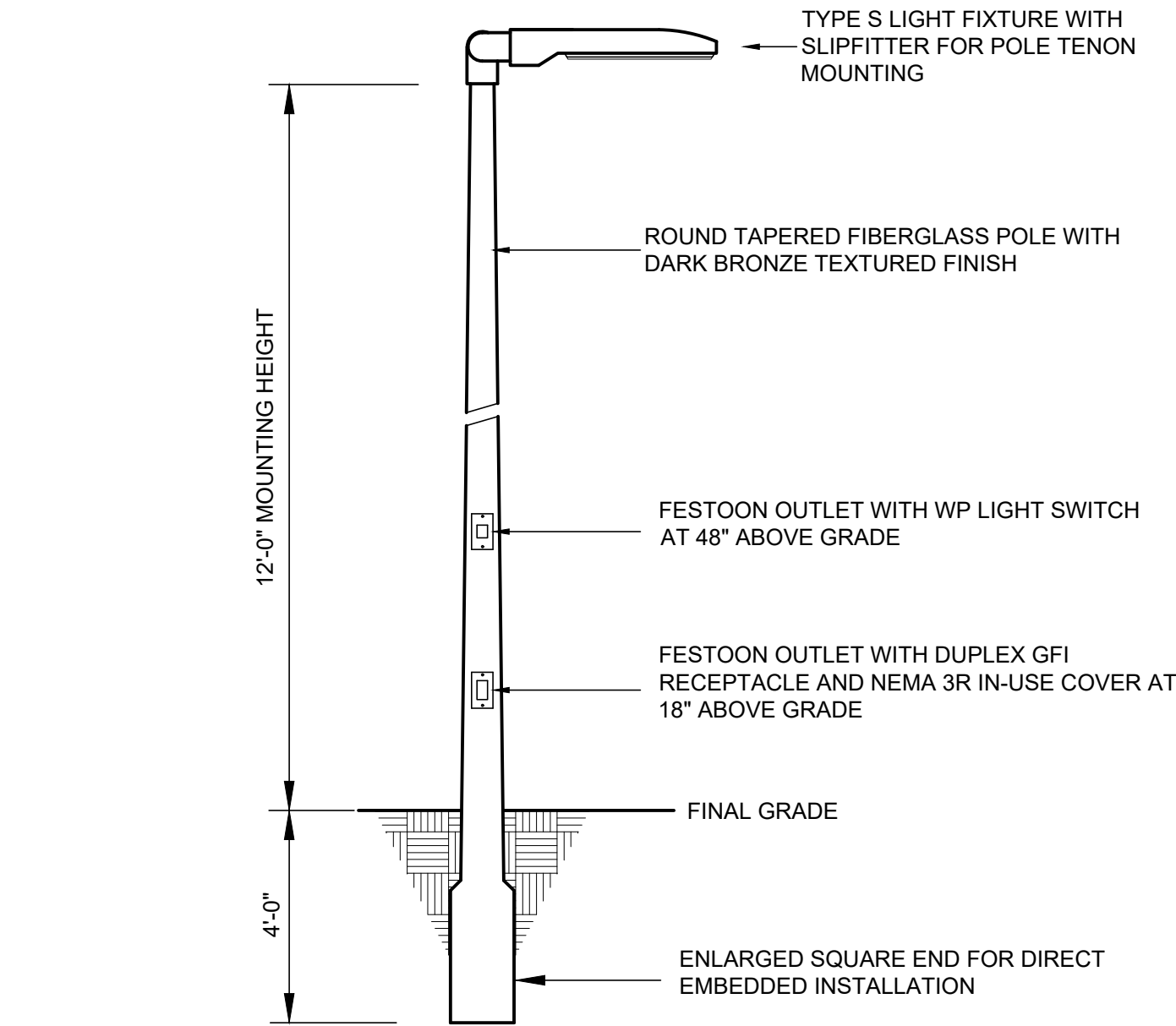


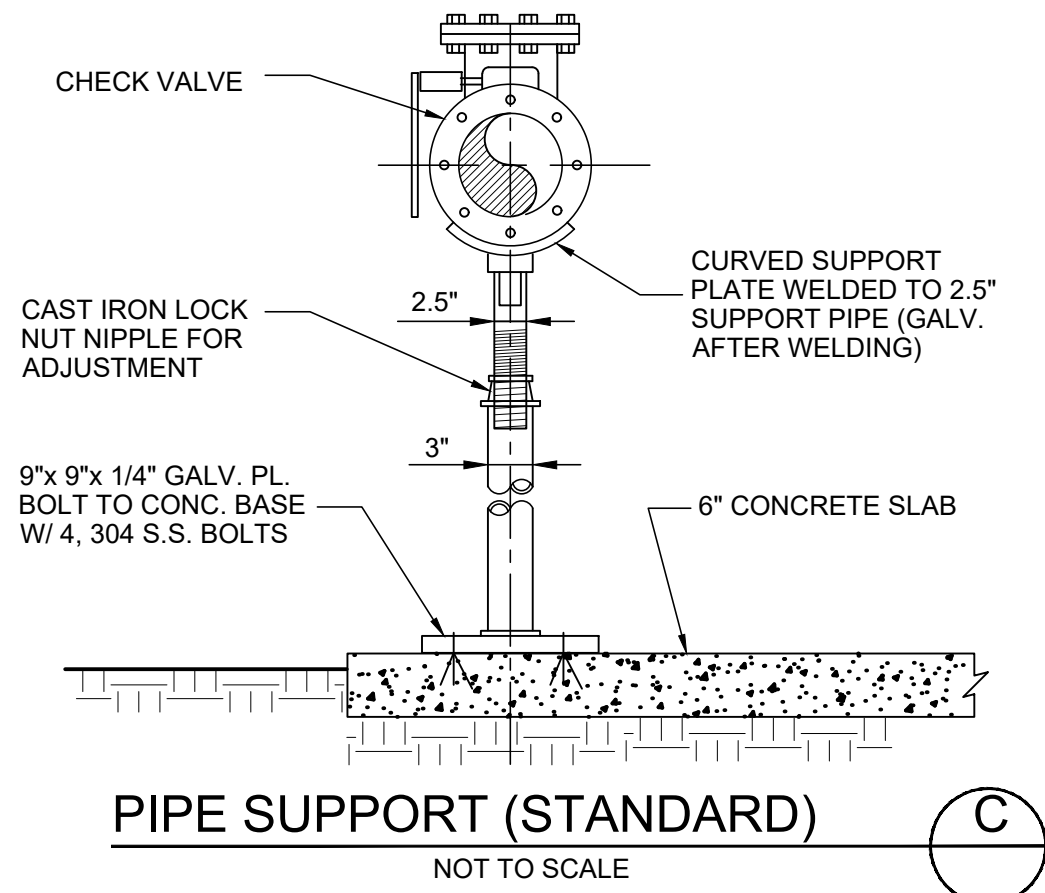
PIPE ATTACHMENT TO WALL
NOT TO SCALE



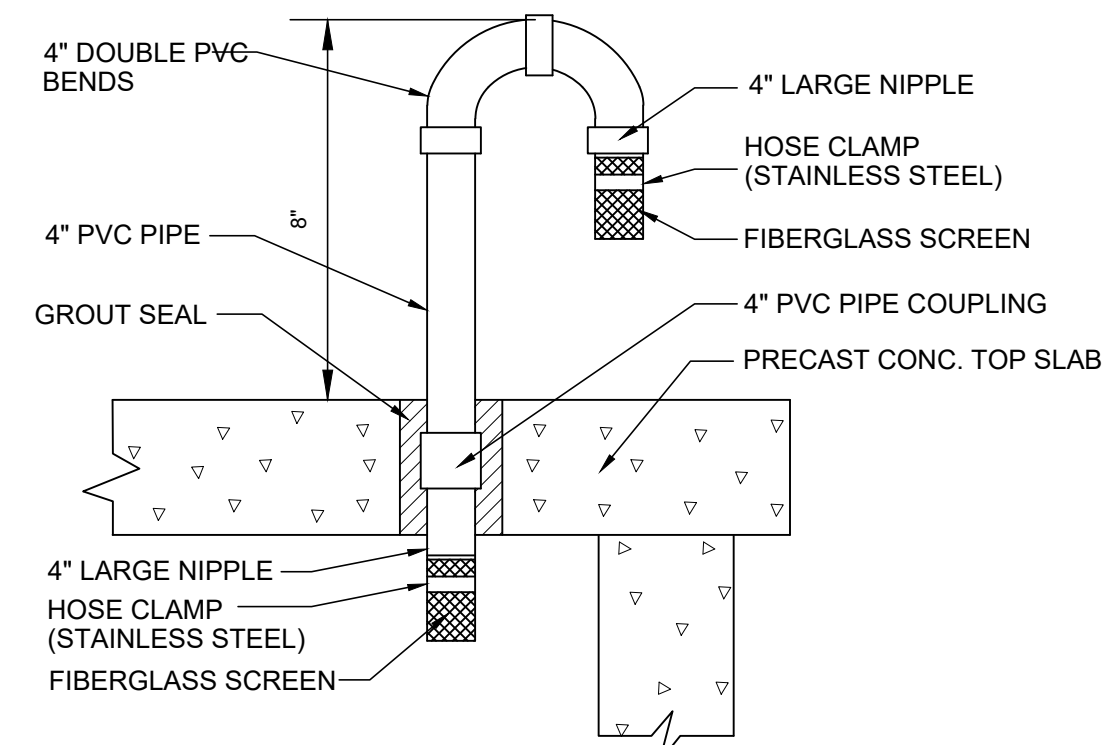
THE INSIDE DIAMETER OF THE EXCAVATION SHALL EXCEED THE OUTSIDE DIAMETER OF THE POLE BY A MINIMUM OF 6" AND SHALL BE BACK FILLED WITH CONCRETE.

| 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 |

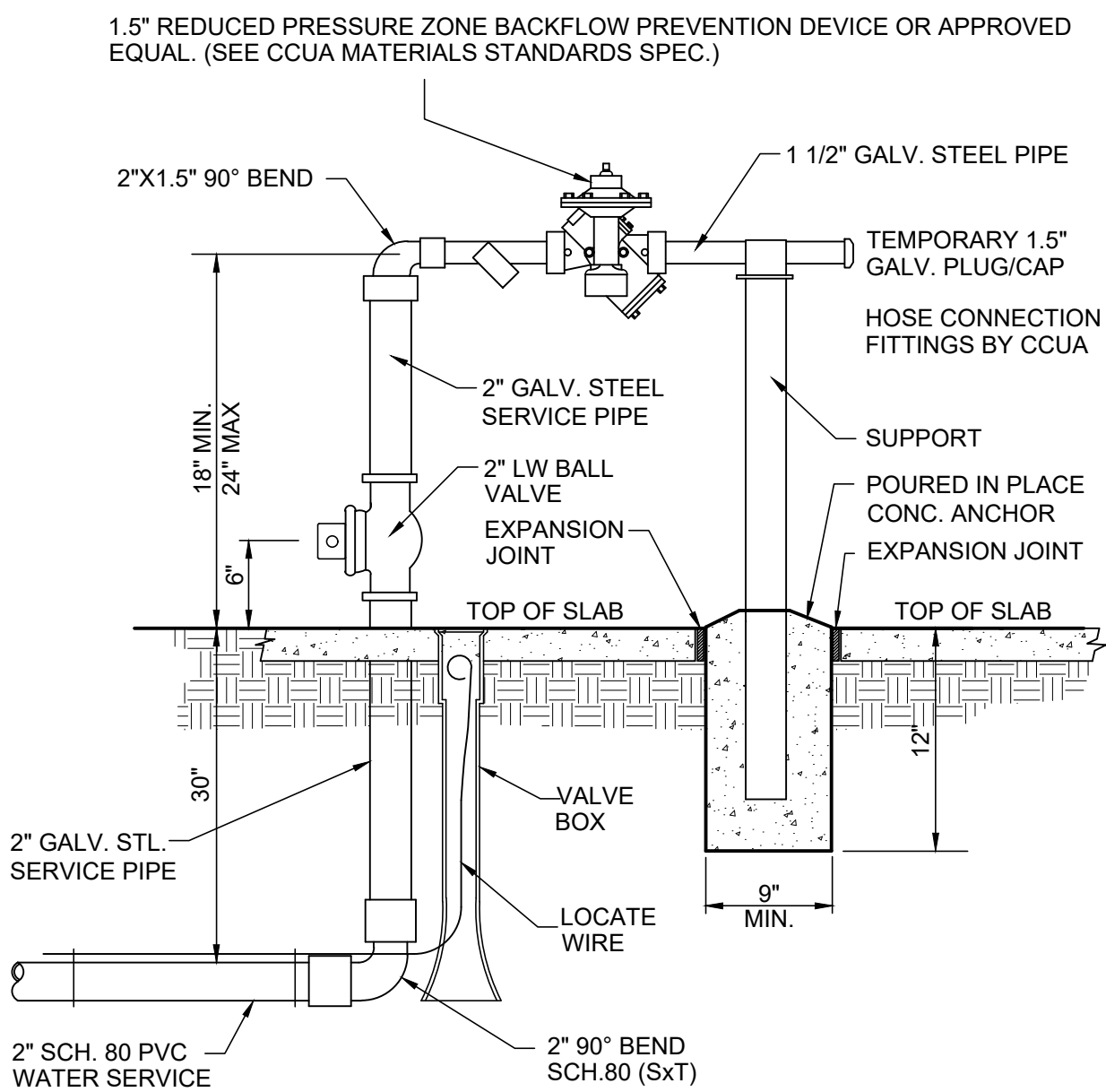
SITE LIGHT (STANDARD)
NOT TO SCALE



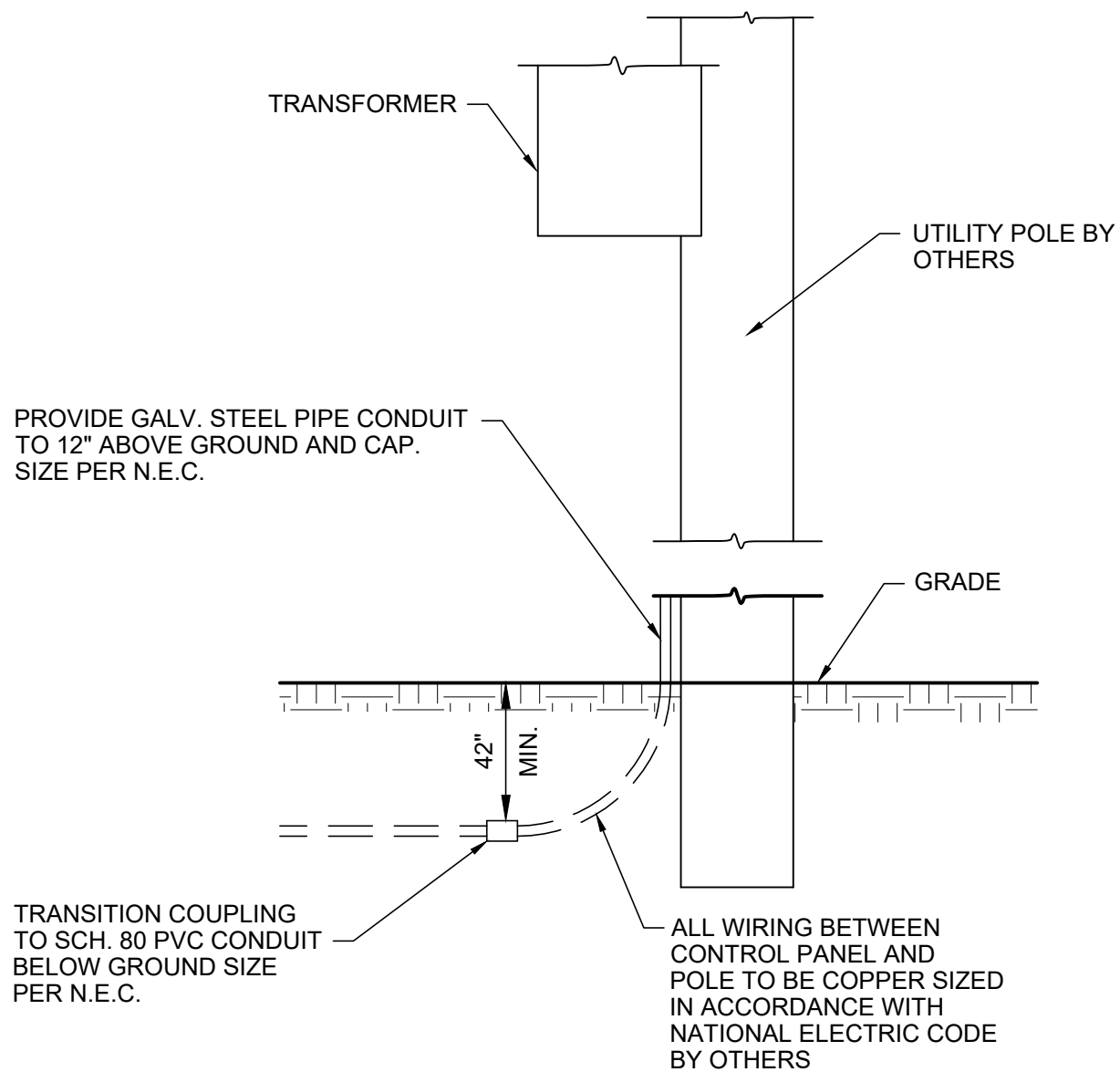
PIPE SUPPORT (STANDARD)
NOT TO SCALE



VENT PIPE (STANDARD)
NOT TO SCALE

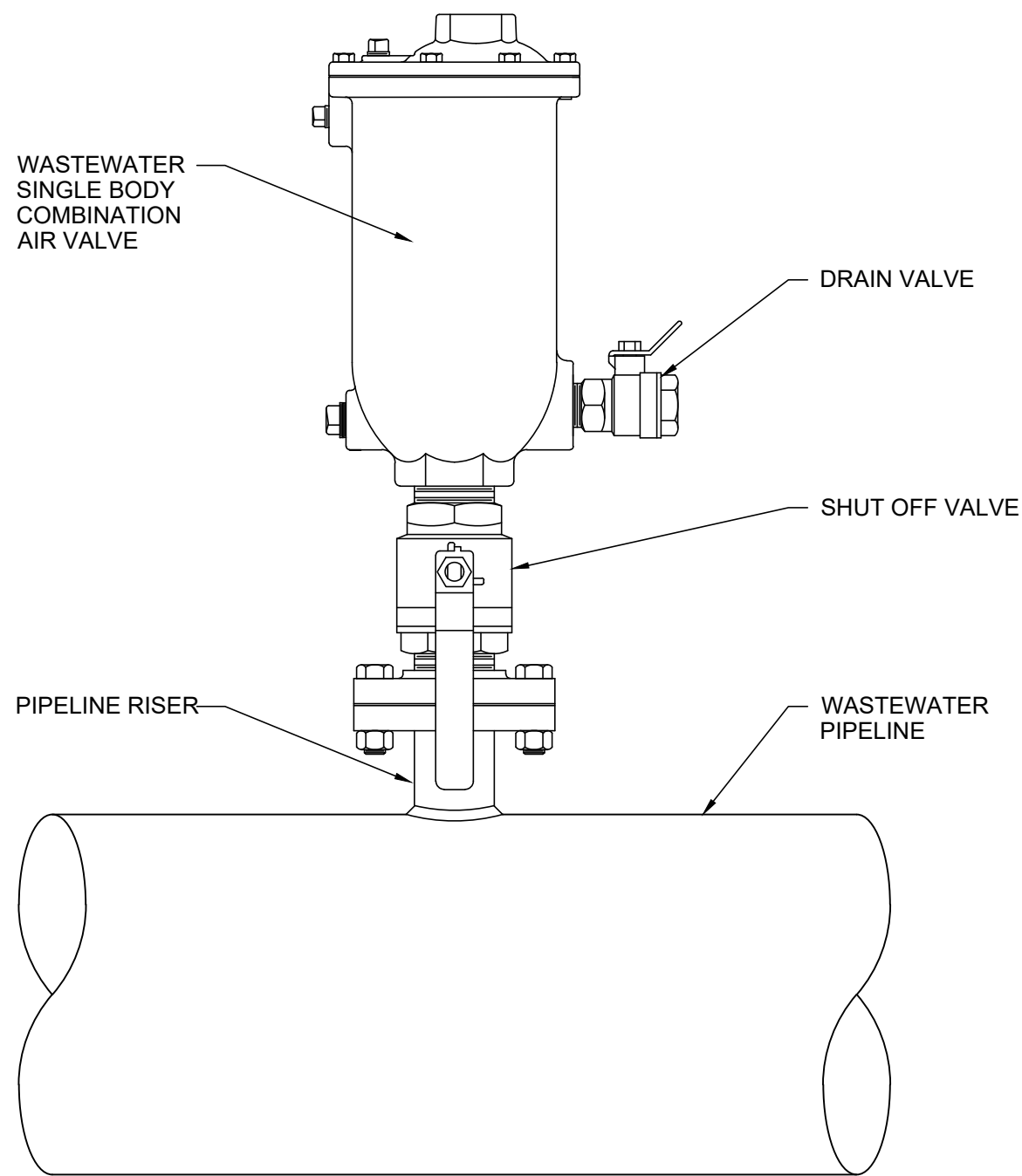


WATER SERVICE (STANDARD)
NOT TO SCALE

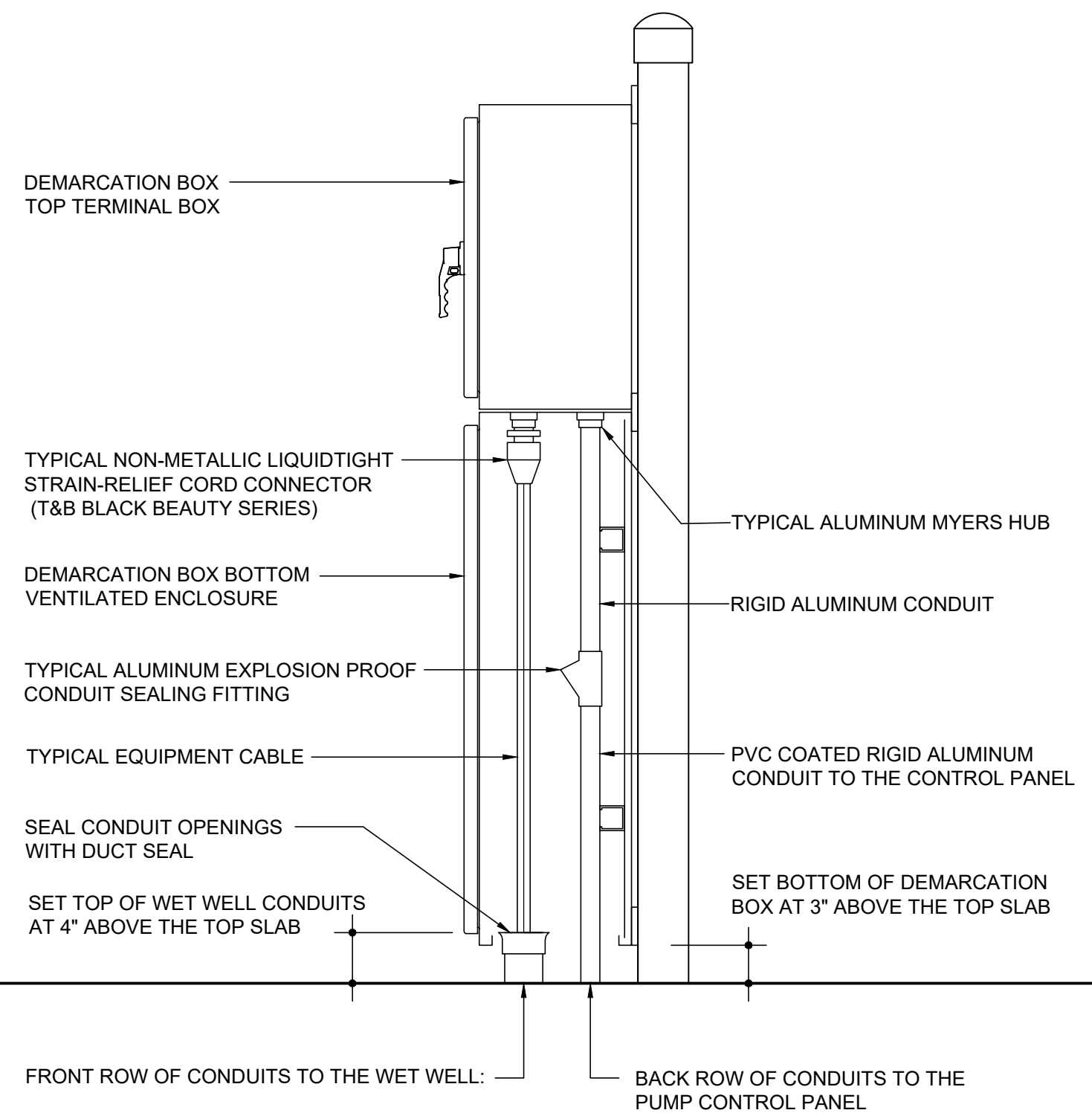


NOTE:
TO BE USED ONLY WHEN UNDERGROUND SERVICE IS NOT AVAILABLE.

POWER RISER (STANDARD)
NOT TO SCALE



COMBINATION AIR RELEASE VALVE
NOT TO SCALE



- FRONT ROW OF CONDUITS TO THE WET WELL:
- SCH 80 PVC CONDUIT WITH ENDBELL
 - MINIMUM 3" MOTOR POWER
 - MINIMUM 2" FLOAT CABLES
- BACK ROW OF CONDUITS TO THE PUMP CONTROL PANEL

WET WELL DEMARCATION BOX CONDUIT DETAIL
NOT TO SCALE


| DESIGN | | DATE | BY | REVISION DESCRIPTION |
|--------|-----|----------|-----|---------------------------------------|
| ABB | JMC | 09-24-08 | RHD | TO ADD DEMARCATION BOX DETAIL |
| XXX | XXX | 08-22-08 | RHD | REVISED TO ADD DEMARCATION BOX DETAIL |
| XXX | XXX | 10-19-08 | RHD | REVISED TO ADD DEMARCATION BOX DETAIL |
| XXX | XXX | 10-19-08 | RHD | REVISED GENERAL NOTES |
| 03/22 | | 06-17-15 | RHD | REVISED NOTES AND DETAILS |

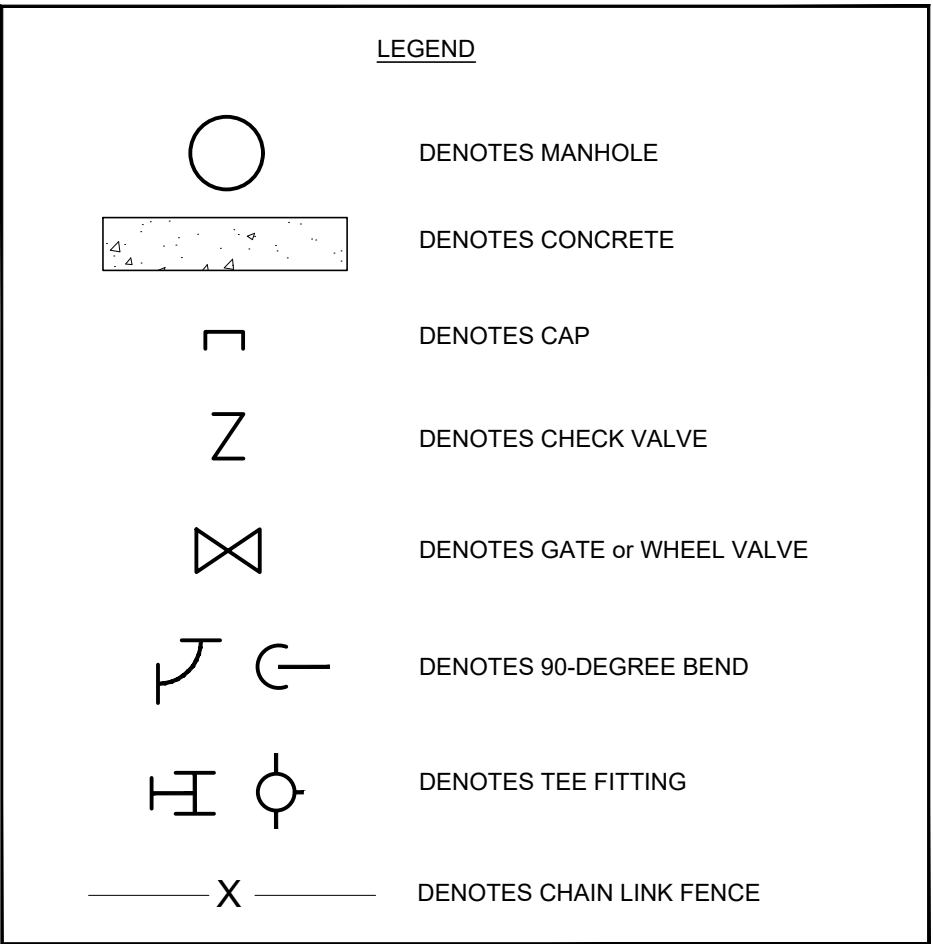
PROJECT:
PUMP STATION DETAILS
CLAY COUNTY, ORANGE PARK, FL

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



- [illegible]

 = 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

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

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

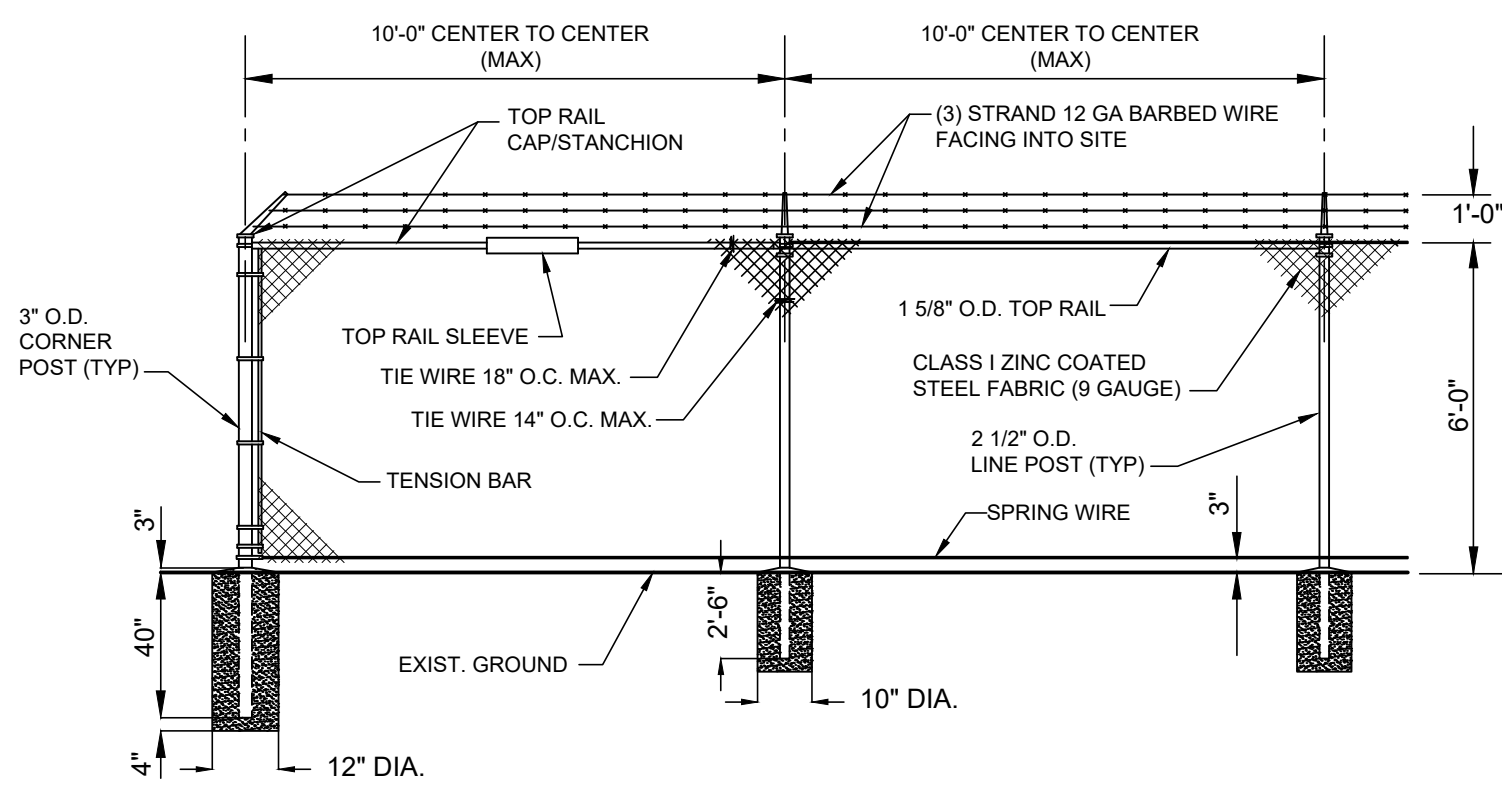
| | |
|------|-------|
| DESG | ABB |
| DRWN | JMC |
| CHKD | XXX |
| APRV | XXX |
| DATE | 03/22 |

| | | |
|-------|-----|---|
| 09-24 | RHD | REVISED TO MOVE CONTROL PANEL 3" OFF DEM. BOX |
| 09-22 | RHD | REVISED TO ADD MAINS & CORRECTIONS |
| 09-22 | RHD | REVISED TO ABOVE GRAB PIPING |
| 10-19 | RHD | REVISED GENERAL NOTES |
| 06-17 | RHD | REVISED NOTES AND DETAILS |
| 06-17 | RHD | REVISED |

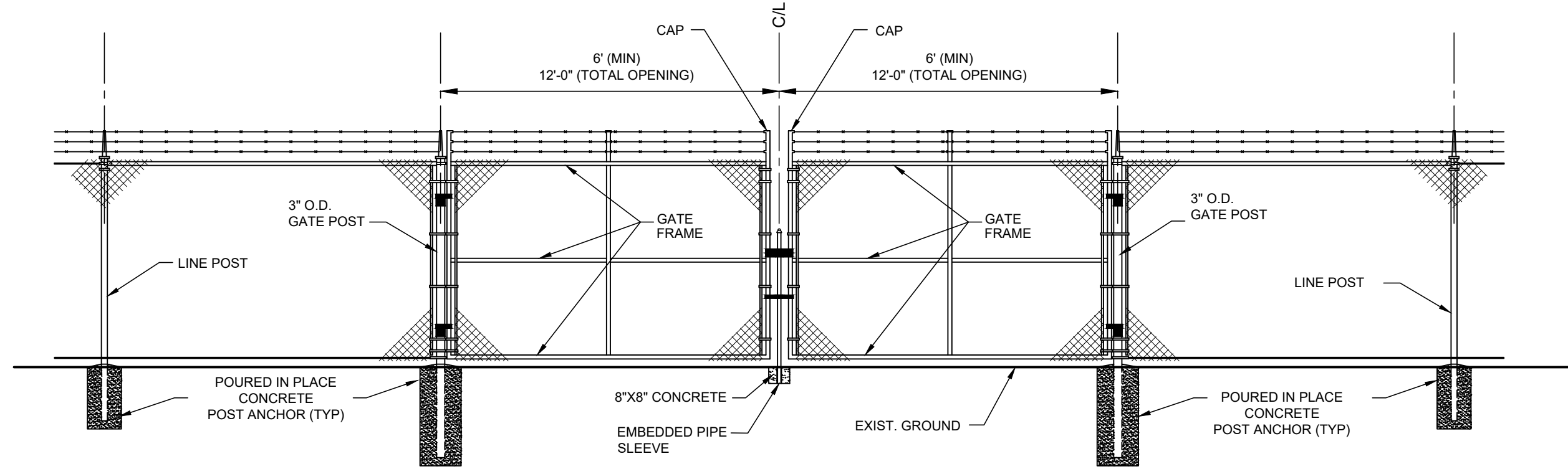
SHEET NO.

D-4

5/5/2026 8:46:28 AM, PLOTTED BY



CHAIN LINK FENCE & CORNER POST
NOT TO SCALE



GATE
NOT TO SCALE

- NOTE:
- PROVIDE GREEN VINYL PRIVACY SLATS
 - 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.



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

PROJECT:

PUMP STATION DETAILS
CLAY COUNTY, ORANGE PARK, FL

| DESIGN | DATE | BY | NO. | DATE | BY |
|--------|-------|----|-----|------|----|
| ABB | 03/22 | | | | |
| JMC | | | | | |
| XXX | | | | | |
| XXX | | | | | |
| APRV | | | | | |

| NO. | DATE | BY | REVISION DESCRIPTION |
|-----|-------|-----|--|
| 19 | 06-22 | RHD | REVISED TO APPLY ANY ADDITIONS & CORRECTIONS |
| 20 | 06-22 | RHD | REVISED TO ABOVE GRADE FITTING |
| 16 | 10-19 | RHD | REVISED GENERAL NOTES |
| 15 | 06-17 | RHD | REVISED NOTES AND DETAILS |

SHEET NO.

D-5

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 CITY ENGINEER FOR RECORD. FOR INSPECTIONS, CONDUIT, 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 ENCLOSURE SHALL BE TYPE XHHW-2 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 1/2" X 1/2" ALUMINUM. ALL MOUNTING HARDWARE SHALL BE 316 STAINLESS STEEL, INCLUDING NUTS AND 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 CONTROL PANEL SHALL BE PER THE CCUA STANDARDS WITH THE LATEST UPDATES INCLUDING THE FOLLOWING:

- SCHWEITZER SEL 2411 S TRANSMITTER CONTROLLER
- ASHROFT PRESSURE TRANSMITTER
- WESTEC CELLULAR ALARM DIAL 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 AR1402-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, MOTOTRUL MOTOR CONTRIBUTION OF 10 TO TOTAL MOTOR FULL LOAD AMPS (MINIMUM 18 KVA).

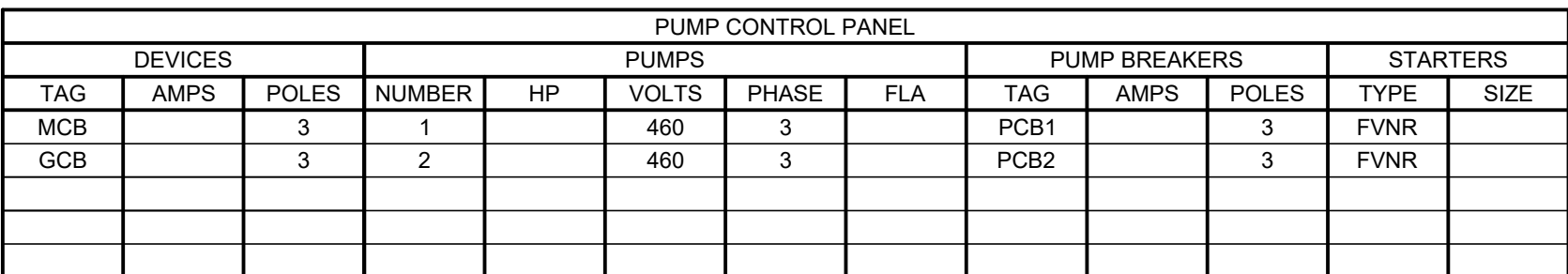
13. ELECTRICAL SERVICE RATING INCLUDING SERVICE ENTRANCE MAIN BREAKER AND CONTROL PANEL MAIN AIRCIRCUIT BREAKER SHALL BE MINIMUM 100A. WHERE THE SERVICE LOAD AMPLACITY EXCEEDS 100A THE ELECTRICAL SERVICE RATING SHALL BE MINIMUM 200A. WHERE THE SERVICE LOAD AMPLACITY EXCEEDS 200A THE DESIGN ENGINEERS 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 FLAT TANK, INTEGRAL INTERIOR MOUNTED AUTOMATIC TRANSFER SWITCH WITH NORMAL SOURCE SPD, AND INTEGRAL EXTERIOR MOUNTED LINE AND LOAD CIRCUIT BREAKERS.

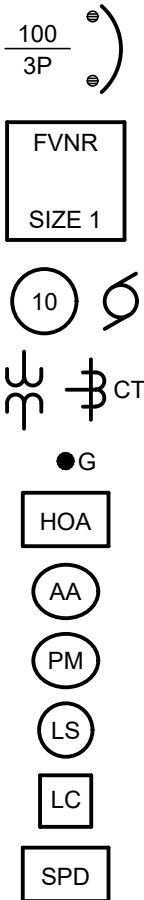
15. STANDBY GENERATOR AND ATS SHALL BE EQUIPPED WITH DRY CONTACTS FOR REMOTE MONITORING:

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

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



SURGE PROTECTION DEVICE



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

NOTES:

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- 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.
- 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.
- 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.
- 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".
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- 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
- 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
- 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).
- 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.
- 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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 - ATS EMERGENCY SOURCE AVAILAIBLE

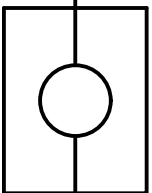


NEW CLAY ELECTRIC CO-OP (CEC)
PAD MOUNTED SERVICE TRANSFORMER
208Y/120 VOLT, 3 PHASE SERVICE
(NOTES 12, 13)

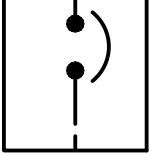
DESIGN ENGINEER SHALL CONFIRM THAT 240V SERVICE IS NOT AVAILABLE FROM CEC. IF NOT AVAILABLE DESIGN ENGINEER SHALL OBTAIN APPROVAL FROM CCUA TO USE 208V OR 480V AS THE BASIS OF DESIGN.

(TYPICAL SEE CONDUIT AND CABLE SCHEDULE)

P100 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.

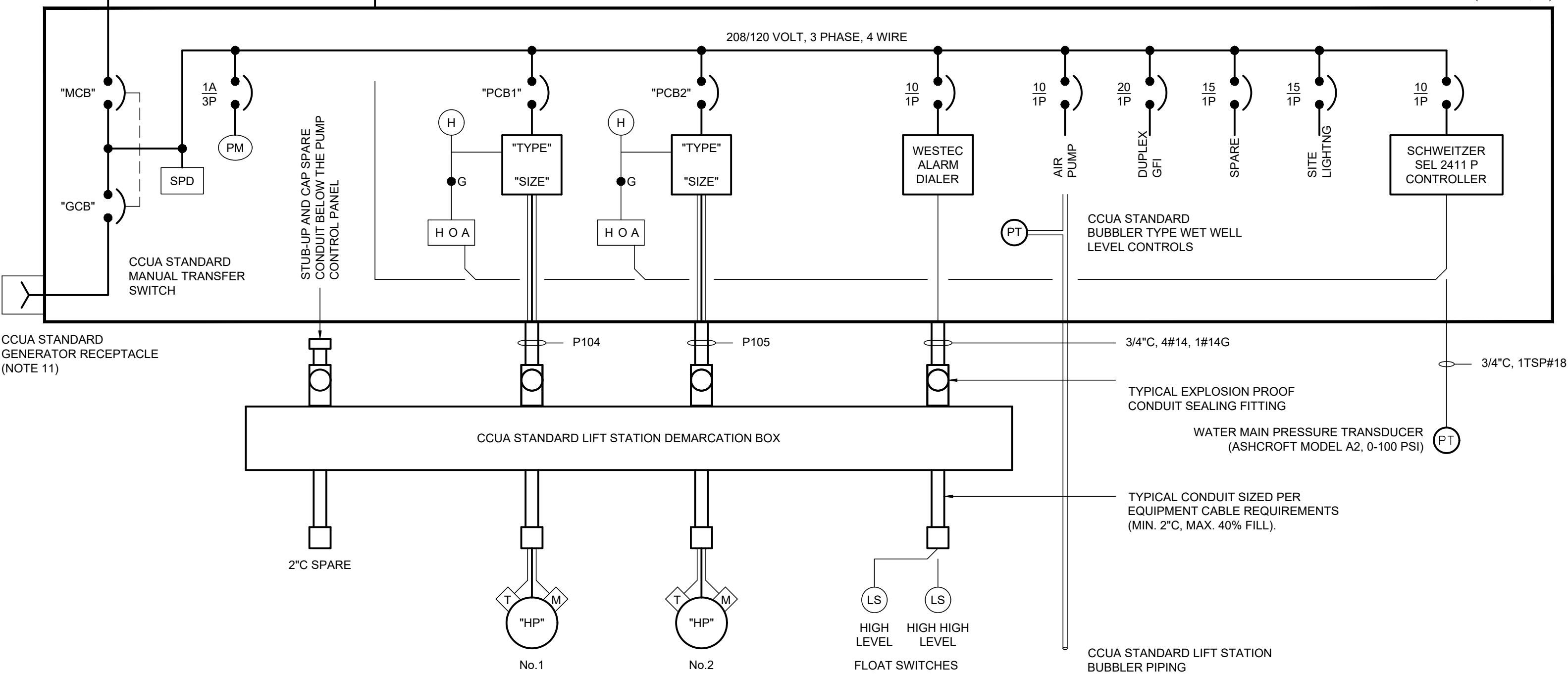


"SERVICE ENTRANCE MAIN BREAKER"
NEMA 4X STAINLESS STEEL ENCLOSURE
BOND SERVICE NEUTRAL AT THE MAIN BREAKER. PROVIDE INSULATED GROUNDING BUSHINGS ON EACH CONDUIT.

P102

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

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



ELECTRICAL LOAD CALCULATIONS

| | | | | |
|---------------------------------|---|-----|------|------|
| LIFT STATION PUMP NO.1 | — | HP | — | AMPS |
| LIFT STATION PUMP NO.2 | — | HP | — | AMPS |
| TOTAL MOTOR LOAD | — | | — | |
| LIGHTING AND CONTROLS | 3 | kVA | 25 | AMPS |
| TOTAL CONNECTED LOAD | — | | — | |
| 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

| 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 | | |
| TAG | AMPS | POLES | NUMBER | HP | VOLTS | PHASE | FLA | TAG | AMPS |
| MCB | | 3 | 1 | | 208 | 3 | | PCB1 | 3 |
| GCB | | 3 | 2 | | 208 | 3 | | PCB2 | 3 |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

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

ELECTRICAL LEGEND

100 3P

FVNR
SIZE 1

10

CT

G

HOA

AA

PM

LS

LC

SPD

CIRCUIT BREAKER (TRIP RATING/POLES) "MCB" MAIN BREAKER, "ECB" EMERGENCY BREAKER "PCB" PUMP MOTOR BREAKER

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)

MOTOR (NUMERAL INDICATES HORSEPOWER)

TRANSFORMER ("CT" CURRENT TRANSFORMER; "CPT" CONTROL POWER TRANSFORMER)

GREEN "RUNNING" PILOT LIGHT (LED TYPE)

HAND OFF AUTO SELECTOR SWITCH

AUTOMATIC ALTERNATOR

THREE PHASE POWER MONITOR

LEVEL SWITCH

LEVEL CONTROLLER

SURGE PROTECTION DEVICE

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

07-01-2025
08-01-2025

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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.

5. ALL MATERIALS AND WORKSMANSHIP 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 ENGINEERS 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. GROUNDING SECTION 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 STANDARD 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 1/2" x 1 1/2" 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 CCA 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
- ASHCOFT PRESSURE TRANSMITTER
- WESTEC CELLULAR ALARM DIAPHRAGM 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 FUTURE 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).

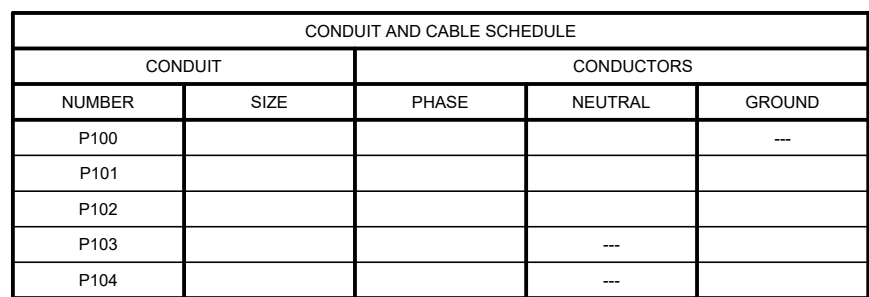
13. ELECTRICAL SERVICE RATING INCLUDING SERVICE ENTRANCE MAIN BREAKER AND CONTROL PANEL MAIN CIRCUIT BREAKER SHALL BE MINIMUM 100A. WHERE THE SERVICE LOAD CAPACITY EXCEEDS 1000A THE ELECTRICAL SERVICE RATING SHALL BE MINIMUM 200A. WHERE THE SERVICE LOAD CAPACITY EXCEEDS 2000A THE DESIGN ENGINEERS SHALL OBTAIN APPROVAL OF THE PROPOSED DESIGN FROM CCUA.

14. THE STANDBY GENERATOR SHALL BE CCUA STANDARD TRADEWINDS CUSTOM LIFT STATION PACKAGE WITH MANGRADE 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.

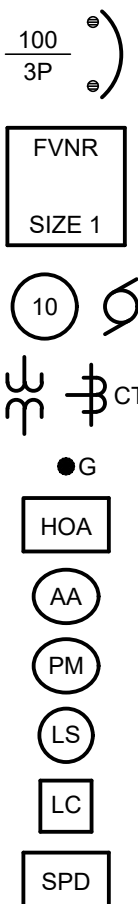
15. STANDBY GENERATOR AND ATS SHALL BE EQUIPPED WITH DRY CONTACTS FOR REMOTE MONITORING:

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

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

[illegible]

SURGE PROTECTION DEVICE



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

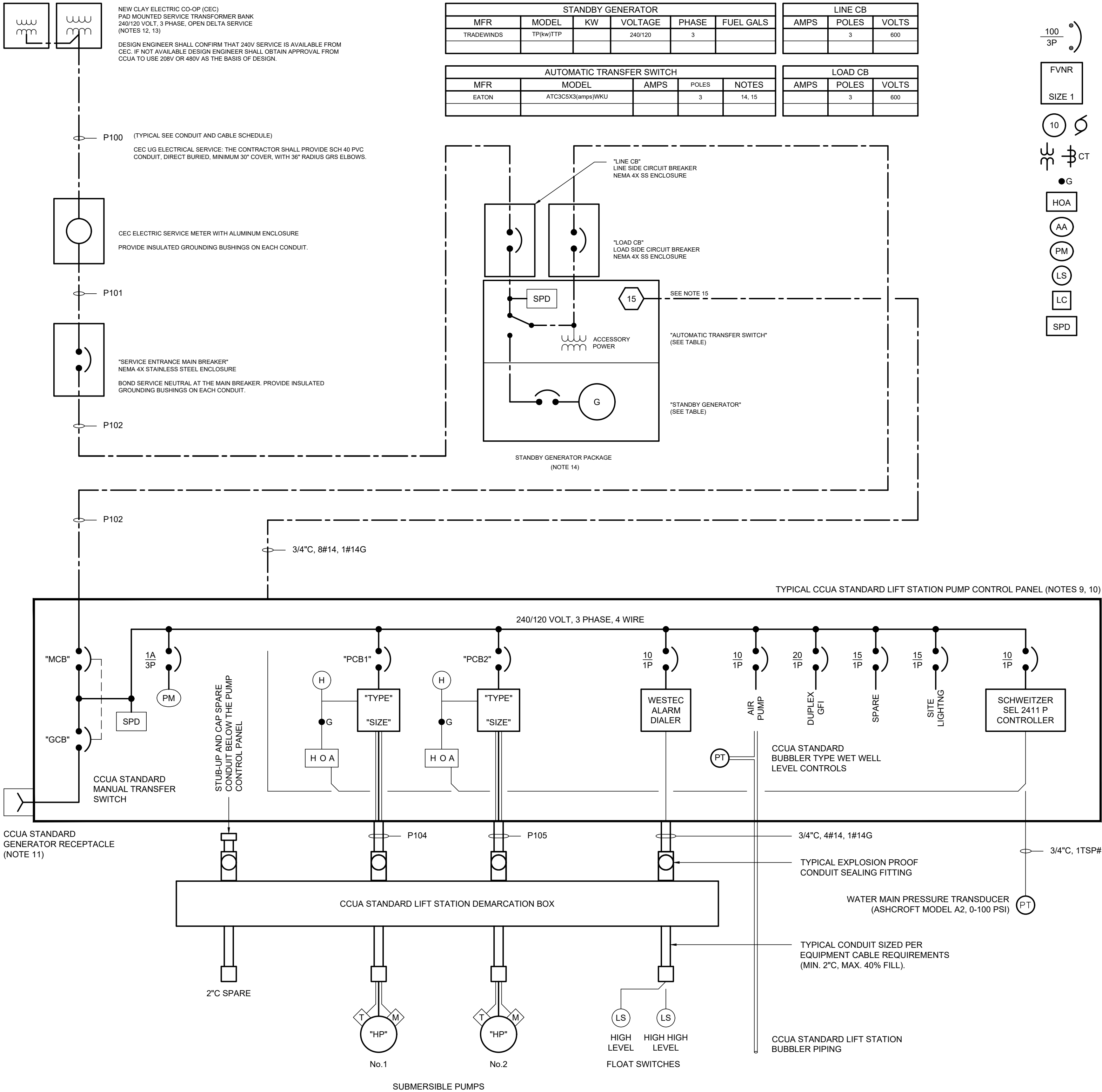
240/120 VOLT FOR 5HP OR LESS
SUBMERSIBLE PUMP STATION
ELECTRICAL SCHEMATIC AND DETAILS
CLAY COUNTY, ORANGE PARK, FL

The logo of the Clay County Utility Authority is a circular emblem. It features a stylized blue silhouette of the state of Florida in the center. To the left of the state outline is a blue water pump handle. The words "CLAY COUNTY" are written in a blue arc along the top left of the circle, and "UTILITY AUTHORITY" is written in a blue arc along the bottom right.

S-ELEC3

NOTES:

- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- UNLESS OTHERWISE INDICATED, ELECTRICAL EQUIPMENT ENCLOSURES SHALL BE NEMA 12/3R ALUMINUM OR 316 STAINLESS STEEL. CONDUCTORS SHALL BE STRANDED AWMG 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".
- 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.
- 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
- 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
- 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).
- 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.
- 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.
- 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 AVAILABLE



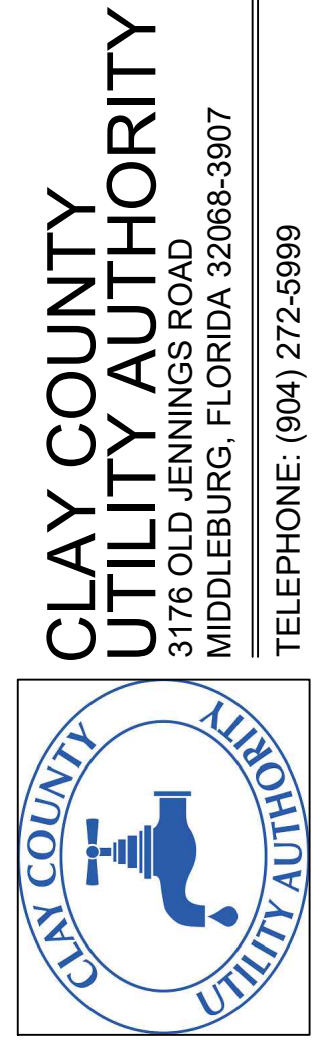
ELECTRICAL LOAD CALCULATIONS

| | | | | |
|---------------------------------|---|-----|----|------|
| 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

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

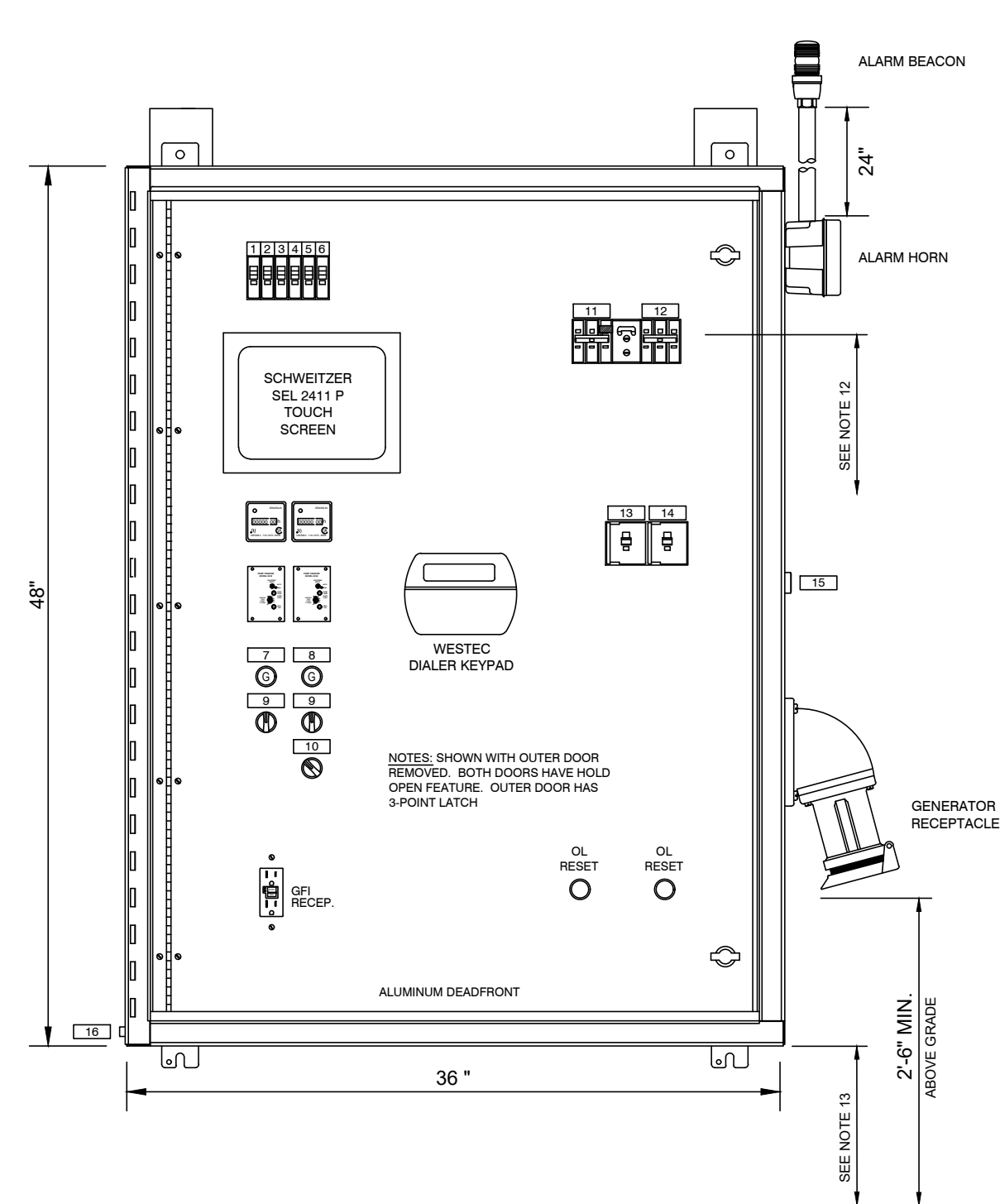
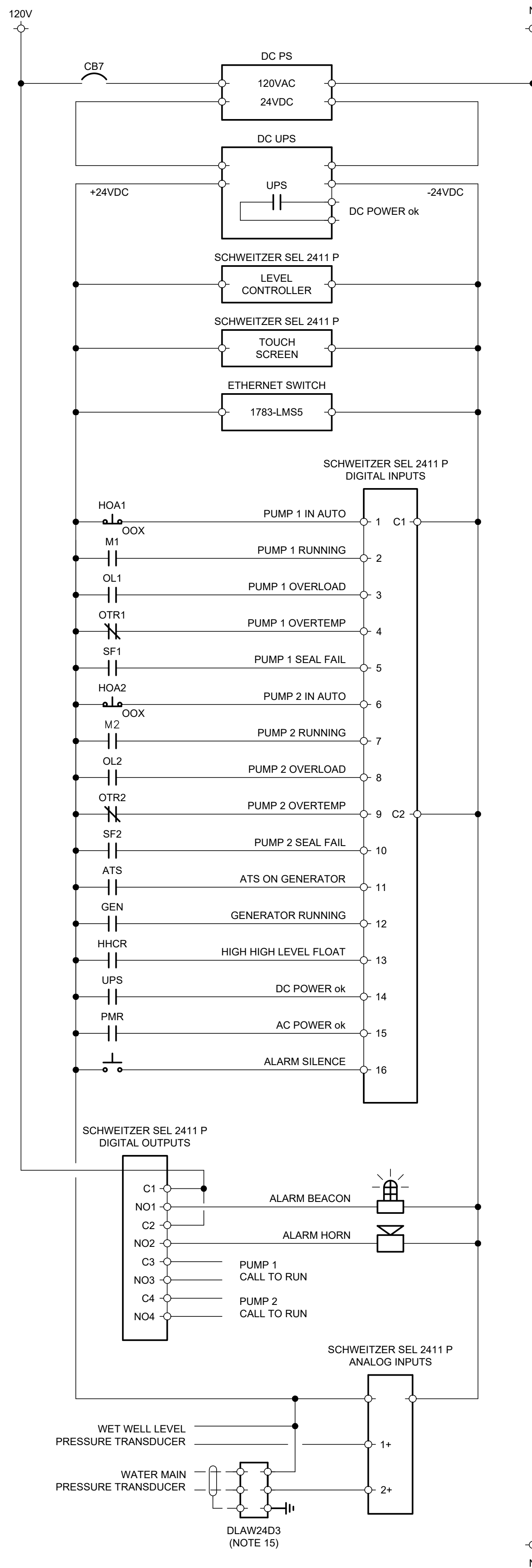
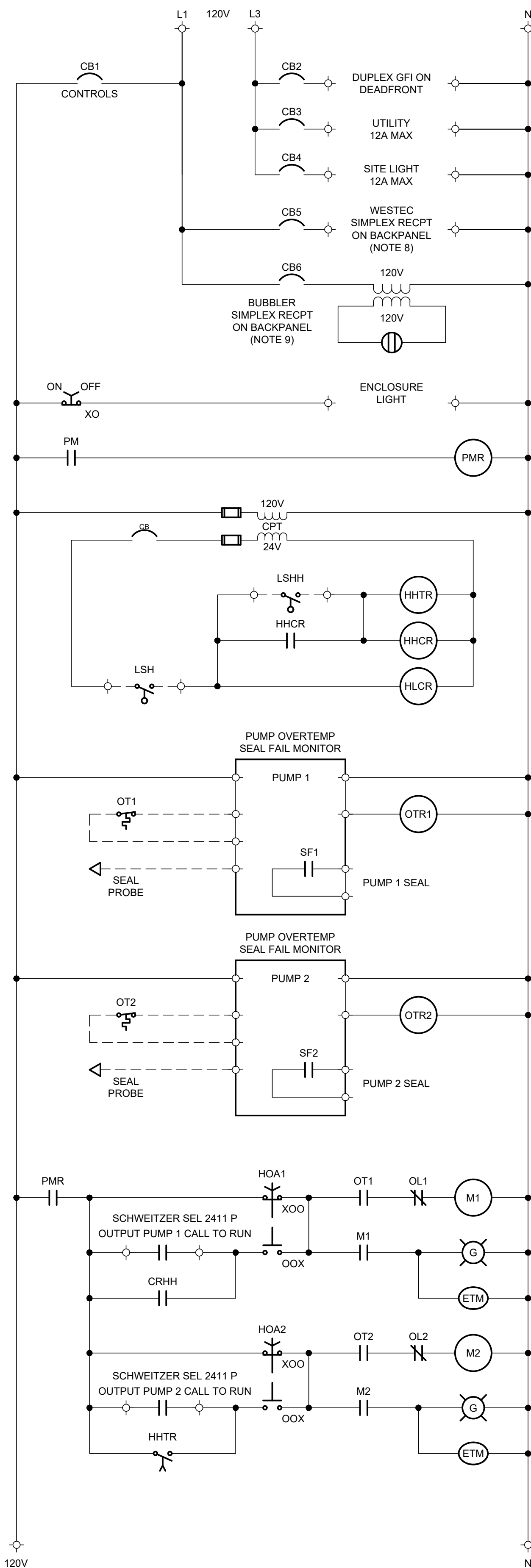
PROJECT:
240 VOLT 3PH FOR 20HP OR LESS
SUBMERSIBLE PUMP STATION
ELECTRICAL SCHEMATIC AND DETAILS
CLAY COUNTY, ORANGE PARK, FL



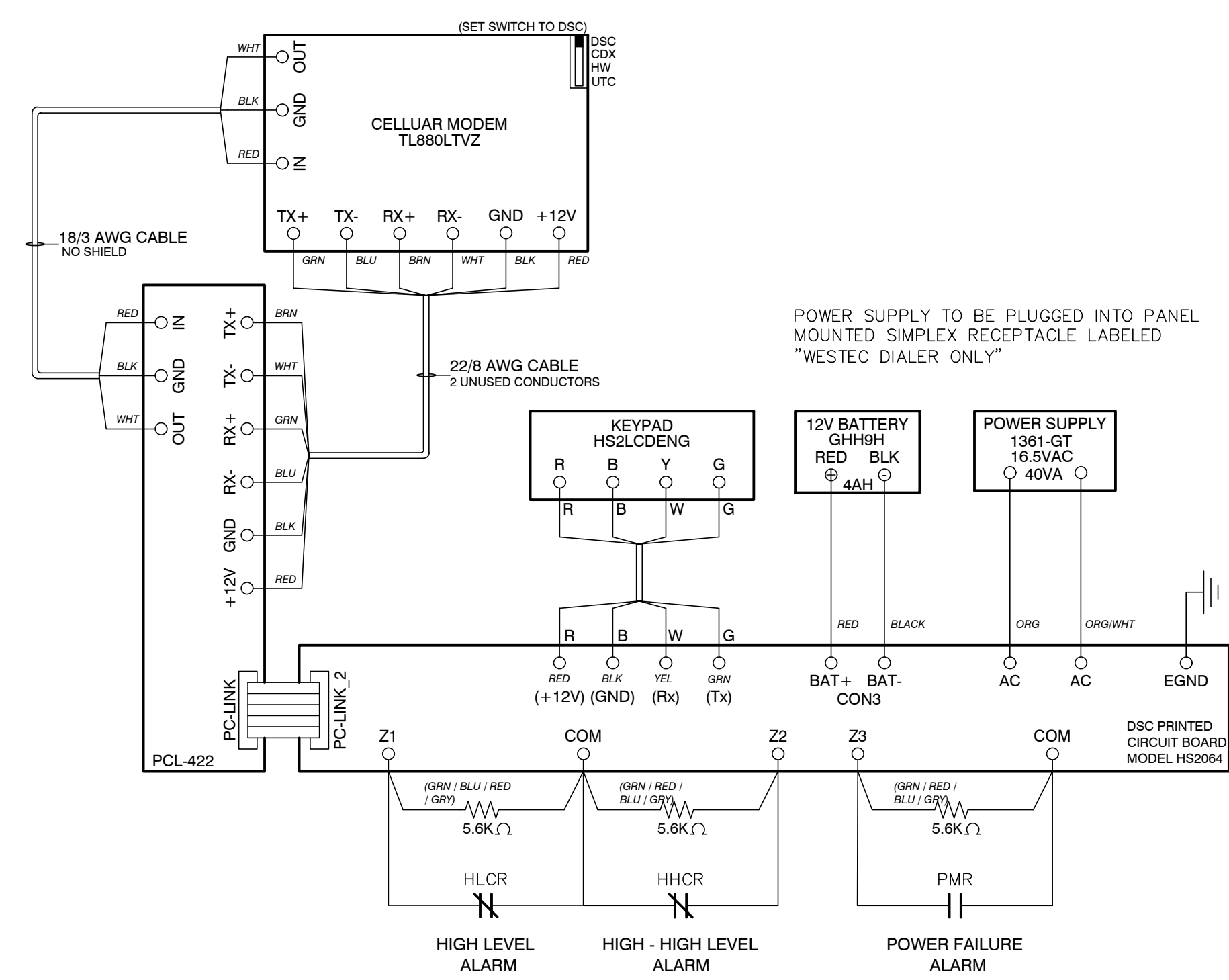
SHEET NO.

S-ELEC4

07-01-2025
08-01-2025



| 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 |



WESTEC ALARM DIALER DIAGRAM

SUBMERSIBLE PUMP STATION
PUMP CONTROL PANEL SCHEMATIC

- NOTES:
- 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
 - THE PUMP CONTROL PANEL, DEMARCATION BOXES AND MOTOR CONTROL CETNER SHALL BE FURNISHED BY A CCUA APPROVED LIFT STATION PUMP CONTROL PANEL MANUFACTURER.
 - 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.
 - MOTOR STARTERS SHALL BE A MINIMUM OF 8" ABOVE BOTTOM OF CONTROL PANEL WITH NO OBSTRUCTION TO WIRING.
 - GROUNDING BUSS SHALL BE EASILY ACCESSIBLE.
 - 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.
 - ALL CIRCUIT BREAKERS AND SWITCHES SHALL BE SQUARE D OR EATON ONLY. VERIFY WITH UTILITY AT TIME OF DESIGN.
 - BACKPANEL MOUNTED SIMPLEX RECEPTACLE TO BE USED FOR THE WESTEC POWER SUPPLY SHALL BE LABELED "WESTEC DIALER ONLY".
 - BACKPANEL MOUNTED SIMPLEX RECEPTACLE TO BE USED FOR THE BUBBLER SYSTEM AIR PUMP SHALL BE LABELED "AIR PUMP ONLY".
 - FINAL APPROVED "AS BUILT" SCHEMATIC DRAWINGS SHALL BE LAMINATED TO THE INSIDE OF THE OUTER DOOR.
 - ALL EXTERIOR FASTENERS, ANCHORS, AND HARDWARE SHALL BE 316 S.S.
 - MOUNT ENCLOSURE SO THAT HEIGHT OF CIRCUIT BREAKER HANDLE IS 68" MAXIMUM FROM GROUND.
 - MOUNT ENCLOSURE SO THAT THE BOTTOM OF THE CONTROL PANEL IS ABOVE THE 100 YR. FLOOD ELEVATION.
 - PUMP VOLTAGE AND CONTROL PANEL VOLTAGE SHALL MATCH THE SERVICE VOLTAGE.
 - PROVIDE SIGNAL LINE SURGE PROTECTOR FOR THE WATER MAIN PRESSURE TRANSDUCER ANALOG INPUT SIGNAL.

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

SHEET NO.
S-ELEC5

07-01-2025
08-01-2025



- 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

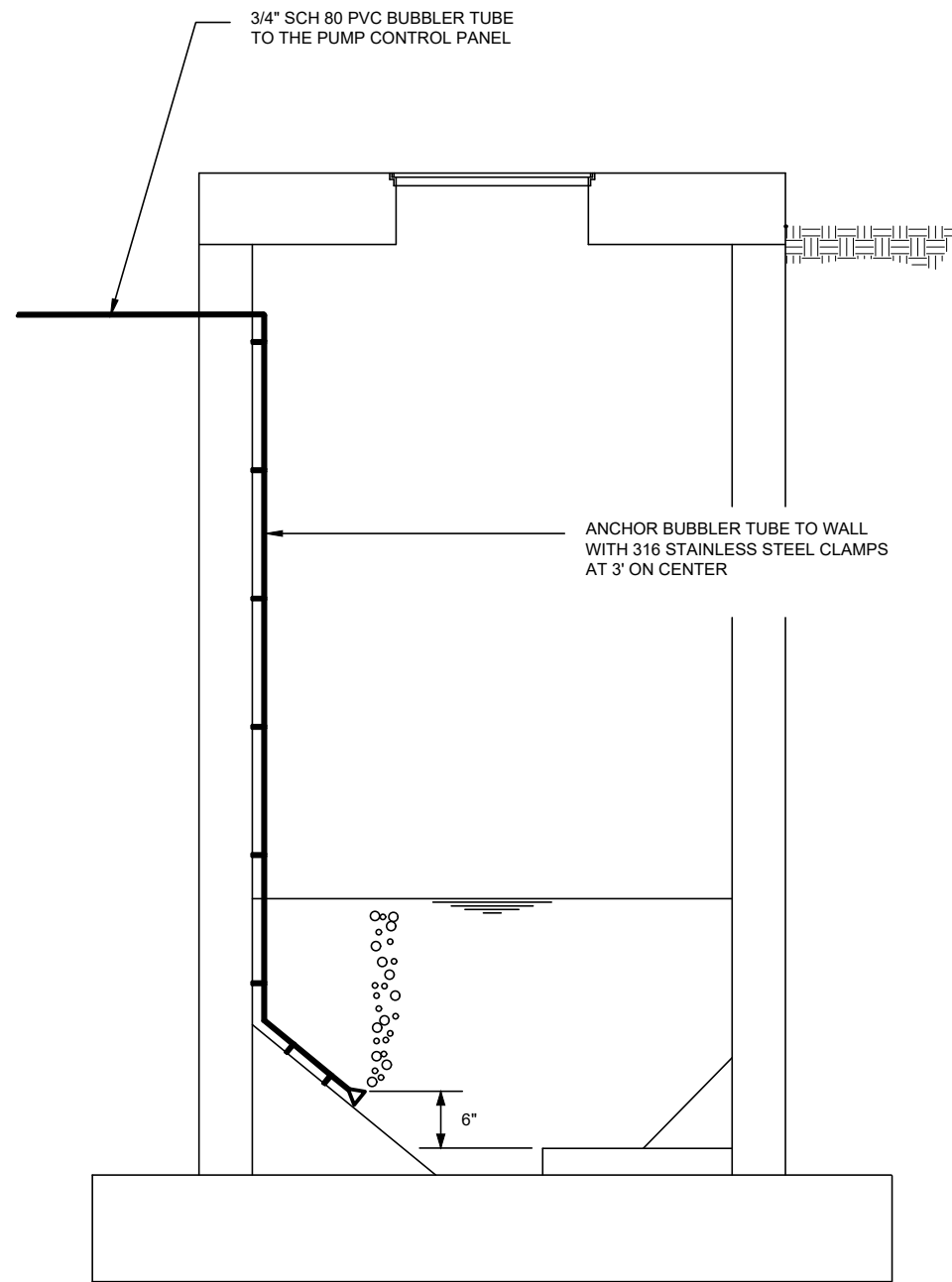
- GENERAL NOTES:
- SEAMS TO BE CONTINUOUSLY WELDED AND GROUND SMOOTH
 - SEAMLESS FOAM-IN-PLACE GASKETS
 - ROLLED LIP AROUND THREE SIDES OF DOORS
 - REMOVE DOORS BY PULLING STAINLESS STEEL CONTINUOUS HINGE PIN
 - PROVIDE COLLAR STUDS ON INSIDE REAR FOR MOUNTING OPTIONAL PANELS
 - STAINLESS STEEL HARDWARE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



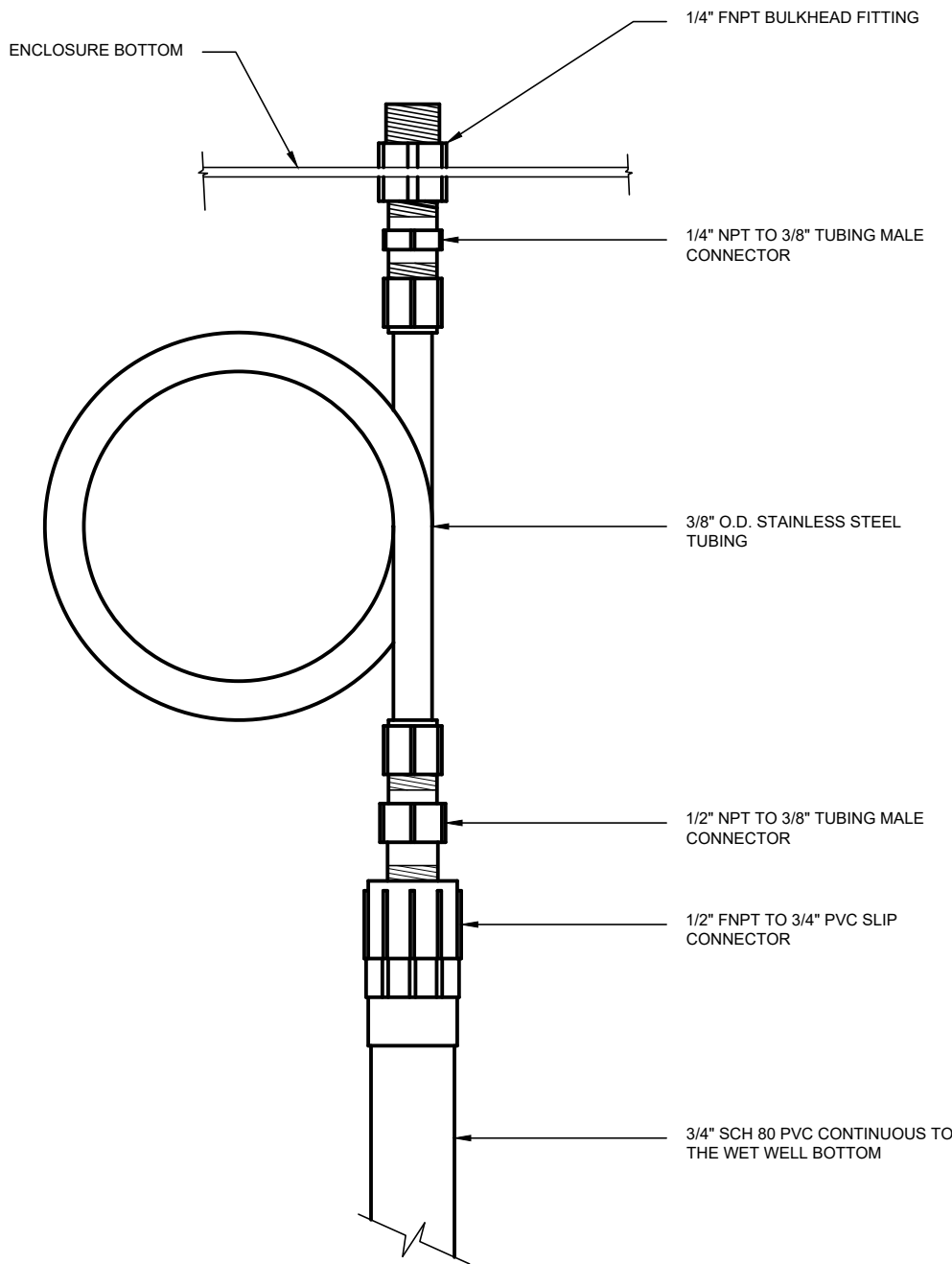
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| DESG | ABB |
| DRWN | JMC |
| CHKD | XXX |
| APRV | XXX |
| DATE | 03/22 |

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| | BY |
| | DATE |
| | NO |

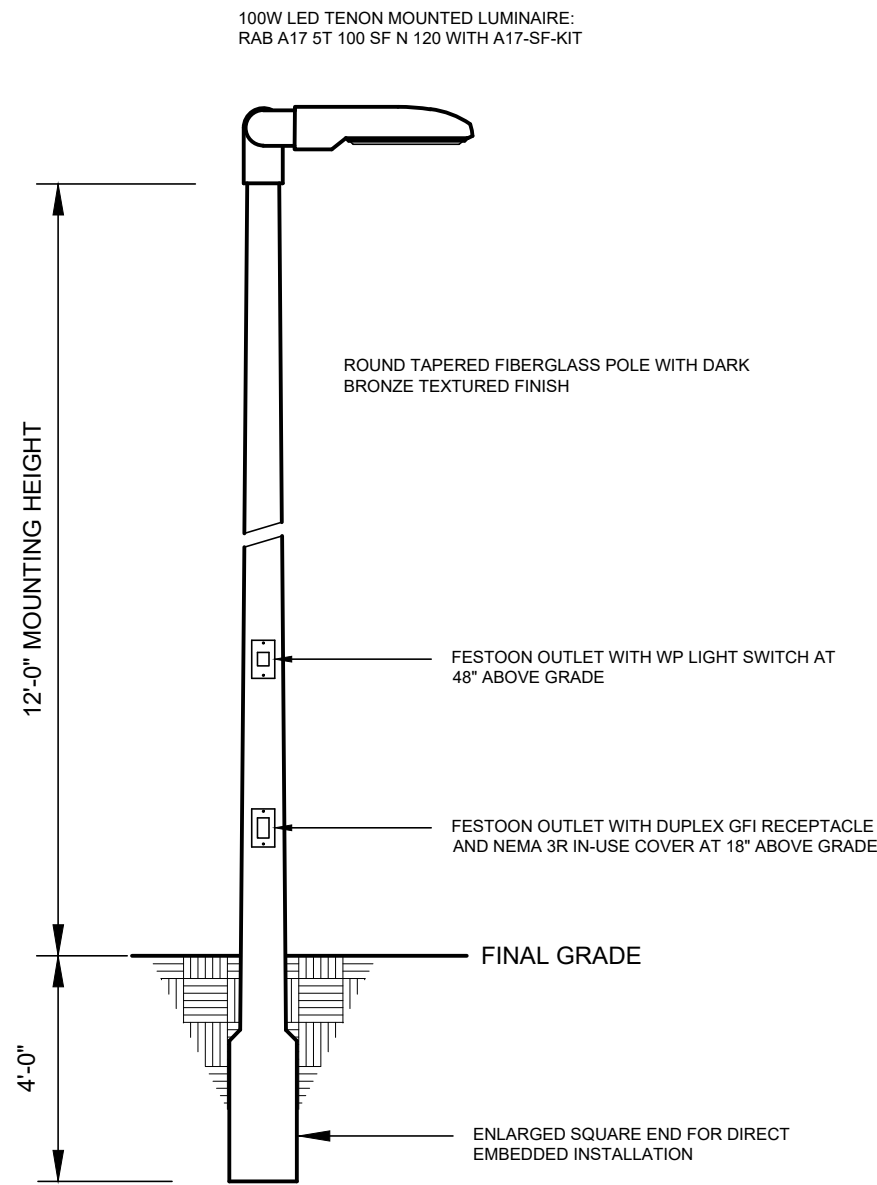
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WET WELL BUBBLER TUBE DETAIL
NOT TO SCALE

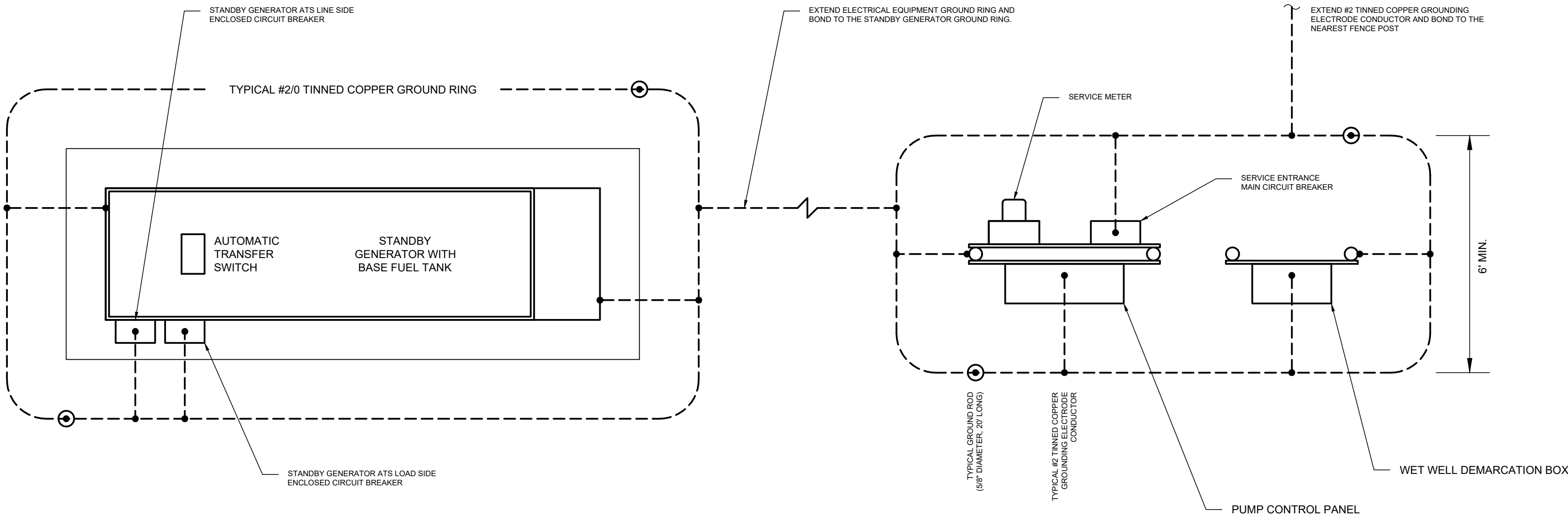


BUBBLER TUBE CONNECTION DETAIL
NOT TO SCALE



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.

TYPICAL SITE LIGHT POLE DETAIL
NOT TO SCALE



TYPICAL LIFT STATION GROUNDING PLAN
NOT TO SCALE

- GROUNDING NOTES:
- 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.
 - 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.
 - 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.
 - INSTALL EACH GROUNDING ELECTRODE CONDUCTOR IN 3/4" SCH 80 PVC CONDUIT SLEEVE FOR MECHANICAL PROTECTION.

SUBMERSIBLE PUMP STATION ELECTRICAL
DETAILS

PROJECT:

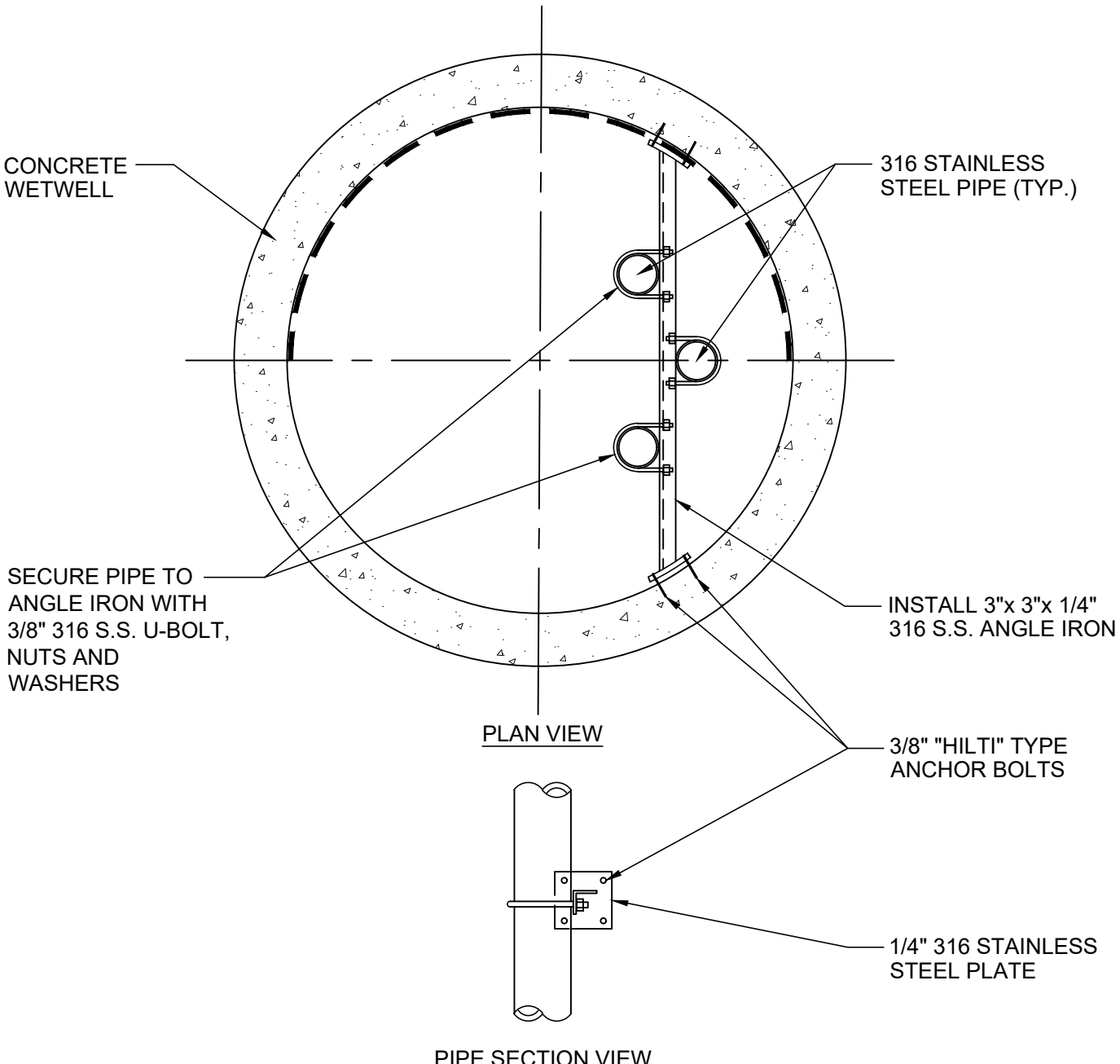
SUBMERSIBLE PUMP STATION
ELECTRICAL DETAILS
CLAY COUNTY, ORANGE PARK, FL

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

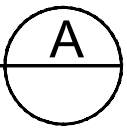


SHEET NO.

S-ELEC7



PIPE ATTACHMENT TO WALL
NOT TO SCALE

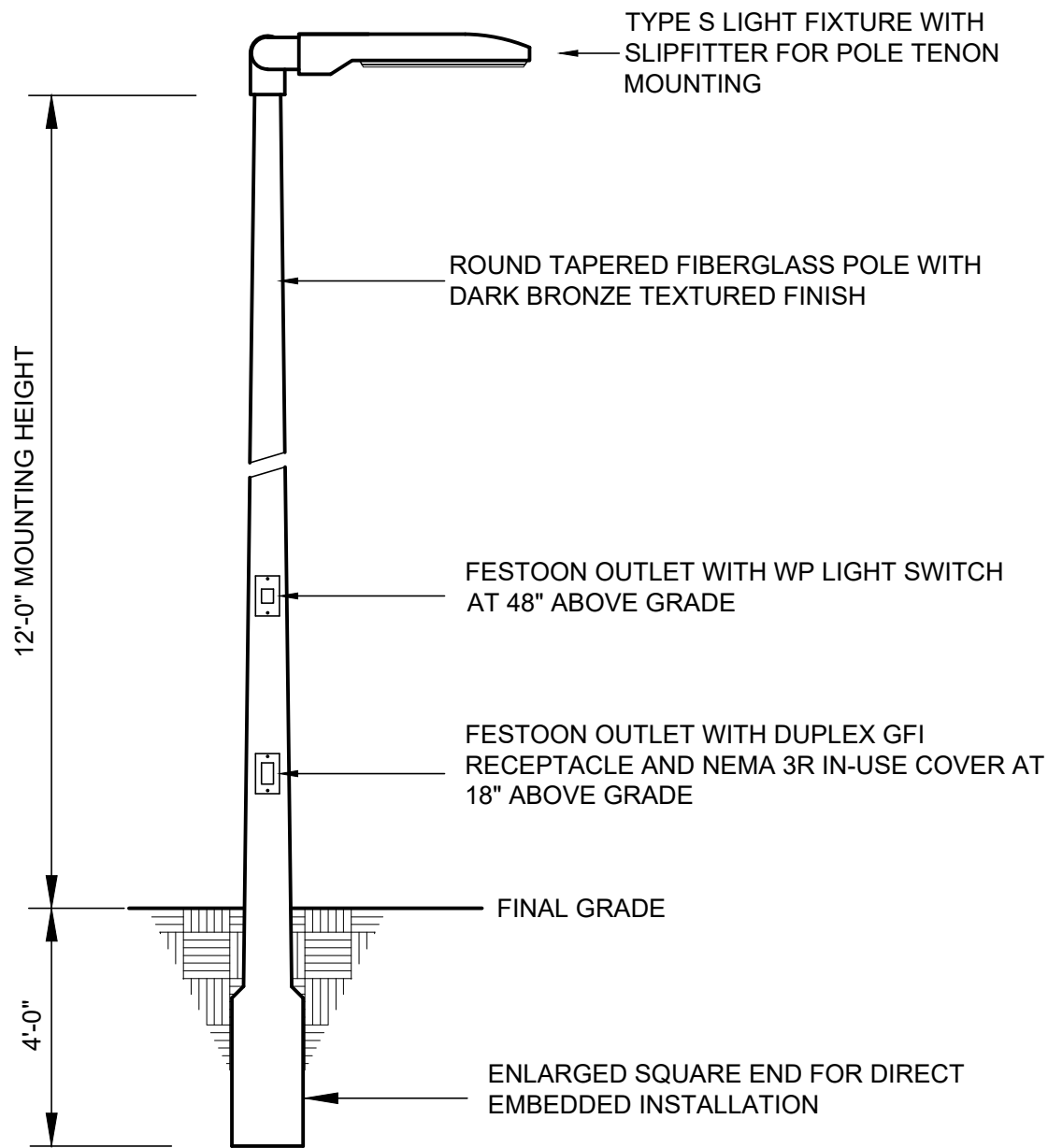


**CLAY COUNTY
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MIDDLEBURG, FLORIDA 32068-3907
TELEPHONE: (904) 272-5999



**PUMP STATION
DETAILS**

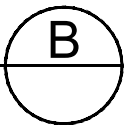
| | |
|----------|-------|
| DESIGN | RHD |
| DRAWN | RHD |
| CHECKED | XXX |
| APPROVED | XXX |
| DATE | 06/22 |



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)

NOT TO SCALE



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

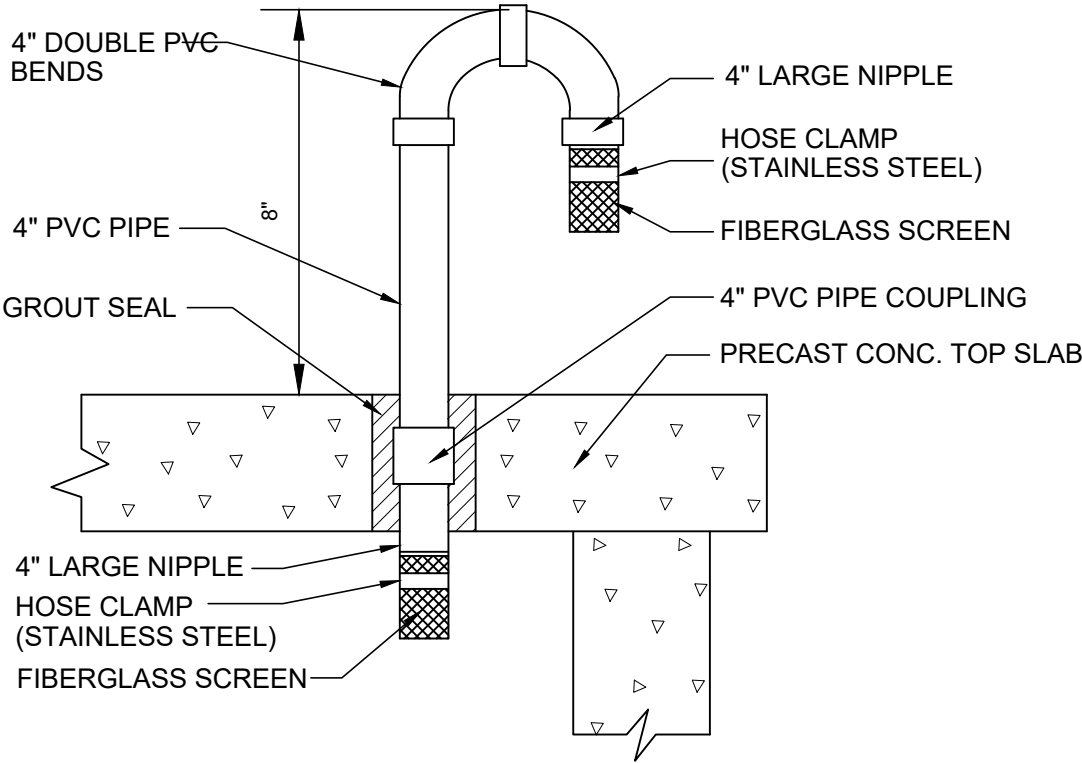
| LIGHT FIXTURE SCHEDULE | | | | |
|------------------------|---|-------|-------|-------|
| TYPE | MANUFACTURER & CATALOG NUMBER | LAMPS | VOLTS | WATTS |
| S | RAB A17 5T 100 SF N 120 WITH A17-SF-KIT | LED | 120 | 100 |

**CLAY COUNTY
UTILITY AUTHORITY**
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 |



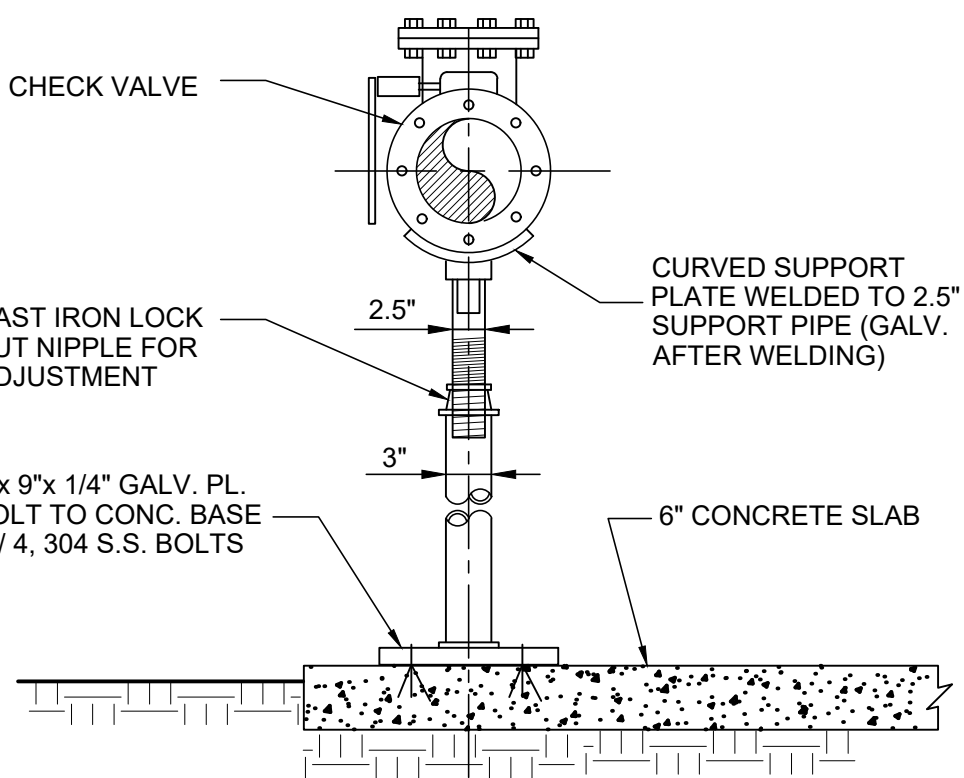
VENT PIPE (STANDARD) D
NOT TO SCALE

**CLAY COUNTY
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TELEPHONE: (904) 272-5999



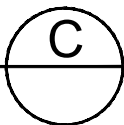
**PUMP STATION
DETAILS**

| | |
|-------|-------|
| DESIG | RHD |
| DRWN | RHD |
| CHKD | XXX |
| APRV | XXX |
| DATE | 06/22 |



PIPE SUPPORT (STANDARD)

NOT TO SCALE



**CLAY COUNTY
UTILITY AUTHORITY**

3176 OLD JENNINGS ROAD
MIDDLEBURG, FLORIDA 32068-3907

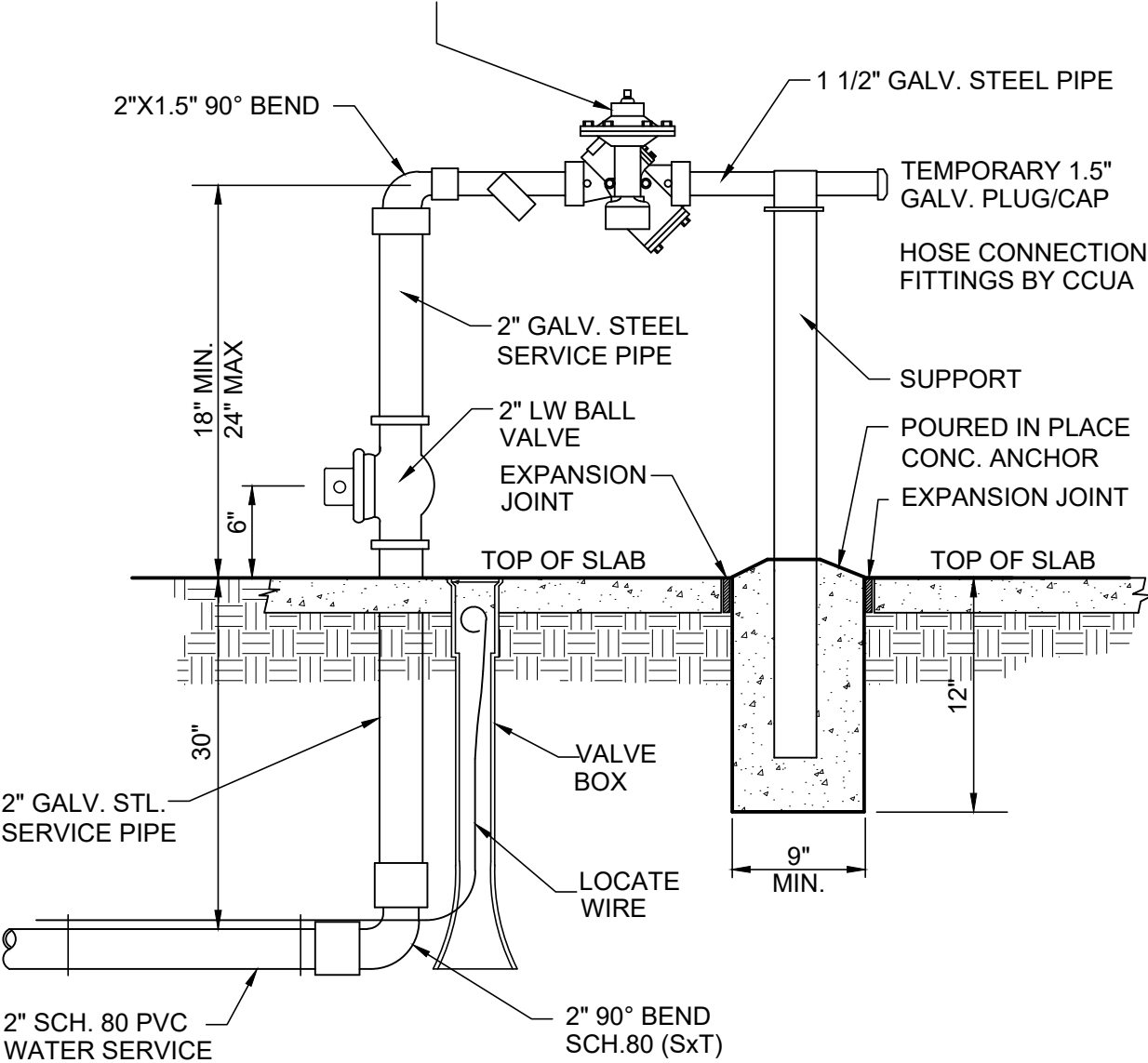
TELEPHONE: (904) 272-5999

**PUMP STATION
DETAILS**

| | |
|----------|-------|
| DESIGN | RHD |
| DRAWN | RHD |
| CHECKED | XXX |
| APPROVED | XXX |
| DATE | 06/22 |



1.5" REDUCED PRESSURE ZONE BACKFLOW PREVENTION DEVICE OR APPROVED
EQUAL. (SEE CCUA MATERIALS STANDARDS SPEC.)



WATER SERVICE (STANDARD) E

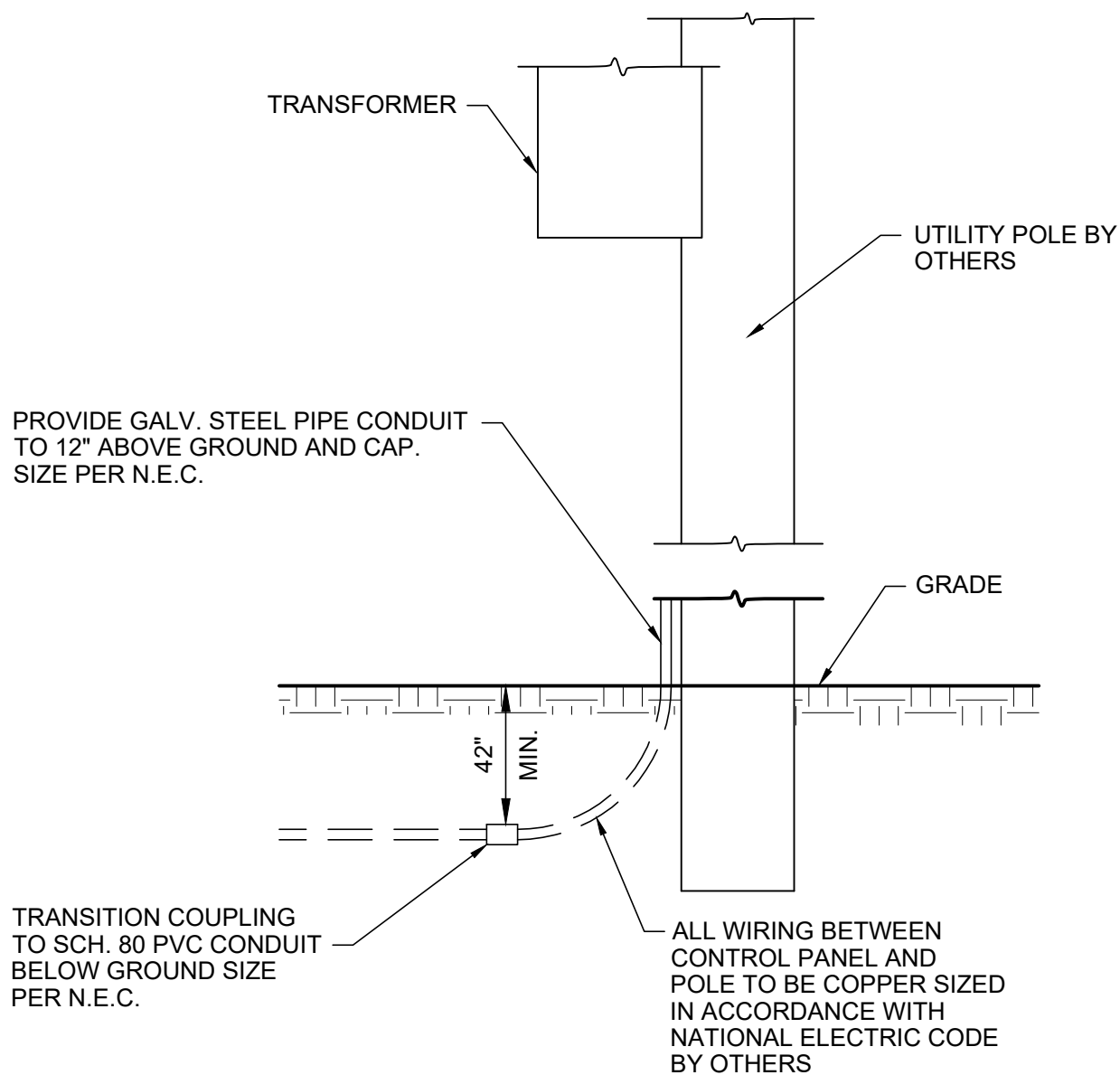
NOT TO SCALE

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



**PUMP STATION
DETAILS**

| | |
|-------|-------|
| DESIG | RHD |
| DRWN | RHD |
| CHKD | XXX |
| APRV | XXX |
| DATE | 06/22 |



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

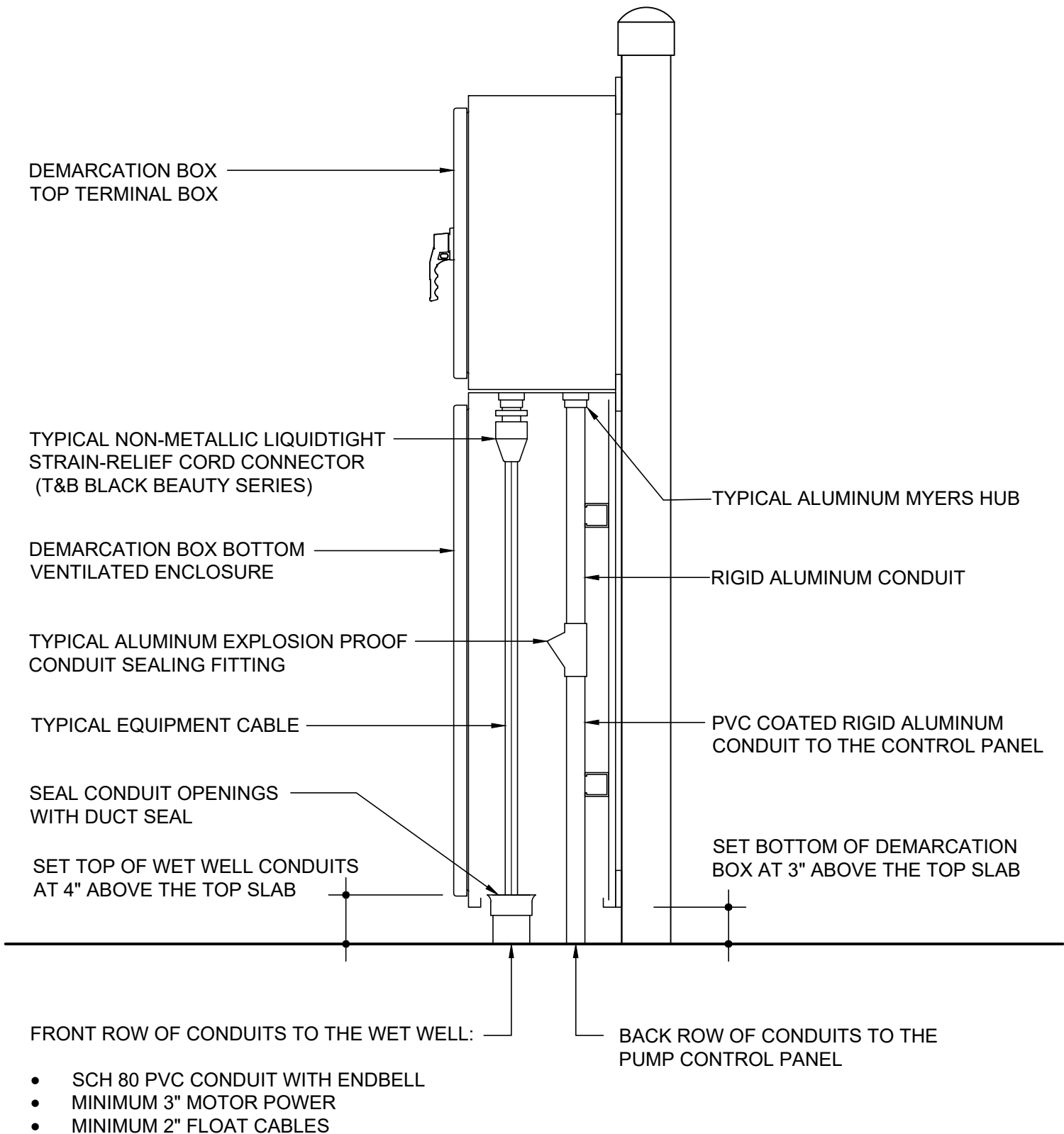
POWER RISER (STANDARD) F
NOT TO SCALE

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MIDDLEBURG, FLORIDA 32068-3907
TELEPHONE: (904) 272-5999



**PUMP STATION
DETAILS**

| | |
|-------|-------|
| DESIG | RHD |
| DRWN | RHD |
| CHKD | XXX |
| APRV | XXX |
| DATE | 06/22 |



WET WELL DEMARCATIION BOX CONDUIT DETAIL G

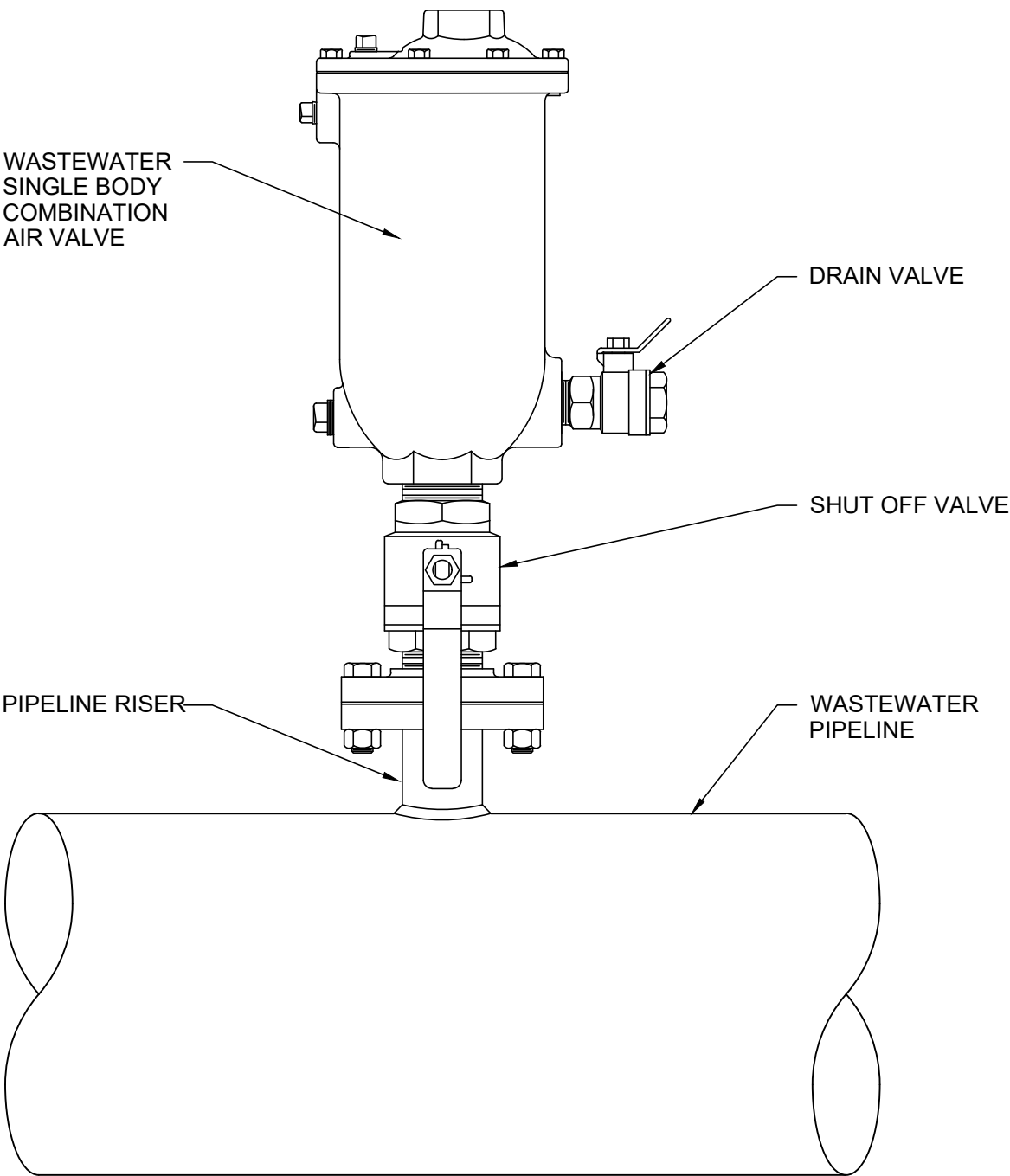
NOT TO SCALE

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



**PUMP STATION
DETAILS**

| | |
|----------|-------|
| DESIGN | RHD |
| DRAWN | RHD |
| CHECKED | XXX |
| APPROVED | XXX |
| DATE | 09/24 |



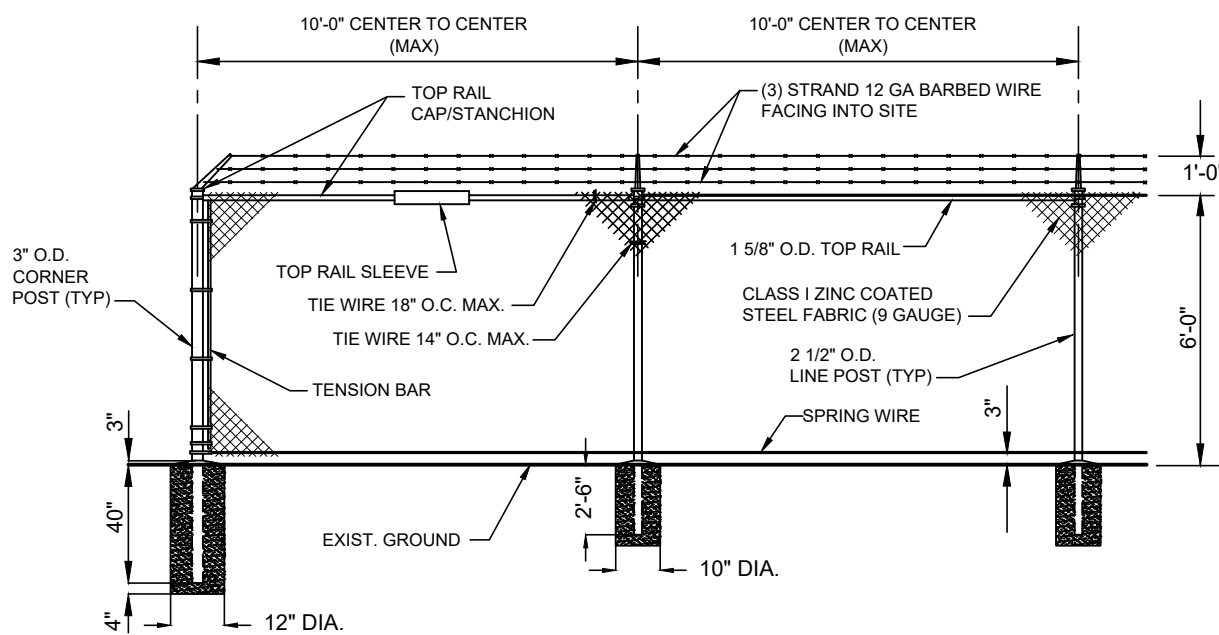
COMBINATION AIR RELEASE VALVE (H)
NOT TO SCALE

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**PUMP STATION
DETAILS**

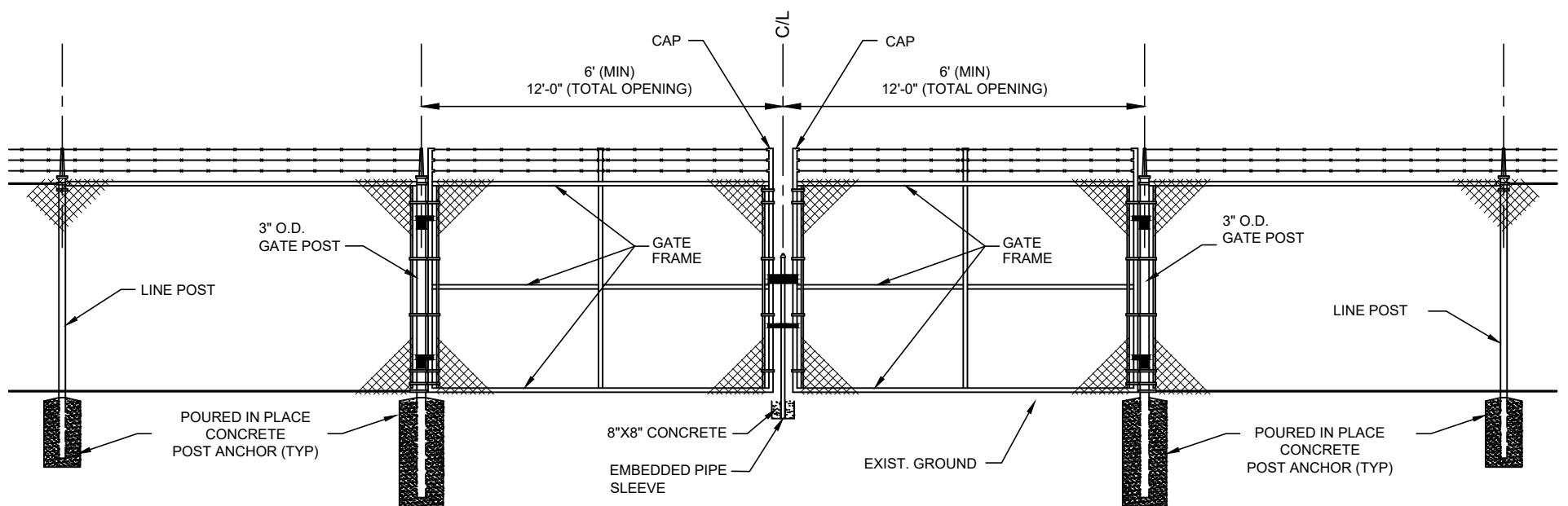
| | |
|----------|-------|
| DESIGN | RHD |
| DRAWN | RHD |
| CHECKED | XXX |
| APPROVED | XXX |
| DATE | 06/22 |



CHAIN LINK FENCE & CORNER POST

NOT TO SCALE

A



GATE

NOT TO SCALE

B

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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| DESG | RHD |
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