

PLAN SYMBOLS

	HOME RUN TO PANELBOARD. NO. OF ARROWS INDICATE NO. OF CIRCUITS, HASH MARKS INDICATE NO. OF #12 AWG. CONDUCTORS. NO HASH MARKS INDICATE 2 #12 CONDUCTORS.
	CONDUIT CONCEALED IN WALL, IN SLAB ABOVE, OR ABOVE CEILING
	CONDUIT CONCEALED IN OR BELOW FLOOR OR UNDERGROUND.
	CONDUIT RUN EXPOSED. RUN PARALLEL OR PERPENDICULAR TO STRUCTURE OR WALL.
	FLEXIBLE CONDUIT WITH EQUIPMENT CONNECTION.
	CONCRETE ENCASED DUCTBANK.
	CEILING MOUNTED LIGHTING FIXTURE, LETTER INDICATES TYPE (TYPICAL).
	WALL MOUNTED LIGHTING FIXTURE.
	FLUORESCENT LIGHTING FIXTURE, CEILING MOUNTED.
	EXTERIOR LUMINAIRE AND MOUNTING STANDARD.
	EXISTING EXTERIOR LIGHTING
	EMERGENCY BATTERY PACK LIGHTING FIXTURE.
	JUNCTION BOX N.E.C. SURFACE MOUNTED UNLESS INDICATED OTHERWISE.
	JUNCTION BOX PER N.E.C., FLUSH MOUNTED UNLESS INDICATED OTHERWISE.
	FLUSH OR SURFACE MOUNTED LIGHTING PANELBOARD.
	FLUSH OR SURFACE MOUNTED POWER PANELBOARD.
	DRY TYPE TRANSFORMER. NO. INDICATES KVA RATING.
	90A, 208V, 1Ø WELDING OUTLET
	20A, 125V, 3W DUPLEX RECEPTACLE IN FLUSH OUTLET BOX, 18" ABOVE FINISHED FLOOR.
	20A, 125V, 3W DUPLEX RECEPTACLE IN FLUSH OUTLET BOX, 48" ABOVE FINISHED FLOOR OR 2" ABOVE COUNTER AS REQUIRED.
	20A, 125V, 3W DUPLEX RECEPTACLE IN FLUSH, FLOOR MOUNTED OUTLET BOX.
	20A, 125V, 3W DUPLEX RECEPTACLE, SURFACE MOUNTED.
	DISCONNECT RACK MOUNTED
	HOA/DISCONNECT RACK MOUNTED
	30A, 250V 1Ø, 3W SINGLE RECEPTACLE IN FLUSH OUTLET BOX, 18" ABOVE FINISHED FLOOR.
	SINGLE POLE SWITCH IN FLUSH OUTLET BOX, 48" ABOVE FINISHED FLOOR, UNLESS OTHERWISE NOTED (TYPICAL).
	SINGLE POLE SWITCH, SURFACE MOUNTED.
	THREE-WAY SWITCH IN FLUSH OUTLET BOX.
	MOTOR DUTY, SINGLE PHASE DISCONNECT, NEMA 4X STAINLESS STEEL
	NON-FUSIBLE DISCONNECT SWITCH, 30A, 3P UNLESS OTHERWISE INDICATED.
	NON-FUSIBLE DISCONNECT SWITCH, 30A, 3P UNLESS OTHERWISE INDICATED, WITH REMOTE CONTROL STATION AS REQUIRED BY ELEMENTARY DIAGRAMS OR SPECS
	ELECTRIC A.C. MOTOR, NO. INDICATES HORSEPOWER.
	FUSED DISCONNECT SWITCH (30/20: 30=SWITCH RATING, 20=FUSE RATING)
	MOTORIZED VALVE
	COMBINATION MOTOR STARTER
	VARIABLE FREQUENCY DRIVE
	THERMOSTAT
	ELECTRIC HEATER
	FLUSH OUTLET BOX AND TELEPHONE COVER PLATE 48" ABOVE FINISHED FLOOR.
	CONTROL PULLBOX. SEE "PULL BOX DETAIL"
	POWER MANHOLE. SEE "MANHOLE DETAIL"
	TERMINATION CABINET, CLASS 1, DIVISION 2
	EYS FITTING AND CORRESPONDING "CHICO" CEMENT. COMBINATION SHALL BE RATED TO PROVIDE A CLASS 1, DIVISION 2 INSTALLATION.
	MAJOR COMPONENT, X COMPONENT NUMBER
	NAMEPLATE SCHEDULE

PLAN SYMBOLS (CONTINUED)

	ANALYZING INDICATING TRANSMITTER
	FLOW ELEMENT
	LEVEL SWITCH
	LEVEL ELEMENT
	PRESSURE SWITCH
	ZERO SPEED SWITCH
	SOLENOID VALVE
	LIQUID LEVEL SWITCH
	FLOW SWITCH
	FLOW INDICATING TRANSMITTER
	LEVEL INDICATING TRANSMITTER

SINGLE LINE DIAGRAM SYMBOLS

	COMBINATION MOTOR STARTER
	VOLTMETER
	AMMETER
	THREE PHASE VOLT SWITCH
	THREE PHASE AMP SWITCH
	GROUND FAULT INTERRUPTER
	WATT HOUR METER
	FUSE
	CAPACITOR
	DRAW-OUT CIRCUIT BREAKER
	MOLDED CASE CIRCUIT BREAKER
	TYPICAL SELECTOR SWITCH AND CONTROL. SEE ELEMENTARY DIAGRAMS FOR EXACT TYPE.
	ELECTRIC A.C. MOTOR, NO. INDICATES HORSEPOWER.
	ELECTRIC D.C. MOTOR, NO. INDICATES HORSEPOWER.
	SERVICE OR EQUIPMENT GROUND.
	NON-FUSIBLE DISCONNECT SWITCH, 30A, 3P UNLESS OTHERWISE INDICATED.
	NON-FUSIBLE DISCONNECT SWITCH, 30A, 3P UNLESS OTHERWISE INDICATED, WITH REMOTE CONTROL STATION AS REQUIRED BY ELEMENTARY DIAGRAMS OR SPECS
	LIGHTING PANELBOARD
	POWER PANELBOARD
	KIRK KEY INTERLOCK
	CURRENT TRANSFORMERS
	POTENTIAL TRANSFORMERS
	MANUAL OR AUTOMATIC TRANSFER SWITCH

CONTROL DIAGRAM SYMBOLS

	DUPLEX RECEPTACLE
	NORMALLY OPEN CONTACT
	NORMALLY CLOSED CONTACT
	LIMIT SWITCH, NORMALLY OPEN
	LIMIT SWITCH, NORMALLY CLOSED
	PRESSURE SWITCH, NORMALLY OPEN
	PRESSURE SWITCH, NORMALLY CLOSED
	FLOAT SWITCH, NORMALLY OPEN
	FLOAT SWITCH, NORMALLY CLOSED

CONTROL DIAGRAM SYMBOLS (CONTINUED)

	FLOW SWITCH, NORMALLY OPEN
	FLOW SWITCH, NORMALLY CLOSED
	TEMPERATURE SWITCH, NORMALLY OPEN
	TEMPERATURE SWITCH, NORMALLY CLOSED
	NORMALLY OPEN, TIMED TO CLOSE CONTACT
	NORMALLY CLOSED, TIMED TO OPEN CONTACT
	NORMALLY CLOSED, TIMED TO CLOSE CONTACT
	NORMALLY OPEN, TIMED TO OPEN CONTACT
	LIMIT SWITCH
	TORQUE SWITCH
	PRESSURE SWITCH
	ZERO SPEED SWITCH
	SOLENOID VALVE
	LIQUID LEVEL SWITCH
	VIBRATION SWITCH
	ALARM RELAY
	ALARM TIMER
	CONTROL RELAY
	MOTOR STARTER
	TIMING RELAY
	ALARM INDICATING LIGHT
	RUN INDICATING LIGHT
	MOMENTARY CONTACT PUSHBUTTON
	MOMENTARY BREAK PUSHBUTTON OR RESET
	KEYED SWITCH
	MAINTAINED CONTACT ON-OFF SWITCH
	START/STOP (S/S) CONTROL SWITCH MAINTAINED CONTACT
	THREE POSITION MAINTAINED CONTACT SELECTOR SWITCH
	FUSE
	MOLDED CASE CIRCUIT BREAKER
	CONTROL POWER TRANSFORMER
	REMOTE TERMINAL BLOCK POINT
	HORN

ABBREVIATIONS

A	AMPERES
ACCU	AIR COOLED CONDENSING UNIT
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AIC	AMPS INTERRUPTING CURRENT
AER	AERATOR
ATS	AUTOMATIC TRANSFER SWITCH
BKR	BREAKER
BLDG	BUILDING
C	CONDUIT
CLB	CURRENT LIMITING BREAKER
CP	CONTROL PANEL
CU	COPPER
DH	DATA HIGHWAY
DISC	DISCONNECT
DO	DIGITAL OUTPUT
DPDT	DOUBLE POLE DOUBLE THROW
DPST	DOUBLE POLE SINGLE THROW
EFF	EFFLUENT
ELEC	ELECTRICAL
ELR	EMERGENCY LOCK-OUT RELAY
EM	EMERGENCY
ENCL	ENCLOSURE
EP	EXPLOSION PROOF
ESB	ENERGY SAVING BALLAST
ETM	ELAPSED TIME METER
EUH	ELECTRIC UNIT HEATER

ABBREVIATIONS (CONTINUED)

EVA	ELECTRIC VALVE ACTUATOR
EXH	EXHAUST
EXIST	EXISTING
F&I	FINISH AND INSTALL
FPL	FLORIDA POWER AND LIGHT
FVNR	FULL VOLTAGE NON-REVERSING GENERATOR
GEN	GENERATOR
GFI	GROUND FAULT INTERRUPTER
GND, G	GROUND
GRS	GALVANIZED RIGID STEEL
HOA	HAND-OFF-AUTOMATIC
HOLR	HAND-OFF-LOCAL-REMOTE
HOR	HAND-OFF-REMOTE
HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
HWY	HIGHWAY
INSTR	INSTRUMENTATION
IPS	INFLUENT PUMP STATION
KVA	KILOVOLT-AMPERES
KW	KILOWATT
LTG	LIGHTING
MAX	MAXIMUM
MCC	MOTOR CONTROL CENTER
MFR	MANUFACTURER
MH	METAL HALIDE
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MSC	MANUFACTURER SUPPLIED CABLE MOUNTED
MTD	MOUNTED
MTS	MANUAL TRANSFER SWITCH
MV	MERCURY VAPOR
NEC	NATIONAL ELECTRIC CODE
NEUT, N	NEUTRAL
NTS	NOT TO SCALE
OC	ON CENTER
OH	OVERHEAD
P	POLE
PC	PHOTOCELL
PCP	PUMP CONTROL PANEL
PE	POWER EQUIPMENT
PM	PHASE MONITOR
PNL	PANEL
PS	PUMP STATION
PVC	POLYVINYL CHLORIDE
RA	RIGID ALUMINUM
RECPT	RECEPTACLE
RTU	REMOTE TELEMETRY UNIT
RVNR	REDUCED VOLTAGE NON-REVERSING
SH	SHIELDED
SS	STAINLESS STEEL
STP	SHIELDED TWISTED PAIR
STR	STARTER
SUPP	SUPPRESSOR
SW	SWITCH
SWGR	SWITCHGEAR
TBR	TO BE REMOVED
TD	TIME DELAY
TR	TRANSFORMER
TYP	TYPICAL
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTABLE POWER SUPPLY
UV	ULTRAVIOLET
V	VOLT
VFD	VARIABLE FREQUENCY DRIVE
W	WATT
W/	WITH
WP	WEATHERPROOF
Ø	PHASE

NOTES

- ALL WORK SHALL COMPLY WITH N.E.C. AND LOCAL CODES.
- CONDUCTORS SHALL NOT BE SPLICED EXCEPT AS NOTED IN SPECS.
- ALL CONTROL PANELS SHALL BE UL LISTED.
- THESE DRAWINGS ARE INTENDED TO SHOW STANDARDS ON NEW PUMP STATIONS. AT THE COUNTY'S DISCRETION REHABS AND RENOVATIONS MAY HAVE DIFFERING DETAILS ON A SITE BY SITE BASIS.

REVNO.	DESCRIPTIONS	DATE
2	REVISED TO REFLECT CURRENT COUNTY STANDARDS	3/7/20
1	CONFORMED	6/18/18

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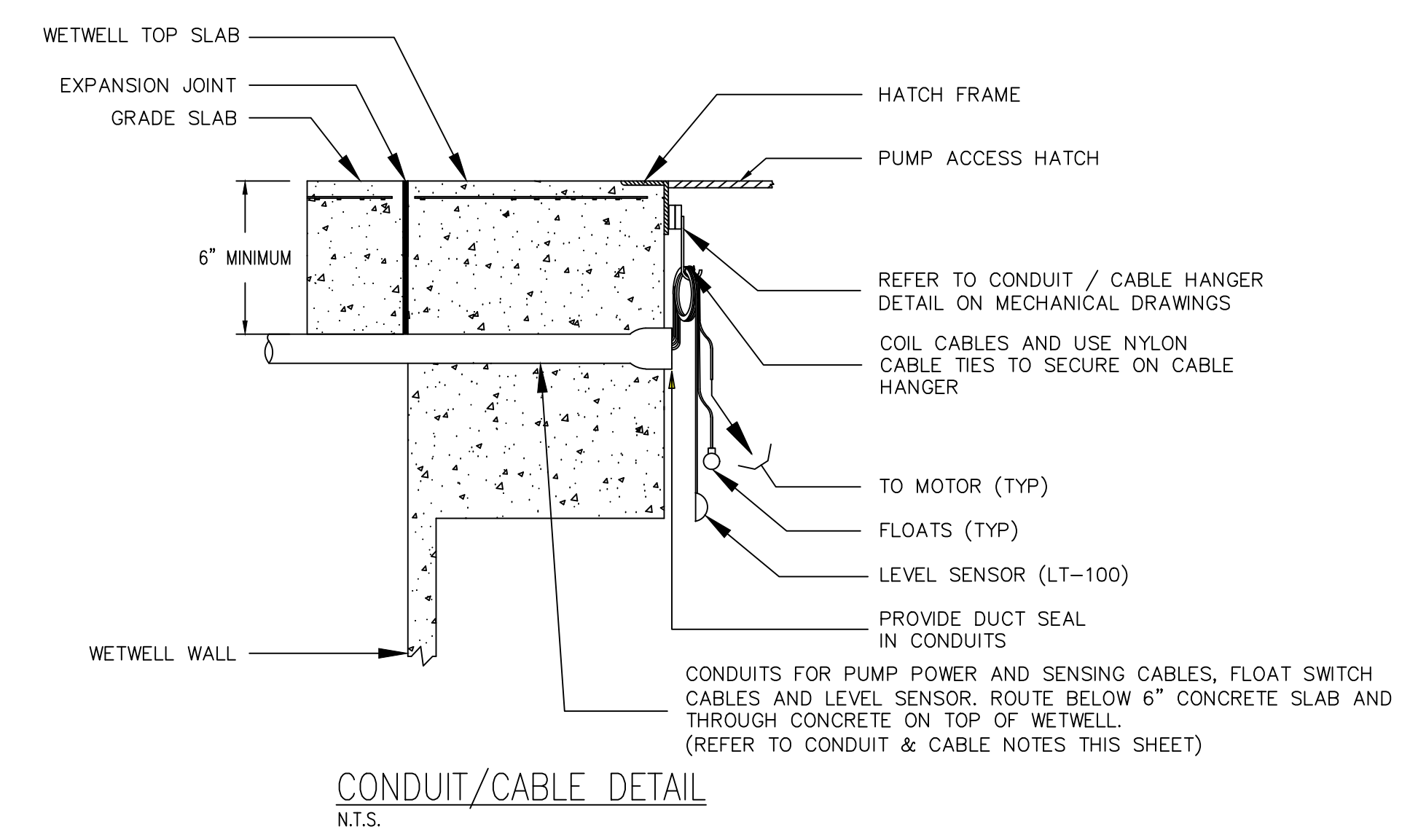
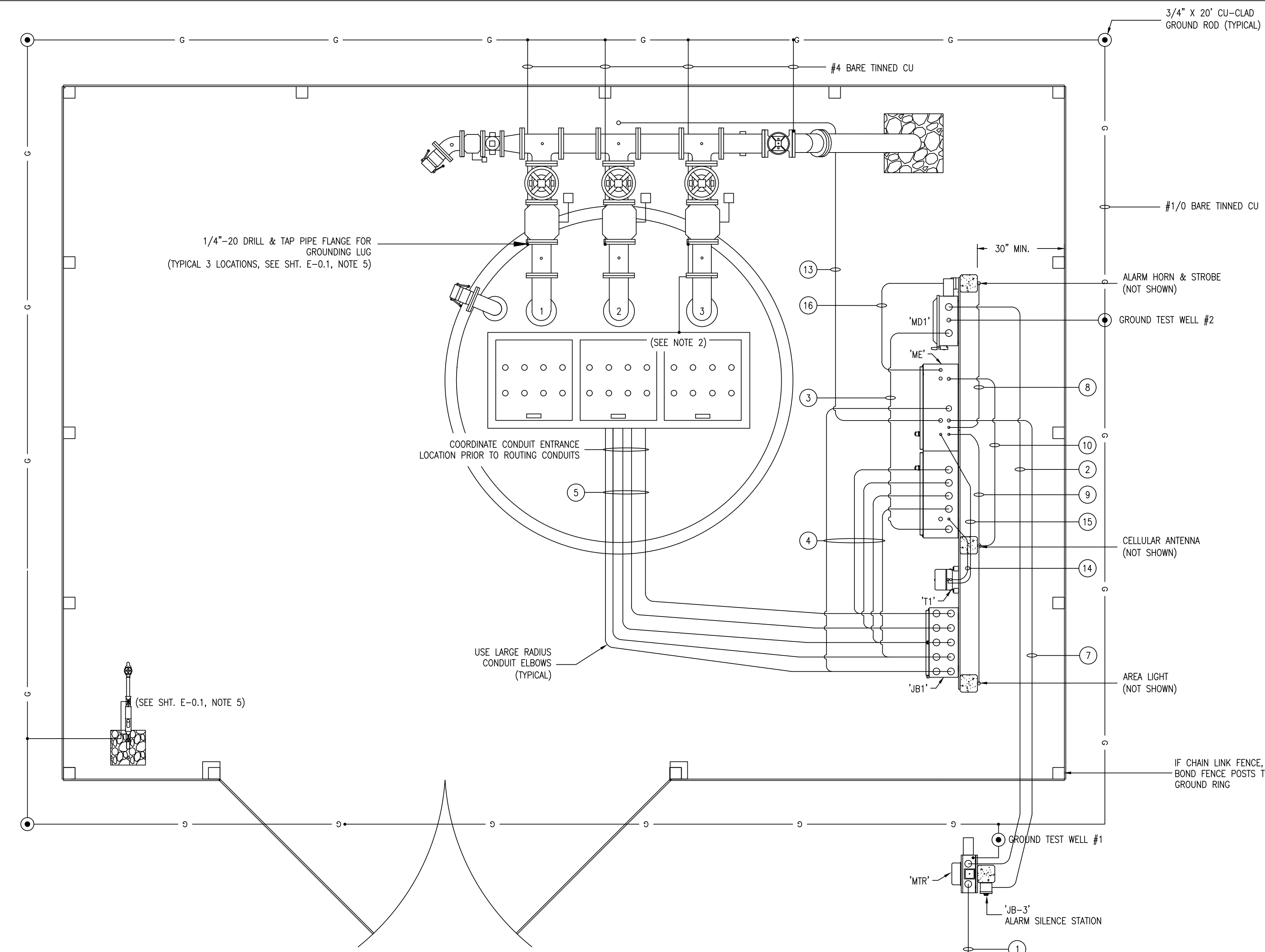
TRIPLEX WASTEWATER PUMP STATION
 ELECTRICAL, CONTROL & INSTRUMENTATION

ELECTRICAL SYMBOLS, NOTES,
 AND ABBREVIATIONS

ISSUE DATE: NOVEMBER 2021	SCALE	FILE NUMBER
PROJ. #	HORIZONTAL:	DRAWING NUMBER
DRAWN	VERTICAL:	E-0.0
DESIGNED	NA	
CHECKED		
PROJ. MGR.		
STATUS: REVISED		REVISION 2

GENERAL NOTES:

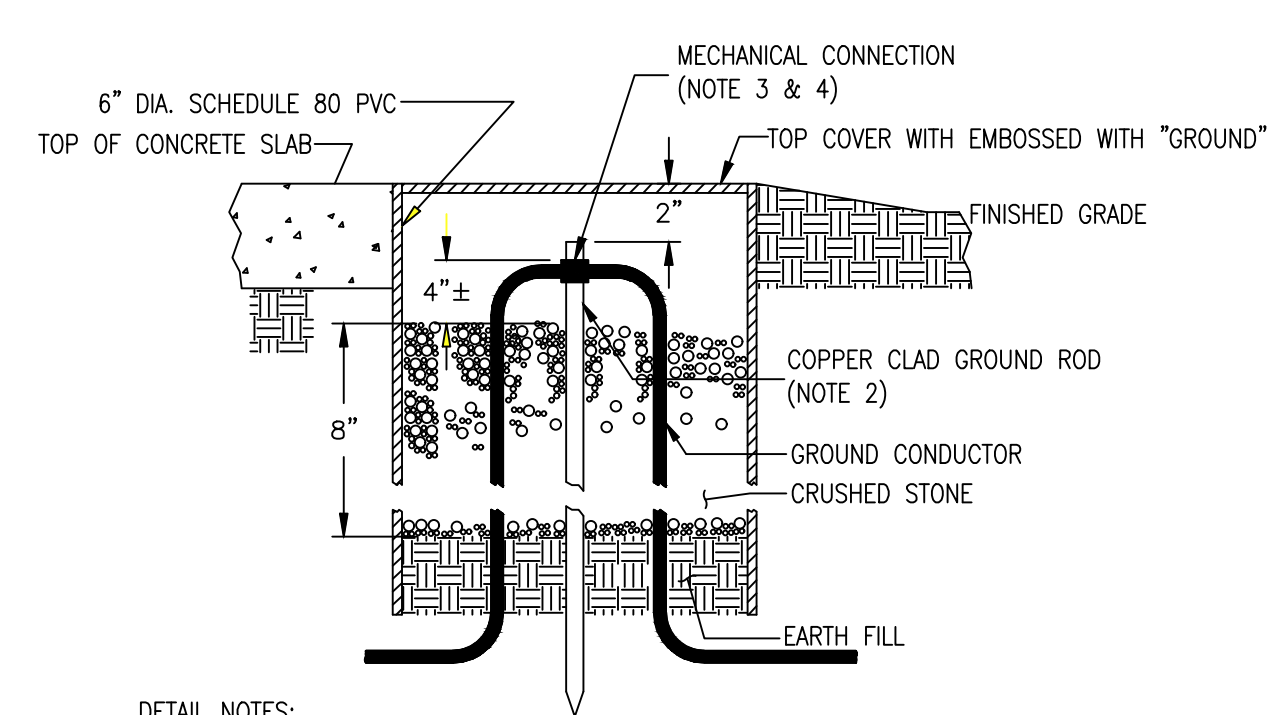
- REFER TO GENERAL NOTES SHT. E-0.1, INCLUDING OWNER'S STANDARDS AND REQUIREMENTS.
- GROUND CONDUCTOR AT FORCEMAIN PIPING SHALL EXTEND THROUGH SLAB VIA 1" SCH. 80 PVC CONDUIT. BOND GROUND CONDUCTOR TO PUMPS ABOVE GRADE PIPING AT CHECK VALVES FLANGE CONNECTION, TO FORCEMAIN FLANGE CONNECTION AND TO ACCESS HATCH COVER.



CONDUIT & CABLE NOTES:

- INSTALL THE FOLLOWING CONDUIT AND CABLE:
- [SVC TO MTR] 2" C, WIRE SIZE SEE CHART E-1.2
 - [MTR TO MD1] 2" C, WIRE SIZE SEE CHART E-1.2
 - [MD1 TO ME/CB1] 2" C, WIRE SIZE SEE CHART E-1.2
 - [ME/PMP1 TO JB1] 2" C, WIRE SIZE SEE CHART E-1.2
[ME/PMP2 TO JB1] 2" C, WIRE SIZE SEE CHART E-1.2
[ME/PMP3 TO JB1] 2" C, WIRE SIZE SEE CHART E-1.2
[ME/CONTL TO WELL] 2" C, FLOATS (24VAC) 6-#12 AWG, WELL LEVEL (24VDC) 1-#16 STP
[ME/SPARE TO WELL] 2" C
 - [JB1/PMP1 TO WELL] 2" C, MFR. CABLE
[JB1/PMP2 TO WELL] 2" C, MFR. CABLE
[JB1/PMP3 TO WELL] 2" C, MFR. CABLE
[JB1/CONTL TO WELL] 2" C, FLOATS (24VAC) MFR. CABLE, WELL LEVEL (24VDC) MFR. CABLE
[JB1/SPARE TO WELL] 2" C
 - N/A
 - [ME/ALM SIL TO JB3] 0.5" C, (120VAC) 2-#14 #12G
 - [ME/ALM STROBE-HORN TO JB2] 0.75" C, (120VAC) 4-#14 #12G
 - [ME/AREA LIGHT TO AREA LIGHT] 0.75" C, (120VAC) 3-#12 #12G
 - [ME/CELLULAR TO CELLULAR ANTENNA] 3/4" C, CELLULAR CABLE
 - N/A
 - N/A
 - [ME/PRESS TO FM PRESS TRANSMITTER] 1" C, 1-16STP
 - (480VAC ONLY) [ME/CB11 TO T1] 0.75" C, (480VAC) 2-#12 #12G
 - (480VAC ONLY) [T1 TO ME/CB12] 0.75" C, (120VAC) 2-#10
 - [ME/CB21 TO RECP1] 0.75" C, RECP1 POWER (120VAC) 2-#12 #12G

ELECTRICAL SITE PLAN
1/2" = 1'



- DETAIL NOTES:**
- TYPICAL FOR EACH GROUND ROD.
 - 3/4" x 20' COPPER CLAD DRIVEN GROUND ROD; THREE (3) GROUND RODS MINIMUM PER SITE.
 - "TEST WELLS" AT TECO METER & MD1 SHALL USE MECHANICAL CONNECTIONS, TO FACILITATE ISOLATING THE GROUNDING SYSTEM FROM THE UTILITY GROUND FOR TESTING PURPOSES.
 - CONTRACTOR SHALL MEASURE THE RESISTANCE OF INSTALLED GROUNDING ELECTRODES AND IF ABOVE 5 OHMS, CONTRACTOR SHALL AUGMENT THE GROUND SYSTEM AS NECESSARY.

DESIGN BASIS NOTE:
THIS DRAWING REPRESENTS THE STANDARD DESIGN FOR ALL HILLSBOROUGH COUNTY STANDARD WASTEWATER PUMPING STATIONS. IT WAS DEVELOPED TO IMPROVE RELIABILITY AND MAINTAINABILITY, MINIMIZE SPARE PARTS AND INCREASE SERVICE LIFE. ALL REQUESTS FOR DEVIATION FROM THIS STANDARD MUST BE MADE IN WRITING AND WRITTEN APPROVAL RECEIVED BEFORE MODIFICATIONS ARE MADE. CONTRACTOR IS RESPONSIBLE FOR ALL COSTS NECESSARY TO RESTORE UNAUTHORIZED MODIFICATIONS.

DESIGN ENGINEER NOTE: *THIS IS NOT A CONSTRUCTION DRAWING*
DESIGN ENGINEER SHALL REFER TO ELECTRICAL DRAWINGS, MECHANICAL DRAWINGS, AND THE HILLSBOROUGH COUNTY WATER AND WASTEWATER TECHNICAL SPECIFICATION IN ORDER TO COORDINATE THE MECHANICAL AND ELECTRICAL INSTALLATIONS. DESIGN ENGINEER SHALL NOT USE THIS DRAWING FOR A SPECIFIC SITE INSTALLATION. FOR EACH INSTALLATION A SPECIFIC SET OF CONSTRUCTION DRAWINGS AND SPECIFICATIONS (IF DEEMED NECESSARY BY THE DESIGN ENGINEER) MUST BE PREPARED IN ACCORDANCE WITH F.S. 471 AND RULES 61G.

REVNO.	DESCRIPTIONS	DATE
6	REVISED, TO REFLECT CURRENT COUNTY STANDARDS	11/23/21
5	REVISED, TO REFLECT CURRENT COUNTY STANDARDS	3/8/20
4	REVISED, TO REFLECT CURRENT COUNTY STANDARDS	9/29/17
3	REVISED, TO INCORPORATE FIELD CHANGES	10/16/15
2	REVISED, TO INCORPORATE FIELD CHANGES	9/26/15
1	CONFORMED	2/17/13

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SEAL



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TECHNICAL SERVICES DIVISION
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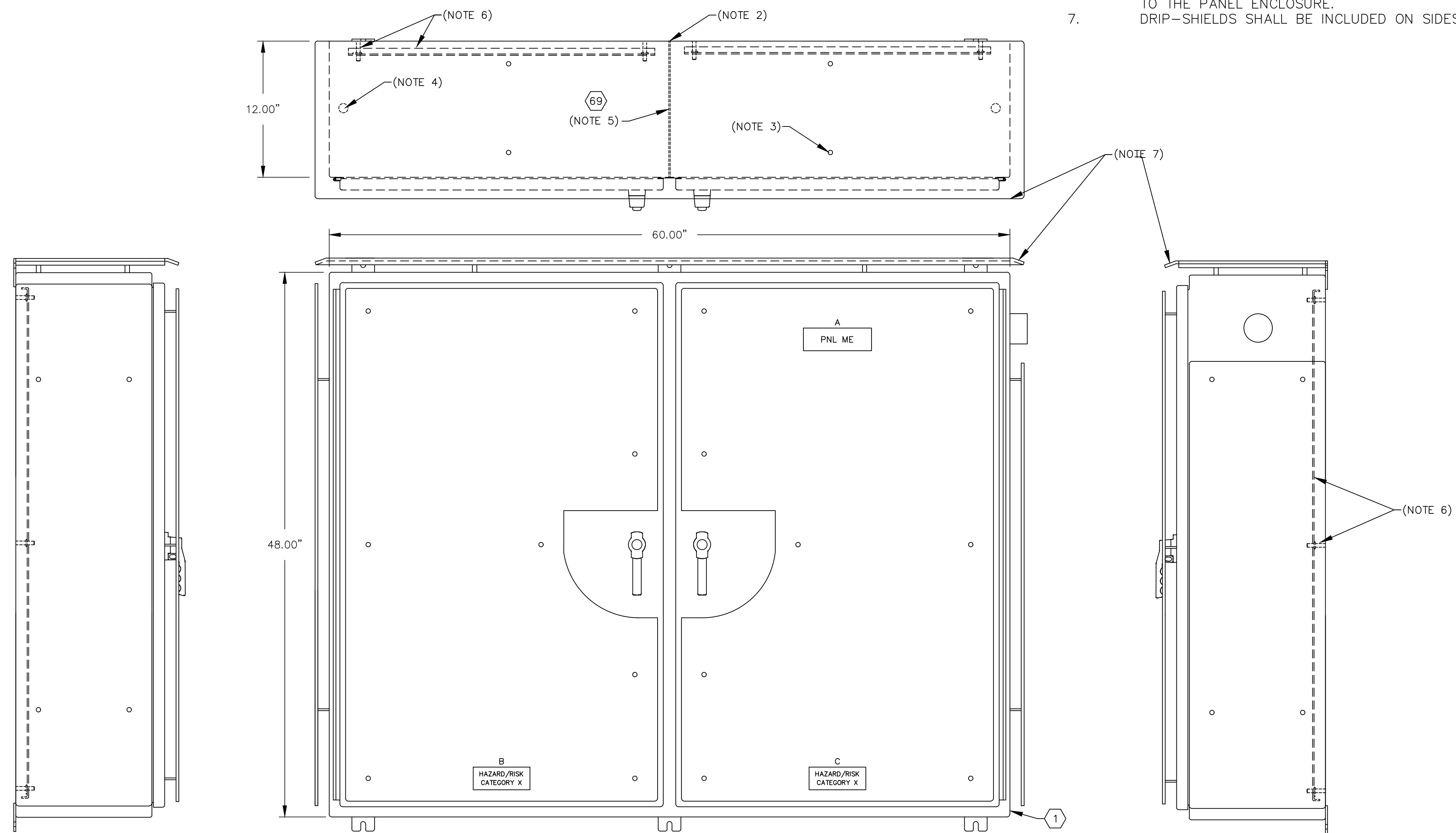
TRIPLEX WASTEWATER PUMP STATION
ELECTRICAL, CONTROL & INSTRUMENTATION

ELECTRICAL SITE PLAN AND DETAIL
(3PH, 480V/3-20HP)

ISSUE DATE: NOVEMBER 2021	SCALE	FILE NUMBER
PROJ. #	HORIZONTAL:	DRAWING NUMBER
DRAWN	VERTICAL:	E-0.2
DESIGNED	NA	
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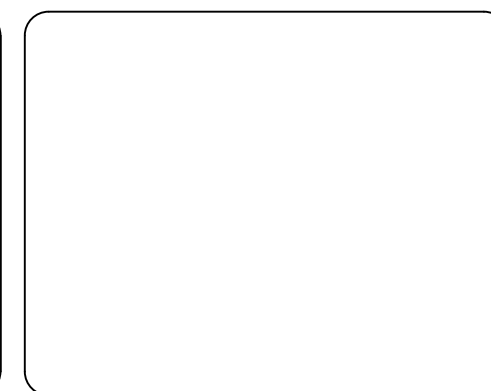
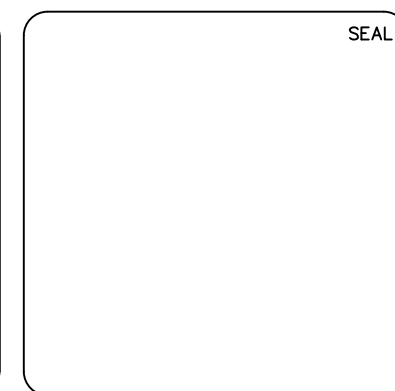
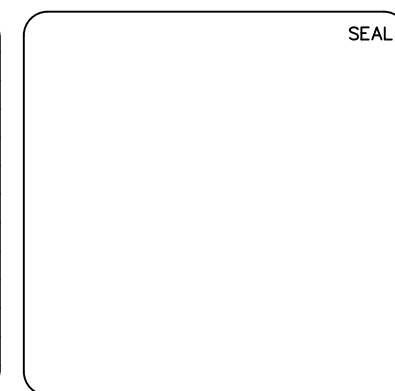

1. REFER TO SHT. E-1.2 FOR BILL OF MATERIAL, NAMEPLATE LEGEND AND ELECTRICAL SIZING; E-1.3 THRU E-1.8 FOR SCHEMATICS.
2. WELDED CABINET DIVIDER SHALL PROVIDE COMPLETE ISOLATION BETWEEN CABINET HALVES.
3. ATTACH SUN-SHIELD WITH STAINLESS STEEL HARDWARE. TYPICAL.
4. REMOVABLE LIFTING EYE SOCKET. IMMEDIATELY AFTER CABINET INSTALLATION, INSTALL SS PLUG BOLT AND RUBBER WASHER TO PROVIDE WATER-TIGHT SEAL. TYPICAL (2).
5. INSTALL PASS-THROUGH CABLE FITTINGS AT DIVIDER PLATE (BOTTOM & CENTERED) TYP. 3 (POWER, COMM, CONTROL)
6. THE SUBPANEL SHALL BE MOUNTED AND FASTENED TO THREADED STANDOFFS THAT ARE WELDED TO THE PANEL ENCLOSURE.
7. DRIP-SHIELDS SHALL BE INCLUDED ON SIDES AND FRONT OF THE TOP SUN-SHIELD.



EXTERIOR ELECTRICAL/CONTROL CABINET, (ME)

5/32"=1"

REVNO.	DESCRIPTIONS	DATE
6	REVISED, TO REFLECT CURRENT COUNTY STANDARDS	9/25/20
5	REVISED, TO REFLECT CURRENT COUNTY STANDARDS	3/9/20
4	REVISED, TO REFLECT CURRENT COUNTY STANDARDS	9/29/17
3	REVISED, TO INCORPORATE FIELD CHANGES	10/16/15
2	REVISED, TO INCORPORATE FIELD CHANGES	9/25/15
1	CONFORMED	5/17/13

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TRIPLEX WASTEWATER PUMP STATION
 ELECTRICAL, CONTROL & INSTRUMENTATION

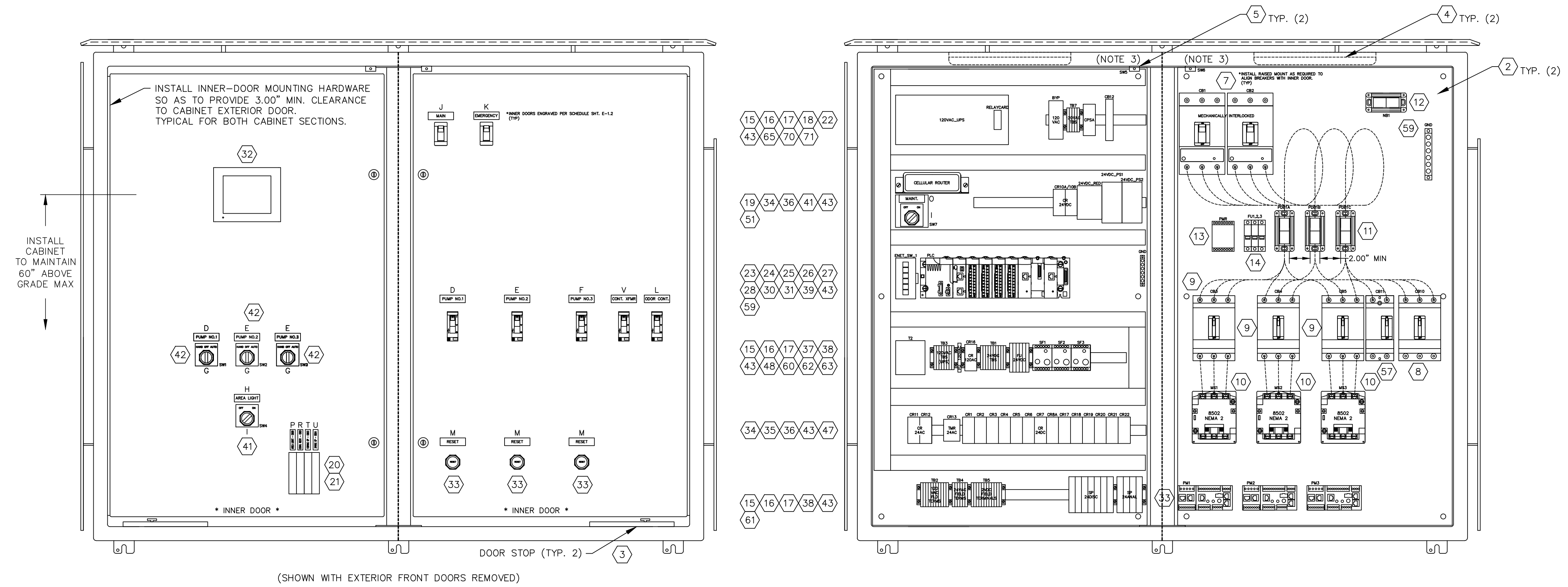
ELECTRICAL/CONTROL ENCLOSURE
 EXTERIOR LAYOUT
 (3PH)(480V/3-20HP)

ISSUE DATE: NOVEMBER 2021
PROJ. # _____
DRAWN _____
DESIGNED _____
CHECKED _____
PROJ. MGR. _____
STATUS: REVISED

SCALE	FILE NUMBER
HORIZONTAL: _____	DRAWING NUMBER
VERTICAL: NA	E-1.0
REVISION	6

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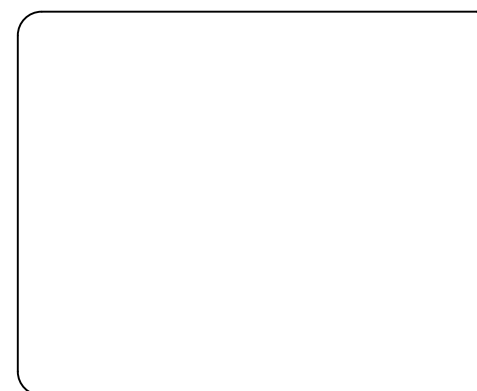
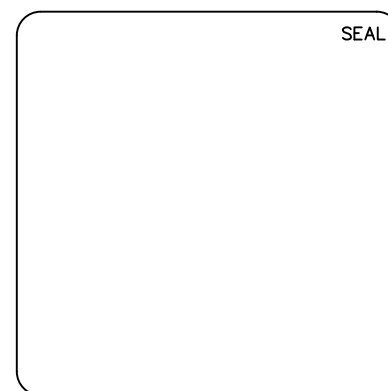
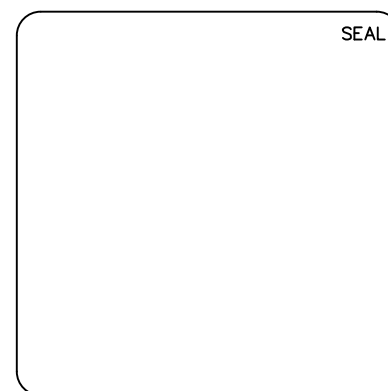
1. REFER TO SHT. E-1.2 FOR BILL OF MATERIAL, NAMEPLATE LEGEND AND ELECTRICAL SIZING; E-1.3 THRU E-1.8 FOR SCHEMATICS.
2. INSTALL STAND-OFF BRACKETS AS REQ'D TO EXTEND CIRCUIT BREAKERS TO INNER DOOR.
3. INSTALL DOOR SWITCHES TO INSURE THAT ACTUATION PLUNGER CLEARS WEATHER-STRIPPING AND MAKES CLEAR CONTACT WITH DOOR SURFACE.



INTERIOR ELECTRICAL/CONTROL CABINET, (ME)

5/32"=1"

REVNO.	DESCRIPTIONS	DATE
6	REVISED, TO REFLECT CURRENT COUNTY STANDARDS	9/25/20
5	REVISED, TO REFLECT CURRENT COUNTY STANDARDS	9/29/17
4	REVISED, TO INCORPORATE UPS MODIFICATIONS & DOOR SWITCH INSTALLATION NOTE	6/7/16
3	REVISED, TO INCORPORATE FIELD CHANGES	10/16/15
2	REVISED, TO INCORPORATE FIELD CHANGES	8/26/15
1	CONFORMED	5/17/13



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TRIPLEX WASTEWATER PUMP STATION
ELECTRICAL, CONTROL & INSTRUMENTATION

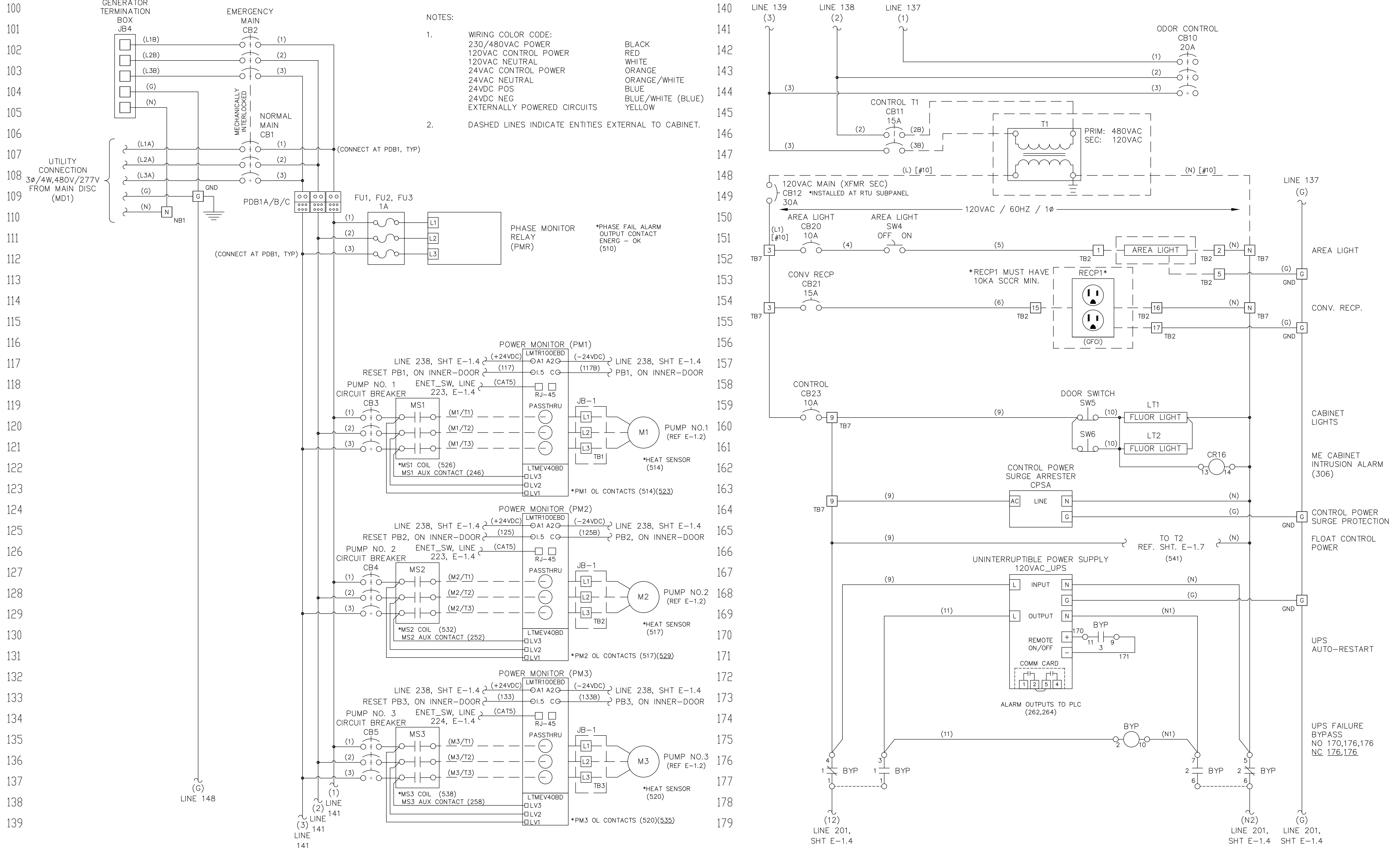
ELECTRICAL/CONTROL ENCLOSURE
INTERIOR LAYOUT
(3PH)(480V/3-20HP)

ISSUE DATE: NOVEMBER 2021
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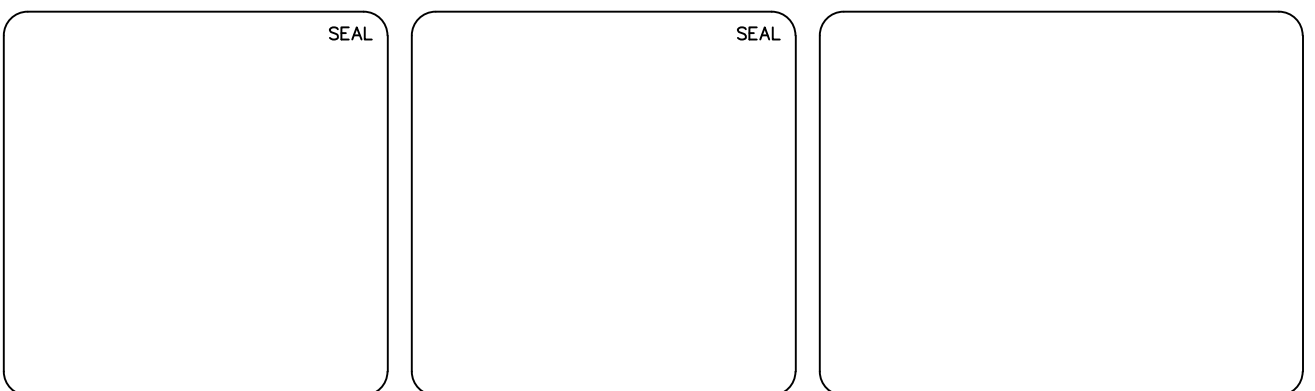
SCALE	FILE NUMBER
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VERTICAL:	E-1.1
NA	

STATUS:	REVISION
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ELECTRICAL/CONTROL CABINET, (ME)



REVNO.	DESCRIPTIONS	DATE
6	REVISED, TO REFLECT CURRENT COUNTY STANDARDS	9/25/20
5	REVISED, TO REFLECT CURRENT COUNTY STANDARDS	9/26/17
4	REVISED, TO INCORPORATE UPS SYSTEM MODIFICATIONS	6/7/16
3	REVISED, TO INCORPORATE FIELD CHANGES	10/16/15
2	REVISED, TO INCORPORATE FIELD CHANGES	8/28/15
1	CONFORMED	9/23/13



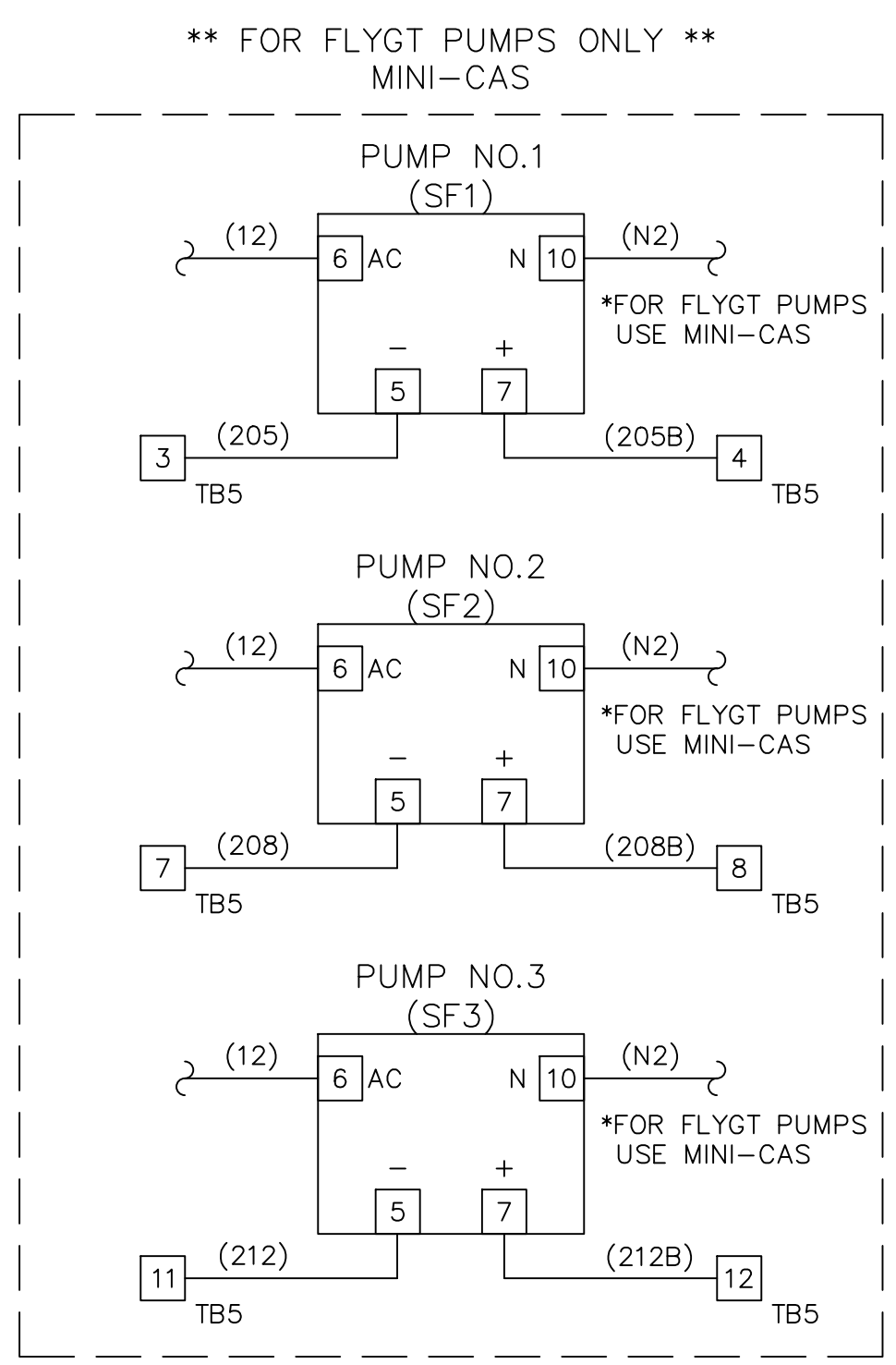
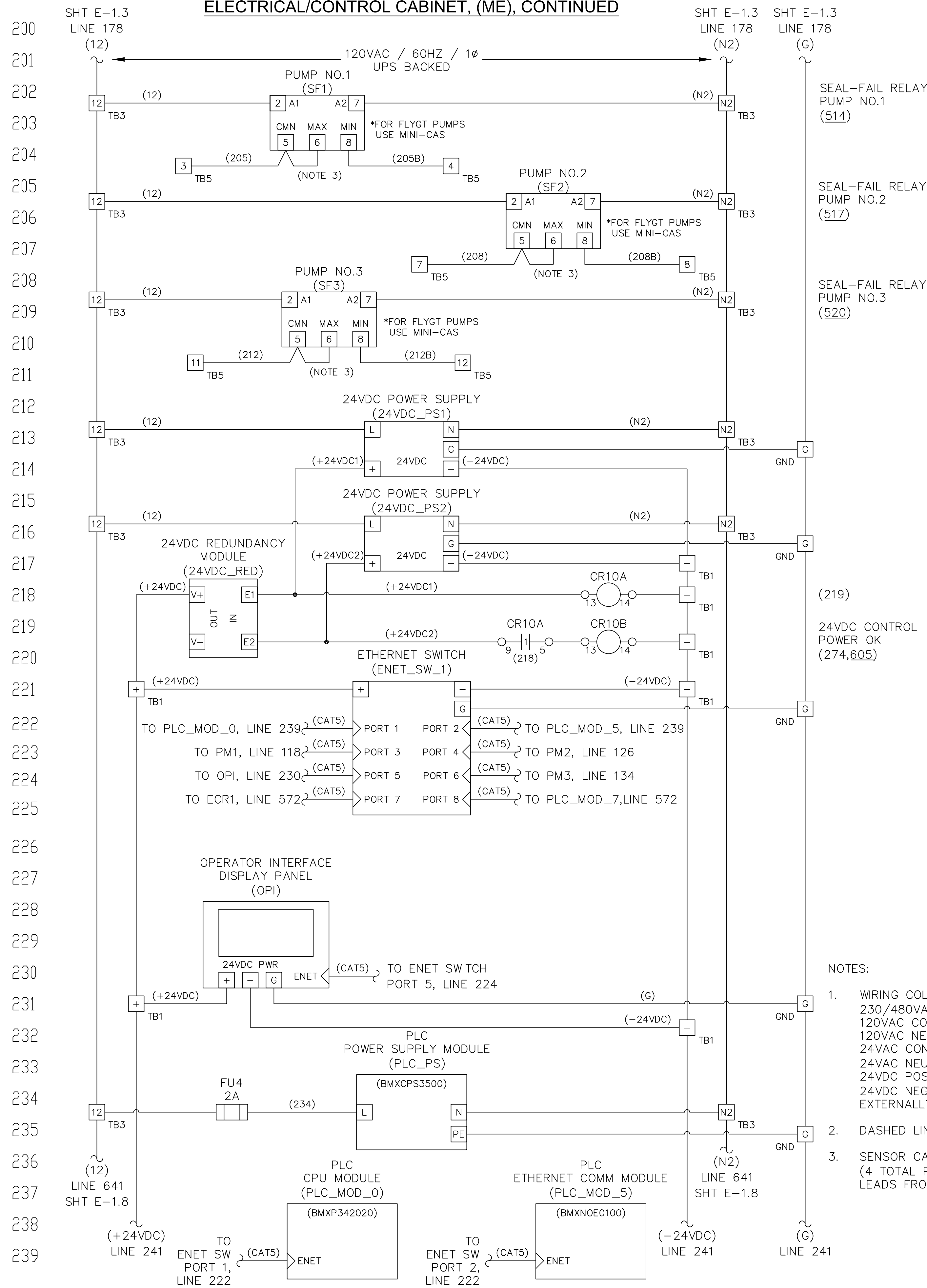
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TRIPLEX WASTEWATER PUMP STATION
 ELECTRICAL, CONTROL & INSTRUMENTATION

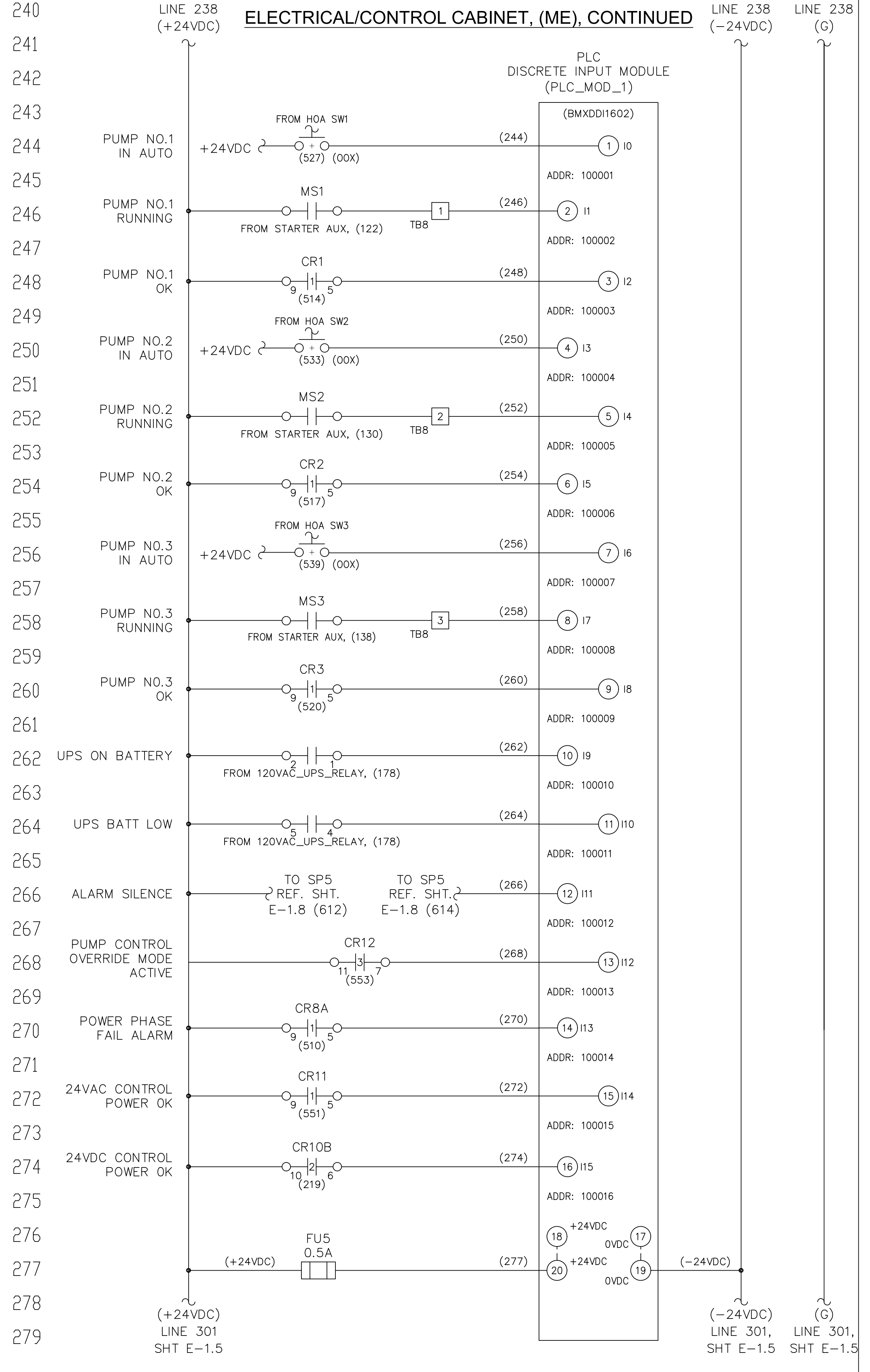
ELECTRICAL/CONTROL ENCLOSURE
 ELECTRICAL SCHEMATICS
 (3PH)(480V/3-20HP)

ISSUE DATE: NOVEMBER 2021	SCALE	FILE NUMBER
PROJ. #	HORIZONTAL:	DRAWING NUMBER
DRAWN	VERTICAL:	E-1.3
DESIGNED	NA	
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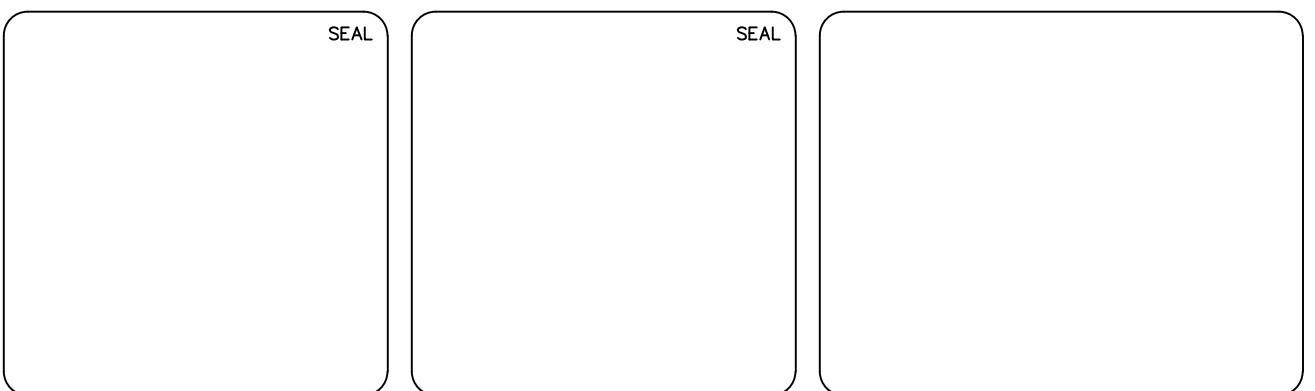
ELECTRICAL/CONTROL CABINET, (ME), CONTINUED



- NOTES:
1. WIRING COLOR CODE:
230/480VAC POWER: BLACK
120VAC CONTROL POWER: RED
120VAC NEUTRAL: WHITE
24VAC CONTROL POWER: ORANGE
24VAC NEUTRAL: ORANGE/WHITE
24VDC POS: BLUE
24VDC NEG: BLUE/WHITE (BLUE)
EXTERNALLY POWERED CIRCUITS: YELLOW
 2. DASHED LINES INDICATE STATION SPECIFIC ENTITIES.
 3. SENSOR CABLE SHALL CONTAIN HEAT SENSING AND SEAL FAILURE LEADS (4 TOTAL PER PUMP) AND SHALL BE INSTALLED IN CONDUIT WITH MOTOR LEADS FROM JUNCTION BOX JB1 TO THE WET WELL.



REVNO.	DESCRIPTIONS	DATE
6	REVISED, TO REFLECT COUNTY STANDARDS	9/25/20
5	REVISED, TO REFLECT COUNTY STANDARDS	9/29/17
4	REVISED, TO INCORPORATE UPS SYSTEM & PM ETHERNET MODIFICATIONS	6/7/16
3	REVISED, TO INCORPORATE FIELD CHANGES	10/16/15
2	REVISED, TO INCORPORATE FIELD CHANGES	8/26/15
1	CONFORMED	9/23/13



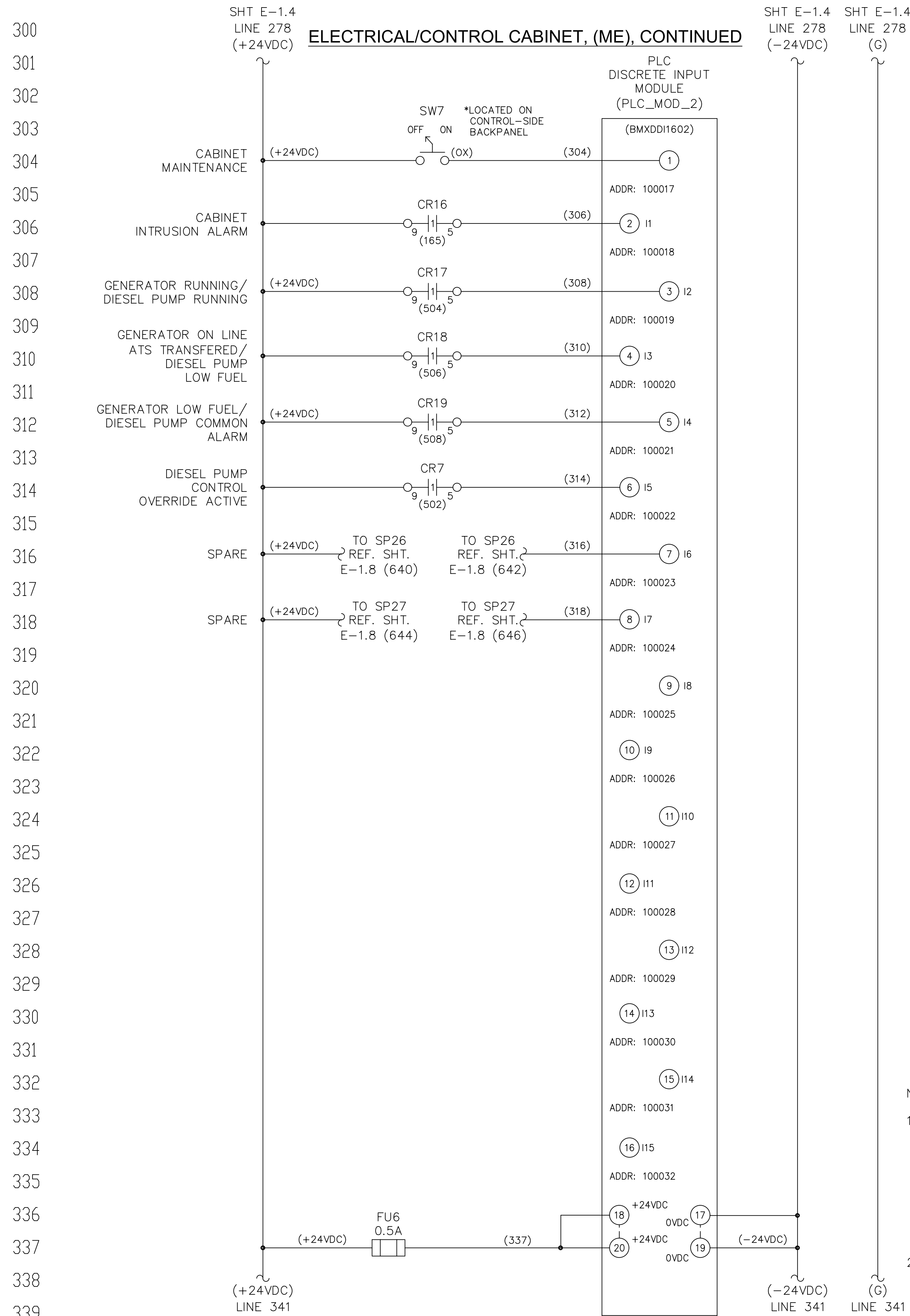
PUBLIC UTILITIES DEPARTMENT
TECHNICAL SERVICES DIVISION
925 E. TWIGGS STREET/TAMPA FLORIDA 33602/PH. (813) 272-5977

TRIPLEX WASTEWATER PUMP STATION
ELECTRICAL, CONTROL & INSTRUMENTATION

ELECTRICAL/CONTROL ENCLOSURE
ELECTRICAL SCHEMATICS
(3PH)(480V/3-20HP)

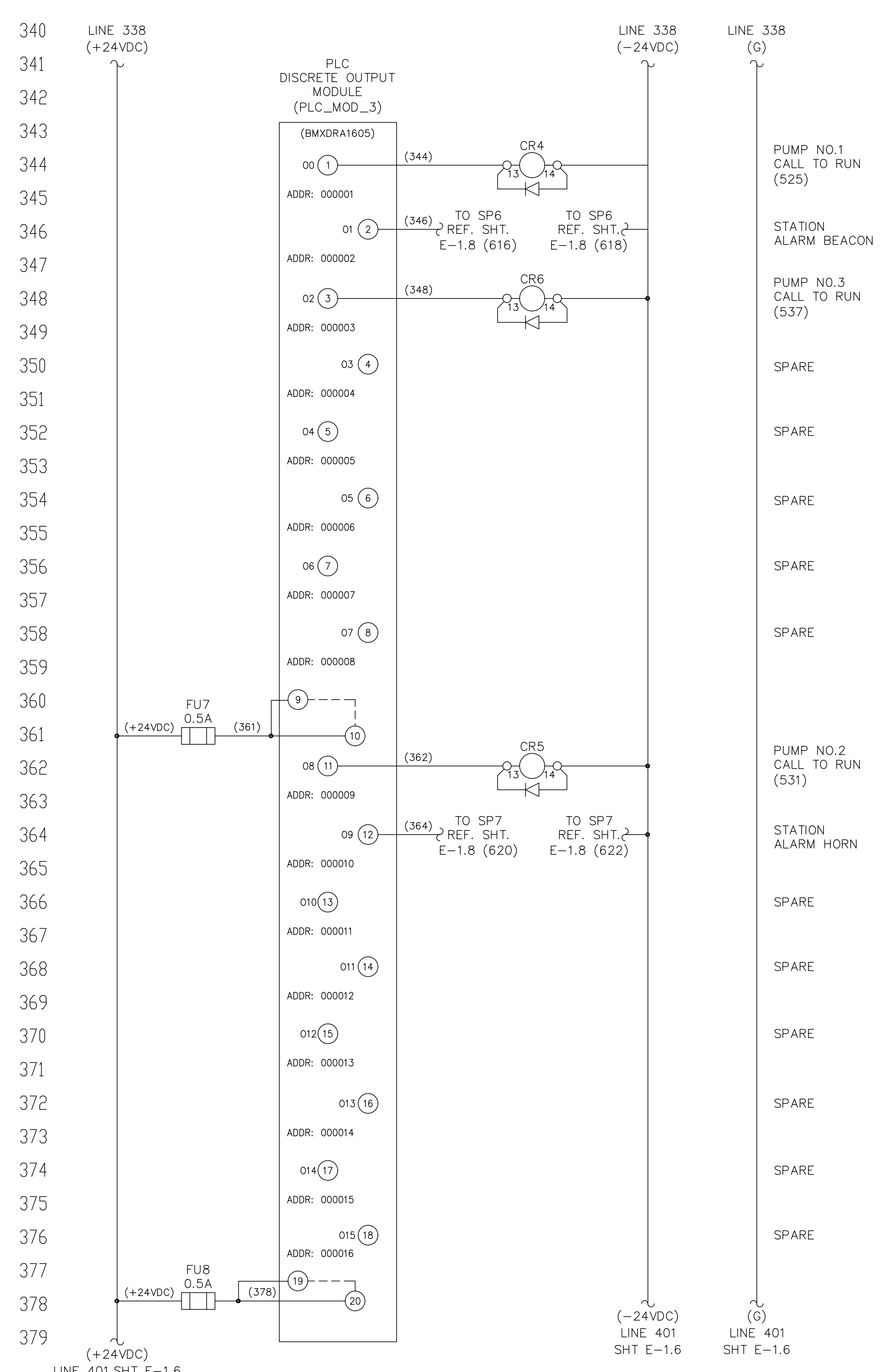
ISSUE DATE: NOVEMBER 2021
PROJ. #
DRAWN
DESIGNED
CHECKED
PROJ. MGR.

SCALE	FILE NUMBER
HORIZONTAL:	DRAWING NUMBER
VERTICAL:	E-1.4
STATUS:	REVISION
	6



NOTES:

- WIRING COLOR CODE:
 230/480VAC POWER: BLACK
 120VAC CONTROL POWER: RED
 120VAC NEUTRAL: WHITE
 24VAC CONTROL POWER: ORANGE
 24VAC NEUTRAL: ORANGE/WHITE
 24VDC POS: BLUE
 24VDC NEG: BLUE/WHITE (BLUE)
 EXTERNALLY POWERED CIRCUITS: YELLOW
- DASHED LINES INDICATE ENTITIES EXTERNAL TO CAB.



REVNO.	DESCRIPTIONS	REVISIONS	D-TE
6	REVISED, TO REFLECT CURRENT COUNTY ST-ND-RS	10/7/20	
5	REVISED, TO REFLECT CURRENT COUNTY ST-ND-RS	9/29/17	
4	REVISED, TO INCORPORATE UPS SYSTEM MODIFICATIONS	8/7/16	
3	REVISED, TO INCORPORATE FIELD CHANGES	10/16/15	
2	REVISED, TO INCORPORATE FIELD CHANGES	9/26/15	
1	CONFORMED	5/17/13	

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Hillsborough County Florida

PUBLIC UTILITIES DEPARTMENT
 TECHNICAL SERVICES DIVISION
 925 E. TWIGGS STREET/T-14P - FLORIDA - 33602/PH. (813) 272-5977

TRIPLEX WASTEWATER PUMP STATION
 ELECTRICAL, CONTROL & INSTRUMENTATION

ELECTRICAL/CONTROL ENCLOSURE
 ELECTRICAL SCHEMATICS
 (3PH)(480V/3-20HP)

ISSUE DATE: NOVEMBER 2021

PROJ. # _____
 DRAWN _____
 DESIGNED _____
 CHECKED _____
 PROJ. MGR. _____

STATUS: _____

SCALE: HORIZONTAL: _____
 VERTICAL: NA

FILE NUMBER: E-1.5

DR-WING NUMBER: _____

REVISION: 6

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ELECTRICAL/CONTROL CABINET, (ME), CONTINUED

PLC ANALOG INPUT MODULE (PLC_MOD_4) (BMXAMI0810)

SHT E-1.5 LINE 378 (-24VDC)
SHT E-1.5 LINE 378 (G)

LINE 439 (+24VDC)

LINE 438 (-24VDC)

LINE 438 (G)

WET WELL LEVEL TRANSDUCER 0-___FT (NOTE 3)

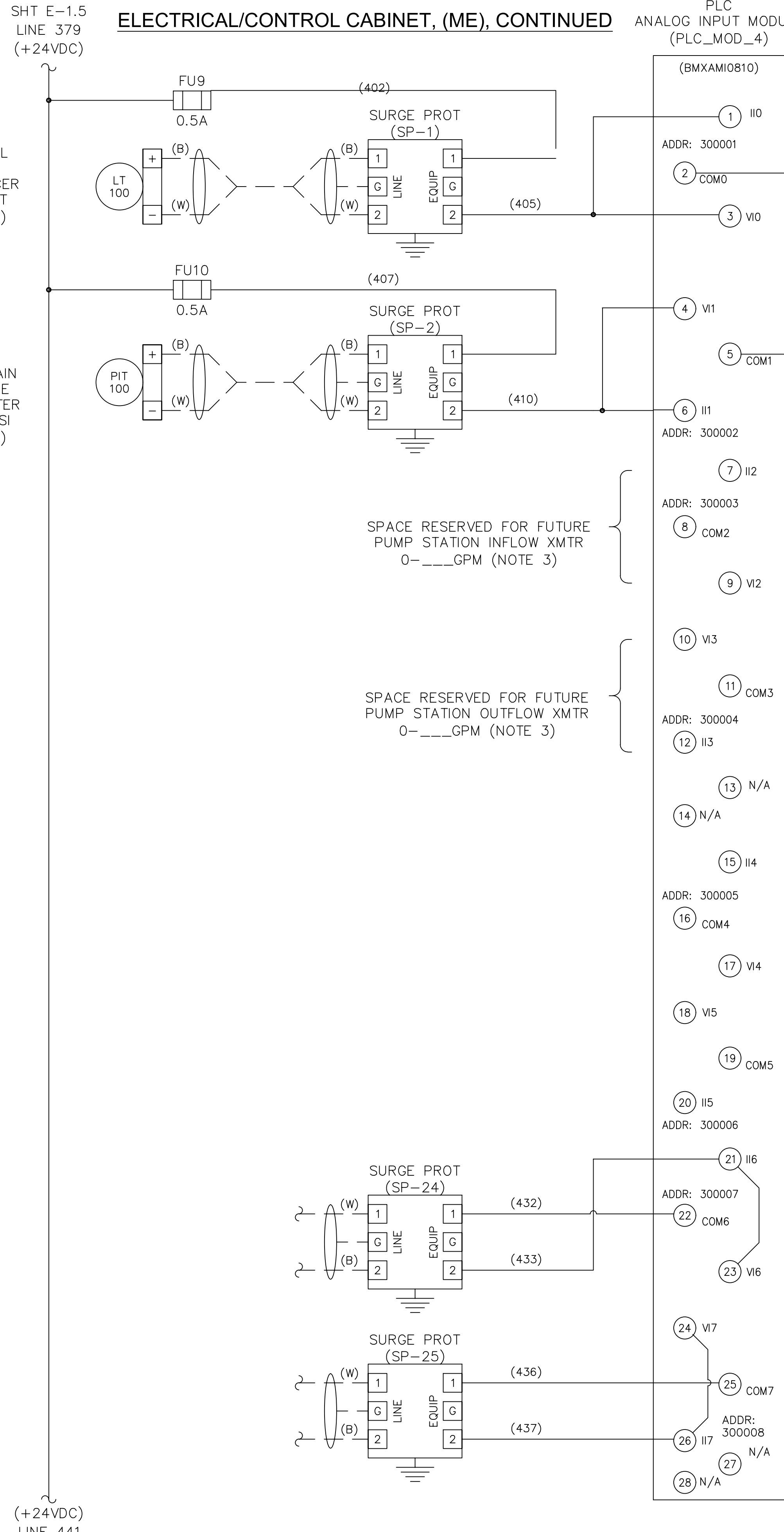
FORCE MAIN PRESSURE TRANSMITTER 0-___PSI (NOTE 3)

SPACE RESERVED FOR FUTURE PUMP STATION INFLOW XMTR 0-___GPM (NOTE 3)

SPACE RESERVED FOR FUTURE PUMP STATION OUTFLOW XMTR 0-___GPM (NOTE 3)

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SPARE



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NOTES:

- WIRING COLOR CODE:
230/480VAC POWER BLACK
120VAC CONTROL POWER RED
120VAC NEUTRAL WHITE
24VAC CONTROL POWER ORANGE
24VAC NEUTRAL ORANGE/WHITE
24VDC POS BLUE
24VDC NEG BLUE/WHITE (BLUE)
EXTERNALLY POWERED CIRCUITS YELLOW
- DASHED LINES INDICATE ENTITIES EXTERNAL TO CAB.
- COORDINATE RANGE FOR EACH INSTALLATION.

(-24VDC) LINE 501 SHT E-1.7

(G) LINE 501 SHT E-1.7

REV. NO.	DESCRIPTIONS	DATE
6	REVISED, TO REFLECT CURRENT COUNTY ST-NB-RIS	10/7/20
5	REVISED, TO REFLECT CURRENT COUNTY ST-NB-RIS	9/29/17
4	REVISED, TO INCORPORATE UPS SYSTEM MODIFIC-TIONS	6/7/16
3	REVISED, TO INCORPORATE FIELD CH-NGES	10/16/15
2	REVISED, TO INCORPORATE FIELD CH-NGES	8/26/15
1	CONFORMED	5/17/13

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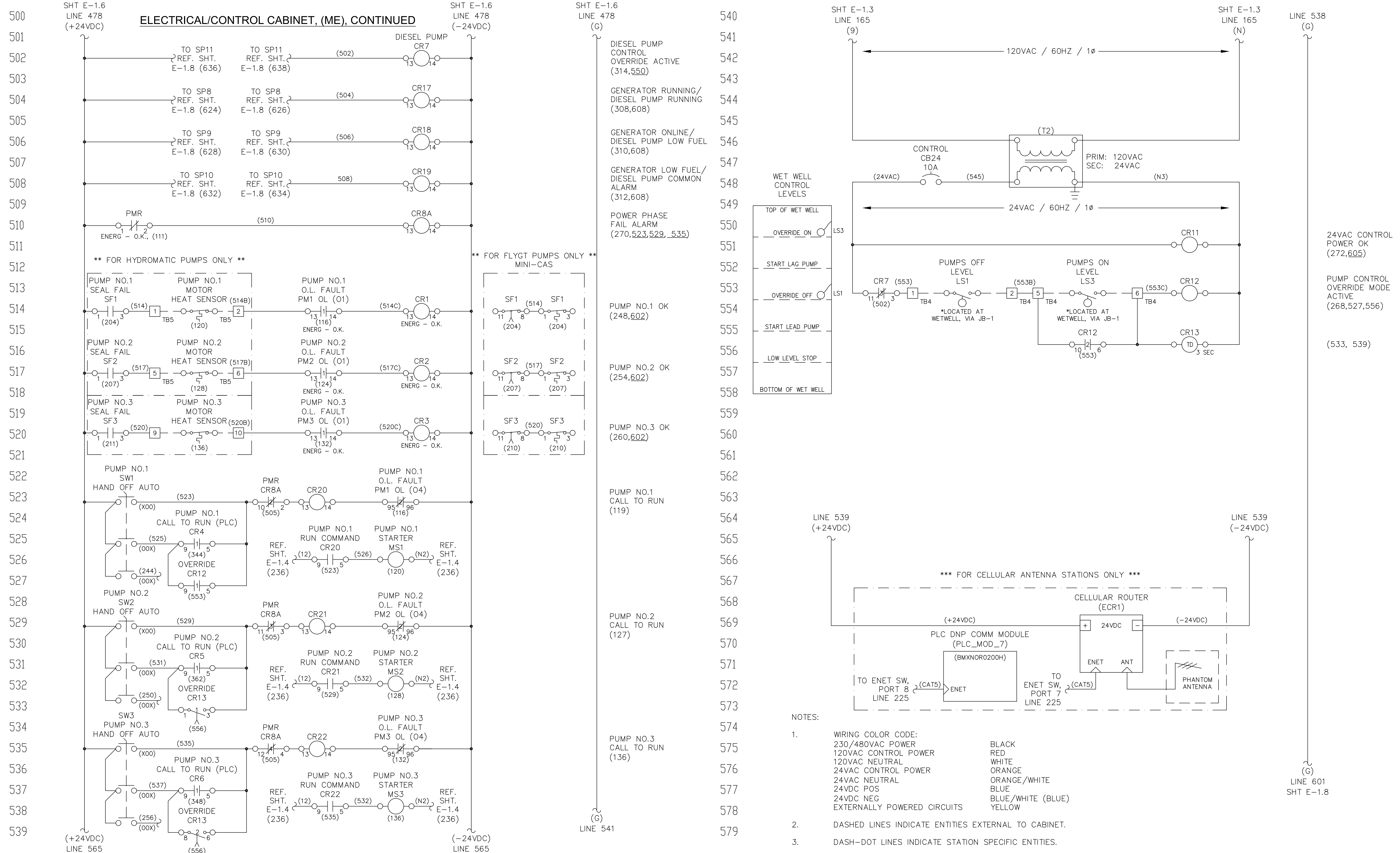
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Hillsborough County Florida
PUBLIC UTILITIES DEPARTMENT
TECHNICAL SERVICES DIVISION
925 E. TWIGGS STREET/71-WP- FLORIDA - 33602/PH. (813) 272-5977

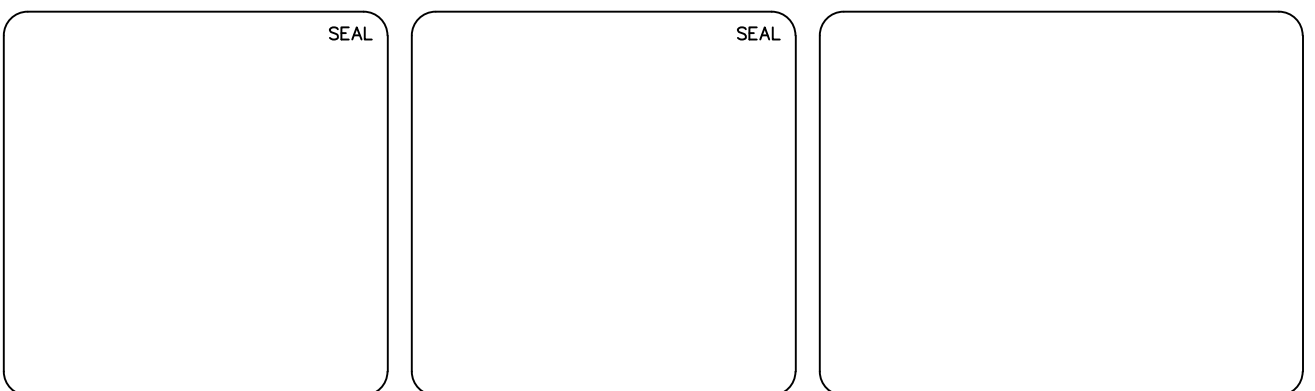
TRIPLEX WASTEWATER PUMP STATION
ELECTRICAL, CONTROL & INSTRUMENTATION

ELECTRICAL/CONTROL ENCLOSURE
ELECTRICAL SCHEMATICS
(3PH)(480V/3-20HP)

ISSUE DATE: NOVEMBER 2021	SCALE	FILE NUMBER
PROJ. #	HORIZONTAL:	DR-WING NUMBER
DRAWN	VERTICAL:	E-1.6
DESIGNED	NA	
CHECKED		
PROJ. MGR.		
STATUS:		REVISION
		6



REVNO.	DESCRIPTIONS	DATE
6	REVISED, TO REFLECT CURRENT COUNTY STANDARDS	10/7/20
5	REVISED, TO REFLECT CURRENT COUNTY STANDARDS	9/29/17
4	REVISED, TO INCORPORATE UPS SYSTEM MODIFICATIONS	8/7/16
3	REVISED, TO INCORPORATE FIELD CHANGES	10/16/15
2	REVISED, TO INCORPORATE FIELD CHANGES	9/26/15
1	CONFORMED	3/17/13



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

TRIPLEX WASTEWATER PUMP STATION
ELECTRICAL, CONTROL & INSTRUMENTATION

ELECTRICAL/CONTROL ENCLOSURE
ELECTRICAL SCHEMATICS
(3PH)(480V/3-20HP)

ISSUE DATE: NOVEMBER 2021	SCALE	FILE NUMBER
PROJ. #	HORIZONTAL:	DRAWING NUMBER
DRAWN	VERTICAL:	E-1.7
DESIGNED	NA	
CHECKED		
PROJ. MGR.		
STATUS:		REVISION
		6

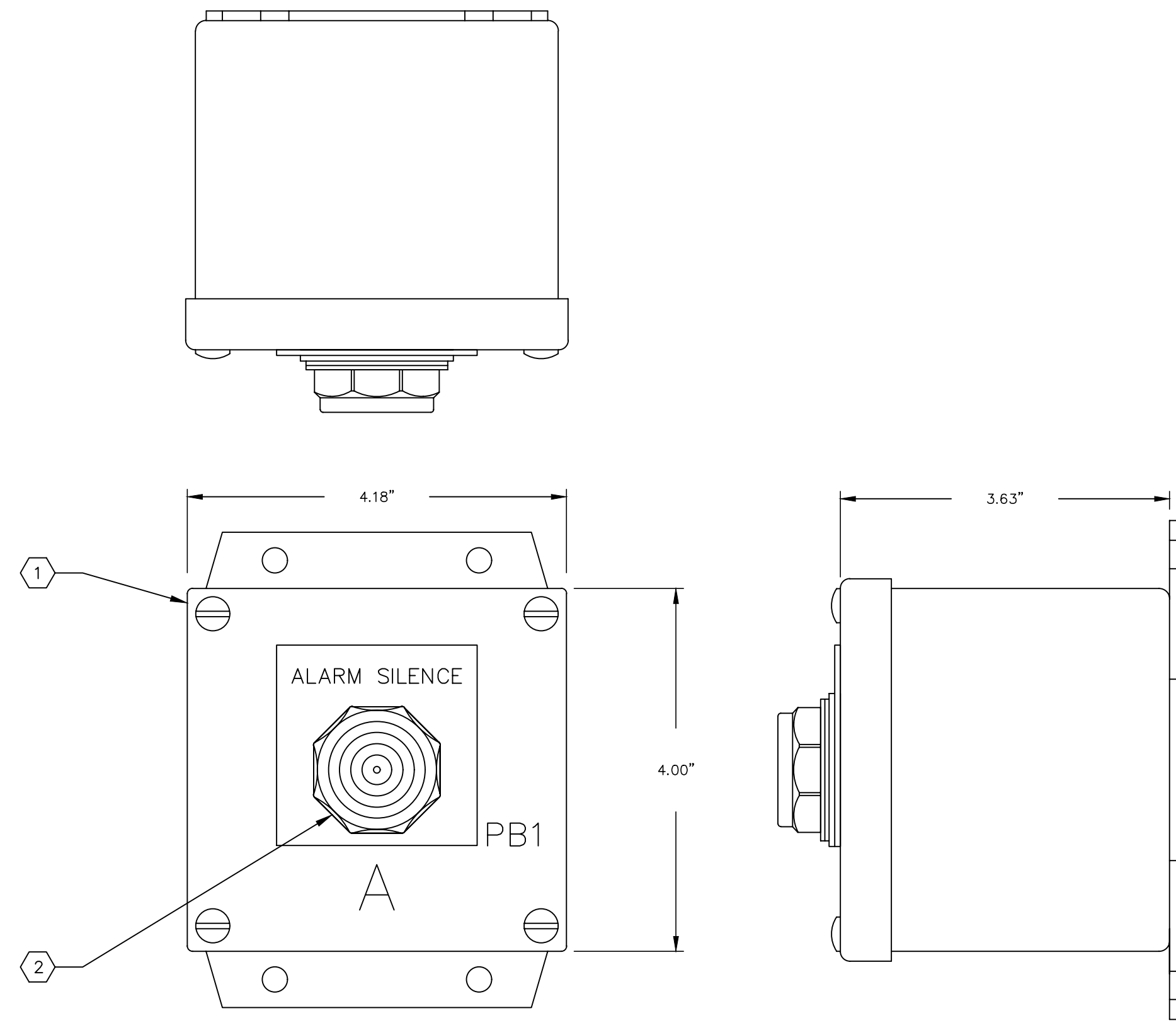
- NOTES:
- WIRING COLOR CODE:
230/480VAC POWER: BLACK
120VAC CONTROL POWER: RED
120VAC NEUTRAL: WHITE
24VAC CONTROL POWER: ORANGE
24VAC NEUTRAL: ORANGE/WHITE
24VDC POS: BLUE
24VDC NEG: BLUE/WHITE (BLUE)
EXTERNALLY POWERED CIRCUITS: YELLOW
 - DASHED LINES INDICATE ENTITIES EXTERNAL TO CABINET.
 - DASH-DOT LINES INDICATE STATION SPECIFIC ENTITIES.

24VAC CONTROL POWER OK (272,605)
PUMP CONTROL OVERRIDE MODE ACTIVE (268,527,556)
(533, 539)

LINE 601 SHT E-1.8

LIST OF MAJOR COMPONENTS					
ITEM NO.	QTY	DEVICE ID	MANUFACTURER	PART NO.	DESCRIPTION
ALARM SILENCE STATION:					
1	1		SQUARE-D	9001-KYSS100	JUNCTION BOX, 5"Hx4"Wx3.5"D, NEMA 4X, 304SS, SCREW COVER
2	1	PB1	SQUARE-D	9001 KR1BH5	PUSHBUTTON, FULL GUARD, N.O. CONTACTS

NAMEPLATE SCHEDULE				
N.P. NO.	QTY	PLATE COLOR/SIZE	LTR COLOR/SIZE	ENGRAVING (LINE1/LINE2/ETC.)
ALARM SILENCE STATION:				
A	1	BLK / 2.25" H x 2.25" W	WHT / 3/16"	ALARMSILENCE



ALARM SILENCE STATION (JB-3)
3/4"=1"

NOTES:

- | | |
|-----------------------------|-------------------|
| WIRING COLOR CODE: | |
| 240/480VAC POWER | BLACK |
| 120VAC CONTROL POWER | RED |
| 120VAC NEUTRAL | WHITE |
| 24VDC POS | BLUE |
| 24VDC NEG | BLUE/WHITE (BLUE) |
| EXTERNALLY POWERED CIRCUITS | YELLOW |

REV. NO.	DESCRIPTIONS	REVISIONS
4	REVISED, TO REFLECT CURRENT COUNTY ST-NO-RDS	9/29/17
3	REVISED, TO INCORPORATE FIELD CHANGES	10/16/15
2	REVISED, TO INCORPORATE FIELD CHANGES	8/26/15
1	CONFORMED	5/17/13

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Hillsborough County Florida
PUBLIC UTILITIES DEPARTMENT
TECHNICAL SERVICES DIVISION
925 E. TWIGGS STREET/T-14P - FLORIDA - 33602/PH. (813) 272-5977

ALARM SILENCE STATION

ENCLOSURE LAYOUT AND
BILL OF MATERIAL

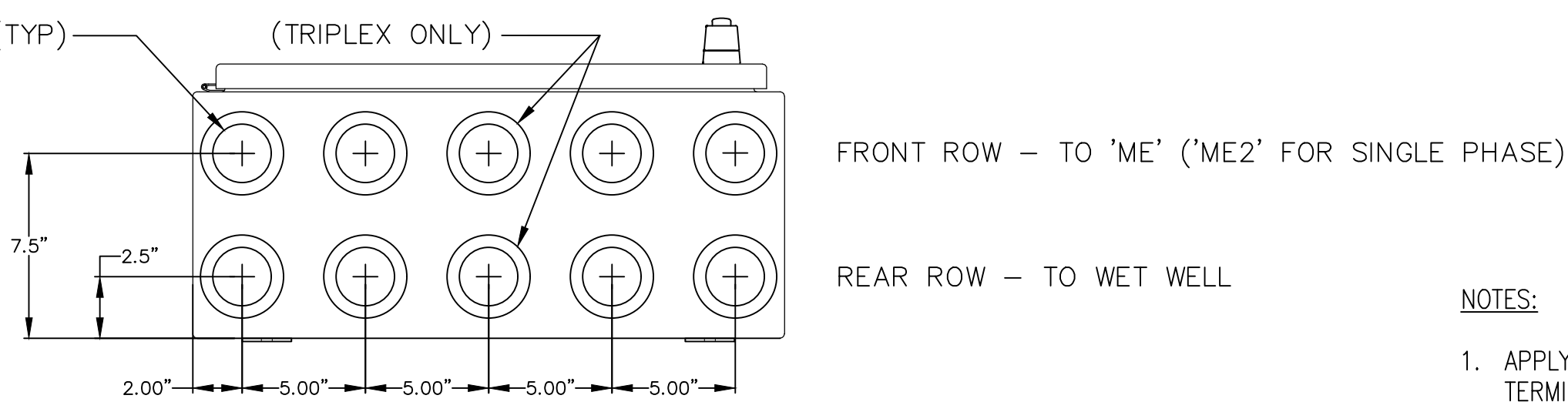
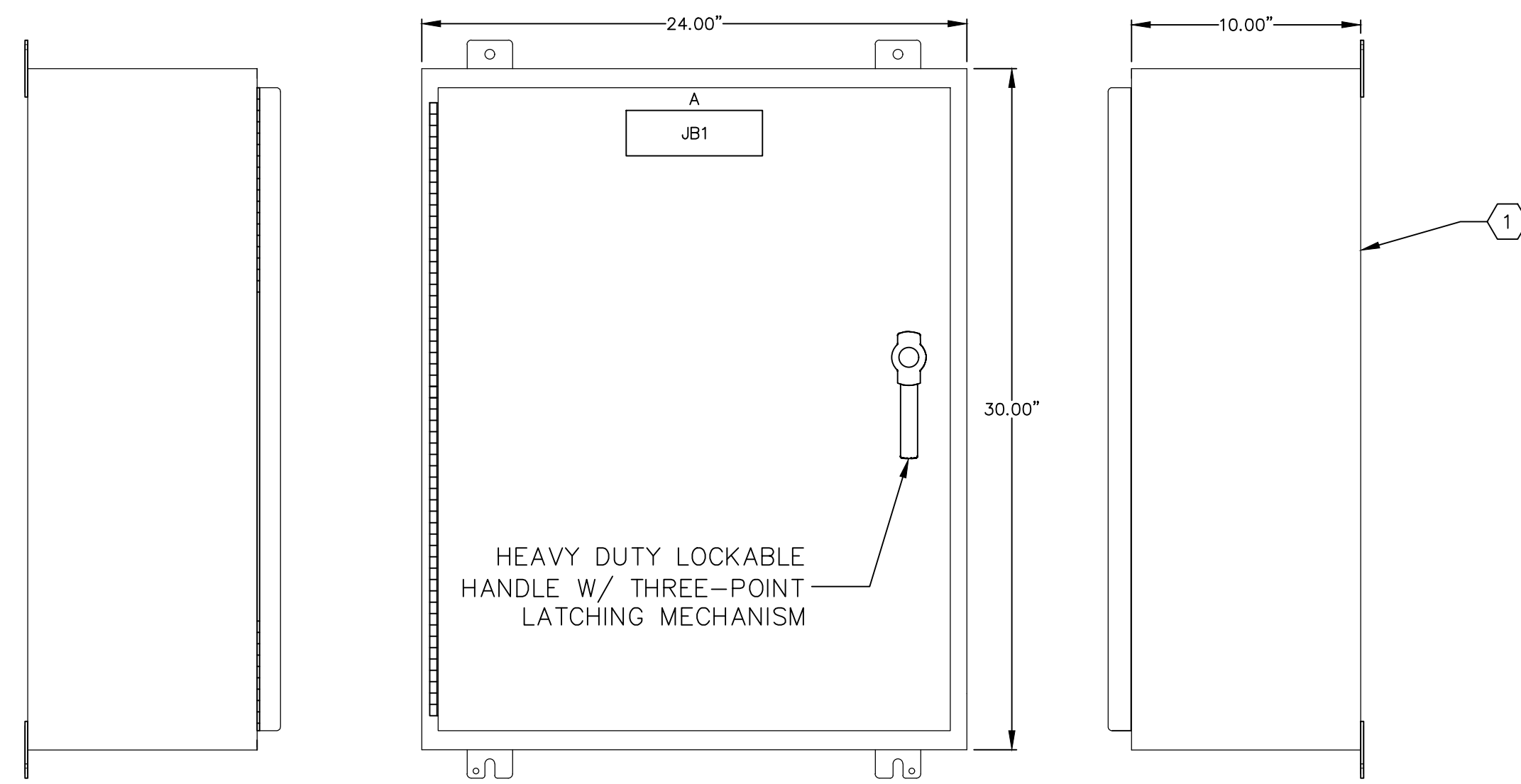
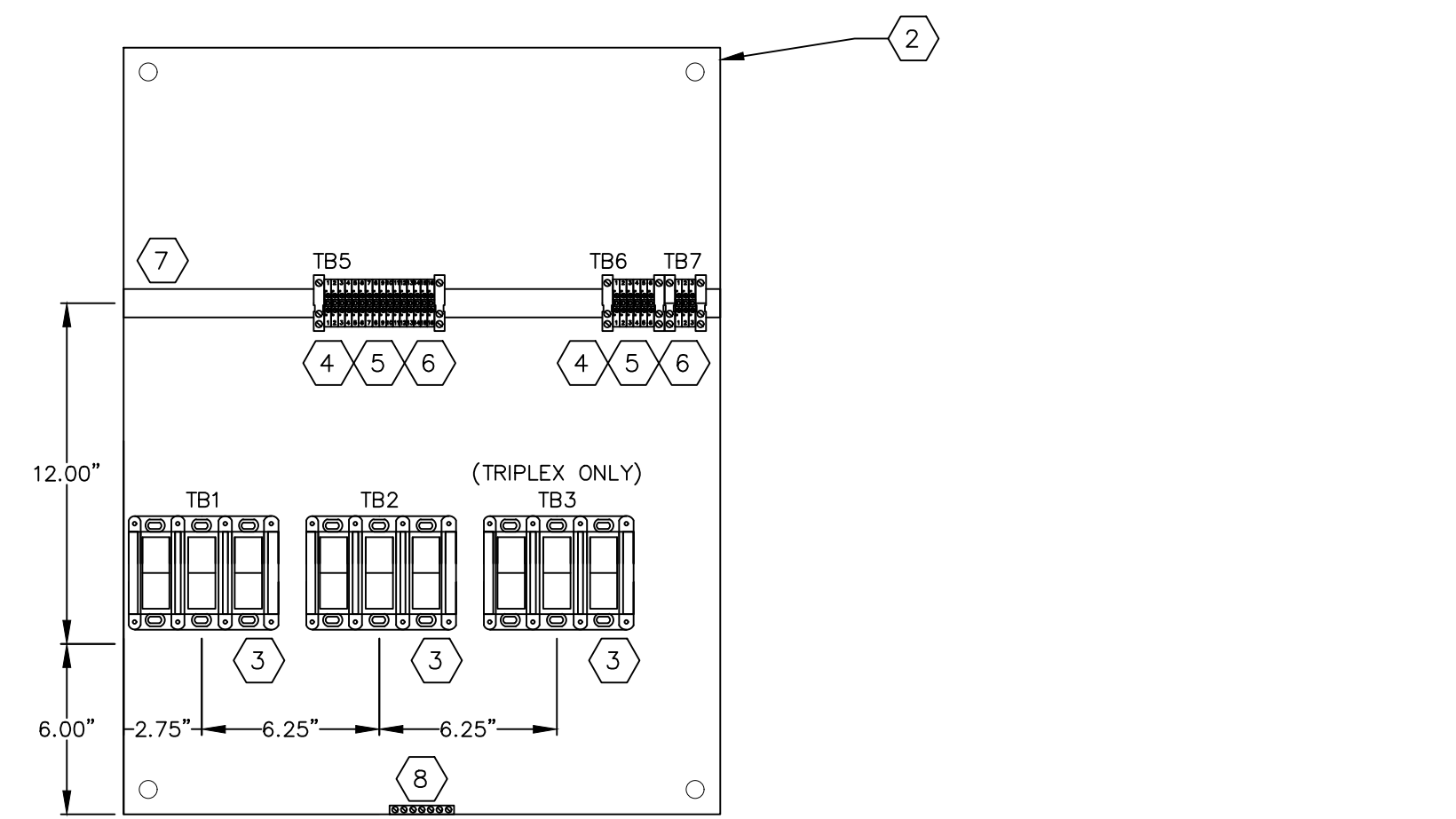
ISSUE DATE: NOVEMBER 2021	SCALE	FILE NUMBER
PROJ. #	HORIZONTAL:	DR. WING NUMBER
DRAWN	VERTICAL:	E-2.0
DESIGNED	NA	
CHECKED		
PROJ. MGR.		
STATUS: REVISED	REVISION	4

LIST OF MAJOR COMPONENTS

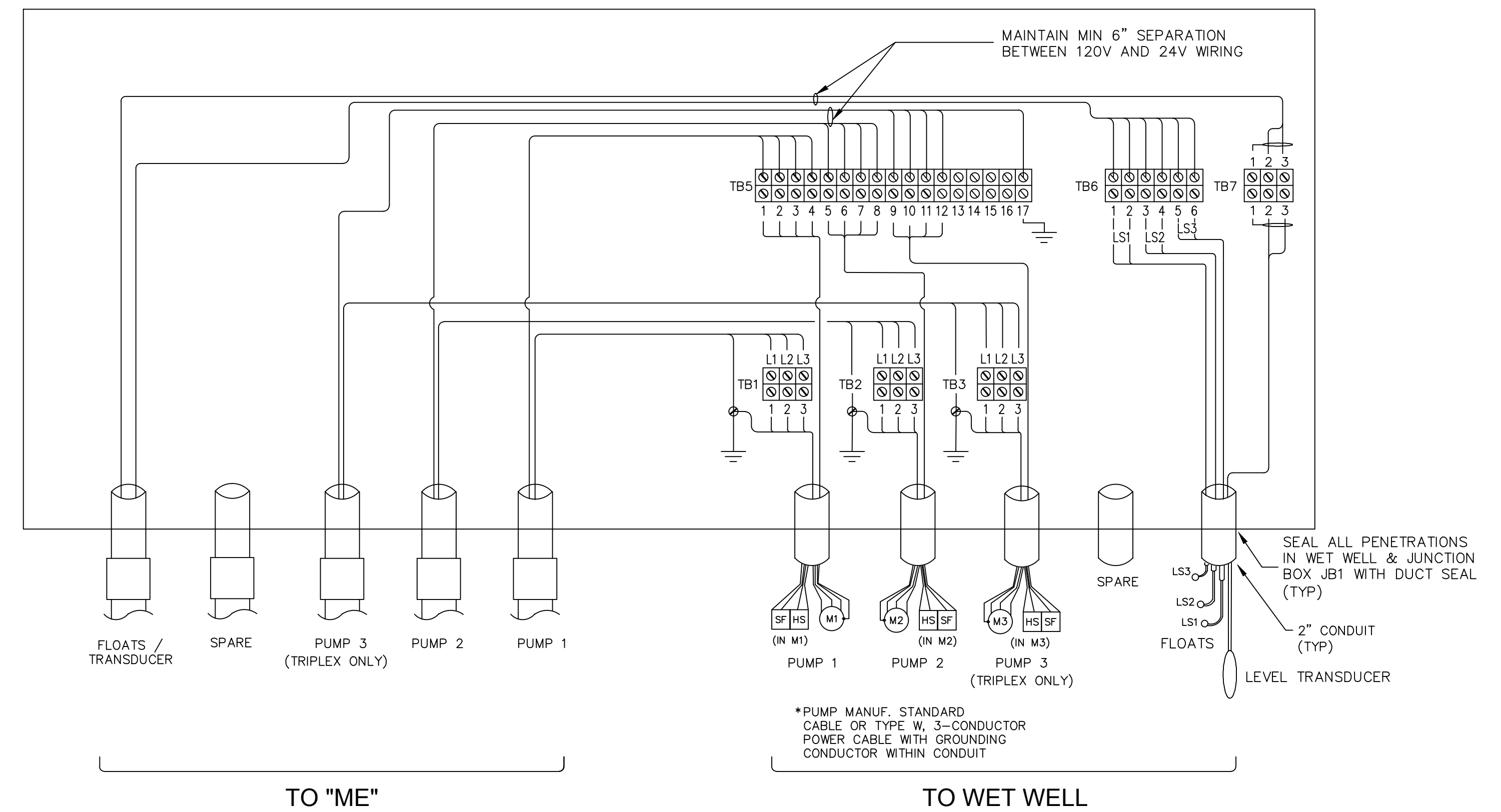
ITEM NO.	QTY	DEVICE ID	MANUFACTURER	PART NO.	DESCRIPTION
WETWELL JUNCTION BOX (JB1)					
1	1	JB1	HOFFMAN**	A30H2410SSLP-3PT	ENCLOSURE, 30"Hx24"Wx10"D, NEMA 4X, 304 SS, 3-PT LATCHES, EPOXY WHITE FINISH
2	1		HOFFMAN**	A30P24AL	SUBPANEL, 27"Hx21"W, 0.10" THICK, ALUMINUM
3	2	TB1, TB2, TB3*	MARATHON	1333554	POWER DISTRIBUTION BLK, 3 POLE, 310A, 600VAC, PRIM: 1 CONN 6-350 CU, SEC: 2 CONN 14-2/0 CU
4	25	TB5, TB6, TB7	PHOENIX CONTACT	UK5-N	TERMINAL BLOCK
5	3		PHOENIX CONTACT	D-UKK3/5	TERMINAL BLOCK END BARRIER
6	6		PHOENIX CONTACT	1201442	TERMINAL BLOCK END STOP
7	AR		PHOENIX CONTACT		DIN RAIL
8	1	GND	SQUARE-D	PK7GTA	GROUND BAR, 14-4 CU, 7 POINT
		*TRIPLEX ONLY	**OR COUNTY APPROVED EQUAL		

NAMEPLATE SCHEDULE

N.P. NO.	QTY	PLATE COLOR/SIZE	LTR COLOR/SIZE	ENGRAVING (LINE1/LINE2/ETC.)
WET WELL JUNCTION BOX (JB1):				
A	1	BLK / 2.00" H x 6.00" W	WHT / 1/2"	JB1



JB1 ENCLOSURE LAYOUT
2" = 1"

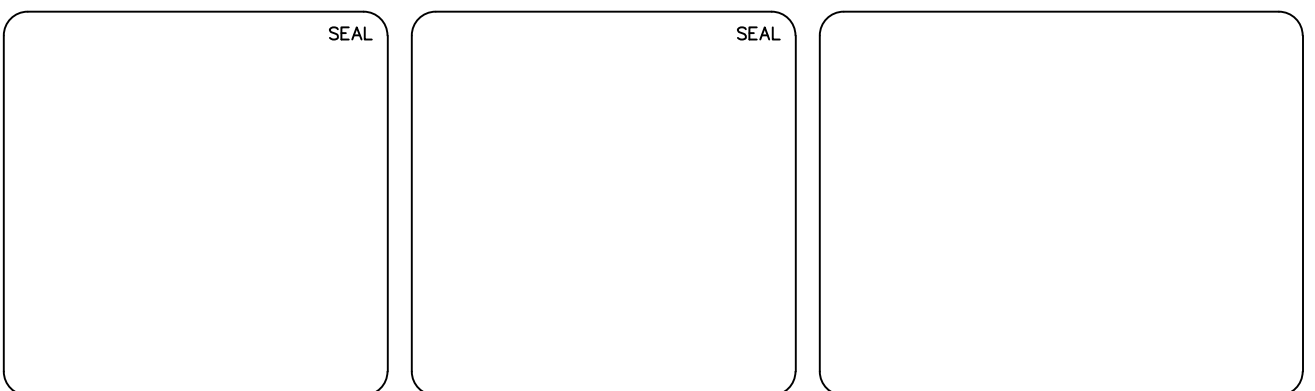


JB1 ELECTRICAL SCHEMATIC
NTS

NOTES:

1. APPLY OXIDE-INHIBITING COMPOUND TO ALL ELECTRICAL TERMINATION CONTACT SURFACES, INCLUDING COMPRESSION AND BOLTED CONNECTIONS. PENETROX COMPOUND BURNDY OR EQUAL PRODUCT.
2. SCREW-DOWN CABLE TIES SHALL BE 3M CABLE TIE BASE MODEL 06299 OR PANDUIT MODEL ABM112 OR APPROVED EQUAL. (SIZE AS REQ'D)
3. CONTRACTOR SHALL MOUNT TERMINALS AS SHOWN.

REVNO.	DESCRIPTIONS	DATE
5	REVISED, TO REFLECT CURRENT COUNTY STANDARDS	9/6/19
4	REVISED, TO REFLECT CURRENT COUNTY STANDARDS	9/26/17
3	REVISED, TO INCORPORATE FIELD CHANGES	10/16/15
2	REVISED, TO INCORPORATE FIELD CHANGES	8/26/15
1	CONFORMED	5/17/13

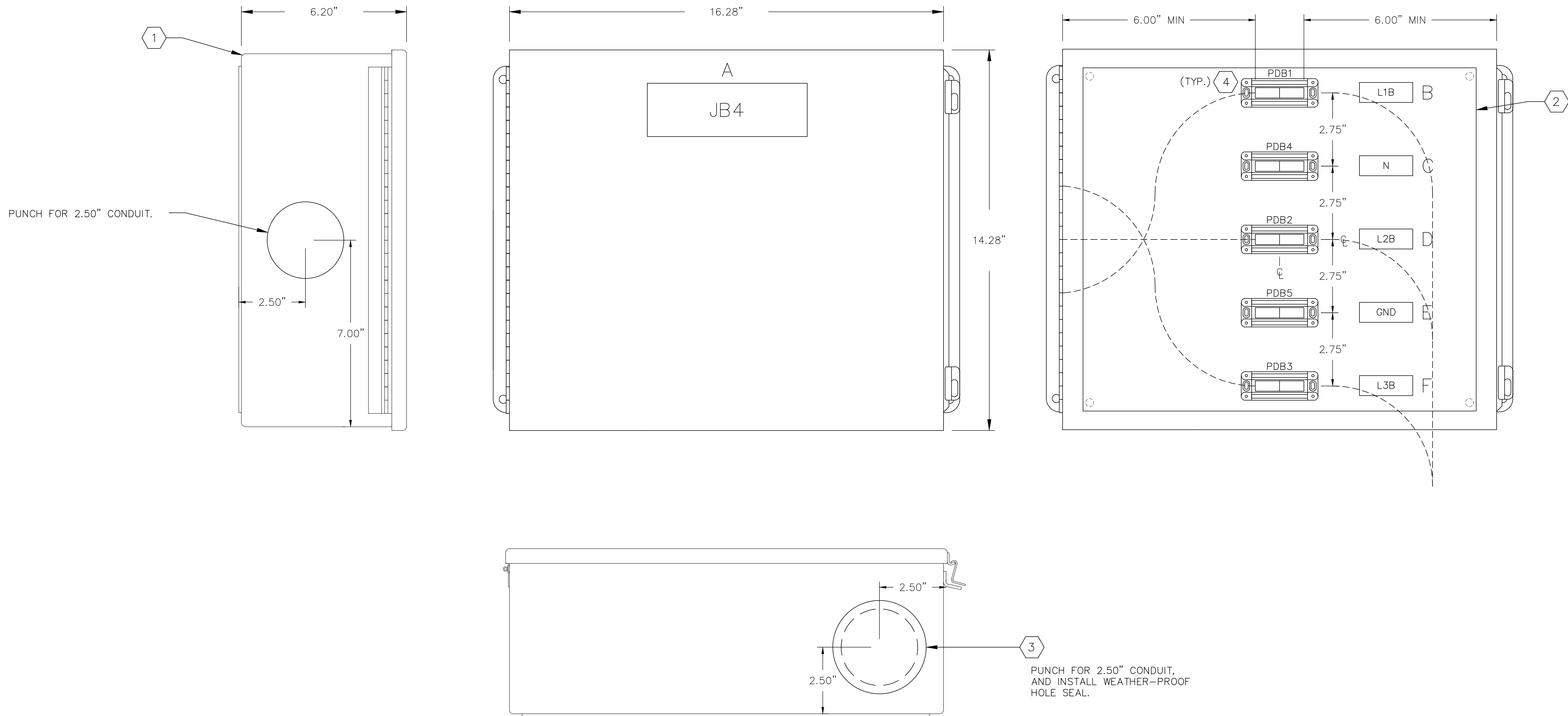


PUBLIC UTILITIES DEPARTMENT
TECHNICAL SERVICES DIVISION
925 E. TWIGGS STREET/TAMPA FLORIDA 33602/PH. (813) 272-5977

WET WELL JUNCTION BOX, (JB1)
CABINET LAYOUT, ELECTRICAL SCHEMATIC,
AND BILL OF MATERIAL

ISSUE DATE: NOVEMBER 2021	SCALE	FILE NUMBER
PROJ. #	HORIZONTAL:	DRAWING NUMBER
DRAWN	VERTICAL:	E-3.0
DESIGNED	NA	
CHECKED		
PROJ. MGR.		
STATUS:		REVISION
		5

LIST OF MAJOR COMPONENTS					
ITEM NO.	QTY	DEVICE ID	MANUFACTURER	PART NO.	DESCRIPTION
GENERATOR TERMINATION BOX (JB4):					
1	1	JB4	HOFFMAN**	A1614CHNFSS6	ENCLOSURE, 16"Hx14"Wx6"D, NEMA 4X, 304 SS, W/ LOCK KIT, EPOXY WHITE FINIS
2	1		HOFFMAN**	A16P14SS	SUBPANEL, 14.75"Hx12.88"W, 304 SS, EPOXY WHITE FINISH
3	2		HOFFMAN**	AS250SS	HOLE SEAL, 2.50", 300 SERIES SS, WEATHER-PROOF, EPOXY WHITE FINISH
4	5	PDB1,2,3,4,5	BUSSMANN	PDB204-1	POWER DISTRIBUTION BLK, 1 POLE, 175A, 600VAC, PRIM: 1 CONN 8-2/0 CU, SEC: 1 CONN 8-2/0 CU
**OR COUNTY APPROVED EQUAL					

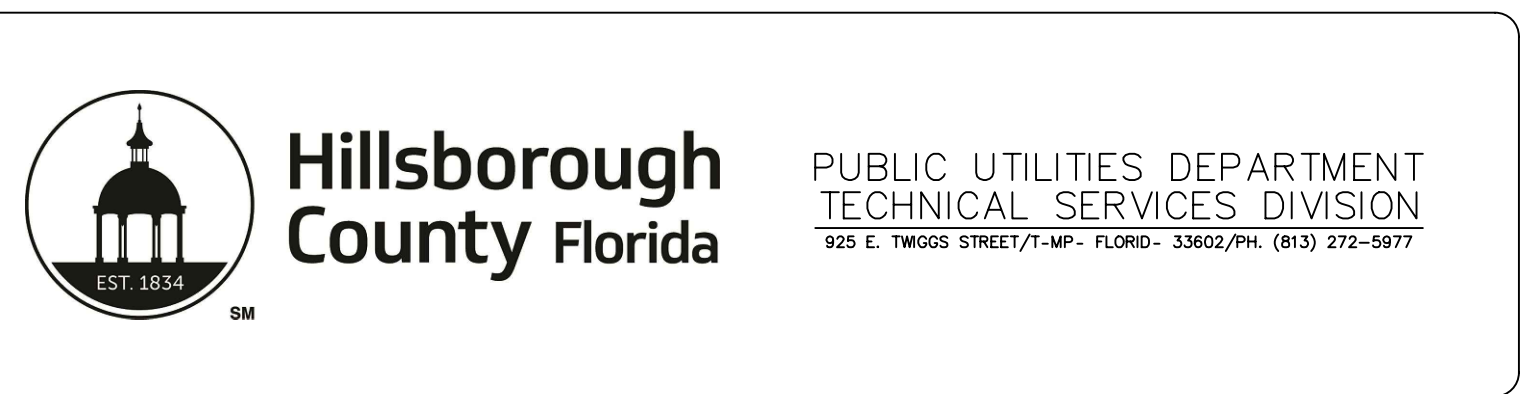
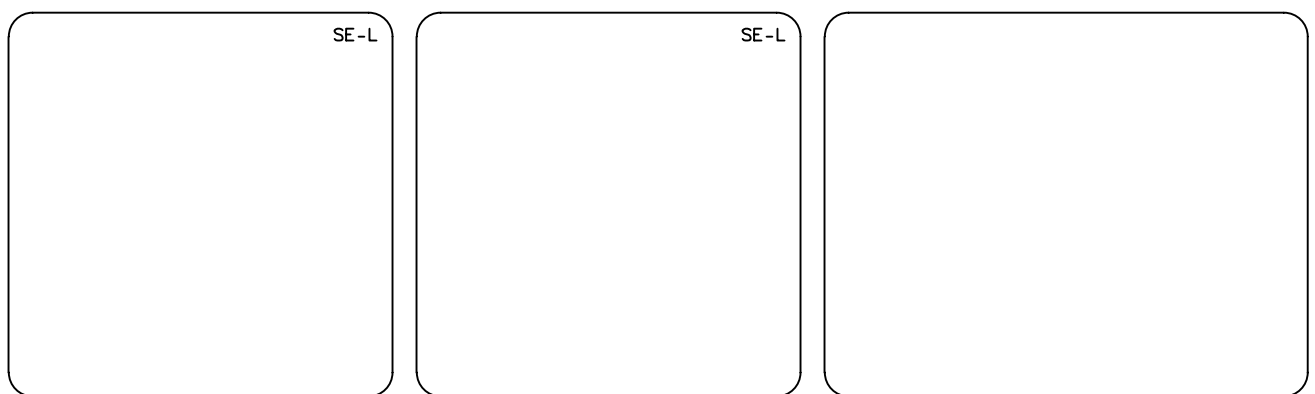


NAMEPLATE SCHEDULE				
N.P. NO.	QTY	PLATE COLOR/SIZE	LTR COLOR/SIZE	ENGRAVING (LINE1/LINE2/ETC.)
GENERATOR TERMINATION BOX (JB4):				
A	1	BLK / 2.00" H x 6.00" W	WHT / 1/2"	JB4
B	1	BLK / 0.75" H x 2.50" W	WHT / 1/4"	L1B
C	1	BLK / 0.75" H x 2.50" W	WHT / 1/4"	N
D	1	BLK / 0.75" H x 2.50" W	WHT / 1/4"	L2B
E	1	BLK / 0.75" H x 2.50" W	WHT / 1/4"	GND
F	1	BLK / 0.75" H x 2.50" W	WHT / 1/4"	L3B

GENERATOR TERMINATION PANEL (JB4)
1/2"=1"

NOTE: FOR USE WITH THE FOLLOWING "ME" PACKAGES ONLY:
 - DUP, 3PH/480VAC/3-20HP
 - TRI, 3PH/480VAC/3-20HP

REV. NO.	DESCRIPTION	DATE
4	REVISED, TO REFLECT CURRENT COUNTY ST-NO-RDS	9/29/17
3	REVISED, TO INCORPORATE FIELD CHANGES	10/16/15
2	REVISED, TO INCORPORATE FIELD CHANGES	8/26/15
1	CONFORMED	5/17/13



GENERATOR TERMINATION BOX, JB4
(SMALL)
CABINET LAYOUT
AND BILL OF MATERIAL

ISSUE DATE: NOVEMBER 2021	SCALE	FILE NUMBER
PROJ. #	HORIZONTAL:	DR-WING NUMBER
DRAWN	VERTICAL:	E-5.0
DESIGNED	NA	
CHECKED		
PROJ. MGR.		
STATUS: REVISED	REVISION	4