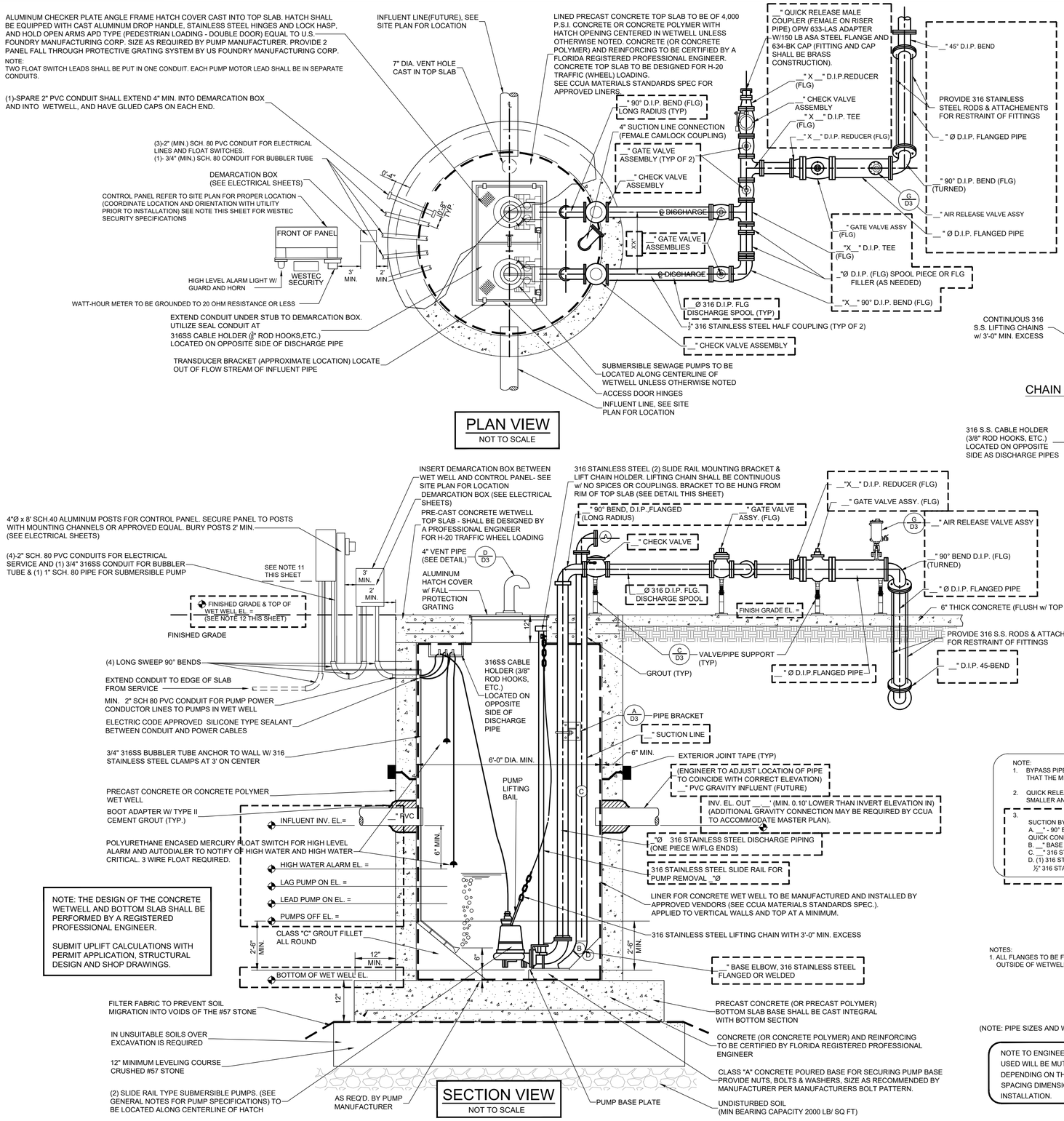
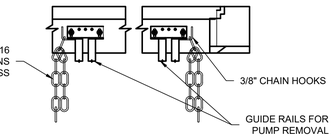
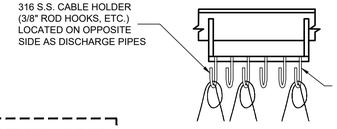


PLAN VIEW
NOT TO SCALE

= RECTANGLE DENOTES FIELDS FOR SPECIFIC DATA ENTRIES PERTAINING TO THIS PROJECT - DELETE RECTANGLES AFTER ADDING DATA TO DRAWING



CHAIN HOOK AND RAIL BRACKET DETAIL
NOT TO SCALE



CABLE HOOK DETAIL
NOT TO SCALE

GENERAL NOTES:

1. PUMPS: TWO (2) TOTALLY SUBMERSIBLE SEWAGE PUMPS WITH 230/460 VOLTS, 3 PHASE 60 HERTZ MOTORS, CAPABLE OF DELIVERING ____GPM @ ____TDH. (DEPENDENT UPON THE APPLICATION, THE PUMPS SHALL BE ABS CONTRABLOCK, FLYGT OR DAVIS EMU. (VERIFY WITH UTILITY AT THE TIME OF DESIGN).

PUMP MANUFACTURER:_____
PUMP MODEL NUMBER:_____
MOTOR HP: _____
MOTOR RPM: _____
PUMP RPM: _____
IMPELLER SIZE: _____

2. GAUGES: GAUGES SHALL BE FURNISHED WHERE SHOWN MOUNTED BRASS MOVEMENTS, COMPLETELY SEALED UNBREAKABLE PLEXIGLASS CRYSTAL, WITH NOT LESS THAN 90% GLYCERIN-FILLED STAINLESS STEEL CASE, EACH GAUGE SHALL HAVE A RANGE SUCH THAT THE NORMAL OPERATION PRESSURE SHALL BE APPROXIMATELY AT HALF OF THE RANGE. GAUGES SHALL BE EQUIPPED WITH A SAFETY BLOW-OUT PLUG AND DAMPENING SCREW. GAUGES SHALL BE MOUNTED USING ½" (NPT) STEEL PIPE WITH DIAPHRAGM PROTECTORS WITH STAINLESS STEEL DIAPHRAGM AND STOP COCKS BETWEEN DISCHARGE PIPES AND GAUGES.

3. ALL PIPE PENETRATIONS COMING INTO WE WELL TO BE WATERTIGHT. CONTRACTOR TO ENSURE WET WELL IS DRY FOR PRELIMINARY INSPECTION.

4. ALL PRECAST REINFORCED CONCRETE PRODUCTS SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM C478 (LATEST), WITH CLASS A CONCRETE, UNLESS OTHERWISE NOTED. ALL CONCRETE AND REINFORCING SHALL BE CERTIFIED BY AN ENGINEER REGISTERED WITH THE STATE OF FLORIDA.

5. ALL DISCHARGE PIPING FROM THE PUMPS THROUGH TO THE TRANSITION (RISER PIPE) FROM ABOVE GRADE TO BELOW GRADE SHALL BE 316 GRADE, SCH.40 STAINLESS STEEL. THIS INCLUDES ALL FITTINGS WITHIN THIS PRESCRIBED LIMIT.

6. PIPE FITTINGS 4" AND SMALLER SHALL BE EPOXY LINED OR POLY-LINED (40 MIL THICKNESS) DUCTILE IRON.

7. PUMP STATION SITE SHALL HAVE 50' X 25' X 6" THICK CONCRETE SLAB W/ 6' X6' JOINTS. SLAB SHALL BE 2500 PSI CONCRETE

8. ALL DUCTILE IRON FITTINGS AND PIPE SHALL BE HOLIDAY TESTED PRIOR TO INSTALLATION.

9. EXTERIOR COATING OF BITUMINOUS COATING AS SPECIFIED IN A.N.S.I. SPECIFICATIONS A21.51.

10. ALL EXTERIOR JOINTS OF PRECAST CONCRETE WETWELLS SHALL BE SEALED WITH A RUBBERIZED ASPHALT MEMBRANE TAPE.

11. EACH PUMP STATION SHALL BE EQUIPPED WITH A DSC 1550 MASTER CONTROL PANEL WITH LOCKED METAL ENCLOSURE w/ A DSC 1550 ACCESS KEYPAD MOUNTED ON THE PANEL ENCLOSURE w/ DIMENSIONS OF 4 3/4" X 4 3/4" X 1"; A 12 VOLT, 7 AMP BACK-UP BATTERY; A TRANSFORMER (16.5 VAC) OUTSIDE BOX IN ELECTRICAL OUTLET); PHONE CABLE AND RJ31X PHONE JACK (FOR DIALER HOOK-UP INSIDE BOX); PHONE LINE SURGE PROTECTOR (INSIDE BOX); AND ALL MISCELLANEOUS HARDWARE FOR A COMPLETE AND OPERATING SYSTEM (SEE ELECTRICAL SHEETS).
ALL COMPONENTS LISTED TO BE ENCLOSED IN THE ALARM PANEL BOX WITH EXCEPTION OF THE TRANSFORMER, THE ELECTRICAL SURGE PROTECTOR AND THE CONTROL PANEL KEYPAD (TO BE MOUNTED DIRECTLY ONTO THE ALARM PANEL).

12. ENGINEER SHALL PROVIDE VERIFICATION THAT THE TOP OF THE WETWELL, BOTTOM OF CONTROL PANELS, GENERATOR RECEPTACLE AND GENERATOR SLAB ARE ALL ABOVE THE 100 YR. FLOOD ELEVATION. ENGINEER TO DELINEATE THE 100 YR. FLOOD ELEVATION HERE:

_____

THEREFORE, I DO HEREBY CERTIFY THAT THE ABOVE ELEVATIONS HAVE BEEN MET.

_____
NAME, FL P.E NO.

13. SUBMIT SHOP DRAWINGS TO CCUA FOR APPROVAL PRIOR TO ORDERING MATERIALS AND EQUIPMENT.

SECTION VIEW
NOT TO SCALE

NOTE: THE DESIGN OF THE CONCRETE WETWELL AND BOTTOM SLAB SHALL BE PERFORMED BY A REGISTERED PROFESSIONAL ENGINEER.

SUBMIT UPLIFT CALCULATIONS WITH PERMIT APPLICATION, STRUCTURAL DESIGN AND SHOP DRAWINGS.

NOTE:
1. BYPASS PIPE DIAMETER TO MATCH DISCHARGE PIPE SIZE.EXCEPT THAT THE MINIMUM SHALL BE 4 INCHES.
2. QUICK RELEASE COUPLER SHALL BE 4" FOR PIPE SIZES 4" OR SMALLER AND 6" FOR 6" OR GREATER.
3. SUCTION BYPASS PIPE AND FITTINGS SCHEDULE
A. __"- 90° BEND 316 STAINLESS STEEL (FLANGED) w/ FEMALE QUICK CONNECT
B. __" BASE 316 STAINLESS STEEL ELBOW (FLANGED)
C. __" 316 STAINLESS STEEL PIPE
D. (1) 316 STAINLESS STEEL ANCHOR STRAP AND ½" 316 STAINLESS STEEL ANCHOR BOLTS AND NUTS

NOTES:
1. ALL FLANGES TO BE FACTORY MADE. RESTRAINED FLANGE ADAPTERS MAY BE USED OUTSIDE OF WETWELL ONLY. SEE CCUA MATERIAL STANDARDS.

(NOTE: PIPE SIZES AND WETWELL SIZES TO BE VERIFIED BY ENGINEER AND MODIFIED AS NECESSARY.)

NOTE TO ENGINEER: THE TYPE OF PUMP STATION ALLOWED AND THE SPECIFIC PUMPS TO BE USED WILL BE MUTUALLY AGREED TO BY ENGINEER AND UTILITY AT THE TIME OF DESIGN DEPENDING ON THE SPECIFIC APPLICATION. ALSO WETWELL SIZE AND PIPE SIZES AND SPACING DIMENSIONS ARE TO BE DETERMINED FOR EACH SPECIFIC PUMP STATION INSTALLATION.

AS-BUILT

INFORMATION PROVIDED BY: _____

ADDRESS: _____

PHONE #: _____

I HEREBY CERTIFY THAT THE
_____PAVEMENT
_____CURB AND GUTTER
_____STORMWATER DRAINAGE
_____SYSTEM
_____UNDERDRAIN CONNECTIONS
_____WATER MAIN
_____SANITARY GRAVITY SYSTEM
_____FORCE MAIN
_____LIFT STATION
_____RECLAIMED WATER

ARE AT THE HORIZONTAL AND VERTICAL LOCATIONS AS SHOWN ON THESE "AS-BUILT" SURVEYS MEET THE STANDARDS OF PRACTICE EFFECTIVE DATE JULY 1, 2014 AS PURSANT TO SECTION 472, FLORIDA STATUTES. UNLESS OTHERWISE DEFINED IN THE CLAY COUNTY UTILITY AUTHORITY SPECIFICATIONS FOR AS-BUILTS. NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

SIGNATURE: _____

FLORIDA PROPESIONAL SURVEYOR & MAPPER #: _____

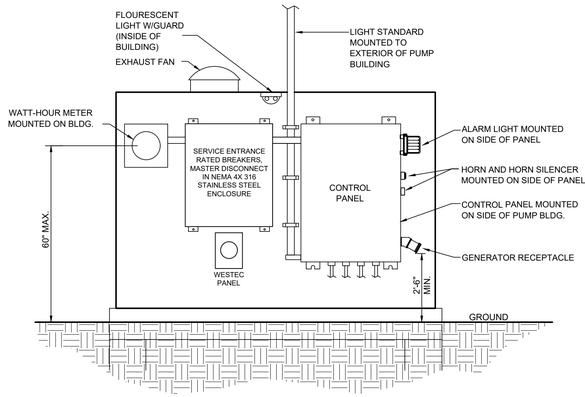
NO	DATE	BY	REVISION DESCRIPTION
21	06-25	RHD	REVISED VARIOUS NOTES
20	01-25	RHD	REVISED GENERAL NOTES/SHOW WETWELL PIPING AS 316 STAINLESS STEEL
19	11-24	RHD	REVISED PLAN VIEW TO SHOW 316 STAINLESS STEEL DISCHARGE PIPE
18	06-24	RHD	REVISED TO APPLY 4W ADDITIONS & CORRECTIONS
17	03-22	RHD	REVISED TO ABOVE GRADE PIPING
16	08-19	RHD	REVISED FLOW RATES
15	06-17	RHD	REVISED NOTES AND DETAILS

DESG ABB
DRWN JMC
CHKD XXX
APRV XXX
DATE 02/22

PROJECT:
PERMANENT SUBMERSIBLE PUMP STATION WITH CONCRETE WETWELL
CLAY COUNTY, ORANGE PARK, FL

CLAY COUNTY UTILITY AUTHORITY
3176 OLD JENNINGS ROAD
MIDDLEBURG, FLORIDA 32068-3907
TELEPHONE: (904) 272-5999

SHEET NO.
D-1



*ATLANTIC COMPANIES AUTO DIALER SPECIFICATIONS:

EACH PUMP STATION SHALL BE EQUIPPED WITH A DSC PC1616 MASTER CONTROL PANEL WITH LOCKED METAL ENCLOSURE W/ BOX DIMENSIONS OF 12"X 12" X 4 1/2"; A DSC PKP-IKON OR A DSC PK-5501 ACCESS KEYPAD MOUNTED ON THE PANEL ENCLOSURE W/ DIMENSIONS NO GREATER THAN 4 3/4"X 4 3/4"X 1"; A 12 VOLT, 7 AMP BACK-UP BATTERY; A TRANSFORMER (16.5 VAC) OUTSIDE BOX IN ELECTRICAL OUTLET; RESOLUTION PRODUCTS RE927X-03-00 OR RE928X-03-00 CELL COMMUNICATORS; ELECTRICAL SURGE PROTECTOR (OUTSIDE BOX IN ELECTRICAL OUTLET); AND ALL MISCELLANEOUS HARDWARE FOR A COMPLETE AND OPERATING SYSTEM.

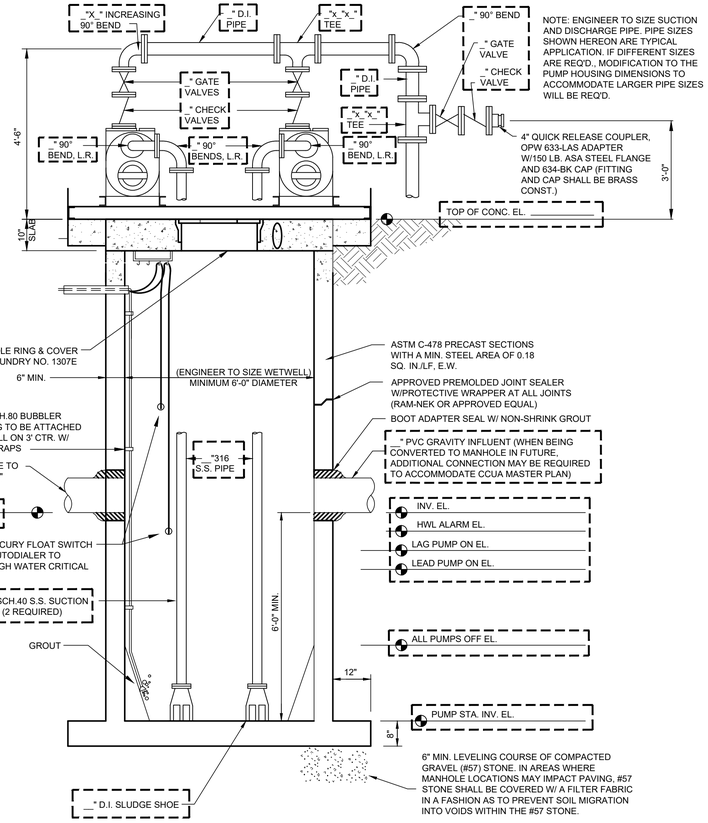
ALL COMPONENTS LISTED TO BE ENCLOSED IN THE ALARM PANEL BOX WITH EXCEPTION OF THE TRANSFORMER, THE ELECTRICAL SURGE PROTECTOR, CELLULAR COMMUNICATOR (INSIDE THE WEATHER PROOF ENCLOSURE) AND THE CONTROL PANEL KEYPAD (TO BE MOUNTED DIRECTLY ONTO THE ALARM PANEL ENCLOSURE).

STATION CONTROLS DETAIL - SIDE VIEW (A)

NOT TO SCALE

PUMP STATION SITE PLAN

ENGINEER TO PROVIDE DETAIL PUMP STATION SITE PLAN AS SHOWN ON PLAN SHEETS, INCLUDING FENCING, LANDSCAPING, DRIVEWAY, ENTRANCE ROAD IF APPLICABLE, WATER SERVICE, ELECTRICAL SERVICE/TRANSFORMER, UNDERGROUND SEWER MAIN ALIGNMENT TO FIRST MANHOLE OUT OF PUMP STATION. PUMP STATION AND MANHOLE "DO NOT" REQUIRE LINER.



PUMP STATION - SECTION (B)

NOT TO SCALE

NOTE TO ENGINEER: THE TYPE OF PUMP STATION ALLOWED AND THE SPECIFIC PUMPS TO BE USED WILL BE MUTUALLY AGREED TO BY ENGINEER AND UTILITY AT THE TIME OF DESIGN DEPENDING ON THE SPECIFIC APPLICATION. ALSO PIPE SIZES AND SPACING DIMENSIONS ARE TO BE DETERMINED FOR EACH SPECIFIC PUMP STATION INSTALLATION.

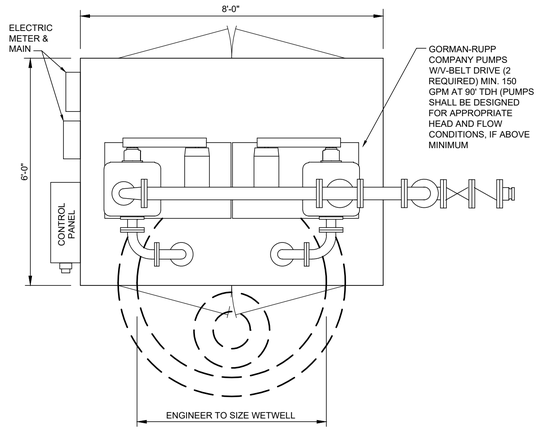
COORDINATE WITH CCUA PRIOR TO DESIGN OF TEMPORARY LIFT STATION.

GENERAL NOTES

1. SYSTEM TO INCLUDE WESTEC SECURITY SYSTEM WITH INDEPENDENT FLOAT CONTROL AND TELEPHONE DIALER SYSTEM, TELEPHONE LINE BY OWNER.

2. SITE LOCATION OF LIFT STATION, CONTROL PANEL AND GENERATOR SHALL BE ABOVE THE 100 YEAR STORM ELEVATION.

3. THIS PLAN IS FOR INFORMATIONAL PURPOSES ONLY. EXPLICIT APPROVAL OF PLANS BY THE UTILITY AUTHORITY IS REQUIRED PRIOR TO ANY CONSTRUCTION.



PUMP STATION - PLAN (C)

NOT TO SCALE

PUMP STATION BLDG. - ELEVATION (D)

NOT TO SCALE

= RECTANGLE DENOTES FIELDS FOR SPECIFIC DATA ENTRIES PERTAINING TO THIS PROJECT - DELETE RECTANGLES AFTER ADDING DATA TO DRAWING

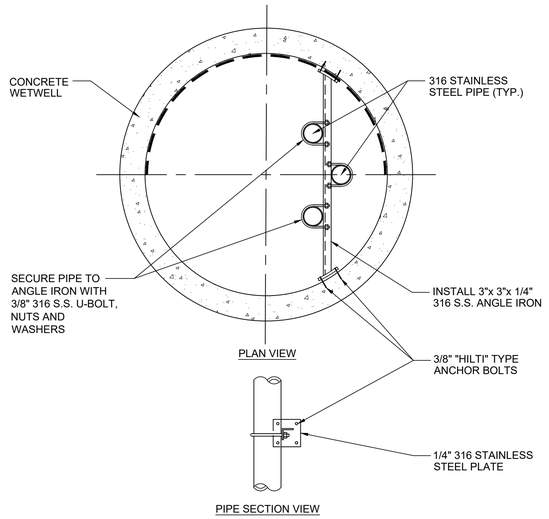
NO	DATE	BY	REVISION DESCRIPTION
3	06-25-07	RHD	REVISED VARIOUS NOTES
2	JUNE 05	MRS	REVISED NOTES AND DETAILS
1	MAY 05	MRS	GENERAL NOTES AND 7.5 SITE PLAN ADDED

DESG ABB
DRWN JMC
CHKD XXX
APPRV XXX
DATE 03/22

PROJECT:
TEMPORARY (INTERIM) ABOVE-GROUND PUMP STATION DETAILS
CLAY COUNTY, ORANGE PARK, FL

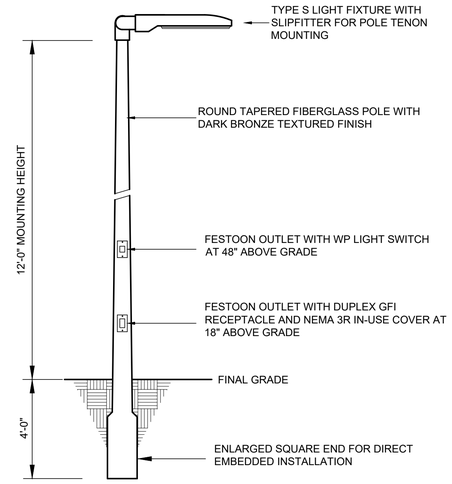
CLAY COUNTY UTILITY AUTHORITY
3176 OLD JENNINGS ROAD
MIDDLEBURG, FLORIDA 32068-3907
TELEPHONE: (904) 272-5999

SHEET NO.
D-2



PIPE ATTACHMENT TO WALL (A)

NOT TO SCALE

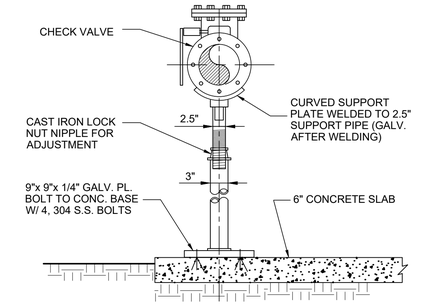


THE INSIDE DIAMETER OF THE EXCAVATION SHALL EXCEED THE OUTSIDE DIAMETER OF THE POLE BY A MINIMUM OF 6" AND SHALL BE BACK FILLED WITH CONCRETE.

LIGHT FIXTURE SCHEDULE				
TYPE	MANUFACTURER & CATALOG NUMBER	LAMPS	VOLTS	WATTS
S	RAB A17 5T 100 SF N 120 WITH A17-SF-KIT	LED	120	100

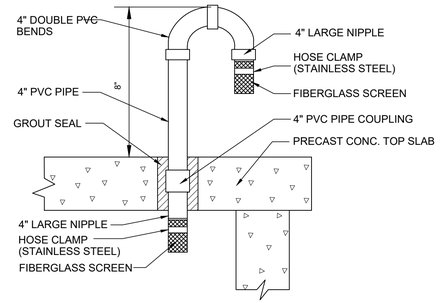
SITE LIGHT (STANDARD) (B)

NOT TO SCALE



PIPE SUPPORT (STANDARD) (C)

NOT TO SCALE

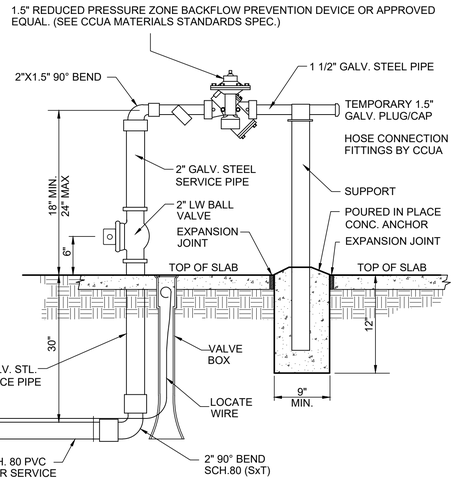


VENT PIPE (STANDARD) (D)

NOT TO SCALE

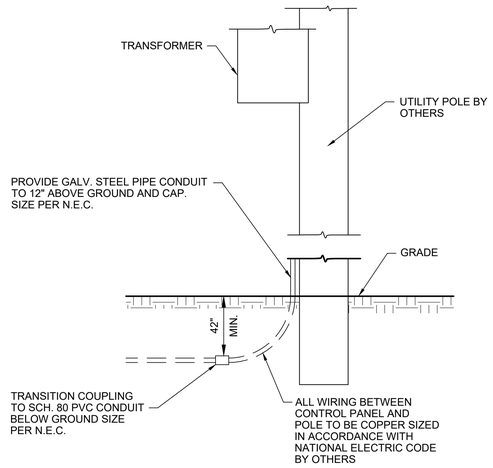
NO	DATE	BY	REVISION DESCRIPTION
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18	08-22	RHD	REVISED TO APPLY 4W ADDITIONS & CORRECTIONS
17	03-22	4W	REVISED TO ABOVE GRADE PIPING
16	10-19	RHD	REVISED NOTES
15	08-17	RHD	REVISED NOTES AND DETAILS

DESIG	ABB
DRWN	JMC
CHKD	XXX
APRV	XXX
DATE	03/22



WATER SERVICE (STANDARD) (E)

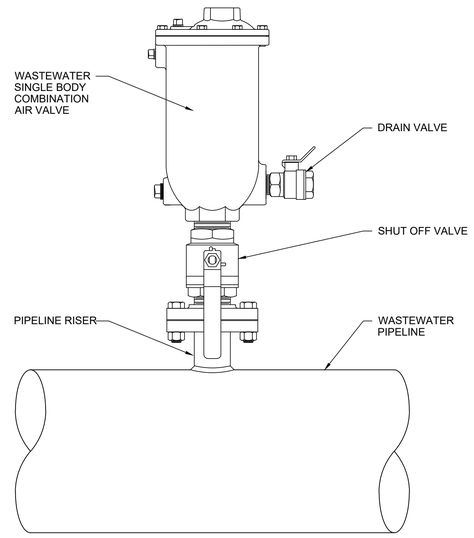
NOT TO SCALE



NOTE:
TO BE USED ONLY WHEN UNDERGROUND SERVICE IS NOT AVAILABLE.

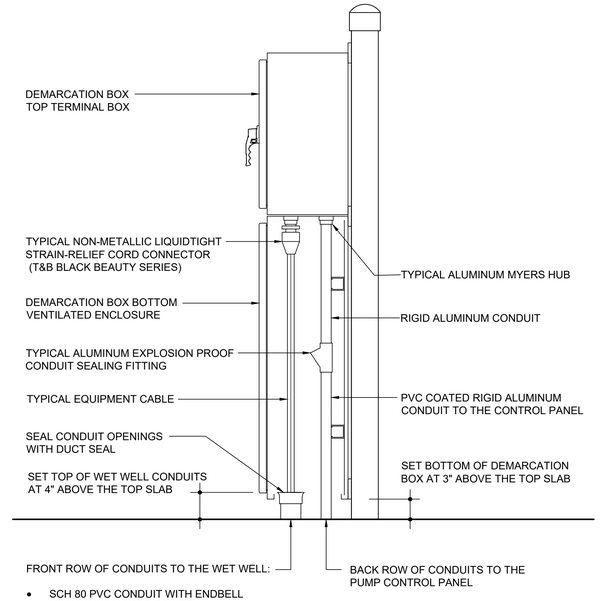
POWER RISER (STANDARD) (F)

NOT TO SCALE



COMBINATION AIR RELEASE VALVE (G)

NOT TO SCALE



- SCH 80 PVC CONDUIT WITH ENDBELL
- MINIMUM 3" MOTOR POWER
- MINIMUM 2" FLOAT CABLES

WET WELL DEMARCATION BOX CONDUIT DETAIL (G)

NOT TO SCALE

PROJECT:

PUMP STATION DETAILS

CLAY COUNTY, ORANGE PARK, FL

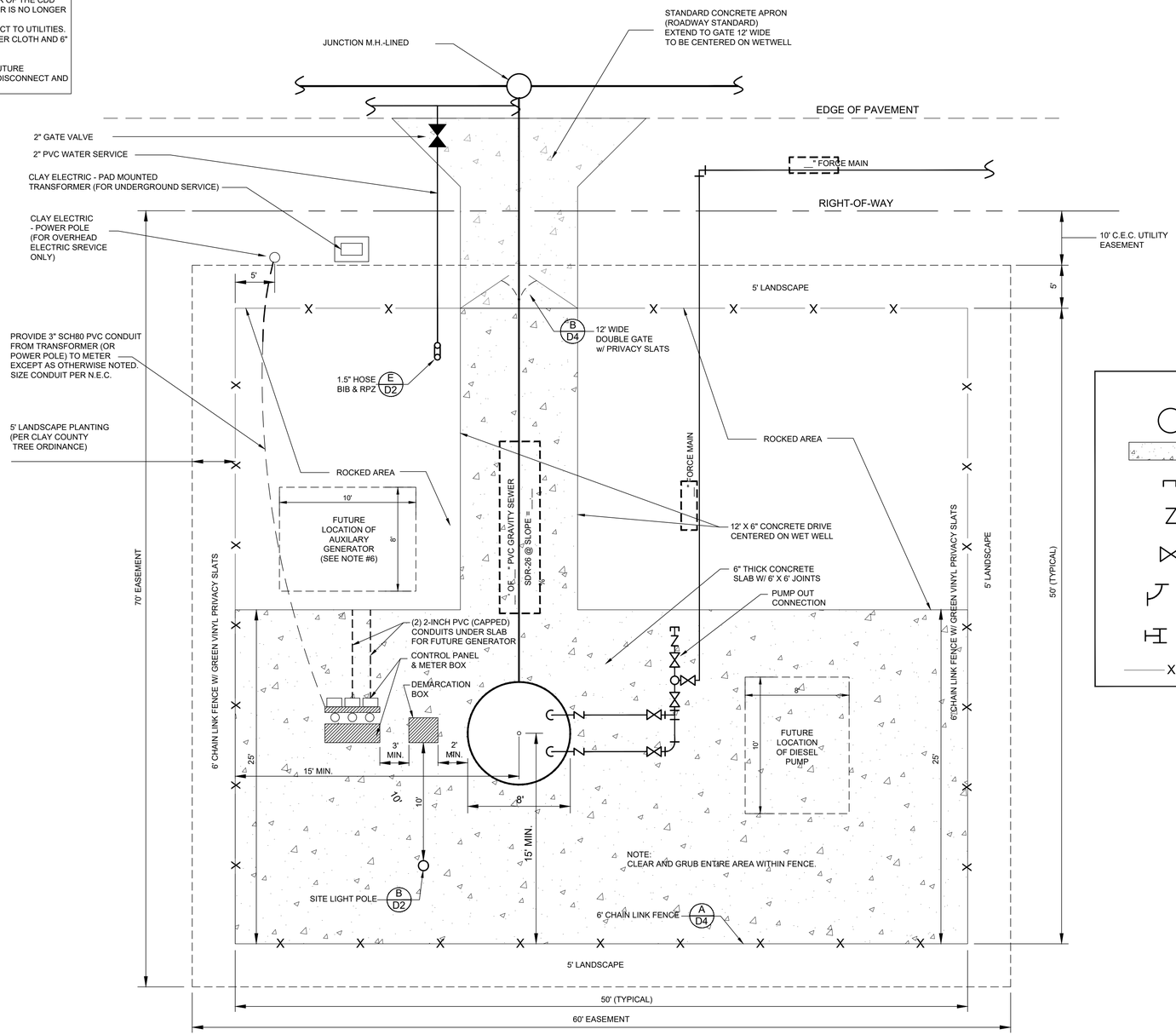
CLAY COUNTY UTILITY AUTHORITY
3176 OLD JENNINGS ROAD
MIDDLEBURG, FLORIDA 32068-3907
TELEPHONE: (904) 272-5999

SHEET NO.

D-3

NOTE:
1. ALL LANDSCAPE OR IRRIGATION INSTALLED AT OR AROUND THE LIFT STATION AS PART OF THE PROJECT TO BE MAINTAINED BY DEVELOPER OF THE CDD AND/OR HOMEOWNER'S ASSOCIATION AFTER THE DEVELOPER IS NO LONGER IN CHARGE OF THE PROJECT.
2. LANDSCAPING PLANS APPROVED BY CCUA TO MINIMIZE IMPACT TO UTILITIES.
3. CLEAR AND GRUB ENTIRE AREA WITHIN FENCE, INSTALL FILTER CLOTH AND 6" OF #57 STONE IN AREAS NOT COVERED BY CONCRETE.
4. TOP OF ROCK AREA TO MATCH TOP OF CONCRETE SLAB.
5. PROVIDE (2) 2" DIA. SCH80 PVC CONDUIT UNDER SLAB FOR FUTURE GENERATOR. CAP CONDUIT AT 6" OUTSIDE OF SLAB AND AT DISCONNECT AND AT THE CONTROL PANEL.

= RECTANGLE DENOTES FIELDS FOR SPECIFIC DATA ENTRIES PERTAINING TO THIS PROJECT - DELETE RECTANGLES AFTER ADDING DATA TO DRAWING



TYPICAL PERMANENT PUMP STATION SITE PLAN A

NOT TO SCALE

LEGEND

- DENOTES MANHOLE
- DENOTES CONCRETE
- DENOTES CAP
- DENOTES CHECK VALVE
- DENOTES GATE or WHEEL VALVE
- DENOTES 90-DEGREE BEND
- DENOTES TEE FITTING
- DENOTES CHAIN LINK FENCE

NO	DATE	BY	REVISION DESCRIPTION
19	09-24	RHD	REVISED TO MOVE CONTROL PANEL 3', OFF DEM. BOX
18	06-22	RHD	REVISED TO APPLY 4W ADDITIONS & CORRECTIONS
17	03-22	4W	REVISED TO ABOVE GRADE PIPING
16	01-19	RHD	REVISED PER CCUA COMMENTS
15	08-17	RHD	REVISED NOTES AND DETAILS

DESG	ABB
DRWN	JMC
CHKD	XXX
APRV	XXX
DATE	03/22

PROJECT:

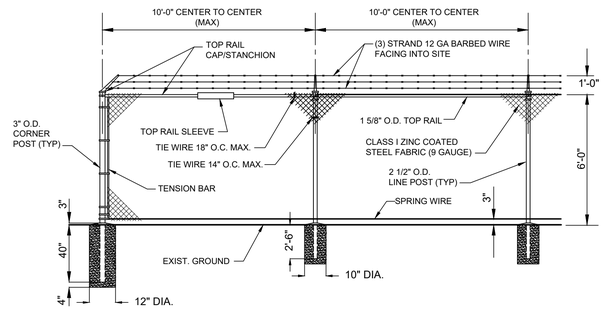
PUMP STATION DETAILS

CLAY COUNTY, ORANGE PARK, FL

CLAY COUNTY UTILITY AUTHORITY
3176 OLD JENNINGS ROAD
MIDDLEBURG, FLORIDA 32068-3907
TELEPHONE: (904) 272-5999

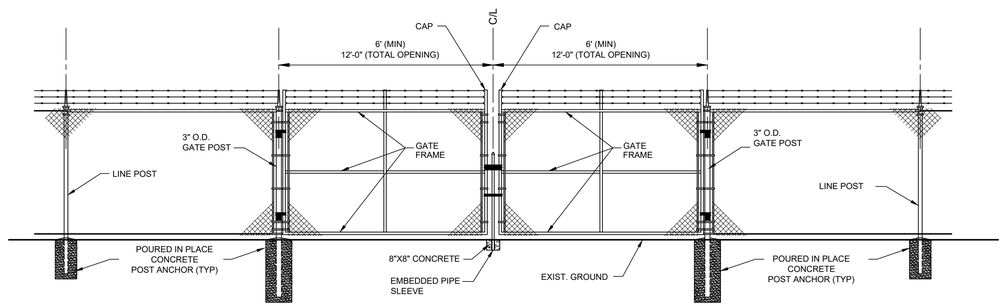
SHEET NO.

D-4



CHAIN LINK FENCE & CORNER POST A

NOT TO SCALE



GATE B

NOT TO SCALE

NOTE:
1. PROVIDE GREEN VINYL PRIVACY SLATS

2. TO MAKE A COMPLETE INSTALLATION, FENCING SHALL BE FURNISHED AND INSTALLED. FENCING SHALL COMPLY WITH ASTM A392-68T LATEST SPECIFICATIONS FOR ZINC COATED STEEL CHAIN LINK FENCE FABRIC AND AS DETAILED ON THE DRAWING. FITTINGS SHALL BE MALLEABLE IRON OR PRESSED STEEL FORGINGS. ALL FERROUS MATERIALS SHALL BE THOROUGHLY GALVANIZED BY THE HOT-DIP METHOD.

A. PRIVACY SLATS: SLATS SHALL BE FLAT/TUBULAR IN SHAPE, ± 0.003") THERMOPLASTIC WITH A WALL THICKNESS OF 0.030". LENGTH AND WIDTH OF SLATS SHALL BE PROVIDED TO ACCOMMODATE CHAIN-LINK FENCE FABRIC AS SPECIFIED HEREIN. SLATS SHALL HAVE A HORIZONTAL LOCKING STRIP TO PROVIDE SECURE ATTACHMENT TO CHAIN-LINK , THE FABRIC, AND PROVIDE A PRIVACY FACTOR OF 85%. MINIMUM WIDTH SLAT SHALL BE 1-1/8".

B. PRIVACY SCREENING: ENVIRONMENTAL PRIVACY SCREENING KNIT RASCHEL, 100%. SHALL BE 86 TO 90 % POLYETHYLENE UV STABILIZED FIBER, COLOR GREEN. SCREENING SHALL BE ATTACHED TO THE FENCE FABRIC WITH SUFFICIENT TIES TO SECURE THE SCREEN. ACCEPTABLE SCREEN: PRIVACY PLUS OR EQUAL.

NO	DATE	BY	REVISION DESCRIPTION
18	06-22	RHD	REVISED TO APPLY 4W ADDITIONS & CORRECTIONS
17	03-22	4W	REVISED TO ABOVE GRADE PIPING
16	09-19	RHD	REVISED DESIGN NOTES
15	06-17	RHD	REVISED NOTES AND DETAILS

DESG ABB
DRWN JMC
CHKD XXX
APRV XXX
DATE 03/22

PROJECT:
PUMP STATION DETAILS
CLAY COUNTY, ORANGE PARK, FL

CLAY COUNTY UTILITY AUTHORITY
3176 OLD JENNINGS ROAD
MIDDLEBURG, FLORIDA 32068-3907
TELEPHONE: (904) 272-5999

SHEET NO.
D-5

NOTES:

1. DESIGN DRAWINGS ARE DIAGRAMMATIC AND INTENDED TO SHOW THE GENERAL REQUIREMENTS. ALL EQUIPMENT AND INSTALLATION SHALL BE IN ACCORDANCE WITH CLAY COUNTY UTILITY AUTHORITY (CCUA) DESIGN STANDARDS AND SPECIFICATIONS.

2. ALL MATERIAL SHALL BE NEW AND SHALL CONFORM WITH THE STANDARDS OF THE UNDERWRITERS' LABORATORIES, INC., AMERICAN NATIONAL STANDARDS INSTITUTE, NATIONAL ELECTRICAL MANUFACTURERS' ASSOCIATION, INSULATED POWER CABLE ENGINEERS ASSOCIATION, AND INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS, IN EVERY CASE WHERE SUCH A STANDARD HAS BEEN ESTABLISHED FOR THE PARTICULAR TYPE OF MATERIALS IN QUESTION.

3. THE INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE REGULATIONS OF THE LATEST EDITIONS OF THE NATIONAL ELECTRICAL CODE, NATIONAL ELECTRICAL SAFETY CODE, APPLICABLE CITY, STATE, AND LOCAL CODES AND REGULATIONS AND OTHER APPLICABLE CODES, INCLUDING UTILITY COMPANY CODES.

4. ALL PERMITS REQUIRED BY STATE OR LOCAL ORDINANCES SHALL BE OBTAINED, AND AFTER COMPLETION OF THE WORK, A CERTIFICATE OF FINAL INSPECTION AND APPROVAL FROM THE ELECTRICAL INSPECTOR SHALL BE FURNISHED TO THE OWNER. ALL PERMITS FOR INSTALLATION, INSPECTIONS, CONNECTIONS, ETC., SHALL BE TAKEN OUT AND PAID FOR BY THE CONTRACTOR AS PART OF THE WORK UNDER THIS SECTION.

5. ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED TO BE FREE FROM DEFECTS. ANY PART OF THE SYSTEM CONSIDERED DEFECTIVE BY THE ENGINEER WITHIN THE GUARANTEE PERIOD SHALL BE IMMEDIATELY REPLACED OR CORRECTED TO THE ENGINEER'S SATISFACTION WITHOUT FURTHER EXPENSE TO THE OWNER.

6. THE PROJECTS GROUNDING SYSTEM SHALL CONSIST OF A GROUNDING ELECTRODE SYSTEM IN ACCORDANCE WITH NEC SPECIFICATIONS, BONDED TO A MAIN GROUND BUS INTERCONNECTING ALL POWER DISTRIBUTION EQUIPMENT. GROUND ROD SECTIONS SHALL BE COUPLED AND DRIVEN TO ESTABLISH A MAXIMUM RESISTANCE TO GROUND OF 5 OHMS THROUGHOUT THE GROUNDING SYSTEM.

7. DUCT SEAL IS REQUIRED AT ALL CONDUIT CONNECTIONS IN AND OUT OF THE EQUIPMENT CABLE TERMINAL BOXES. ADDITIONALLY, DUCT SEAL IS REQUIRED AT ALL CONDUIT CONNECTIONS IN AND OUT OF THE PUMP CONTROL PANEL.

8. UNLESS OTHERWISE INDICATED, ELECTRICAL EQUIPMENT ENCLOSURES SHALL BE NEMA 12/3R ALUMINUM OR 316 STAINLESS STEEL; CONDUCTORS SHALL BE STRANDED AWG TYPE XHHW-2 COPPER; CONDUCTORS WITHIN THE DEMARCATION BOXES SHALL BE TYPE XHHW-2 TINNED COPPER. UNDERGROUND CONDUIT SHALL BE SCH 40 PVC; EXPOSED CONDUIT SHALL BE SCH 80 PVC; CONDUIT INTO THE WET WELL SHALL BE SCHEDULE 80 PVC; CONDUIT FROM DEMARCATION TERMINAL BOXES SHALL BE PVC COATED RIGID ALUMINUM. SUPPORT CHANNEL AND MOUNTING STRUT SHALL BE MINIMUM 1.5" x 1.5" ALUMINUM. ALL MOUNTING HARDWARE SHALL BE 316 STAINLESS STEEL, INCLUDING BUT NOT LIMITED TO NUTS, BOLTS, WASHERS, BRACKETS, ETC. NUTS AND BOLTS WITH ANTI-SEIZE COMPOUND SHALL BE USED. SCREWS ARE NOT ALLOWED. ALL MATERIALS AND INSTALLATION SHALL BE SUITABLE FOR "CORROSIVE ATMOSPHERES".

9. IN ACCORDANCE WITH THE LATEST CCUA STANDARDS, THE NEW PUMP CONTROL PANEL AND DEMARCATION BOX SHALL BE FURNISHED BY A CCUA APPROVED LIFT STATION CONTROL PANEL MANUFACTURER.

10. THE LIFT STATION PUMP CONTROL PANEL SHALL BE PER THE CCUA STANDARDS WITH THE LATEST UPDATES INCLUDING THE FOLLOWING:

    - SCHWEITZER SEL 2411 P STATION CONTROLLER
    - ASHCROFT PRESSURE TRANSMITTER
    - WESTEC CELLULAR ALARM DIALER EQUIPMENT KIT

11. CONTROL PANEL GENERATOR RECEPTACLE SHALL BE CCUA STANDARD COMPATIBLE WITH EXISTING CCUA PORTABLE GENERATOR CONNECTIONS. THE RECEPTACLE AMP RATING SHALL BE BASED ON THE CONTROL PANEL "GCB" RATING:

    - 100A CROUSE-HINDS AR1042-S22 WITH AJA1 ANGLE ADAPTER
    - 200A CROUSE-HINDS AR2042-S22 WITH AJA1 ANGLE ADAPTER

12. PROVIDE NEW ELECTRICAL SERVICE IN ACCORDANCE WITH ALL CLAY ELECTRIC CO-OPERATIVE (CEC) REQUIREMENTS. CONTRACTOR SHALL OBTAIN FAULT CURRENT LETTER FROM CEC FOR THE ELECTRICAL SERVICE. ALL ELECTRICAL EQUIPMENT RATINGS SHALL MEET OR EXCEED THE MAXIMUM AVAILABLE FAULT CURRENT INCLUDING AN ADDITIONAL MOTOR CONTRIBUTION OF 10 X TOTAL MOTOR FULL LOAD AMPS (MINIMUM 18 KAIC).

13. ELECTRICAL SERVICE RATING INCLUDING SERVICE ENTRANCE MAIN BREAKER AND CONTROL PANEL MAIN CIRCUIT BREAKER SHALL BE MINIMUM 100A. WHERE THE SERVICE LOAD AMPACITY EXCEEDS 100A THE ELECTRICAL SERVICE RATING SHALL BE MINIMUM 200A. WHERE THE SERVICE LOAD AMPACITY EXCEEDS 200A THE DESIGN ENGINEERS SHALL OBTAIN APPROVAL OF THE PROPOSED DESIGN FROM CCUA.

14. THE STANDBY GENERATOR SHALL BE CCUA STANDARD TRADEWINDS CUSTOM LIFT STATION PACKAGE WITH MARINE GRADE ALUMINUM WEATHERPROOF HOUSING, DOUBLE WALL BASE FUEL TANK, INTEGRAL INTERIOR MOUNTED AUTOMATIC TRANSFER SWITCH WITH NORMAL SOURCE SPD, AND INTEGRAL EXTERIOR MOUNTED LINE AND LOAD CIRCUIT BREAKERS.

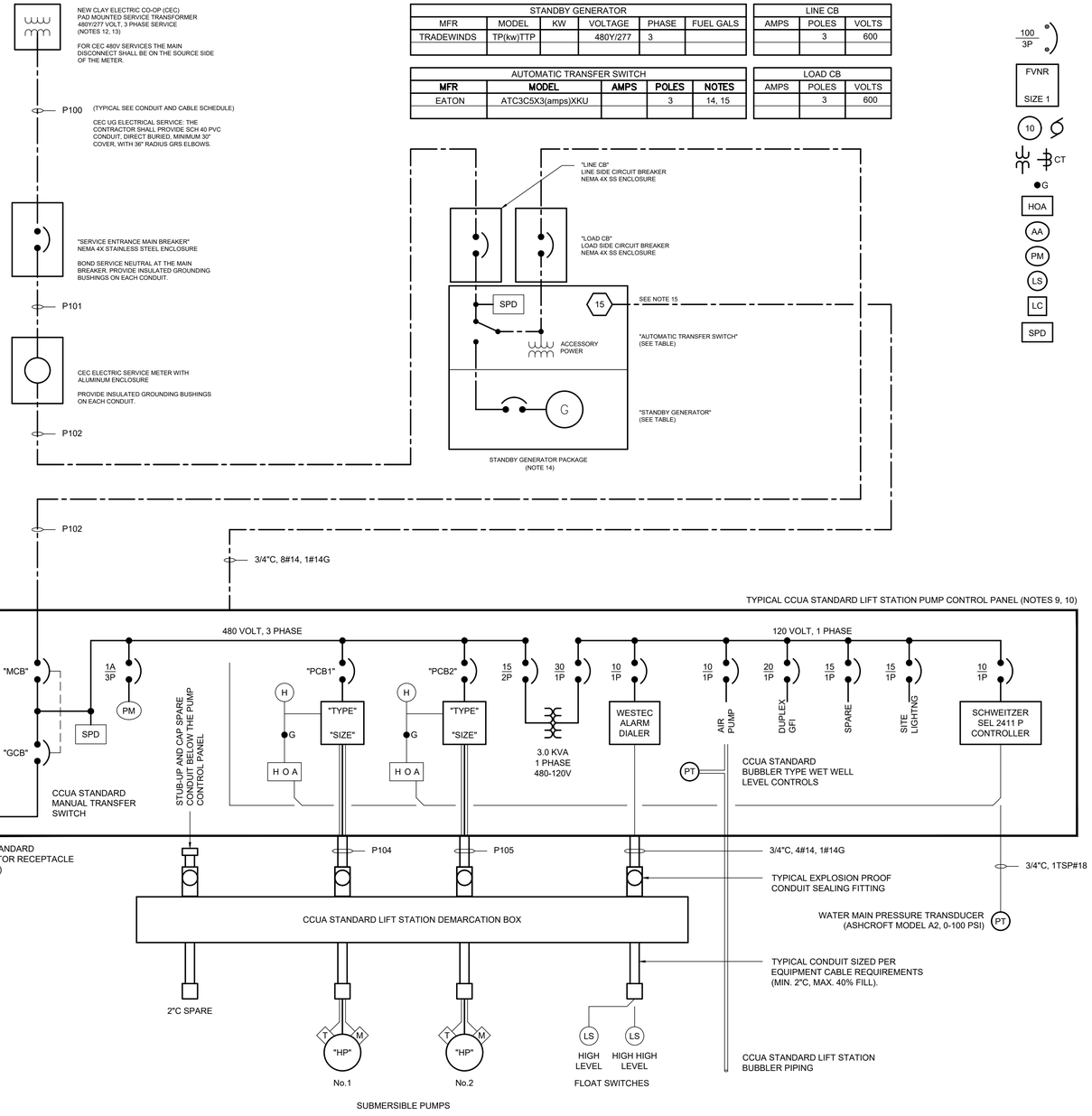
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    - GENERATOR RUNNING
    - GENERATOR FAULT
    - ATS IN NORMAL POSITION
    - ATS IN EMERGENCY POSITION
    - ATS NORMAL SOURCE AVAILABLE
    - ATS EMERGENCY SOURCE AVAIALABLE

ELECTRICAL LOAD CALCULATIONS

LIFT STATION PUMP NO.1	__	HP	__ AMPS
LIFT STATION PUMP NO.2	__	HP	__ AMPS
TOTAL MOTOR LOAD			__ AMPS
LIGHTING AND CONTROLS	3	KVA	7 AMPS
TOTAL CONNECTED LOAD			__ AMPS
TOTAL NON-COINCIDENTAL LOAD			0 AMPS
PEAK DEMAND AMPS			__ AMPS
0.25 X LARGEST MOTOR			__ AMPS
MIN SERVICE AMPACITY 3 PHASE			__ AMPS
MIN MAIN BREAKER SIZE (NOTE 13)			__ AMPS

ELECTRICAL SERVICE:
AMP, 480Y/277 VOLT, 3 PHASE



STANDBY GENERATOR					
MFR	MODEL	KW	VOLTAGE	PHASE	FUEL GALS
TRADEWINDS	TP(kw)TTP		480Y/277	3	

LINE CB		
AMPS	POLES	VOLTS
	3	600

AUTOMATIC TRANSFER SWITCH				
MFR	**MODEL**	**AMPS**	**POLES**	**NOTES**
EATON	ATC3C5X3(amps)XKU		3	14, 15

LOAD CB		
AMPS	POLES	VOLTS
	3	600

ELECTRICAL LEGEND

- 100 / 3P — CIRCUIT BREAKER (TRIP RATING/POLES) "MCB" MAIN BREAKER, "ECB" EMERGENCY BREAKER "PCB" PUMP MOTOR BREAKER
- FVNR / SIZE 1 — MAGNETIC TYPE COMBINATION MOTOR STARTER, NEMA SIZE AS INDICATED ("FV" FULL VOLTAGE, "RV" REDUCED VOLTAGE, "NR" NON-REVERSING, "SS" SOLID STATE SOFT START, "VFD" VARIABLE FREQUENCY DRIVE)
- 10 — MOTOR (NUMERAL INDICATES HORSEPOWER)
- CT — TRANSFORMER ("CT" CURRENT TRANSFORMER; "CPT" CONTROL POWER TRANSFORMER)
- G — GREEN "RUNNING" PILOT LIGHT (LED TYPE)
- HOA — HAND OFF AUTO SELECTOR SWITCH
- AA — AUTOMATIC ALTERNATOR
- PM — THREE PHASE POWER MONITOR
- LS — LEVEL SWITCH
- LC — LEVEL CONTROLLER
- SPD — SURGE PROTECTION DEVICE

CONDUIT AND CABLE SCHEDULE				
CONDUIT		CONDUCTORS		
NUMBER	SIZE	PHASE	NEUTRAL	GROUND
P100				– – –
P101				
P102			– – –	
P103			– – –	
P104			– – –	

SERVICE ENTRANCE MAIN BREAKER			
AMPS	POLES	VOLTS	KAIC
	3	600	NOTE 13

PUMP CONTROL PANEL												
DEVICES			PUMPS					PUMP BREAKERS			STARTERS	
TAG	AMPS	POLES	NUMBER	HP	VOLTS	PHASE	FLA	TAG	AMPS	POLES	TYPE	SIZE
MCB		3	1		460	3		PCB1		3	FVNR	
GCB		3	2		460	3		PCB2		3	FVNR	

SUBMERSIBLE PUMP STATION ELECTRICAL SINGLE LINE DIAGRAM 480V 3PH FOR 40HP OR LESS

07–01–2025
08–01–2025

NO	DATE	BY	REVISION DESCRIPTION

DESG	DRWN	CHKD	APRV	DATE
ABB	JMC	XXX	XXX	02/22

PROJECT:
480 VOLT 3PH FOR 40HP OR LESS
SUBMERSIBLE PUMP STATION
ELECTRICAL SCHEMATIC AND DETAILS
CLAY COUNTY, ORANGE PARK, FL

CLAY COUNTY
UTILITY AUTHORITY
3176 OLD JENNINGS ROAD
MIDDLEBURG, FLORIDA 32068-3907
TELEPHONE: (904) 272-5999

SHEET NO.
S-ELEC1

5/5/2026 8:46:33 AM, PLOTTED BY RHO

NOTES:

1. DESIGN DRAWINGS ARE DIAGRAMMATIC AND INTENDED TO SHOW THE GENERAL REQUIREMENTS. ALL EQUIPMENT AND INSTALLATION SHALL BE IN ACCORDANCE WITH CLAY COUNTY UTILITY AUTHORITY (CCUA) DESIGN STANDARDS AND SPECIFICATIONS.

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3. THE INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE REGULATIONS OF THE LATEST EDITIONS OF THE NATIONAL ELECTRICAL CODE, NATIONAL ELECTRICAL SAFETY CODE, APPLICABLE CITY, STATE, AND LOCAL CODES AND REGULATIONS AND OTHER APPLICABLE CODES, INCLUDING UTILITY COMPANY CODES.

4. ALL PERMITS REQUIRED BY STATE OR LOCAL ORDINANCES SHALL BE OBTAINED, AND AFTER COMPLETION OF THE WORK, A CERTIFICATE OF FINAL INSPECTION AND APPROVAL FROM THE ELECTRICAL INSPECTOR SHALL BE FURNISHED TO THE OWNER. ALL PERMITS FOR INSTALLATION, INSPECTIONS, CONNECTIONS, ETC., SHALL BE TAKEN OUT AND PAID FOR BY THE CONTRACTOR AS PART OF THE WORK UNDER THIS SECTION.

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6. THE PROJECTS GROUNDING SYSTEM SHALL CONSIST OF A GROUNDING ELECTRODE SYSTEM IN ACCORDANCE WITH NEC SPECIFICATIONS, BONDED TO A MAIN GROUND BUS INTERCONNECTING ALL POWER DISTRIBUTION EQUIPMENT. GROUND ROD SECTIONS SHALL BE COUPLED AND DRIVEN TO ESTABLISH A MAXIMUM RESISTANCE TO GROUND OF 5 OHMS THROUGHOUT THE GROUNDING SYSTEM.

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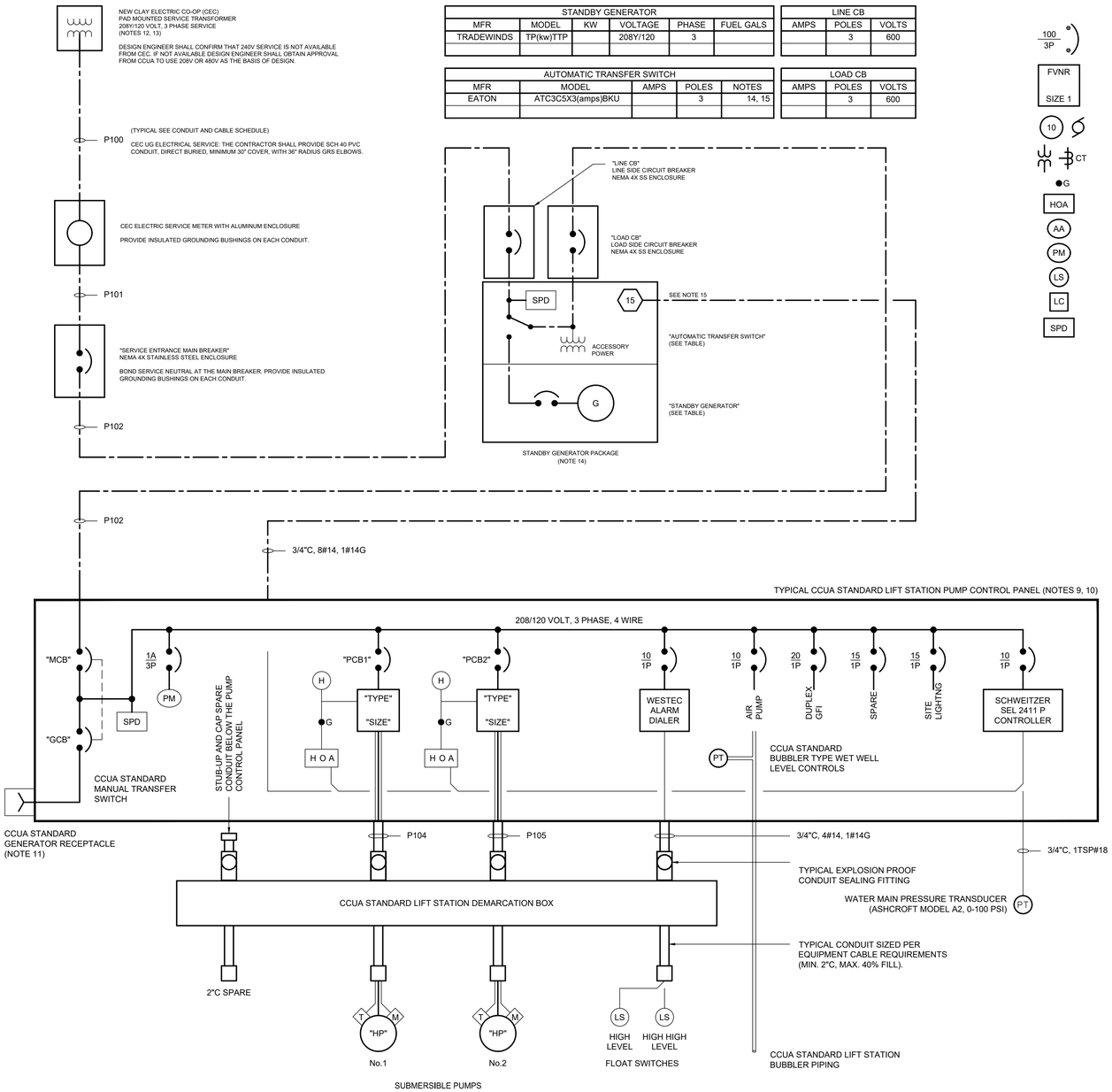
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    - ATS IN NORMAL POSITION
    - ATS IN EMERGENCY POSITION
    - ATS NORMAL SOURCE AVAILABLE
    - ATS EMERGENCY SOURCE AVAIALABLE

ELECTRICAL LOAD CALCULATIONS

LIFT STATION PUMP NO.1	__	HP	__	AMPS
LIFT STATION PUMP NO.2	__	HP	__	AMPS
TOTAL MOTOR LOAD			__	AMPS
LIGHTING AND CONTROLS	3	KVA	25	AMPS
TOTAL CONNECTED LOAD			__	AMPS
TOTAL NON-COINCIDENTAL LOAD			0	AMPS
PEAK DEMAND AMPS			__	AMPS
0.25 X LARGEST MOTOR			__	AMPS
MIN SERVICE AMPACITY 3 PHASE			__	AMPS
MIN MAIN BREAKER SIZE (NOTE 13)			__	AMPS

ELECTRICAL SERVICE:
AMP, 208Y/120 VOLT, 3 PHASE



STANDBY GENERATOR					
MFR	MODEL	KW	VOLTAGE	PHASE	FUEL GALS
TRADEWINDS	TP(kw)TTP		208Y/120	3	

LINE CB		
AMPS	POLES	VOLTS
	3	600

AUTOMATIC TRANSFER SWITCH				
MFR	MODEL	AMPS	POLES	NOTES
EATON	ATC3C5X3(amps)BKU		3	14, 15

LOAD CB		
AMPS	POLES	VOLTS
	3	600

ELECTRICAL LEGEND

- 100 / 3P — CIRCUIT BREAKER (TRIP RATING/POLES) "MCB" MAIN BREAKER, "ECB" EMERGENCY BREAKER "PCB" PUMP MOTOR BREAKER
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- PM — THREE PHASE POWER MONITOR
- LS — LEVEL SWITCH
- LC — LEVEL CONTROLLER
- SPD — SURGE PROTECTION DEVICE

CONDUIT AND CABLE SCHEDULE				
CONDUIT		CONDUCTORS		
NUMBER	SIZE	PHASE	NEUTRAL	GROUND
P100				---
P101				
P102				
P103			---	
P104			---	

SERVICE ENTRANCE MAIN BREAKER			
AMPS	POLES	VOLTS	KAIC
	3	600	NOTE 13

PUMP CONTROL PANEL													
DEVICES			PUMPS					PUMP BREAKERS			STARTERS	
TAG	AMPS	POLES	NUMBER	HP	VOLTS	PHASE	FLA	TAG	AMPS	POLES	TYPE	SIZE
MCB		3	1		208	3		PCB1		3	FVNR	
GCB		3	2		208	3		PCB2		3	FVNR	

SUBMERSIBLE PUMP STATION ELECTRICAL
SINGLE LINE DIAGRAM
208V 3PH FOR 20HP OR LESS

07–01–2025
08–01–2025

NO	DATE	BY	REVISION DESCRIPTION

DESG ABB
DRWN JMC
CHKD XXX
APRV XXX
DATE 02/22

PROJECT:
208 3PH VOLT FOR 20HP OR LESS
SUBMERSIBLE PUMP STATION
ELECTRICAL SCHEMATIC AND DETAILS
CLAY COUNTY, ORANGE PARK, FL

CLAY COUNTY
UTILITY AUTHORITY
3176 OLD JENNINGS ROAD
MIDDLEBURG, FLORIDA 32068-3907
TELEPHONE: (904) 272-5999

SHEET NO.
S-ELEC2

5/5/2026 8:46:39 AM, PLOTTED BY RHD

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    - ATS IN NORMAL POSITION
    - ATS IN EMERGENCY POSITION
    - ATS NORMAL SOURCE AVAILABLE
    - ATS EMERGENCY SOURCE AVAIALABLE

16. THE USE OF SINGLE PHASE POWER MUST BE PRE-APPROVED BY CCUA.

NEW CLAY ELECTRIC CO-OP (CEC)
PAD MOUNTED SERVICE TRANSFORMER
240/120 VOLT, 1 PHASE SERVICE
(NOTES 12, 13)

DESIGN ENGINEER SHALL CONFIRM THAT 3 PHASE SERVICE IS NOT AVAILABLE FROM CEC. IF NOT AVAILABLE DESIGN ENGINEER SHALL OBTAIN APPROVAL FROM CCUA TO USE 240/120V SINGLE PHASE AS THE BASIS OF DESIGN.

STANDBY GENERATOR					
MFR	MODEL	KW	VOLTAGE	PHASE	FUEL GALS
TRADEWINDS	TP(kw)TTP		240/120	1	

LINE CB		
AMPS	POLES	VOLTS
	2	300

AUTOMATIC TRANSFER SWITCH				
MFR	MODEL	AMPS	POLES	NOTES
EATON	ATC3C5X2(amps)WKU		2	14, 15

LOAD CB		
AMPS	POLES	VOLTS
	2	300

P100 (TYPICAL SEE CONDUIT AND CABLE SCHEDULE)

CEC UG ELECTRICAL SERVICE: THE CONTRACTOR SHALL PROVIDE SCH 40 PVC CONDUIT, DIRECT BURIED, MINIMUM 30" COVER, WITH 36" RADIUS GRS ELBOWS.

CEC ELECTRIC SERVICE METER WITH ALUMINUM ENCLOSURE

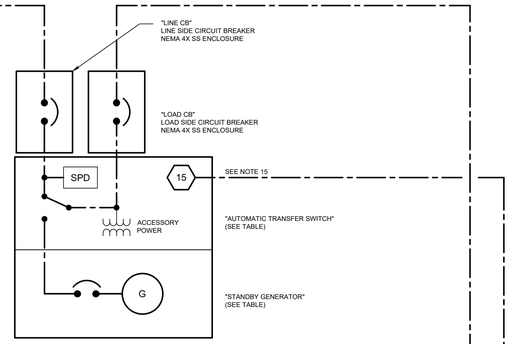
PROVIDE INSULATED GROUNDING BUSHINGS ON EACH CONDUIT.

P101

"SERVICE ENTRANCE MAIN BREAKER"
NEMA 4X STAINLESS STEEL ENCLOSURE

BOND SERVICE NEUTRAL AT THE MAIN BREAKER. PROVIDE INSULATED GROUNDING BUSHINGS ON EACH CONDUIT.

P102

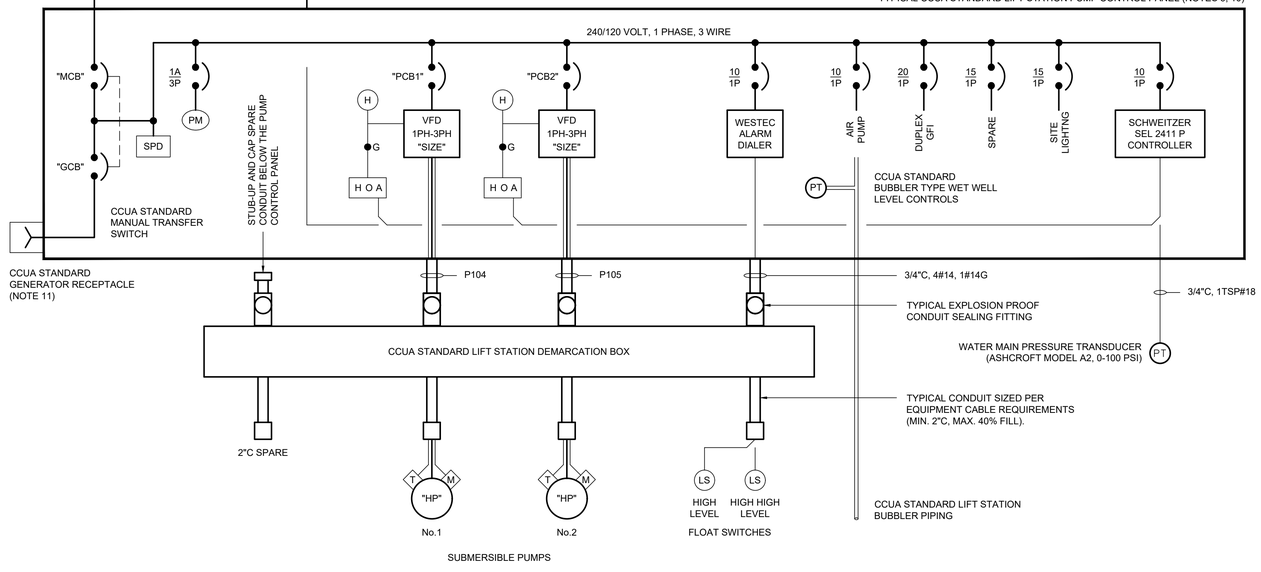


STANDBY GENERATOR PACKAGE
(NOTE 14)

P102

3/4"C, 8#14, 1#14G

TYPICAL CCUA STANDARD LIFT STATION PUMP CONTROL PANEL (NOTES 9, 10)



ELECTRICAL LEGEND

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- FVNR / SIZE 1 — MAGNETIC TYPE COMBINATION MOTOR STARTER, NEMA SIZE AS INDICATED ("FV" FULL VOLTAGE, "RV" REDUCED VOLTAGE, "NR" NON-REVERSING, "SS" SOLID STATE SOFT START, "VFD" VARIABLE FREQUENCY DRIVE)
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- HOA — HAND OFF AUTO SELECTOR SWITCH
- AA — AUTOMATIC ALTERNATOR
- PM — THREE PHASE POWER MONITOR
- LS — LEVEL SWITCH
- LC — LEVEL CONTROLLER
- SPD — SURGE PROTECTION DEVICE

ELECTRICAL LOAD CALCULATIONS

LIFT STATION PUMP NO.1	__	HP 1PH	__ AMPS
LIFT STATION PUMP NO.2	__	HP 1PH	__ AMPS
TOTAL MOTOR LOAD			__ AMPS
LIGHTING AND CONTROLS	3	KVA	25 AMPS
TOTAL CONNECTED LOAD			__ AMPS
TOTAL NON-COINCIDENTAL LOAD			0 AMPS
PEAK DEMAND AMPS			__ AMPS
0.25 X LARGEST MOTOR			__ AMPS
MIN SERVICE AMPACITY 3 PHASE			__ AMPS
MIN MAIN BREAKER SIZE (NOTE 13)			__ AMPS

ELECTRICAL SERVICE:
AMP, 240/120 VOLT, 1 PHASE

CONDUIT AND CABLE SCHEDULE				
CONDUIT		CONDUCTORS		
NUMBER	SIZE	PHASE	NEUTRAL	GROUND
P100				---
P101				
P102				
P103			---	
P104			---	

SERVICE ENTRANCE MAIN BREAKER			
AMPS	POLES	VOLTS	KAIC
	2	300	NOTE 13

PUMP CONTROL PANEL												
DEVICES			PUMPS					PUMP BREAKERS			STARTERS	
TAG	AMPS	POLES	NUMBER	HP	VOLTS	PHASE	FLA	TAG	AMPS	POLES	TYPE	SIZE
MCB		2	1		230	3		PCB1		2	VFD	
GCB		2	2		230	3		PCB2		2	VFD	

SUBMERSIBLE PUMP STATION ELECTRICAL SINGLE LINE DIAGRAM 240/120V 1PH VFD PANEL

07-01-2025
08-01-2025
01-26-2026

NO	DATE	BY	REVISION DESCRIPTION

DESG	ABB	
DRWN	JMC	
CHKD	XXX	
APRV	XXX	
DATE	02/22	

PROJECT:
240/120 VOLT FOR 5HP OR LESS SUBMERSIBLE PUMP STATION
ELECTRICAL SCHEMATIC AND DETAILS
CLAY COUNTY, ORANGE PARK, FL

CLAY COUNTY UTILITY AUTHORITY
3176 OLD JENNINGS ROAD
MIDDLEBURG, FLORIDA 32068-3907
TELEPHONE: (904) 272-5999

SHEET NO.
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5/5/2026 8:46:46 AM, PLOTTED BY RHD

NOTES:

1. DESIGN DRAWINGS ARE DIAGRAMMATIC AND INTENDED TO SHOW THE GENERAL REQUIREMENTS. ALL EQUIPMENT AND INSTALLATION SHALL BE IN ACCORDANCE WITH CLAY COUNTY UTILITY AUTHORITY (CCUA) DESIGN STANDARDS AND SPECIFICATIONS.

2. ALL MATERIAL SHALL BE NEW AND SHALL CONFORM WITH THE STANDARDS OF THE UNDERWRITERS' LABORATORIES, INC., AMERICAN NATIONAL STANDARDS INSTITUTE, NATIONAL ELECTRICAL MANUFACTURERS' ASSOCIATION, INSULATED POWER CABLE ENGINEERS ASSOCIATION, AND INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS, IN EVERY CASE WHERE SUCH A STANDARD HAS BEEN ESTABLISHED FOR THE PARTICULAR TYPE OF MATERIALS IN QUESTION.

3. THE INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE REGULATIONS OF THE LATEST EDITIONS OF THE NATIONAL ELECTRICAL CODE, NATIONAL ELECTRICAL SAFETY CODE, APPLICABLE CITY, STATE, AND LOCAL CODES AND REGULATIONS AND OTHER APPLICABLE CODES, INCLUDING UTILITY COMPANY CODES.

4. ALL PERMITS REQUIRED BY STATE OR LOCAL ORDINANCES SHALL BE OBTAINED, AND AFTER COMPLETION OF THE WORK, A CERTIFICATE OF FINAL INSPECTION AND APPROVAL FROM THE ELECTRICAL INSPECTOR SHALL BE FURNISHED TO THE OWNER. ALL PERMITS FOR INSTALLATION, INSPECTIONS, CONNECTIONS, ETC., SHALL BE TAKEN OUT AND PAID FOR BY THE CONTRACTOR AS PART OF THE WORK UNDER THIS SECTION.

5. ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED TO BE FREE FROM DEFECTS. ANY PART OF THE SYSTEM CONSIDERED DEFECTIVE BY THE ENGINEER WITHIN THE GUARANTEE PERIOD SHALL BE IMMEDIATELY REPLACED OR CORRECTED TO THE ENGINEER'S SATISFACTION WITHOUT FURTHER EXPENSE TO THE OWNER.

6. THE PROJECTS GROUNDING SYSTEM SHALL CONSIST OF A GROUNDING ELECTRODE SYSTEM IN ACCORDANCE WITH NEC SPECIFICATIONS, BONDED TO A MAIN GROUND BUS INTERCONNECTING ALL POWER DISTRIBUTION EQUIPMENT. GROUND ROD SECTIONS SHALL BE COUPLED AND DRIVEN TO ESTABLISH A MAXIMUM RESISTANCE TO GROUND OF 5 OHMS THROUGHOUT THE GROUNDING SYSTEM.

7. DUCT SEAL IS REQUIRED AT ALL CONDUIT CONNECTIONS IN AND OUT OF THE EQUIPMENT CABLE TERMINAL BOXES. ADDITIONALLY, DUCT SEAL IS REQUIRED AT ALL CONDUIT CONNECTIONS IN AND OUT OF THE PUMP CONTROL PANEL.

8. UNLESS OTHERWISE INDICATED, ELECTRICAL EQUIPMENT ENCLOSURES SHALL BE NEMA 12/3R ALUMINUM OR 316 STAINLESS STEEL; CONDUCTORS SHALL BE STRANDED AWG TYPE XHHW-2 COPPER; CONDUCTORS WITHIN THE DEMARCATION BOXES SHALL BE TYPE XHHW-2 TINNED COPPER. UNDERGROUND CONDUIT SHALL BE SCH 40 PVC; EXPOSED CONDUIT SHALL BE SCH 80 PVC; CONDUIT INTO THE WET WELL SHALL BE SCHEDULE 80 PVC; CONDUIT FROM DEMARCATION TERMINAL BOXES SHALL BE PVC COATED RIGID ALUMINUM. SUPPORT CHANNEL AND MOUNTING STRUT SHALL BE MINIMUM 1.5" x 1.5" ALUMINUM. ALL MOUNTING HARDWARE SHALL BE 316 STAINLESS STEEL, INCLUDING BUT NOT LIMITED TO NUTS, BOLTS, WASHERS, BRACKETS, ETC. NUTS AND BOLTS WITH ANTI-SEIZE COMPOUND SHALL BE USED. SCREWS ARE NOT ALLOWED. ALL MATERIALS AND INSTALLATION SHALL BE SUITABLE FOR "CORROSIVE ATMOSPHERES".

9. IN ACCORDANCE WITH THE LATEST CCUA STANDARDS, THE NEW PUMP CONTROL PANEL AND DEMARCATION BOX SHALL BE FURNISHED BY A CCUA APPROVED LIFT STATION CONTROL PANEL MANUFACTURER.

10. THE LIFT STATION PUMP CONTROL PANEL SHALL BE PER THE CCUA STANDARDS WITH THE LATEST UPDATES INCLUDING THE FOLLOWING:

    - SCHWEITZER SEL 2411 P STATION CONTROLLER
    - ASHCROFT PRESSURE TRANSMITTER
    - WESTEC CELLULAR ALARM DIALER EQUIPMENT KIT

11. CONTROL PANEL GENERATOR RECEPTACLE SHALL BE CCUA STANDARD COMPATIBLE WITH EXISTING CCUA PORTABLE GENERATOR CONNECTIONS. THE RECEPTACLE AMP RATING SHALL BE BASED ON THE CONTROL PANEL "GCB" RATING:

    - 100A CROUSE-HINDS AR1042-S22 WITH AJA1 ANGLE ADAPTER
    - 200A CROUSE-HINDS AR2042-S22 WITH AJA1 ANGLE ADAPTER

12. PROVIDE NEW ELECTRICAL SERVICE IN ACCORDANCE WITH ALL CLAY ELECTRIC CO-OPERATIVE (CEC) REQUIREMENTS. CONTRACTOR SHALL OBTAIN FAULT CURRENT LETTER FROM CEC FOR THE ELECTRICAL SERVICE. ALL ELECTRICAL EQUIPMENT RATINGS SHALL MEET OR EXCEED THE MAXIMUM AVAILABLE FAULT CURRENT INCLUDING AN ADDITIONAL MOTOR CONTRIBUTION OF 10 X TOTAL MOTOR FULL LOAD AMPS (MINIMUM 18 KAIC).

13. ELECTRICAL SERVICE RATING INCLUDING SERVICE ENTRANCE MAIN BREAKER AND CONTROL PANEL MAIN CIRCUIT BREAKER SHALL BE MINIMUM 100A. WHERE THE SERVICE LOAD AMPACITY EXCEEDS 100A THE ELECTRICAL SERVICE RATING SHALL BE MINIMUM 200A. WHERE THE SERVICE LOAD AMPACITY EXCEEDS 200A THE DESIGN ENGINEERS SHALL OBTAIN APPROVAL OF THE PROPOSED DESIGN FROM CCUA.

14. THE STANDBY GENERATOR SHALL BE CCUA STANDARD TRADEWINDS CUSTOM LIFT STATION PACKAGE WITH MARINE GRADE ALUMINUM WEATHERPROOF HOUSING, DOUBLE WALL BASE FUEL TANK, INTEGRAL INTERIOR MOUNTED AUTOMATIC TRANSFER SWITCH WITH NORMAL SOURCE SPD, AND INTEGRAL EXTERIOR MOUNTED LINE AND LOAD CIRCUIT BREAKERS.

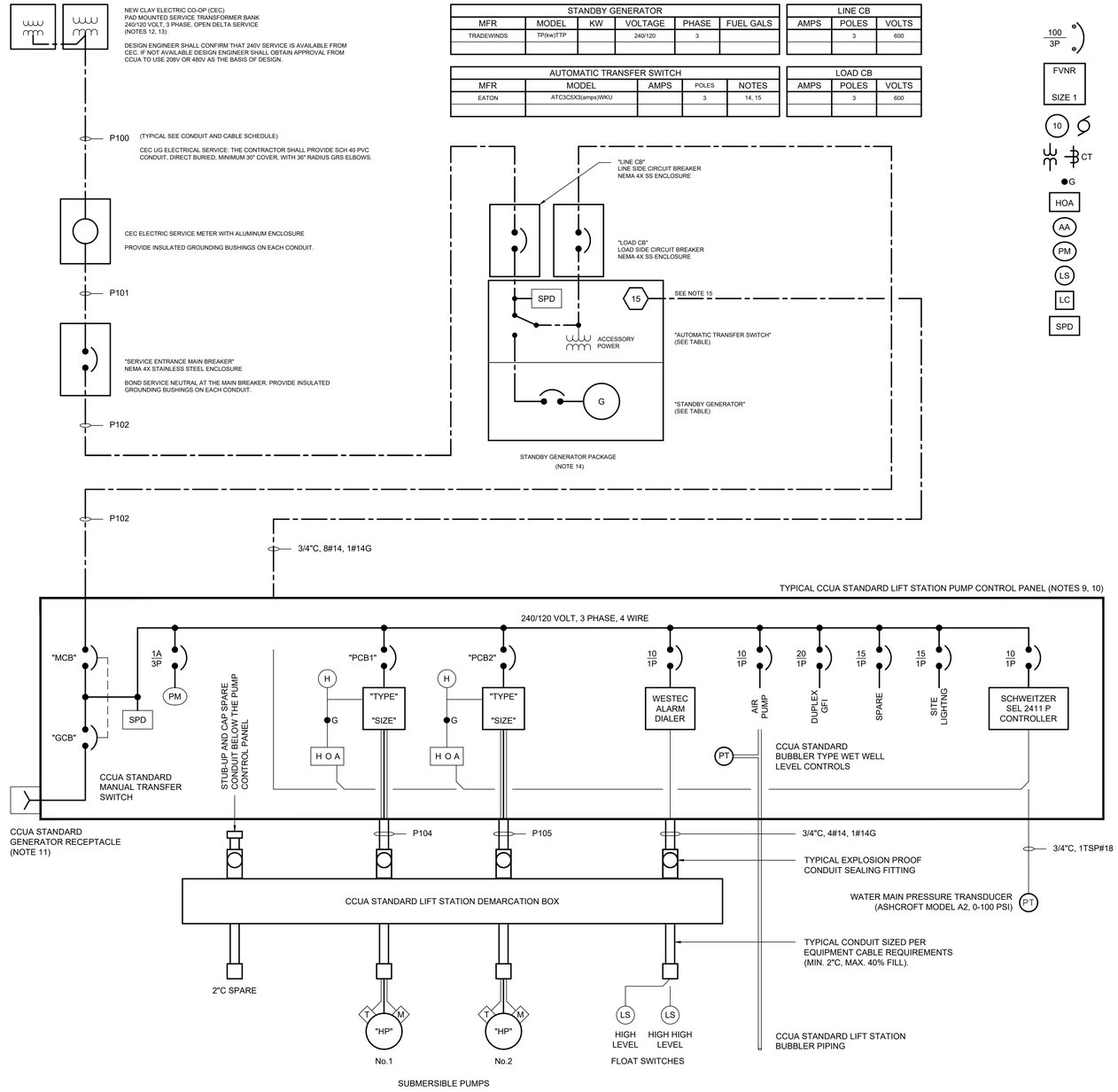
15. STANDBY GENERATOR AND ATS SHALL BE EQUIPPED WITH DRY CONTACTS FOR REMOTE MONITORING:

    - GENERATOR RUNNING
    - GENERATOR FAULT
    - ATS IN NORMAL POSITION
    - ATS IN EMERGENCY POSITION
    - ATS NORMAL SOURCE AVAILABLE
    - ATS EMERGENCY SOURCE AVAIALABLE

ELECTRICAL LOAD CALCULATIONS

LIFT STATION PUMP NO.1		__ HP	__	AMPS
LIFT STATION PUMP NO.2		__ HP	__	AMPS
TOTAL MOTOR LOAD			__	AMPS
LIGHTING AND CONTROLS	3	KVA	25	AMPS
TOTAL CONNECTED LOAD			__	AMPS
TOTAL NON-COINCIDENTAL LOAD			0	AMPS
PEAK DEMAND AMPS			__	AMPS
0.25 X LARGEST MOTOR			__	AMPS
MIN SERVICE AMPACITY 3 PHASE			__	AMPS
MIN MAIN BREAKER SIZE (NOTE 13)			__	AMPS

ELECTRICAL SERVICE:
AMP, 240/120 VOLT, 3 PHASE OPEN DELTA



STANDBY GENERATOR					
MFR	MODEL	KW	VOLTAGE	PHASE	FUEL GALS
TRADEWINDS	TP(kw)TTP		240/120	3	

LINE CB		
AMPS	POLES	VOLTS
	3	600

AUTOMATIC TRANSFER SWITCH				
MFR	MODEL	AMPS	POLES	NOTES
EATON	ATC3(C5X3(amps)WKU		3	14, 15

LOAD CB		
AMPS	POLES	VOLTS
	3	600

ELECTRICAL LEGEND

- 100 / 3P — CIRCUIT BREAKER (TRIP RATING/POLES) "MCB" MAIN BREAKER, "ECB" EMERGENCY BREAKER "PCB" PUMP MOTOR BREAKER
- FVNR / SIZE 1 — MAGNETIC TYPE COMBINATION MOTOR STARTER, NEMA SIZE AS INDICATED ("FV" FULL VOLTAGE, "RV" REDUCED VOLTAGE, "NR" NON-REVERSING, "SS" SOLID STATE SOFT START, "VFD" VARIABLE FREQUENCY DRIVE)
- 10 — MOTOR (NUMERAL INDICATES HORSEPOWER)
- CT — TRANSFORMER ("CT" CURRENT TRANSFORMER; "CPT" CONTROL POWER TRANSFORMER)
- G — GREEN "RUNNING" PILOT LIGHT (LED TYPE)
- HOA — HAND OFF AUTO SELECTOR SWITCH
- AA — AUTOMATIC ALTERNATOR
- PM — THREE PHASE POWER MONITOR
- LS — LEVEL SWITCH
- LC — LEVEL CONTROLLER
- SPD — SURGE PROTECTION DEVICE

CONDUIT AND CABLE SCHEDULE				
CONDUIT		CONDUCTORS		
NUMBER	SIZE	PHASE	NEUTRAL	GROUND
P100				---
P101				
P102				
P103			---	
P104			---	

SERVICE ENTRANCE MAIN BREAKER			
AMPS	POLES	VOLTS	KAIC
	3	600	NOTE 13

PUMP CONTROL PANEL												
DEVICES			PUMPS					PUMP BREAKERS			STARTERS	
TAG	AMPS	POLES	NUMBER	HP	VOLTS	PHASE	FLA	TAG	AMPS	POLES	TYPE	SIZE
MCB		3	1		230	3		PCB1		3	FVNR	
GCB		3	2		230	3		PCB2		3	FVNR	

SUBMERSIBLE PUMP STATION ELECTRICAL
SINGLE LINE DIAGRAM
240V 3PH FOR 20HP OR LESS

07-01-2025
08-01-2025

NO	DATE	BY	REVISION DESCRIPTION

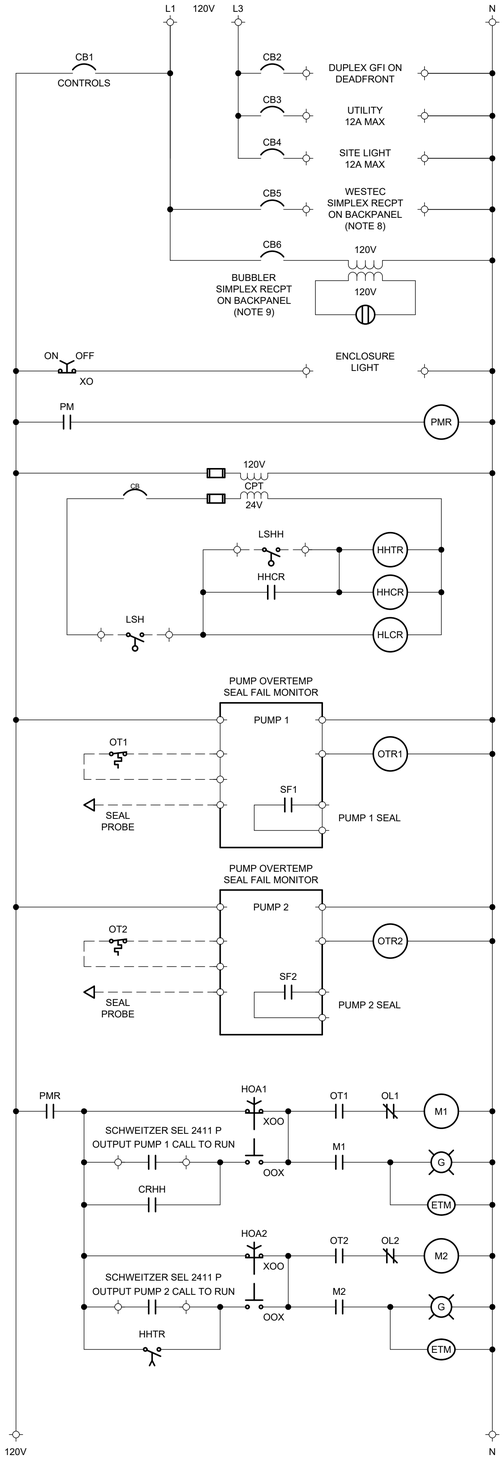
DESG ABB
DRWN JMC
CHKD XXX
APRV XXX
DATE 02/22

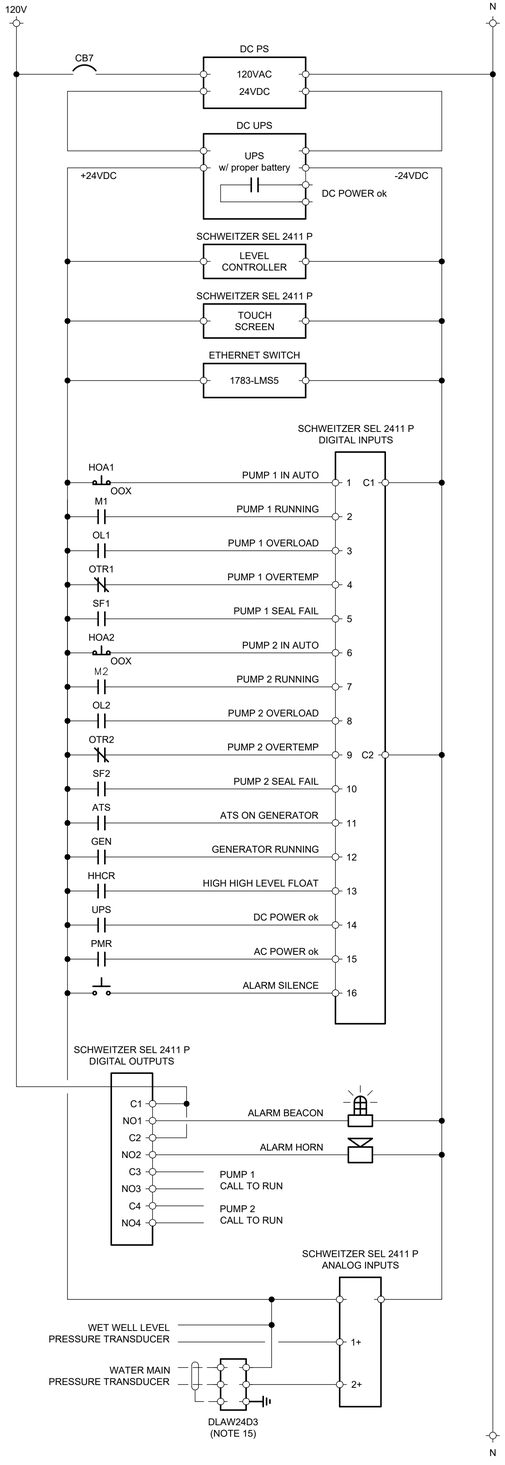
PROJECT:
240 VOLT 3PH FOR 20HP OR LESS
SUBMERSIBLE PUMP STATION
ELECTRICAL SCHEMATIC AND DETAILS
CLAY COUNTY, ORANGE PARK, FL

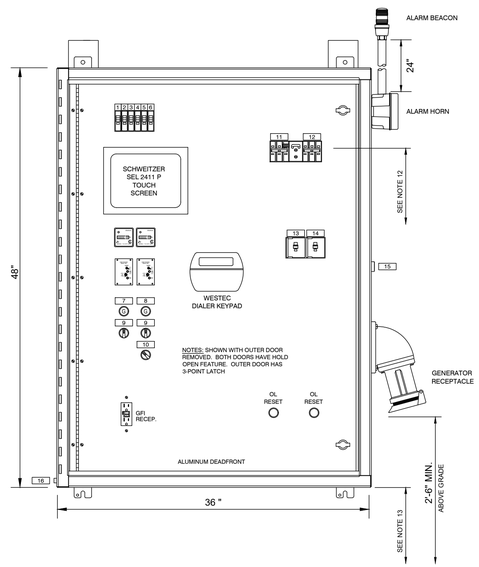
CLAY COUNTY
UTILITY AUTHORITY
3176 OLD JENNINGS ROAD
MIDDLEBURG, FLORIDA 32068-3907
TELEPHONE: (904) 272-5999

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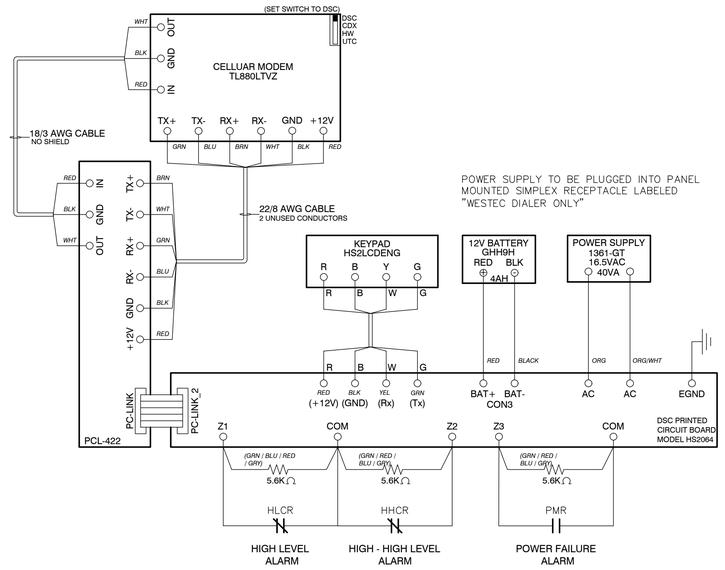




NAMEPLATE SCHEDULE			
1	CONTROL	9	HAND OFF AUTO
2	GFI RECEPTACLE	10	PANEL LIGHT / OFF-ON
3	UTILITY	11	MAIN
4	SITE LIGHT	12	EMERGENCY
5	WESTEC	13	PUMP 1
6	AIR PUMP	14	PUMP 2
7	PUMP 1 RUNNING	15	HORN SILENCE
8	PUMP 2 RUNNING	16	BUBBLER OUTLET

NOTES:

1. THE PUMP CONTROL PANEL SHALL BE A CCUA STANDARD LIFT STATION PUMP CONTROL PANEL WITH THE LATEST UPDATES INCLUDING THE FOLLOWING:
   - SCHWEITZER SEL 2411 P STATION CONTROLLER
   - ASHCROFT PRESSURE TRANSMITTER
   - WESTEC CELLULAR ALARM DIALER EQUIPMENT KIT
2. THE PUMP CONTROL PANEL, DEMARCATION BOXES AND MOTOR CONTROL CETNER SHALL BE FURNISHED BY A CCUA APPROVED LIFT STATION PUMP CONTROL PANEL MANUFACTURER.
3. THE PUMP CONTROL PANEL ENCLOSURE SHALL BE NEMA 4X TYPE 304 STAINLESS STEEL DOOR-IN-DOOR ENCLOSURE WITH 3-POINT PADLOCKABLE HANDLE. INNER AND OUTER DOORS SHALL INCLUDE HOLD OPEN KIT. INNER DOOR SHALL BE FABRICATED FROM 0.125 ALUMINUM. BACKPANEL SHALL HAVE BAKED ON WHITE ENAMEL FINISH.
4. MOTOR STARTERS SHALL BE A MINIMUM OF 8" ABOVE BOTTOM OF CONTROL PANEL WITH NO OBSTRUCTION TO WIRING.
5. GROUNDING BUSS SHALL BE EASILY ACCESSIBLE.
6. REDUCED VOLTAGE, NON REVERSING SOLID STATE MOTOR STARTERS (SOFT START) SHALL BE USED ON 208V OR 240V ELECTRIC SERVICE FOR PUMP MOTORS GREATER THAN 20 HP, AND ON 480V ELECTRIC SERVICE FOR PUMP MOTORS GREATER THAN 40 HP.
7. ALL CIRCUIT BREAKERS AND SWITCHES SHALL BE SQUARE D OR EATON ONLY. VERIFY WITH UTILITY AT TIME OF DESIGN.
8. BACKPANEL MOUNTED SIMPLEX RECEPTACLE TO BE USED FOR THE WESTEC POWER SUPPLY SHALL BE LABELED "WESTEC DIALER ONLY".
9. BACKPANEL MOUNTED SIMPLEX RECEPTACLE TO BE USED FOR THE BUBBLER SYSTEM AIR PUMP SHALL BE LABELED "AIR PUMP ONLY".
10. FINAL APPROVED "AS BUILT" SCHEMATIC DRAWINGS SHALL BE LAMINATED TO THE INSIDE OF THE OUTER DOOR.
11. ALL EXTERIOR FASTENERS, ANCHORS, AND HARDWARE SHALL BE 316 S.S.
12. MOUNT ENCLOSURE SO THAT HEIGHT OF CIRCUIT BREAKER HANDLE IS 68" MAXIMUM FROM GROUND.
13. MOUNT ENCLOSURE SO THAT THE BOTTOM OF THE CONTROL PANEL IS ABOVE THE 100 YR. FLOOD ELEVATION.
14. PUMP VOLTAGE AND CONTROL PANEL VOLTAGE SHALL MATCH THE SERVICE VOLTAGE.
15. PROVIDE SIGNAL LINE SURGE PROTECTOR FOR THE WATER MAIN PRESSURE TRANSDUCER ANALOG INPUT SIGNAL.



WESTEC ALARM DIALER DIAGRAM

SUBMERSIBLE PUMP STATION PUMP CONTROL PANEL SCHEMATIC

07-01-2025
08-01-2025

NO	DATE	BY	REVISION DESCRIPTION

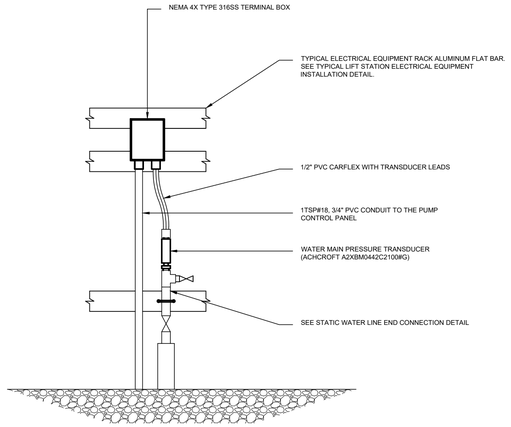
DESG	ABB	
DRWN	JMC	
CHKD	XXX	
APPV	XXX	
DATE	02/22	

PROJECT:
SUBMERSIBLE PUMP STATION
PUMP CONTROL PANEL SCHEMATIC
CLAY COUNTY, ORANGE PARK, FL

CLAY COUNTY
UTILITY AUTHORITY
3176 OLD JENNINGS ROAD
MIDDLEBURG, FLORIDA 32068-3907
TELEPHONE: (904) 272-5999

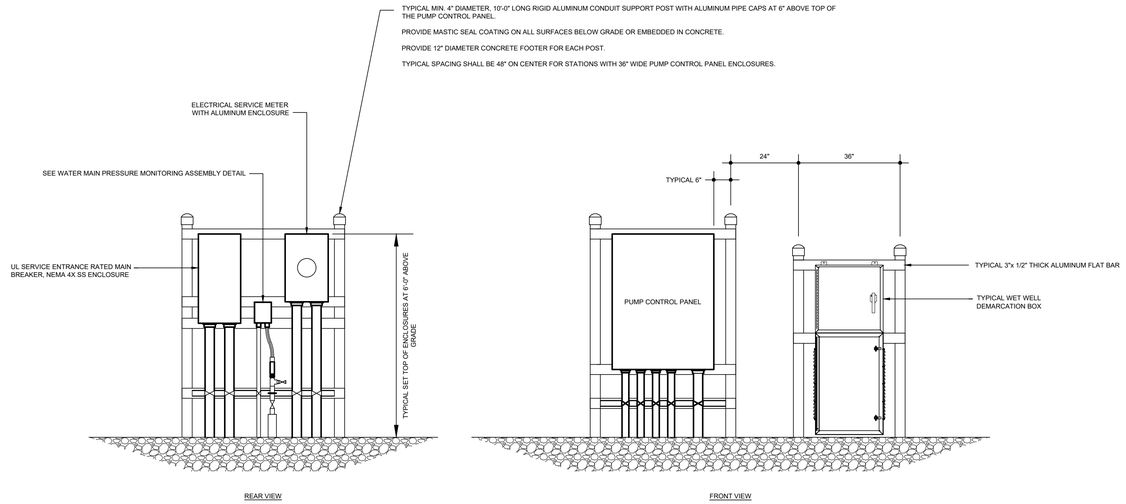
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TYPICAL WATER MAIN PRESSURE MONITORING ASSEMBLY DETAIL

NOT TO SCALE



TYPICAL LIFT STATION ELECTRICAL EQUIPMENT INSTALLATION DETAIL

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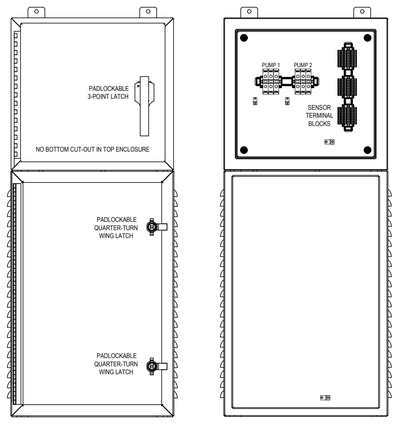
SUBMERSIBLE PUMP STATION ELECTRICAL DETAILS

TOP SECTION:

- NEMA 4X ENCLOSURE 24"H, 24"W, 12"D
- MINIMUM 0.08 ALUMINUM OR 316SS
- GROUNDING STUDS ON BODY & DOOR
- SUBPANEL

BOTTOM SECTION:

- NEMA 3R ENCLOSURE 42"H, 24"W, 12"D
- MINIMUM 0.125 ALUMINUM OR 316SS
- GROUNDING STUDS ON BODY & DOOR
- TOP CUTOUT 9.5" x 21.5"
- BOTTOM CUTOUT 9.5" x 21.5"
- 4" WIDE, 1" HIGH LOUVERS ON BACK AND BOTH SIDES



TERMINAL BLOCKS:

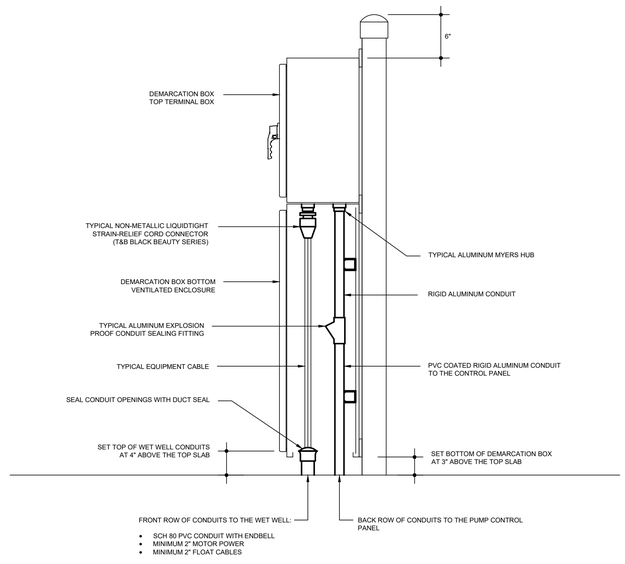
- PUMP POWER TERMINAL BLOCKS: SQUARE-D 9080LBA
- SENSOR TERMINAL BLOCKS: ALLEN-BRADLEY 1492-J4
- GROUND LUGS: PANDUIT LAMA2-14-Q

GENERAL NOTES:

- SEAMS TO BE CONTINUOUSLY WELDED AND GROUND SMOOTH
- SEAMLESS FOAM-IN-PLACE GASKETS
- ROLLED LIP AROUND THREE SIDES OF DOORS
- REMOVE DOORS BY PULLING STAINLESS STEEL CONTINUOUS HINGE PIN
- PROVIDE COLLAR STUDS ON INSIDE REAR FOR MOUNTING OPTIONAL PANELS
- STAINLESS STEEL HARDWARE
- BONDING PROVISION ON DOORS; GROUNDING STUDS ON BODIES

TYPICAL WET WELL DEMARCATION BOX DETAIL

NOT TO SCALE



TYPICAL WET WELL DEMARCATION BOX CONDUIT DETAIL

NOT TO SCALE

07–01–2025

NO	DATE	BY	REVISION DESCRIPTION

DESG	ABB
DRWN	JMC
CHKD	XXX
APRV	XXX
DATE	02/22

PROJECT:

SUBMERSIBLE PUMP STATION ELECTRICAL DETAILS

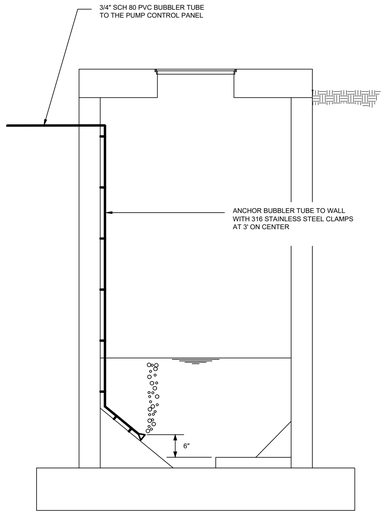
CLAY COUNTY, ORANGE PARK, FL

CLAY COUNTY UTILITY AUTHORITY
3176 OLD JENNINGS ROAD
MIDDLEBURG, FLORIDA 32068-3907
TELEPHONE: (904) 272-5999

SHEET NO.

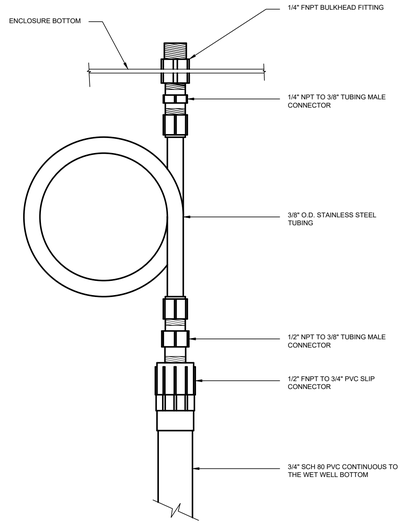
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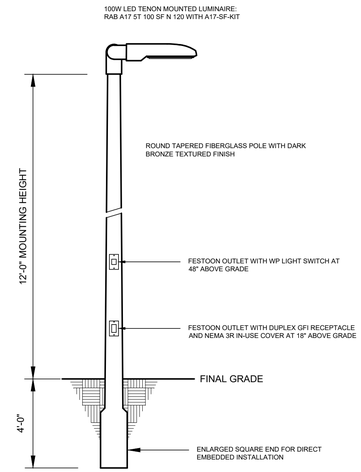
WET WELL BUBBLER TUBE DETAIL

NOT TO SCALE



BUBBLER TUBE CONNECTION DETAIL

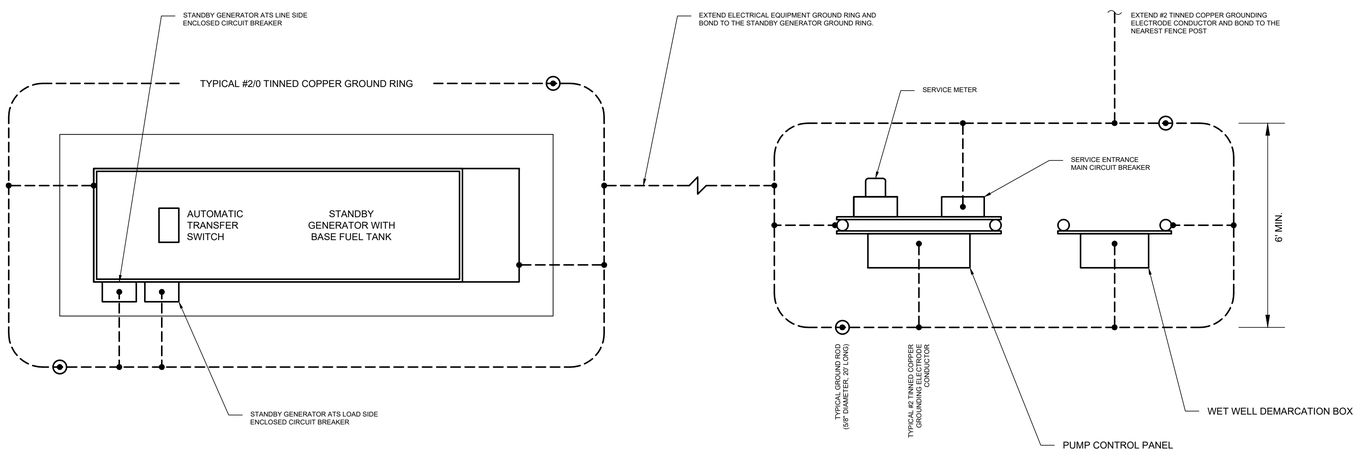
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THE INSIDE DIAMETER OF THE EXCAVATION SHALL EXCEED THE OUTSIDE DIAMETER OF THE POLE BY A MINIMUM OF 6" AND SHALL BE BACK FILLED WITH CONCRETE.

TYPICAL SITE LIGHT POLE DETAIL

NOT TO SCALE



TYPICAL LIFT STATION GROUNDING PLAN

NOT TO SCALE

GROUNDING NOTES:

1. GROUNDING ELECTRODE SYSTEM: PROVIDE GROUND RINGS PER NEC 250.52, ENCIRCLING THE ELECTRICAL SERVICE EQUIPMENT,AND ENCIRCLING THE STANDBY GENERATOR, CONSISTING OF CONTINUOUS #2/0 TINNED COPPER CONDUCTOR AT 30" BELOW GRADE.
2. PROVIDE GROUND RODS (MINIMUM 3/4" DIAMETER, 20' LONG COPPER CLAD STEEL) BONDED TO EACH END OF EACH GROUND RING, AT LEAST 10' APART. GROUND ROD SECTIONS SHALL BE COUPLED AND DRIVEN TO ESTABLISH A MAXIMUM RESISTANCE TO GROUND OF 5 OHMS THROUGHOUT THE GROUNDING ELECTRODE SYSTEM.
3. GROUNDING ELECTRODE CONDUCTOR: PROVIDE MINIMUM #2 TINNED COPPER GROUNDING ELECTRODE CONDUCTOR FROM THE GROUND RINGS TO THE SERVICE ENTRANCE MAIN BREAKER, PUMP CONTROL PANEL, DEMARCATION BOX, STANDBY GENERATOR CIRCUIT BREAKERS, ELECTRICAL EQUIPMENT RACK END POSTS, AND FENCE. USE GROUND CLAMPS RATED FOR DIRECT BURIAL FOR CONNECTIONS TO END POSTS AND FENCE POSTS.
4. INSTALL EACH GROUNDING ELECTRODE CONDUCTOR IN 3/4" SCH 80 PVC CONDUIT SLEEVE FOR MECHANICAL PROTECTION.

SUBMERSIBLE PUMP STATION ELECTRICAL DETAILS

07-01-2025

NO	DATE	BY	REVISION DESCRIPTION

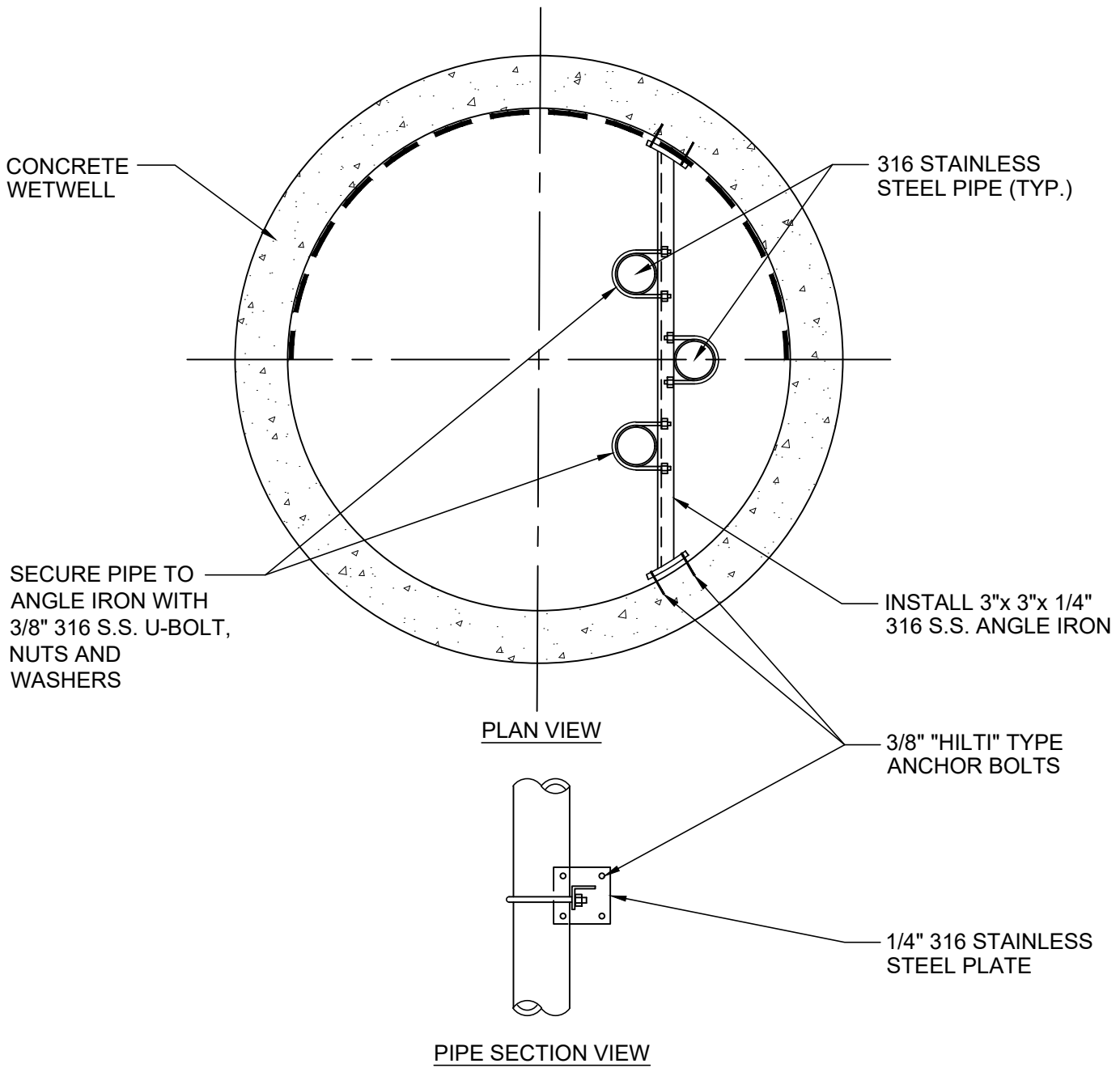
DESIG ABB
DRWN JMC
CHKD XXX
APRV XXX
DATE 02/22

PROJECT:
SUBMERSIBLE PUMP STATION
ELECTRICAL DETAILS
CLAY COUNTY, ORANGE PARK, FL

CLAY COUNTY
UTILITY AUTHORITY
3176 OLD JENNINGS ROAD
MIDDLEBURG, FLORIDA 32068-3907
TELEPHONE: (904) 272-5999

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PIPE ATTACHMENT TO WALL — A

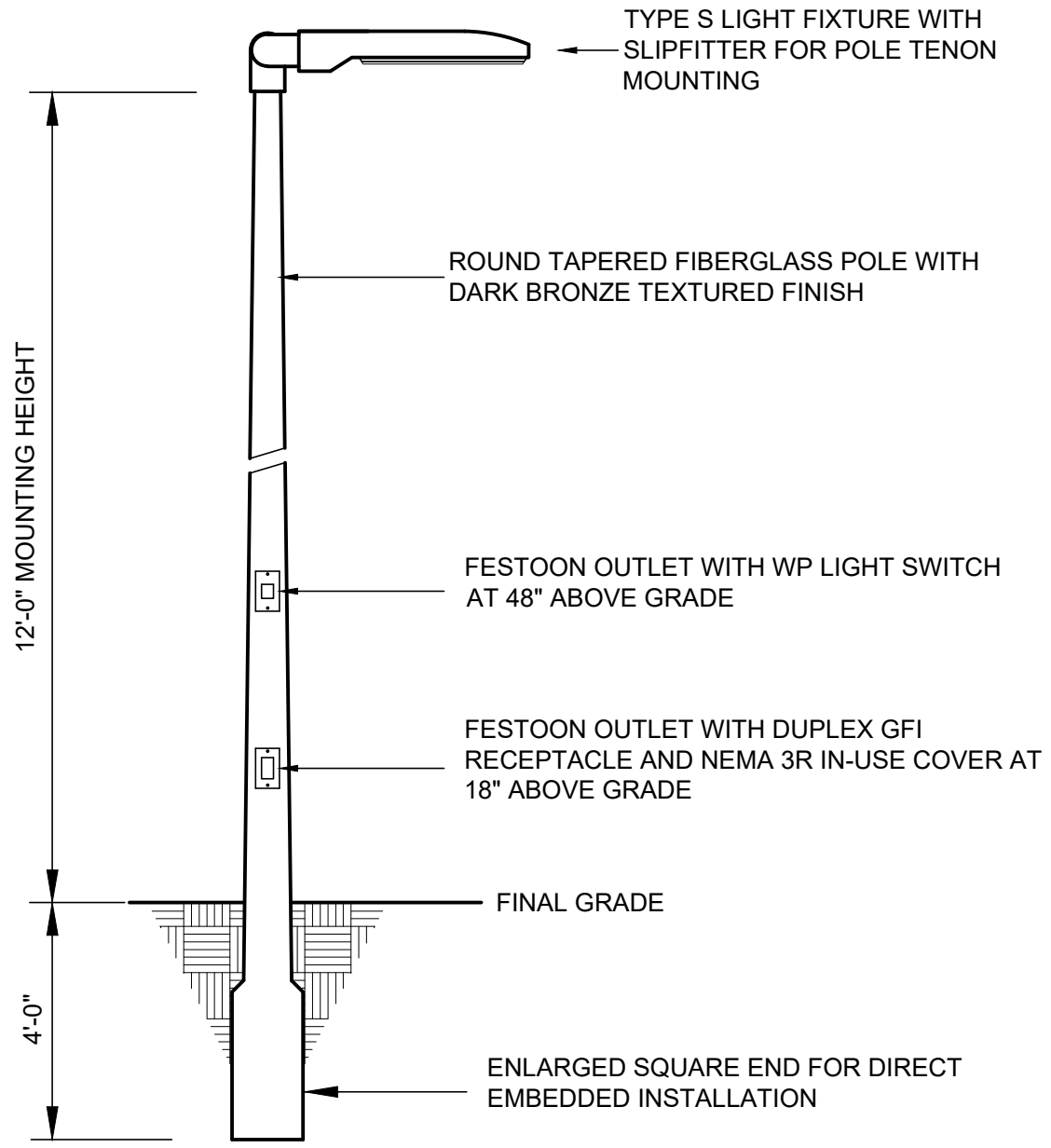
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CLAY COUNTY
UTILITY AUTHORITY
3176 OLD JENNINGS ROAD
MIDDLEBURG, FLORIDA 32068-3907

TELEPHONE: (904) 272-5999

PUMP STATION
DETAILS

DESG	RHD
DRWN	RHD
CHKD	XXX
APRV	XXX
DATE	06/22



THE INSIDE DIAMETER OF THE EXCAVATION SHALL EXCEED THE OUTSIDE DIAMETER OF THE POLE BY A MINIMUM OF 6" AND SHALL BE BACK FILLED WITH CONCRETE.

SITE LIGHT (STANDARD) — B

NOT TO SCALE

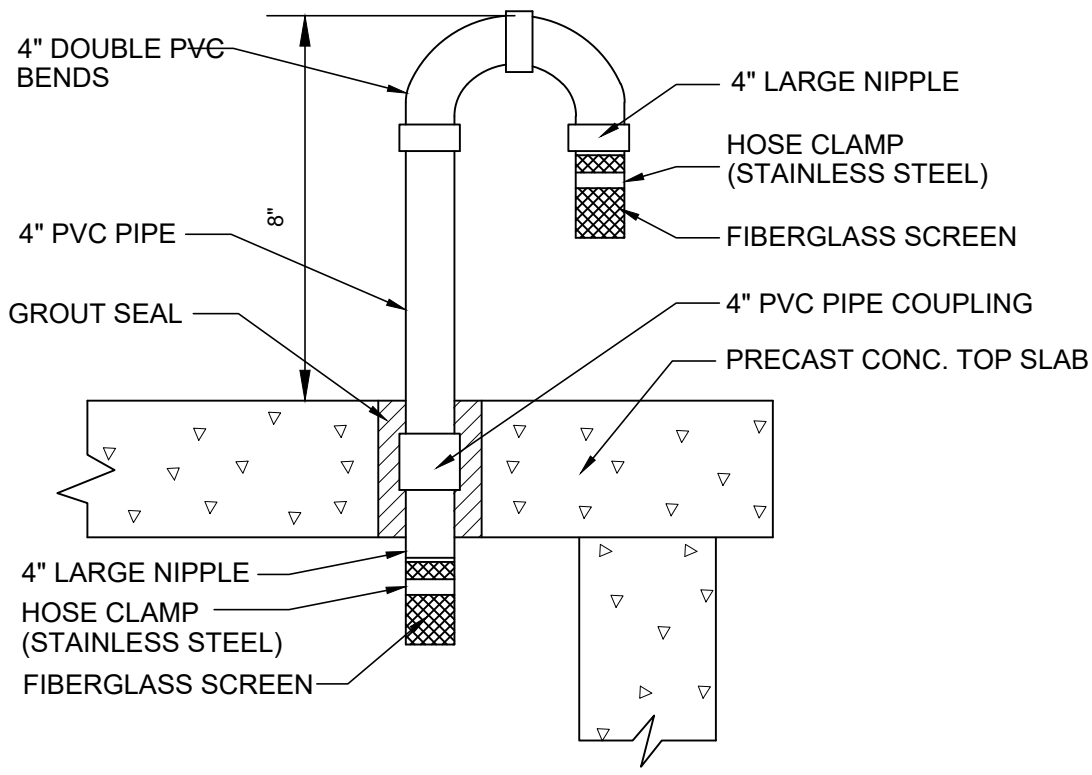
NOTES:
1. ALTERNATE LIGHTING FIXTURE SUBMITTALS SHALL INCLUDE PHOTOMETRIC CALCULATIONS FOR EACH AREA FOR WITCH THE ALTERNATE FIXTURE IS PROPOSED.
2. COMPLETE LIGHT POLE ASSEMBLY WITH FIXTURES AND BRACKET ARMS SHALL MEET THE APPLICABLE WIND LOAD RATING.

LIGHT FIXTURE SCHEDULE				
TYPE	MANUFACTURER & CATALOG NUMBER	LAMPS	VOLTS	WATTS
S	RAB A17 5T 100 SF N 120 WITH A17-SF-KIT	LED	120	100

CLAY COUNTY UTILITY AUTHORITY
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PUMP STATION DETAILS

DESG	RHD
DRWN	RHD
CHKD	XXX
APRV	XXX
DATE	06/22



VENT PIPE (STANDARD)

D

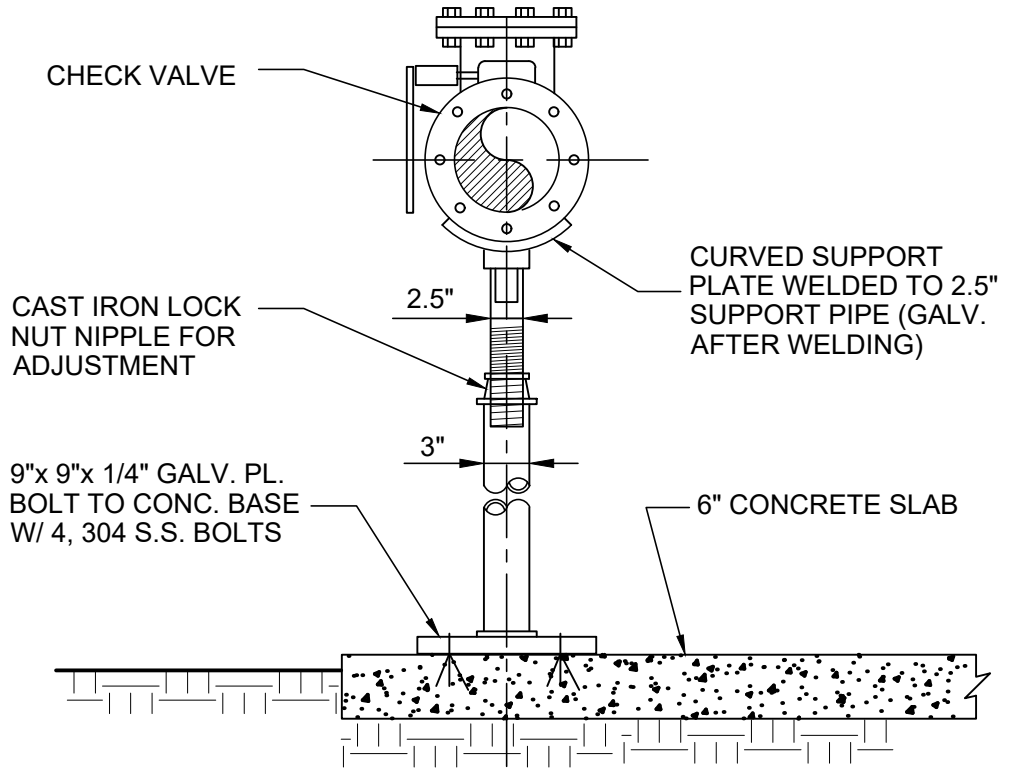
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PIPE SUPPORT (STANDARD) C

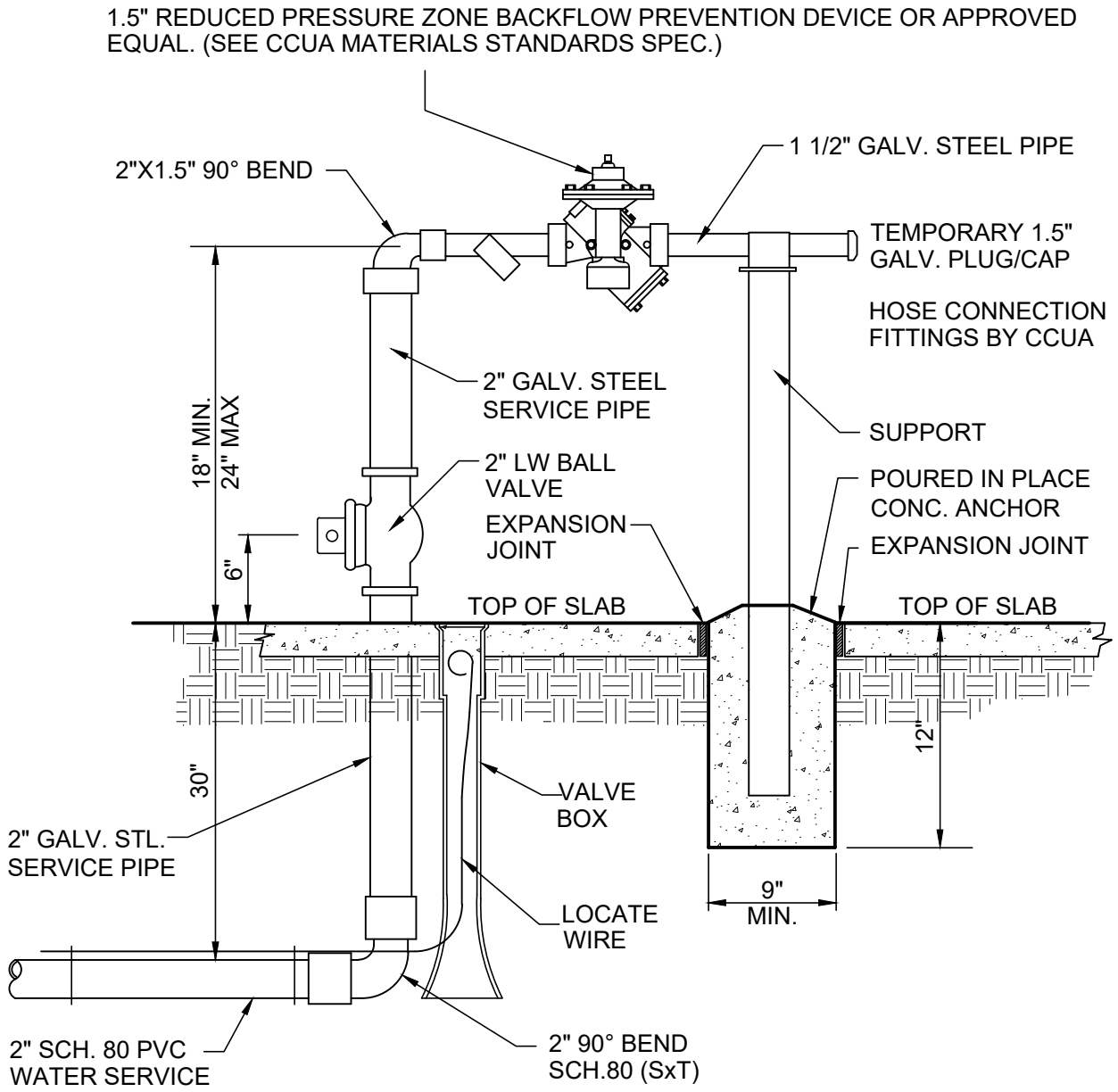
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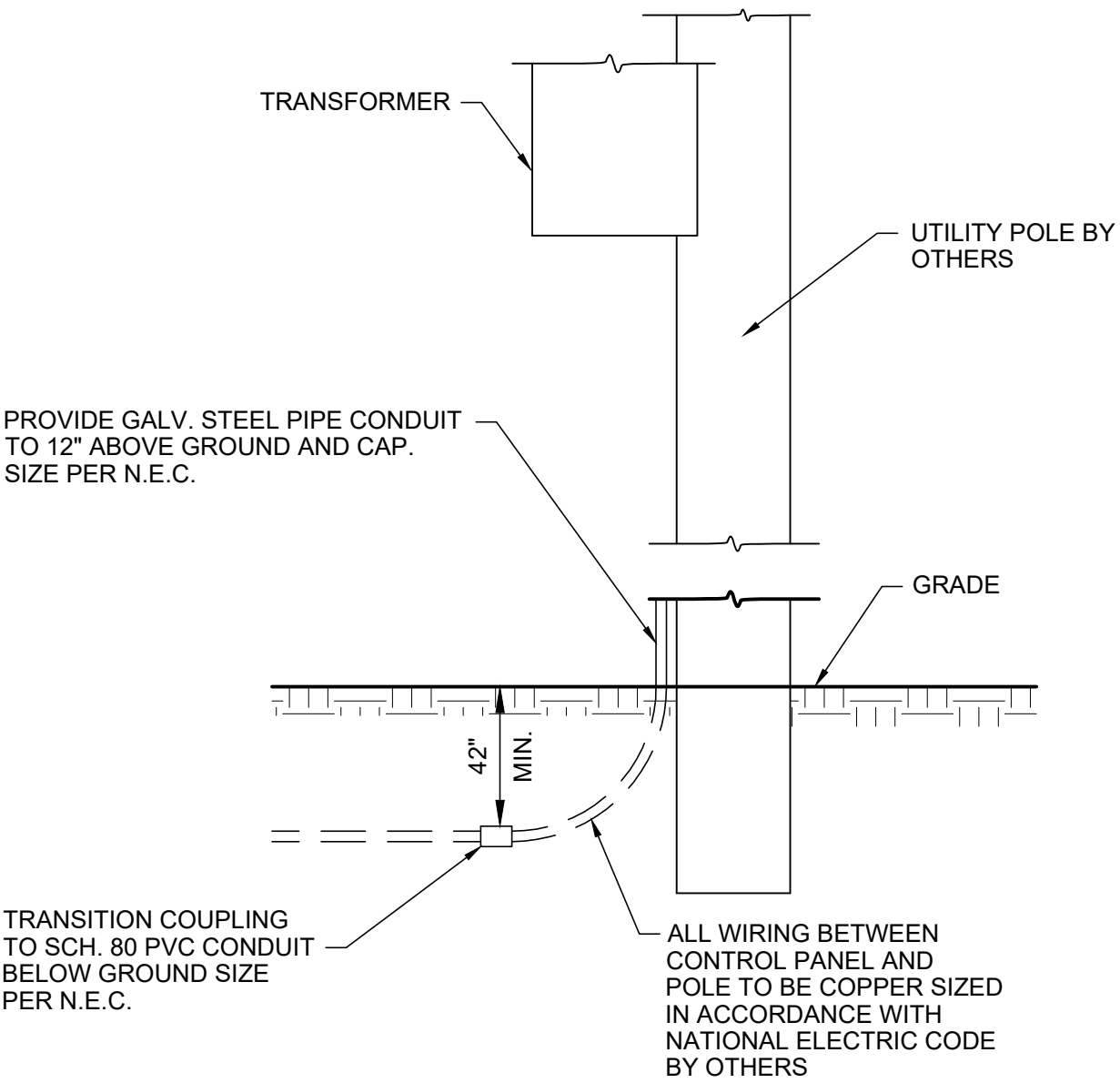
WATER SERVICE (STANDARD) E

NOT TO SCALE

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NOTE:
TO BE USED ONLY WHEN UNDERGROUND SERVICE IS NOT AVAILABLE.

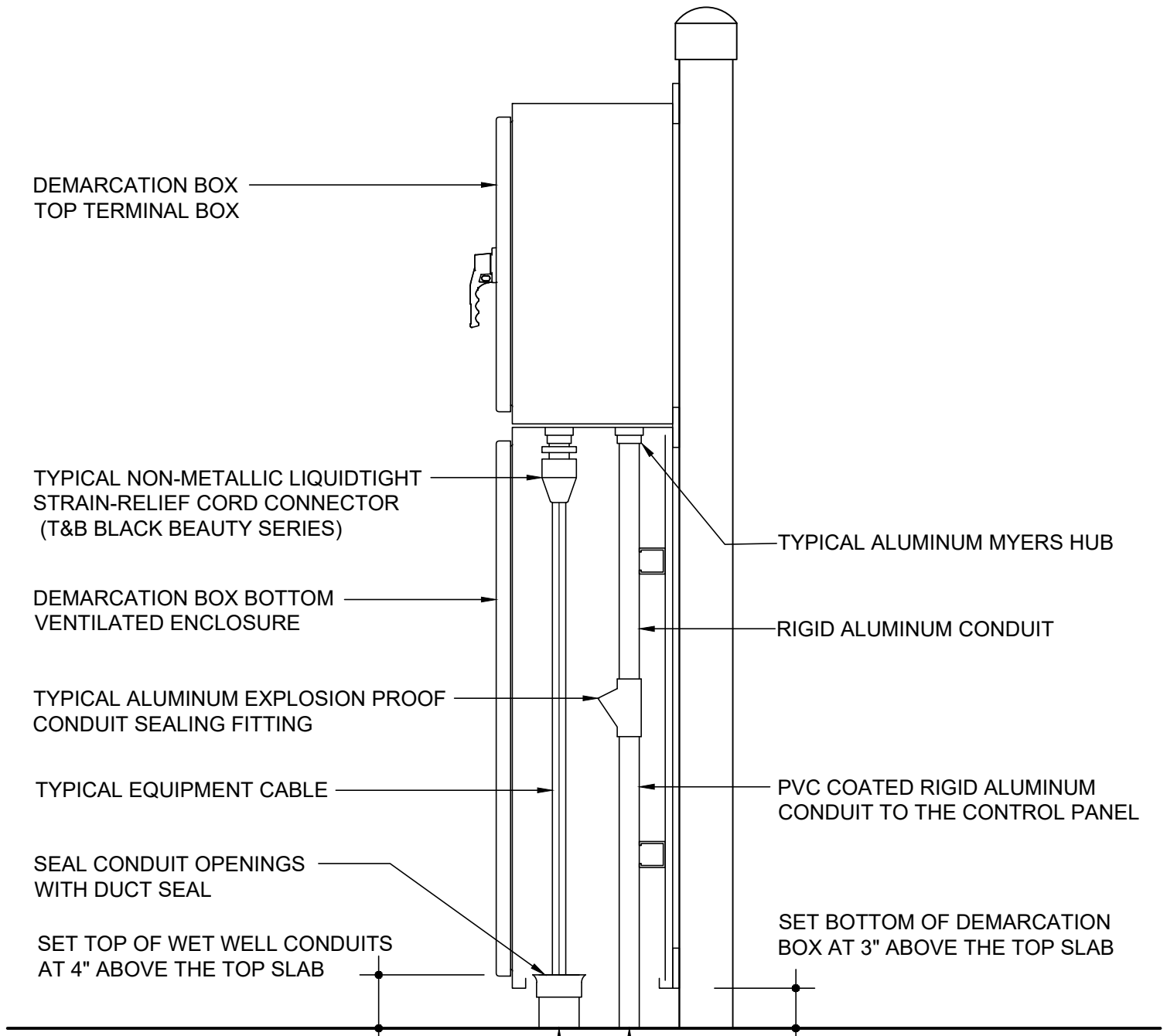
POWER RISER (STANDARD) F

NOT TO SCALE

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- SCH 80 PVC CONDUIT WITH ENDBELL
- MINIMUM 3" MOTOR POWER
- MINIMUM 2" FLOAT CABLES

WET WELL DEMARCATION BOX CONDUIT DETAIL G

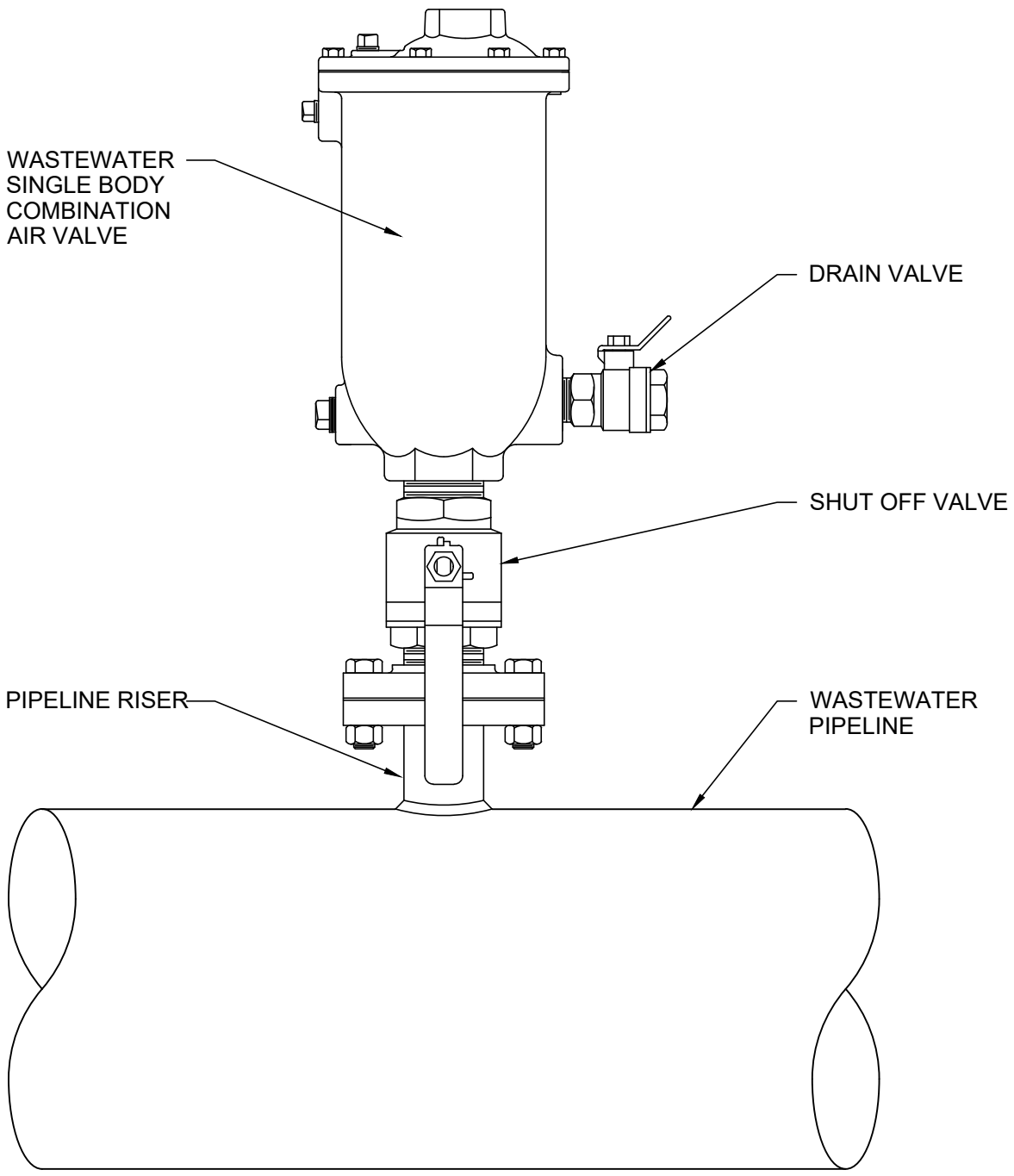
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DATE	09/24



COMBINATION AIR RELEASE VALVE H

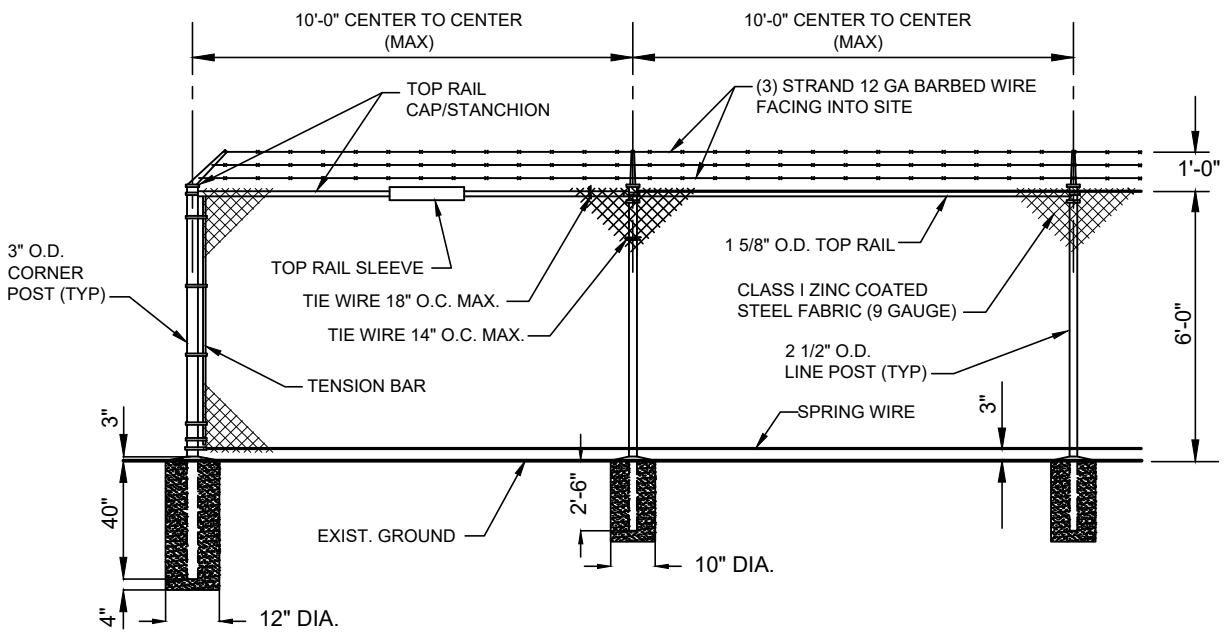
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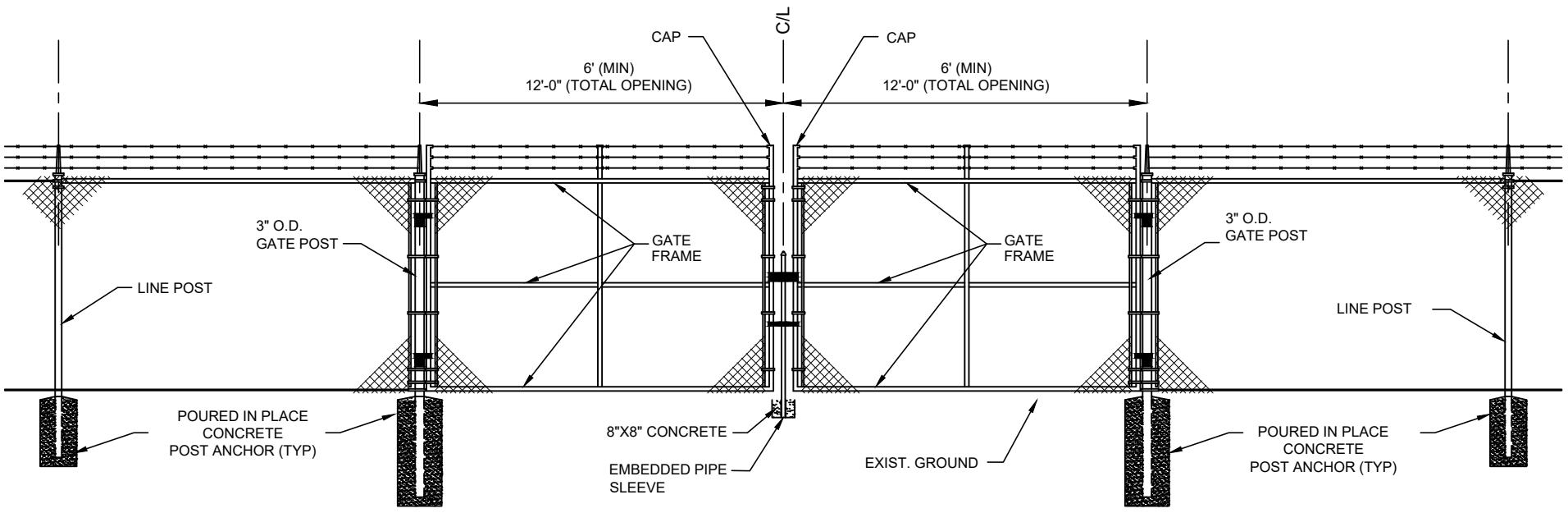
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CHAIN LINK FENCE & CORNER POST — A

NOT TO SCALE



GATE — B

NOT TO SCALE

NOTE:
1. PROVIDE GREEN VINYL PRIVACY SLATS

2. TO MAKE A COMPLETE INSTALLATION, FENCING SHALL BE FURNISHED AND INSTALLED. FENCING SHALL COMPLY WITH ASTM A392-68T LATEST SPECIFICATIONS FOR ZINC COATED STEEL CHAIN LINK FENCE FABRIC AND AS DETAILED ON THE DRAWING. FITTINGS SHALL BE MALLEABLE IRON OR PRESSED STEEL FORGINGS. ALL FERROUS MATERIALS SHALL BE THOROUGHLY GALVANIZED BY THE HOT-DIP METHOD.

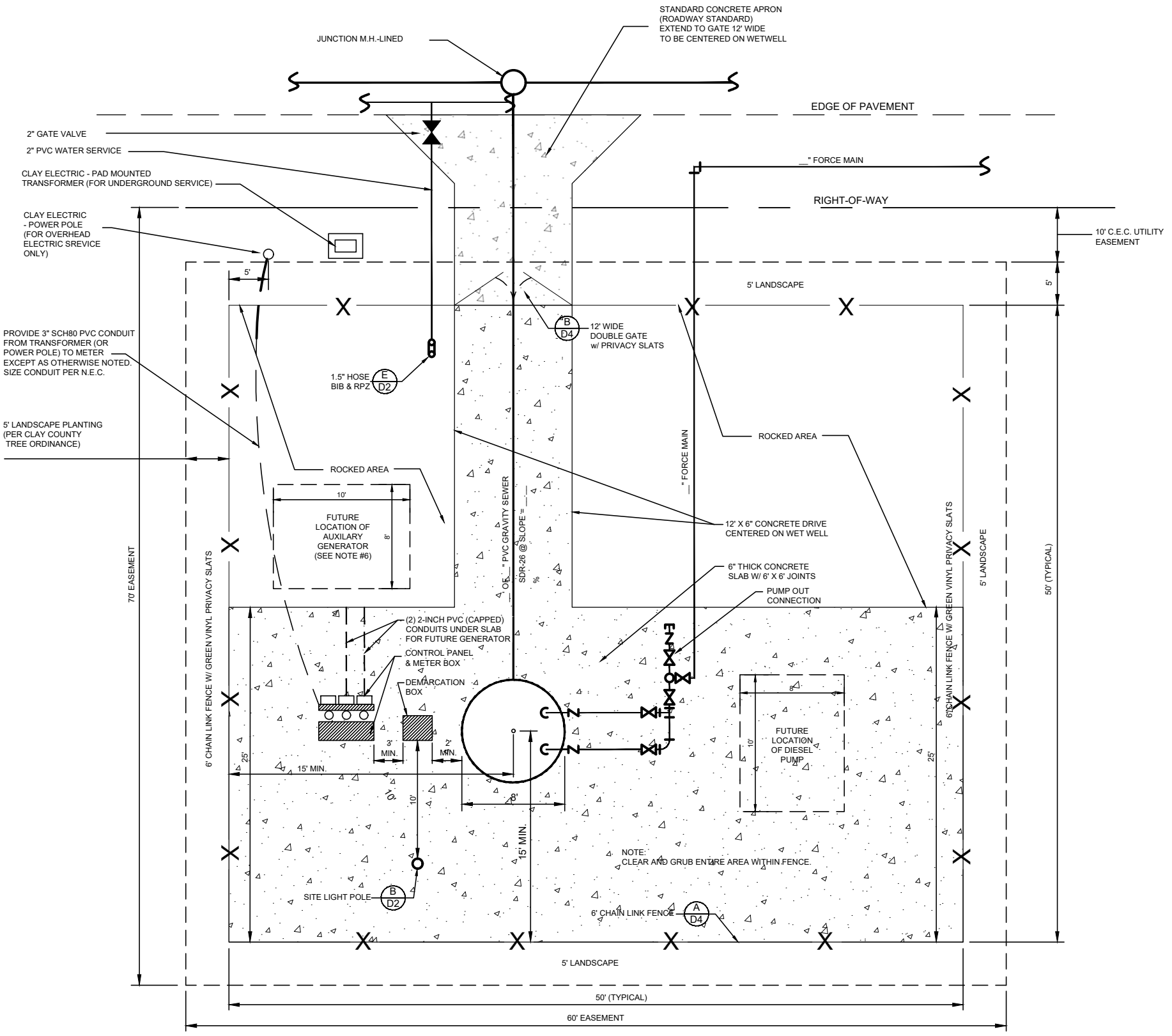
A. PRIVACY SLATS: SLATS SHALL BE FLAT/TUBULAR IN SHAPE, ± 0.003") THERMOPLASTIC WITH A WALL THICKNESS OF 0.030". LENGTH AND WIDTH OF SLATS SHALL BE PROVIDED TO ACCOMMODATE CHAIN-LINK FENCE FABRIC AS SPECIFIED HEREIN. SLATS SHALL HAVE A HORIZONTAL LOCKING STRIP TO PROVIDE SECURE ATTACHMENT TO CHAIN-LINK , THE FABRIC, AND PROVIDE A PRIVACY FACTOR OF 85%. MINIMUM WIDTH SLAT SHALL BE 1-1/8".

B. PRIVACY SCREENING: ENVIRONMENTAL PRIVACY SCREENING KNIT RASCHEL, 100%. SHALL BE 86 TO 90 % POLYETHYLENE UV STABILIZED FIBER, COLOR GREEN. SCREENING SHALL BE ATTACHED TO THE FENCE FABRIC WITH SUFFICIENT TIES TO SECURE THE SCREEN. ACCEPTABLE SCREEN: PRIVACY PLUS OR EQUAL.

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TYPICAL PERMANENT PUMP STATION SITE PLAN (A)

NOT TO SCALE

NOTE:
1. ALL LANDSCAPE OR IRRIGATION INSTALLED AT OR AROUND THE LIFT STATION AS PART OF THE PROJECT TO BE MAINTAINED BY DEVELOPER OF THE CDD AND/OR HOMEOWNER'S ASSOCIATION AFTER THE DEVELOPER IS NO LONGER IN CHARGE OF THE PROJECT.
2. LANDSCAPING PLANS APPROVED BY CCUA TO MINIMIZE IMPACT TO UTILITIES.
3. CLEAR AND GRUB ENTIRE AREA WITHIN FENCE, INSTALL FILTER CLOTH AND 6" OF #57 STONE IN AREAS NOT COVERED BY CONCRETE.
4. TOP OF ROCK AREA TO MATCH TOP OF CONCRETE SLAB.
5. PROVIDE (2) 2" DIA. SCH80 PVC CONDUIT UNDER SLAB FOR FUTURE GENERATOR. CAP CONDUIT AT 6" OUTSIDE OF SLAB AND AT DISCONNECT AND AT THE CONTROL PANEL.

LEGEND

- DENOTES MANHOLE
- DENOTES CONCRETE
- DENOTES CAP
- DENOTES CHECK VALVE
- DENOTES GATE or WHEEL VALVE
- DENOTES 90-DEGREE BEND
- DENOTES TEE FITTING
- DENOTES CHAIN LINK FENCE

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