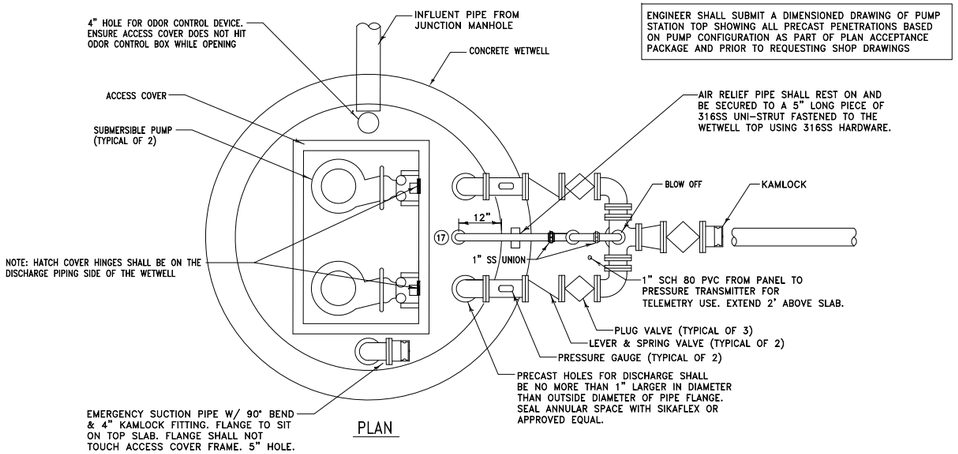


PLAN

ENGINEER SHALL SUBMIT A DIMENSIONED DRAWING OF PUMP STATION TOP SHOWING ALL PRECAST PENETRATIONS BASED ON PUMP CONFIGURATION AS PART OF PLAN ACCEPTANCE PACKAGE AND PRIOR TO REQUESTING SHOP DRAWINGS

LIFT STATION

STATION ELEVATIONS

ROAD CENTERLINE	
(A) TOP = ROAD CENTERLINE + 13"	
(B) GRADE	
(C) INFLUENT INVERT	
(D) HIGH WATER ALARM (C – 0.5')	
(E) LAG PUMP ON	
(F) LEAD PUMP ON	
(G) ALL PUMPS OFF	
(H) LOW WATER ALARM (G – 0.5')	
(I) SUCTION PIPE BOTTOM (K + 1.50')	
(J) TOP OF GROUT (K + 1.00')	
(K) WETWELL BOTTOM	

STATION INFORMATION

(L) PUMP DISCHARGE PIPING (3" MIN)	"
(M) FORCEMAIN PIPING (3" MIN)	"
(N) TOP SLAB THICKNESS (8" MIN)	"
(P) SIDE WALL THICKNESS (8" MIN)	"
(Q) BOTTOM SLAB THICKNESS (12" MIN)	"
(R) BOTTOM SLAB DIAMETER (8'–4" MIN)	
(S) WET WELL DIAMETER (8' MIN)	
(T) EMERGENCY SUCTION PIPING (4" MIN)	4"

PUMP INFORMATION

NUMBER OF PUMPS 2

PUMP MANUFACTURER _____

PUMP MODEL _____ IMPELLER ID _____

DISCHARGE _____ MOTOR RPM _____

_____ HP _____ VOLTS 3 PHASE 60 HZ

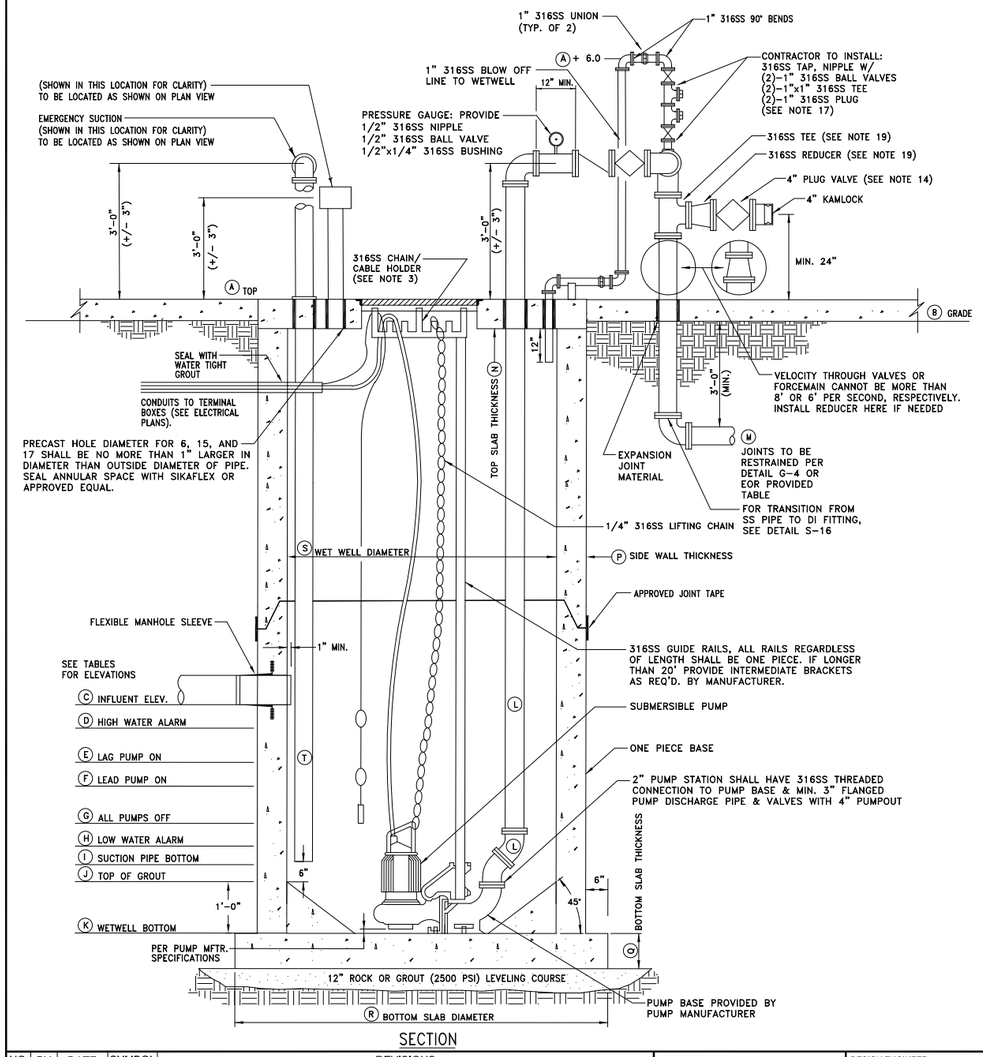
MANIFOLD COND. _____ GPM AT _____ FT.TDH

RUN-OUT COND. _____ GPM AT _____ FT.TDH

PUMP ACCESS HATCH SIZE _____ x _____

(MUST ACCOMODATE MIX-FLUSH VALVE IF PRESENT)

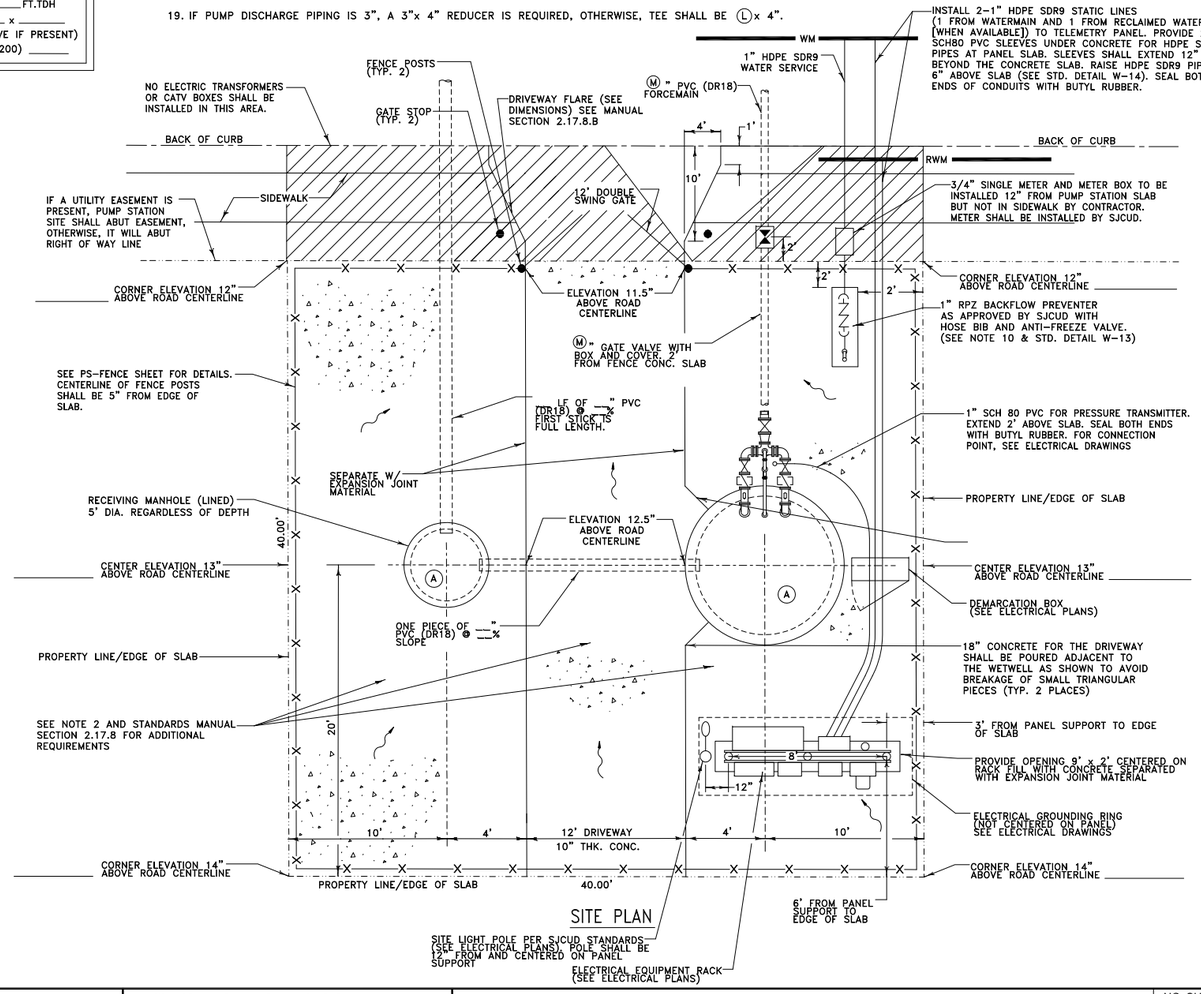
ELECTRICAL SERVICE AMPS (100 or 200) _____



SECTION

NOTES:

1. ACCESS COVER FOR THE WETWELL SHALL BE 1/4" ALUM. TREAD PLATE WITH STAINLESS STEEL HARDWARE. COVER SHALL BE PROVIDED WITH LIFTING HANDLE. LOCKING HASP AND SAFETY LATCH TO HOLD COVERS OPEN. OPENING IN WETWELL SLAB AS PER MANUFACTURERS SPECIFICATIONS.
2. CONCRETE SHALL BE TYPE I OR TYPE II, 3,000 PSI, USE WITH PLASTICIZER, HAVE A 4"– 6" SLUMP, HAVE 2–4% AIR ENTRAINMENT, WATER TO CEMENT RATIO OF 0.43–0.45, AND BE REINFORCED USING 4 LB/CY OF A MACRO SYNTHETIC FIBER SUCH AS SIKA FIBERMESH 650, EUCLID TUF–STRAND SF, FORTA FERRO, OR PRE–APPROVED EQUAL. CONCRETE DELIVERY TICKETS SHALL BE PROVIDED TO THE SJCUD INSPECTOR. CONCRETE SLAB SHALL BE 6" THICK, EXCEPT IN THE DRIVEWAY PORTION WHERE IT SHALL BE 10" THICK.
3. "J" BOLT MOUNTING HOLE AND CONDUIT HOLES SHALL BE CORE DRILLED IN THE FIELD AS PER SHOP DRAWINGS OR ACTUAL FIELD REQUIREMENTS.
4. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF PRECAST WETWELL. SHOP DRAWINGS SHALL INCLUDE ALL NECESSARY STRUCTURAL AND FLOTATION CALCULATIONS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ELECTRICAL POWER TO THE PUMPING STATION. THREE PHASE POWER IS REQUIRED. THIS WORK IS TO BE COORDINATED WITH ELECTRIC PROVIDER.
6. THE INTERIOR OF THE WET WELL AND RECEIVING MANHOLE SHALL BE COATED WITH LINER BY APPROVED MANUFACTURER.
7. A LIGHTNING ARRESTER, SURGE SUPPRESSOR, AND AUDIBLE ALARM SHALL BE SUPPLIED AND INSTALLED BY THE "SYSTEM" SUPPLIER.
8. THE SURFACE OF THE WET WELL SHALL FIRST BE PREPARED BY GROUTING THE WET WELL AS REQUIRED TO OBTAIN A SMOOTH SURFACE. THE COATING SHALL BE WARRANTED ACCORDING TO SECTION 3.15.
9. PLUG VALVE OPERATOR SHALL BE MOUNTED PARALLEL TO GROUND AND FACE OUTWARD. WHEN OPEN, PLUG SHALL BE IN THE TOP OF THE VALVE BODY.
10. RPZ BACKFLOW PREVENTER PIPING ABOVE GRADE SHALL BE THREADED BRASS WITH BRASS OR STAINLESS STEEL FITTINGS AND VALVES.
11. SITE GRADING SHALL PROVIDE FOR DRAINAGE OF WATER TO THE DRIVEWAY AND TO THE STREET.
12. SIZES SHOWN IN "STATION INFORMATION" ABOVE ARE MINIMUMS AND MAY NEED TO BE LARGER BASED ON SPECIFIC SITE DESIGN.
13. ALL NON–STAINLESS STEEL PIPING AND FITTINGS SHOULD BE PAINTED FOREST GREEN (OIL BASED).
14. ONE 2" 316SS SUPPORT SHALL BE INSTALLED UNDER EACH PLUG VALVE. (3 TOTAL)
15. ALL PIPE FLANGES SHALL BE ANSI CLASS 16.5. FLANGES TO BE 316SS 150# RAISED FACED SLIP FLANGES WITH FULL FACE CIRCLE GASKETS.
16. ALL 316SS PIPING SHALL BE SCHEDULE 40.
17. ROTATE THE PRESSURE TRANSMITTER MOUNTING TEE (BOTTOM TEE) SUCH THAT THE FUTURE PRESSURE TRANSMITTER DISPLAY INSTALLED BY SJCUD FACES NORTH.
18. ALL MOUNTING HARDWARE SHALL BE 316 STAINLESS STEEL INCLUDING, BUT NOT LIMITED TO, NUTS, BOLTS, BRACKETS. ALL HARDWARE SHALL BE HAND–TIGHTENED AND HAVE ANTI–SIEZE COMPOUND APPLIED. DO NOT USE IMPACT WRENCHES.
19. IF PUMP DISCHARGE PIPING IS 3", A 3"x 4" REDUCER IS REQUIRED, OTHERWISE, TEE SHALL BE (L) x 4".



SITE PLAN

NO.	BY	DATE	SYMBOL	REVISIONS
6.				
5.	SJCUD	2025		REVISION 5
4.	SJCUD	2025		REVISION 4
3.	SJCUD	2025		REVISION 3
2.	SJCUD	2025		REVISION 2
1.	SJCUD	2020		REVISION 1

DESIGNER:
DRAWN BY:
DATE:
CHECKED BY:
DATE:
DESIGN ENGINEER
FLORIDA REGISTRATION NO.

SJC UTILITIES
ST. JOHNS COUNTY UTILITY DEPARTMENT
1205 STATE ROAD 16
ST. AUGUSTINE, FLORIDA 32084-8646
Phone (904) 209-2700 • Fax (904) 209-2702

PUMP STATION STANDARD DETAIL

SCALE: N.T.S.

NO. SHEETS

SHEET NO.

DRAWING NO. PS–01