	18	20	28

NOTES:

(a) BASED UPON TEST PRESSURE NOT MORE THAN 50% HIGHER THAN WORKING PRESSURE.

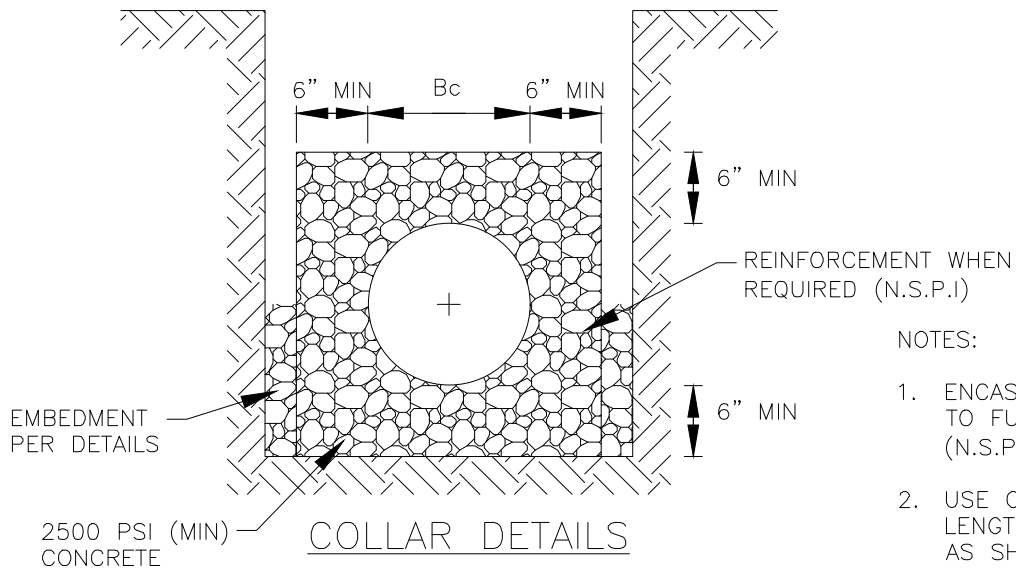
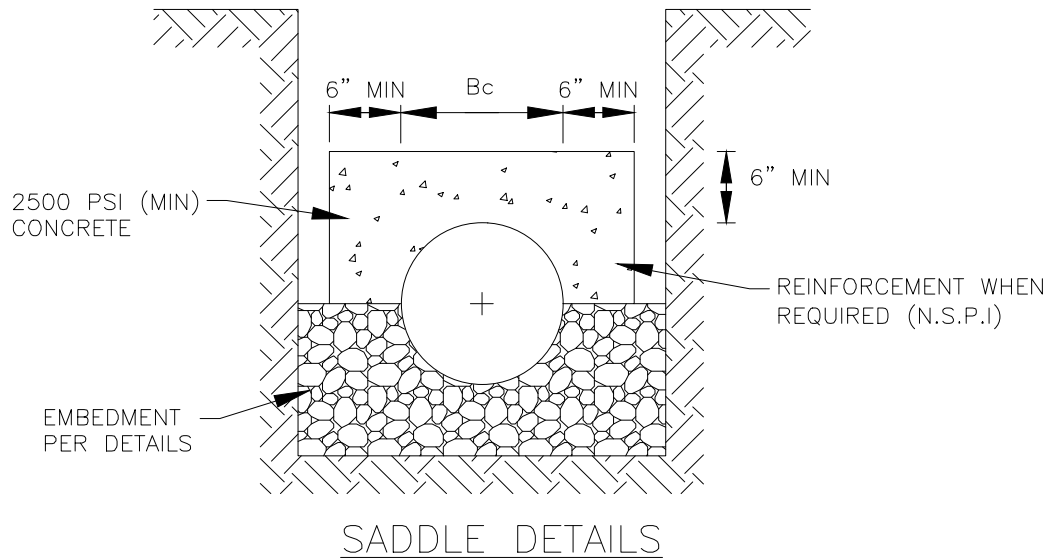
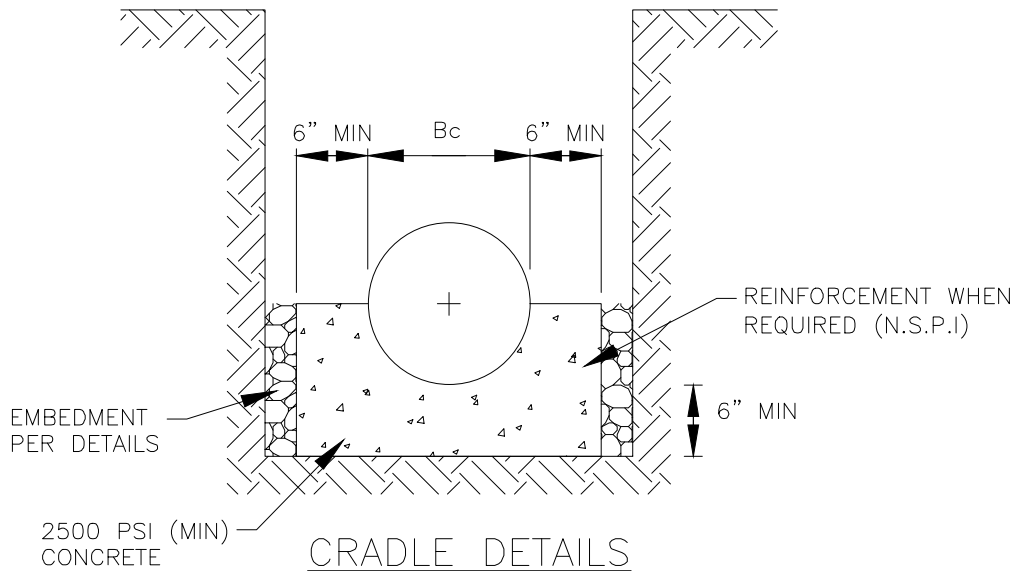
(b) REQUIRED NUMBER EXCEEDS NUMBER OF HOLES IN STANDARD MECHANICAL JOINT. USE OTHER METHODS OF HARNESSING.

NOTES:

- 1. PIPE AND METER SIZE SHALL BE AS DETERMINED BY OWNER. APPROVAL BY SHSUD AND FIRE DEPARTMENT. PLANS MUST BE PREPARED BY A LICENSED ENGINEER IF INSTALLATION IN RIGHT-OF-WAY IS BY OTHER THAN CITY FORCES.
- 2. METER VAULT MUST BE BEHIND CURB AND/OR WALK AND OUT OF VEHICULAR TRAFFIC.
- 3. MAIN LINE AND BYPASS VALVES WILL BE RESILIENT SEAT TYPE WITH CORROSION RESISTANT FUSION BANDED EPOXY COATING INSIDE AND OUTSIDE, NON-RISING STEM. MAIN LINE VALVES SHALL HAVE SQUARE OPERATING NUTS. BYPASS VALVE WILL HAVE A HANDWHEEL. PROPERTY OWNER’S VALVE MUST BE LOCATED OUTSIDE THE SHSUD METER VAULT.
- 4. APPROVAL WILL BE NEEDED IF HEIGHT OF VAULT EXCEEDS 72”. METER MUST BE MODIFIED TO READ FROM TOP OF VAULT.
- 5. HATCH OPENING WILL BE 4’x6’ DOUBLE LEAF. (H2O LOADING REQUIRED)
- 6. IRON PIPE TAPPING SLEEVE IN STREET RIGHT-OF-WAY SHALL BE IMBEDDED IN GRANULAR MATERIALS AS REQUIRED BY SHSUD STANDARD SPECIFICATIONS. BACKFILL ABOVE GRANULAR BEDDING AS REQUIRED.
- 7. DOUBLE HARNESS MJ WITH TIE RODS. ALL OTHER FITTINGS INSIDE VAULT WILL BE FLANGED.
- 8. IF METER VAULT IS TO BE POURED IN PLACE OR PRECAST IF AVAILABLE IN THE PROPER SIZE, CONSTRUCTION PLANS MUST BE PREPARED BY A REGISTERED PROFESSIONAL ENGINEER. (H2O LOADING REQUIRED)
- 9. NOTCHES WHERE PIPING GOES THROUGH VAULT SHALL BE FILLED WITH MORTAR.
- 10. THE TOP OF THE METER VAULT SHALL BE AT AN ELEVATION SUCH THAT THE SURROUNDING GROUND SLOPES AWAY FROM THE VAULT.
- 11. NO HYDRANTS, GATE VALVES, OR METERS SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS, DRIVEWAYS, OR ROADWAYS. SHSUD WILL NOT BE RESPONSIBLE FOR ANY DAMAGES TO CONCRETE OR PAVED AREAS IF DEVELOPER DOES NOT COMPLY.

F:\SPRINGS HILL WSC\PROJECTS\22.018-AUS SPRINGS HILL WSC\DRAWINGS\DETAILS\ALL DETAILS-20250930.DWG

SPRINGS HILL SPECIAL UTILITY DISTRICT	FIRE LANE METER INSTALLATION SHEET 4 OF 4		
	DATE: 03/03/2010	REVISIONS: 09/24/2025	STANDARD NO. WA-38



NOTES:

1. ENCASEMENT MAY BE PLACED TO FULL TRENCH WIDTH. (N.S.P.I)
2. USE COLLAR DETAILS FOR FULL LENGTH CONCRETE ENCASEMENT AS SHOWN ON PLANS.

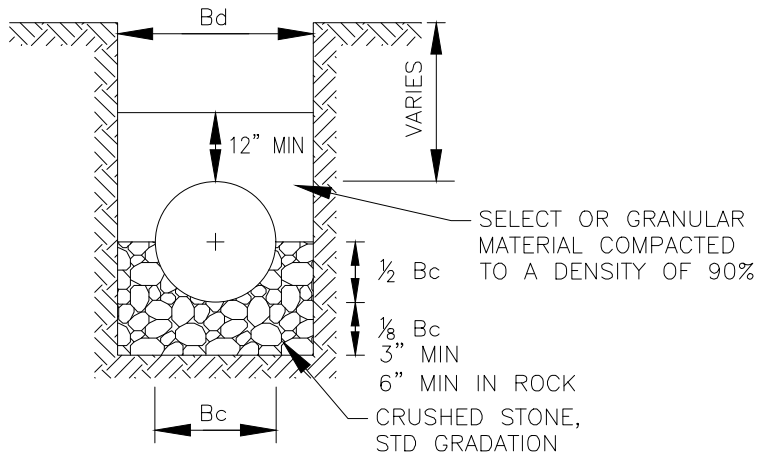
SPRINGS HILL SPECIAL UTILITY DISTRICT

ENCASEMENT

DATE:
03/03/2010

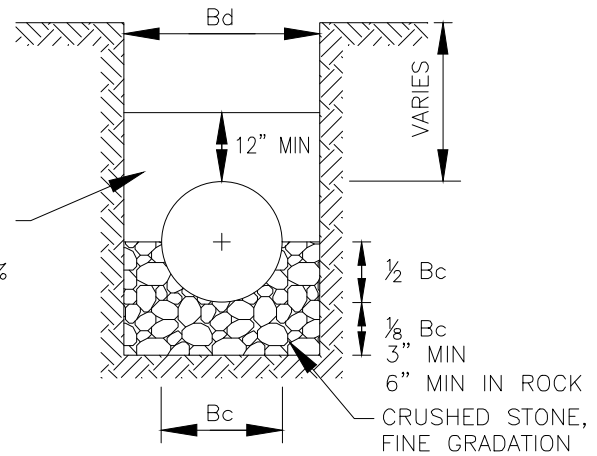
REVISIONS:
09/24/2025

STANDARD NO.
WA-39



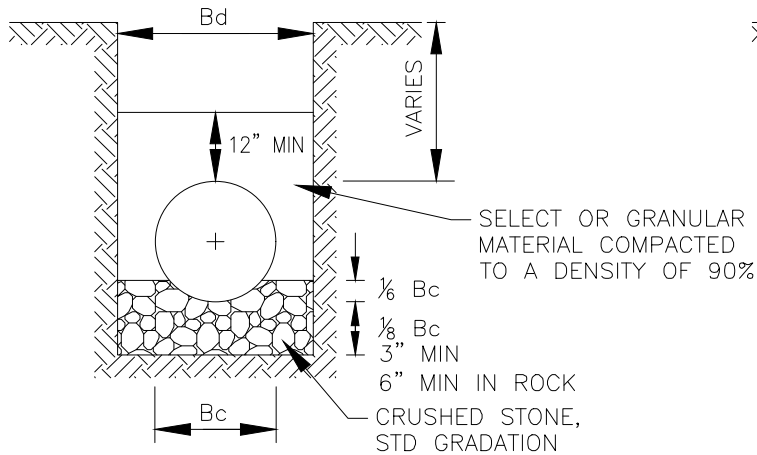
CLASS "B"

BEDDING ANGLE 150', LF 1.9, $E'=700$



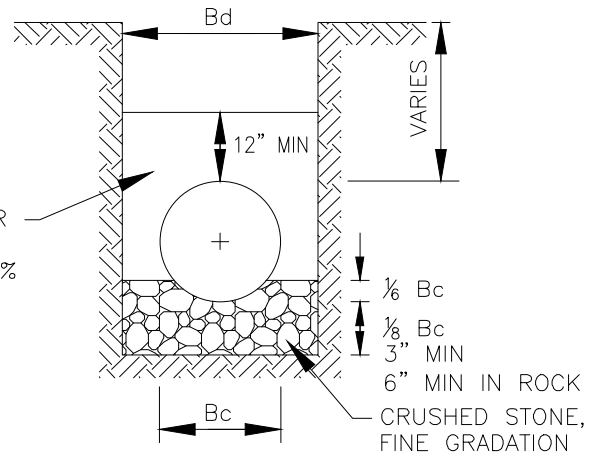
CLASS "B+"

BEDDING ANGLE 150', LF 1.9, $E'=700$



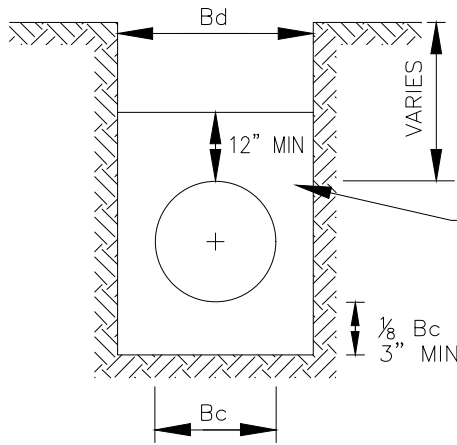
CLASS "C"

BEDDING ANGLE 75', LF 1.5, $E'=300$

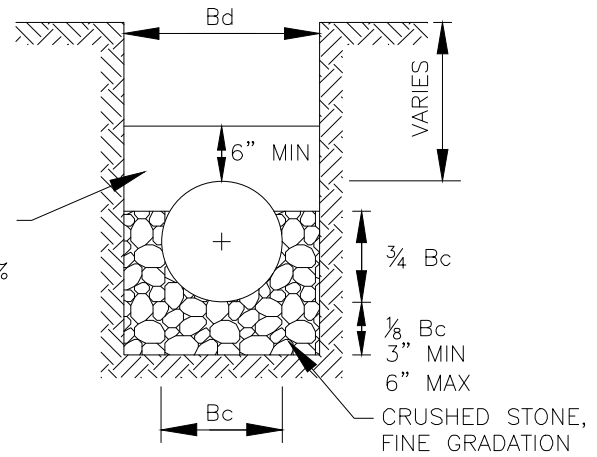


CLASS "C"

BEDDING ANGLE 75', LF 1.5, $E'=300$



SELECT OR GRANULAR
MATERIAL COMPACTED
TO A DENSITY OF 90%



CLASS "D+"

CLASS "F"

BEDDING ANGLE 30', LF 1.3, E'=200

EMBEDMENT FOR WATER LINES						
TYPE OF PIPE	IN EARTH			IN ROCK		
	0'-8'	8'-16'	>16'	0'-8'	8'-16'	>16'
18" AND SMALLER DUCTILE IRON WATER LINE	D+	C	C	D+	C	B
18" AND LARGER DUCTILE IRON WATER LINE	D+	B	B	D+	B	B
ALL PVC WATER LINE	C+	B+	B+	C+	B+	B+
24" & 30" RCCP	D+	B	B	D+	B	B

NOTES:

- PIPE EMBEDMENT SHALL CONFORM TO DETAILS SHOWN HEREIN.
- SECONDARY BACKFILL SHALL EXTEND FROM ABOVE THE EMBEDMENT TO BELOW THE PAVEMENT REPAIR SECTION WITHIN PAVEMENT AREA AND TO BELOW THE TOPSOIL SECTION OUTSIDE PAVEMENT AREAS.
- SECONDARY BACKFILL SHALL CONSIST OF SELECT MATERIAL INCLUDING GRAVEL, FINE ROCK CUTTINGS, SAND, SANDY LOAM, OR LOAM FREE FROM EXCESSIVE CLAY. ROCK CUTTINGS SHALL HAVE NO DIMENSION GREATER THAN TWO INCHES. TRENCH CUTTINGS MAY BE UTILIZED AS SELECT MATERIAL PROVIDED THE CONDITIONS OF THIS PARAGRAPH ARE MET.
- SECONDARY BACKFILL SHALL BE MECHANICALLY COMPACTED TO 95% STANDARD PROCTOR DENSITY WITHIN PAVEMENT AREAS AND TO 90% STANDARD PROCTOR DENSITY OUTSIDE PAVEMENT AREAS.

SPRINGS HILL SPECIAL UTILITY DISTRICT

EMBEDMENT SHEET 2 OF 3

DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-40

EMBEDMENT DIMENSIONS			
PIPE DIAMETER (INCHES)	KIND OF PIPE	EXTERNAL DIAMETER Bc (INCHES)	TRENCH WIDTH Bd (INCHES)
6	PVC WATER	6.90	24
6	DI WATER	6.90	24
8	PVC WATER	9.05	25
8	DI WATER	9.05	25
8	PVC	8.40	25
12	PVC WATER	13.20	29
12	DI WATER	13.20	29
12	PVC	12.40	29
16	DI WATER	17.40	33
16	PVC WATER	17.40	33
18	DI WATER	19.50	36
18	PVC WATER	19.50	36
20	DI WATER	21.60	38
20	PVC WATER	21.60	38
24	PVC WATER	25.80	42
24	DI WATER	25.80	42
24	RCCP WATER	30.00	48
30	PVC WATER	32.00	48
30	DI WATER	32.00	48
30	RCCP WATER	32.00	48

NOTES:

1. RCCP = REINFORCED CONCRETE CYLINDER PIPE.
2. EMBEDMENT DIMENSION FOR HDPE PIPE SHALL BE IN ACCORDANCE WITH MANUFACTURE'S RECOMMENDATIONS.

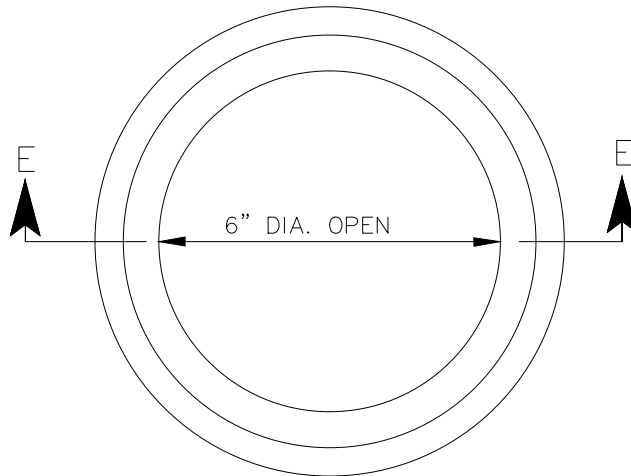
SPRINGS HILL SPECIAL UTILITY DISTRICT

EMBEDMENT SHEET 3 OF 3

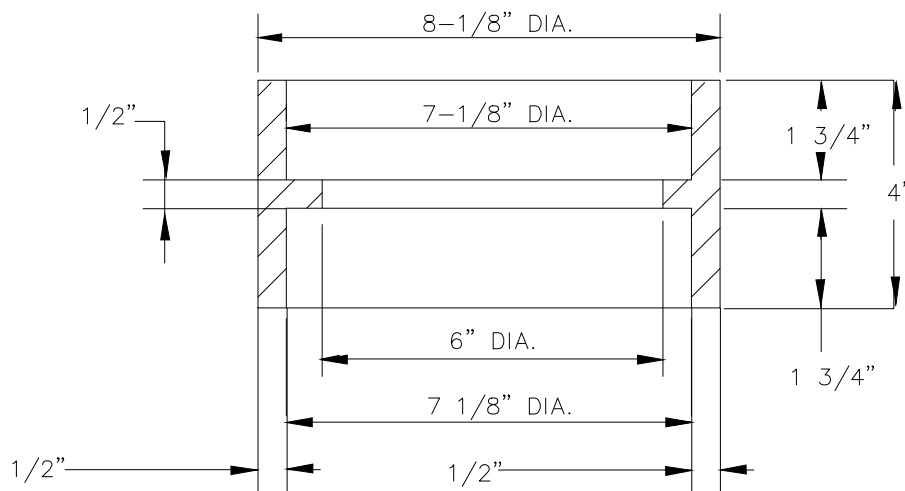
DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-40



PLAN VIEW



SECTION E-E

NOTES:

1. MATERIAL SHALL BE GRAY CAST IRON, ASTM A48, GRADE 30B.
2. THE MANUFACTURER'S IDENTIFICATION, CASTING NUMBER, AND THE COUNTRY WHERE CAST, SHALL BE DISTINCTLY CAST ONTO EACH LID.
3. DRAFT AND SHRINKAGE ALLOWANCE SHALL BE IN ACCORDANCE WITH NORMAL FOUNDRY PRACTICE.
4. FINISH BY REMOVING FINS AND FLASHING; PAINT WITH BLACK ASPHALT COATING,
5. WEIGHT: APPROXIMATELY 17 LBS.

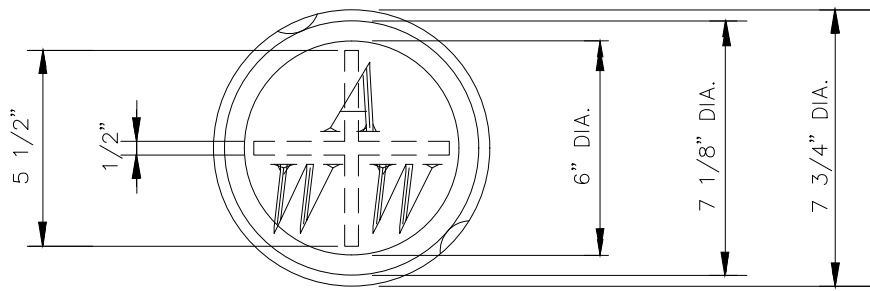
SPRINGS HILL SPECIAL UTILITY DISTRICT

VALVE BOX CASTING COLLAR
(NOT IN PAVEMENT)

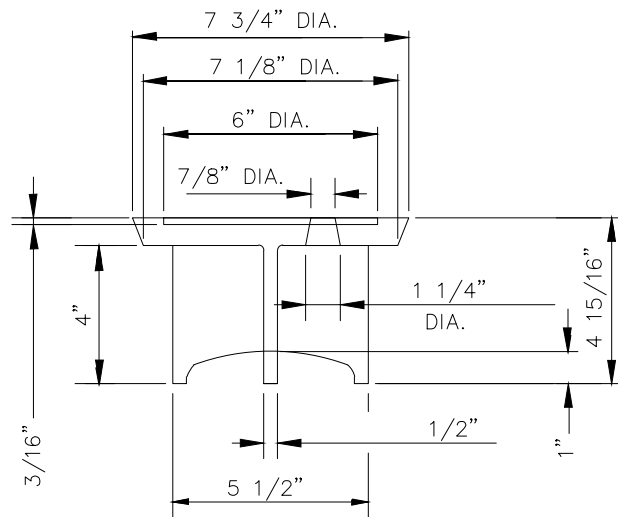
DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-41



PLAN VIEW



ELEVATION

NOTES:

1. MATERIAL SHALL BE GRAY CAST IRON, ASTM A48, GRADE 30B.
2. TYPICAL FILLET IS 3/16" RADIUS.
3. LETTERING SHALL BE 1 1/2" HEIGHT AND LOCATED AS SHOWN.
4. THIS LID REQUIRES TWO (2) PICK SLOTS.
5. THE MANUFACTURER'S IDENTIFICATION, CASTING NUMBER, AND THE COUNTRY WHERE CAST, SHALL BE DISTINCTLY CAST ONTO EACH LID.
6. DRAFT AND SHRINKAGE ALLOWANCE SHALL BE IN ACCORDANCE WITH NORMAL FOUNDRY PRACTICE.
7. FINISH BY REMOVING FINS AND FLASHING; PAINT WITH BLACK ASPHALT COATING,
8. WEIGHT: APPROXIMATELY 13 LBS.

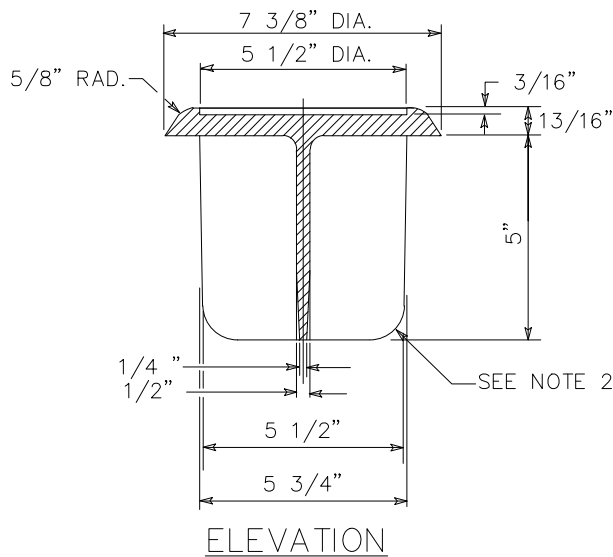
SPRINGS HILL SPECIAL UTILITY DISTRICT

VALVE BOX CASTING LID
(IN PAVEMENT)

DATE:
03/03/2010

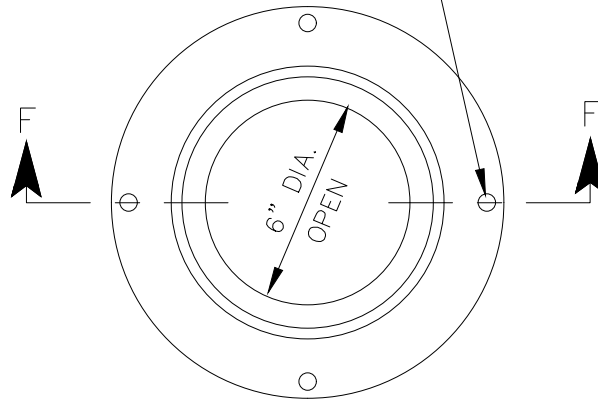
REVISIONS:
09/24/2025

STANDARD NO.
WA-42

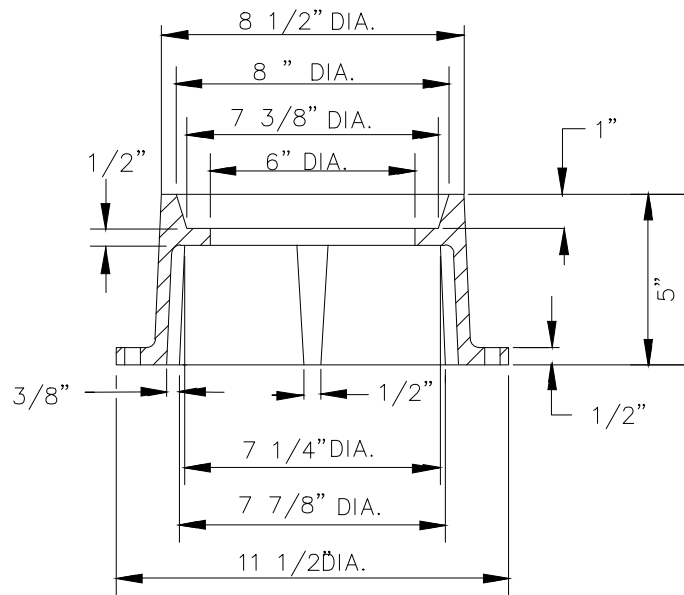


SPRINGS HILL SPECIAL UTILITY DISTRICT	VALVE BOX CASTING LID (NOT IN PAVEMENT)		
	DATE: 03/03/2010	REVISIONS: 09/24/2025	STANDARD NO. WA-43

7/16" DIA., 4 HOLES CENTERED AND
EQUALLY SPACED ON FLANGE



PLAN VIEW



SECTION F-F

NOTES:

1. MATERIAL SHALL BE GRAY CAST IRON, ASTM A48, GRADE 30B.
2. THE MANUFACTURER'S IDENTIFICATION, CASTING NUMBER, AND THE COUNTRY WHERE CAST, SHALL BE DISTINCTLY CAST ONTO EACH LID.
3. DRAFT AND SHRINKAGE ALLOWANCE SHALL BE IN ACCORDANCE WITH NORMAL FOUNDRY PRACTICE.
4. FINISH BY REMOVING FINS AND FLASHING; PAINT WITH BLACK ASPHALT COATING,
5. WEIGHT: APPROXIMATELY 23 LBS.

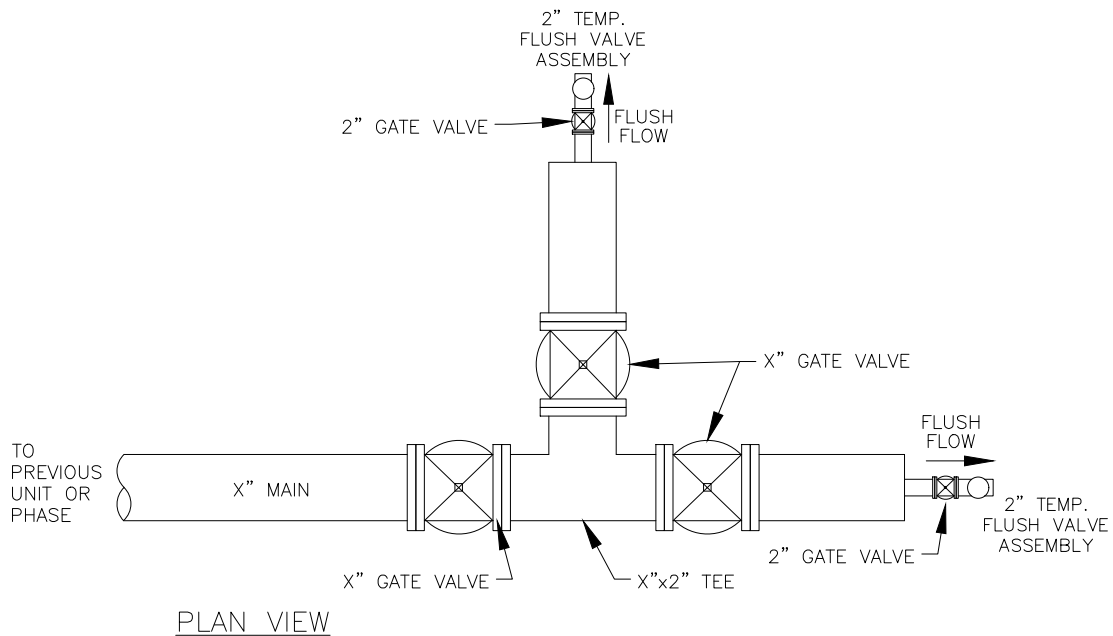
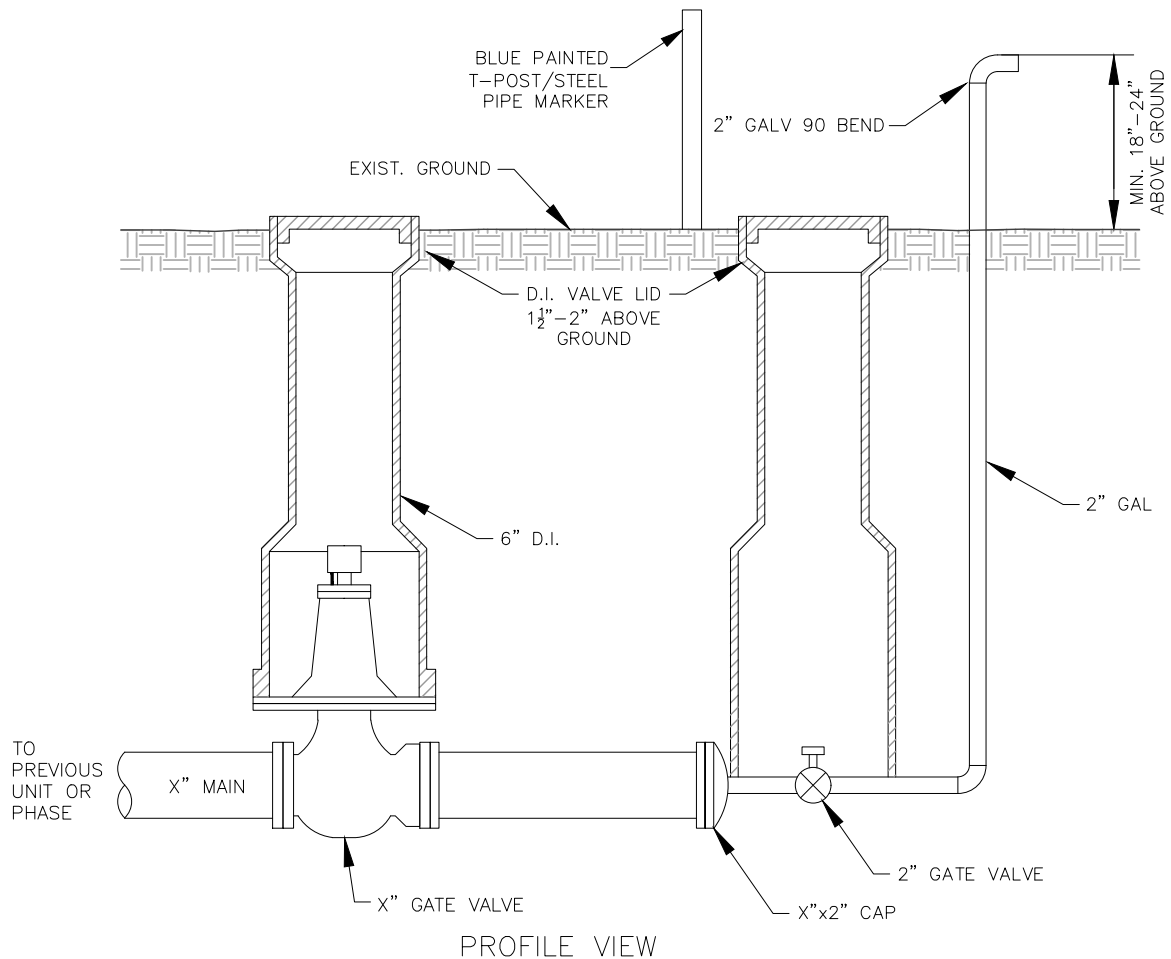
SPRINGS HILL SPECIAL UTILITY DISTRICT

VALVE BOX CASTING PAVING RING

DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-44



NOTE:

1. BURIED PIPING, FITTINGS, AND FITTINGS JOINTS SHALL BE WRAPPED IN POLYWRAP.
2. THE EARTHBEARING SURFACE SHALL BE THE UNDISTURBED TRENCH WALL.
3. ALL PIPE JOINTS SHALL BE KEPT FREE FROM CONCRETE.
4. POLYWRAP SHALL BE SECURED WITH A MINIMUM OF THREE CIRCUMFERENTIAL TURNS OF POLY TAPE.
5. IN LINE VALVES SHOULD BE PLACED AT INTERSECTIONS NEAR DEAD ENDS TO MINIMIZE CUSTOMERS AFFECTED BY FUTURE EXPANSION IF NEEDED.

NOT TO SCALE

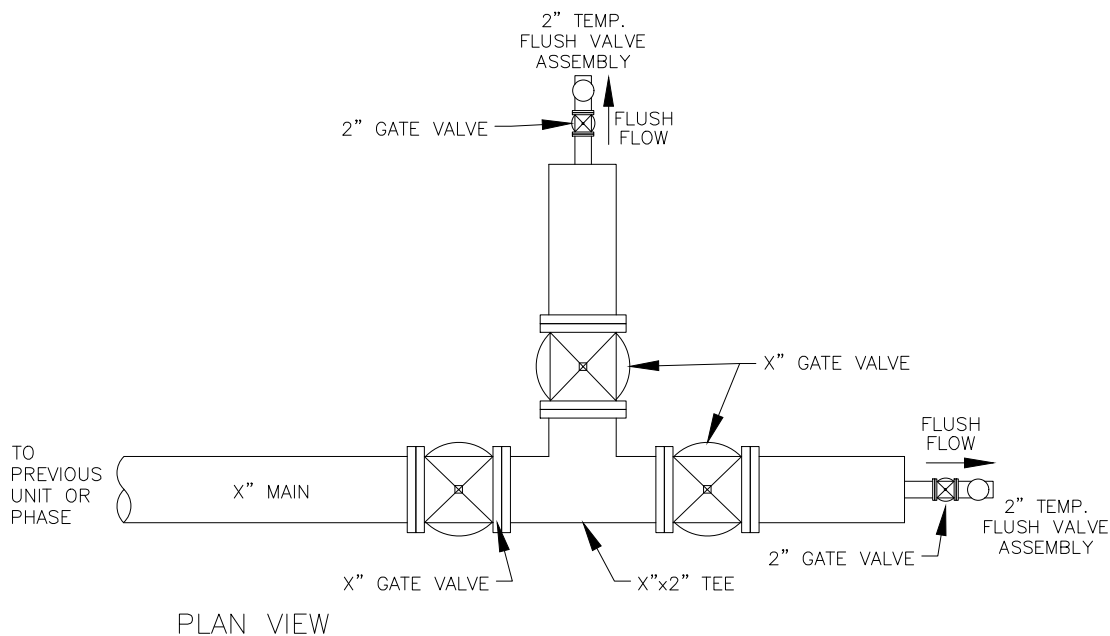
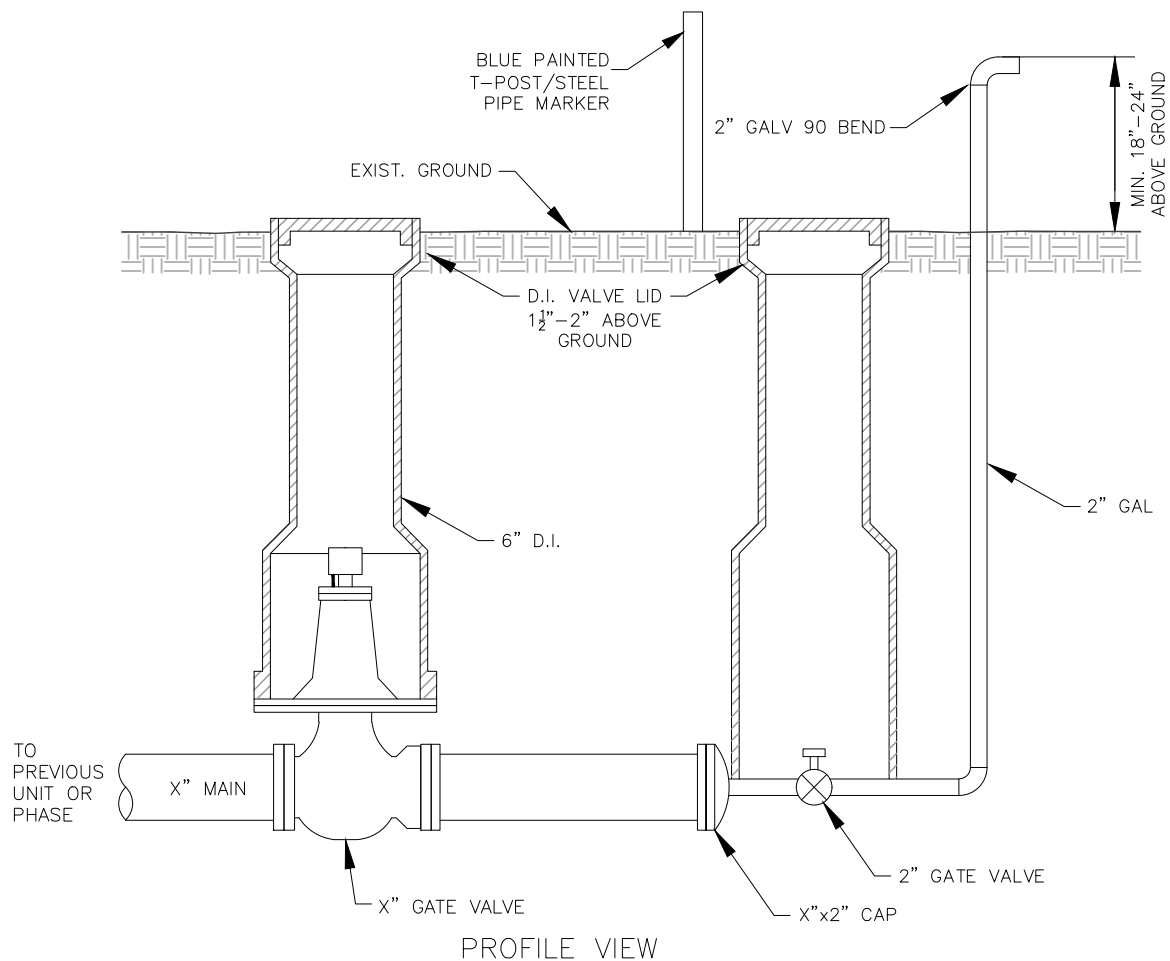
SPRINGS HILL SPECIAL UTILITY DISTRICT

TEMPORARY BLOW OFF
8-INCH OR SMALLER

DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-45



NOTES:

1. BURIED PIPING, FITTINGS, AND FITTINGS JOINTS SHALL BE WRAPPED IN POLYWRAP.
2. THE EARTHBEARING SURFACE SHALL BE THE UNDISTURBED TRENCH WALL.
3. ALL PIPE JOINTS SHALL BE KEPT FREE FROM CONCRETE.
4. POLYWRAP SHALL BE SECURED WITH A MINIMUM OF THREE CIRCUMFERENTIAL TURNS OF POLY TAPE.
5. IN LINE VALVES SHOULD BE PLACED AT INTERSECTIONS NEAR DEAD ENDS TO MINIMIZE CUSTOMERS AFFECTED BY FUTURE EXPANSION IF NEEDED.

NOT TO SCALE

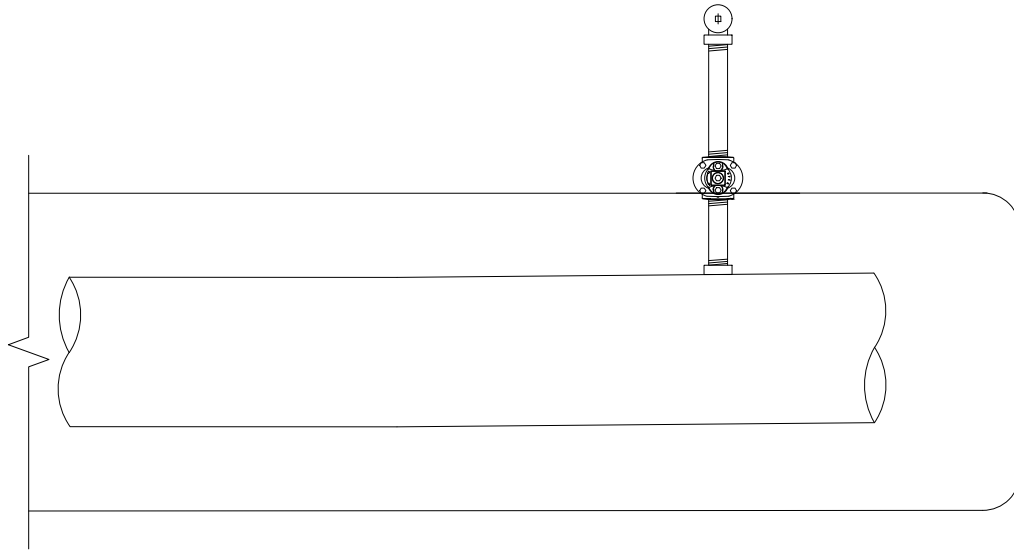
SPRINGS HILL SPECIAL UTILITY DISTRICT

TEMPORARY BLOW OFF
12-INCH OR LARGER

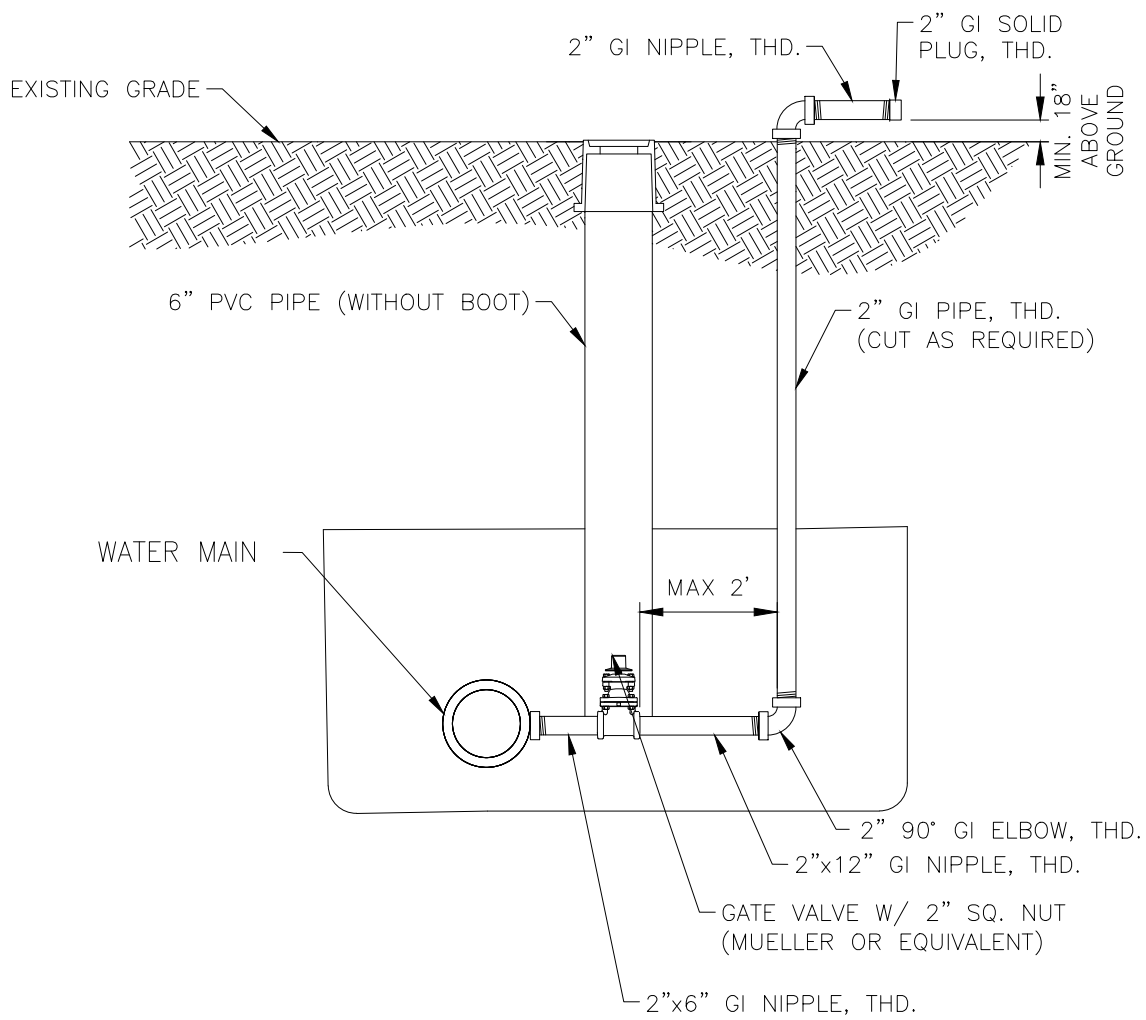
DATE:
03/03/2010

REVISIONS:
09/24/2025

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WA-46



PLAN VIEW



SECTION VIEW

NOT TO SCALE

SPRINGS HILL SPECIAL UTILITY DISTRICT

DRAIN VALVE

DATE:
03/03/2010

REVISIONS:
09/24/2025

STANDARD NO.
WA-47