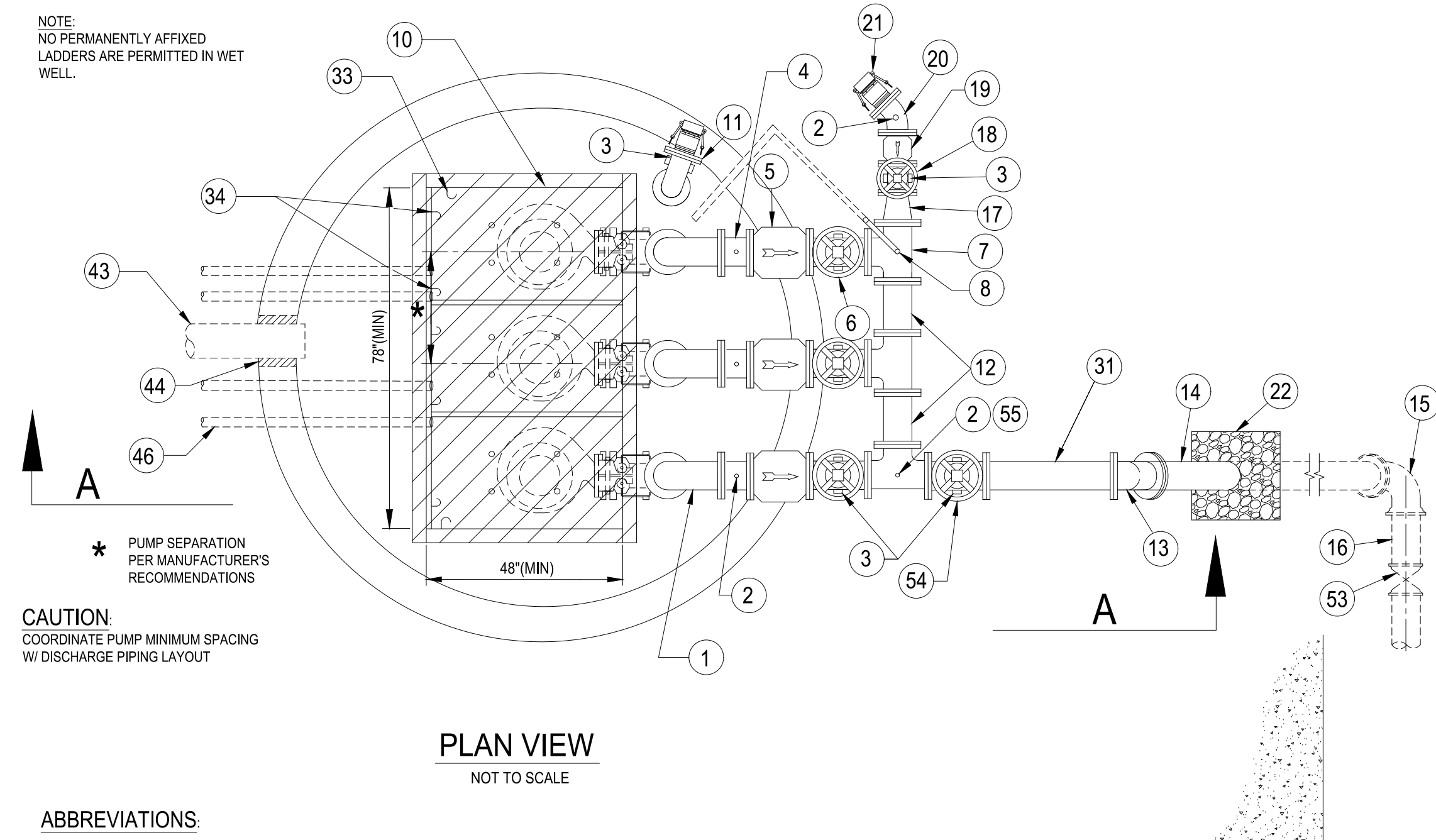


NOTE:
NO PERMANENTLY AFFIXED
LADDERS ARE PERMITTED IN WET
WELL.



CAUTION:
COORDINATE PUMP MINIMUM SPACING
W/ DISCHARGE PIPING LAYOUT

PLAN VIEW
NOT TO SCALE

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

KEY:

1. 1/2" FG 90° DI BEND (3 REQ)
2. 1/2" TAP W/ 1/2" x 2' 3/16 SS NIPPLE & 1/2" LOCKABLE BALL VALVE W/ SS BALL (5 REQ)
3. ADJUSTABLE PIPE SUPPORT, SIZED AS REQUIRED (5 REQ) - SEE DETAIL, DRAWING M3
4. 1/2" FG DI SPOOL, LENGTH AS REQUIRED (6" MIN)
5. 1/2" FG IRON BODY FLAPPER DISK CHECK VALVE (3 REQ) PER APP. B
6. 1/2" FG IRON BODY RESILIENT SEAT GATE VALVE (3REQ)
7. 1/2" x 1/2" FG DI TEE W/ BOSS FOR 1" TAP (3 REQ)
8. AIR RELEASE ASSEMBLY TO INCLUDE 1" TAP W/ 1" x 2' 3/16 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
9. COMPOUND PRESSURE GAUGE (STAINLESS STEEL, SILICONE FILLED, W/ SILICONE FILLED DIAPHRAGM SEAL), PROVIDE ONE PER STATION
10. ALUMINUM FRAME & TRIPLE ACCESS HATCHES, HINGED ON DISCHARGE PIPING SLIDE CAPABLE OF BEING SECURED IN THE OPEN POSITION. CONTRACTOR SHALL DRILL FOUR 1/2" DIA. HOLES IN EACH HATCH COVER.
11. 6" AUXILIARY SUCTION PIPE ASSEMBLY - SEE DETAIL, DRAWING M2
12. 1/2" FG DIP, LENGTH AS REQUIRED
13. 1/2" FG 45° BEND
14. 1/2" FG x PE DIP, LENGTH AS REQUIRED
15. 1/2" MJ 90° BEND W/ RESTRAINED JOINTS
16. 1/2" PVC C900 W/ RESTRAINED JOINTS AS REQUIRED (MIN DEPTH OF 48" TO CROWN OF PIPE)
17. 1/2" x 1/2" FG REDUCER, AS NEEDED - ONLY FOR LIFT STATIONS W/ 8" OR LARGER DISCHARGE PIPING
18. 6" FG RESILIENT SEAT GATE VALVE
19. 6" FG FLAPPER DISK CHECK VALVE PER APP. B
20. 6" FG 45° BEND
21. EMERGENCY BYPASS/PUMP-IN 6" CAMLOCK COUPLER W/ 6"x4" REDUCING CAMLOCK W/ CAP. SEE DRAWING M2
22. OPENING IN CONCRETE SLAB, GRAVEL FILLED - MINIMUM 6" CLEARANCE AROUND PIPE
23. 3/4" DIA. SS ANCHOR BOLTS & NUTS (DOUBLE NUTS) PER PUMP MANUFACTURER'S RECOMMENDATIONS, EPOXIED INTO BASE SLAB
24. PUMP - HYDROMATIC NON-CLOG OR APPROVED EQUAL W/ FRONT LOAD RAIL SYSTEM (3 REQ)
25. BASE ELBOW TO BE PROVIDED BY PUMP SUPPLIER (3 REQ)
26. 1/2" FG 45° BEND, AS REQUIRED FOR DISCHARGE PIPING OFFSET, LOCKING WASHERS REQ'D FOR ALL FG CONNECTIONS IN WET WELL
27. 1/2" x 1/2" FG REDUCER (3 AS REQUIRED), LOCKING WASHERS REQ'D FOR ALL FG CONNECTIONS IN WET WELL
28. 1/2" 316L SS FLANGED DISCHARGE PIPING, LENGTH AS REQUIRED, LOCKING WASHER REQ'D FOR ALL FG CONNECTIONS IN WET WELL
29. PUMP POWER CABLE
30. PUMP LIFTING CABLE (3/8" 316 SS) W/ 4" 316 SS RINGS LOCATED @ 5-FT INTERVALS
31. 1/2" FG DI PIPE, LENGTH 36"
32. N/A
33. 316 SS POWER AND TRANSDUCER CABLE HOOKS - SEE DETAIL, DRAWING M2
34. 316 SS CABLE HANGER FOR LEVEL FLOAT SWITCH CABLES - SEE DETAIL, DRAWING M2
35. LEVEL FLOAT SWITCHES (3 REQ'S), TO SERVE AS BACK-UP TO PRESSURE TRANSDUCER
36. PRESSURE TRANSDUCER FOR WATER LEVEL CONTROL, SUSPENDED FROM CABLE HOOK, SET AT 18 INCHES ABOVE BOTTOM
37. 2" (O.D.) 316 SS GUIDE RAILS, FRONT MOUNT (2 PER PUMP), OR PER PUMP MANUFACTURER'S RECOMMENDATION
38. 316 SS INTERIOR PIPE SUPPORT - SEE DETAIL, DRAWING M3
39. ELASTOMERIC GASKET
40. NON-SHRINK GROUT FILLET ALL AROUND, 4000 PSI CONCRETE W/ MAX AGGREGATE SIZE OF 3/8" & MIN. SLOPE OF 1:1 (MAX WIDTHHT. OF 2-FT), TO BE COATED W/ INTERIOR WETWELL PROTECTIVE COATING (SEE #45)
41. FIRST WET WELL RISER SECTION & BASE SLAB SHALL BE MONOLITHICALLY OR INTEGRALLY CAST PER ASTM C478 - REFER TO STRUCTURAL DRAWING S1-S4
42. LEVEL COURSE OF CRUSHED STONE - 6" MIN. THICKNESS
43. PVC, C900, INFLUENT GRAVITY MAIN, TO EXTEND 4" INSIDE WET WELL
44. FLEXIBLE BOOT, FOR INSIDE DROP, SEE DETAIL M3
45. WET WELL INTERIOR PROTECTIVE COATING
46. ELECTRICAL CONDUITS (SCH 80 PVC, 2" MIN.), INSTALLED UNDER GRADE SLAB AND CENTERED IN WET WELL TOP SLAB.
47. FIVE TOTAL - SEE ELECTRICAL DETAILS AND STRUCTURAL DRAWING S1-S4
48. GRADE SLAB - REFER TO STRUCTURAL DRAWING S1-S4
49. WET WELL TOP SLAB - REFER TO STRUCTURAL DRAWING S1-S4
50. LINK SEAL
51. 1" BRASS WATER SERVICE W/ APPROVED BFP AND METER - TO BE INCREASED TO 2" SERVICE FOR ALL MASTER LIFT STATIONS, OR FOR LIFT STATIONS WITH WET WELLS DEEPER THAN 20-FT OR GREATER THAN 8-FT IN DIAMETER - SEE DETAIL, DRAWING M2
52. N/A
53. WRAP APPLIED AT EXTERIOR OF WET WELL JOINTS
54. 1/2" MJ ECCENTRIC PLUG VALVE W/ RJ - ISOLATION VALVE, TO BE LOCATED ON LIFT STATION PROPERTY AT RIGHT OF WAY
55. 1/2" FG IRON BODY RESILIENT SEATED GATE VALVE
56. ELECTRONIC PRESSURE TRANSMITTER AND DIAPHRAGM SEAL (SILICONE FILLED)

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

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 (M-1-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 HEREIN 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 LOW WATER LEVEL (LWL), A DROP INVERT CONNECTION SHALL BE REQUIRED. THE DROP INVERT TO BE SET AT THE LEAD-ON ELEVATION (SEE DROP CONNECTION DETAIL, DRAWINGS S4 & M3).
9. LOW WATER LEVEL MUST BE AT LEAST 3" ABOVE TOP OF PUMP. FILL IN THE FOLLOWING INFORMATION: (INSTALLED HEIGHT (PER PUMP MFR.) + 3" = ___ FT) ± (LWL - BOTTOM EL. = ___ FT)
10. DUCTILE IRON IN THE WETWELL MUST BE BELOW THE LOW WATER LEVEL.

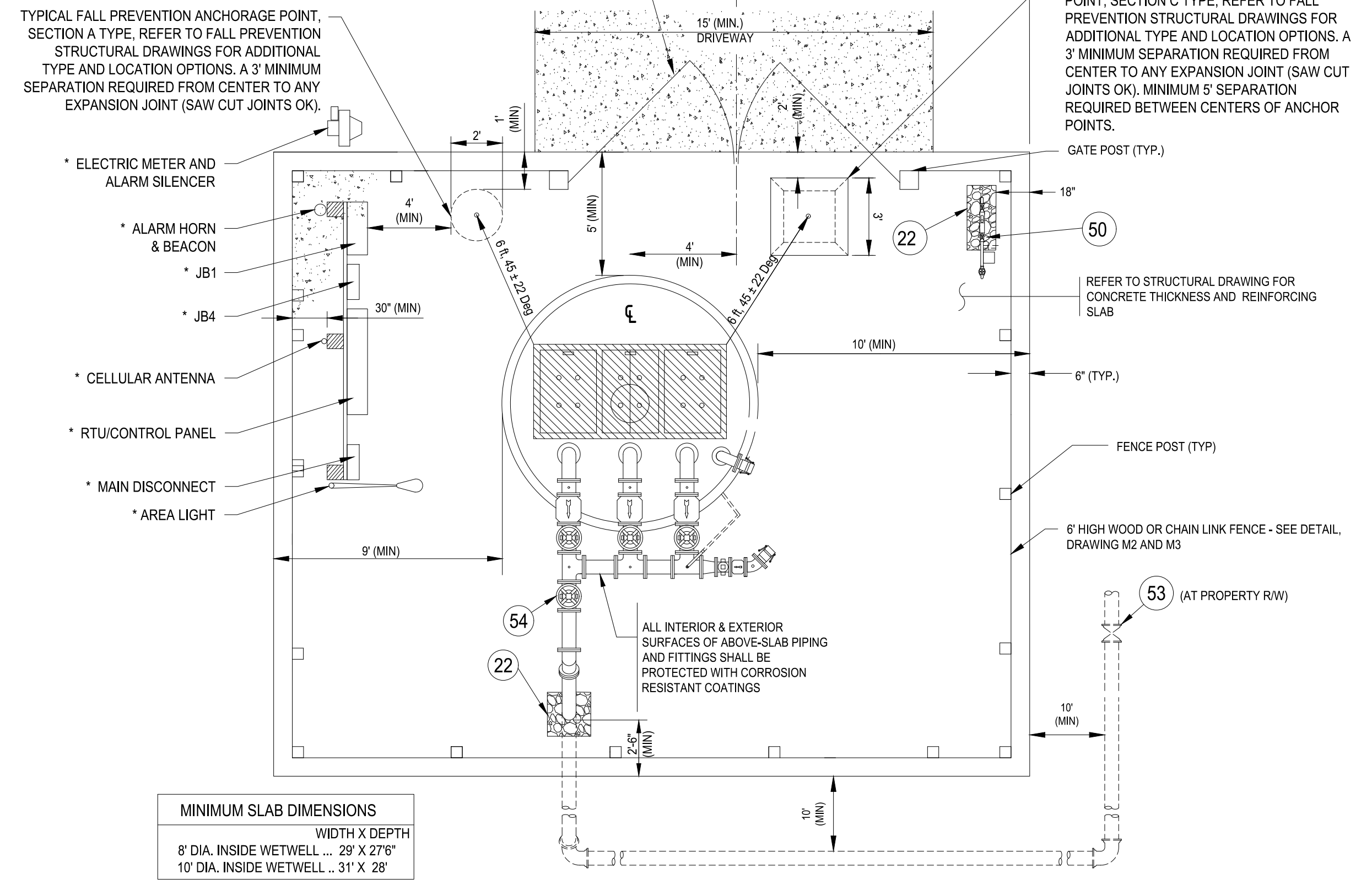
LIFT STATION DATA:

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.	_____
* HI/HI ALARM EL.	_____
* HIGH ALARM	_____
LAG 2 ON EL.	_____
LAG 1 ON EL.	_____
(TRANSDUCER)	
LEAD ON EL.	_____
(TRANSDUCER)	
OVERRIDE OFF EL.	_____
(TRANSDUCER/FLOAT)	
ALL PUMPS OFF EL.	_____
(TRANSDUCER)	
* 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

* LEVEL FLOAT SWITCHES

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

- * ELECTRIC METER AND ALARM SILENCER
- * ALARM HORN & BEACON
- * JB1
- * JB4
- * CELLULAR ANTENNA
- * RTU/CONTROL PANEL
- * MAIN DISCONNECT
- * AREA LIGHT



MINIMUM SLAB DIMENSIONS
WIDTH X DEPTH
8" DIA. INSIDE WETWELL ... 29" X 27"6"
10" DIA. INSIDE WETWELL ... 31" X 28"

STANDARD FOOTPRINT - MIN. DIMENSIONS
NOT TO SCALE

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

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

SECTION A-A
NOT TO SCALE

REV. NO.	DESCRIPTIONS	REVISIONS	DATE
3	REVISED TO REFLECT CURRENT COUNTY STANDARDS		8/20/25
2	REVISED TO REFLECT CURRENT COUNTY STANDARDS		8/21/23
1	REVISED SLAB DIMENSIONS		10/28/21

SEAL

SEAL

SEAL



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

STANDARD WASTEWATER
TRIPLEX 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		

