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**MINIMUM CONSTRUCTION STANDARDS FOR
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450 SW UTILITY DRIVE,
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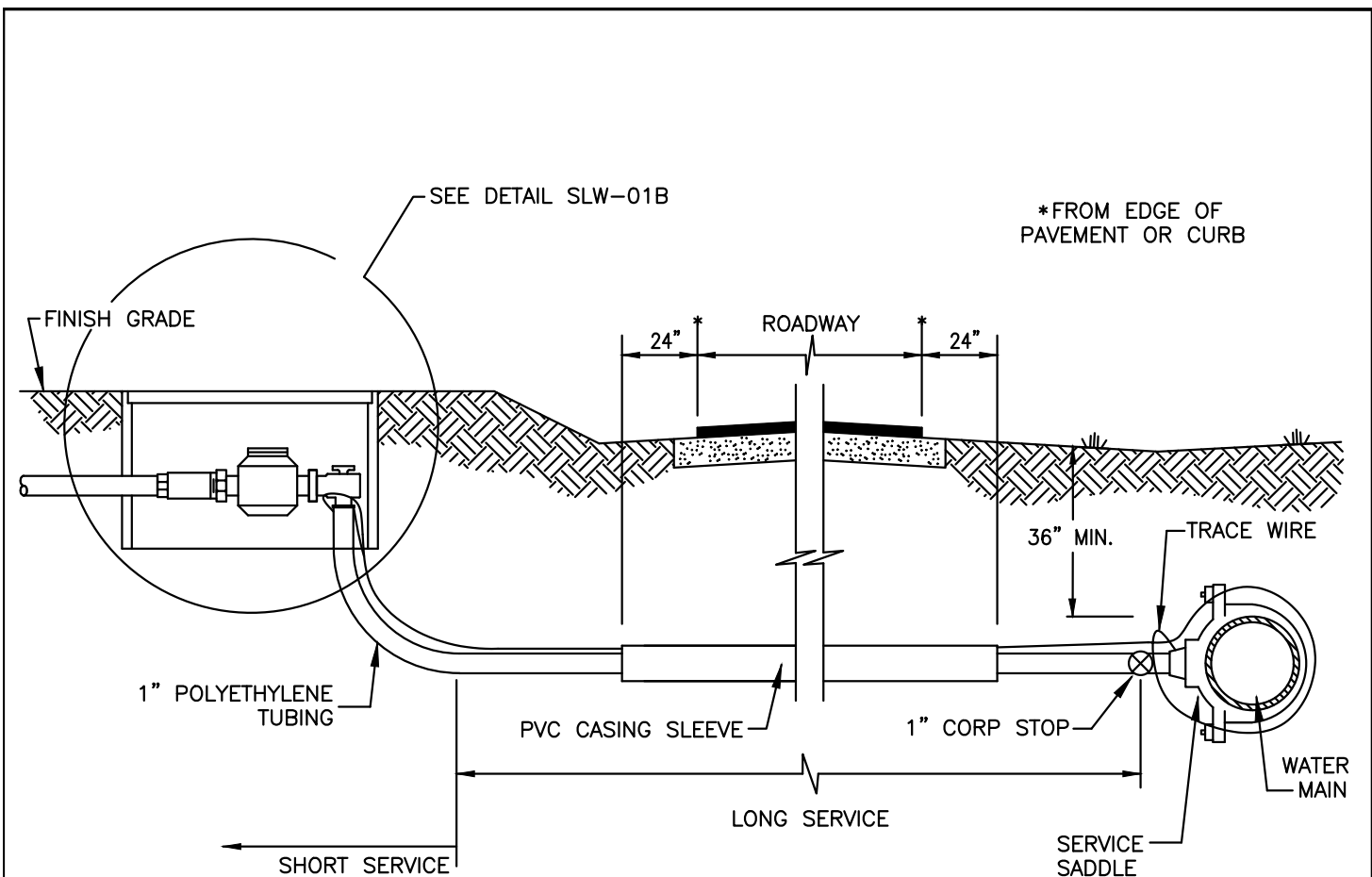
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DATE: 06/2020

SCALE: N.T.S.

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NOTES:

1. SUCCESSIVE TAPS INTO THE WATER MAIN SHALL BE A MINIMUM OF 18" ON CENTER.
2. ALL SERVICES REQUIRE 36" MINIMUM COVER AT ALL POINTS ALONG SERVICE.
3. 1"Ø SERVICES REQUIRE A 2" MINIMUM I.D. CASING PIPE. CASING PIPE SHALL BE SCHEDULE 40 PVC.
4. TRACE WIRE TO BE INSTALLED AS PER THIS DETAIL.
5. SERVICE SADDLE SHALL BE PER QUALIFIED PRODUCTS LIST.
6. 1" POLYETHYLENE TUBING SHALL BE PER QUALIFIED PRODUCTS LIST.
7. METERS SHALL BE LOCATED IMMEDIATELY OUTSIDE THE PROPERTY LINE IN THE RIGHT-OF-WAY UNLESS OTHERWISE DIRECTED BY SLWSD (SEE DETAIL SLW-01B).



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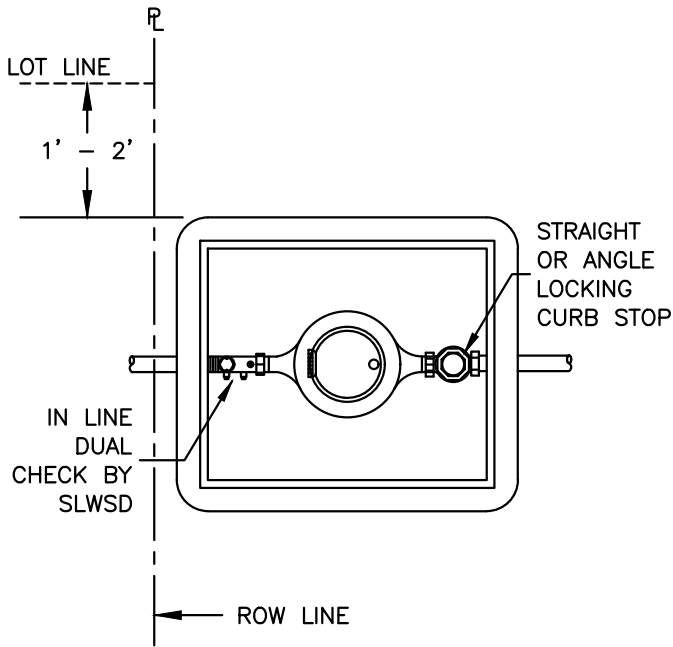
**RESIDENTIAL WATER
SERVICE CONNECTION**

DETAIL: SLW-01A

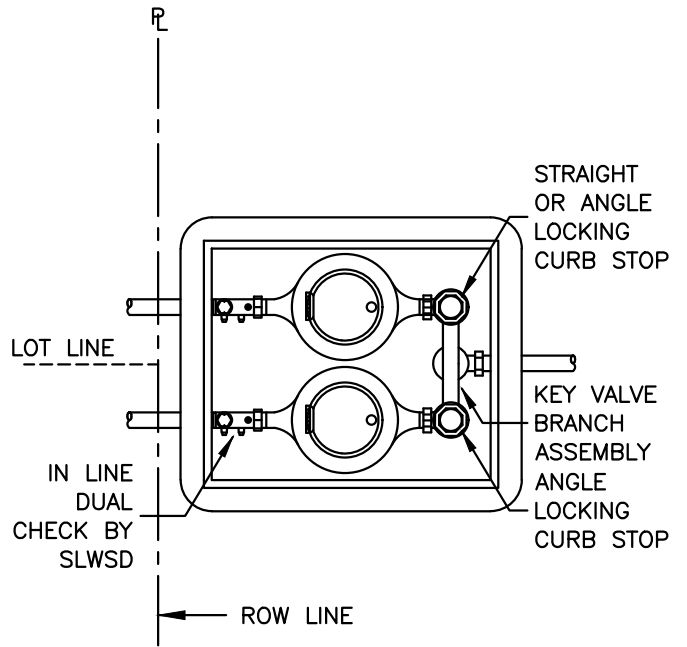
DATE: 03/2020

SCALE: N.T.S.

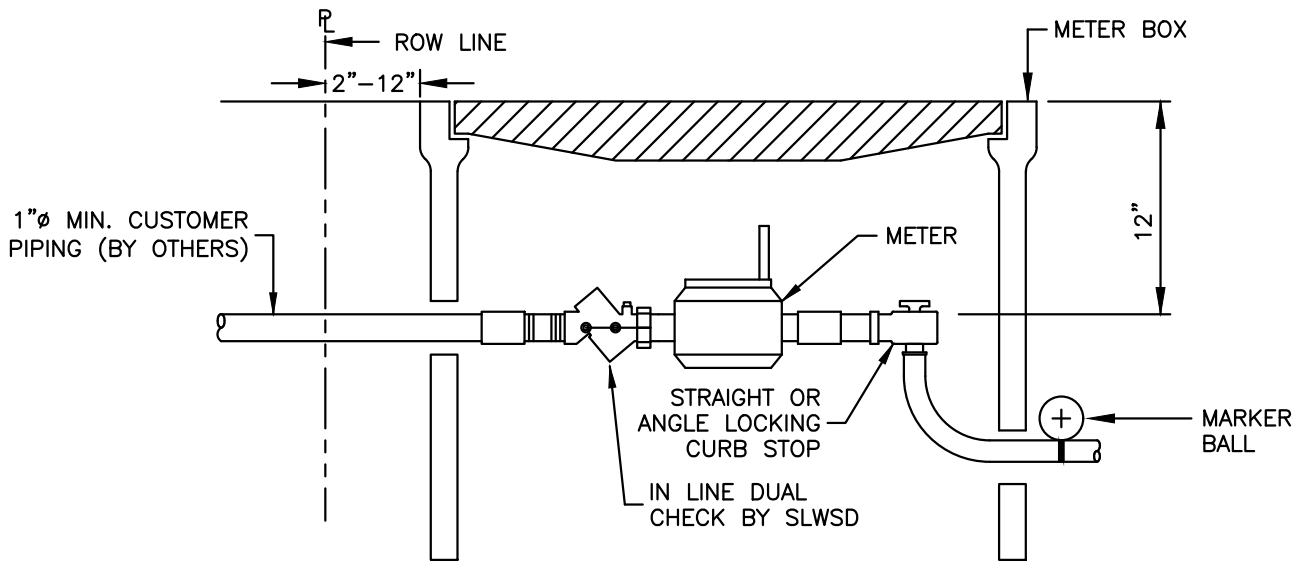
SHEET: 1 OF 2



SINGLE SERVICE



DOUBLE SERVICE



NOTES:

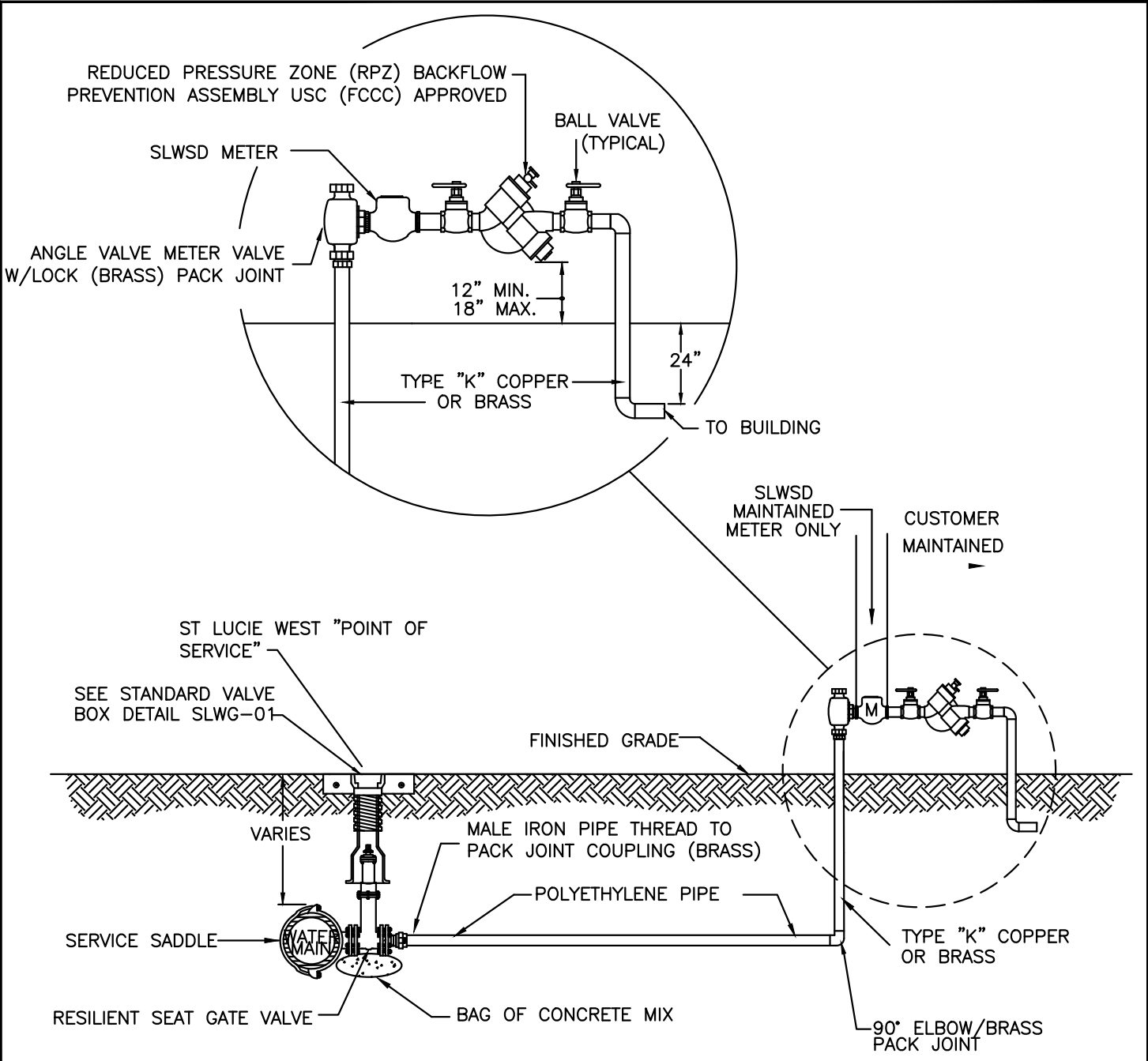
1. METER SHALL BE PURCHASED FROM AND INSTALLED BY SLWSD.
2. LOCATE MARKER BALL WITH TIE STRAPS ARE TO BE PLACED AS SHOWN.
3. A KEY VALVE BRANCH ASSEMBLY SHALL BE PROVIDED BY CONTRACTOR FOR DOUBLE SERVICES.



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**RESIDENTIAL WATER SERVICE
METER DETAIL**

**DETAIL: SLW-01B
DATE: 03/2020
SCALE: N.T.S.
SHEET: 2 OF 2**



NOTES:

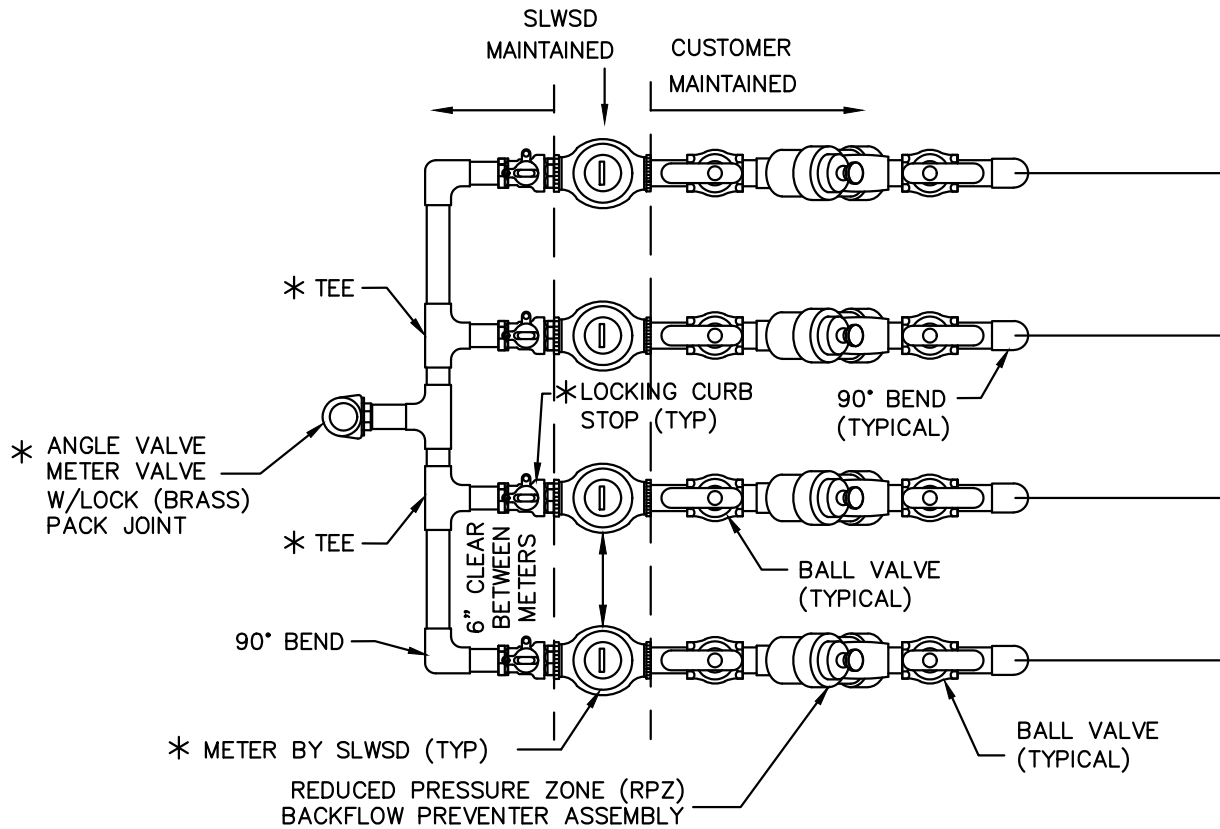
1. THE ENGINEER-OF-RECORD SHALL SIZE THE PIPE, FITTINGS, VALVES AND APPURTENANCES; THE MINIMUM SHALL BE 2" UP TO THE ANGLE VALVE.
2. BOTH RISERS SHALL BE BRASS OR TYPE "K" COPPER TUBING (HARD DRAWN) WITH COPPER/BRASS THREADED FITTINGS AND ADAPTERS.
3. ADDITIONAL SUPPORT SHALL BE PROVIDED AS NECESSARY TO SECURELY SUPPORT THE BACK FLOW PREVENTION ASSEMBLY.
4. VALVE, SADDLE AND APPURTENANCES SHALL BE PER THE QUALIFIED PRODUCTS LIST.
5. ALL METERS SHALL BE PURCHASED FROM AND INSTALLED BY SLWSD.
6. SLWSD "POINT OF SERVICE" VALVE SHALL BE THE CLOSEST VALVE TO PROPERTY LINE.



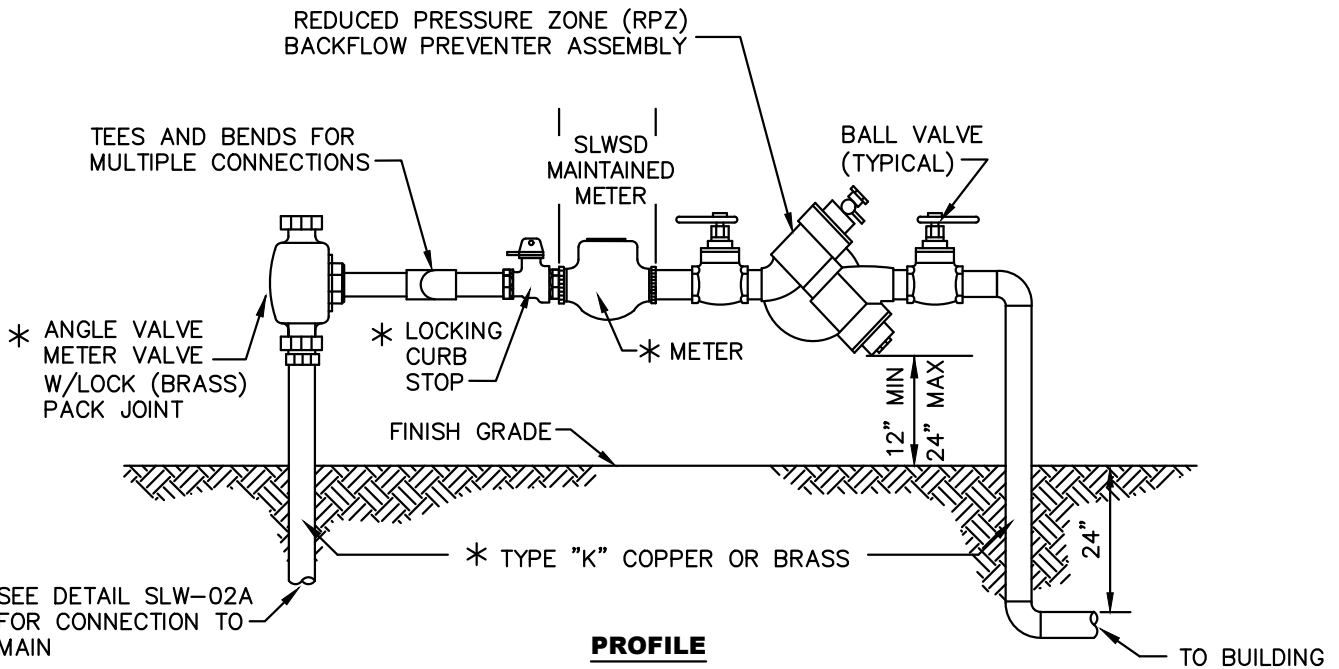
**MINIMUM CONSTRUCTION STANDARDS FOR
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**COMMERCIAL WATER
SERVICE CONNECTION**

DETAIL: SLW-02A
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 2



PLAN



PROFILE

NOTES: SEE DETAIL SLW-02A FOR ADDITIONAL NOTES

*ENGINEER-OF-RECORD TO CALCULATE PIPE AND FITTING SIZES TO ACCOMMODATE NUMBER OF & SIZE OF METER PROPOSED. THE NUMBER OF METERS SHALL BE A MAXIMUM OF 4 AND THE MINIMUM SIZE SERVICE SHALL BE 2".



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**COMMERCIAL MULTI-SERVICE
METER BANK ASSEMBLY**

DETAIL: SLW-02B

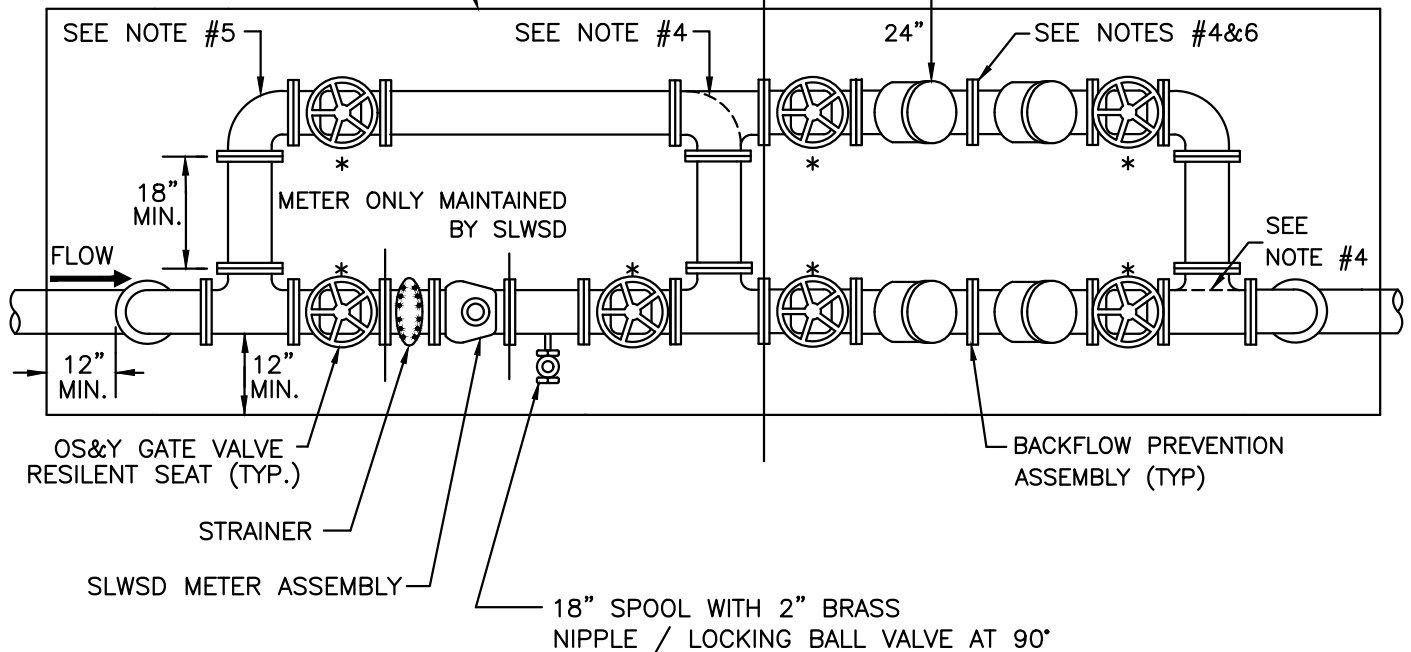
DATE: 03/2020

SCALE: N.T.S.

SHEET: 2 OF 2

* CUSTOMER'S HAVE A "POINT OF SERVICE"
VALVE LOCATED @ EASEMENT OF PROPERTY

MIN. 6" THICK CONCRETE
(3,000 PSI) WITH 6X6 WIRE MESH



PLAN VIEW

NOTES: *CUSTOMER SHALL OWN ENTIRE ASSEMBLY/SLWSD SUPPLIES/OWN METER ASSEMBLY.

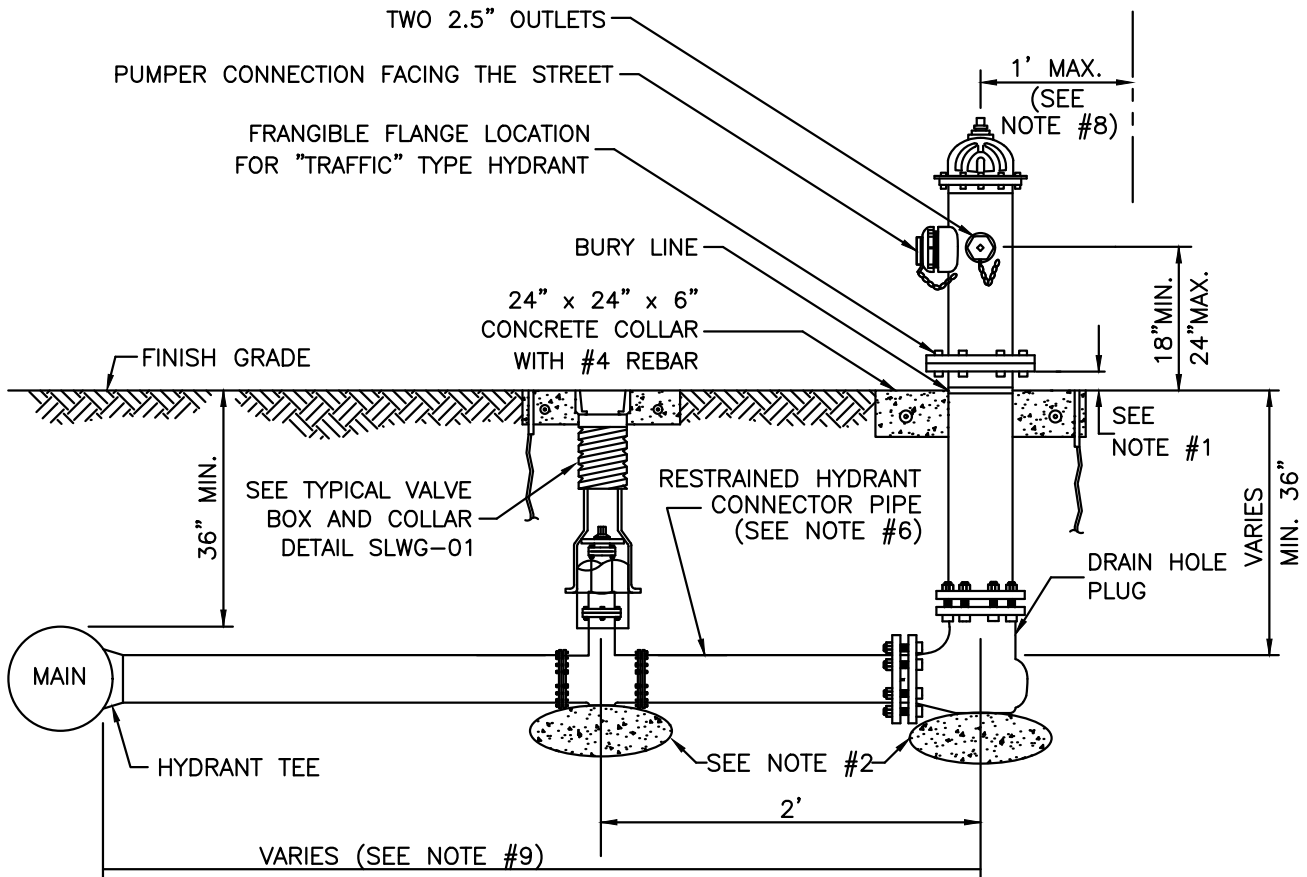
1. ALL PIPE AND FITTINGS SHALL BE CLASS 53 DUCTILE IRON.
2. ALL UNDERGROUND FITTINGS SHALL BE RESTRAINED MECHANICAL JOINT TYPE & ALL ABOVE GROUND FITTINGS SHALL BE FLANGE JOINTS, FULL FACE NEOPRENE GASKETS WITH STAINLESS STEEL BOLTS. ALL MATERIALS SHALL BE PER QPL.
3. STAINLESS STEEL CHAINS (3/8"MIN.) & LOCKS FOR THE VALVES SHALL BE PROVIDED AS REQUIRED BY THE SLWSD.
4. A BACKFLOW PREVENTION ASSEMBLY MAY NOT BE REQUIRED ON THE BY-PASS LINE IF THE CUSTOMER SUBMITS A WRITTEN REQUEST TO THE SLWSD FOR APPROVAL; IF APPROVED, AN ELBOW SHALL BE USED INSTEAD OF THE TEE AND A REVISED DETAIL SHALL BE SUBMITTED TO THE SLWSD.
5. METER BY-PASS LINE SHALL BE THE SAME SIZE AS SUPPLY TO METER.
6. BACKFLOW PREVENTION ASSEMBLY ON THE BY-PASS LINE SHALL BE SAME SIZE AND TYPE AS THE MAIN BACKFLOW PREVENTION ASSEMBLY.
7. THE ENGINEER-OF-RECORD SHALL SIZE METER AND BACKFLOW PREVENTION ASSEMBLY, TAKING INTO CONSIDERATION THE TYPICAL HEAD LOSS FOR EACH.
8. 12" MIN. / 24" MAX. CLEARANCE IS REQUIRED FROM THE TOP OF THE CONCRETE PAD TO THE BOTTOM OF THE RELIEF VALVE.
9. A 24" CLEAR ZONE SHALL BE LOCATED ON ALL SIDES OF THE BACKFLOW PREVENTION ASSEMBLIES.
10. ADJUSTABLE JACK STANDS SHALL BE PROVIDED FOR SUPPORT UNDER EACH GATE VALVE AND ANCHORED IN THE CONCRETE PAD.



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**METER AND BACKFLOW
PREVENTION ASSEMBLY FOR
3" AND LARGER SERVICES**

DETAIL: SLW-03
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 1



NOTES:

1. CLEARANCE SHALL BE 3".
2. A FIRM BASE CONSISTING OF BAGS OF CONCRETE MIX SHALL BE PLACED UNDER THE HYDRANT AND VALVES.
3. FIRE HYDRANT SHALL COMPLY WITH ANSI/AWWA C502, DRY BARREL "BREAK-AWAY" TYPE WITH 5 1/4" VALVE OPENING.
4. THE MINIMUM BURY DEPTH SHALL BE 36 INCHES.
5. HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH ANSI/AWWA C600. ALL PARTS AND MATERIALS USED IN THE ASSEMBLY SHALL BE ON THE QUALIFIED PRODUCTS LIST (QPL). THE HYDRANTS SHALL BE PAINTED BY THE MANUFACTURER WITH 2 COATS (MIN.) PER QPL.
6. VERTICAL BENDS MAY BE NECESSARY TO OBTAIN COVER UNDER SWALES OR AT HYDRANT LOCATION. VERTICAL BENDS OR OFFSETS ARE INCLUDED IN HYDRANT ASSEMBLY. ALL BENDS MUST BE RESTRAINED.
7. CONNECTOR PIPE AND ANY REQUIRED VERTICAL BENDS SHALL HAVE AN ANCHORING FEATURE ON BOTH ENDS SO THAT WHEN USED WITH M.J. SPLIT GLANDS, A RESTRAINED JOINT IS PROVIDED.
8. WHEN INSTALLED WITH SIDEWALK OR CURB, PROVIDE MIN. 2 FOOT CLEARANCE TO ANY PORTION OF THE HYDRANT, UTILIZING THE SIDE LOT EASEMENT IF NECESSARY.
9. A GATE VALVE SHALL BE INSTALLED WITHIN 2 FEET OF THE FIRE HYDRANT. IF DISTANCE FROM THE WATER MAIN TO THE FIRE HYDRANT IS GREATER THAN 20 FEET, A SECOND GATE VALVE SHALL BE INSTALLED WITHIN 2 FEET OF THE MAIN.
10. ANY DEVIATIONS FROM THE CRITERIA ABOVE REQUIRE A WRITTEN RECOMMENDATION FROM THE ENGINEER-OF-RECORD AND WRITTEN APPROVAL BY SLWSD.



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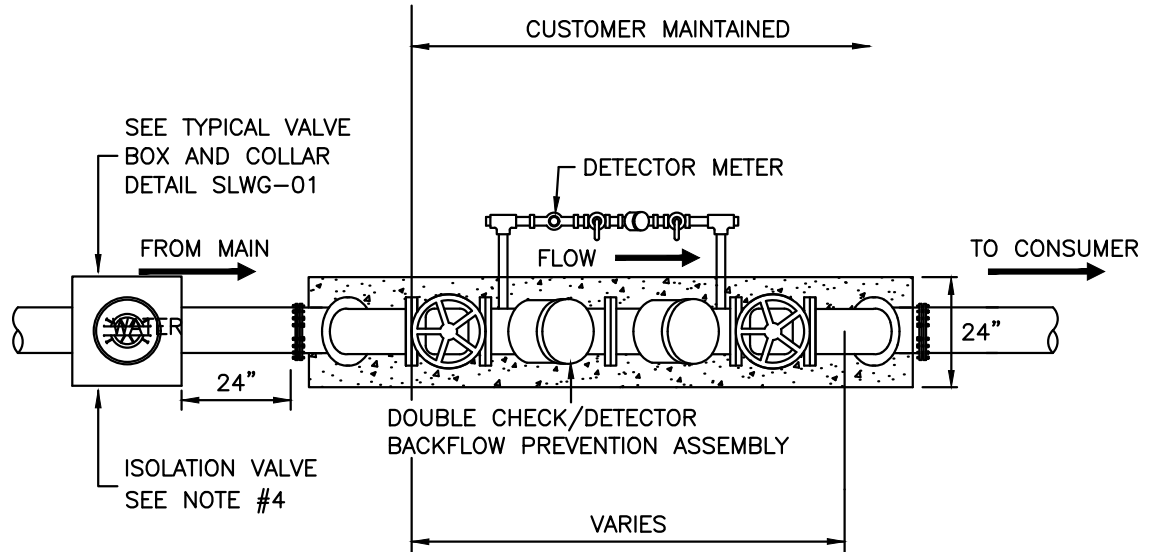
FIRE HYDRANT ASSEMBLY

DETAIL: SLW-04

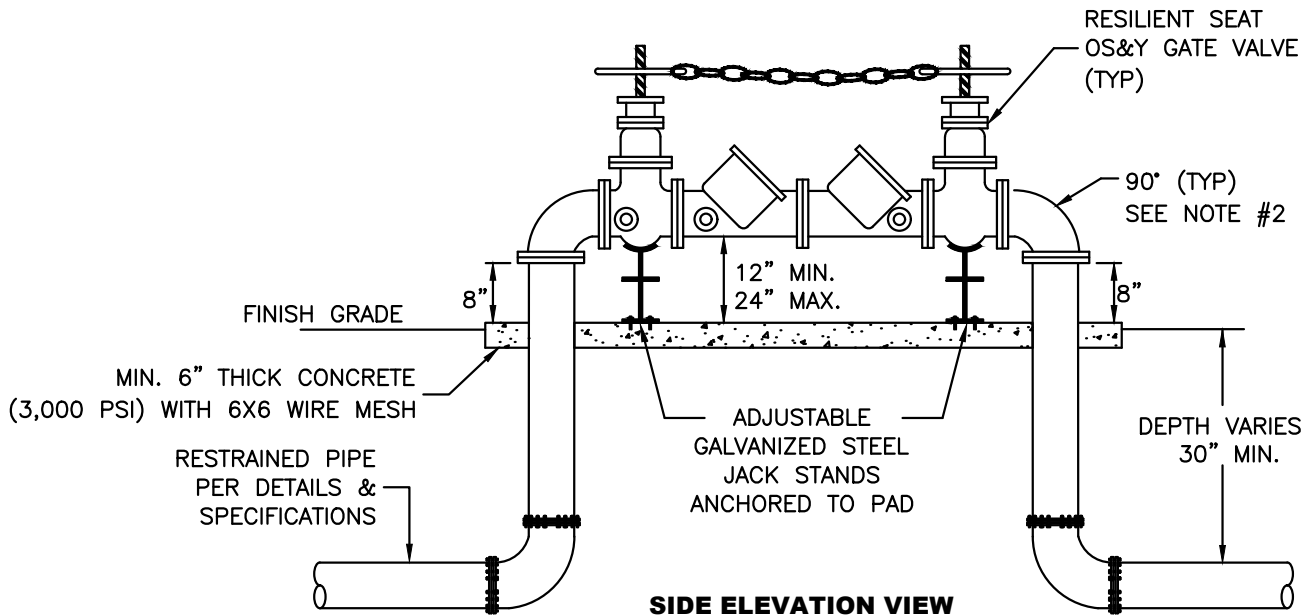
DATE: 03/2020

SCALE: N.T.S.

SHEET: 1 OF 1



PLAN VIEW



SIDE ELEVATION VIEW

NOTES:

1. ALL PIPE AND FITTINGS SHALL BE CLASS 53 DUCTILE IRON.
2. ALL UNDERGROUND FITTINGS SHALL BE RESTRAINED MECHANICAL JOINT TYPE & ALL ABOVE GROUND FITTINGS SHALL BE FLANGE JOINTS WITH FULL FACE NEOPRENE GASKETS, WITH STAINLESS STEEL BOLTS.
3. A 3/8" STAINLESS STEEL CHAIN & LOCK SHALL BE PROVIDED FOR THE VALVES AS REQUIRED BY THE SLWSD. VALVES TO BE LOCKED IN OPEN POSITION.
4. TO MAINTAIN CONTINUITY OF SERVICE DURING REPAIRS TO THE ASSEMBLY, AN ISOLATION VALVE SHALL BE PROVIDED ON THE SLWSD MAIN AND LABELED SLWSD POINT OF SERVICE.



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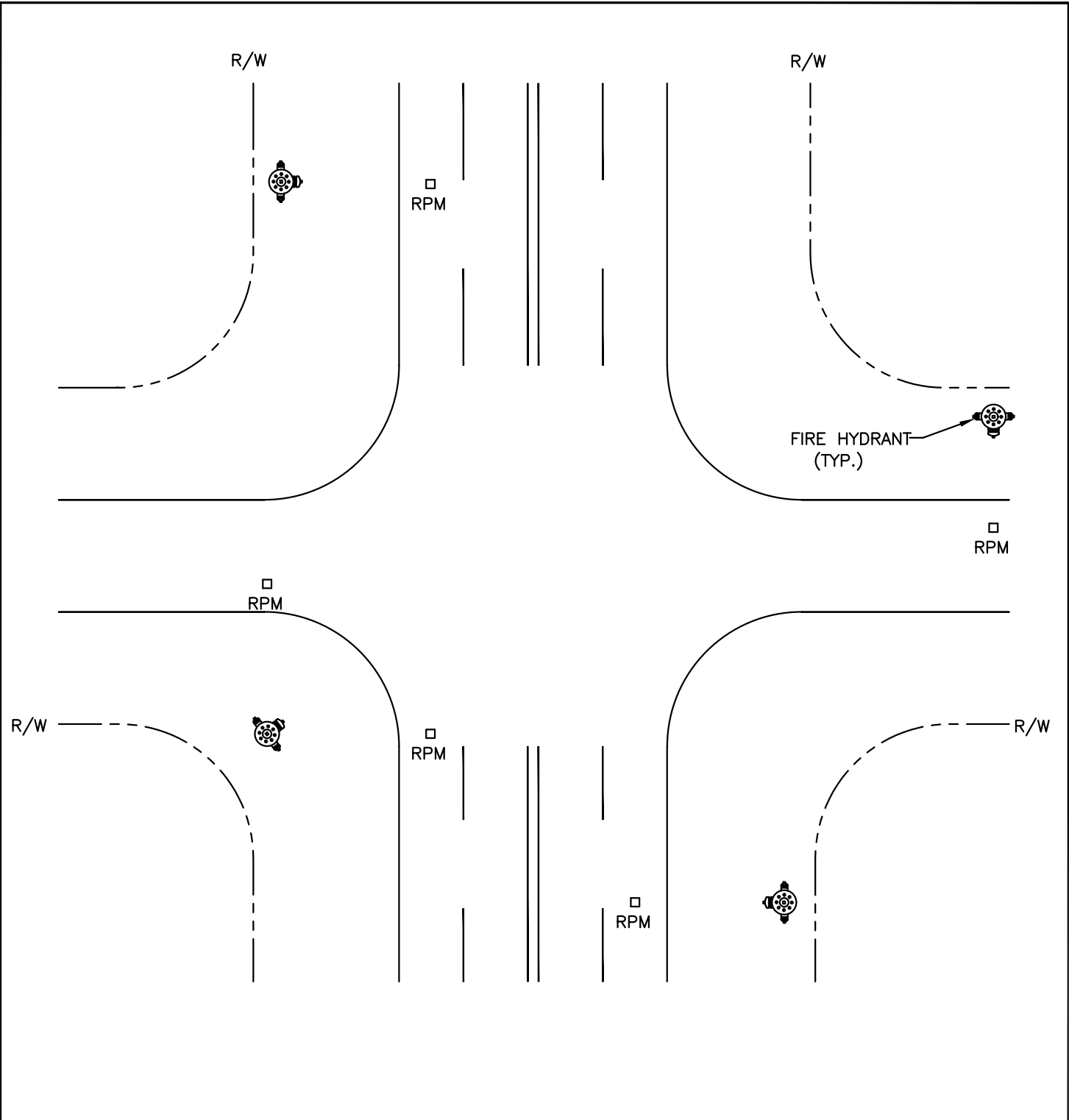
**FIRE SERVICE
BACKFLOW ASSEMBLY**

DETAIL: SLW-05

DATE: 03/2020

SCALE: N.T.S.

SHEET: 1 OF 1



NOTES:

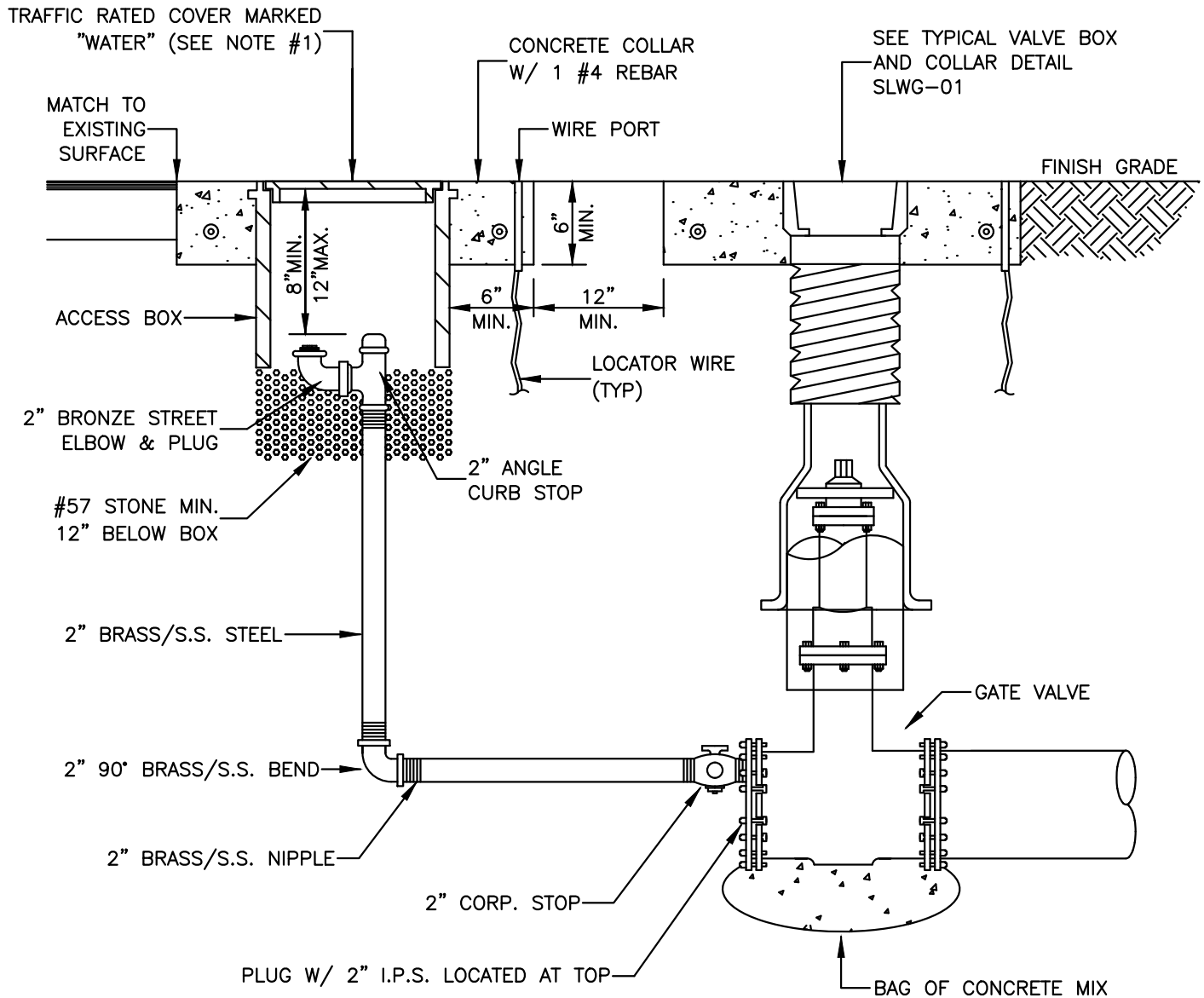
1. MARKER COLOR IS BLUE. PLACE IN CENTER OF THE LANE CLOSEST TO THE HYDRANT.
2. IF HYDRANT IS LOCATED WITHIN THE RADIUS OF AN INTERSECTION PLACE A MARKER ON EACH ROADWAY IN THE CENTER LANES CLOSEST TO THE HYDRANT.
3. MARKER IS PLACED PERPENDICULAR (90 DEGREES) TO THE HYDRANT.



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**FIRE HYDRANT
REFLECTIVE PAVEMENT MARKER
PLACEMENT GUIDELINE**

DETAIL: SLW-06
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 1



NOTES:

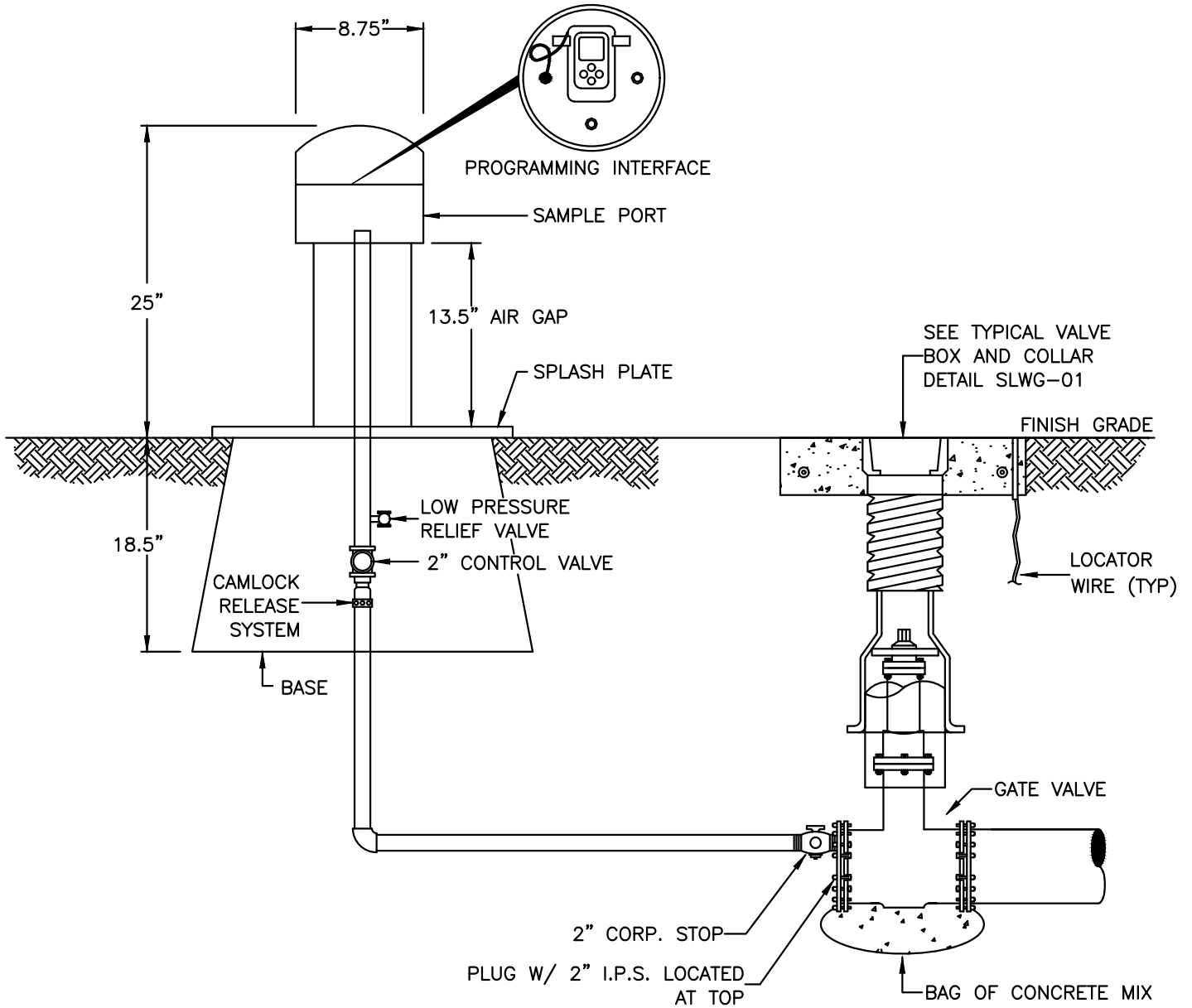
1. COVER SHALL BE PAINTED BLUE FOR "WATER".
2. THE PIPE, FITTINGS AND APPURTENANCES USED SHALL BE ON THE SLWSD QUALIFIED PRODUCTS LIST.
3. 2" POLY PIPE MAY BE APPROVED IN LIEU OF BRASS/SS.



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BLOW-OFF ASSEMBLY

DETAIL: SLW-07
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 1



NOTES:

1. AUTOMATIC FLUSHING VALVES SHALL BE PROVIDED AT ALL DEAD ENDS UNLESS OTHERWISE APPROVED IN WRITING BY THE SLWSD.
2. PIPE, FITTINGS, VALVES, APPURTENANCES AND OTHER MATERIALS SHALL BE PER THE APPROVED QUALIFIED PRODUCTS LIST.
3. AUTOMATIC FLUSHING VALVES SHALL BE SUBMITTED TO SLWSD FOR APPROVAL.



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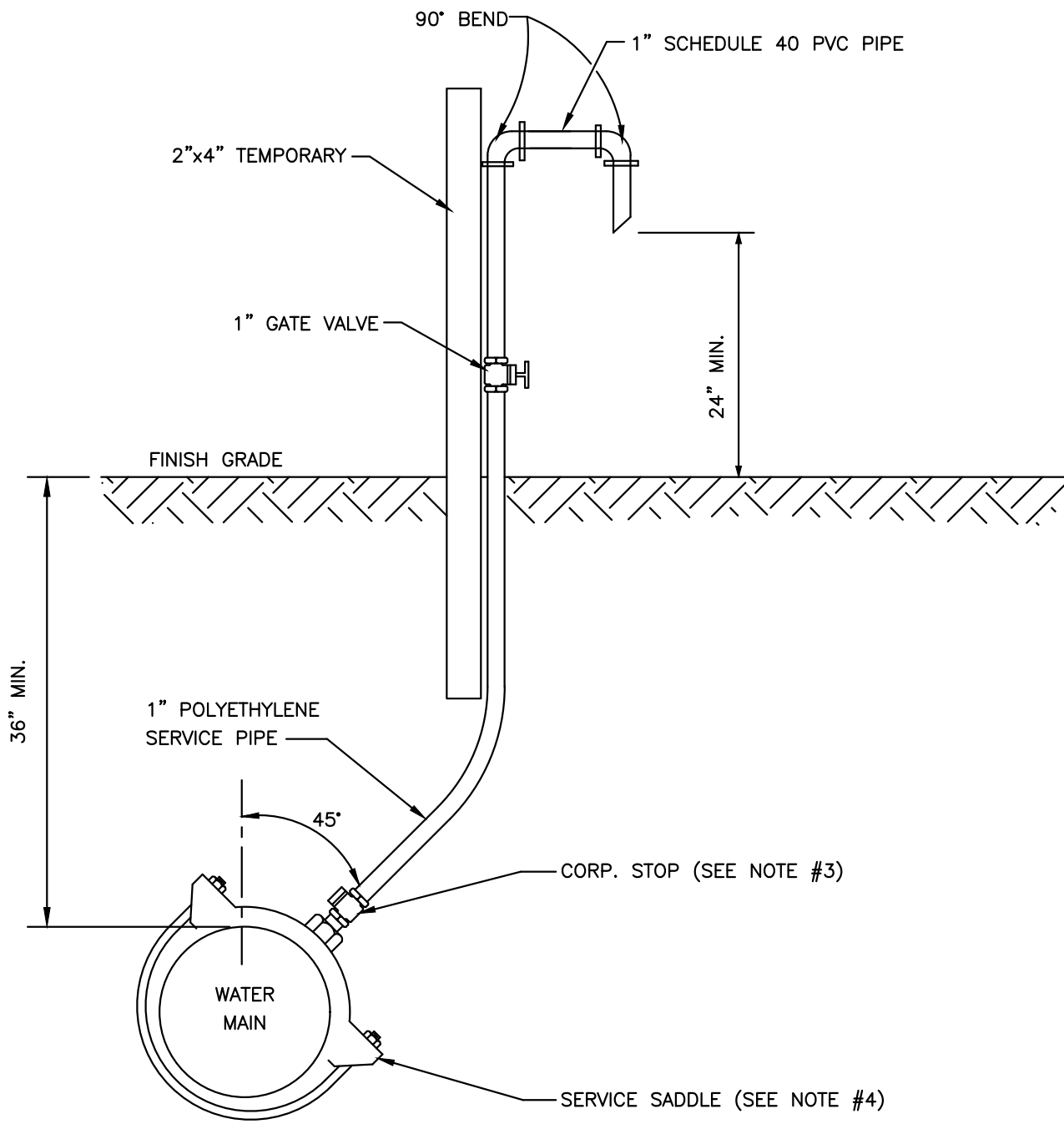
**AUTOMATIC FLUSHING VALVE
FOR WATER MAINS**

DETAIL: SLW-08

DATE: 03/2020

SCALE: N.T.S.

SHEET: 1 OF 1



NOTES:

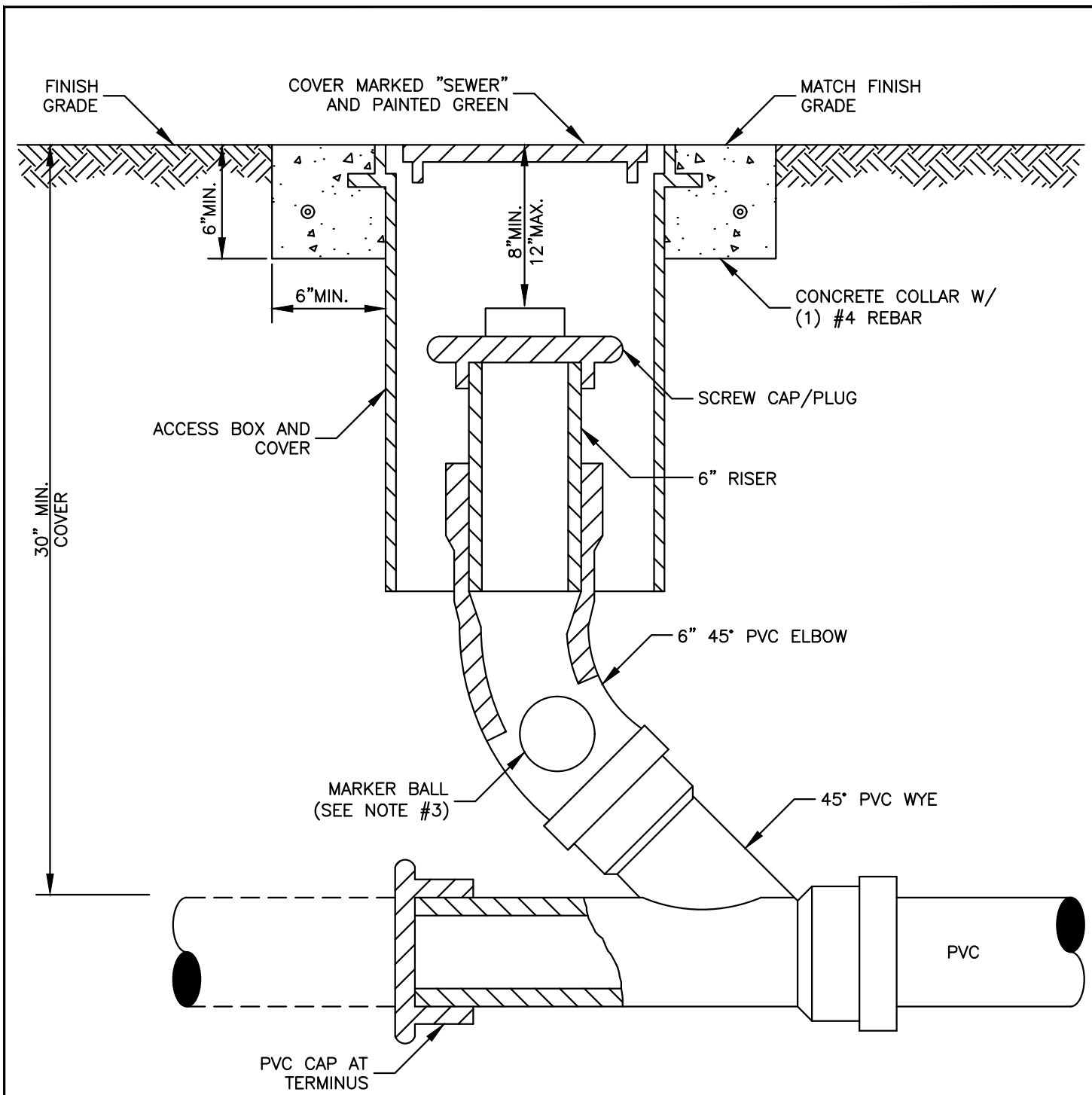
1. SAMPLING POINTS SHALL BE LOCATED AS SHOWN ON PLANS APPROVED BY SLWSD AND AS REQUIRED BY FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION.
2. THE EXCAVATED HOLE FOR THIS INSTALLATION SHALL BE BACKFILLED TO FINISHED GRADE PRIOR TO DISCHARGING ANY WATER ON THE GROUND.
3. AFTER BACTERIOLOGICAL CLEARANCE IS RECEIVED, THE CONTRACTOR SHALL TURN CORPORATION STOP OFF, REMOVE TUBING AND PLUG COPORATION STOP WITH BRASS PLUG/CAP.
4. SERVICE SADDLE SHALL BE PER QUALIFIED PRODUCTS LIST. NO DIRECT TAPS



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WATER SAMPLING POINT

DETAIL: SLW-09
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 1



NOTES:

1. AN ACCESS BOX AND COVER ON THE QUALIFIED PRODUCT LIST SHALL BE USED.
2. CLEANOUT ASSEMBLY SHALL BE INSTALLED AT A MAXIMUM 75' INTERVALS AND AT TERMINAL POINT OF THE SLWSD RESPONSIBILITY. THE LOCATION SHALL BE IN ACCORDANCE WITH THE SLWSD UTILITY STANDARDS. "POINT OF SERVICE"
3. MARKER BALL SHALL BE STRAPPED TO THE ELBOW.



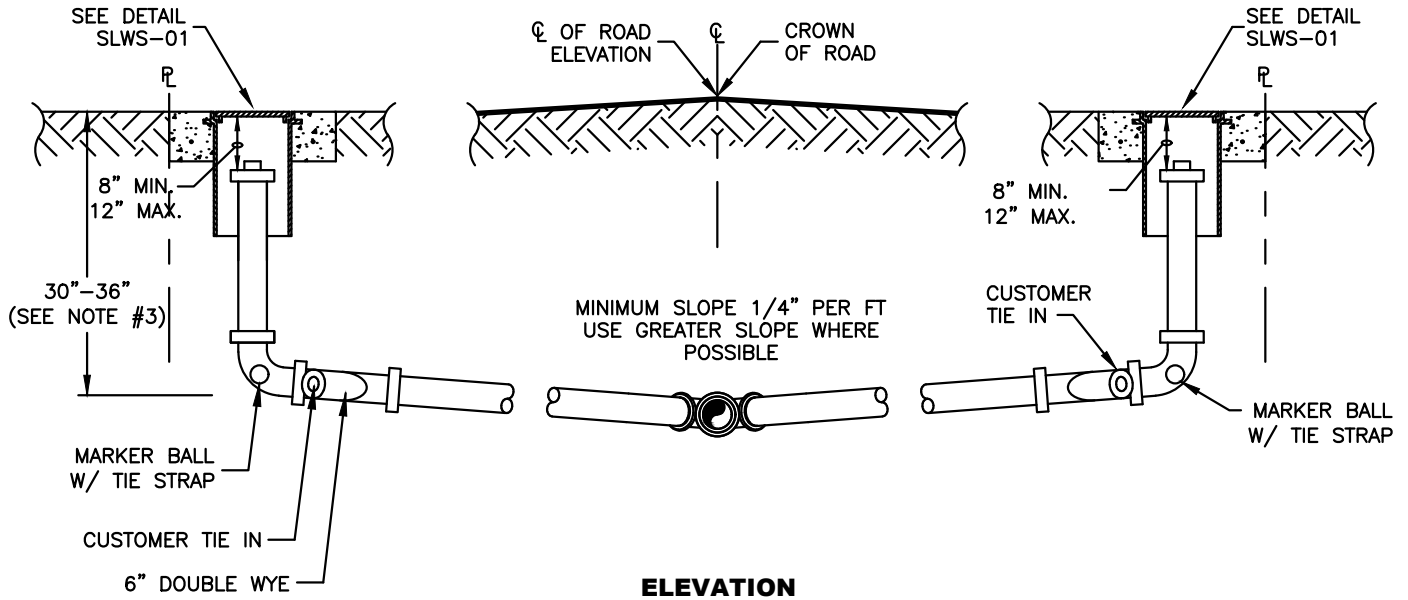
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SANITARY SEWER CLEANOUT

DETAIL: SLWS-01
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 1

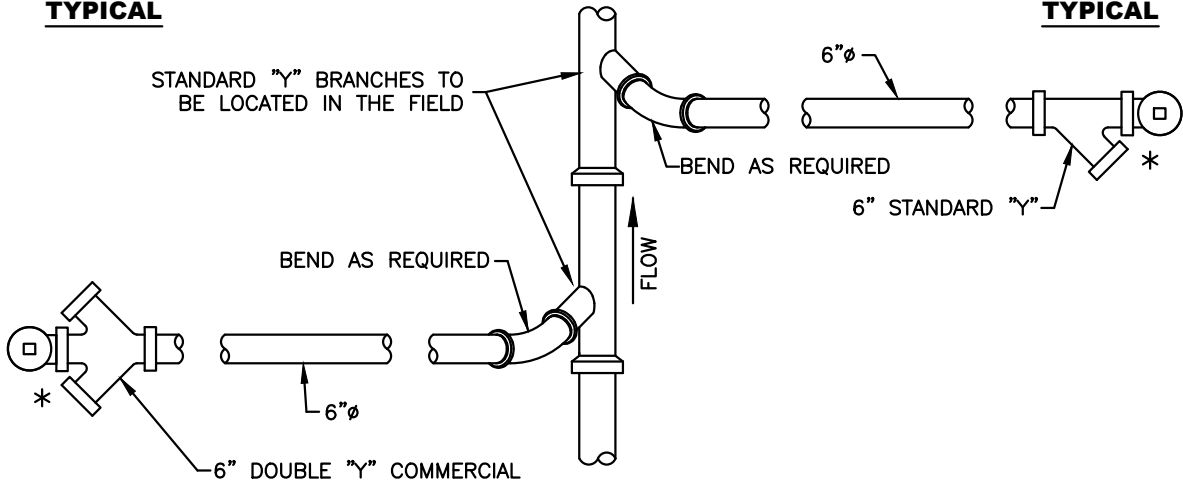
**DOUBLE SERVICE
TYPICAL**

**SINGLE SERVICE
TYPICAL**



**DOUBLE SERVICE
TYPICAL**

**SINGLE SERVICE
TYPICAL**



*SANITARY SEWER CLEANOUT BOX NOT SHOWN

NOTES:

1. SANITARY SEWER LATERALS SHALL BE MIN. 6" IN DIAMETER.
2. ALL MATERIALS ARE TO BE PER SLWSD APPROVED QUALIFIED PRODUCT LIST.
3. THE ENGINEER OF RECORD SHALL ENSURE THAT THE PROPOSED PLUMBING STUB-OUT ELEVATION FOR EACH BUILDING WILL ALLOW FOR A GRAVITY CONNECTION TO THE SANITARY SEWER LATERAL WITH THE REQUIRED SLOPE. HORIZONTAL AND VERTICAL SEPARATION SHALL BE IN ACCORDANCE WITH SLWSD STANDARDS.(SEE SLWG-04)



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**SANITARY SEWER LATERAL
(SHALLOW)**

DETAIL: SLWS-02

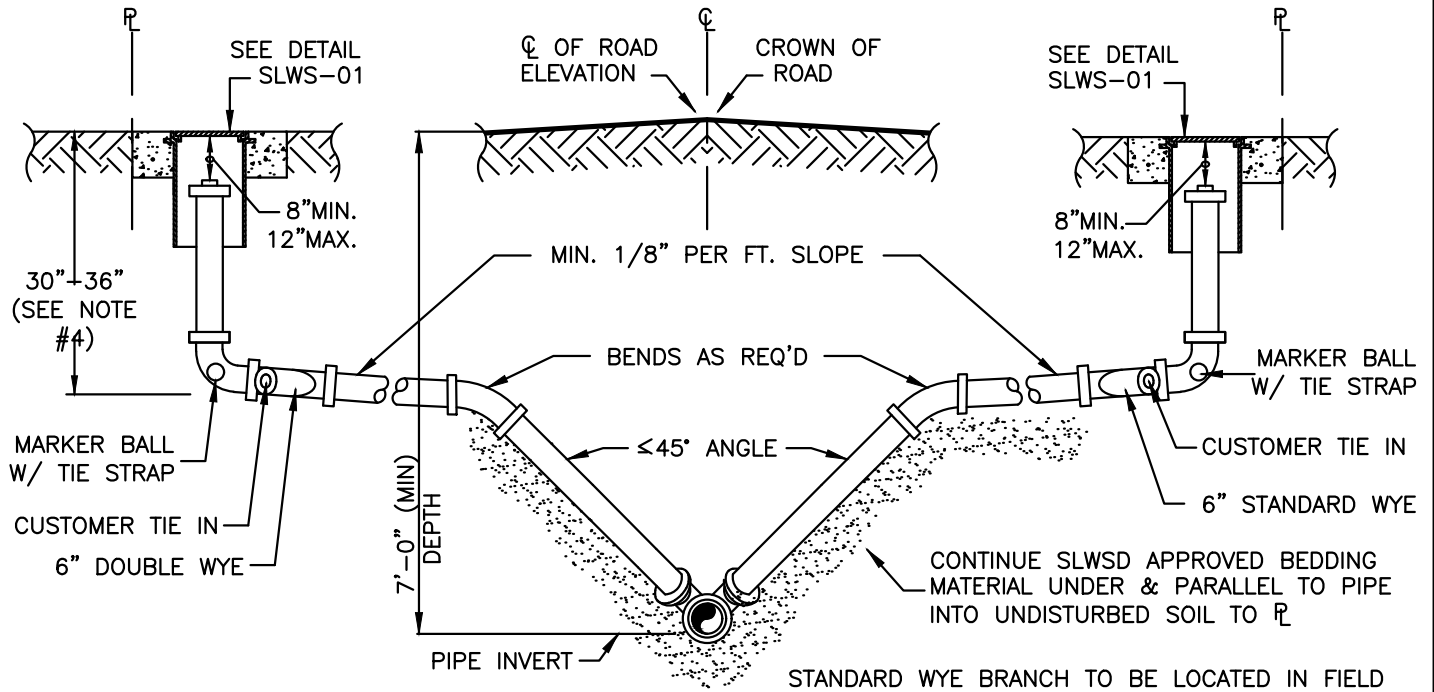
DATE: 03/2020

SCALE: N.T.S.

SHEET: 1 OF 1

**DOUBLE SERVICE
TYPICAL**

**SINGLE SERVICE
TYPICAL**



ELEVATION

NOTES:

1. SLWSD APPROVED BEDDING MATERIAL SHALL BE USED FOR EXCAVATION BACK FILL.
2. ALL MATERIALS ARE TO BE PER SLWSD APPROVED QUALIFIED PRODUCT LIST.
3. LOCATE MARKER BALL WITH TIE STRAPS TO BE ATTACHED TO 6" ELBOW.
4. THE ENGINEER OF RECORD SHALL ENSURE THAT THE PROPOSED PLUMBING STUB-OUT ELEVATION FOR EACH BUILDING WILL ALLOW FOR A GRAVITY CONNECTION TO THE SANITARY SEWER LATERAL WITH THE REQUIRED SLOPE. HORIZONTAL AND VERTICAL SEPARATION SHALL BE IN ACCORDANCE WITH THE SLWSD STANDARDS (SEE SLWG-04).



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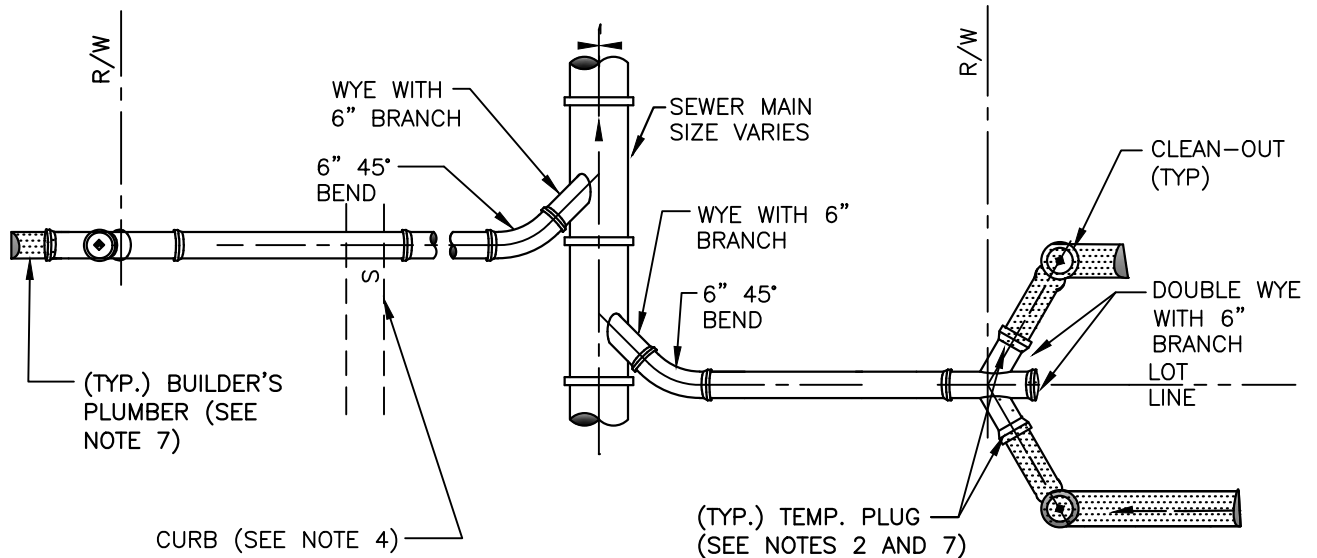
**SANITARY SEWER LATERAL
(DEEP)**

DETAIL: SLWS-03

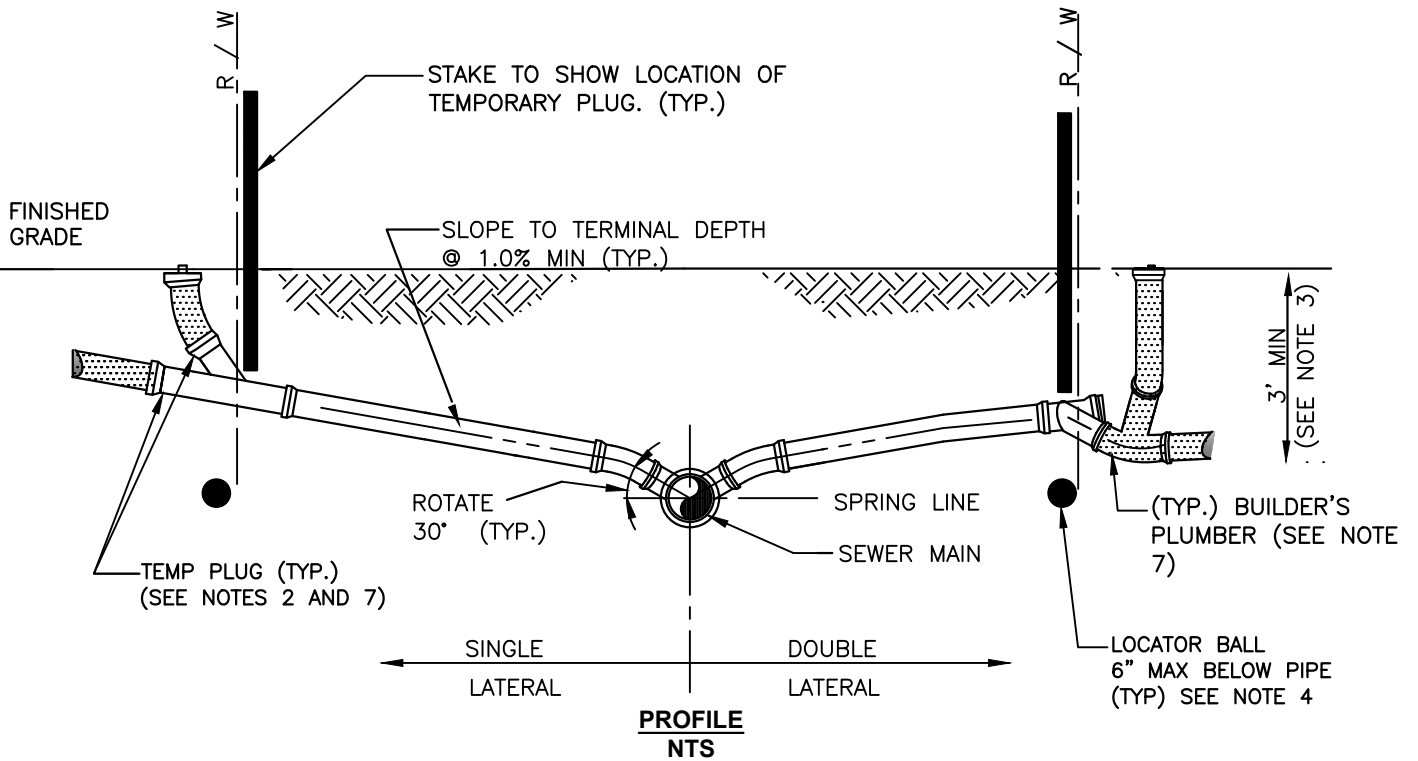
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SCALE: N.T.S.

SHEET: 1 OF 1



**PLAN
NTS**



**PROFILE
NTS**

NOTES:

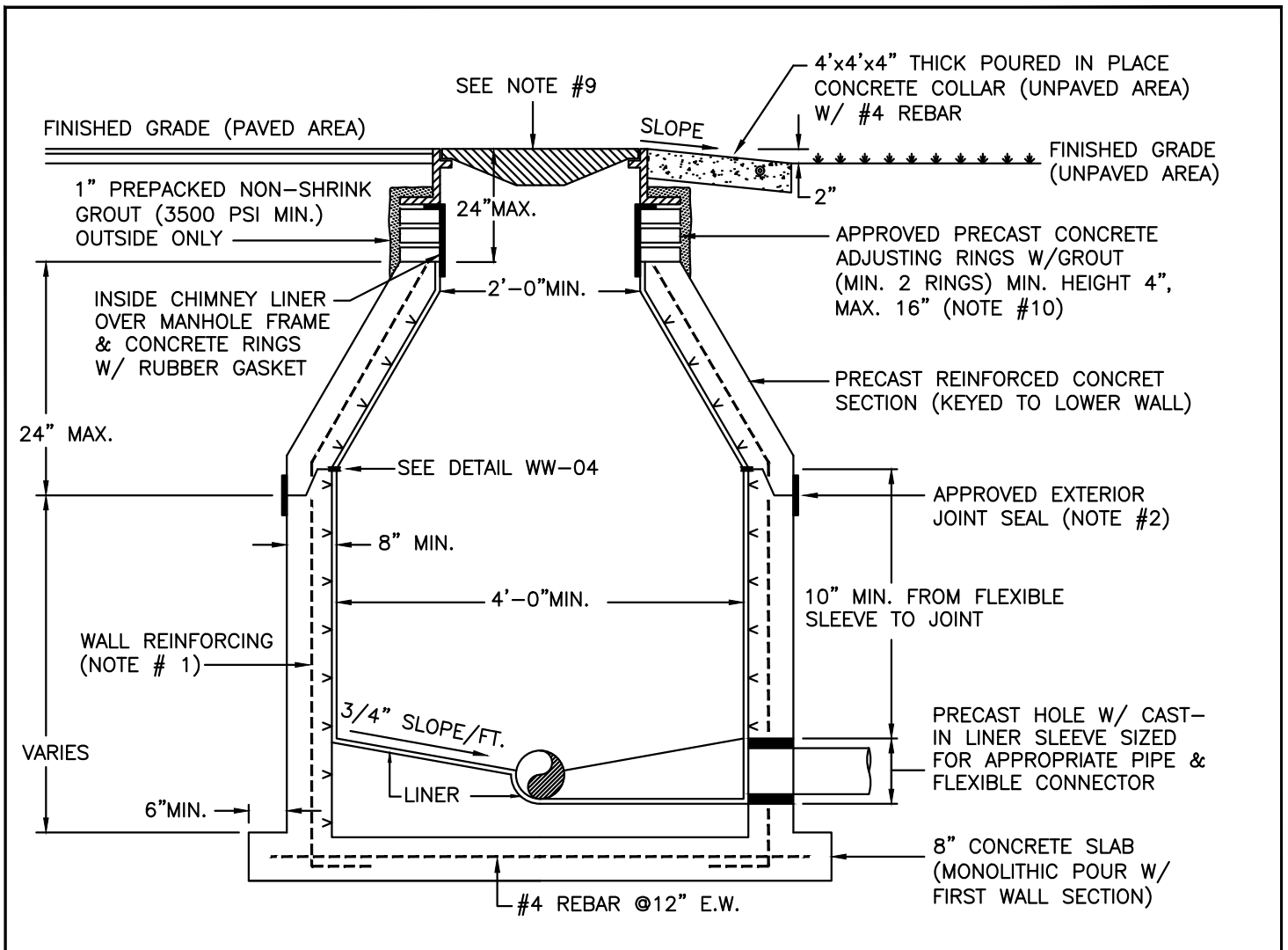
1. INVERT OF SERVICE LATERAL SHALL NOT ENTER SEWER MAIN BELOW SPRING LINE.
2. SERVICE LATERAL SHALL BE CAPPED BY DEVELOPER'S SITE-WORK CONTRACTOR.
3. WYE TO BE NO SHALLOWER THAN 3- FEET AND NO DEEPER THAN 5- FEET.
4. LOCATOR BALLS TO BE INSTALLED BY DEVELOPER'S SITE-WORK CONTRACTOR, ONE PER SERVICE.
5. ALL FITTINGS SHOWN ARE TO BE INSTALLED.
6. BUILDER'S PLUMBER WILL REMOVE PLUG, INSTALL CLEANOUT, AND CONNECT SERVICE LATERAL TO HOUSE.



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SERVICE LATERAL

DETAIL: SLWS-04
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 1



NOTES:

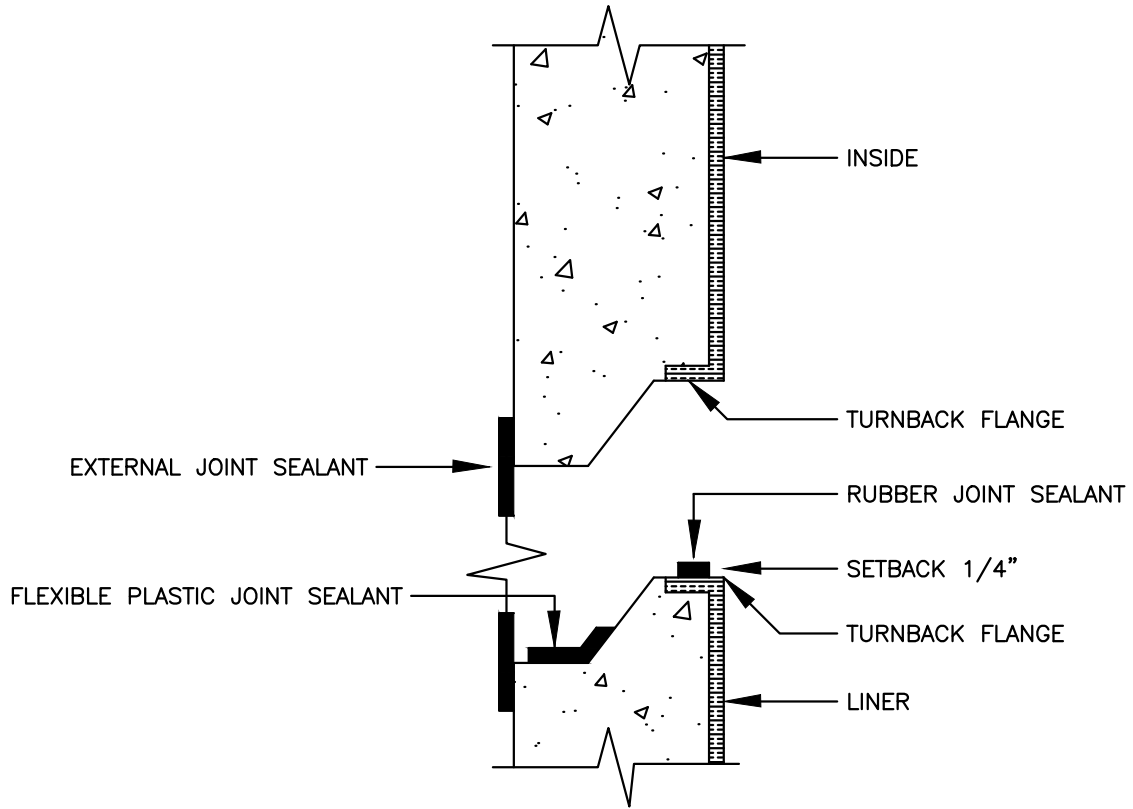
1. MANHOLE FABRICATION SHALL BE IN ACCORDANCE W/ ASTM C-478, LATEST REVISION.
2. SEALANT SHALL BE APPLIED PER MANUFACTURER'S SPECIFICATION BETWEEN MANHOLE SECTIONS & AT ALL JOINTS (SEE DETAIL SLWS-06). ALSO AN APPROVED EXTERNAL JOINT SEAL SHALL BE APPLIED AT THE JOINTS.
3. ALL PIPE OPENINGS SHALL BE GAS AND WATER TIGHT WITH NO EXPOSED CONCRETE SURFACES.
4. CAST OPENINGS SHALL BE MANUFACTURED WITH A POLYPROPYLENE SLEEVE CAST IN. APPROVED FLEXIBLE MANHOLE CONNECTORS SHALL BE USED AT PIPE CONNECTIONS. HOLE SIZE PER BOOT MANUFACTURER'S SPECIFICATIONS. DOUBLE STAINLESS STEEL PIPE CLAMPS MUST BE INSTALLED ON THE FLEXIBLE SLEEVES WHERE REQUIRED BY BOOT MANUFACTURER'S INSTALLATION INSTRUCTIONS.
5. FLOW CHANNELS SHALL BE CONSTRUCTED TO DIRECT FLOW INTO FLOW STREAM (SEE DETAIL SLWS-07).
6. LIFT HOLES ARE PERMITTED BUT MUST BE GROUTED ONCE MANHOLE IS IN PLACE.
7. A MINIMUM OF 5 FEET IS REQUIRED BETWEEN OUTSIDE OF MANHOLE AND SERVICE WYE.
8. MANHOLE AND BASE WILL BE LINED INSIDE WITH AN APPROVED LINER SYSTEM ON THE QUALIFIED PRODUCTS LIST (QPL).
9. AN APPROVED COVER & FRAME SHALL BE PROVIDED PER QPL. APPROVED INSIDE MANHOLE CHIMNEY SEALANT SHALL BE APPLIED OVER THE MANHOLE FRAME, CONCRETE RINGS, AND LINER SECTION IN ACCORDANCE WITH THE SPECIFICATIONS.
10. MAXIMUM HEIGHT OF CHIMNEY SHALL NOT EXCEED 24 INCHES INCLUDING FRAME CASTING.
11. EXCAVATION, DEWATERING, BACKFILL & COMPACTION SHALL BE CONDUCTED IN ACCORDANCE W/ THE SLWSD UTILITY STANDARDS. DENSITY TESTS SHALL BE PERFORMED AND SUBMITTED AS REQUIRED.



**MINIMUM CONSTRUCTION STANDARDS FOR
ST. LUCIE WEST SERVICES DISTRICT**
450 SW UTILITY DRIVE,
PORT SAINT LUCIE, FL 34986
PHONE: (772) 340-0220

STANDARD PRECAST MANHOLE

DETAIL: SLWS-05
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 1



JOINT SEALANTS

NOTE:

APPROVED JOINT SEALANTS ON THE QUALIFIED PRODUCTS LIST SHALL BE USED.



MINIMUM CONSTRUCTION STANDARDS FOR
 ST. LUCIE WEST SERVICES DISTRICT
 450 SW UTILITY DRIVE,
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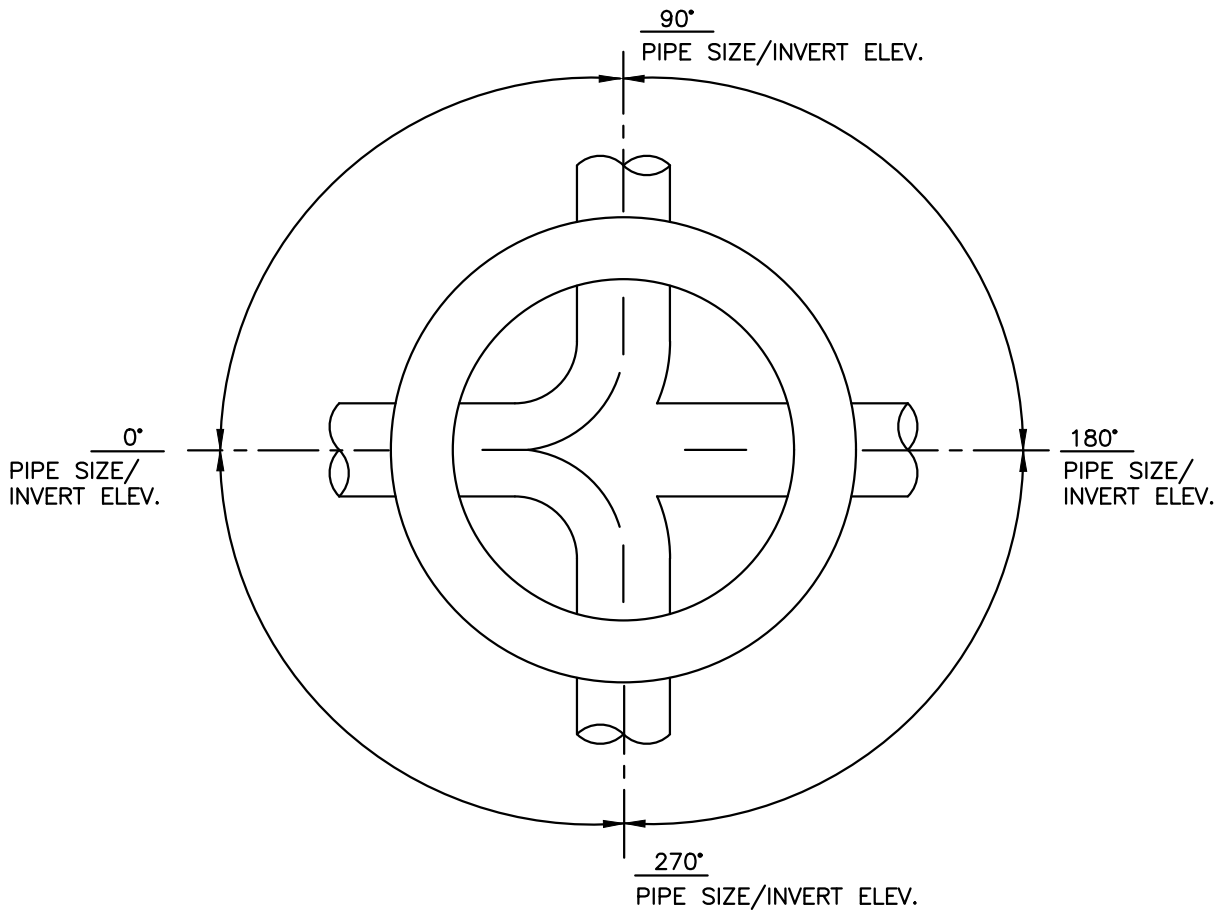
**MANHOLE / WETWELL
 JOINT DETAIL**

DETAIL: SLWS-06

DATE: 03/2020

SCALE: N.T.S.

SHEET: 1 OF 1



PLAN VIEW

NOTES:

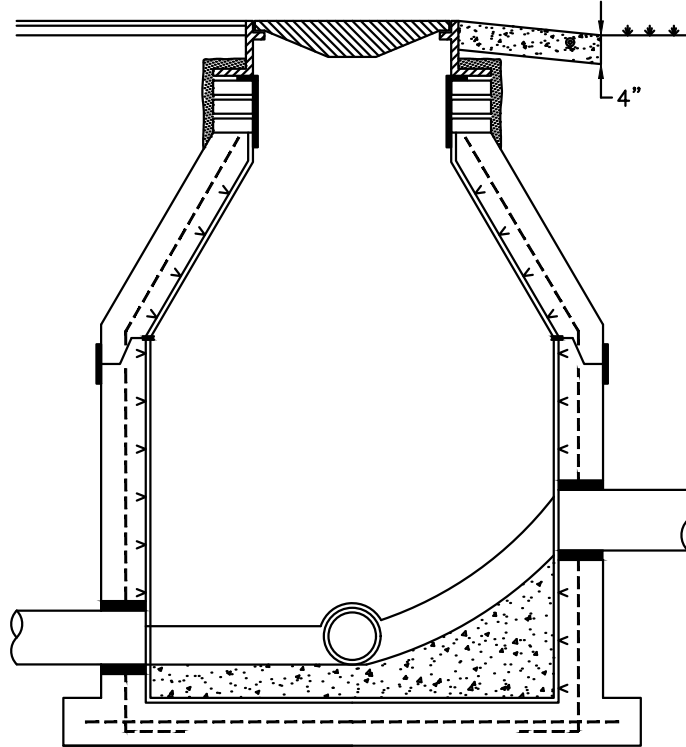
1. THE ENGINEER-OF-RECORD SHALL SUBMIT TO SLWSD THE SHOP DRAWINGS FOR EACH STRUCTURE, PROVIDING THE DIAMETER OF EACH PIPE, INVERT ELEVATION OF EACH PIPE, RIM ELEVATION AND THE NUMBER OF DEGREES BETWEEN PIPES.
2. MANHOLE INTERIOR SHALL BE LINED UTILIZING A CORROSION BARRIER SYSTEM ON THE QUALIFIED PRODUCTS LIST (QPL).
3. MANHOLE EXTERIOR SHALL BE COATED WITH A PRIMER AND TWO COATS OF A WATER BASED EPOXY 3-5 MILS EACH PER THE SLWSD STANDARDS. APPLICATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATION.



MINIMUM CONSTRUCTION STANDARDS FOR
ST. LUCIE WEST SERVICES DISTRICT
450 SW UTILITY DRIVE,
PORT SAINT LUCIE, FL 34986
PHONE: (772) 340-0220

**INVERT FLOW CHANNELS
FOR
MANHOLES**

DETAIL: SLWS-07
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 1



NOTES:

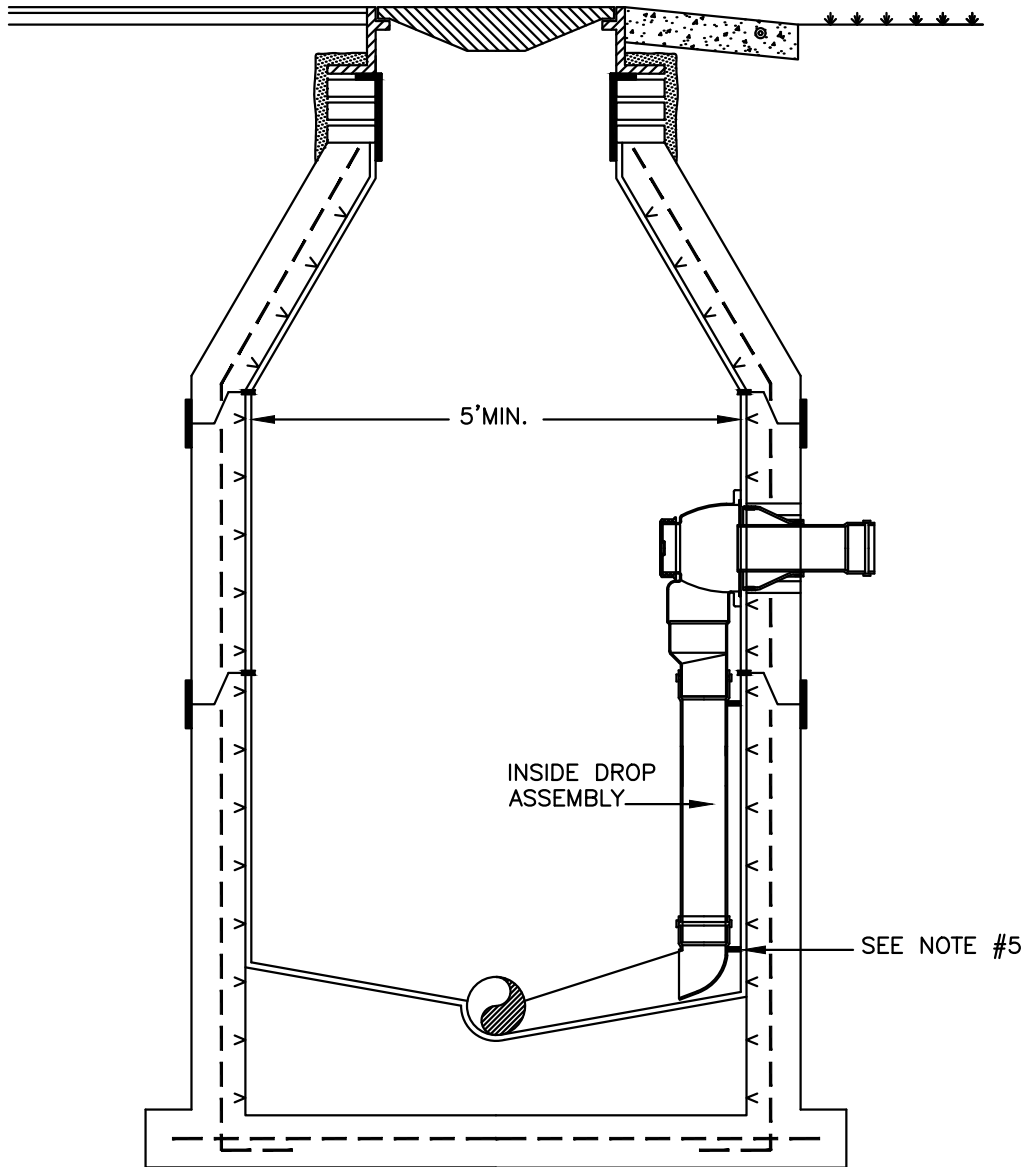
1. THE MANHOLE SHALL BE CONSTRUCTED AS SHOWN IN THIS DETAIL WHERE THE DROP IN INVERT EXCEEDS 0.1' BUT IS LESS THAN 2'. FOR DROPS 2' OR GREATER A DROP CONNECTION (DETAIL SLWS-09) SHALL BE USED.
2. ALL DETAILS AND SPECIFICATIONS FOR "STANDARD PRECAST MANHOLE" (DETAIL SLWS-05) ARE APPLICABLE.
3. ALL MATERIALS AND COMPONENTS USED SHALL BE PER THE QUALIFIED PRODUCTS LIST.



MINIMUM CONSTRUCTION STANDARDS FOR
 ST. LUCIE WEST SERVICES DISTRICT
 450 SW UTILITY DRIVE,
 PORT SAINT LUCIE, FL 34986
 PHONE: (772) 340-0220

**STANDARD PRECAST MANHOLE
 (DROP)**

DETAIL: SLWS-08
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 1



NOTES:

1. ALL DETAILS AND SPECIFICATIONS FOR "STANDARD PRECAST MANHOLE" (DETAIL SLWS-05) ARE APPLICABLE.
2. A DROP CONNECTION IS REQUIRED WHENEVER AN INFLUENT INVERT IS LOCATED 2' OR HIGHER THAN THE MAIN INVERT CHANNEL. MANHOLES WITH A DROP 2.0 FEET OR LESS SHALL BE IN ACCORDANCE WITH DETAIL SLWS-05.
3. ALL MATERIALS AND COMPONENTS USED SHALL BE PER SLWSD QUALIFIED PRODUCTS LIST.
4. PVC SDR 26 PIPE WITH PVC SDR 26 FITTINGS SHALL BE UTILIZED IN THE DROP ASSEMBLY.
5. THE DROP ASSEMBLY SHALL BE ATTACHED TO THE MANHOLE WALL WITH MINIMUM 1 1/2", 16 GAUGE STAINLESS STEEL STRAPS AT EACH JOINT IN THE ASSEMBLY USING 3/8"X4" STAINLESS STEEL EXPANSION ANCHORS.



**MINIMUM CONSTRUCTION STANDARDS FOR
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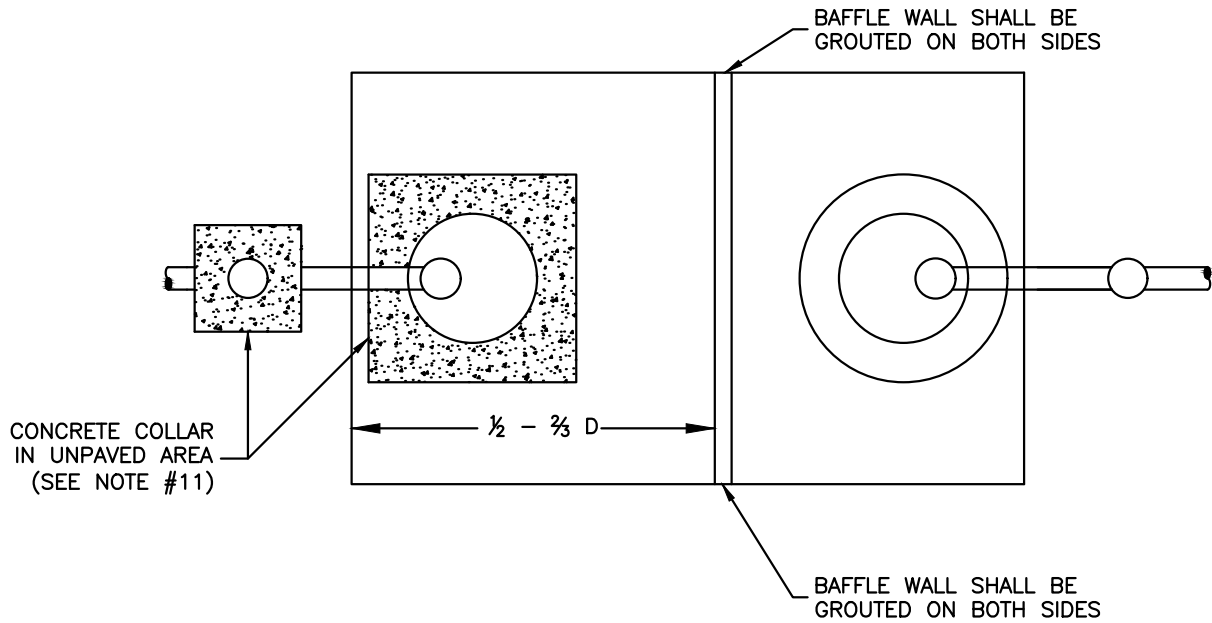
**INSIDE DROP CONNECTION
PRECAST MANHOLE**

DETAIL: SLWS-09

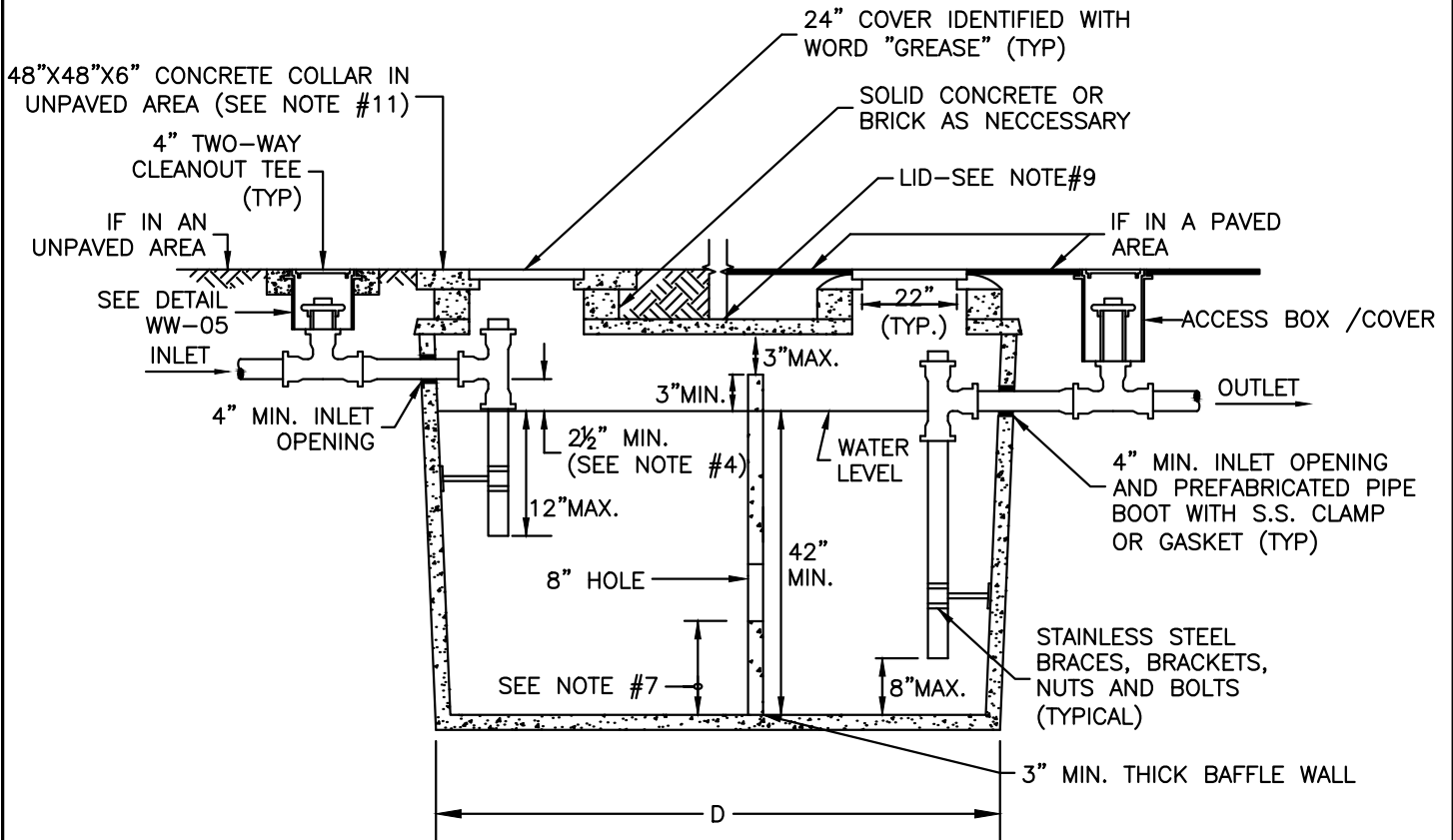
DATE: 03/2020

SCALE: N.T.S.

SHEET: 1 OF 1



TOP VIEW



SECTION VIEW

NOTES: SEE SHEET SLWS-10B (DETAIL 2 OF 2)



**MINIMUM CONSTRUCTION STANDARDS FOR
ST. LUCIE WEST SERVICES DISTRICT**
450 SW UTILITY DRIVE,
PORT SAINT LUCIE, FL 34986
PHONE: (772) 340-0220

**GREASE, OIL, AND SAND
INTERCEPTOR**

DETAIL: SLWS-10A

DATE: 03/2020

SCALE: N.T.S.

SHEET: 1 OF 2

STANDARD DETAIL NOTES FOR GREASE/SAND/OIL INTERCEPTORS

THESE NOTES ARE APPLICABLE TO THE STANDARD DETAIL SHEET SLWS-10A

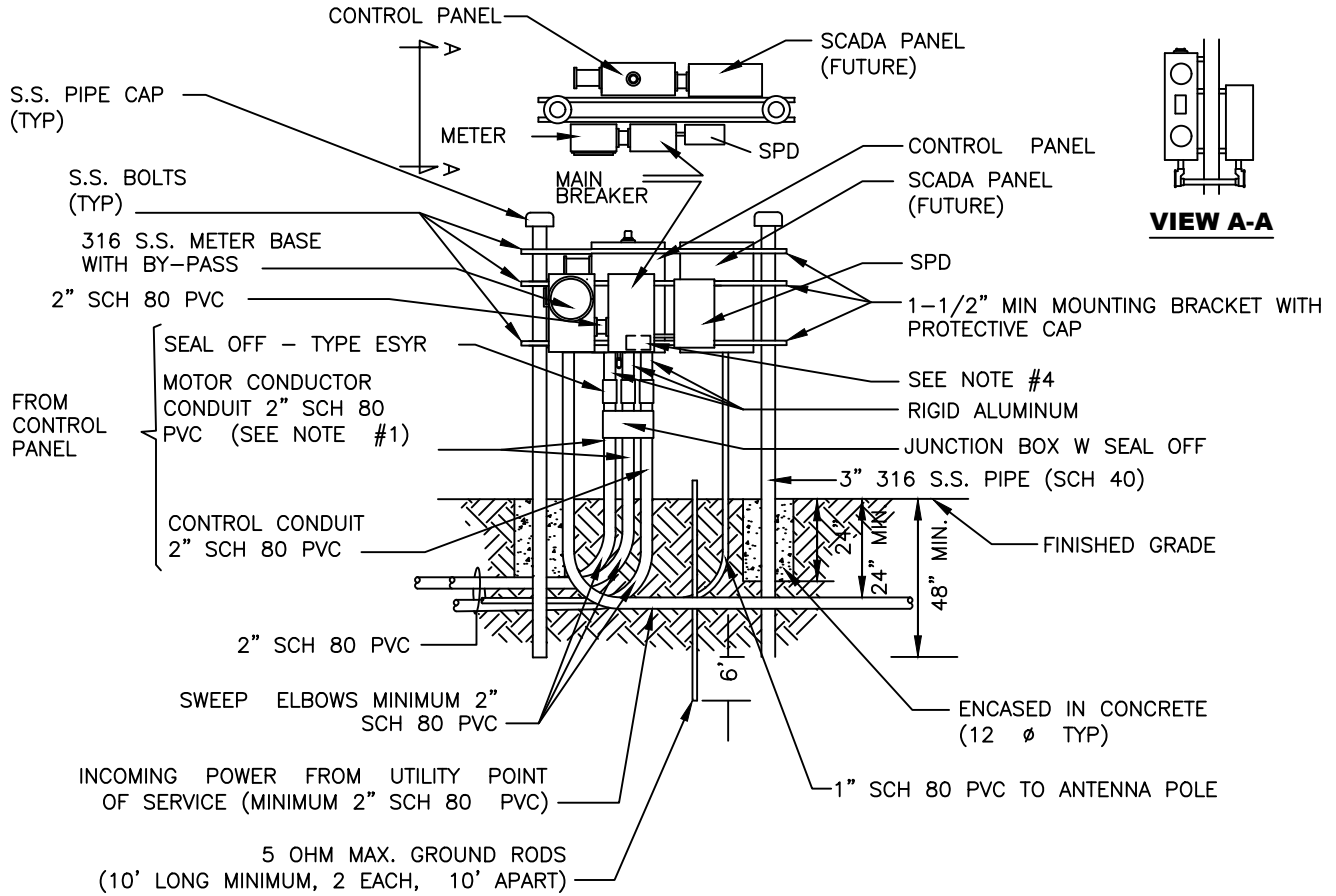
1. INTERCEPTORS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN FLORIDA, IN ACCORDANCE WITH SLWSD GREASE/OIL/SAND INTERCEPTOR POLICY, APPLICABLE BUILDING CODES AND STATE REGULATIONS. AN APPROVAL MUST BE OBTAINED FROM SLWSD PRIOR TO INSTALLATION. DEVIATIONS SHALL NOT BE MADE WITHOUT PRIOR APPROVAL.
2. THE INTERCEPTOR SHALL BE BUILT OF PRE-CAST CONCRETE WITH A MINIMUM OF 4" THICK WALLS AND WITH PRE-CAST HOLES FOR THE INLET/OUTLET PIPES. SHOP DRAWINGS SHALL BE SUBMITTED TO THE SLWSD FOR APPROVAL IF THE TANK IS NOT ON THE APPROVED QUALIFIED PRODUCTS LIST (QPL).
3. ALL PIPING SHALL BE A MINIMUM OF 4" PVC.
4. THE INLET AND OUTLET TEES SHALL BE LOCATED NO MORE THAN 4" FROM END OF THE TANK AND SHALL BE IN ACCORDANCE WITH ASTM C923-98, LATEST REVISION. THE INLET INVERT LEVEL SHALL BE A MINIMUM OF 2½" ABOVE THE WATER LEVEL. THE INLET TEE IS NOT REQUIRED FOR SAND/OIL INTERCEPTORS, HOWEVER, IF USED IT SHALL NOT EXTEND MORE THAN 12" BELOW THE WATER LEVEL. THE OUTLET TEE SHALL EXTEND TO WITHIN 8" OF THE TANK BOTTOM. THE TEES SHALL BE SECURED TO THE TANK WALL AS PER DETAIL SUBMITTED BY THE ENGINEER-OF-RECORD AND APPROVED BY SLWSD.
5. THE LIQUID DEPTH SHALL BE AT LEAST 42".
6. INSPECTION PORTS (TWO-WAY CLEAN-OUTS) SHALL BE INSTALLED ON EACH END OF THE INTERCEPTOR, WHICH ARE EASILY ACCESSIBLE FOR INSPECTION/SAMPLING.
7. A BAFFLE SHALL BE INSTALLED ½ (ONE-HALF) TO ⅔ (TWO-THIRDS) 'D' FROM THE INLET SIDE. THE FLOW BETWEEN THE TWO COMPARTMENTS SHALL BE THROUGH AN 8" DIAMETER HOLE IN THE BAFFLE; THE HOLE SHALL BE LOCATED 12" FROM THE TANK BOTTOM FOR A GREASE INTERCEPTOR AND 16" TO 20" FOR A SAND/OIL INTERCEPTOR. A BAFFLE IS NOT REQUIRED IF MULTIPLE INTERCEPTORS ARE INSTALLED IN SERIES, HOWEVER, INSPECTION PORTS SHALL BE INSTALLED ON EACH END OF THE INTERCEPTORS.
8. THE MINIMUM EFFECTIVE CAPACITY OF THE TANK SHALL BE AS REQUIRED BY THE SLWSD. WHEN THE REQUIRED EFFECTIVE CAPACITY OF THE INTERCEPTOR IS GREATER THAN 1250 GALLONS, INSTALLATION OF TANKS SHALL BE IN SERIES. WHEN MULTIPLE TANKS ARE USED THERE SHALL BE A MINIMUM 4' SEPARATION BETWEEN TANKS WITH THE REQUIRED INSPECTION PORT INSTALLED IN THE CENTER.
9. THE LID SHALL BE AT LEAST 8" THICK. TRAFFIC LIDS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM C890-91, LATEST REVISION.
10. INTERCEPTOR SHALL BE PROVIDED WITH A MANHOLE OVER EACH COMPARTMENT FOR ACCESS TO THE INLET AND OUTLET TEES. THE MANHOLES SHALL BE BROUGHT TO GRADE AND FITTED WITH COVERS AS SPECIFIED IN THE DETAIL. ONLY COVERS ON THE QPL SHALL BE USED.
11. A CONCRETE COLLAR SHALL BE PROVIDED AROUND THE COVERS AND SANITARY SEWER CLEANOUT BOX WHEN THE INTERCEPTOR IS LOCATED IN AN UNPAVED AREA. GROUND SHALL BE SLOPED AWAY FROM THE INTERCEPTOR TO PREVENT PONDING OF STORM WATER.
12. ALL JOINTS, INCLUDING MID-SEAMS, RISERS AND LIDS SHALL BE SEALED USING A BONDING COMPOUND THAT MEETS ASTM C-990-96, LATEST REVISION. JOINTS AROUND THE RISER AND THE TANK SHALL BE SEALED AND MADE WATERTIGHT WITH APPROVED JOINT SEALING SYSTEM PER THE QPL.
13. INSTALLATION OF THE INTERCEPTOR AND ITS COMPONENTS SHALL BE PERFORMED BY A LICENSED PLUMBER OR SEPTIC TANK CONTRACTOR REGISTERED WITH THE FLORIDA DEPARTMENT OF HEALTH.
14. INSPECTIONS ARE REQUIRED BY SLWSD AS PER THE UTILITY STANDARDS. AN INITIAL INSPECTION IS REQUIRED WITH THE TANK ABOVE GROUND.



**MINIMUM CONSTRUCTION STANDARDS FOR
ST. LUCIE WEST SERVICES DISTRICT
450 SW UTILITY DRIVE,
PORT SAINT LUCIE, FL 34986
PHONE: (772) 340-0220**

**GREASE, OIL, AND SAND
INTERCEPTOR**

**DETAIL: SLWS-10B
DATE: 03/2020
SCALE: N.T.S.
SHEET: 2 OF 2**



FRONT VIEW

PANEL INSTALLATION NOTES:

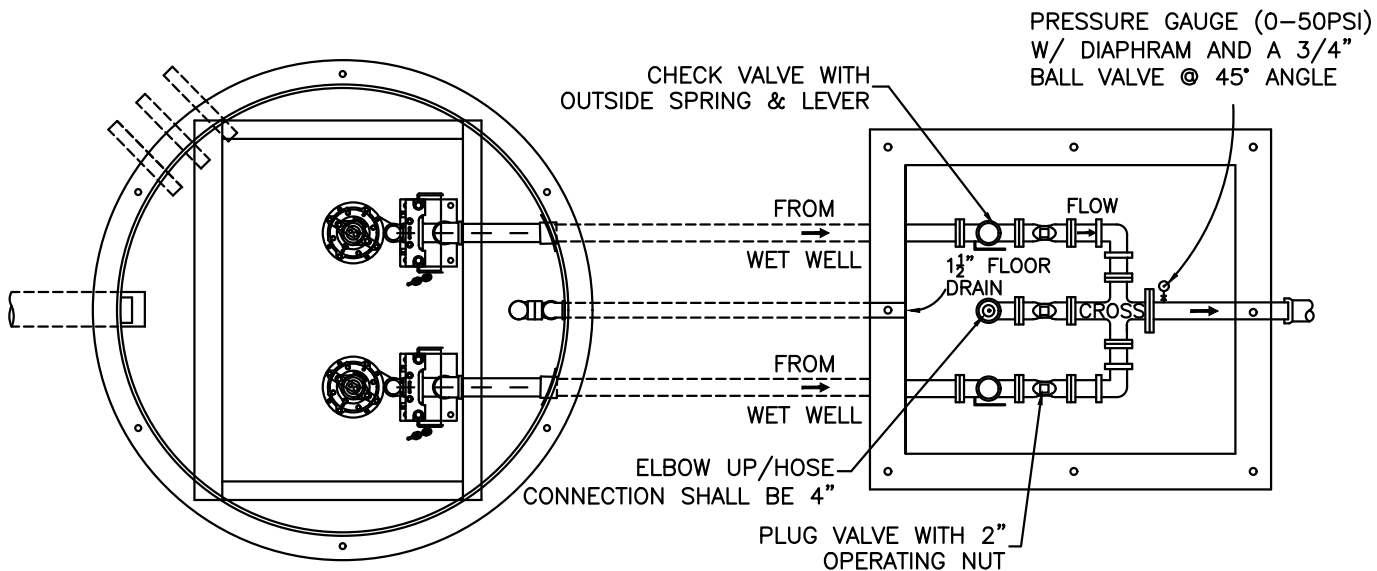
1. PUMP MOTOR CONDUIT SHALL BE SIZE TO ACCOMODATE 40% CONDUIT FILL. MINIMUM CONDUIT SIZE TO BE 2" SCH 80 PVC.
2. POWER SUPPLY SHALL BE UNDERGROUND ON THE LIFT STATION SITE AND SHALL BE 3-PHASE, FROM A 3-PHASE SOURCE ONLY. 100 AMP SERVICE MINIMUM.
3. AN ELECTRICAL GROUNDING SYSTEM SHALL BE INSTALLED AS PER THE NATIONAL ELECTRICAL CODE, LOCAL CODES AND ORDINANCES. AN UNDERGROUND PERIMETER CABLE GROUNDING SYSTEM SHALL BE INSTALLED WITH CONNECTIONS TO AT LEAST WET WELL COVER, VALVE VAULT COVER, CONTROL PANELS, GENERATOR, UTILITY COMPANY TRANSFORMER, MANUAL DISCONNECT SWITCH AND METAL FENCE. REFER TO GROUNDING DETAILS.
4. THE STATION NAME, UTILITIES I.D. NUMBER AND ADDRESS SHALL BE AFFIXED TO THE FRONT OF THE METER CABINET.
5. ALL MOUNTING HARDWARE & BRACKETS AND ELECTRICAL ENCLOSURES SHALL BE 316 STAINLESS STEEL.
6. ON A 4-WIRE, DELTA SYSTEM, THE HIGH-LEG SHALL BE IDENTIFIED WITH ORANGE COLOR TAPE AT ALL CONNECTION POINTS AND SHALL BE LOCATED ON THE "B" PHASE AT THE LINE SIDE OF THE MAIN DISCONNECT.
7. THE SCADA PANEL IS TO SHOWN FOR INFORMATION ONLY AND WILL BE INSTALLED IN THE FUTURE (BY OTHERS).



**MINIMUM CONSTRUCTION STANDARDS FOR
ST. LUCIE WEST SERVICES DISTRICT**
450 SW UTILITY DRIVE,
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**STANDARD LIFT STATION
CONTROL PANEL RACK (240V)
FRONT & PLAN VIEW**

DETAIL: SLWS-11
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 1



PLAN VIEW

NOTES:

1. ALL PIPING FOR VALVE AND PUMPOUT CONNECTION ASSEMBLY SHALL BE IN ACCORDANCE WITH SLWSD STANDARDS.
2. LIFT STATION DESIGN SHALL BE SUBMITTED TO SLWSD FOR APPROVAL.

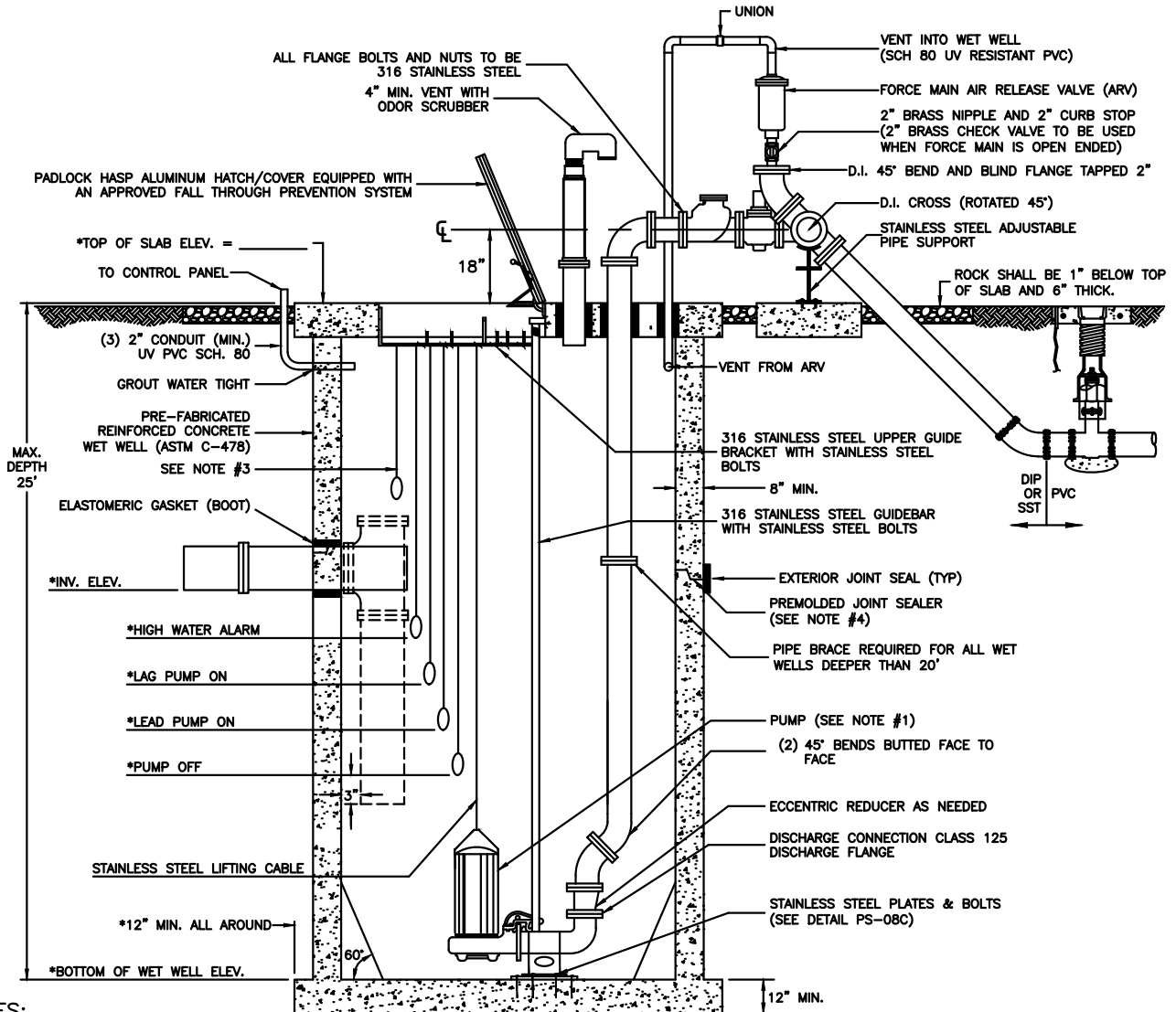


**MINIMUM CONSTRUCTION STANDARDS FOR
ST. LUCIE WEST SERVICES DISTRICT**
450 SW UTILITY DRIVE,
PORT SAINT LUCIE, FL 34986
PHONE: (772) 340-0220

**THREE PHASE DUPLEX
COMMERCIAL LIFT STATION
(WITH VALVE VAULT)**

DETAIL: SLWS-12
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 1

PUMP DATA:
 MANUFACTURER ** _____ WETWELL DIAMETER ** _____
 MODEL NUMBER ** _____ IMPELLER NUMBER ** _____ HP** _____ RPM** _____
 VOLTS** _____ 3 PHASE 60 HERTZ
 OPERATING CONDITIONS:
 ** _____ GPM AT ** _____ TDH ** _____ % EFFICIENCY
 SIZED FOR MINIMUM PUMP CYCLE TIME OF 12 MINUTES AND A MAXIMUM OF 6 PUMP STARTS PER HOUR.
 WORKING DEPTH ** _____ FT. WORKING VOLUME ** _____ GALS.



NOTES:

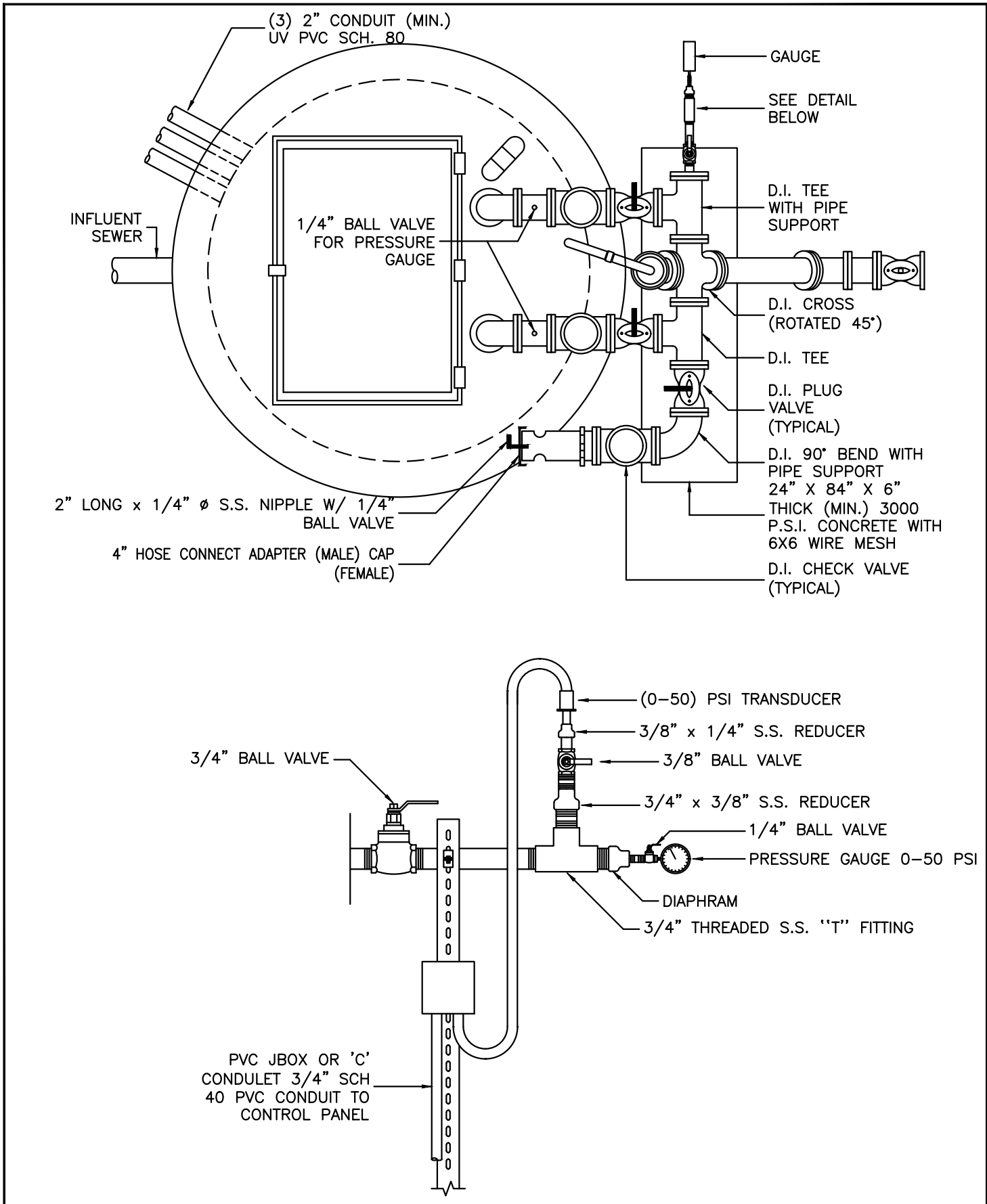
- *THE DESIGN SPECIFICATIONS FOR THE WET WELL, PUMPS, CONTROL ELEVATIONS AND DISCHARGE PIPING SHALL BE AS SPECIFIED BY THE ENGINEER-OF-RECORD, IN ACCORDANCE WITH THE SLWSD UTILITY STANDARDS.
- WET WELL INTERIOR WALLS SHALL BE PROTECTED WITH A LINER. THE WET-WELL EXTERIOR SHALL BE COATED IN ACCORDANCE WITH SLWSD UTILITY STANDARDS.
- A FLOAT SHALL BE PROVIDED FOR ALARM AND TO CONTROL BACKUP RELAY SYSTEM FOR THE PUMPS.
- ALL OPENINGS FOR PIPES AND CONDUITS SHALL BE PRECAST. ALL JOINTS AND TOP SLAB SHALL BE SEALED WITH AN APPROVED SEALANT (SEE DETAIL). THE SPACE BETWEEN THE DISCHARGE PIPES AND THE TOP SLAB SHALL BE FILLED WITH WATERPROOF NON-SHRINKING GROUT.
- THE INFLUENT PIPE DETAIL SHOWN ABOVE IS FOR A GRAVITY SEWER. FOR FORCE MAINS FROM A LIFT STATION OR LOW PRESSURE SEWER SYSTEM, A TEE SHALL BE INSTALLED AS SHOWN WITH DASHED LINE.
- ONE PUMP SHALL BE EQUIPPED WITH A MIX-FLUSH VALVE.
- THE DISCHARGE PIPE SHALL BE IN ACCORDANCE WITH SLWSD UTILITY STANDARDS..



**MINIMUM CONSTRUCTION STANDARDS FOR
 ST. LUCIE WEST SERVICES DISTRICT
 450 SW UTILITY DRIVE,
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 PHONE: (772) 340-0220**

**LIFT STATION WET WELL SECTION
 (NO VALVE VAULT)**

**DETAIL: SLWS-13A
 DATE: 03/2020
 SCALE: N.T.S.
 SHEET: 1 OF 2**



MINIMUM CONSTRUCTION STANDARDS FOR
 ST. LUCIE WEST SERVICES DISTRICT
 450 SW UTILITY DRIVE,
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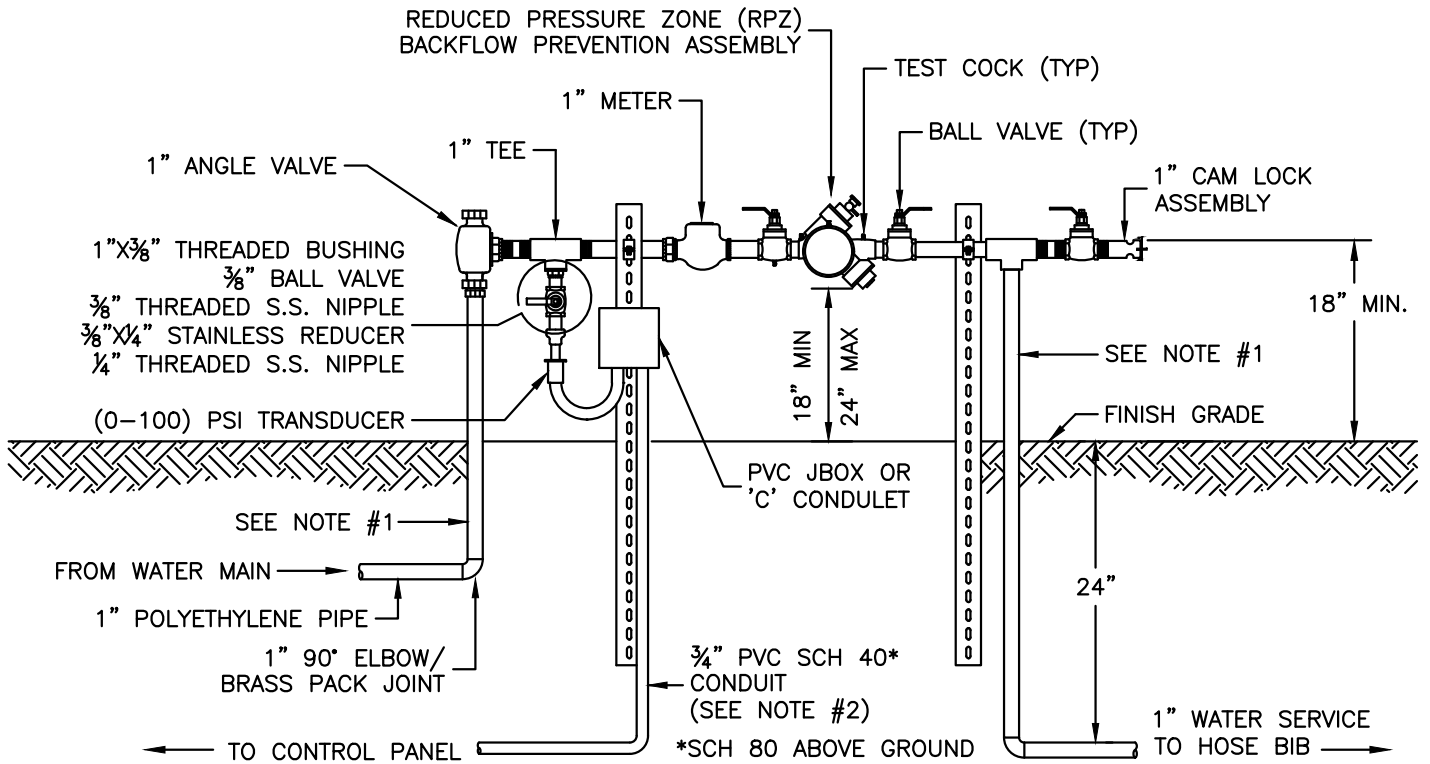
LIFT STATION WET WELL PLAN VIEW

DETAIL: SLWS-13B

DATE: 03/2020

SCALE: N.T.S.

SHEET: 2 OF 2



**WATER MAIN PRESSURE TRANSDUCER
INSTALLATION DETAIL**

NOTES:

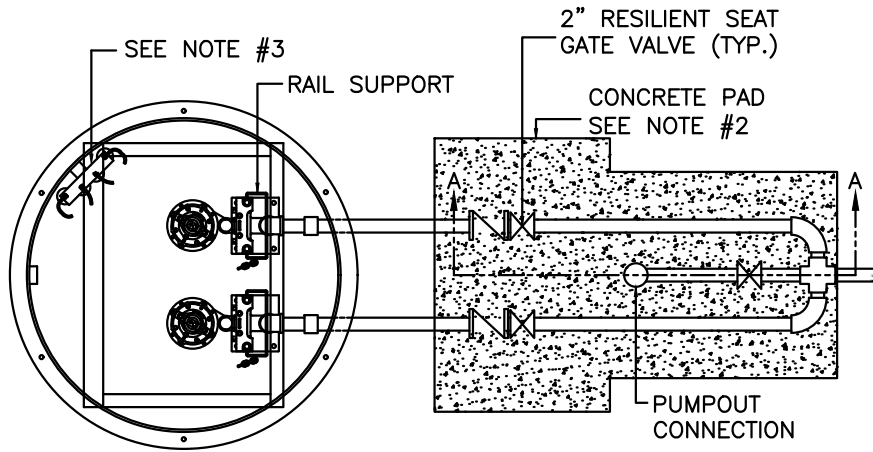
1. BOTH RISERS SHALL BE BRASS OR TYPE "K" COPPER TUBING (HARD DRAW) WITH COPPER / BRASS FITTINGS AND ADAPTERS (NO CRIMPING JOINTS).
2. A 16 GAUGE STP CABLE SHALL BE INSTALLED IN THE CONDUIT FROM THE PSI TRANSDUCER TO THE CONTROL PANEL WITH 15' OF CABLE COILED IN THE PANEL. A PVC JBOX OR 'C' CONDULET SHALL BE USED.



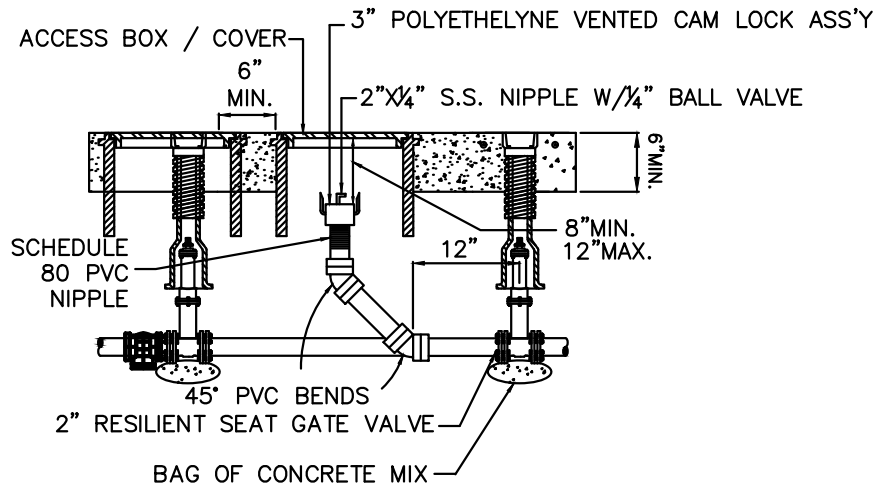
**MINIMUM CONSTRUCTION STANDARDS FOR
ST. LUCIE WEST SERVICES DISTRICT**
450 SW UTILITY DRIVE,
PORT SAINT LUCIE, FL 34986
PHONE: (772) 340-0220

**LIFT STATION WATER METER
AND
BACKFLOW PREVENTION ASSEMBLY**

DETAIL: SLWS-14
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 1



PUMP STATION PLAN VIEW



PUMPOUT CONNECTION
SECTION A-A

NOTES:

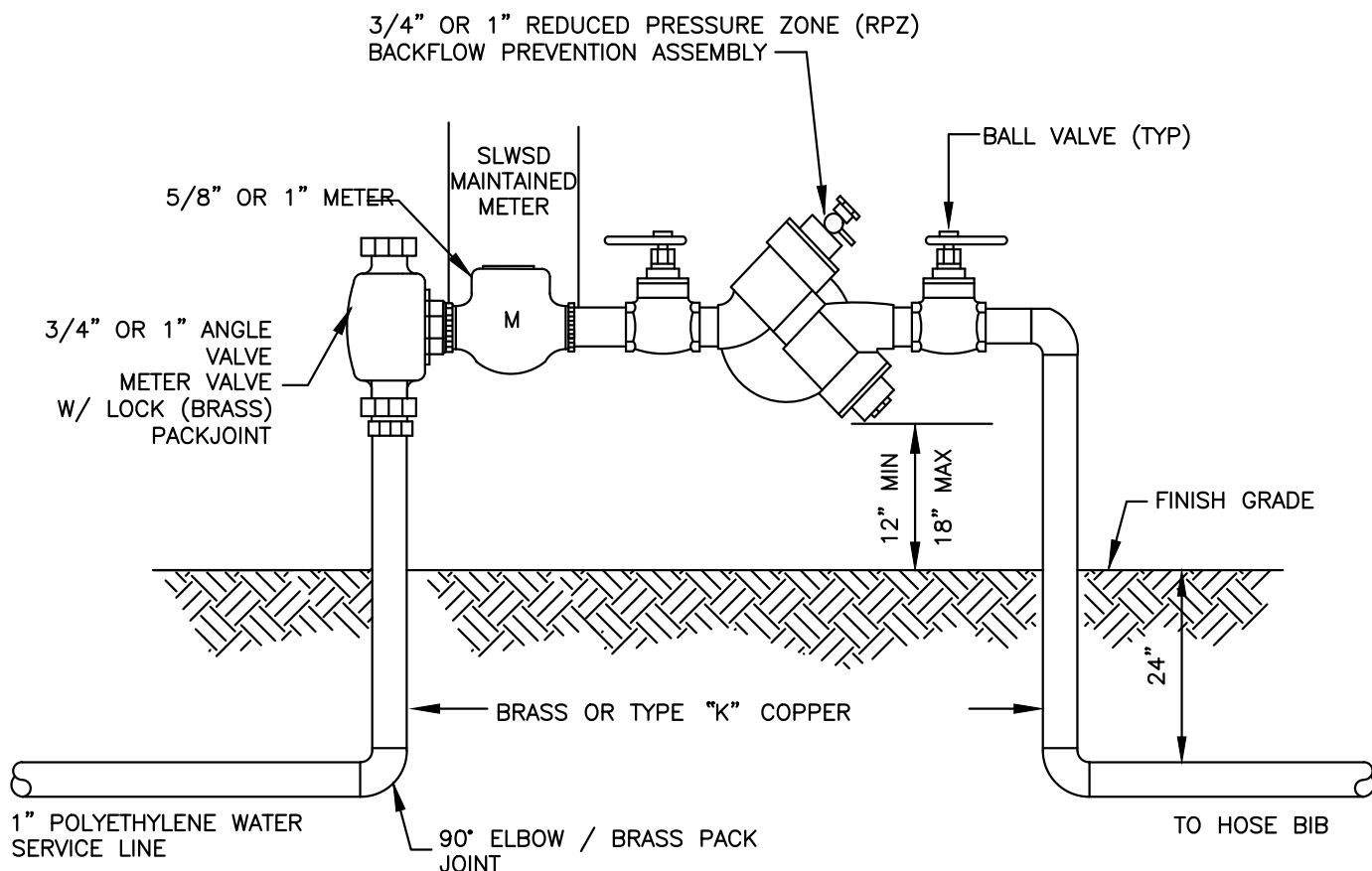
1. ALL PIPING FOR VALVE AND PUMPOUT CONNECTION ASSEMBLY SHALL BE SCHEDULE 80 P.V.C.
2. CONCRETE PAD TO BE 6" FROM OUTSIDE OF ACCESS BOX / COVER AND VALVES.
3. CONTROL MOUNTING BRACKET SHALL BE FIELD INSTALLED AND LOCATED IN ALIGNMENT WITH PEDESTAL.



MINIMUM CONSTRUCTION STANDARDS FOR
ST. LUCIE WEST SERVICES DISTRICT
450 SW UTILITY DRIVE,
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**2HP DUPLEX
COMMERCIAL GRINDER SYSTEM**

DETAIL: SLWS-15B
DATE: 03/2020
SCALE: N.T.S.
SHEET: 2 OF 2



NOTES:

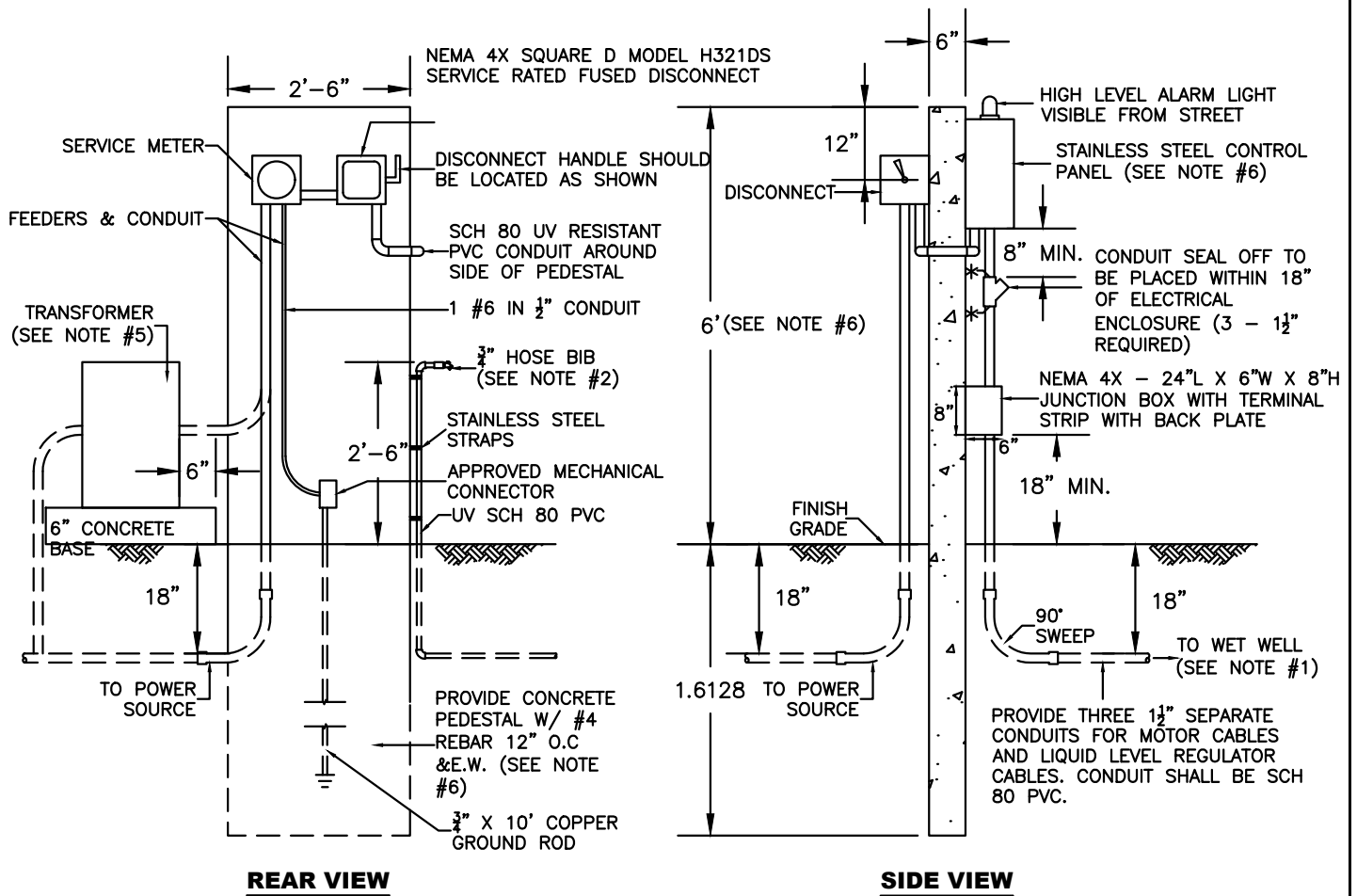
1. BOTH RISERS SHALL BE BRASS OR TYPE "K" COPPER TUBING OR BRASS (HARD DRAWN) WITH COPPER/BRASS THREADED FITTINGS AND ADAPTERS.
2. PROVIDE ADDITIONAL SUPPORT AS NECESSARY TO SECURELY SUPPORT BACKFLOW PREVENTION ASSEMBLY.



MINIMUM CONSTRUCTION STANDARDS FOR
 ST. LUCIE WEST SERVICES DISTRICT
 450 SW UTILITY DRIVE,
 PORT SAINT LUCIE, FL 34986
 PHONE: (772) 340-0220

**GRINDER SYSTEM WATER METER
 AND
 BACKFLOW PREVENTION ASSEMBLY**

DETAIL: SLWS-16
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 1



NOTES:

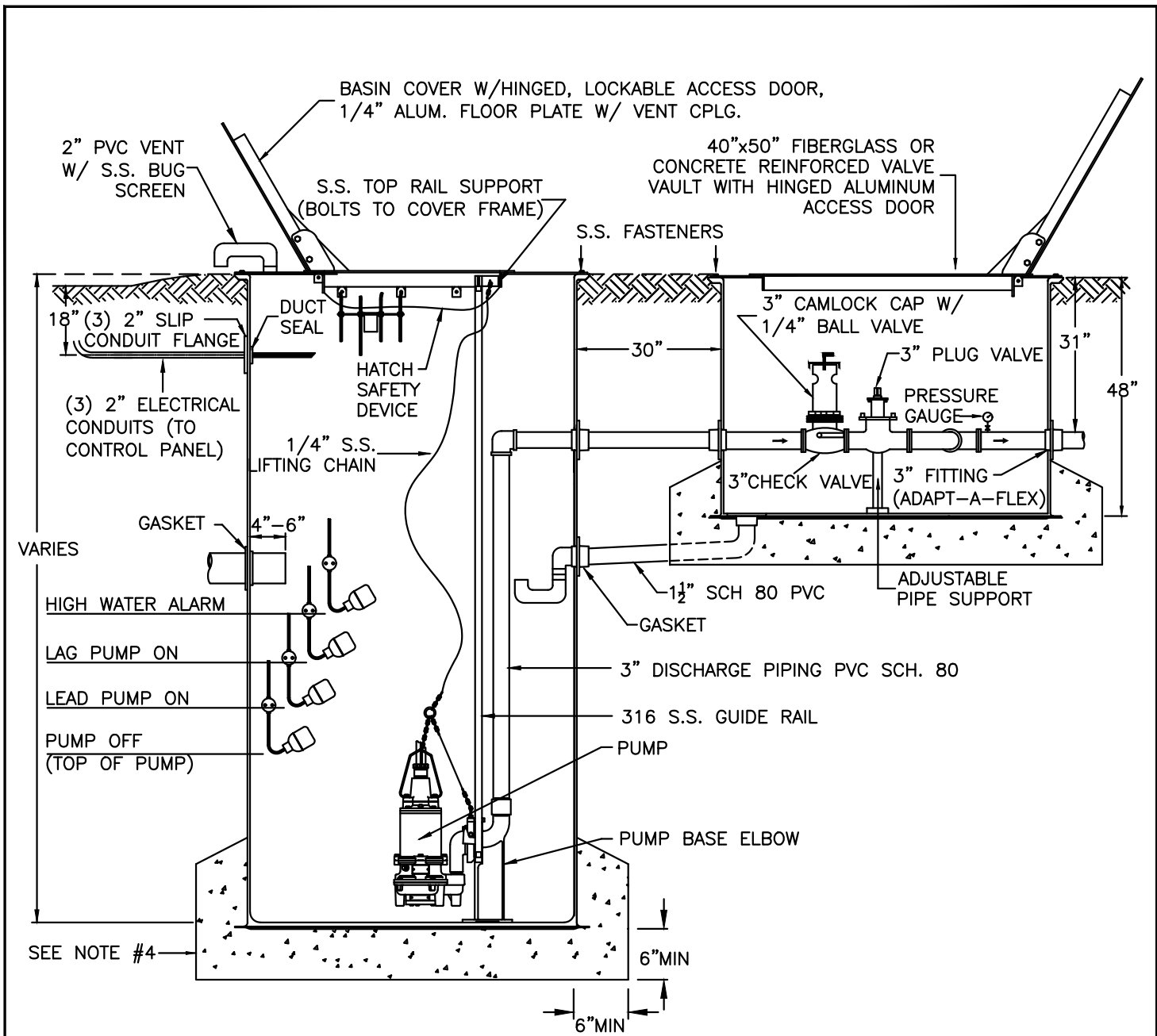
1. THE HORIZONTAL DISTANCE FROM THE FACE OF THE CONTROL PANEL TO THE EDGE OF THE WET WELL SHALL BE A MINIMUM OF 6'.
2. A BACKFLOW PREVENTION ASSEMBLY AND WATER METER SHALL BE PROVIDED PER DETAIL SLWS-16.
3. *SEALED WITH CHICO COMPOUND.
4. THE PEDESTAL, CONTROL PANEL AND RELATED COMPONENTS SHALL NOT BE PAINTED.
5. A TRANSFORMER MAY BE ALLOWED ON A CASE-BY-CASE BASIS WHEN REQUESTED IN ADVANCE BY THE ENGINEER-OF-RECORD (EOR) AND APPROVED IN WRITING BY THE SLWS.
6. THE SIZE OF THE PEDESTAL AND CONTROL PANEL SHALL BE SPECIFIED ON THE SHOP DRAWINGS BY THE EOR.



**MINIMUM CONSTRUCTION STANDARDS FOR
ST. LUCIE WEST SERVICES DISTRICT**
450 SW UTILITY DRIVE,
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PHONE: (772) 340-0220

**THREE PHASE DUPLEX GRINDER SYSTEM
CONTROL PANEL - PEDESTAL DETAIL**

DETAIL: SLWS-17
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 1



NOTES:

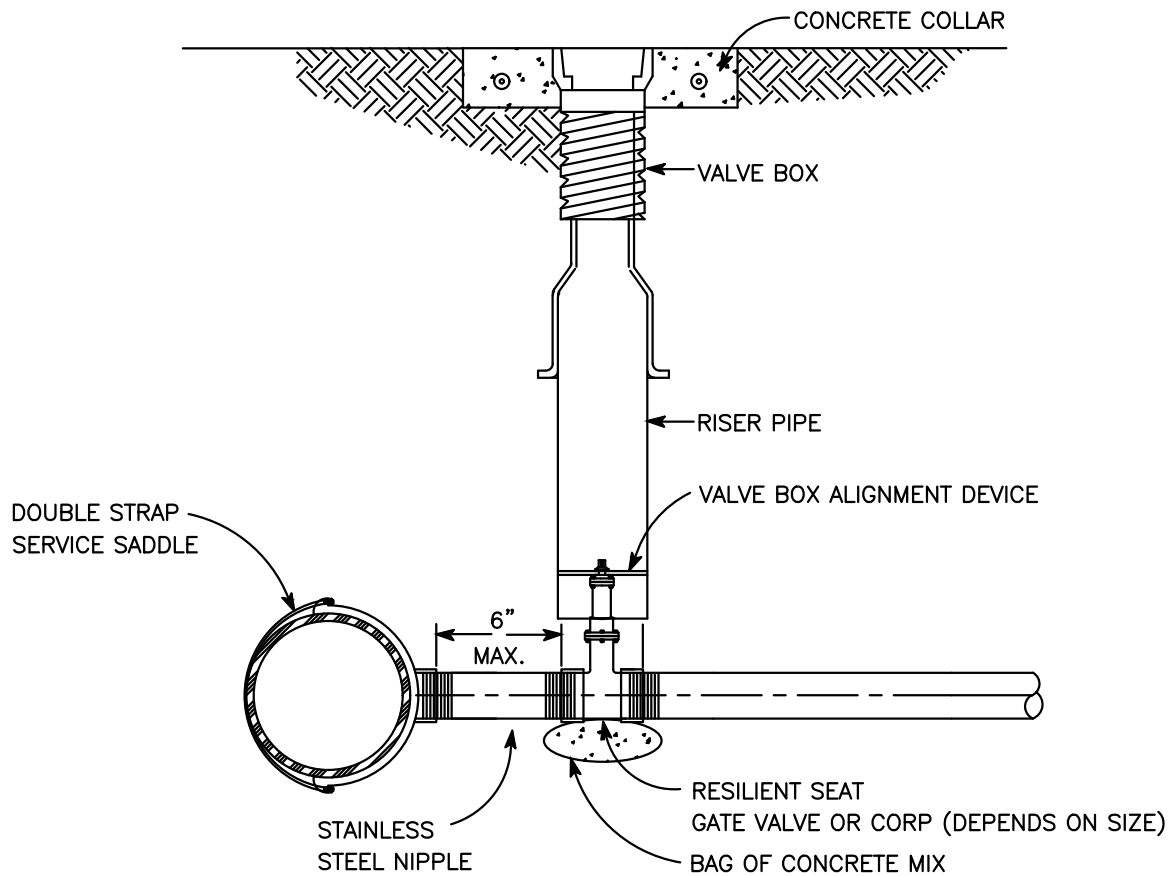
1. THE DESIGN SPECIFICATIONS FOR THE WET WELL, PUMPS, CONTROL ELEVATIONS AND VALVE VAULT SHALL BE AS SPECIFIED BY THE ENGINEER-OF-RECORD (EOR), IN ACCORDANCE WITH THE SLWSD UTILITY STANDARDS.
2. ONLY PUMPS AND APPURTENANCES APPROVED BY SLWSD QUALIFIED PRODUCTS LIST (QPL) SHALL BE PROVIDED.
3. A SITE PLAN MUST BE SUBMITTED FOR APPROVAL TO SLWSD BY THE EOR.
4. EOR SHALL VERIFY AND SUBMIT BUOYANCY CALCULATIONS FOR THE ANTI-FLOTATION SLAB. THE WET WELL AND VALVE VAULT BASE SHALL BE PROVIDED WITH SUITABLE SUPPORT DURING INSTALLATION TO ENSURE COMPLETE ENCAPSULATION OF CONCRETE FOR ANTI-FLOTATION.
5. EXCAVATION, DEWATERING, BACKFILL AND COMPACTION SHALL BE PERFORMED IN ACCORDANCE WITH THE SLWSD UTILITY STANDARDS. DENSITY TESTS SHALL BE PERFORMED AND SUBMITTED AS REQUIRED.



**MINIMUM CONSTRUCTION STANDARDS FOR
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**3 OR 5HP
THREE PHASE DUPLEX
COMMERCIAL GRINDER SYSTEM**

DETAIL: SLWS-18
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 1



GRINDER SERVICE CONNECTION

NOTES:

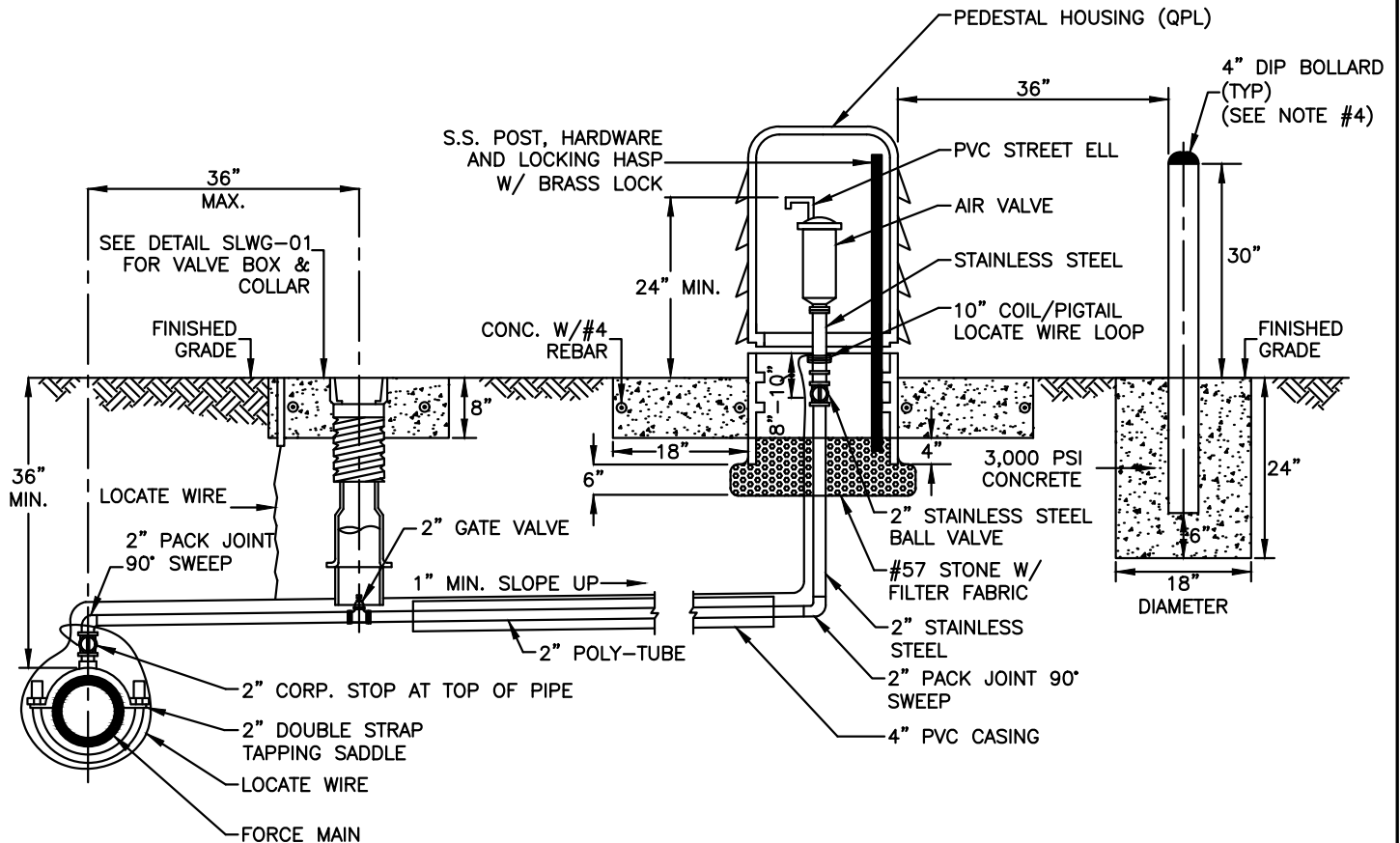
1. VALVES, APPURTENANCES AND FITTINGS SHALL BE PER THE SLWSD QUALIFIED PRODUCTS LIST (QPL).
2. THIS DETAIL SHALL BE USED IN CONJUNCTION WITH DETAIL SLWG-01 FOR TYPICAL BOX AND COLLAR.



MINIMUM CONSTRUCTION STANDARDS FOR
 ST. LUCIE WEST SERVICES DISTRICT
 450 SW UTILITY DRIVE,
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 PHONE: (772) 340-0220

**GRINDER SYSTEM
 SERVICE LINE TAP TO MAIN LINE**

DETAIL: SLWS-19
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 1



NOTES:

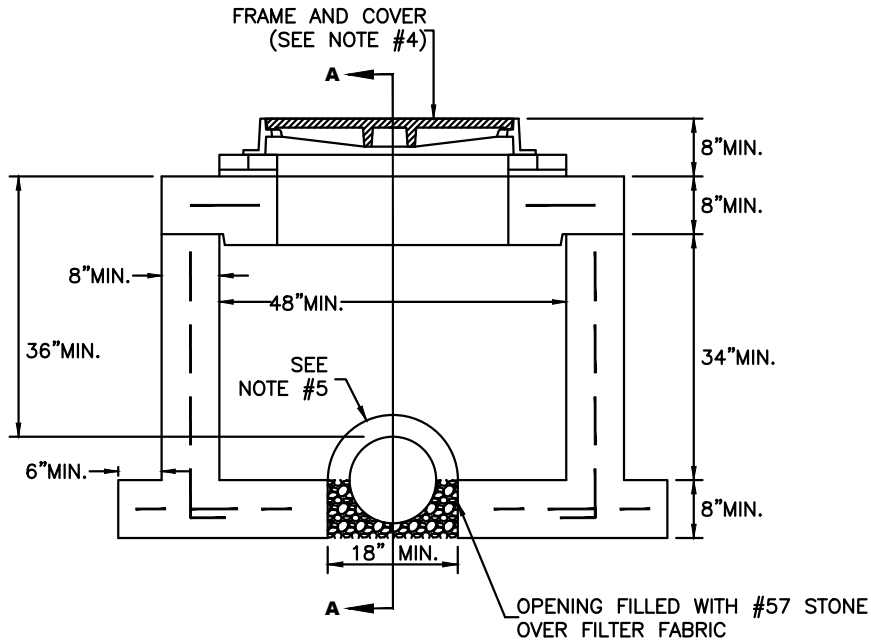
1. AIR VALVES SHALL BE INSTALLED IN ACCORDANCE WITH THIS DETAIL. DETAIL SLWS-21 SHALL BE USED ONLY AS DIRECTED BY SLWSD.
2. AIR VALVE, PIPING AND APPURTENANCES SHALL BE IN ACCORDANCE WITH SLWSD UTILITY STANDARDS AND ON THE QUALIFIED PRODUCTS LIST (QPL).
3. THE AIR VALVE SHALL BE SIZED BY THE ENGINEER-OF-RECORD (EOR) BASED ON MANUFACTURER'S RECOMMENDATION. THE EOR SHALL CONSULT WITH THE SLWSD REGARDING THE TYPE OF THE VALVE TO BE USED AND LOCATION.
4. BOLLARDS (4) ARE REQUIRED AROUND THE PEDESTAL HOUSING UNLESS APPROVED OTHERWISE BY SLWSD. BOLLARD SHALL BE FILLED WITH CONCRETE AND PAINTED YELLOW. (DETAIL SLWG-17)



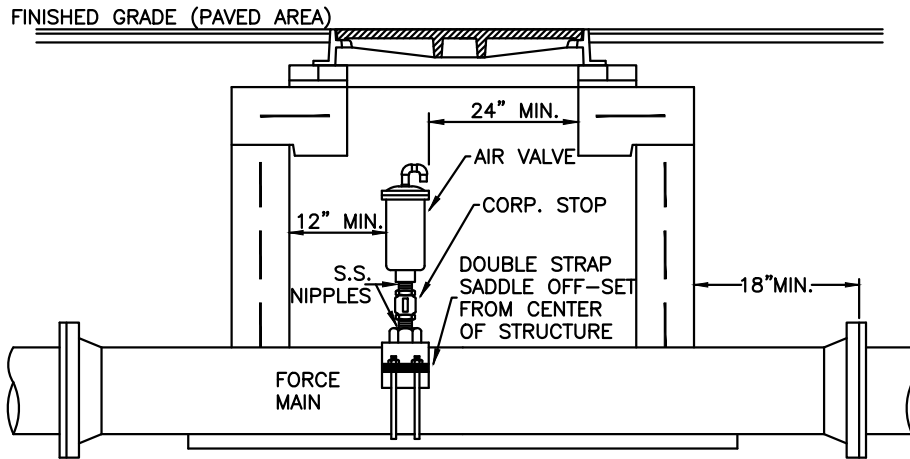
**MINIMUM CONSTRUCTION STANDARDS FOR
ST. LUCIE WEST SERVICES DISTRICT**
450 SW UTILITY DRIVE,
PORT SAINT LUCIE, FL 34986
PHONE: (772) 340-0220

**AUTOMATIC AIR RELEASE VALVE
FOR FORCE MAINS IN
UNPAVED AREAS**

DETAIL: SLWS-20
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 1



PLAN VIEW



SECTION A

NOTES:

1. THE AIR VALVE SHALL BE INSTALLED IN ACCORDANCE WITH THIS DETAIL ONLY WHEN PRIOR APPROVAL HAS BEEN OBTAINED FROM SLWSD IN WRITING.
2. AIR VALVE SHALL BE TYPE AND SIZE APPROPRIATE FOR SERVICE INTENDED AND PER THE QUALIFIED PRODUCTS LIST (QPL). FORCE MAINS REQUIRE 2" MINIMUM.
3. THE ACCESS MANHOLE SHALL BE IN ACCORDANCE OF SLWSD STANDARDS.
4. A HINGED COVER AND FRAME SHALL BE PROVIDED PER QPL FOR A MINIMUM OPENING OF 32". THE COVER SHALL NOT HAVE A GASKET, SO THAT AIR CAN EXIT THE MANHOLE AND SHALL BE MARKED "SEWER ARV".
5. A CLEARANCE OF 2" SHALL BE MAINTAINED BETWEEN THE FORCE MAIN AND THE MANHOLE. THERE SHALL BE NO PIPE JOINTS WITHIN THE MANHOLE.
6. A LARGER MANHOLE WILL BE REQUIRED FOR PIPES LARGER THAN 12":

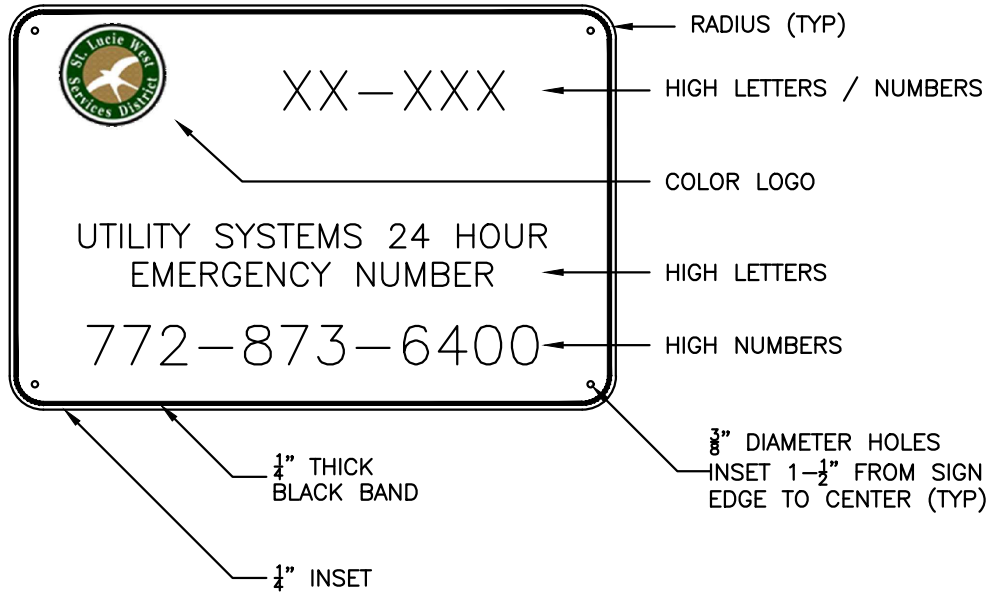
PIPE SIZE	MANHOLE DIAMETER
16"-24"	60"
30"-42"	72"



**MINIMUM CONSTRUCTION STANDARDS FOR
ST. LUCIE WEST SERVICES DISTRICT**
450 SW UTILITY DRIVE,
PORT SAINT LUCIE, FL 34986
PHONE: (772) 340-0220

**FORCE MAIN AIR VALVE
AND ACCESS MANHOLE**

DETAIL: SLWS-21
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 1



NOTES:

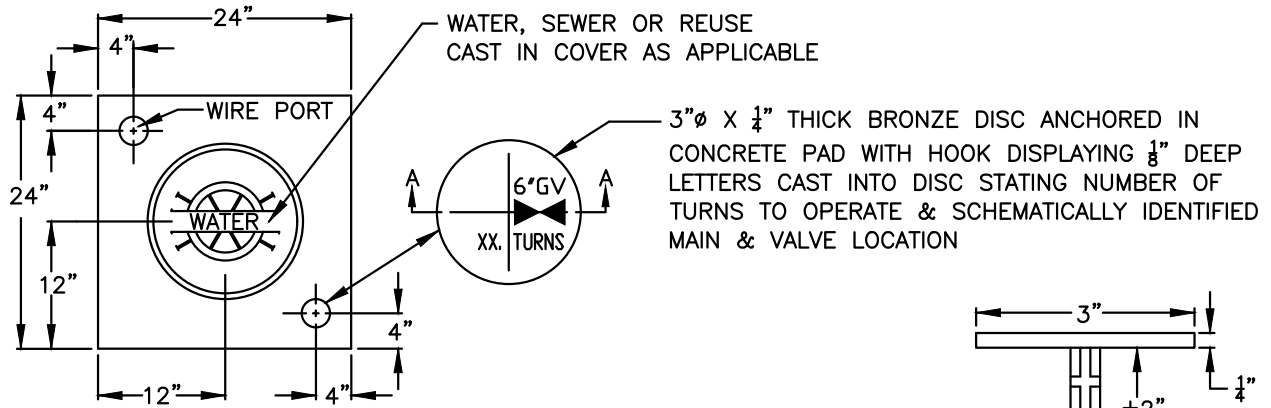
1. LIFT STATION DESIGNATION WILL BE ASSIGNED BY SLWSD.
2. THE SIGN SHALL BE 1/8" ALUMINUM WITH REFLECTIVE WHITE BACKGROUND AND BLACK LETTERING.
3. THE SIGN SHALL BE MOUNTED ON LIFT STATION GATE OR FENCE A MINIMUM 48" FROM BOTTOM OF FENCE AND SHALL BE VISIBLE FROM STREET. THE SIGN SHALL BE PERMANENTLY ATTACHED TO THE FENCE.



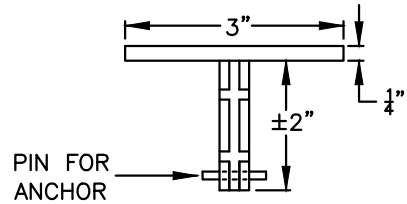
MINIMUM CONSTRUCTION STANDARDS FOR
 ST. LUCIE WEST SERVICES DISTRICT
 450 SW UTILITY DRIVE,
 PORT SAINT LUCIE, FL 34986
 PHONE: (772) 340-0220

LIFT STATION SIGNAGE

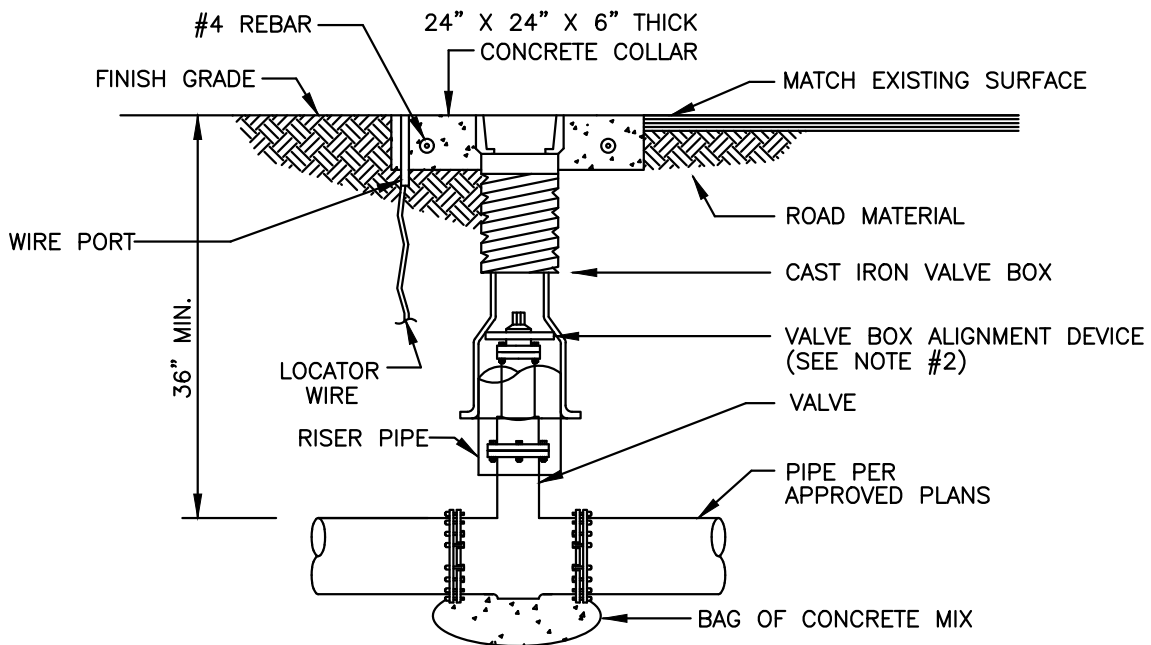
DETAIL: SLWS-22
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 1



CONCRETE VALVE COLLAR



SECTION A-A



NOTES:

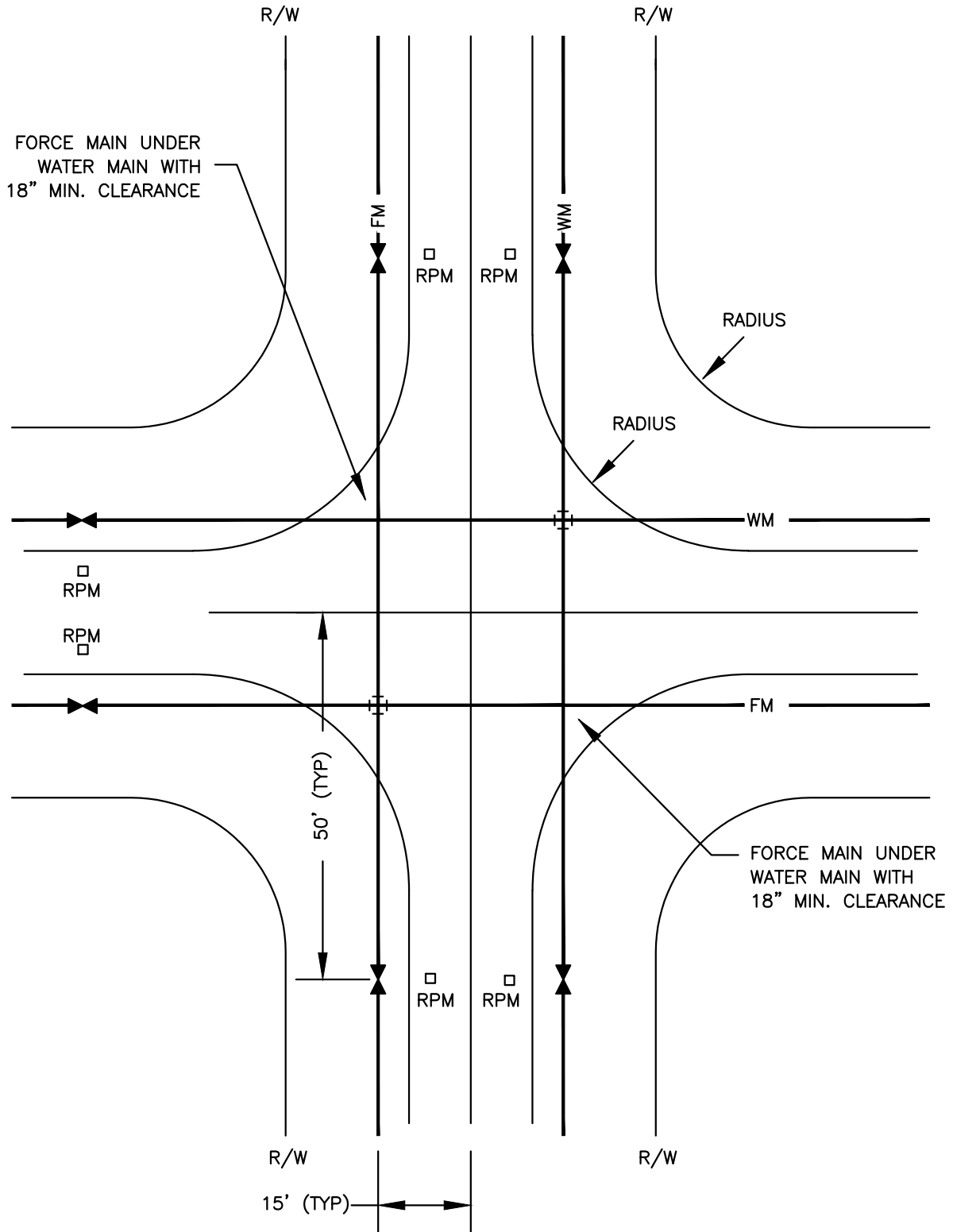
1. WHEN TOP OF OPERATING NUT IS DEEPER THAN 30", A HIGH STRENGTH STEEL EXTENSION WILL BE REQUIRED TO BRING OPERATING NUT 24"–30" BELOW FINISHED GRADE. A STEEL CENTERING PLATE, WELDED TO THE EXTENSION, IS ALSO REQUIRED.
2. A VALVE BOX ALIGNMENT DEVICE SHALL BE PROVIDED TO ELIMINATE SHIFTING OF THE VALVE BOX AGAINST THE OPERATING NUT.
3. C900 P.V.C. RISER PIPE SHALL BE ADDED TO EXTEND THE VALVE BOX IF NEEDED.
4. RPM'S SHALL NOT BE INSTALLED IN CROSSWALKS OR PEDESTRIAN WALKWAYS.
5. THE TOP SIDE OF THE VALVE BOX COVER AND THE INSIDE OF TOP SECTION OF THE VALVE BOX SHALL BE PAINTED BLUE FOR WATER MAINS, GREEN FOR SEWER MAINS AND PURPLE FOR RECLAIMED WATER MAINS.
6. VALVE SHALL BE INSTALLED SO THAT OPERATING NUT AND VALVE BOX ARE LOCATED ON THE RIGHT-OF-WAY SIDE OF THE MAIN.



**MINIMUM CONSTRUCTION STANDARDS FOR
ST. LUCIE WEST SERVICES DISTRICT**
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PHONE: (772) 340-0220

TYPICAL VALVE BOX AND COLLAR

DETAIL: SLWG-01
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 1



NOTES:

1. REFLECTIVE PAVEMENT MARKERS (RPM) SHALL BE PER SLWSD STANDARDS. WATER RPM'S "BLUE" AND SEWER RPM'S "GREEN".
2. RPM NOT TO BE INSTALLED IN CROSSWALKS OR PEDESTRIAN WALKWAYS.
3. WIDER RIGHTS-OF-WAY MAY REQUIRE ADJUSTMENT OF VALVE LOCATIONS.



**MINIMUM CONSTRUCTION STANDARDS FOR
ST. LUCIE WEST SERVICES DISTRICT**
450 SW UTILITY DRIVE,
PORT SAINT LUCIE, FL 34986
PHONE: (772) 340-0220

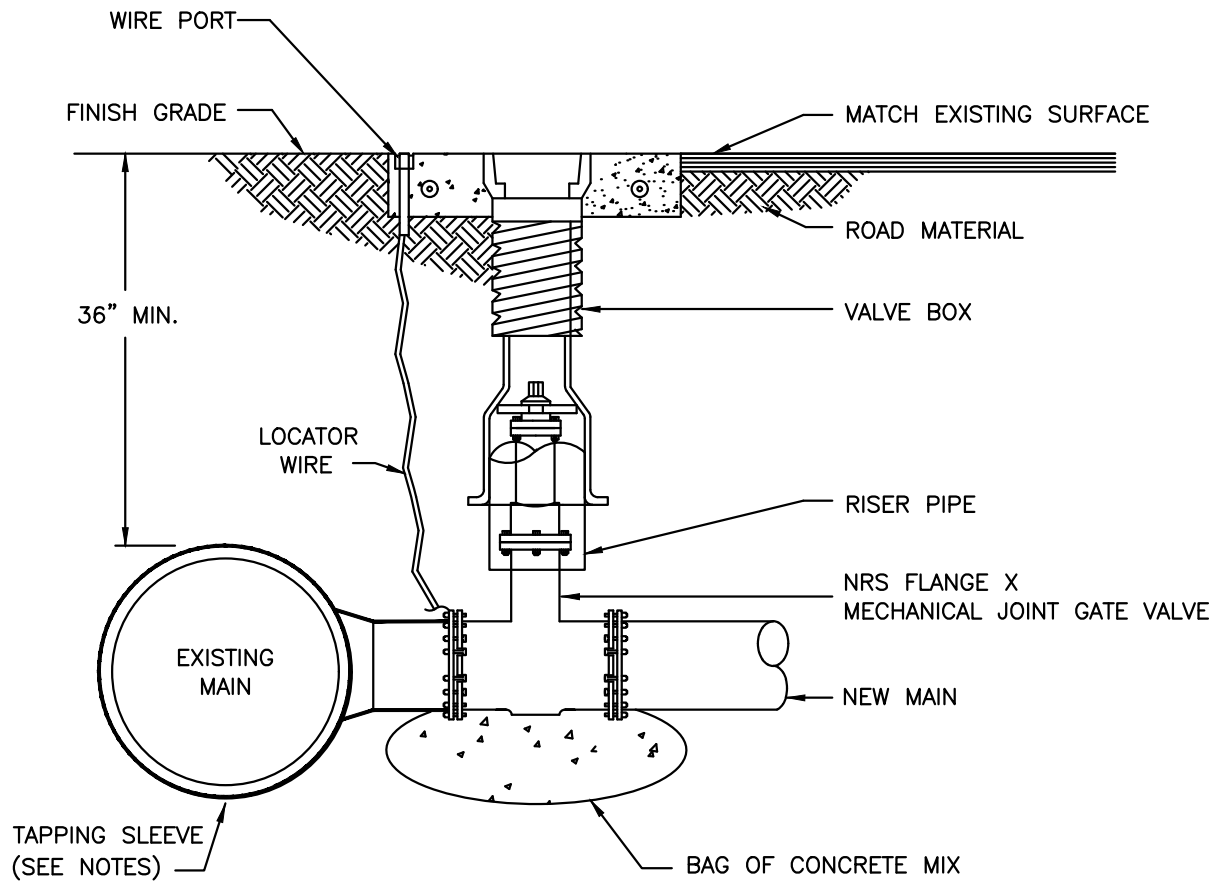
**VALVE LOCATION GUIDELINES
FOR INTERSECTIONS**

DETAIL: SLWG-02

DATE: 03/2020

SCALE: N.T.S.

SHEET: 1 OF 1



NOTES:

1. THE VALVE BOX AND COLLAR SHALL BE IN ACCORDANCE WITH STANDARD DETAIL SLWG-01.
2. TAPPING SLEEVE SHALL BE PER QUALIFIED PRODUCTS LIST.
3. THRUST BLOCKS MAY BE REQUIRED AT THE SLWSD'S DIRECTION. (CASE BY CASE)
4. NO TAP WILL BE ALLOWED CLOSER THAN 5 FEET FROM ANY JOINT, FITTING OR EXISTING TAP ALONG THE MAIN.

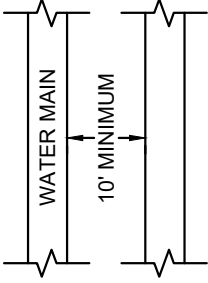
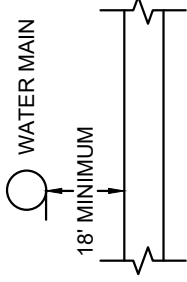
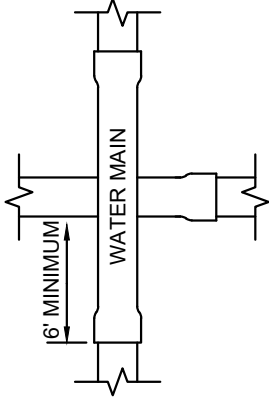
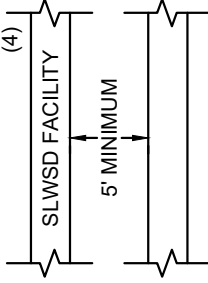
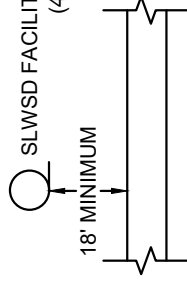
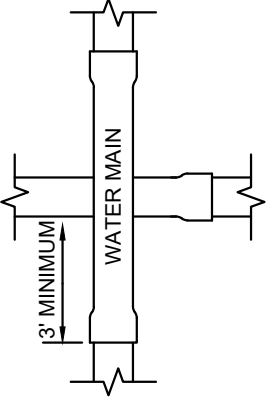


**MINIMUM CONSTRUCTION STANDARDS FOR
ST. LUCIE WEST SERVICES DISTRICT
450 SW UTILITY DRIVE,
PORT SAINT LUCIE, FL 34986
PHONE: (772) 340-0220**

WET TAP ASSEMBLY

DETAIL: SLWG-03
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 1

MINIMUM SEPARATION BETWEEN SLWSD FACILITIES AND OTHER UTILITIES

OTHER PIPE	HORIZONTAL SEPARATION	CROSSINGS (1)	JOINT SPACING @ CROSSINGS (FULL JOINT CENTERED)
<p>GRAVITY OR PRESSURE SANITARY SEWER, SANITARY SEWER FORCE MAIN, RECLAIMED WATER (3), VACUUM SANITARY SERVICE</p>			
<p>ALL OTHER FACILITIES, INCLUDING BUT NOT LIMITED TO: STORM SEWER, STORMWATER FORCE MAIN, RECLAIMED WATER (2), TELEPHONE, CABLE TV, POWER, ETC.</p>			
<p>ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM</p>	<p align="center">10' MINIMUM</p>	<p align="center">-----</p>	<p align="center">-----</p>

NOTES:

1. WATER MAIN SHOULD CROSS OVER OTHER PIPE. WHEN WATER MAIN MUST BE BELOW OTHER PIPE, THE MINIMUM SEPARATION IS 18".
2. RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
3. RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
4. A SLWSD FACILITY INCLUDES MAINS AND STRUCTURES FOR POTABLE WATER, WASTEWATER AND RECLAIMED WATER. WHEN A GRAVITY SEWER IS TO BE INSTALLED PARALLEL TO A DRAINAGE PIPE GREATER THAN 15" DIAMETER A MINIMUM HORIZONTAL SEPARATION OF 15' SHALL BE MAINTAINED; GREATER SEPARATION MAY BE REQUIRED BY SLWSD FOR PIPES LARGER THAN 24" IN DIAMETER. WHEN A FORCE MAIN OR RECLAIMED WATER MAIN IS TO BE INSTALLED PARALLEL TO A DRAINAGE PIPE A MINIMUM HORIZONTAL SEPARATION OF 8' SHALL BE MAINTAINED; A GREATER SEPARATION MAY BE REQUIRED FOR DRAINAGE PIPES LARGER THAN 48" IN DIAMETER.

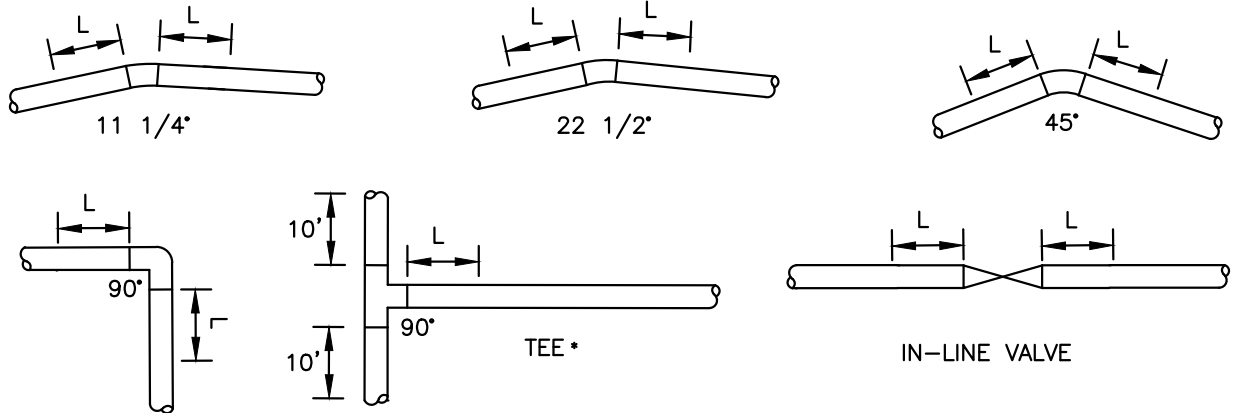


MINIMUM CONSTRUCTION STANDARDS FOR
ST. LUCIE WEST SERVICES DISTRICT
450 SW UTILITY DRIVE,
PORT SAINT LUCIE, FL 34986
PHONE: (772) 340-0220

STANDARD SEPARATION REQUIREMENTS

DETAIL: SLWG-04
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 1

HORIZONTAL BENDS



HORIZONTAL - L (FEET)						
DIAMETER	11-1/4°	22-1/2°	45°	90°	TEE* (BRANCH)	VALVES OR DEAD END
4"	2	4	8	18	20	39
6"	3	5	11	25	36	55
8"	4	7	14	33	52	72
10"	4	8	16	39	65	87
12"	5	9	19	45	80	102
14"	5	11	21	51	93	116
16"	6	12	24	57	107	131
18"	7	13	26	63	120	145
20"	7	14	29	68	133	159
24"	8	16	33	79	157	185
30"	10	19	39	93	192	222
36"	11	21	44	106	225	257
42"	12	24	49	117	254	289
48"	13	26	53	128	283	321

NOTES:

1. THE REQUIREMENTS SET FORTH ABOVE WERE CALCULATED FOR PVC PIPE BASED UPON THE FOLLOWING ASSUMPTIONS:
 - SOIL CONDITIONS: SILTY SAND (SM)
 - TRENCH TYPE: 3 (PIPE BEDDED IN 4" MINIMUM OF LOOSE SOIL WITH BACKFILL LIGHTLY COMPACTED)
 - MINIMUM COVER: 3 FT
 - SAFETY FACTOR: 1.5
 - TEST PRESSURE: 150 PSI
 - * SIZE ON SIZE TEE & 5' LENGTH ALONG RUN
2. IF FIELD CONDITIONS DIFFER FROM THE ABOVE, THE ENGINEER-OF-RECORD (EOR) SHALL SUBMIT CALCULATIONS BASED ON THE FIELD CONDITION FOR REVIEW AND APPROVAL OF SLWSD.

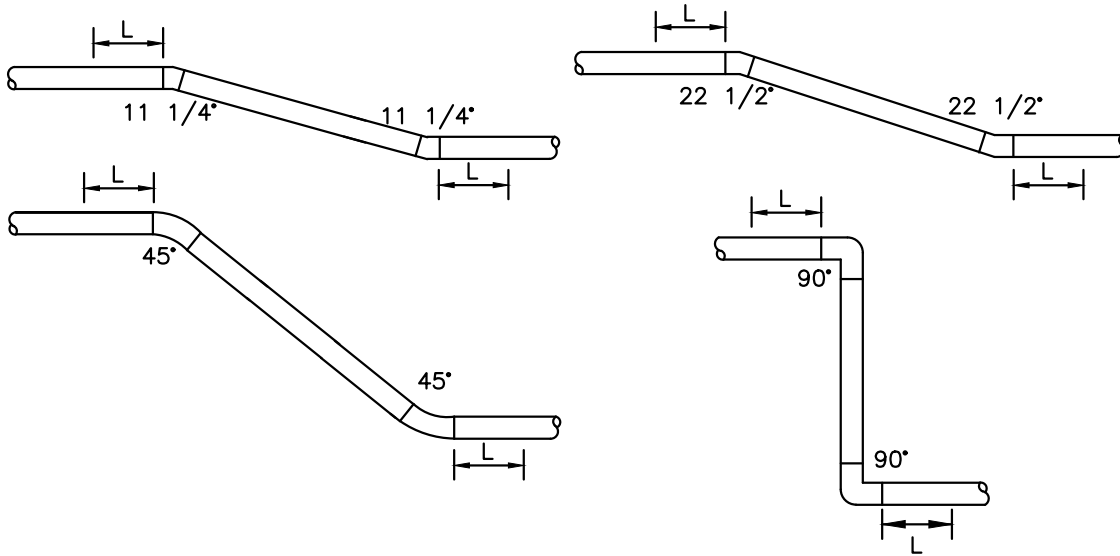


**MINIMUM CONSTRUCTION STANDARDS FOR
ST. LUCIE WEST SERVICES DISTRICT**
450 SW UTILITY DRIVE,
PORT SAINT LUCIE, FL 34986
PHONE: (772) 340-0220

PIPELINE RESTRAINT REQUIREMENTS (HORIZONTAL)

DETAIL: SLWG-05
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 1

VERTICAL BENDS



VERTICAL OFFSET - L (FEET)								
DIAMETER	11-1/4°		22-1/2°		45°		90°	
	UPPER BEND	LOWER BEND	UPPER BEND	LOWER BEND	UPPER BEND	LOWER BEND	UPPER BEND	LOWER BEND
4"	4	2	8	3	17	5	39	11
6"	6	2	11	4	23	7	55	15
8"	8	2	15	4	30	9	72	20
10"	9	3	18	5	36	10	87	24
12"	11	3	21	6	43	12	102	28
14"	12	4	24	7	49	14	116	32
16"	13	4	27	8	55	16	131	36
18"	15	4	29	8	60	17	145	40
20"	16	5	32	9	66	19	158	44
24"	19	6	37	11	77	22	185	51
30"	22	7	45	13	92	26	222	62
36"	26	8	52	15	107	30	256	71
42"	29	8	58	16	120	34	289	80
48"	32	9	64	18	133	37	320	89

NOTES:

- THE REQUIREMENTS SET FORTH ABOVE WERE CALCULATED FOR PVC PIPE BASED UPON THE FOLLOWING ASSUMPTIONS:
 - SOIL CONDITIONS: SILTY SAND (SM)
 - TRENCH TYPE: 3 (PIPE BEDDED IN 4" MINIMUM OF LOOSE SOIL WITH BACKFILL LIGHTLY COMPACTED)
 - UPPER SIDE MINIMUM COVER: 3 FT
 - LOWER SIDE MINIMUM COVER: 5 FT
 - SAFETY FACTOR: 1.5
 - TEST PRESSURE: 150 PSI
- WHEN CONDITIONS DIFFER FROM THE ABOVE, THE ENGINEER-OF-RECORD (EOR) SHALL SUBMIT CALCULATIONS FOR REVIEW AND APPROVAL OF SLWSD.
- ALL JOINTS BETWEEN UPPER AND LOWER BENDS SHALL BE RESTRAINED.

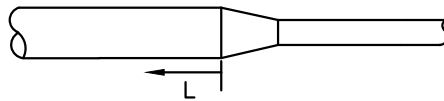


**MINIMUM CONSTRUCTION STANDARDS FOR
ST. LUCIE WEST SERVICES DISTRICT
450 SW UTILITY DRIVE,
PORT SAINT LUCIE, FL 34986
PHONE: (772) 340-0220**

**PIPELINE RESTRAINT
REQUIREMENTS (VERTICAL)**

DETAIL: SLWG-06
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 1

REDUCER



L = RETAINED LENGTH AT LARGER SIZE OF REDUCER (FEET)														
DIAMETER	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"	42"	48"
4"		29	52	71	89	105	121	136	151	179	217	253	285	318
6"			31	53	74	93	111	127	143	172	211	249	282	315
8"				29	54	76	96	114	131	163	204	243	277	310
10"					30	55	78	98	117	151	195	235	271	305
12"						30	56	79	100	137	184	226	263	299
14"							30	56	79	120	171	216	255	292
16"								30	56	101	156	204	245	283
18"									30	80	140	190	233	273
20"										56	121	175	221	263
24"											78	141	192	238
30"												78	140	194
36"													75	139
42"														75

NOTES:

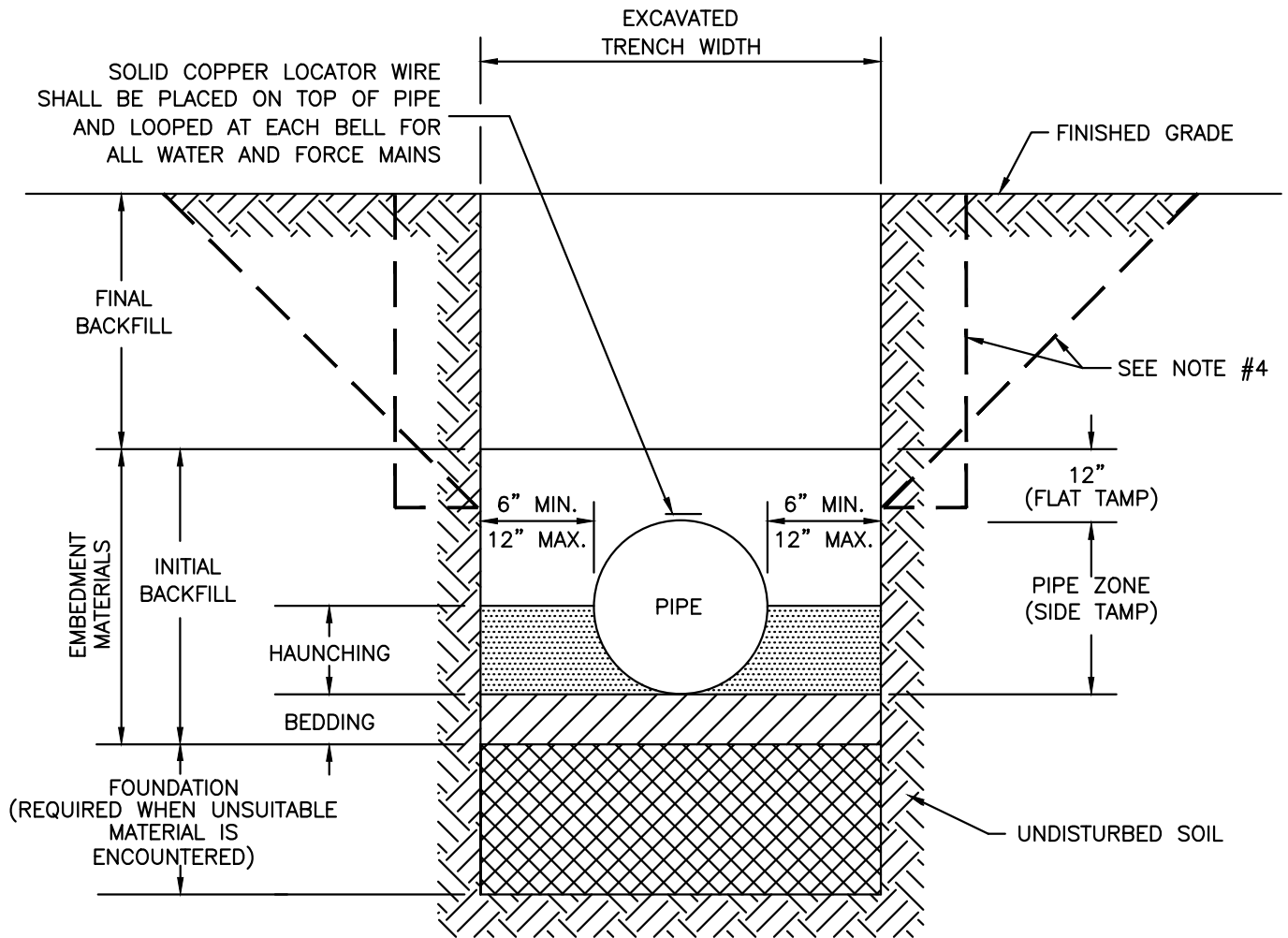
- THE REQUIREMENTS SET FORTH ABOVE WERE CALCULATED FOR PVC PIPE BASED UPON THE FOLLOWING ASSUMPTIONS:
 - SOIL CONDITIONS: SILTY SAND (SM)
 - TRENCH TYPE: 3 (PIPE BEDDED IN 4" MINIMUM OF LOOSE SOIL WITH BACKFILL LIGHTLY COMPACTED)
 - MINIMUM COVER: 3 FT
 - SAFETY FACTOR: 1.5
 - TEST PRESSURE: 150 PSI
- IF FIELD CONDITIONS DIFFER FROM THE ABOVE, THE ENGINEER-OF-RECORD (EOR) SHALL SUBMIT CALCULATIONS BASED ON THE FIELD CONDITION FOR REVIEW AND APPROVAL OF SLWSD.



**MINIMUM CONSTRUCTION STANDARDS FOR
ST. LUCIE WEST SERVICES DISTRICT
450 SW UTILITY DRIVE,
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PHONE: (772) 340-0220**

**PIPELINE RESTRAINT
REQUIREMENTS (REDUCER)**

DETAIL: SLWG-07
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 1



NOTES:

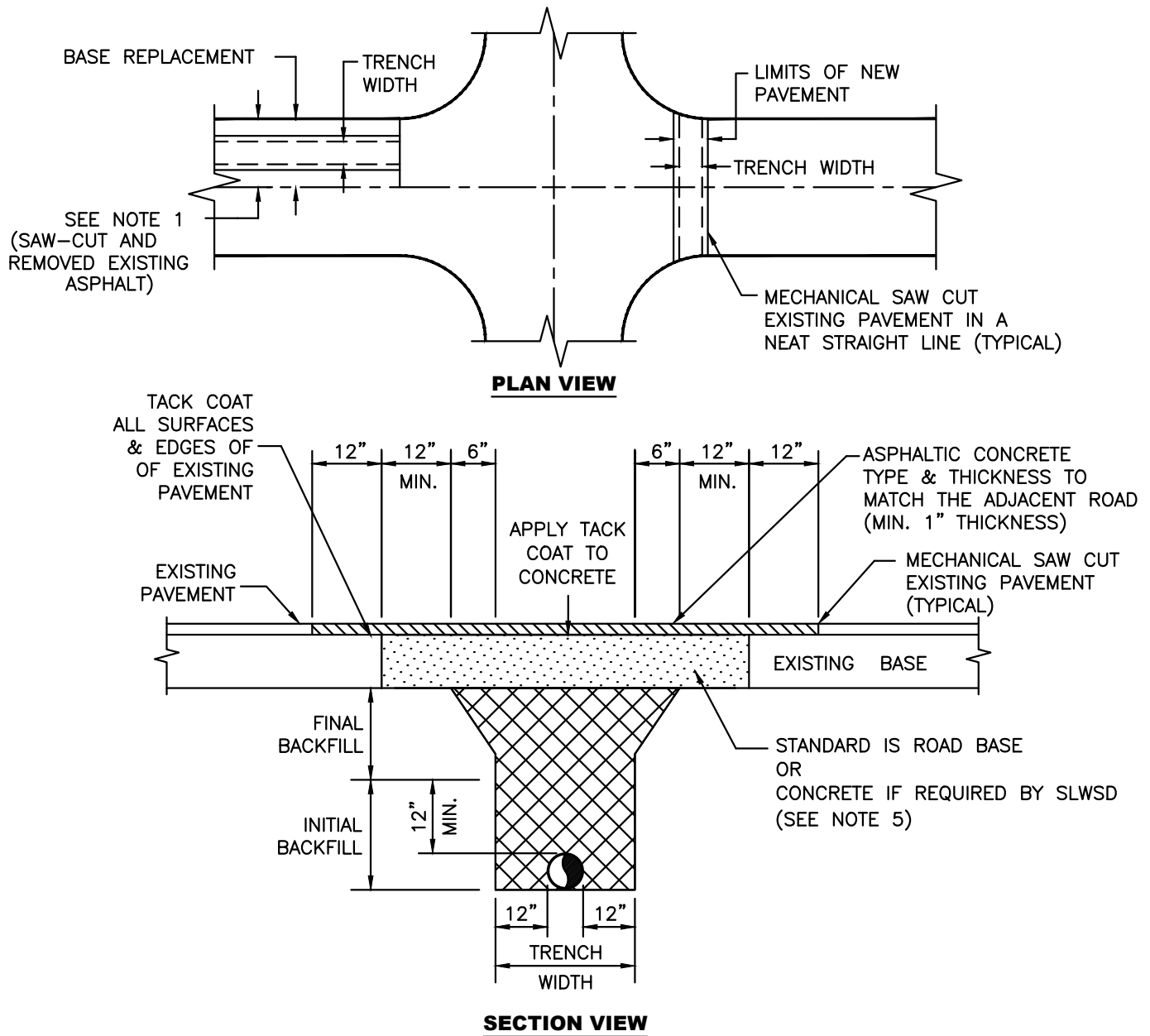
1. FOR TRENCHES REQUIRING SHEETING, SHORING, STAY BRACING, TRENCH JACKS OR TRENCH BOX, DIMENSIONS SHALL BE TAKEN FROM THE INSIDE FACE OF THE SUPPORTS.
2. IF THE MAXIMUM TRENCH WIDTH MUST BE EXCEEDED, THE AREA OUTSIDE OF THE MAXIMUM EMBEDMENT SHALL BE COMPACTED TO FINAL BACKFILL REQUIREMENTS. IF THE PIPE IS INSTALLED IN A COMPACTED EMBANKMENT, THE EMBANKMENT SHALL BE IN PLACE AND COMPACTED TO 12" MIN. COVER BEFORE INSTALLATION OF PIPE.
3. IF BEDDING IS REQUIRED TO BRING TRENCH BOTTOM UP TO GRADE AND PROVIDE UNIFORM AND ADEQUATE LONGITUDINAL SUPPORT UNDER THE PIPE, THEN A MINIMUM COMPACTED DEPTH OF 4 TO 6 INCHES OF SELECT EMBEDMENT MATERIAL IS REQUIRED.
4. THE CONTRACTOR SHALL COMPLY WITH REQUIREMENTS OF THE FLORIDA TRENCH SAFETY ACT.
5. AN APPROVED LOCATOR WIRE SHALL BE USED PER THE QUALIFIED PRODUCTS LIST.
6. EARTHWORK, EXCAVATION, BACKFILL AND COMPACTION SHALL BE IN ACCORDANCE WITH SLWSD STANDARDS.



**MINIMUM CONSTRUCTION STANDARDS FOR
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**STANDARD PIPE TRENCH CROSS
SECTION**

DETAIL: SLWG-08
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 1



NOTES:

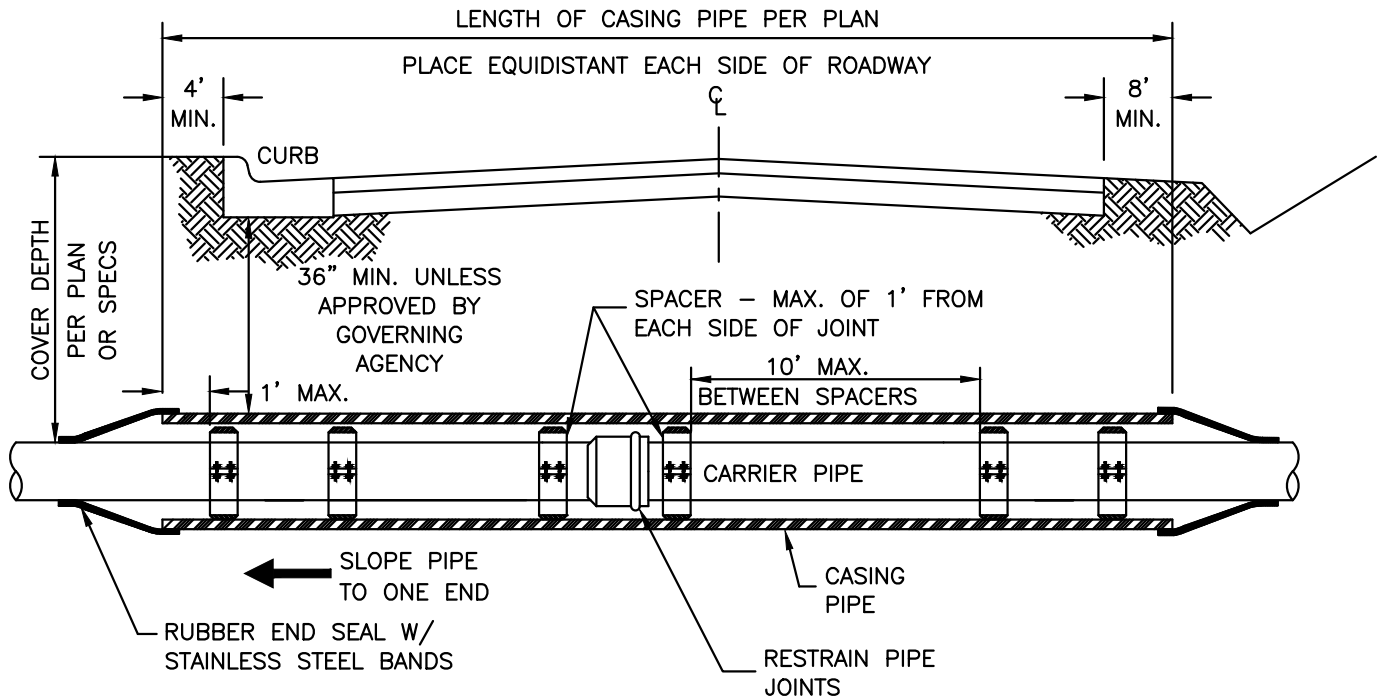
1. PAVEMENT RESTORATIONS FOR LONGITUDINAL CUTS IN ALL STREETS SHALL BE FULL LANE WIDTH, WITH FULL LANE WIDTH RESURFACING FOR EACH LANE WITHIN THE LIMITS OF THE CUT.
2. WHEN AN ARTERIAL OR MAJOR COLLECTOR STREET IS OPEN CUT WITHIN THE LIMITS OF THE ROADWAY INTERSECTION, THE ENTIRE INTERSECTION SHALL BE OVERLAID WITH ASPHALTIC CONCRETE.
3. WHEN STREETS OTHER THAN ARTERIALS OR MAJOR COLLECTORS ARE OPEN CUT MORE THAN TWO TIMES AT THE INTERSECTION, THE ENTIRE INTERSECTION SHALL BE OVERLAID WITH ASPHALTIC CONCRETE. TWO OPEN CUTS OR LESS AT THE INTERSECTION WILL REQUIRE OVERLAYING WITH ASPHALT ONLY IN THE OPEN CUT AREA.
4. THE CONTRACTOR SHALL BE REQUIRED TO DOCUMENT ALL PAVEMENT MARKINGS PRIOR TO OVERLAY. THE CONTRACTOR SHALL THEN PLACE NEW PAVEMENT MARKINGS AT THE SAME LOCATIONS. PAVEMENT MARKINGS SHALL BE IN ACCORDANCE TO F.D.O.T. STANDARDS.
5. 3,000 PSI CONCRETE WITH FIBER (8" MIN.) IF REQUIRED BY SLWSD.
6. EARTHWORK, EXCAVATION, BACKFILL AND COMPACTION SHALL BE IN ACCORDANCE WITH SLWSD STANDARDS. ALL BACKFILL SHALL MEET DENSITY REQUIREMENTS OF 100% T-180.



**MINIMUM CONSTRUCTION STANDARDS FOR
ST. LUCIE WEST SERVICES DISTRICT**
450 SW UTILITY DRIVE,
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PHONE: (772) 340-0220

**UTILITY ROAD CUT PAVEMENT
RESTORATION**

DETAIL: SLWG-09
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 1



CARRIER PIPE SIZE	STEEL CASING	MINIMUM WALL THICKNESS
4"	12"	.188
6"	14"	.250
8"	16"	.250
10"	20"	.250
12"	24"	.250
16"	32"	.375
20"	40"	.375
24"	48"	.500
30"	60"	.625
36"	72"	.625
42"	84"	.625
48"	96"	.625

NOTES:

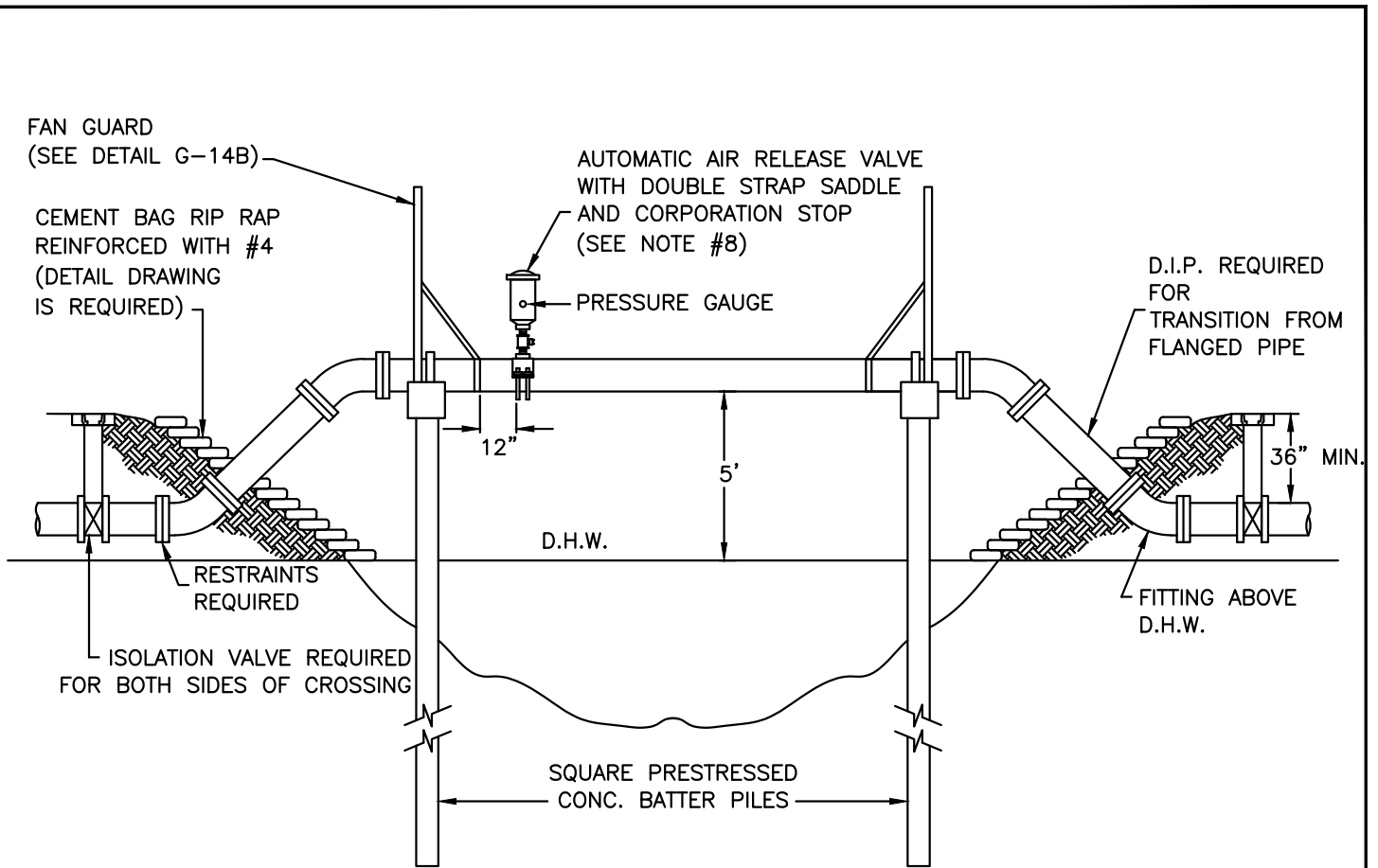
1. ALL WORKMANSHIP AND MATERIAL TO BE IN ACCORDANCE WITH SLWSD UTILITY STANDARDS.
2. INSULATOR SHALL BE SIZED TO ALLOW CLEARANCE BETWEEN BELL JOINT AND CASING WALL OR RESTRAINT DEVICE AND CASING WALL.
3. PETROLEUM PRODUCTS SHALL NOT BE USED FOR LUBRICATION ON ANY PORTION OF THIS ASSEMBLY WITH PVC CARRIER PIPE.



**MINIMUM CONSTRUCTION STANDARDS FOR
ST. LUCIE WEST SERVICES DISTRICT**
450 SW UTILITY DRIVE,
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PHONE: (772) 340-0220

PIPE CASING FOR JACK AND BORE

DETAIL: SLWG-10
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 1



NOTES:

1. ALL EXPOSED PIPE SHALL BE DUCTILE IRON OR PREFABRICATED STEEL WITH FLANGED FITTINGS AND TORUSEAL GASKETS. RETAINER GLANDS, UNIFLANGE TYPE FITTINGS ARE NOT TO BE SUBSTITUTED FOR FLANGED FITTINGS. PREFABRICATED STEEL PIPE MAY INCORPORATE WELDED ON UPPER BENDS. PREFABRICATED FLANGED PIPE SHALL BE FACTORY TESTED.
2. SPAN LENGTHS AS REQUIRED BY PERMITTING AGENCY AND PIPE MFGR.
3. FAN GUARDS ARE REQUIRED. SEE FAN GUARD / PIPE CAP DESIGN DETAILS (SLWG-11B), FOR ADDITIONAL REQUIRMENTS.
4. ALL EXPOSED PIPING AND HARDWARE SHALL BE PAINTED AS SPECIFIED IN THE QUALIFIED PRODUCTS LIST (QPL).
5. PIPE SHALL BE CRADLED ON ½" THICK NEOPRENE (DUROMETER GRADE 50). NEOPRENE SHALL EXTEND 1" BEYOND THE EDGES OF CRADLE AND STRAPS. NEOPRENE IS REQUIRED AT ALL STRAPS INSTALLED OVER STEEL PIPE.
6. TIE-DOWNS STRAPS MUST PROPERLY FIT AND SECURE PIPE IN CRADLE.
7. PIPE CRADLE IN CAP SHALL CONTACT ⅓ CIRCUMFERENCE OF PIPE.
8. THE AUTOMATIC RELEASE VALVE AND PRESSURE GAUGE SHALL BE ON THE QPL. THE PRESSURE GAUGE SHALL FACE THE CLOSEST FAN GUARD.
9. PILE LIFT CABLE SHALL BE REMOVED BELOW SURFACE; HOLE SHALL BE FILLED WITH EPOXY CEMENT.
10. 10"X10" TYPE 1A BATTER PILES WITH MINIMUM LOAD CAPACITY OF 25 TONS PER PILE IS REQUIRED. PILE PENETRATION BELOW CANAL BOTTOM SHALL BE 15' MINIMUM. SIGNED AND SEALED SHOP DRAWINGS SHALL BE SUBMITTED TO THE SLWSD.
11. PREFABRICATED STEEL PIPE SHALL HAVE WELDED ON BEARING PADS EXTENDING A MINIMUM OF 1" BEYOND PIPE CRADLE. THE PADS SHALL BE INSTALLED BY STEEL PIPE MANUFACTURER PRIOR TO PAINTING.
12. FORCE MAIN CROSSINGS OVER BODIES OF WATER MAY BE SUBJECT TO PERMIT FROM APPLICABLE REGULATORY AGENCIES.



**MINIMUM CONSTRUCTION STANDARDS FOR
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PORT SAINT LUCIE, FL 34986
PHONE: (772) 340-0220

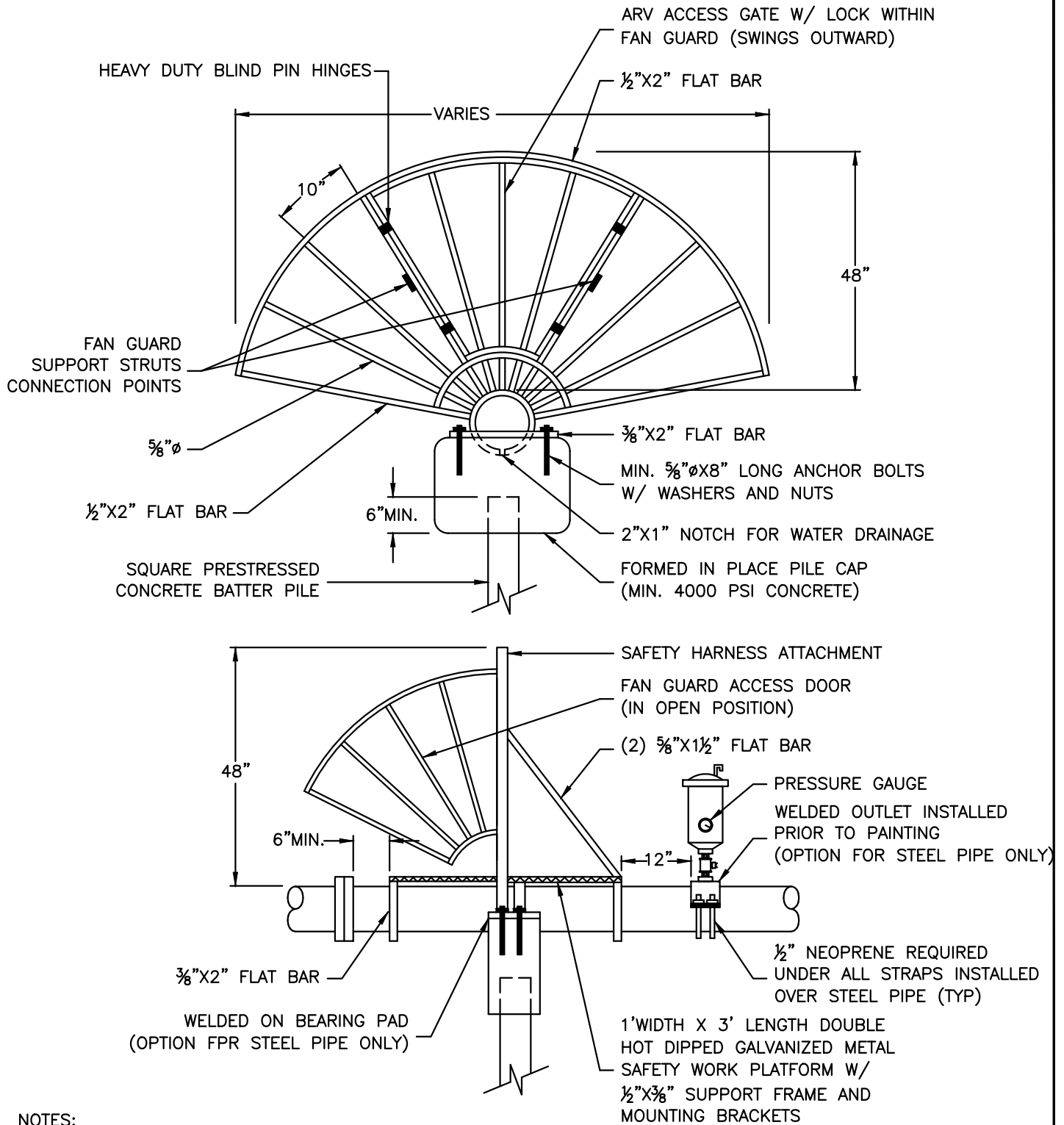
AERIAL CROSSING DETAIL

DETAIL: SLWG-11A

DATE: 03/2020

SCALE: N.T.S.

SHEET: 1 OF 2



NOTES:

1. FAN GUARDS SHALL BE PLACED AT EACH END OF CANAL CROSSING.
2. FANGUARD WITH HARDWARE SHALL BE FABRICATED FROM DOUBLE HOT DIPPED GALVANIZED STEEL.
3. SHOP DRAWINGS FOR FANGUARDS, CAPS AND PILES MUST BE SUBMITTED TO SLWSD FOR REVIEW AND APPROVAL PRIOR TO PRE-CONSTRUCTION MEETING.
4. CUT PILE, EXTEND PRESTRESSING STRANDS INTO PILE CAP AND TIE WITH CAP STEEL.
5. REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60 MIN. 2" CONCRETE COVER OVER ALL STEEL.



**MINIMUM CONSTRUCTION STANDARDS FOR
ST. LUCIE WEST SERVICES DISTRICT**
450 SW UTILITY DRIVE,
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FAN GUARD / PILE CAP DETAIL

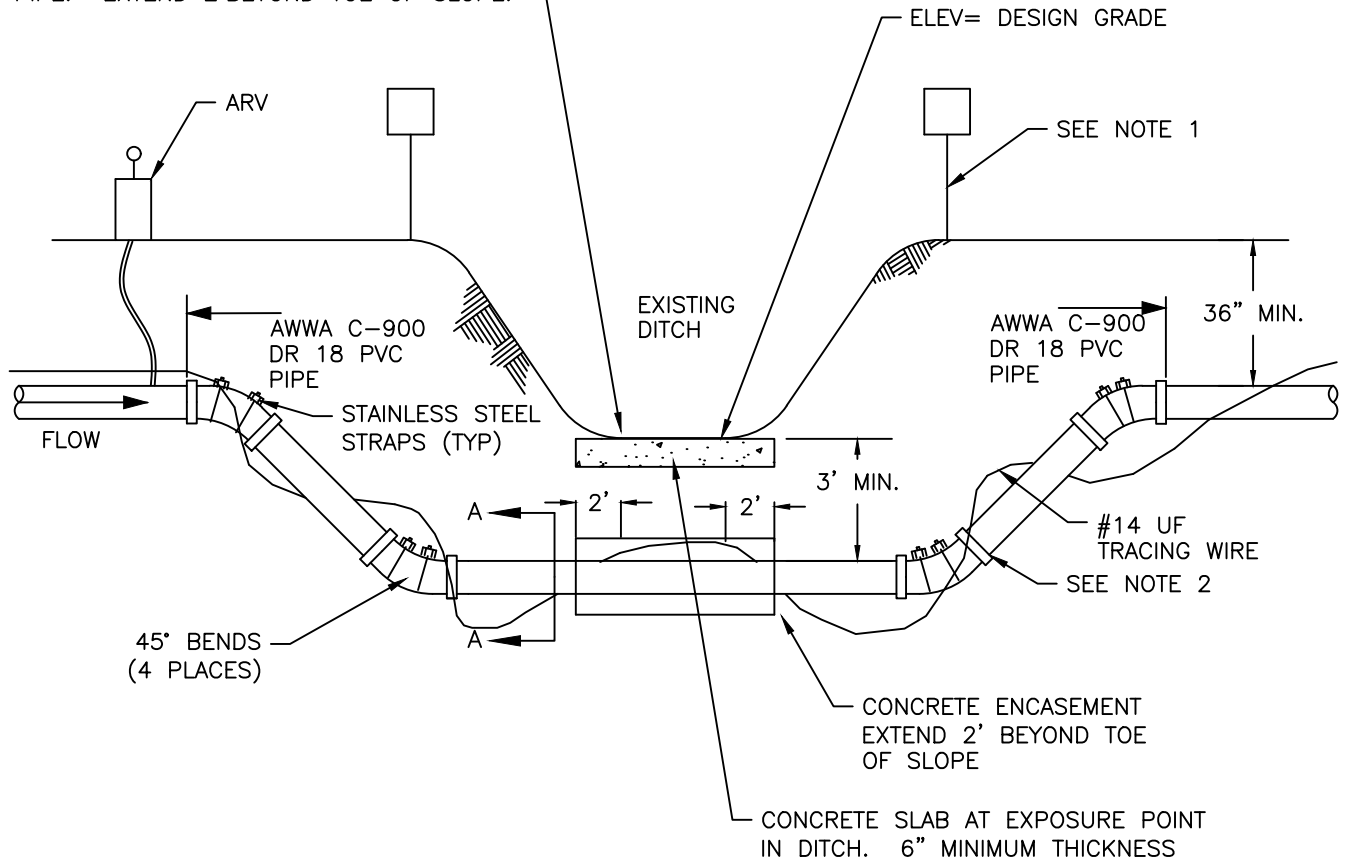
DETAIL: SLWG-11B

DATE: 03/2020

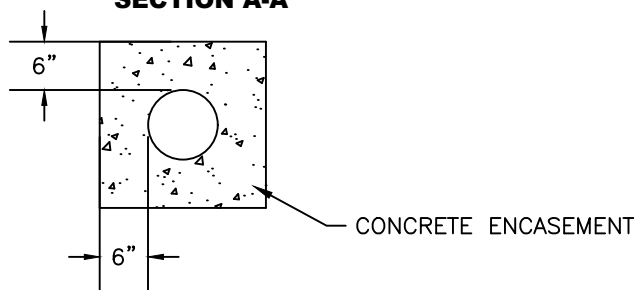
SCALE: N.T.S.

SHEET: 2 OF 2

6' WIDE CONCRETE SLAB CENTERED ON PIPE. EXTEND 2' BEYOND TOE OF SLOPE.



SECTION A-A



NOTES:

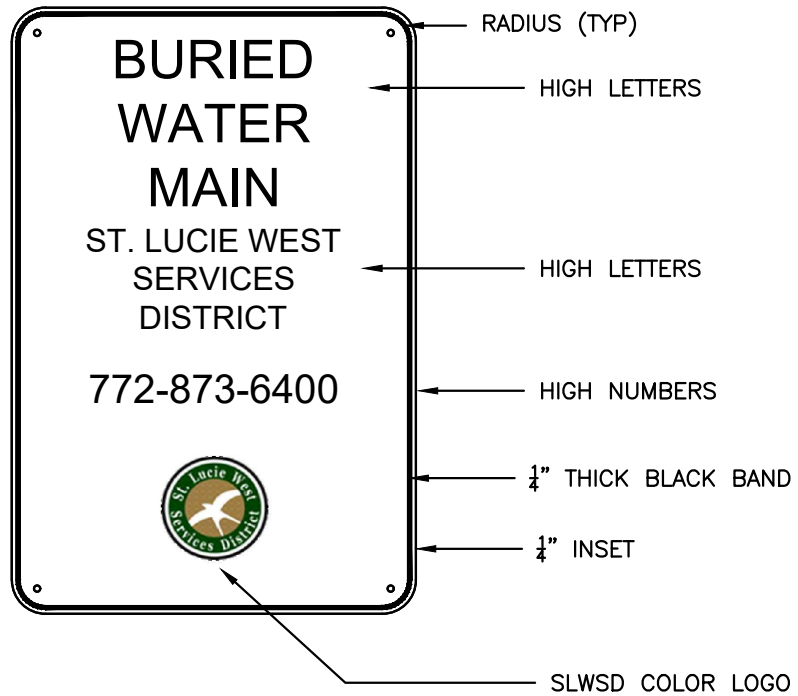
1. WARNING SIGNS REQUIRED BOTH SIDES OF DITCH (SEE SLWG-12B)
2. ALL JOINTS SHALL BE RESTRAINED.
3. AIR RELEASE VALVE SHALL NOT BE INSTALLED ON RECLAIMED WATER OR POTABLE WATER MAINS.



**MINIMUM CONSTRUCTION STANDARDS FOR
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**CANAL OR DRAINAGE DITCH
CROSSING**

DETAIL: SLWG-12A
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 2



NOTES:

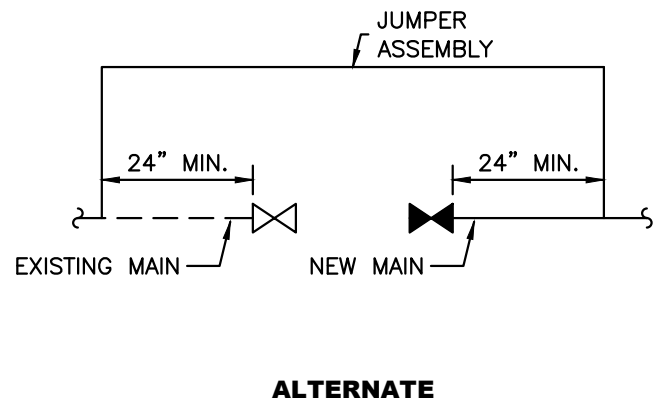
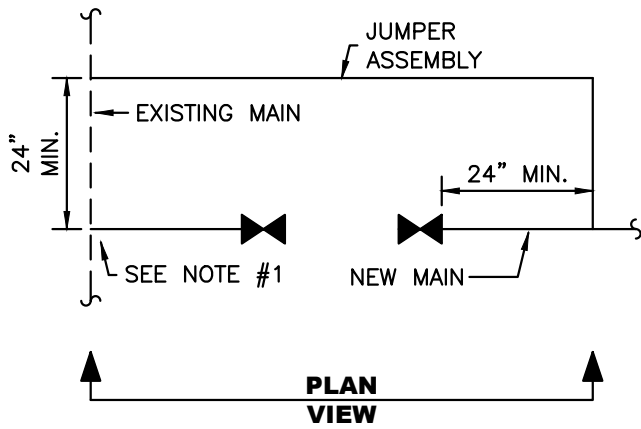
1. SIGN DESIGN SHALL BE SUBMITTED TO SLWSD FOR APPROVAL.
2. SIGNS SHALL BE PLACED AS REQUIRED UNDER THE PROVISIONS OF PERMIT ISSUED BY PERMITTING AGENCY.
3. THE SIGN SHALL BE 0.080 ALUMINUM WITH REFLECTIVE WHITE BACKGROUND AND BLACK LETTERING WITH SLWSD COLOR LOGO.
4. THE SIGN SHALL BE MOUNTED ON 1.75" X 1.75", 12 GAUGE GALVANIZED SQUARE TUBE PERFORATED SIGN POST WITH STAINLESS STEEL HARDWARE, 48" FROM BOTTOM AND PARALLEL TO CANAL.



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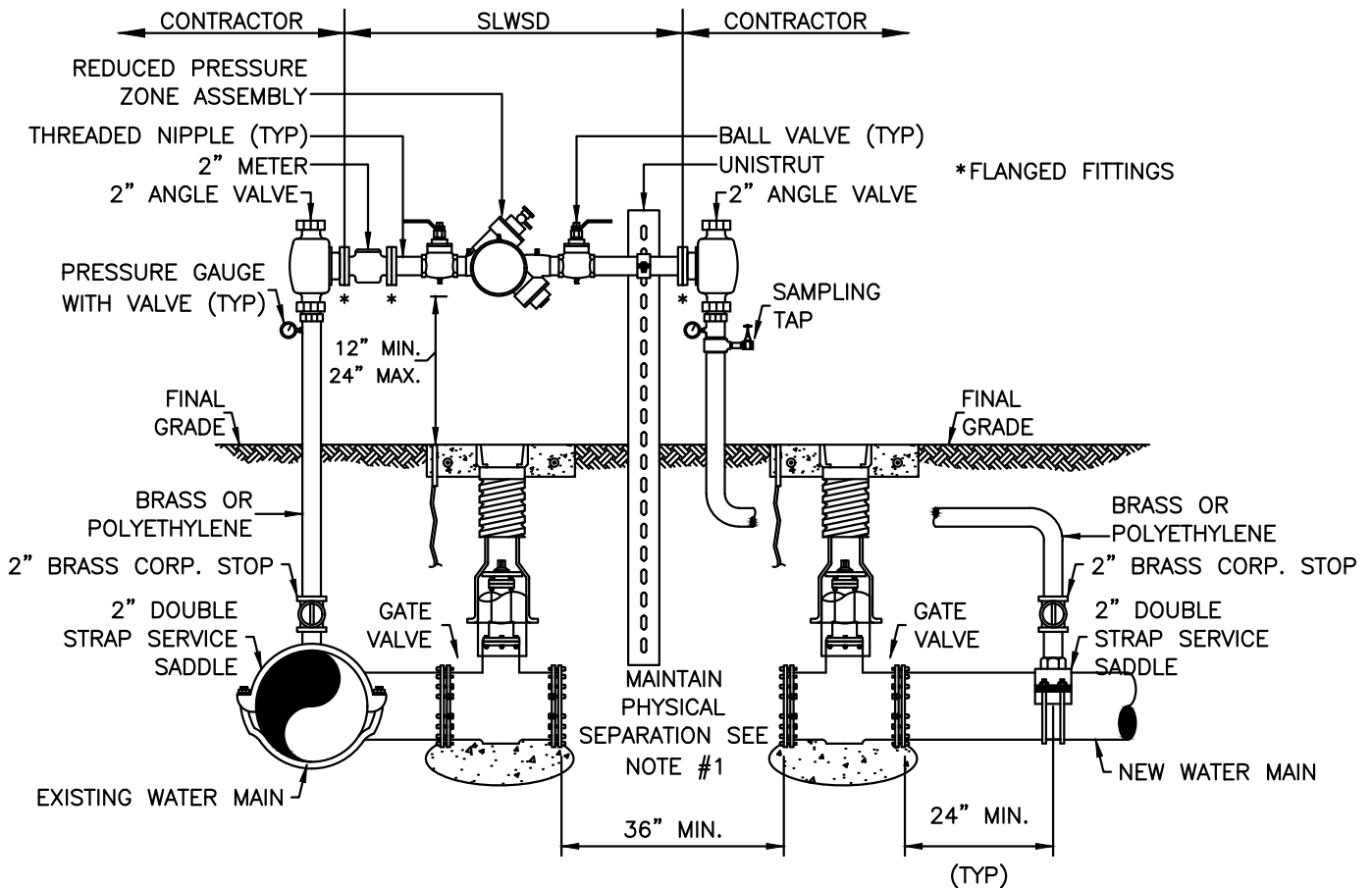
CANAL CROSSING SIGN

DETAIL: SLWG-12B
DATE: 03/2020
SCALE: N.T.S.
SHEET: 2 OF 2



PLAN VIEW

ALTERNATE



ELEVATION VIEW



**MINIMUM CONSTRUCTION STANDARDS FOR
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**POTABLE TEMPORARY JUMPER
CONNECTION**

DETAIL: SLWG-13A

DATE: 03/2020

SCALE: N.T.S.

SHEET: 1 OF 2

NOTES:

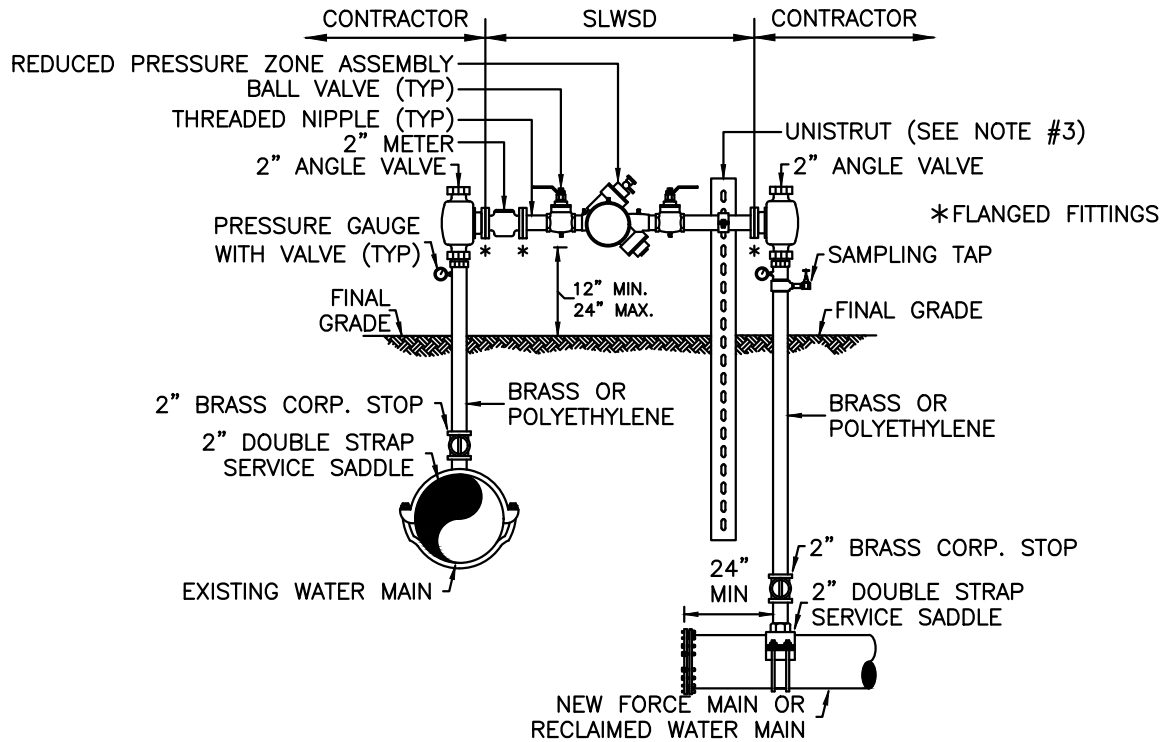
1. A TEMPORARY JUMPER CONNECTION IS REQUIRED AT ALL CONNECTIONS BETWEEN EXISTING ACTIVE SLWSD WATER MAINS AND PROPOSED NEW WATER MAINS. A PHYSICAL SEPARATION SHALL BE MAINTAINED, EXCEPT AS NOTED IN #5 BELOW. THE PROCEDURES ARE APPLICABLE WHEN CONNECTING TO AN EXISTING SLWSD WATER MAIN, WHETHER BY TAPPING TEE AND VALVE OR BY CONTINUATION OF A PLUGGED STUB OUT WITH AN EXISTING GATE VALVE.
2. THE CONTRACTOR SHALL CONTACT THE SLWSD REGARDING SCHEDULING OF REQUIRED INSPECTIONS RELATING TO THE CONNECTION. SLWSD INSPECTIONS ARE SPECIFICALLY REQUIRED FOR TIE-INS OR WET TAPS TO EXISTING WATER MAINS, JUMPER INSTALLATION, FLUSHING, PRESSURE TESTING, DISINFECTION, SAMPLING, PLUGGING OF SAMPLING POINTS AND PERMANENT CONNECTION OF THE NEW WATER MAIN. THE CONTRACTOR SHALL FOLLOW ALL PROCEDURES STRICTLY IN ACCORDANCE WITH THE SLWSD UTILITY STANDARDS MANUAL.
3. THE TEMPORARY JUMPER ASSEMBLY (FLANGE TO FLANGE) WILL BE SUPPLIED, INSTALLED AND TESTED BY THE SLWSD, IN COORDINATION WITH THE ENGINEER OF RECORD AND CONTRACTOR. OTHER MATERIALS AND INSTALLATION REQUIRED FOR THE CONNECTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE UNDERGROUND FITTINGS SHALL BE RESTRAINED MECHANICAL JOINT TYPE. ALL MATERIALS SHALL BE PER THE SLWSD APPROVED QUALIFIED PRODUCTS LIST. THE JUMPER CONNECTION SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL THE ASSEMBLY IS REMOVED BY THE SLWSD.
4. ALL NEW WATER MAINS SHALL BE DOUBLE-PIGGED, FLUSHED, PRESSURE TESTED AND DISINFECTED. NEW MAIN SHALL NOT BE PLACED INTO SERVICE UNTIL THE BACTERIOLOGICAL TEST RESULTS ARE SATISFACTORY AND A WRITTEN APPROVAL HAS BEEN OBTAINED FROM THE SLWSD.
5. A PHYSICAL SEPARATION SHALL BE MAINTAINED BETWEEN THE EXISTING MAIN AND NEW MAIN, EXCEPT AS NOTED HEREIN. IF THE NEW MAIN IS OF A SIZE OR LENGTH THAT PIGGING/FLUSHING CANNOT BE EFFECTIVELY ACCOMPLISHED WITH THE JUMPER CONNECTION, THE SLWSD MAY ALLOW A PHYSICAL CONNECTION UNDER CONTROLLED CONDITIONS AS FOLLOWS:
 - a. THE PROCEDURE WILL BE CONDUCTED BY THE CONTRACTOR IN THE PRESENCE OF A SLWSD INSPECTOR AND THE ENGINEER-OF-RECORD (EOR) OR REPRESENTATIVE.
 - b. THE NEW VALVE(S) SHOWN IN THIS DETAIL SHALL BE PRESSURE/LEAKAGE TESTED AND REPLACED IF LEAKAGE IS OBSERVED. THE VALVES WILL BE KEPT CLOSED BY THE SLWSD AND SHALL NOT BE OPERATED BY ANY ONE OTHER THAN SLWSD PERSONNEL.
 - c. THE JUMPER CONNECTION SHALL BE USED TO FILL THE NEW MAIN.
 - d. THE CONTRACTOR SHALL DISINFECT THE PIPE AND FITTINGS USED TO MAKE THE CONNECTION BY SPRAYING AND SWABBING WITH CHLORINE.
 - e. ALL VALVES IN THE NEW SYSTEM DOWNSTREAM OF THE JUMPER SHALL BE OPENED BY THE CONTRACTOR PRIOR TO FLUSHING. THE VALVES SHOWN IN THIS DETAIL SHALL BE OPENED BY SLWSD PERSONNEL ONLY.
 - f. THE PIGGING AND FLUSHING SHALL BE PERFORMED BY THE CONTRACTOR IN THE PRESENCE OF A SLWSD INSPECTOR. THE VALVES WILL BE CLOSED BY SLWSD PERSONNEL AFTER THE MAIN HAS BEEN FLUSHED.
6. THE WATER MAINS SHALL BE PRESSURE TESTED AFTER FLUSHING AND PRIOR TO DISINFECTION. ALL VALVES SHALL REMAIN CLOSED DURING THE PRESSURE TEST AND WILL BE OPENED BY SLWSD PERSONNEL AFTER THE TEST RESULTS ARE SATISFACTORY.
7. DISINFECTION SHALL BE CONDUCTED IN ACCORDANCE WITH AWWA C651. A MINIMUM PRESSURE OF 20 PSI SHALL BE MAINTAINED IN THE NEW MAIN AFTER DISINFECTION.
8. UPON BACTERIOLOGICAL CLEARANCE, THE SAMPLING POINTS SHALL BE REMOVED AND PLUGGED BY THE CONTRACTOR. THE CONTRACTOR SHALL MAKE THE PERMANENT CONNECTION IN THE PRESENCE OF A SLWSD INSPECTOR, UNLESS THE CONNECTION WAS PREVIOUSLY MADE AS INDICATED IN NOTE 5D; THE PIPE AND FITTINGS FOR CONNECTION SHALL BE DISINFECTED BY SPRAYING AND SWABBING WITH CHLORINE. THE JUMPER ASSEMBLY (FLANGE TO FLANGE) WILL BE REMOVED BY THE SLWSD IN COORDINATION WITH THE CONTRACTOR. THE CONTRACTOR SHALL REMOVE THE REST OF THE JUMPER CONNECTION PIPING AND PLUG THE CORPORATION STOP VALVES.



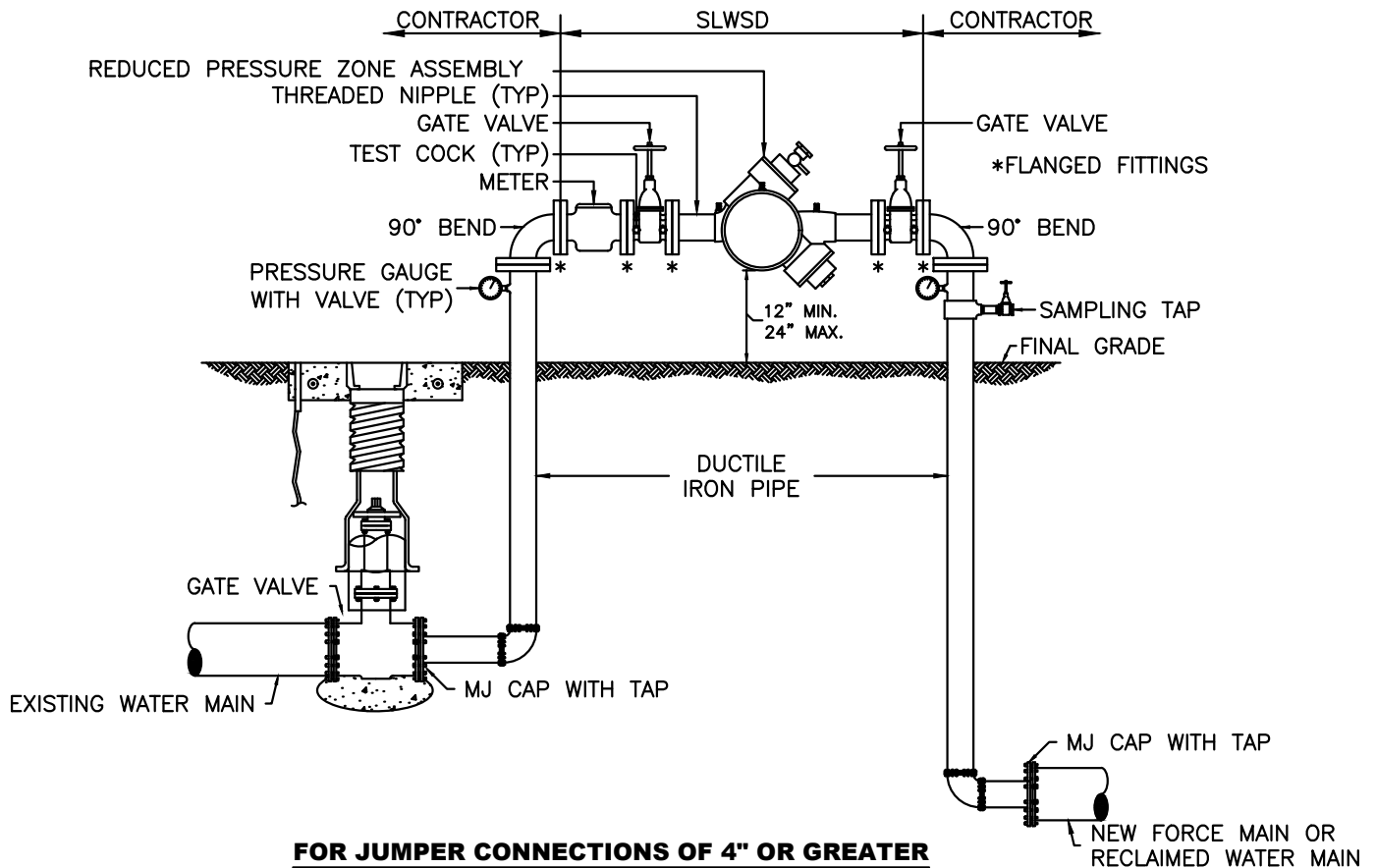
**MINIMUM CONSTRUCTION STANDARDS FOR
ST. LUCIE WEST SERVICES DISTRICT
450 SW UTILITY DRIVE,
PORT SAINT LUCIE, FL 34986
PHONE: (772) 340-0220**

**TEMPORARY JUMPER
CONNECTION**

DETAIL: SLWG-13B
DATE: 03/2010
SCALE: N.T.S.
SHEET: 2 OF 2



FOR 2" JUMPER CONNECTION ONLY



FOR JUMPER CONNECTIONS OF 4" OR GREATER



MINIMUM CONSTRUCTION STANDARDS FOR
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**NON-POTABLE WATER
 TEMPORARY JUMPER
 CONNECTION**

DETAIL: SLWG-14A
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 2

NOTES:

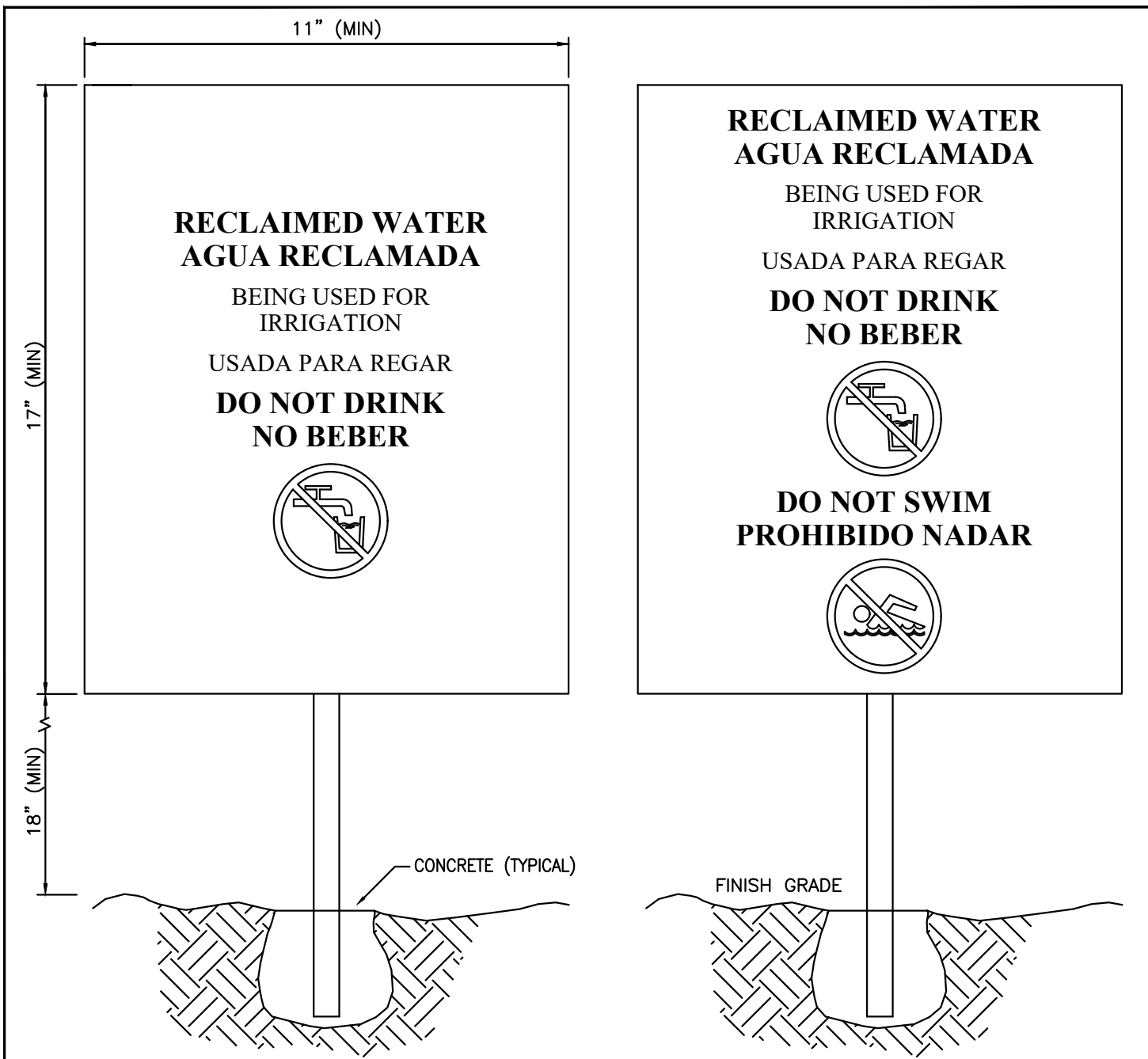
1. A TEMPORARY JUMPER CONNECTION SHALL BE PROVIDED IN ACCORDANCE WITH THIS DETAIL WHEN AN EXISTING SLWSD WATER MAIN WILL BE USED FOR FLUSHING (PIGGING) AND FILLING A NEWLY CONSTRUCTED WASTEWATER FORCE MAIN OR RECLAIMED WATER MAIN. A DIRECT CONNECTION SHALL NOT BE MADE UNDER ANY CIRCUMSTANCES. THE SIZE OF THE JUMPER CONNECTION SHALL BE SPECIFIED BY THE ENGINEER-OF-RECORD (EOR) BASED ON VELOCITY REQUIRED TO FLUSH THE MAIN.
2. THE CONTRACTOR SHALL CONTACT THE SLWSD REGARDING SCHEDULING OF REQUIRED INSPECTIONS RELATING TO THE CONNECTION. SLWSD INSPECTIONS ARE SPECIFICALLY REQUIRED FOR JUMPER INSTALLATION, FLUSHING AND PRESSURE TESTING. THE CONTRACTOR SHALL FOLLOW ALL PROCEDURES STRICTLY IN ACCORDANCE WITH THE SLWSD UTILITY STANDARDS.
3. THE TEMPORARY JUMPER ASSEMBLY (FLANGE TO FLANGE) WILL BE SUPPLIED, INSTALLED AND TESTED BY THE SLWSD, IN COORDINATION WITH THE EOR AND CONTRACTOR. OTHER MATERIALS AND INSTALLATION REQUIRED FOR THE CONNECTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL DISINFECT THE PIPE AND FITTINGS USED TO MAKE THE CONNECTION BY SPRAYING AND SWABBING WITH CHLORINE. A SUPPORT SHALL BE PROVIDED FOR THE ASSEMBLY AS NECESSARY. THE UNDERGROUND FITTINGS SHALL BE RESTRAINED MECHANICAL JOINT TYPE. ALL MATERIALS SHALL BE PER THE SLWSD APPROVED QUALIFIED PRODUCTS LIST. THE JUMPER CONNECTION SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL THE ASSEMBLY IS REMOVED BY THE SLWSD. THE VALVES SHALL BE OPERATED BY SLWSD PERSONNEL ONLY.
4. THE PIGGING AND FLUSHING SHALL BE PERFORMED BY THE CONTRACTOR IN THE PRESENCE OF A SLWSD INSPECTOR. THE NEW MAIN SHALL BE PRESSURE TESTED AFTER FLUSHING. ALL VALVES SHALL BE CLOSED BY SLWSD PERSONNEL AFTER FLUSHING AND SHALL REMAIN CLOSED DURING THE PRESSURE TEST.
5. THE JUMPER ASSEMBLY (FLANGE TO FLANGE) WILL BE REMOVED BY THE SLWSD IN COORDINATION WITH THE CONTRACTOR. THE CONTRACTOR SHALL REMOVE THE REST OF THE JUMPER CONNECTION PIPING AND PLUG THE CORPORATION STOP VALVES.



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**NON-POTABLE WATER
TEMPORARY JUMPER
CONNECTION**

DETAIL: SLWG-14B
DATE: 03/2020
SCALE: N.T.S.
SHEET: 2 OF 2



NOTES:

1. SIGNS SHALL BE PLACED AS REQUIRED UNDER THE PROVISIONS OF PERMIT ISSUED BY FDEP. THE ABOVE SIGNS SHALL BE USED WHEN REQUIRED BY FDEP AND/OR SLWSD.
2. MOUNT SIGN TO STANDARD U-CHANNEL SIGN POST WITH STAINLESS STEEL HARDWARE.
3. SIGN SHALL BE .080 GAUGE ALUMINIUM WITH VINYL COATING.
4. THE LETTERS SHALL BE BLACK AGAINST A WHITE BACKGROUND, OTHER COLORS MAY BE USED WITH PRIOR APPROVAL OF SLWSD.



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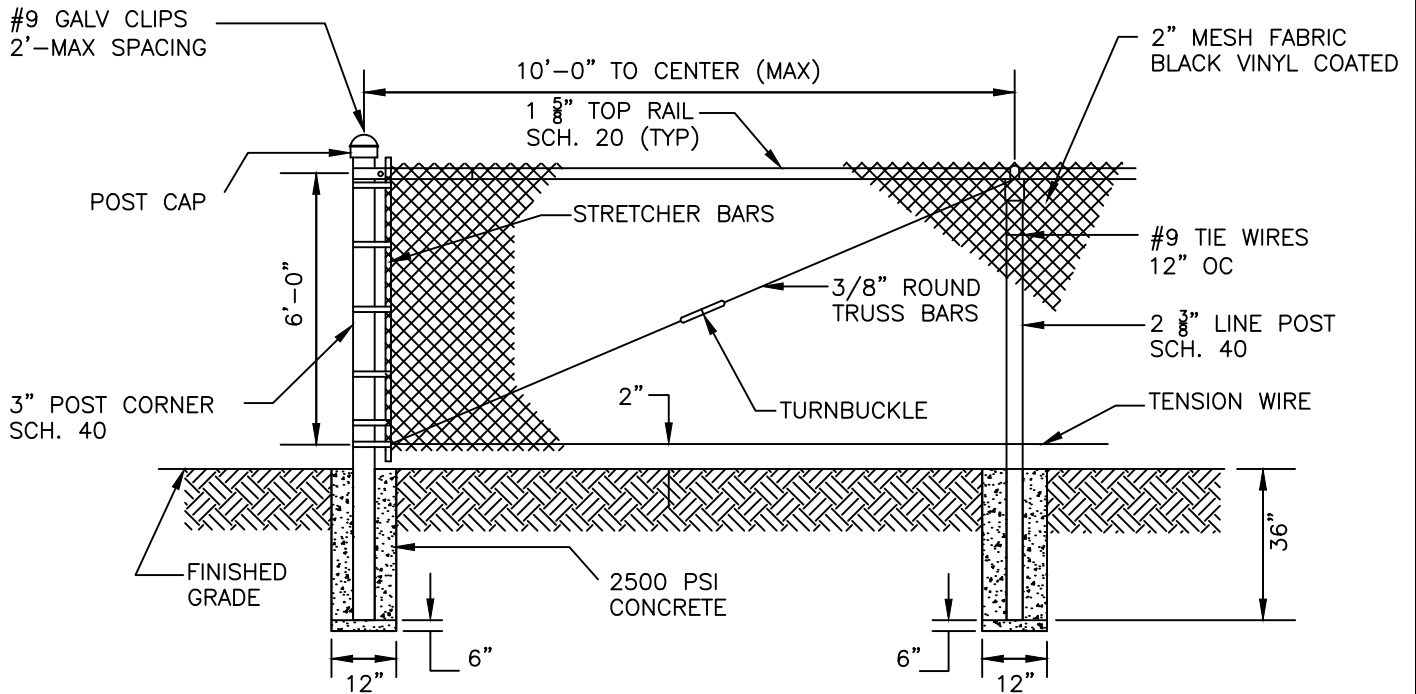
**RECLAIMED WATER
SITE SIGNAGE**

DETAIL: SLWG-15

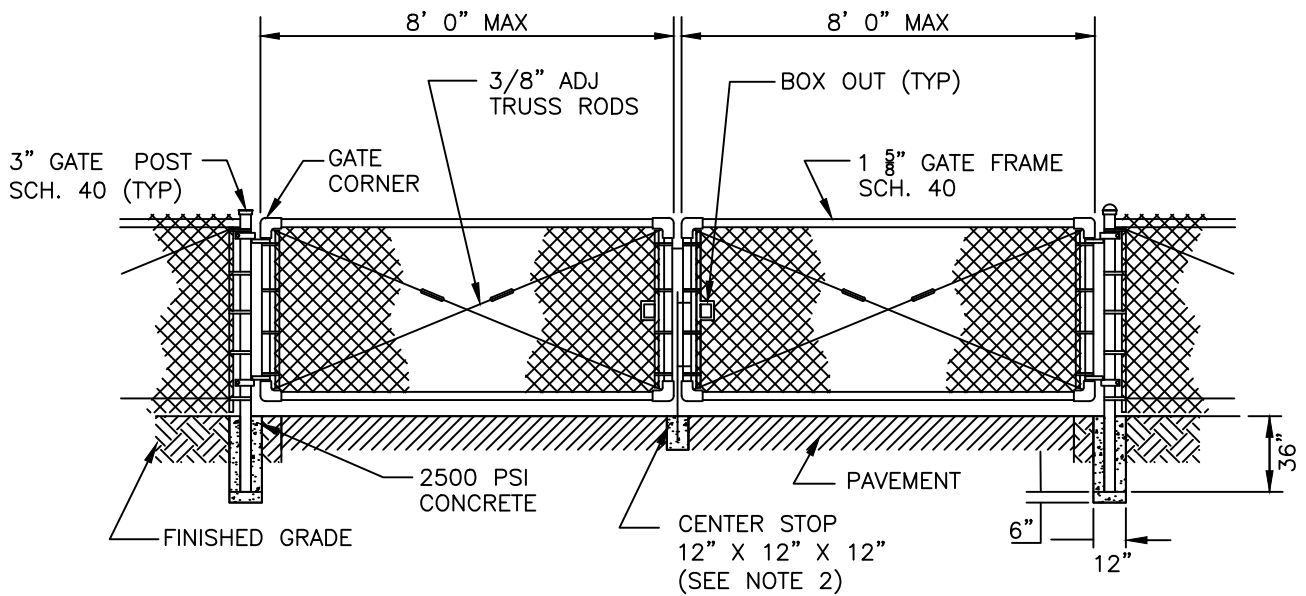
DATE: 03/2020

SCALE: N.T.S.

SHEET: 1 OF 1



FENCE DETAIL



DOUBLE SWING GATE DETAIL

NOTES:

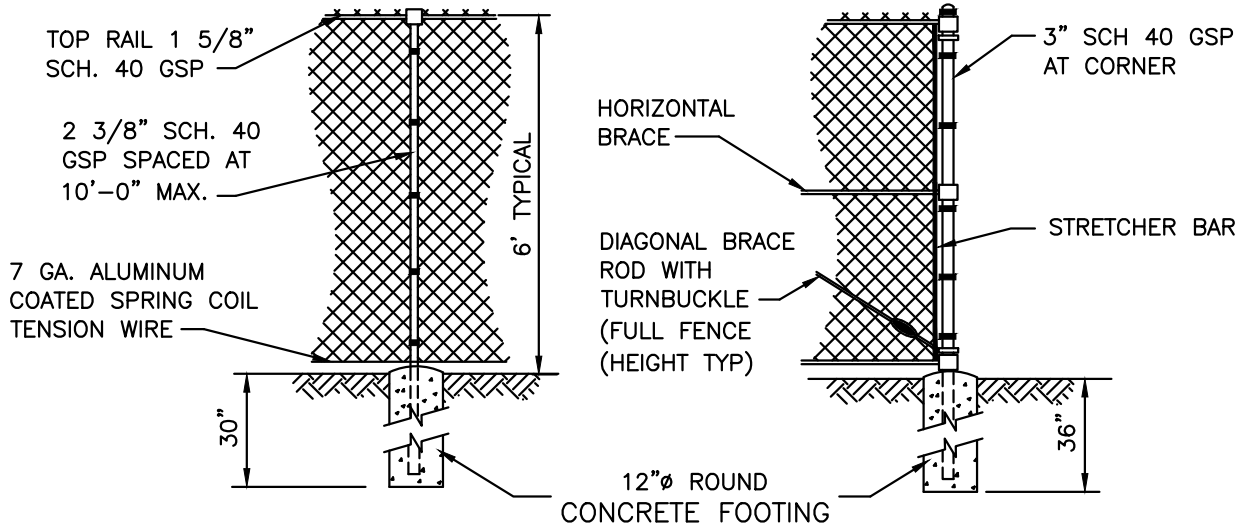
1. TRUSS BARS ARE REQUIRED FOR EACH GATE SECTION AND THE FIRST SPAN ON EACH SIDE OF A CORNER POST ONLY.
2. PROVIDE CHAIN AND LOCK FOR SECURING GATE.
3. FENCING AND POSTS SHALL BE BLACK, VINYL CLAD.
4. FENCE DRAWING TO BE SUBMITTED TO SLWSD FOR APPROVAL.



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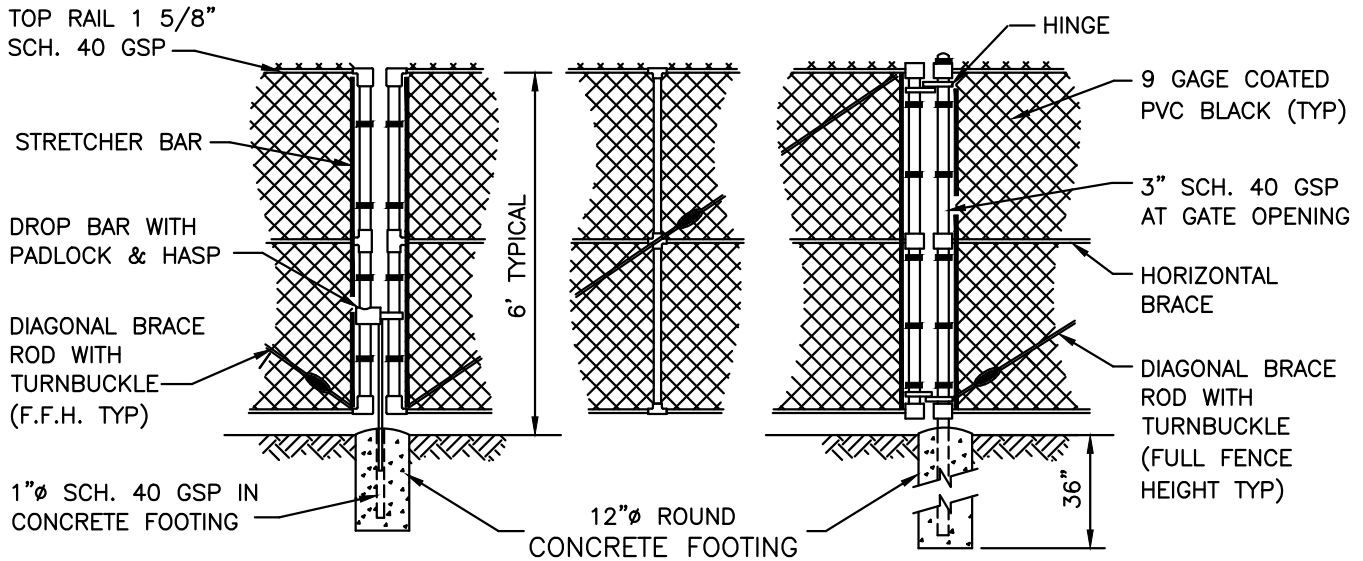
CHAIN LINK FENCE

DETAIL: SLWG-16A
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 2



LINE POST

CORNER POST



GATE

GATE POST

NOTES:

1. AN OPAQUE CHAIN LINK FENCE, AT LEAST 6' HIGH SHALL BE PROVIDED.
2. COATED STEEL WOVEN WIRE FABRIC SHALL BE STRETCHED TAUT WITH STRETCHER BARS AND STRAPS. FASTENED TOP & BOTTOM AT LINE POSTS WITH GALVANIZED PIG RING TIES.
3. THE GATE SHALL BE SEMI-TRANSPARENT TO ALLOW FOR VISUAL INSPECTION BY SLWSD.
4. GATES TO BE SECURED OPEN WITH GATE STOP SET IN CONCRETE.
5. ALL MATERIAL SHALL BE BLACK IN COLOR.



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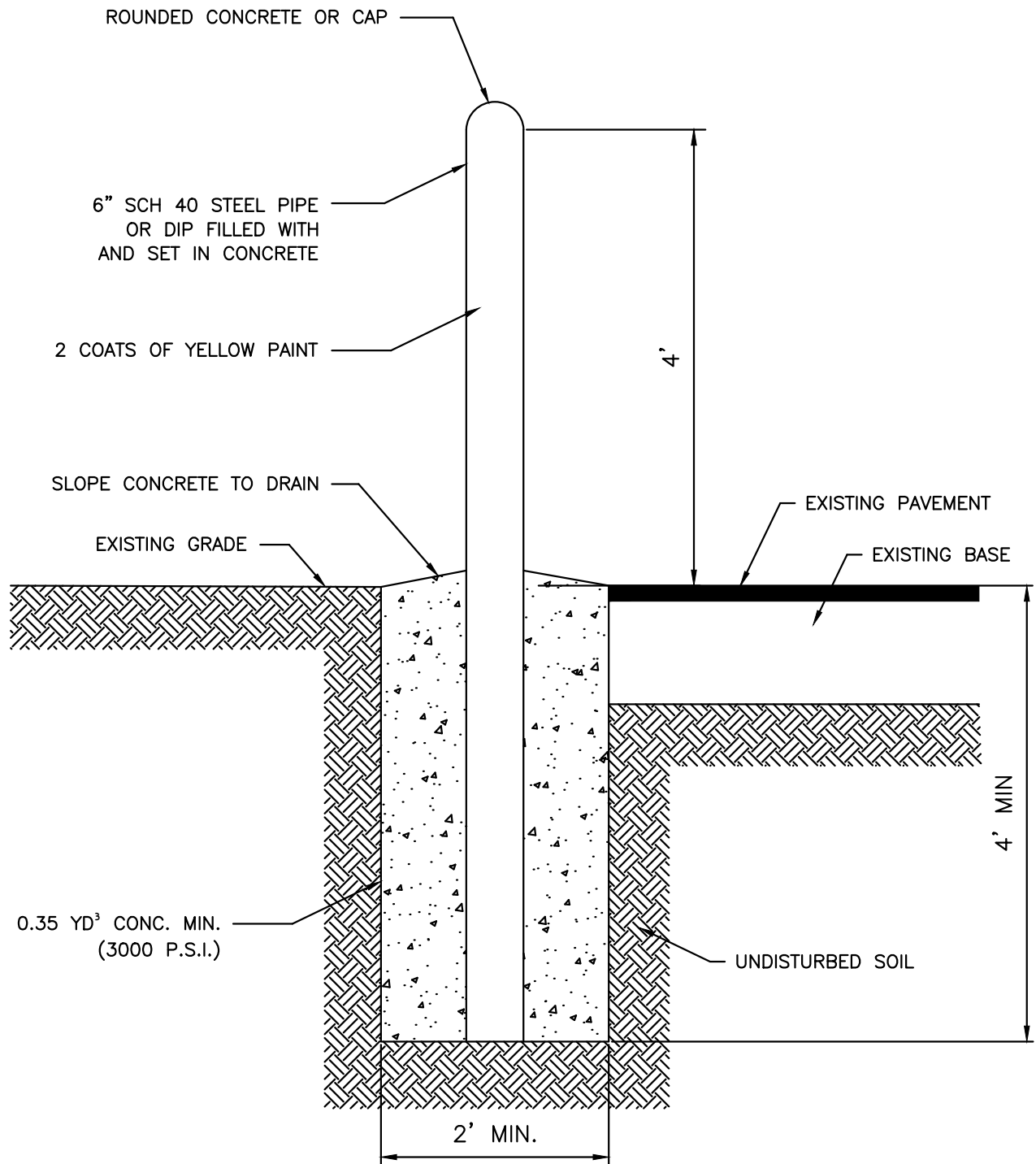
FENCE DETAILS

DETAIL: SLWG-16B

DATE: 03/2020

SCALE: N.T.S.

SHEET: 2 OF 2



MINIMUM CONSTRUCTION STANDARDS FOR
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BOLLARD DETAIL

DETAIL: SLWG-17
DATE: 03/2020
SCALE: N.T.S.
SHEET: 1 OF 1