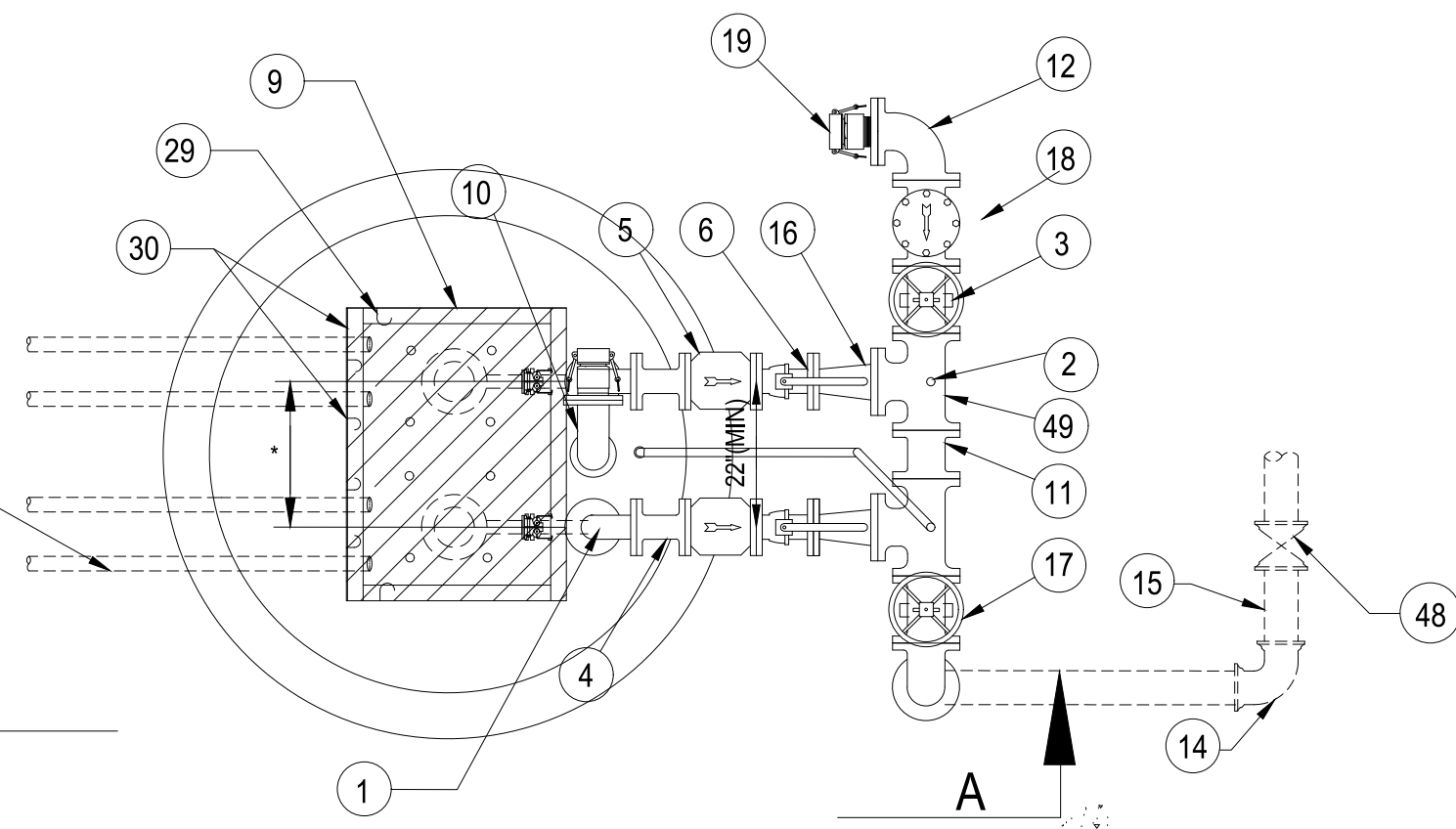


NOTE:
NO PERMANENTLY AFFIXED
LADDERS ARE PERMITTED IN
WET WELL.



* PUMP SEPARATION
PER MANUFACTURER'S
RECOMMENDATIONS

CAUTION:
COORDINATE PUMP MINIMUM
SPACING W/ DISCHARGE PIPING
LAYOUT

PLAN VIEW
NOT TO SCALE

ABBREVIATIONS:

- BFP - BACK-FLOW PREVENTER
- DI - DUCTILE IRON
- FG - FLANGED
- MJ - MECHANICAL JOINT
- PE - PLAIN END
- LS - LIFT STATION
- RJ - RESTRAINED JOINT
- SS - STAINLESS STEEL

KEY:

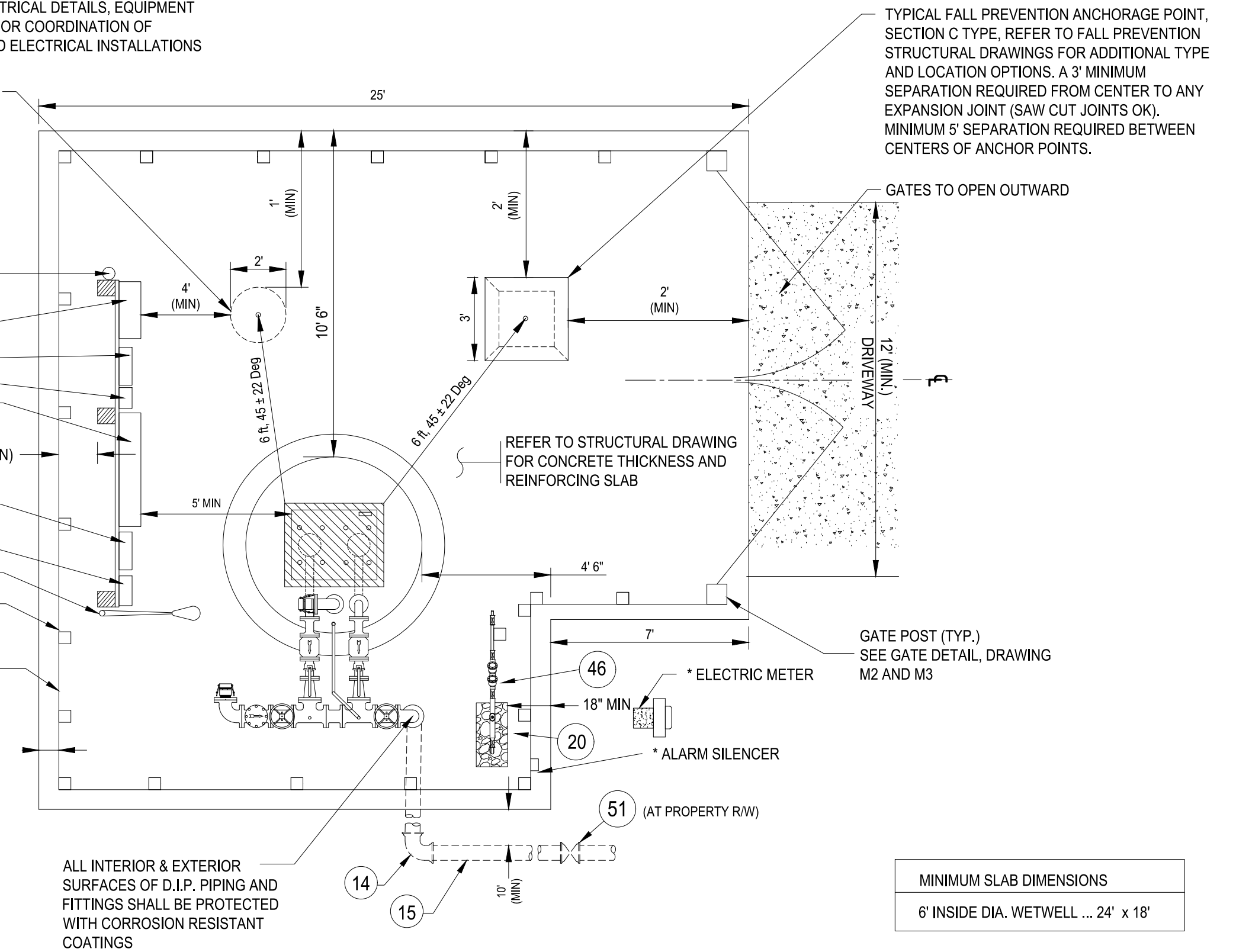
1. 2" FG 90° SS BEND (2 REQ.)
2. 1/2" TAP W/ 1/2" x 2" 316 SS NIPPLE & 1/2" LOCKABLE BALL VALVE W/ SS BALL
3. ADJUSTABLE PIPE SUPPORT, SIZED AS REQUIRED (4 REQ.) - SEE DETAIL, DRAWING M3
4. 2" FG SS SPOOL PIECE, LENGTH AS REQUIRED (6" MIN)
5. 2" FG SS FLAPPER DISK CHECK VALVE (2 REQ.)
6. 2" FG SS LOCKABLE BALL VALVE (2 REQ.)
7. AIR RELEASE ASSEMBLY TO INCLUDE 1" TAP W/ 1" x 2" 316 SS NIPPLE, 1" SS THREADED TEE, 1" x 1/2" SS REDUCING BUSHING, 1/2" SS BALL VALVE W/ 1/2" PVC THREADED PLUG, AND 1" SS BALL VALVE W/ 1" PVC UNDER-SLAB DRAIN - SEE DETAIL, DRAWING M3
8. COMPOUND PRESSURE GAUGE (STAINLESS STEEL, SILICONE FILLED, W/ SILICONE FILLED DIAPHRAGM SEAL), PROVIDE ONE PER STATION.
9. ALUMINUM FRAME & SINGLE ACCESS HATCH W/ 30" x 36" MIN. OPENING, HINGED ON DISCHARGE PIPING SIDE AND CAPABLE OF BEING SECURED IN THE OPEN POSITION. CONTRACTOR SHALL DRILL EIGHT 1/2" DIA. HOLES IN HATCH COVER.
10. AUXILIARY SUCTION PIPE ASSEMBLY - SEE DETAIL, DRAWING M2
11. 4" FG DIP, LENGTH AS REQUIRED
12. 4" FG 90° BEND
13. 4" FG x PE DIP, LENGTH AS REQUIRED
14. 4" MJ 90° BEND W/ RESTRAINED JOINTS
15. 4" PVC C900 W/ RESTRAINED JOINTS AS REQUIRED (MIN DEPTH OF 48" TO CROWN OF PIPE)
16. 2" x 4" FG SS REDUCER
17. 4" FG RESILIENT SEAT GATE VALVE (2 REQ.)
18. 4" FG FLAPPER DISK CHECK VALVE PER APP. B
19. EMERGENCY BYPASS PUMP-IN 4" CAMLOCK MALE COUPLER W/ CAP, THREADED NIPPLE AND FLANGE
20. OPENING IN CONCRETE SLAB, GRAVEL FILLED - MINIMUM 6" CLEARANCE AROUND PIPE
21. 3/4" DIA. SS ANCHOR BOLTS & NUTS (DOUBLE NUTS) PER PUMP MANUFACTURER'S RECOMMENDATIONS, EPOXIED INTO BASE SLAB
22. PUMP - GRINDER W/ FRONT LOAD RAIL SYSTEM (2 REQ.)
23. BASE ELBOW TO BE PROVIDED BY PUMP SUPPLIER (2 REQ.), OUTLET TO HAVE THREADED NIPPLE AND FLANGE.
24. 2" FG 45° BEND (AS REQUIRED FOR OFFSET IN WETWELL), LOCKING WASHER REQD FOR ALL FG CONNECTIONS IN WET WELL.
25. 2" 316L SS SCHEDULE 40 FLANGED DISCHARGE PIPING, LENGTH AS REQUIRED, LOCKING WASHER REQD FOR ALL FG CONNECTIONS IN WET WELL.
26. POWER CABLES TO PUMPS
27. PUMP LIFTING CABLES (3/8" 316 SS) W/ 4" 316 SS RINGS LOCATED @ 5-FT INTERVALS
28. 1" DRAIN FROM ARV
29. 316 SS POWER CABLE HOOKS - SEE DETAIL, DRAWING M2
30. 316 SS CONTROL CABLE HANGER FOR FLOAT SWITCH CABLES - SEE DETAIL, DRAWING M2
31. LEVEL FLOAT SWITCHES (4 REQ.)
32. N/A
33. 3/4" (O.D.) 316 SS GUIDE RAILS, FRONT MOUNT (2 PER PUMP), OR PER PUMP MANUFACTURER'S RECOMMENDATION
34. 316 SS INTERIOR PIPE SUPPORT - SEE DETAIL, DRAWING M3
35. ELASTOMERIC GASKET
36. NON-SHRINK GROUT FILLET ALL AROUND, 4000 PSI CONCRETE W/ MAX AGGREGATE SIZE OF 3/8" & MIN. SLOPE OF 1:1 (MAX WIDTH/HT. OF 2-FT), TO BE COATED W/ INTERIOR WETWELL PROTECTIVE COATING (SEE #41)
37. FIRST WET WELL RISER SECTION & BASE SLAB SHALL BE MONOLITHICALLY OR INTEGRALLY CAST PER ASTM C478 - REFER TO STRUCTURAL DRAWING S1-S4
38. LEVEL COURSE OF CRUSHED STONE - 6" MIN. THICKNESS
39. PVC, C900 INFLUENT GRAVITY MAIN, TO EXTEND 4" INSIDE WETWELL
40. FLEXIBLE SEAL
41. WET WELL INTERIOR PROTECTIVE COATING
42. ELECTRICAL CONDUITS (SCH 80 PVC, 2" MIN.), INSTALLED UNDER GRADE SLAB AND CENTERED IN WETWELL TOP SLAB, FOUR TOTAL - SEE ELECTRICAL DETAILS AND STRUCTURAL DRAWING S1-S4
43. GRADE SLAB - REFER TO STRUCTURAL DRAWING S1-S4
44. WET WELL TOP SLAB - REFER TO STRUCTURAL DRAWING S1-S4
45. LINK SEAL
46. 1" BRASS WATER SERVICE W/ APPROVED BFP AND METER - SEE DETAIL, DRAWING M2
47. WRAP APPLIED AT EXTERIOR OF WETWELL JOINTS
48. 4" MJ PLUG VALVE W/ RJ - ISOLATION VALVE, TO BE LOCATED ON LIFT STATION PROPERTY AT RIGHT OF WAY.
49. 4" x 4" FG DI TEE (2 REQ.)
50. N/A
51. 4" MJ ECCENTRIC PLUG VALVE W/ RJ - ISOLATION VALVE, TO BE LOCATED ON LIFT STATION PROPERTY AT RIGHT OF WAY

NOTE: REFER TO TECHNICAL MANUAL AND/OR TECHNICAL SPECIFICATIONS AS APPLICABLE FOR MATERIALS REQUIREMENTS AND THE LIST OF APPROVED PRODUCTS

* REFER TO ELECTRICAL DRAWINGS FOR
STANDARD ELECTRICAL DETAILS, EQUIPMENT
REQUIRED AND FOR COORDINATION OF
MECHANICAL AND ELECTRICAL INSTALLATIONS

TYPICAL FALL PREVENTION ANCHORAGE POINT,
SECTION A TYPE, REFER TO FALL PREVENTION
STRUCTURAL DRAWINGS FOR ADDITIONAL
TYPE AND LOCATION OPTIONS.
A 3' MINIMUM SEPARATION REQUIRED FROM CENTER
TO ANY EXPANSION JOINT (SAW CUT JOINTS OK).

- * ALARM HORN & BEACON
- * JB1
- * JB4
- * T1
- * CONTROL PANEL
- 18" (MIN)
- * HIGH TIDE
- * MAIN DISCONNECT
- * AREA LIGHT
- FENCE POST (TYP)
- 6" HIGH WOOD OR CHAIN LINK FENCE - SEE DETAIL, DRAWING M2 AND M3
- 6" (TYP.)

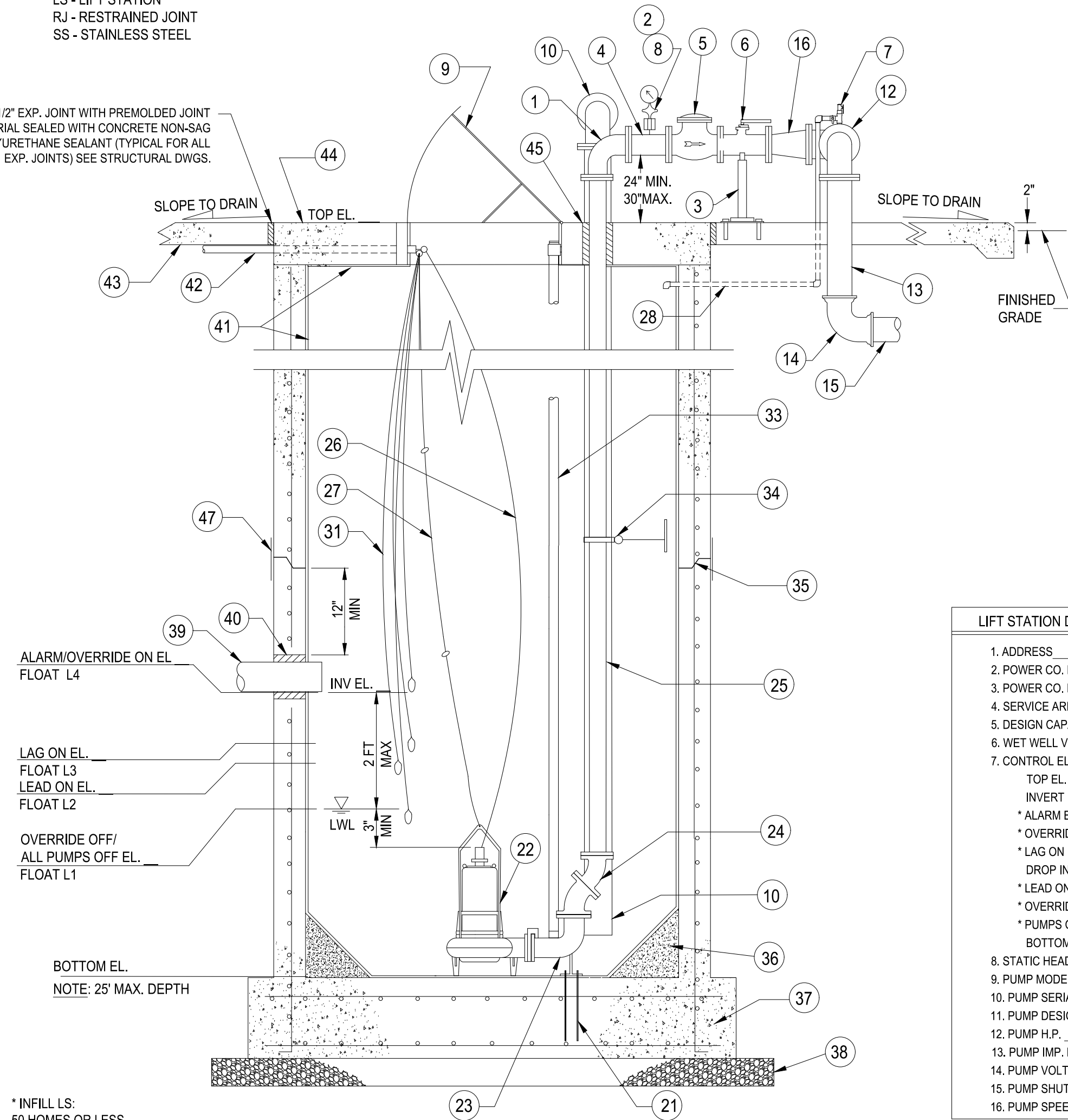


MINIMUM SLAB DIMENSIONS
6" INSIDE DIA. WETWELL ... 24" x 18"

STANDARD FOOTPRINT - MIN. DIMENSIONS

SCALE: 1" = 4'-0"

1/2" EXP. JOINT WITH REMOLDED JOINT
MATERIAL SEALED WITH CONCRETE NON-SAG
POLYURETHANE SEALANT (TYPICAL FOR ALL
EXP. JOINTS) SEE STRUCTURAL DWGS.



SECTION A-A
NOT TO SCALE

- * INFILL LS:
50 HOMES OR LESS
- L1 - FLOAT ALL PUMPS OFF/OVERRIDE OFF
- L2 - FLOAT LEAD ON
- L3 - FLOAT LAG ON
- L4 - FLOAT HIGH ALARM SIGNAL TO HTE/ALARM/OVERRIDE ON

LIFT STATION DATA:	
1. ADDRESS	_____
2. POWER CO. METER NO.	_____
3. POWER CO. POLE/PAD NO.	_____
4. SERVICE AREA	_____
5. DESIGN CAPACITY	_____ GPM
6. WET WELL VOLUME	_____ GALLONS FT. DIA.
7. CONTROL ELEVATIONS:	
TOP EL.	_____
INVERT EL.	_____
* ALARM EL.	_____
* OVERRIDE ON EL.	_____
* LAG ON EL.	_____
DROP INVERT EL.	_____ (IF REQUIRED)
* LEAD ON EL.	_____
* OVERRIDE OFF EL.	_____
* PUMPS OFF EL.	_____
BOTTOM EL.	_____
8. STATIC HEAD	_____ FT.
9. PUMP MODEL	_____
10. PUMP SERIAL NO.	_____
11. PUMP DESIGN POINT	_____ GPM @ _____ TDH
12. PUMP H.P.	_____ PHASE
13. PUMP IMP. NO./DIA.	_____
14. PUMP VOLTS	_____ AMPS
15. PUMP SHUT-OFF HEAD	_____ FT.
16. PUMP SPEED	_____ RPM

LIFT STATION DESIGN NOTES (TYP):

1. IN ORDER TO COORDINATE THE MECHANICAL, ELECTRICAL AND STRUCTURAL INSTALLATION, THE DESIGN ENGINEER SHALL REFER TO HILLSBOROUGH COUNTY'S MECHANICAL DRAWINGS (M1-M3), ELECTRICAL DRAWINGS (E 0.0-E 5.0), STRUCTURAL DRAWINGS (S1-S4) AND THE "HC WATER, WASTEWATER & RECLAIMED WATER TECHNICAL MANUAL FOR SUBDIVISION AND SITE DEVELOPMENT" (LATEST EDITION), AND THE "HC WATER, WASTEWATER & RECLAIMED WATER TECHNICAL SPECIFICATIONS" (LATEST EDITION).
2. THE DESIGN ENGINEER SHALL NOT USE THESE DRAWINGS FOR A SPECIFIC SITE INSTALLATION. A DETAILED SITE PLAN SHALL BE SHOWN IN THE BOX PROVIDED ON THIS SHEET, OR ON A SEPARATE SHEET AS NEEDED. THE SITE PLAN SHALL BE DRAWN TO SCALE AND INCLUDE CRITICAL SITE ELEVATIONS (SUCH AS ROAD, SLAB, DRIVEWAY, AND SURROUNDING AREAS - INCLUDING FINISHED FLOOR OF BUILDINGS ON ADJACENT LOTS), DIMENSIONS, HARDSCAPE ELEMENTS, AND THE LIFT STATION'S RELATIONSHIP TO THE SURROUNDING AREA.
3. THESE DRAWINGS REPRESENT THE STANDARD DESIGN FOR ALL HILLSBOROUGH COUNTY WASTEWATER LIFT STATIONS. IT WAS DEVELOPED TO IMPROVE RELIABILITY AND MAINTAINABILITY, MINIMIZE SPARE PARTS AND INCREASE SERVICE LIFE. ALL REQUESTS FOR DEVIATIONS FROM THIS STANDARD MUST BE MADE IN WRITING TO THE DEVELOPMENT SERVICES DEPARTMENT FOR SUBDIVISION AND SITE DEVELOPMENT; AND TO THE PUBLIC UTILITIES DEPARTMENT (PUD) PROJECT MANAGER FOR ALL CAPITAL IMPROVEMENT PROJECTS. WRITTEN APPROVAL FROM PUD UTILITY DESIGN SECTION MGR. IS REQUIRED BEFORE MODIFICATIONS ARE MADE.
4. THE ENGINEER IS RESPONSIBLE FOR COORDINATING WITH THE PUMP SUPPLIER TO ENSURE THAT PROPER PUMP AND PIPE SPACING IS ACCOMMODATED.
5. LIFT STATION SLAB DIMENSIONS SHALL MEET OR EXCEED MINIMUM SHOWN.
6. THE ENGINEER IS ADVISED THAT COUNTY APPROVAL OF THE LIFT STATION DESIGN DOES NOT CONSTITUTE A RELEASE FROM PROFESSIONAL LIABILITY BY THE ENGINEER NOR SHIFT RESPONSIBILITY FOR ANY DESIGN DECISIONS REPRESENTED HERETO TO THE COUNTY OR OTHER REGULATORY AGENCY. THE ENGINEER IS RESPONSIBLE FOR THE FINAL ELECTRICAL, MECHANICAL, AND STRUCTURAL DESIGNS.
7. DISCHARGE PIPE SUPPORTS ARE REQUIRED FOR WET WELL DEPTHS GREATER THAN 10 FEET.
8. IF THE INFLUENT INVERT ELEVATION IS GREATER THAN 2-FEET ABOVE THE LOW WATER LEVEL (LWL), A DROP INVERT CONNECTION SHALL BE REQUIRED, DROP INVERT TO BE SET AT THE LEAD-ON ELEVATION (SEE DROP CONNECTION DETAIL, DRAWINGS S2, S4 & M3).
8. LOW WATER LEVEL MUST BE AT LEAST 3" ABOVE TOP OF PUMP. FIT IN THE FOLLOWING INFORMATION: [INSTALLED HEIGHT (PER PUMP MFR.) + 3" = ___ FT] ≤ [LWL - BOTTOM EL. = ___ FT]

SHOW TO SCALE AND INCLUDE ELEVATIONS AS TO ROAD, SLAB,
DRIVEWAY AND SURROUNDING AREAS.

DETAILED SITE PLAN
(BY ENGINEER) SCALE: 1" =

REV. NO.	DESCRIPTIONS / REVISIONS	DATE
2	REVISED TO REFLECT CURRENT COUNTY STANDARDS	9/20/25
1	REVISED TO REFLECT CURRENT COUNTY STANDARDS	9/19/23

SEAL

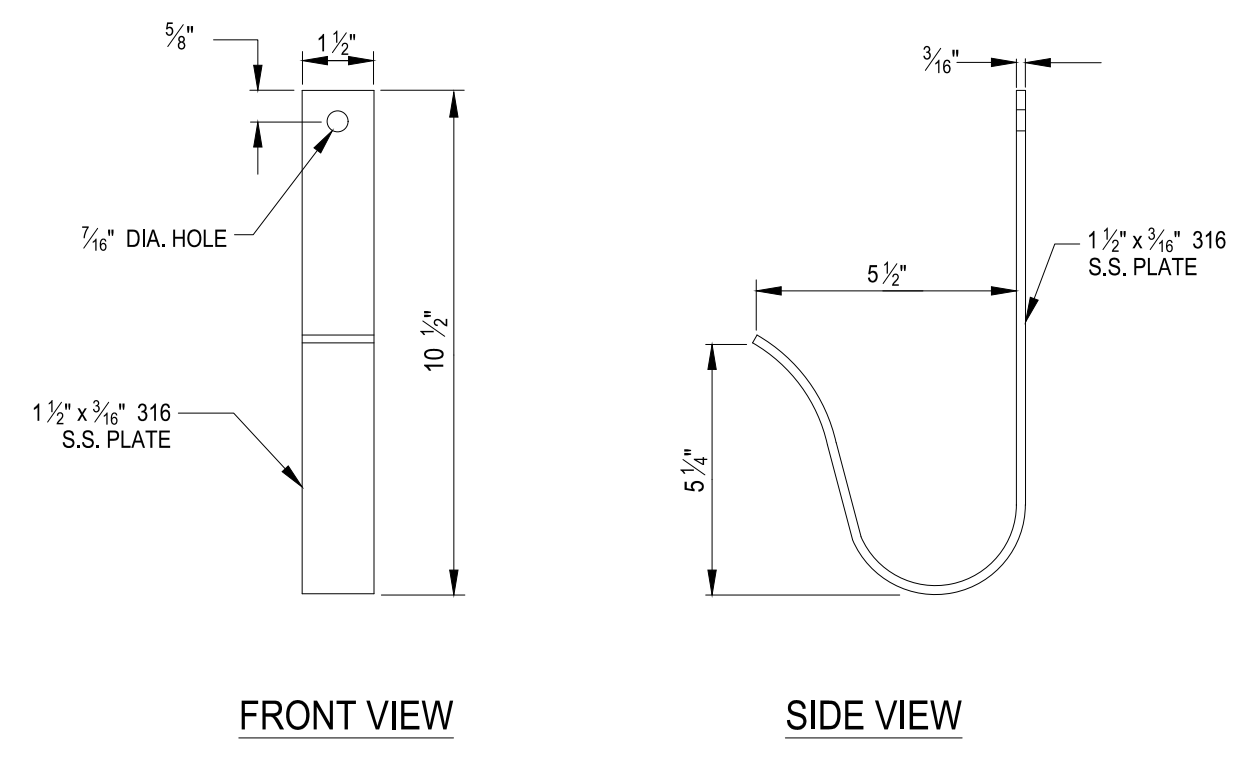
SEAL



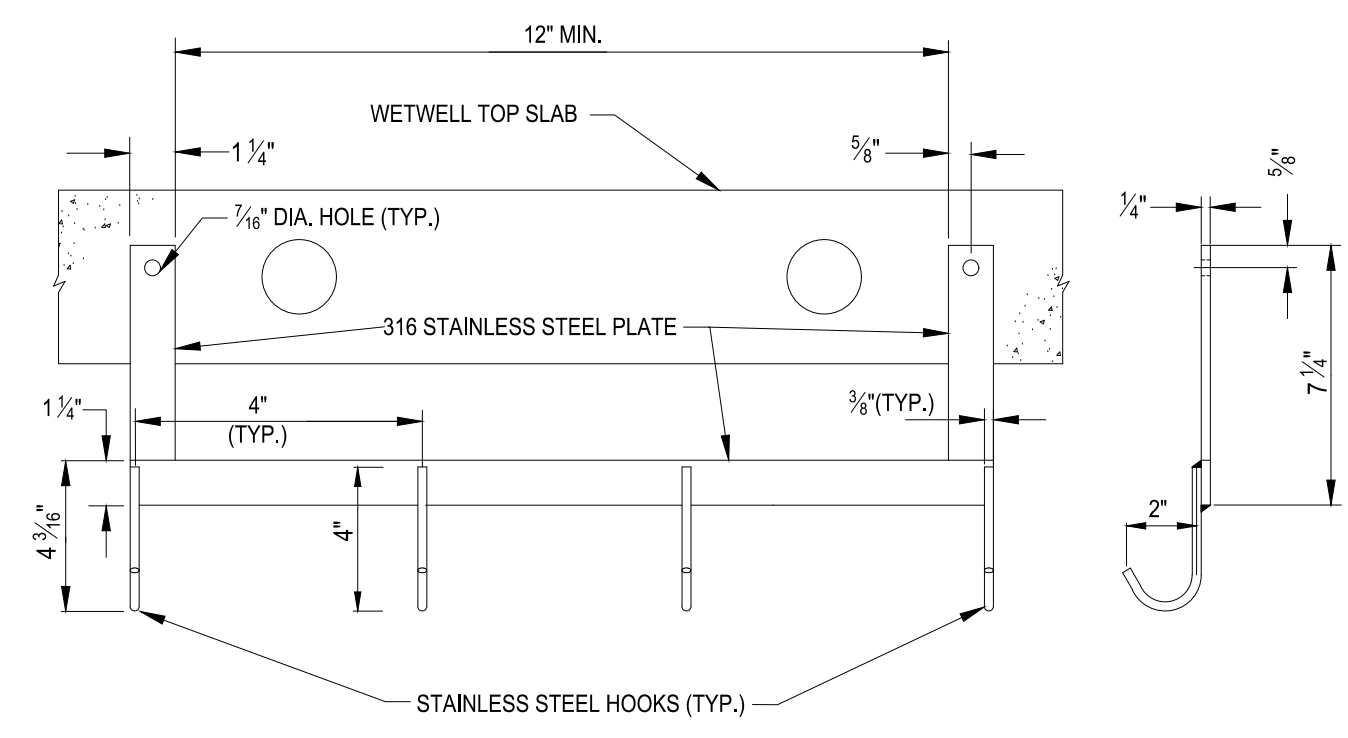
STANDARD WASTEWATER
IN-FILL LIFT STATION

MECHANICAL LAYOUT AND SITE PLAN

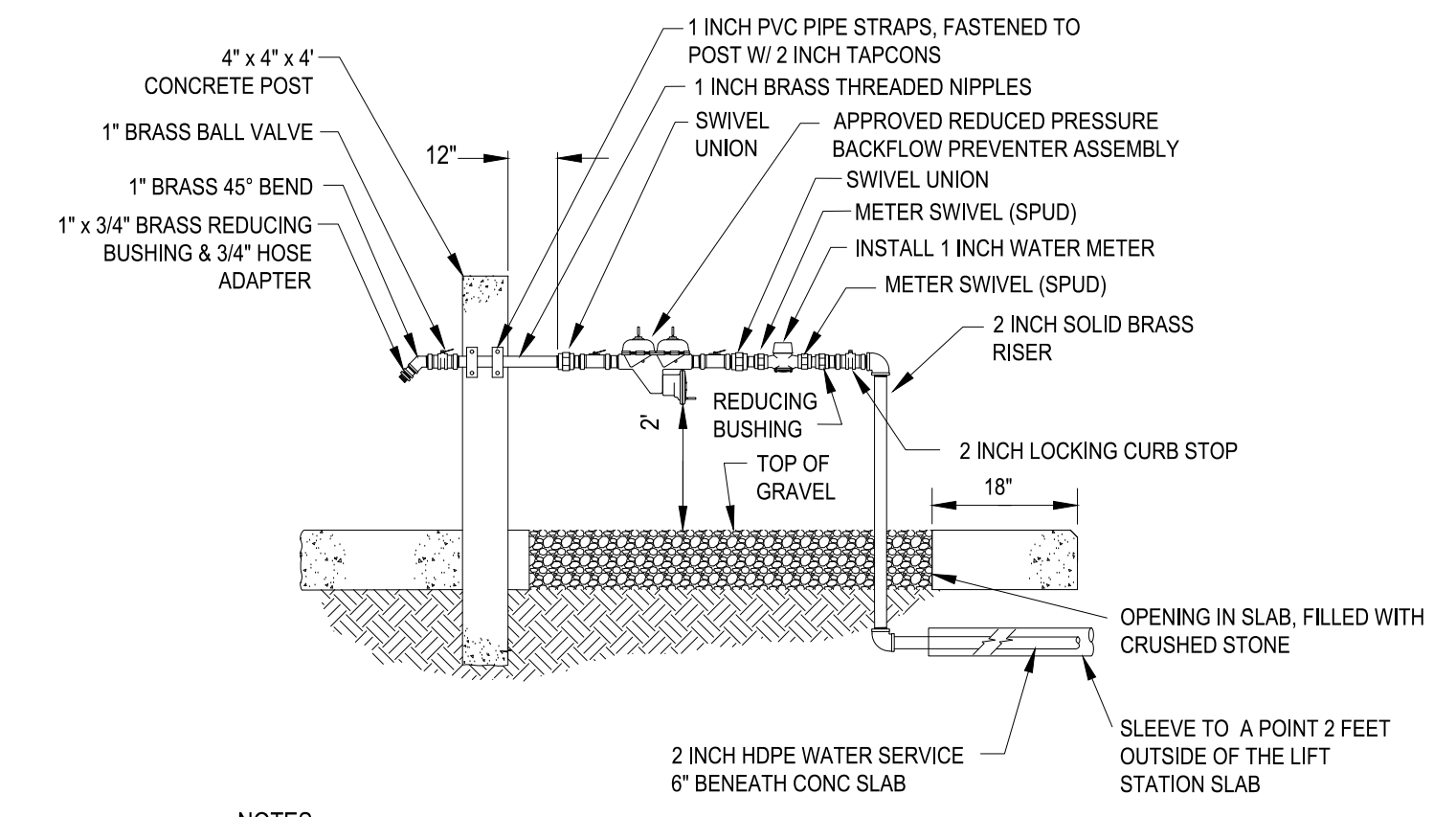
ISSUE DATE: OCTOBER 2025	SCALE	FILE NUMBER
PROJ. #	HORIZONTAL:	DRAWING NUMBER
DRAWN	VERTICAL:	M1
DESIGNED	NA	
CHECKED		
PROJ. MGR.		
STATUS: FINAL DESIGN		



POWER CABLE HOOK DETAIL
NOT TO SCALE

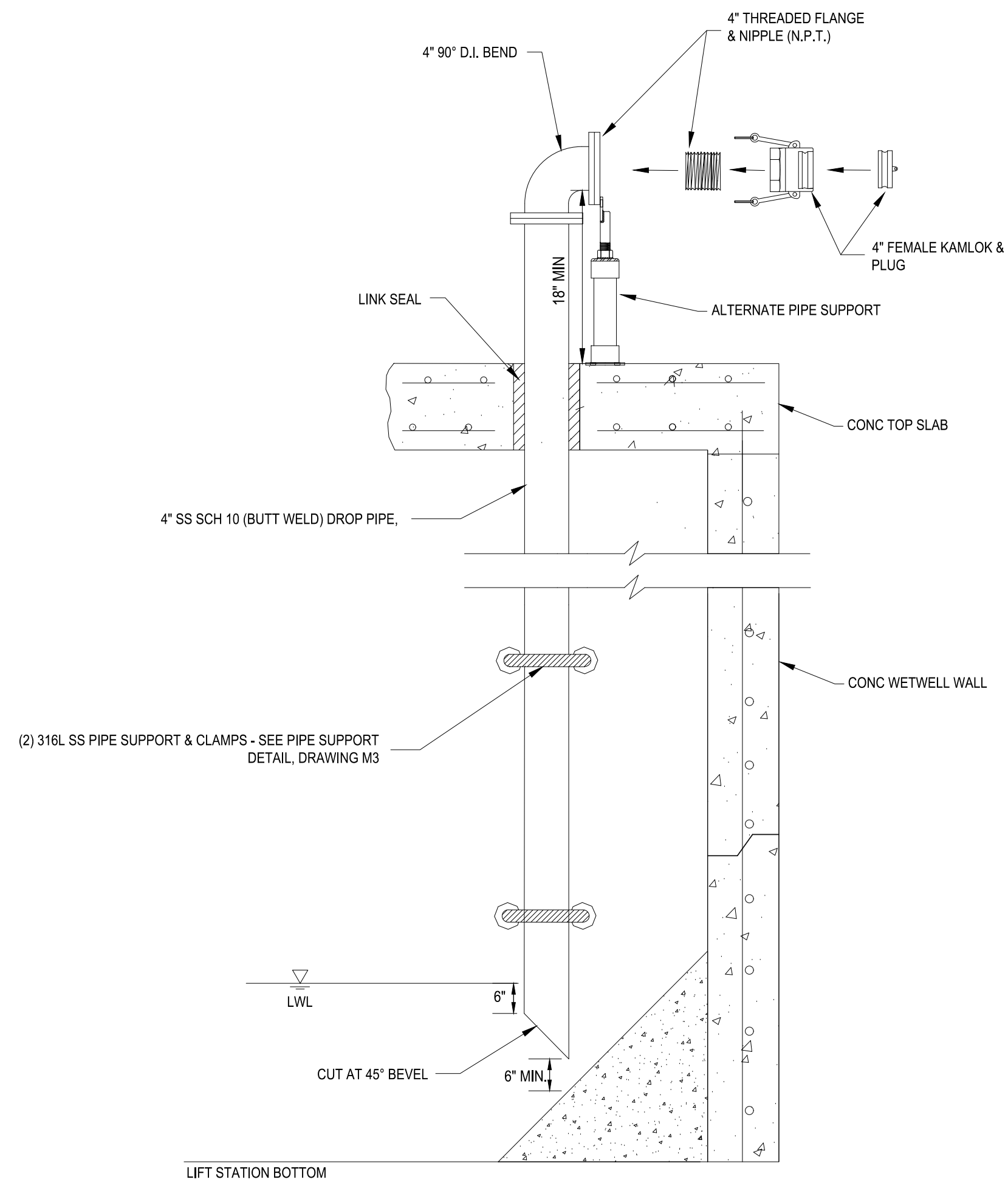


LEVEL CABLE HANGER DETAIL
NOT TO SCALE

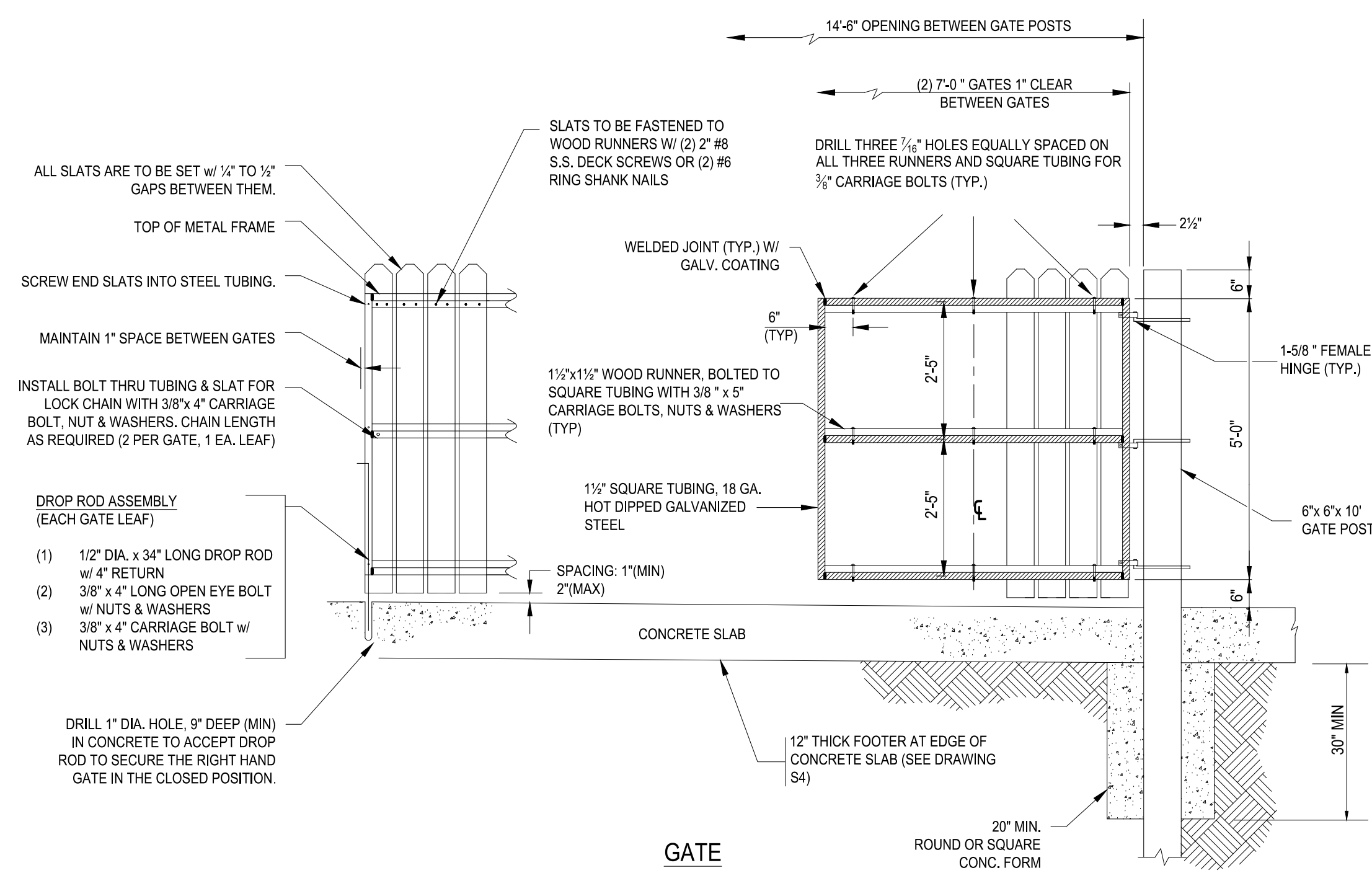


- NOTES:**
- ALL PIPING TO BE 2-INCHES UP THROUGH THE LOCKING CURB STOP.
 - 2 INCH SERVICE LINE SHALL USE A 2 INCH TAPPING SLEEVE & VALVE AT THE WATER MAIN CONNECTION.
 - FOR WET WELLS 20 FT. OR MORE IN DEPTH, A 2 INCH WATER METER AND SERVICE SHALL BE PROVIDED. HOSE CONNECTION TO BE 2 INCH MALE CAMLOCK CONNECTOR.

WATER SERVICE DETAIL
NOT TO SCALE

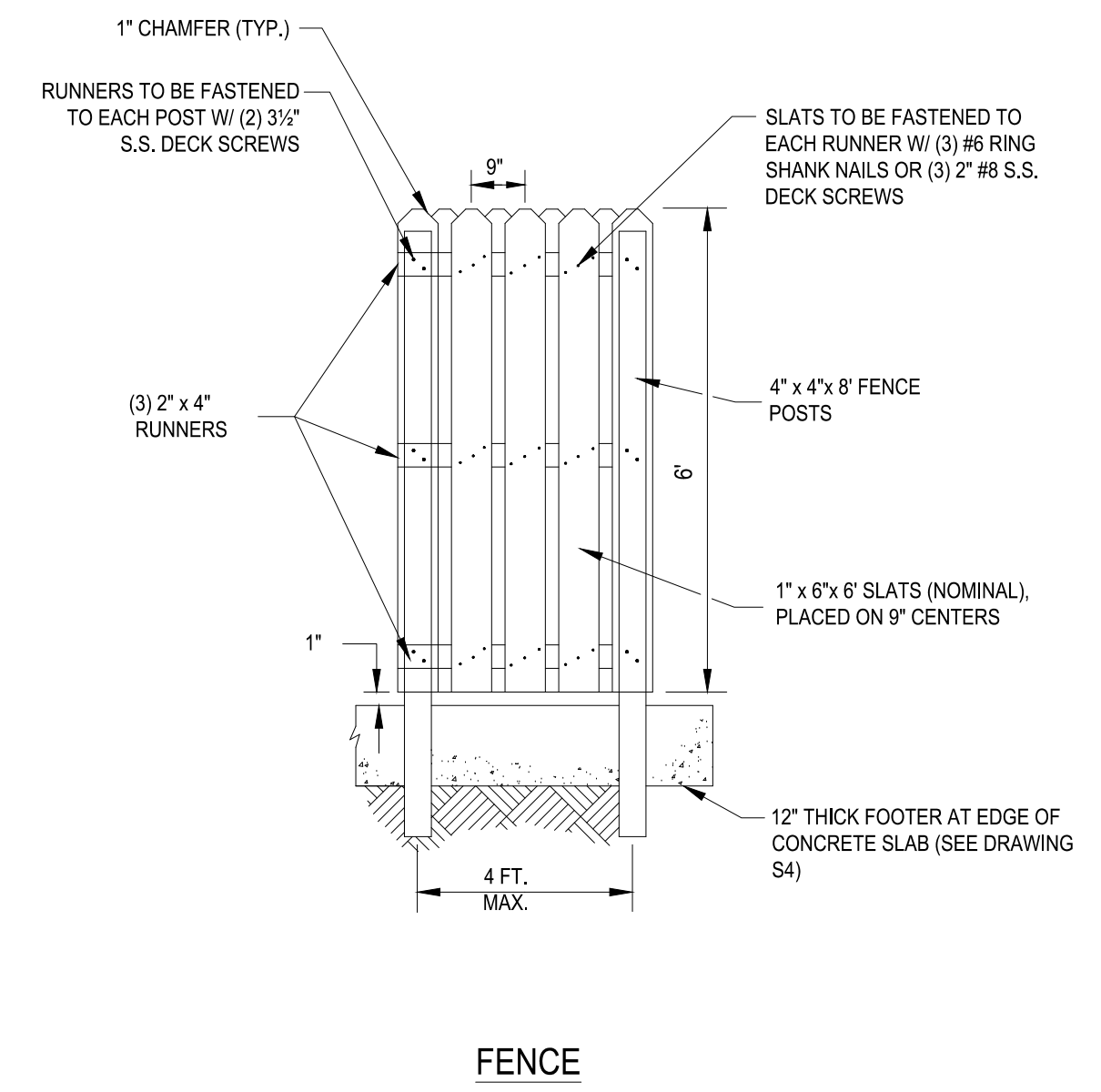


AUX. SUCTION PIPE DETAIL
NOT TO SCALE



- FENCE & GATE CONSTRUCTION NOTES**
- ALL WOOD SHALL BE PRESSURE TREATED, POSTS SHALL BE RATED FOR BURIED WOOD.
 - ALL STRUCTURAL MEMBERS AND CROSS BRACING AS SHOWN.
 - CROSS BRACING SHALL BE ON INSIDE OF GATE.
 - USE HOT DIP GALVANIZED OR STAINLESS STEEL HARDWARE, FASTENERS, DROP RODS, CABLES, ETC. FOR ALL FENCE AND GATE CONSTRUCTION.
 - ALL NAIL & SCREW HEADS SHALL BE SET FLUSH W/ WOOD SURFACE (NOT COUNTER-SUNK).
 - USE TAMPER PROOF HEAVY DUTY HINGES AND LATCHES ON GATE (MINIMUM OF THREE HINGES PER GATE LEAF).
 - SOME LIFT STATION LOCATIONS MAY REQUIRE ARCHITECTURAL STYLE FENCING - CONSULT COUNTY.

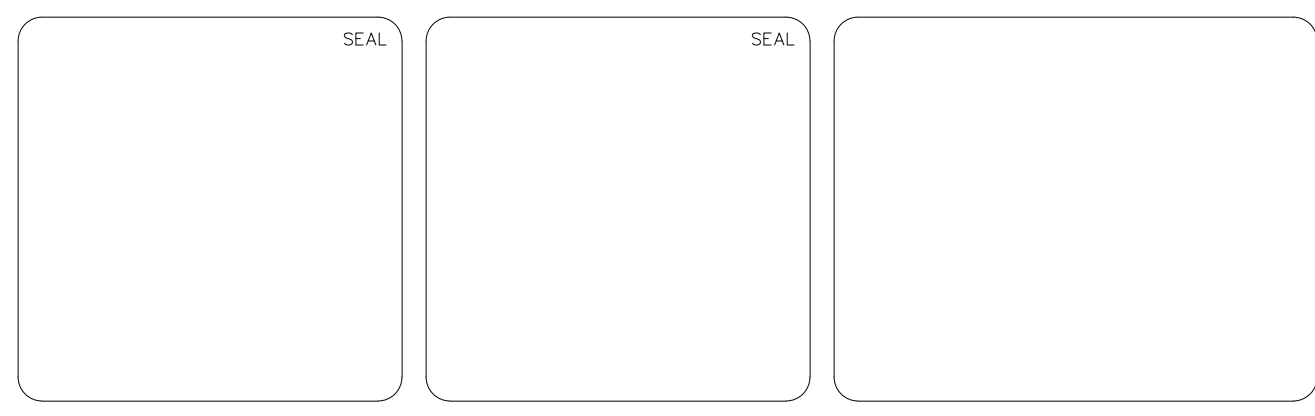
LIFT STATION ENCLOSURE DETAIL
NOT TO SCALE



FENCE

INSTALLATION NOTE:
CONTRACTOR TO REFER TO DRAWINGS M1-M3, E 0.0-E 5.0 AND S1-S4 IN ORDER TO COORDINATE ALL MECHANICAL, ELECTRICAL AND STRUCTURAL INSTALLATIONS.

REV. NO.	DESCRIPTIONS	DATE
1	REVISED TO REFLECT CURRENT COUNTY STANDARDS	9/19/23
	REVISIONS	



PUBLIC UTILITIES DEPARTMENT
TECHNICAL SERVICES DIVISION
925 E. TWIGGS STREET/TAMPA FLORIDA 33602/PH. (813) 272-5977

STANDARD WASTEWATER
IN-FILL LIFT STATION
MECHANICAL DETAILS

ISSUE DATE: OCTOBER 2025	SCALE	FILE NUMBER
PROJ. #	HORIZONTAL:	DRAWING NUMBER
DRAWN	VERTICAL:	M2
CHECKED	NA	
PROJ. MGR.		
STATUS: FINAL DESIGN		

