

GENERAL ELECTRICAL CONSTRUCTION NOTES:	
1.	PROVIDE TYPED DIRECTORY CARDS UNDER PLASTIC DOORS OF BRANCH CIRCUIT PANELBOARDS NEW AND EXISTING AFFECTED UNDER THE SCOPE OF THIS PROJECT. DIRECTORIES SHALL INDICATE DEVICES BEING SERVED INCLUDING SPACE NUMBERS IN WHICH DEVICES OR FIXTURES ARE LOCATED. SPACE NAMES AND NUMBERS SHALL MATCH THE GRAPHICS INSTALLED IF DIFFERENT FROM THE SPACE NAMES AND NUMBERS ON THE DRAWINGS.
2.	ELECTRICAL CONTRACTOR SHALL REFER TO THE ELECTRICAL SPECIFICATIONS FOR ADDITIONAL DESIGN STANDARDS. THE ELECTRICAL SPECIFICATIONS ARE A BINDING PART OF THE CONSTRUCTION DOCUMENTS. WHENEVER A CONFLICT OCCURS BETWEEN THE CONTRACT DOCUMENTS AND THE SPECIFICATIONS, THE ELECTRICAL CONTRACTOR SHALL CALL THE ENGINEER TO CLARIFY.
3.	THE ELECTRICAL CONTRACTOR SHALL PROVIDE CODE COMPLIANT PENETRATIONS FOR ALL NEW CONDUITS ENTERING/EXITING FIRE RATED WALLS. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ALL FIRE RATED WALLS. ALL EXISTING NON-CODE COMPLIANT ELECTRICAL PENETRATIONS WITHIN THE PROJECT SCOPE (INCLUDING BUT NOT LIMITED TO EXISTING ELECTRICAL ROOMS, AND CORRIDORS) SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CORRECT.
4.	IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO REMOVE AND RE-INSTALL ANY LIGHT FIXTURES OR CEILING MOUNTED DEVICES THAT NEED TO BE TEMPORARILY REMOVED DUE TO THE RENOVATION OF ANY MECHANICAL AND ELECTRICAL SYSTEMS. THE CONTRACTOR SHALL VERIFY ALL AREAS OF POTENTIAL CEILING RE-WORK PRIOR TO BID.
5.	THE ELECTRICAL CONTRACTOR (E.C.) SHALL VISIT THE SITE PRIOR TO BID AND ALLOW FOR EXISTING CONDITIONS IN HIS BID. THE E.C. SHALL ALSO MATCH THE EXISTING COLOR SCHEME OF ELECTRICAL DEVICES ALREADY ESTABLISHED ON SITE AND CONFIRM WITH OWNER.
6.	COORDINATE WITH OWNER OR OWNER'S SELECTED VENDOR PRIOR TO ROUGH-IN FOR EXACT LOCATIONS OF SPECIAL PURPOSE OUTLETS DEDICATED TO SPECIFIC EQUIPMENT. VERIFY REQUIRED NEMA CONFIGURATION OF ALL SUCH OUTLETS.
7.	INCLUDE A GREEN-INSULATED GROUNDING CONDUCTOR SIZED PER N.E.C. TABLE 250.122 WITH ALL BRANCH CIRCUIT CONDUCTORS CONNECTED TO LIGHTING FIXTURES, RECEPTACLES AND MECHANICAL OR OTHER DEVICES.

GENERAL NOTES	
1.	AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED IN ALL ELECTRICAL RACEWAYS AND SHALL BE SIZED IN ACCORDANCE WITH N.E.C. ARTICLE 250-122.
2.	DISREGARD SYMBOLS AND ABBREVIATIONS WHICH ARE NOT USED ON CONTRACT DOCUMENTS.
3.	LEGEND SYMBOLS SHOWN WITH AN "E" NEXT TO THE SYMBOL INDICATES EXISTING DEVICE TO REMAIN.

DESIGN GENERAL NOTES	
1.	VOLTAGE DROP CALCULATIONS HAVE BEEN PERFORMED AND COMPLY WITH FLORIDA BUILDING CODE 13-413. FEEDER CONDUCTORS HAVE BEEN SIZED FOR A MAXIMUM VOLTAGE DROP OF 3 PERCENT AT DESIGN LOAD. DURING CONSTRUCTION ALL 208/120 VOLT BRANCH CIRCUITS THAT EXCEED 120 FEET IN LENGTH FROM THE ELECTRIC PANEL TO THE DEVICE SHALL REQUIRE THE CONDUCTORS TO BE UPSIZED TO THE NEXT NOMINAL SIZE SO AS NOT TO EXCEED THE MAXIMUM VOLTAGE DROP.
2.	THE INSTALLATION SHALL COMPLY WITH ALL LAWS IN EFFECT APPLYING TO ELECTRICAL INSTALLATIONS. THE FOLLOWING CODES ARE APPLICABLE: 1. NFPA 70: NATIONAL ELECTRICAL CODE (2011) 2. NFPA 101: LIFE SAFETY CODE (2012) 3. NFPA 241: STANDARD FOR SAFEGUARDING CONSTRUCTION ALTERATION AND DEMOLITION OPERATIONS (2009) 4. FLORIDA BUILDING CODE 2010

ELECTRICAL LEGEND		
SYMBOL	DESCRIPTION	MOUNTING
	FLUORESCENT LIGHT FIXTURE	SEE FIXTURE SCHEDULE
	FLUORESCENT LIGHT FIXTURE WITH A SELF-CONTAINED EMERGENCY BATTERY PACK	SEE FIXTURE SCHEDULE
	FLUORESCENT, INCANDESCENT OR HID LIGHT FIXTURE	SEE FIXTURE SCHEDULE
	FLUORESCENT, INCANDESCENT OR HID LIGHT FIXTURE WITH A SELF-CONTAINED EMERGENCY BATTERY PACK	SEE FIXTURE SCHEDULE
	FLUORESCENT STRIP LIGHT FIXTURE	SEE FIXTURE SCHEDULE
	FLUORESCENT STRIP LIGHT FIXTURE WITH A SELF-CONTAINED EMERGENCY BATTERY PACK	SEE FIXTURE SCHEDULE
	EXIT LIGHT FIXTURE, (SHADED QUADRANT INDICATES FACE(S) OF FIXTURES)	SEE FIXTURE SCHEDULE
	EXIT LIGHT FIXTURE, (SHADED QUADRANT INDICATES FACE(S) OF FIXTURES)	SEE FIXTURE SCHEDULE
	LIGHT TRACK WITH LIGHT FIXTURES	SEE FIXTURE SCHEDULE
	CHANDELIER INCANDESCENT	SEE FIXTURE SCHEDULE
	EMERGENCY BATTERY PACK LIGHT FIXTURE	SEE FIXTURE SCHEDULE
	REMOTE EMERGENCY LIGHT HEAD	SEE FIXTURE SCHEDULE
	PARKING LOT OR ROADWAY LIGHT FIXTURE	SEE FIXTURE SCHEDULE
	SIDEWALK BOLLARD LIGHT FIXTURE	SEE FIXTURE SCHEDULE
	FLUORESCENT, INCANDESCENT OR HID ADJUSTABLE LIGHT FIXTURE	SEE FIXTURE SCHEDULE
	PADDLE TYPE CEILING FAN	SEE MECHANICAL DRAWINGS
	EXHAUST FAN	SEE MECHANICAL DRAWINGS
	SWITCH, SINGLE POLE	46" AFF TO C/L
	SWITCH, SINGLE POLE (SUBSCRIPT INDICATES CONTROLLING SWITCH)	46" AFF TO C/L
	SWITCH, DOUBLE POLE	46" AFF TO C/L
	SWITCH, THREE-WAY	46" AFF TO C/L
	SWITCH, FOUR-WAY	46" AFF TO C/L
	SWITCH, LOW VOLTAGE	46" AFF TO C/L
	SWITCH, DIMMER	46" AFF TO C/L
	SWITCH, FAN	46" AFF TO C/L
	VERRIDE SWITCH, SEE DRAWINGS FOR ADDITIONAL INFORMATION	46" AFF TO C/L
	SWITCH, WITH PILOT LIGHT	46" AFF TO C/L
	SWITCH, WITH TIMER	46" AFF TO C/L
	SWITCH, MOTOR RATED	46" AFF TO C/L
	SWEEP CONTROL SWITCH, SEE DETAIL AND SPECIFICATIONS FOR ADDITIONAL INFORMATION	46" AFF TO C/L
	20 AMP SINGLE RECEPTACLE	18" AFF TO C/L
	20 AMP SINGLE RECEPTACLE FOR ELECTRIC WATER COOLER	COORDINATE WITH GENERAL CONTRACTOR
	20 AMP DUPLEX RECEPTACLE	18" AFF TO C/L
	20 AMP DUPLEX RECEPTACLE	44" AFF TO C/L OR AS NOTED
	20 AMP GFCI DUPLEX RECEPTACLE	18" AFF TO C/L
	20 AMP GFCI DUPLEX RECEPTACLE WITH WEATHERPROOF COVER	18" AFF TO C/L
	20 AMP DUPLEX RECEPTACLE (TOP HALF SWITCHED)	18" AFF TO C/L
	20 AMP ISOLATED GROUND DUPLEX RECEPTACLE (ORANGE DEVICE)	18" AFF TO C/L
	20 AMP ISOLATED GROUND DUPLEX RECEPTACLE (ORANGE DEVICE) AND 20 AMP DUPLEX RECEPTACLE	44" AFF TO C/L OR AS NOTED
	20 AMP GFCI DUPLEX RECEPTACLE	44" AFF TO C/L OR AS NOTED
	30 AMP, 1 PHASE, 125/250V, 3P, 3W (DRIVER)	46" AFF TO C/L OR AS NOTED
	COMBINATION MAGNETIC MOTOR STARTER STARTER SIZE	60" AFF TO TOP
	MANUAL MOTOR STARTER STARTER SIZE	60" AFF TO TOP
	MOTOR CONNECTION	AS NOTED
	SHUNT-TRIP BUTTON IN A KEYED LOCK ENCLOSURE	46" AFF TO C/L OR AS NOTED
	ELECTRIC DUCT HEATER	SEE MECHANICAL DRAWINGS
	DOOR CHIME	84" AFF TO C/L
	EMERGENCY STOP BUTTON	60" AFF TO C/L
	THERMOSTAT	SEE MECHANICAL DRAWINGS
	MOTORIZED DAMPER	SEE MECHANICAL DRAWINGS
	KEYED NOTES	---
	PANELBOARD UNDER 250 VOLTS	72" AFF TO TOP
	PANELBOARD OVER 250 VOLTS	72" AFF TO TOP
	DRY TYPE TRANSFORMER	SEE TRANSFORMER SCHEDULE
	AUTOMATIC TRANSFER SWITCH	72" AFF TO TOP
	GENERATOR REMOTE ANNUNCIATOR PANEL	60" AFF TO TOP
	GENERATOR	SECURE TO CONCRETE SLAB USING SPRING VIBRATION ISOLATORS
	TIME SWITCH	WALL MOUNTED
	CONTACTOR	WALL MOUNTED

ELECTRICAL LEGEND		
SYMBOL	DESCRIPTION	MOUNTING
	BRANCH CIRCUIT CONCEALED ABOVE CEILING OR IN WALL. SLASH MARKS INDICATE NUMBER OF CONDUCTORS. SHORT SLASHES INDICATE PHASE CONDUCTOR OR SWITCH LEG. LONG SLASH INDICATES NEUTRAL CONDUCTOR. SHORT HOOKED SLASH INDICATES ISOLATED GROUND (EQUIPMENT GROUND REQUIRED BUT NOT SHOWN). TWO CONDUCTORS PLUS GROUND REQUIRED (UNLESS OTHERWISE NOTED OR MARKED).	
	BRANCH CIRCUIT WITH ISOLATED GROUND	
	HOME RUN TO PANELBOARD	
	BRANCH CIRCUIT CONDUIT CONCEALED IN SLAB OR UNDERGROUND	
	BRANCH CIRCUIT CONDUIT EXPOSED	
	SURFACE MOUNTED DECORATIVE RACEWAY (E.G., WIREMOLD)	
	LOW VOLTAGE WIRING INSTALLED IN CONDUIT	
	LIFE SAFETY BRANCH CIRCUIT	
	CRITICAL BRANCH CIRCUIT	
	EQUIPMENT BRANCH CIRCUIT	
	CONDUIT RUN UP	
	CONDUIT RUN DOWN	
	EQUIPMENT CONNECTION USING FLEXIBLE CONDUIT	
	PAGING/MUSIC SPEAKER	CEILING RECESSED
	PAGING/MUSIC SPEAKER	WALL MOUNTED, COORDINATE WITH ARCH. DWGS.
	VOLUME CONTROL SWITCH	46" AFF TO C/L
	CCTV CAMERA	AS INDICATED ON DRAWINGS
	CCTV MONITOR	SITTING ON COUNTER
	DOOR CONTROL KEY PAD	46" AFF TO C/L
	SPECIAL PURPOSE RECEPTACLE	AS INDICATED ON DRAWINGS
	20 AMP DUPLEX RECEPTACLE INSTALLED IN FLOOR BOX	FLUSH WITH FINISHED FLOOR
	20 AMP DUPLEX RECEPTACLE	MOUNTED TO UNDER FLOOR DUCT
	20 AMP DUPLEX RECEPTACLE	MOUNTED FLUSH WITH FINISHED CEILING
	OUTLET, JUNCTION OR PULL BOX	AS NOTED
	DISCONNECT SWITCH	60" AFF TO TOP
	MAGNETIC MOTOR STARTER STARTER SIZE	60" AFF TO TOP
	OCCUPANCY SENSOR	SEMI-FLUSH MOUNTED IN THE CEILING

ABBREVIATIONS			
AFF	ABOVE FINISHED FLOOR	HORIZ	HORIZONTAL
AHU	AIR HANDLING UNIT	LW	LOW WHITE
BFG	BELOW FINISHED GRADE	HP	HORSEPOWER, HEAT PUMP
C	CONDUIT	HVAC	HEATING, VENTING AIR CONDITIONING
C/L	CENTERLINE	IB	INLET BOX
CU	CULVERT	ISA	LOCKED ROTOR AMPERES
CON	CONDENSING UNIT	MCB	MAIN CIRCUIT BREAKER
COOL	COOL, WHITE	MLO	MAIN LUGS ONLY
DN	DOWN	N	NEUTRAL
EDH	ELECTRIC DUCT HEATER	NL	NIGHT LIGHT
EF	EXHAUST FAN	OB	OUTLET BOX
ENCL	ENCLOSURE	PS	PULL BOX, PUSHBUTTON
EW	ELECTRIC WATER COOLER	PS	PAY STATION
EWH	ELECTRIC WATER HEATER	R	RECEPTACLE
EX	EXHAUST PROOF	RECP	RECEPTACLE
FCU	FAN COIL UNIT	SF	SUPPLY FAN
FLA	FULL LOAD AMPERES	SP	SPECIFICATIONS
FRA	FRACTIONAL HORSEPOWER	TL	TWO-LOCK
G	GROUND	TR	TELEPHONE TERMINAL BOARD
GR	GROUND FAULT INTERRUPTER	VB	VERTICAL
GW	GAS WATER HEATER	WP	WEATHERPROOF
HID	HIGH INTENSITY DISCHARGE	WV	WARM WHITE
HOA	HANDS OFF AUTOMATIC	XFR	TRANSFORMER

ELECTRICAL SHEET INDEX	
SHEET NUMBER	SHEET NAME
E0	ELECTRICAL LEGEND AND INDEX
E1	ELECTRICAL SITE PLAN - DEMOLITION
E2	ELECTRICAL SITE PLAN - NEW CONSTRUCTION
E2-A	ELECTRICAL SITE PLAN - AREA A
E2-B	ELECTRICAL SITE PLAN - AREA B
E2-C	ELECTRICAL SITE PLAN - AREA C
E2-D	ELECTRICAL SITE PLAN - AREA D
E3	ELECTRICAL DETAILS
E4	ELECTRICAL POWER RISER DIAGRAMS
E5	ELECTRICAL PANEL SCHEDULES

ISSUE DATE:	02/01/2016	
PROJECT NUMBER:	2126	
REVISIONS:		
NO.	DATE	DESCRIPTION

NOTE TO EXISTING CONDITIONS

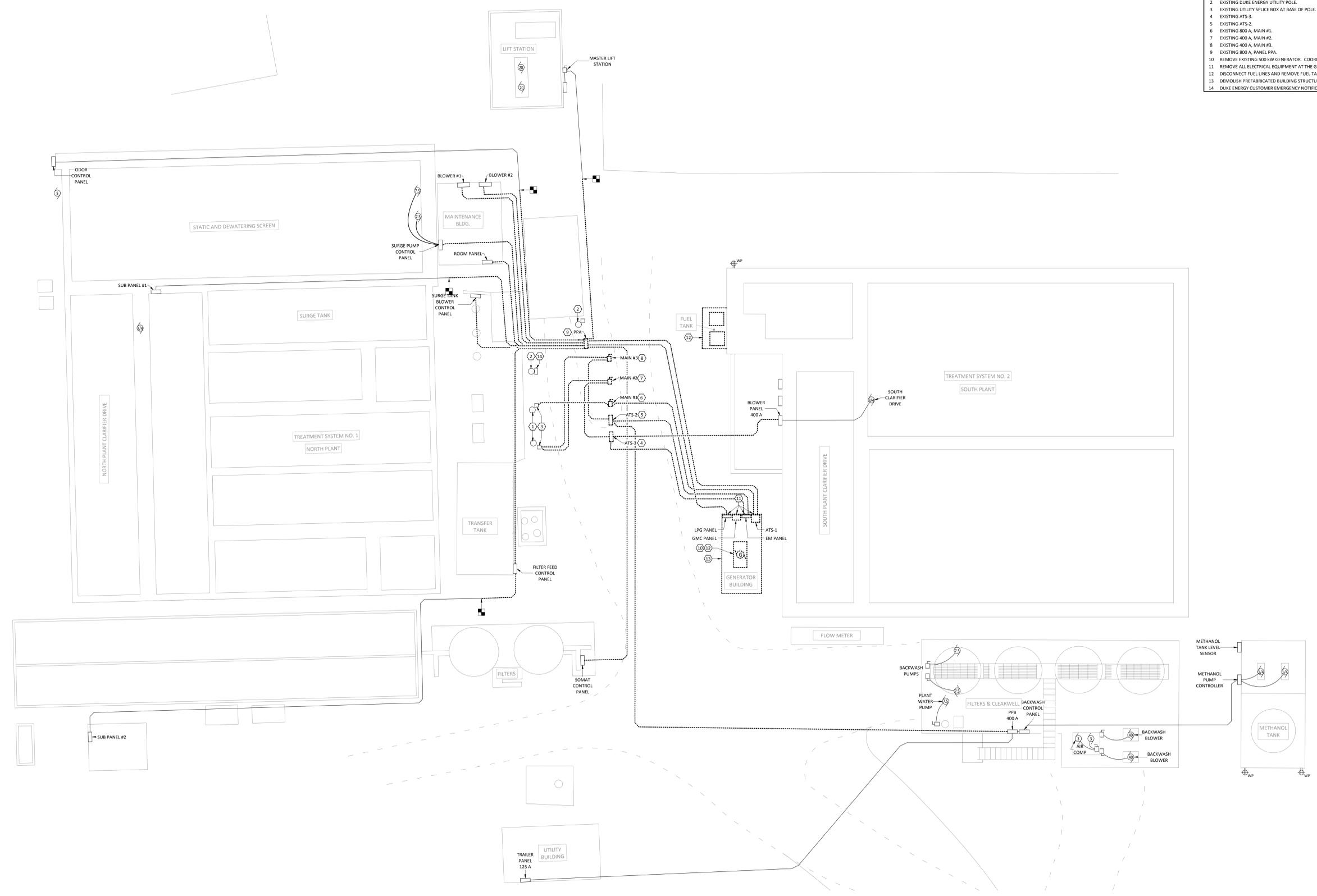
ALL DEPICTED CONDITIONS IN THESE DRAWINGS ARE FROM EXISTING DRAWINGS PROVIDED BY OWNERS REPRESENTATIVE AND THROUGH LIMITED FIELD INVESTIGATION. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO VERIFY THE EXISTING CONDITIONS BEFORE COMMENCEMENT OF WORK AND TO NOTIFY THE ENGINEER OF RECORD OF ANY DISCREPANCIES FOUND.

GENERAL NOTES

1. ALL DEMOLITION WORK SHALL BE ACCOMPLISHED AFTER NEW 480 V POWER SYSTEM HAS BEEN PROVIDED AND READY FOR USE.
2. REUSE EXISTING RACEWAYS AND CONDUCTORS AS REQUIRED FOR TEMPORARY POWER. COORDINATE WITH NEW CONSTRUCTION DRAWINGS AS REQUIRED.

KEYNOTES

1. EXISTING DUKE ENERGY UTILITY POLES WITH TRANSFORMER BANKS.
2. EXISTING DUKE ENERGY UTILITY POLE.
3. EXISTING UTILITY SPICE BOX AT BASE OF POLE.
4. EXISTING AT-3.
5. EXISTING AT-2.
6. EXISTING 800 A, MAIN #1.
7. EXISTING 400 A, MAIN #2.
8. EXISTING 400 A, MAIN #3.
9. EXISTING 800 A, PANEL PPA.
10. REMOVE EXISTING 500 KW GENERATOR. COORDINATE WITH OWNER FOR DISPOSAL.
11. REMOVE ALL ELECTRICAL EQUIPMENT AT THE GENERATOR BUILDING.
12. DISCONNECT FUEL LINES AND REMOVE FUEL TANK.
13. DEMOLISH PREFABRICATED BUILDING STRUCTURE.
14. DUKE ENERGY CUSTOMER EMERGENCY NOTIFICATION PANEL.



1 ELECTRICAL - SITE PLAN - DEMOLITION



DEMOLITION LEGEND

SYMBOL	DESCRIPTION
—	EXISTING TO REMAIN
-----	EXISTING TO BE REMOVED
-■-	DEMOLISH TO THIS POINT

**Utilities, Inc. of Florida -
 Mid County**

**PRELIMINARY
 NOT FOR
 CONSTRUCTION**
 Rolando Martiatus, P.E.
 PE 65078

ISSUE DATE: **02/01/2016**
 PROJECT NUMBER: **2126**

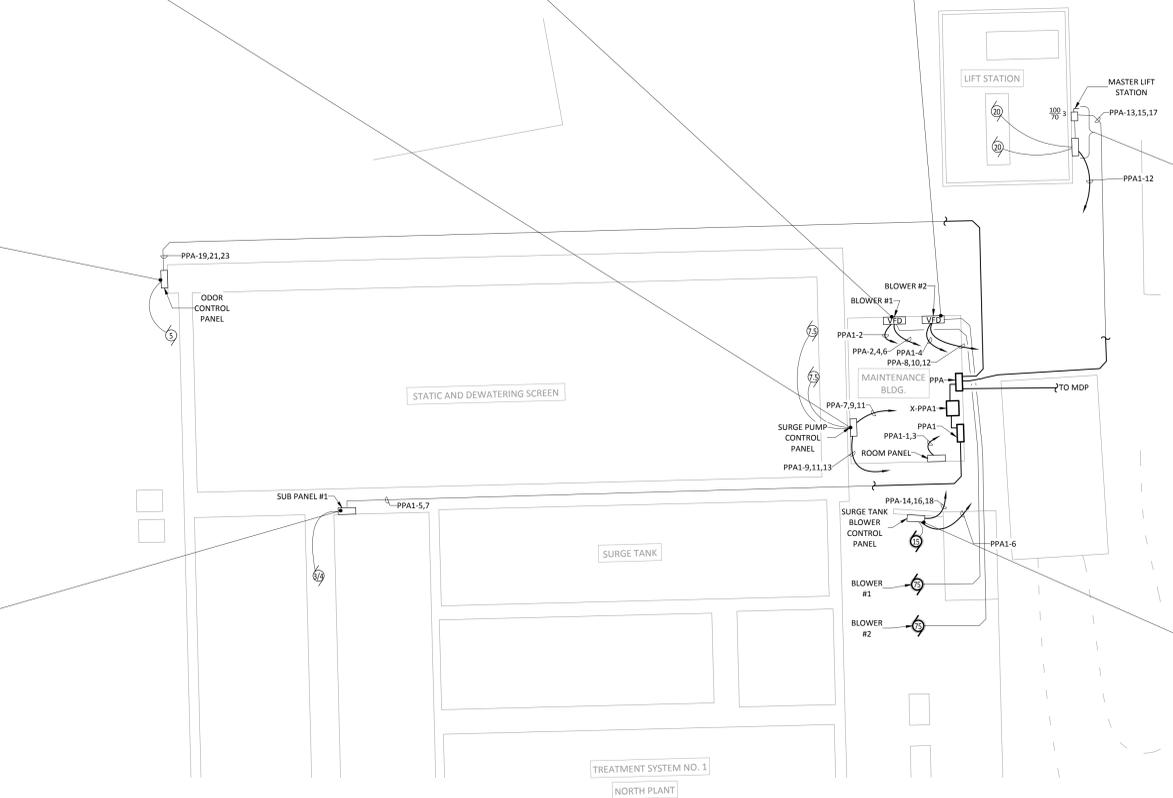
REVISIONS:

NO.	DATE	DESCRIPTION

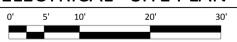
**ELECTRICAL SITE PLAN -
 DEMOLITION**
E1

SCOPE OF WORK

1. PROVIDE AND INSTALL NEW PANELBOARD PPA.
2. PROVIDE AND INSTALL NEW FEEDER FROM NEW DISTRIBUTION PANELBOARD MDP TO NEW PANELBOARD PPA.
3. PROVIDE AND INSTALL NEW TRANSFORMER X-PPA1.
4. PROVIDE AND INSTALL NEW PANELBOARD PPA1.
5. PROVIDE AND INSTALL NEW FEEDER FROM NEW PANELBOARD PPA1 TO EXISTING ROOM PANELBOARD.
6. BLOWER #1 CONTROL CABINET. PROVIDE AND INSTALL NEW VARIABLE FREQUENCY DRIVE, HITACHI, CAT NO. S700D-550HFU3, 75 HP, 480 V, 3 PHASE, NEMA 1.
7. BLOWER #1 CONTROL CABINET. PROVIDE AND INSTALL NEW AC LINE REACTOR, HITACHI, CAT NO. HRL175H, INSTALL ON OUTPUT SIDE OF DRIVE.
8. BLOWER #1 CONTROL CABINET. REMOVE EXISTING VARIABLE FREQUENCY DRIVE AND EXISTING AC LINE REACTOR. VERIFY DIMENSIONS OF NEW VARIABLE FREQUENCY DRIVE AND NEW AC LINE REACTOR. REPLACE EXISTING CONTROL CABINET IF REQUIRED.
9. BLOWER #1 CONTROL CABINET. PROVIDE AND INSTALL NEW FEEDER FROM NEW PANELBOARD PPA1 FOR CONTROL FUNCTION. ALL OTHER FUNCTIONS AND DEVICES SUCH AS SCADA COMMUNICATION AND TIMER CONTROL SHALL REMAIN OR SHALL BE CHANGED PER CUSTOMER REQUIREMENTS.
10. BLOWER #1 CONTROL CABINET. PROVIDE AND INSTALL NEW 120 V CIRCUIT FROM NEW PANELBOARD PPA1 FOR CONTROL FUNCTION. ALL OTHER FUNCTIONS AND DEVICES SUCH AS SCADA COMMUNICATION AND TIMER CONTROL SHALL REMAIN OR SHALL BE CHANGED PER CUSTOMER REQUIREMENTS.
11. BLOWER #1 CONTROL CABINET. PROGRAM NEW VARIABLE FREQUENCY DRIVE AND SET OVERLOAD PROTECTION FUNCTION PER MANUFACTURERS' RECOMMENDATIONS, PER BLOWER MOTOR NAMEPLATE DATA, AND AS REQUIRED BY "THE PROCESS" (CLIENT PROVIDED INFORMATION).
12. BLOWER #1 MOTOR. AT EXISTING MOTOR CHANGE THE MOTOR CONNECTION TO HIGH VOLTAGE (480 V). VERIFY PHASING, AMPERE DRAW, AND ROTATION.
13. BLOWER #2 CONTROL CABINET. PROVIDE AND INSTALL NEW VARIABLE FREQUENCY DRIVE, HITACHI, CAT NO. S700D-550HFU3, 75 HP, 480 V, 3 PHASE, NEMA 1.
14. BLOWER #2 CONTROL CABINET. PROVIDE AND INSTALL NEW AC LINE REACTOR, HITACHI, CAT NO. HRL175H, INSTALL ON OUTPUT SIDE OF DRIVE.
15. BLOWER #2 CONTROL CABINET. REMOVE EXISTING VARIABLE FREQUENCY DRIVE, EXISTING DISCONNECT, AND EXISTING CONNECTION BLOCK. VERIFY DIMENSIONS OF NEW VARIABLE FREQUENCY DRIVE AND NEW AC LINE REACTOR. REPLACE EXISTING CONTROL CABINET IF REQUIRED.
16. BLOWER #2 CONTROL CABINET. PROVIDE AND INSTALL NEW FEEDER FROM NEW PANELBOARD PPA1 FOR CONTROL FUNCTION. ALL OTHER FUNCTIONS AND DEVICES SUCH AS SCADA COMMUNICATION AND TIMER CONTROL SHALL REMAIN OR SHALL BE CHANGED PER CUSTOMER REQUIREMENTS.
17. BLOWER #2 CONTROL CABINET. PROVIDE AND INSTALL NEW 120 V CIRCUIT FROM NEW PANELBOARD PPA1 FOR CONTROL FUNCTION. ALL OTHER FUNCTIONS AND DEVICES SUCH AS SCADA COMMUNICATION AND TIMER CONTROL SHALL REMAIN OR SHALL BE CHANGED PER CUSTOMER REQUIREMENTS.
18. BLOWER #2 CONTROL CABINET. PROGRAM NEW VARIABLE FREQUENCY DRIVE AND SET OVERLOAD PROTECTION FUNCTION PER MANUFACTURERS' RECOMMENDATIONS, PER BLOWER MOTOR NAMEPLATE DATA, AND AS REQUIRED BY "THE PROCESS" (CLIENT PROVIDED INFORMATION).
19. BLOWER #2 MOTOR. AT EXISTING MOTOR CHANGE THE MOTOR CONNECTION TO HIGH VOLTAGE (480 V). VERIFY PHASING, AMPERE DRAW, AND ROTATION.
20. SURGE TANK BLOWER CONTROL CABINET. PROVIDE AND INSTALL NEW FEEDER FROM NEW PANELBOARD PPA1 FOR SERVICE RECEPTACLE.
21. SURGE TANK BLOWER CONTROL CABINET. VERIFY 120 V CONTROL POWER IS PRESENT THRU EXISTING CONTROL FUNCTION, PROVIDE NEW 120 V CONTROL POWER IF REQUIRED.
22. SURGE PUMPS CONTROL CABINET. PROVIDE AND INSTALL TWO (2) NEW VARIABLE FREQUENCY DRIVES, HITACHI, CAT NO. WJ200-110HF, 15 HP, 480 V, 3 PHASE, NEMA 1.
23. SURGE PUMPS CONTROL CABINET. PROVIDE AND INSTALL NEW CIRCUIT BREAKER, SQUARE D TYPE HG POWERPACT, 3 POLE, 70 A, 480 V.
24. SURGE PUMPS CONTROL CABINET. PROVIDE AND INSTALL TWO (2) NEW THERMAL OVERLOAD RELAYS, CUTLER HAMMER, CAT NO. C306GN3B, 3 POLE, 75 A.
25. SURGE PUMPS CONTROL CABINET. VERIFY EXISTING STARTERS, CUTLER HAMMER, CAT NO. A056MNO, HAVE 120 V CONTACTOR COILS. OTHERWISE REPLACE AS REQUIRED.
26. SURGE PUMPS CONTROL CABINET. REMOVE EXISTING VARIABLE FREQUENCY DRIVES, EXISTING MAIN CIRCUIT BREAKER, AND EXISTING STEP DOWN TRANSFORMER. VERIFY DIMENSIONS OF NEW VARIABLE FREQUENCY DRIVES, NEW MAIN CIRCUIT BREAKER, AND ANY OTHER COMPONENTS REQUIRED. REPLACE EXISTING CONTROL CABINET IF REQUIRED.
27. SURGE PUMPS CONTROL CABINET. PROVIDE AND INSTALL NEW FEEDER FROM NEW PANELBOARD PPA1.
28. SURGE PUMPS CONTROL CABINET. PROVIDE AND INSTALL THREE (3) NEW 120 V CIRCUITS FROM NEW PANELBOARD PPA1. ONE (1) 120 V CIRCUIT IN PLACE OF STEP DOWN TRANSFORMER. ONE (1) 120 V CIRCUIT FOR RECEPTACLE, AND ONE (1) 120 V CIRCUIT FOR CONTROL POWER FUNCTION. ALL OTHER FUNCTIONS AND DEVICES SHALL REMAIN OR SHALL BE CHANGED PER CUSTOMER REQUIREMENTS.
29. SURGE PUMPS CONTROL CABINET. PROGRAM NEW VARIABLE FREQUENCY DRIVES AND SET OVERLOAD PROTECTION FUNCTIONS PER MANUFACTURERS' RECOMMENDATIONS, PER SURGE PUMPS NAMEPLATE DATA, AND AS REQUIRED BY "THE PROCESS" (CLIENT PROVIDED INFORMATION).
30. SURGE PUMPS MOTORS. OWNER TO VERIFY INPUT VOLTAGE TO EXISTING SURGE PUMPS IS 480 V. OTHERWISE OWNER TO PROVIDE TWO (2) 480 V, 15 HP SURGE PUMPS AS REPLACEMENTS.
31. SURGE PUMPS MOTORS. INSTALL OWNER PROVIDED REPLACEMENT SURGE PUMPS IF REQUIRED. MAKE THE PUMP MOTOR CONNECTIONS TO HIGH VOLTAGE (480 V). VERIFY PHASING, AMPERE DRAW, AND ROTATION.
32. MASTER LIFT STATION. PROVIDE AND INSTALL NEW NEMA 3R, 480 V, 3 PHASE, 100 A, FUSIBLE DISCONNECT SWITCH. FUSE AT 70 A.
33. MASTER LIFT STATION. REMOVE EXISTING CONTROL CABINET. PROVIDE AND INSTALL NEW NEMA 3R, 480 V, 3 PHASE, CONTROL CABINET WITH 480 V-120V CONTROL POWER TRANSFORMER. SET OVERLOAD PROTECTION FUNCTIONS PER MANUFACTURERS' RECOMMENDATIONS, PER LIFT STATION PUMPS NAMEPLATE DATA, AND AS REQUIRED BY "THE PROCESS" (CLIENT PROVIDED INFORMATION). ALL OTHER FUNCTIONS SHALL REMAIN. CONTACT E&R DIVISION OF EMC CENTRAL FLORIDA, INC. FOR ADDITIONAL INFORMATION AND PRICING.
34. MASTER LIFT STATION. PROVIDE AND INSTALL NEW FEEDER FROM NEW PANELBOARD PPA1 FOR SERVICE RECEPTACLE.
35. MASTER LIFT STATION. PROVIDE AND INSTALL NEW 120 V CIRCUIT FROM NEW PANELBOARD PPA1 FOR SERVICE RECEPTACLE.
36. MASTER LIFT STATION PUMP MOTORS. AT EXISTING MOTORS CHANGE THE MOTOR CONNECTION TO HIGH VOLTAGE (480 V). VERIFY PHASING, AMPERE DRAW, AND ROTATION.
37. ODDOR CONTROL CABINET. PROVIDE AND INSTALL NEW VARIABLE FREQUENCY DRIVE, HITACHI, CAT NO. WJ200-040HF, 5 HP, 480 V, 3 PHASE, AND NEMA 1.
38. ODDOR CONTROL CABINET. PROVIDE AND INSTALL NEW CONTROL TRANSFORMER FUSES. USE 480 V, 0.5 A, TYPE C TIME DELAY FUSES.
39. ODDOR CONTROL CABINET. REMOVE EXISTING VARIABLE FREQUENCY DRIVE AND EXISTING CONTROL TRANSFORMER FUSES. VERIFY DIMENSIONS OF NEW VARIABLE FREQUENCY DRIVE. REPLACE EXISTING CONTROL CABINET IF REQUIRED.
40. ODDOR CONTROL CABINET. PROVIDE AND INSTALL NEW FEEDER FROM NEW PANELBOARD PPA1.
41. ODDOR CONTROL CABINET. PROGRAM NEW VARIABLE FREQUENCY DRIVE AND SET OVERLOAD PROTECTION FUNCTION PER MANUFACTURERS' RECOMMENDATIONS, PER SCRUBBER FAN MOTOR NAMEPLATE DATA, AND AS REQUIRED BY "THE PROCESS" (CLIENT PROVIDED INFORMATION).
42. ODDOR CONTROL SCRUBBER FAN MOTOR. AT EXISTING MOTOR CHANGE THE MOTOR CONNECTION TO HIGH VOLTAGE (480 V). VERIFY PHASING, AMPERE DRAW, AND ROTATION.
43. PROVIDE ALL INTERCONNECTING WIRING AS REQUIRED FOR A FUNCTIONAL SYSTEM. COORDINATE WITH OWNER FOR ADDITIONAL INFORMATION AND SETTINGS.
44. ALL WIRING SHALL BE MADE IN A NEAT AND WORKMANLIKE MANNER. EXISTING DAMAGED CONDUCTORS, RACEWAYS, AND TERMINATIONS SHALL BE REPLACED WITH NEW.
45. COORDINATE WITH MID COUNTY REPRESENTATIVE FOR ANY REQUIRED WIRING DIAGRAM OR TO CONTACT ORIGINAL MANUFACTURER FOR ADDITIONAL INFORMATION.
46. COORDINATE WITH MID COUNTY REPRESENTATIVE FOR ALL EQUIPMENT SHUTDOWNS, PHASING OF WORK, AND COORDINATION WITH OTHER CONTRACTORS THAT CURRENTLY ARE SERVICING THE FACILITY.

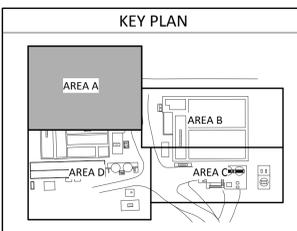


1 ELECTRICAL - SITE PLAN - NEW CONSTRUCTION - AREA A



NEW CONSTRUCTION LEGEND

SYMBOL	DESCRIPTION
—	EXISTING TO REMAIN
—	NEW CONSTRUCTION
—	CONNECT TO EXISTING AT THIS POINT

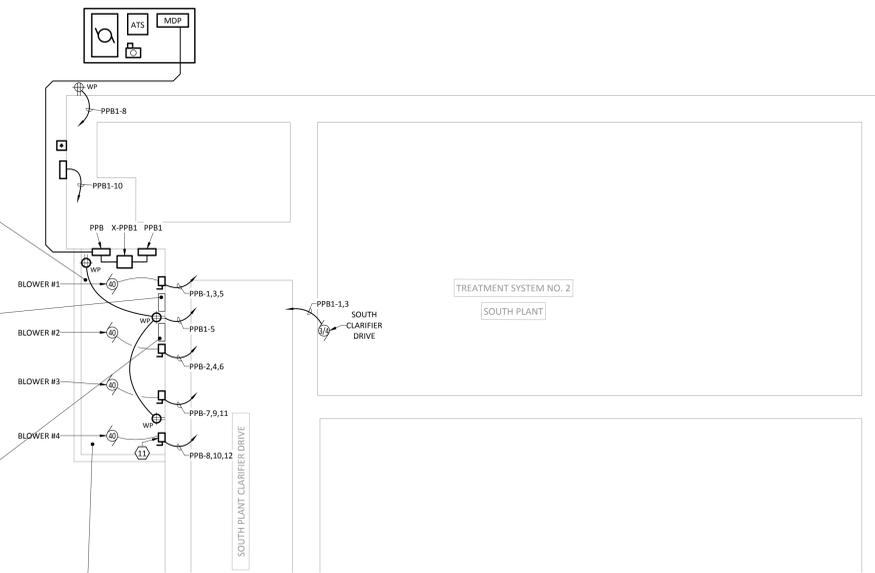
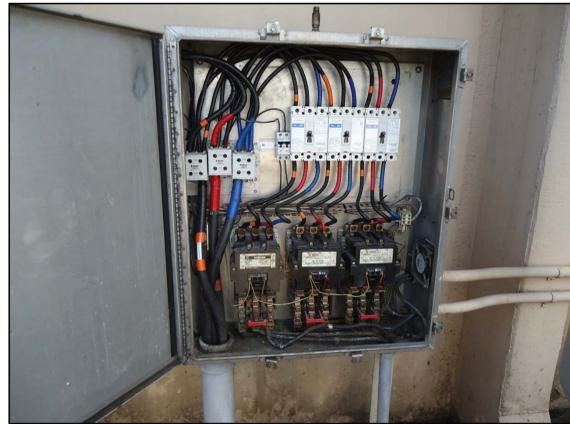


REVISIONS:

NO.	DATE	DESCRIPTION

SCOPE OF WORK

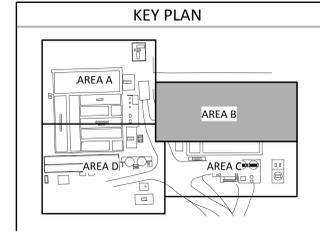
1. PROVIDE AND INSTALL NEW PANELBOARD PPB.
2. PROVIDE AND INSTALL NEW FEEDER FROM NEW DISTRIBUTION PANELBOARD MDP TO NEW PANELBOARD PPB.
3. PROVIDE AND INSTALL NEW TRANSFORMER X-PPB1.
4. PROVIDE AND INSTALL NEW PANELBOARD PPB1.
5. SOUTH BLOWER #1, #2, #3, #4 MOTOR STARTERS. PROVIDE AND INSTALL FOUR (4) NEW COMBINATION STARTERS, SQUARE D, CLASS 8339, NEMA SIZE 3, 480 V, 3 PHASE, NEMA 4X STAINLESS STEEL, ELECTRONIC MOTOR CIRCUIT PROTECTOR, 35 KA AIC, FULL VOLTAGE, 120 V COIL, 2 SET AUXILIARY CONTACTS, HAND/OFF/AUTO SWITCH, THERMAL OVERLOAD PROTECTION.
6. SOUTH BLOWER #1, #2, #3, #4 MOTOR STARTERS. PROVIDE AND INSTALL FOUR (4) NEW MULTIFUNCTION 3 PHASE CONTROL RELAYS, SQUARE D, ZELUO, CAT NO. BKMSST. SET AS PER CUSTOMER REQUIREMENTS.
7. SOUTH BLOWER #1, #2, #3, #4 MOTOR STARTERS. PROVIDE AND INSTALL NEW FEEDERS FROM NEW PANELBOARD PPB.
8. SOUTH BLOWER #1, #2, #3, #4 MOTOR STARTERS. SET OVERLOAD PROTECTION FUNCTION PER MANUFACTURERS' RECOMMENDATIONS, PER BLOWER MOTOR NAMEPLATE DATA, AND AS REQUIRED BY "THE PROCESS" (CLIENT PROVIDED INFORMATION).
9. SOUTH BLOWER #1, #2, #3, #4 MOTOR STARTERS CONTROL CABINET. PROVIDE VYNCKIER, SERIES V18, NEMA 4X, STAINLESS STEEL HINGE AND LATCH ENCLOSURE, SIZE AS REQUIRED TO HOUSE MECHANICAL TIME SWITCHES AND ELECTRONIC TIMING RELAYS.
10. SOUTH BLOWER #1, #2, #3, #4 MOTOR STARTERS CONTROL CABINET. PROVIDE AND INSTALL THREE (3) INTERMATIC, MODEL NO T195R, 120 V, 24 HOUR-15 MINUTES INTERVAL, AND SKIPPER WHEEL, MECHANICAL TIME SWITCHES.
11. SOUTH BLOWER #1, #2, #3, #4 MOTOR STARTERS CONTROL CABINET. PROVIDE AND INSTALL THREE (3) SQUARE D, CLASS 9050, TYPE ICH60 (ON DELAYS), 120 V ELECTRONIC TIMING RELAYS.
12. SOUTH BLOWER #1, #2, #3, #4 MOTOR STARTERS CONTROL CABINET. PROVIDE AND INSTALL NEW 120 V CIRCUIT FROM NEW PANELBOARD PPB1 FOR CONTROL FUNCTION. ALL OTHER FUNCTIONS AND DEVICES SHALL REMAIN OR SHALL BE CHANGED PER CUSTOMER REQUIREMENTS.
13. SOUTH BLOWER #1, #2, #3, #4 MOTOR STARTERS. REMOVE EXISTING MOTOR STARTER POWER AND CONTROL CABINETS.
14. SOUTH BLOWER #1, #2, #3, #4 MOTORS. AT EXISTING MOTORS CHANGE THE MOTOR CONNECTION TO HIGH VOLTAGE (480 V). VERIFY PHASING, AMPERE DRAW, AND ROTATION.
15. SOUTH CLARIFIER DRIVE. PROVIDE AND INSTALL NEW FEEDER FROM NEW PANELBOARD PPB1.
16. PROVIDE ALL INTERCONNECTING WIRING AS REQUIRED FOR A FUNCTIONAL SYSTEM. COORDINATE WITH OWNER FOR ADDITIONAL INFORMATION AND SETTINGS.
17. ALL WIRING SHALL BE MADE IN A NEAT AND WORKMANLIKE MANNER. EXISTING DAMAGED CONDUCTORS, RACEWAYS, AND TERMINATIONS SHALL BE REPLACED WITH NEW.
18. COORDINATE WITH MID COUNTY REPRESENTATIVE FOR ANY REQUIRED WIRING DIAGRAM OR TO CONTACT ORIGINAL MANUFACTURER FOR ADDITIONAL INFORMATION.
19. COORDINATE WITH MID COUNTY REPRESENTATIVE FOR ALL EQUIPMENT SHUTDOWNS, PHASING OF WORK, AND COORDINATION WITH OTHER CONTRACTORS THAT CURRENTLY ARE SERVICING THE FACILITY.



1 ELECTRICAL - SITE PLAN - NEW CONSTRUCTION - AREA B

NEW CONSTRUCTION LEGEND

SYMBOL	DESCRIPTION
—	EXISTING TO REMAIN
—	NEW CONSTRUCTION
—	CONNECT TO EXISTING AT THIS POINT



**Utilities, Inc. of Florida -
 Mid County**

**PRELIMINARY
 NOT FOR
 CONSTRUCTION**

Rolando Martiatus, P.E.
 PE 65078

ISSUE DATE: 06/01/16
 PROJECT NUMBER: 2126

REVISIONS:

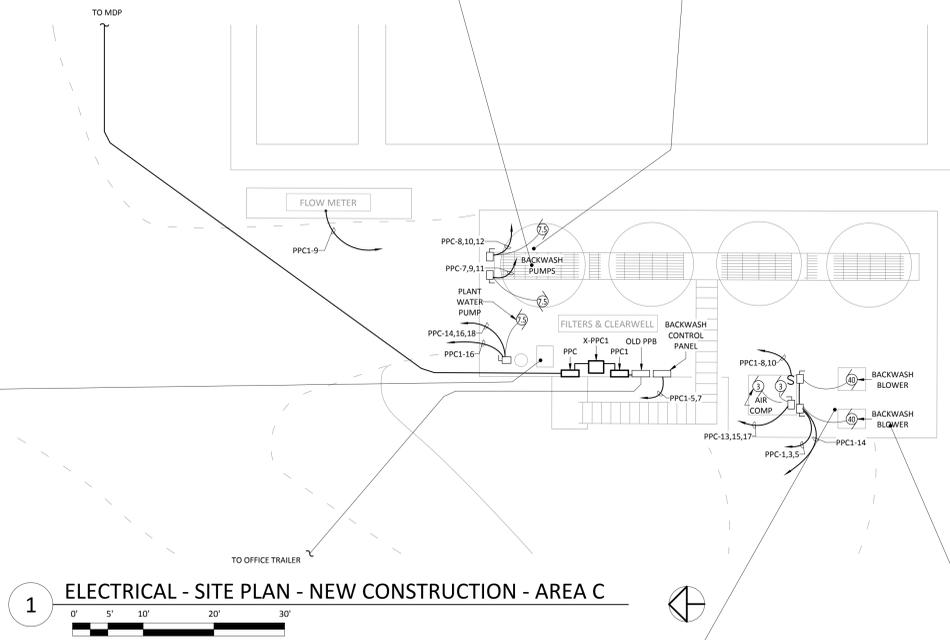
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ELECTRICAL SITE PLAN - AREA B

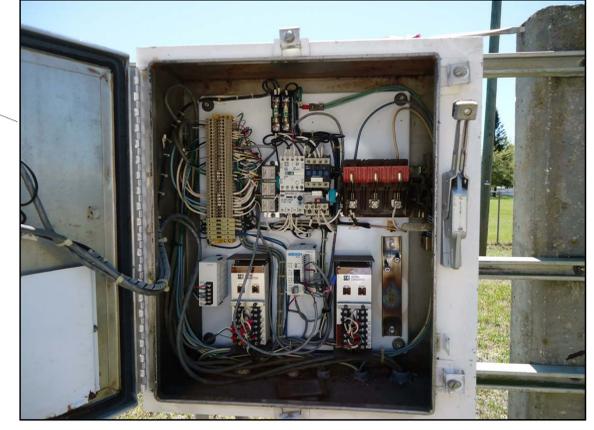
E2-B

SCOPE OF WORK

1. PROVIDE AND INSTALL NEW PANELBOARD PPC.
2. PROVIDE AND INSTALL NEW FEEDER FROM NEW DISTRIBUTION PANELBOARD MDP TO NEW PANELBOARD PPC.
3. PROVIDE AND INSTALL NEW TRANSFORMER X-PPC1.
4. PROVIDE AND INSTALL NEW PANELBOARD PPC1.
5. BACKWASH BLOWER #1 MOTOR STARTER, VFD ENCLOSURE. PROVIDE AND INSTALL NEW VARIABLE FREQUENCY DRIVE, HITACHI, CAT NO. SJ7008-HFUF, 40 HP, 480 V, 3 PHASE, NEMA 1.
6. BACKWASH BLOWER #1 MOTOR STARTER, VFD ENCLOSURE. PROVIDE AND INSTALL NEW MULTIFUNCTION 3 PHASE CONTROL RELAY, SQUARE D, ZELCO, CAT NO. RM35TF. SET AS PER CUSTOMER REQUIREMENTS.
7. BACKWASH BLOWER #1 MOTOR STARTER, VFD ENCLOSURE. REMOVE EXISTING VARIABLE FREQUENCY DRIVE. VERIFY DIMENSIONS OF NEW VARIABLE FREQUENCY DRIVE. REPLACE EXISTING VFD ENCLOSURE IF REQUIRED.
8. BACKWASH BLOWER #1 MOTOR STARTER, VFD ENCLOSURE. PROVIDE AND INSTALL NEW FEEDER FROM NEW PANELBOARD PPC.
9. BACKWASH BLOWER #1 MOTOR STARTER, VFD ENCLOSURE. PROVIDE AND INSTALL NEW 120 V CIRCUIT FROM NEW PANELBOARD PPC1 FOR CONTROL FUNCTION. ALL OTHER FUNCTIONS AND DEVICES SUCH AS SCADA COMMUNICATION, ALARMS, AND INTERLOCKS SHALL REMAIN OR SHALL BE CHANGED PER CUSTOMER REQUIREMENTS.
10. BACKWASH BLOWER #1 MOTOR STARTER, VFD ENCLOSURE. PROGRAM NEW VARIABLE FREQUENCY DRIVE AND SET OVERLOAD PROTECTION FUNCTION, PER MANUFACTURERS' RECOMMENDATIONS, PER BLOWER MOTORS NAMEPLATE DATA, AND AS REQUIRED BY "THE PROCESS" (CLIENT PROVIDED INFORMATION).
11. BACKWASH BLOWER #2 MOTOR STARTER, CONTACTORS ENCLOSURE. PROVIDE AND INSTALL NEW THERMAL OVERLOAD HEATER ELEMENTS TO REPLACE EXISTING THERMAL OVERLOAD HEATER ELEMENTS PER MOTORS NAMEPLATE DATA.
12. BACKWASH BLOWER #1, BACKWASH BLOWER #2 MOTORS. AT EXISTING MOTORS CHANGE THE MOTOR CONNECTION TO HIGH VOLTAGE (480 V). VERIFY PHASING, AMPERE DRAW, AND ROTATION.
13. BACKWASH BLOWER #1, #2 MOTOR STARTERS. PROVIDE AND INSTALL NEW MULTIFUNCTION 3 PHASE CONTROL RELAYS, SQUARE D, ZELCO, CAT NO. RM35TF. SET AS PER CUSTOMER REQUIREMENTS.
14. BACKWASH PUMP #1, #2 MOTOR STARTERS. PROVIDE AND INSTALL NEW THERMAL OVERLOAD PROTECTION TO REPLACE EXISTING THERMAL OVERLOAD PER MOTORS NAMEPLATE DATA.
15. BACKWASH PUMP #1, #2 MOTORS. AT EXISTING MOTORS VERIFY PUMPS ARE ABLE TO WORK ON 480 V SYSTEM. CHANGE CONNECTION TO HIGH VOLTAGE (480 V). VERIFY PHASING, AMPERE DRAW, AND ROTATION. OTHERWISE OWNER TO PROVIDE TWO (2) 480 V BACKWASH PUMPS AS REPLACEMENTS.
16. BACKWASH PUMP #1, #2 MOTORS. INSTALL OWNER PROVIDED REPLACEMENT BACK WASH PUMPS IF REQUIRED. MAKE THE PUMP MOTOR CONNECTIONS TO HIGH VOLTAGE (480 V). VERIFY PHASING, AMPERE DRAW, AND ROTATION.
17. PLANT WATER PUMP CONTROL CABINET. PROVIDE AND INSTALL NEW VARIABLE FREQUENCY DRIVE, HITACHI, CAT NO. WJ200-0554F, 7.5 HP, 480 V, 3 PHASE, NEMA 1.
18. PLANT WATER PUMP CONTROL CABINET. REMOVE EXISTING VARIABLE FREQUENCY DRIVE AND EXISTING THERMAL OVERLOAD PROTECTION. VERIFY DIMENSIONS OF NEW VARIABLE FREQUENCY DRIVE. REPLACE EXISTING CONTROL CABINET IF REQUIRED.
19. PLANT WATER PUMP CONTROL CABINET. PROVIDE AND INSTALL NEW FEEDER FROM NEW PANELBOARD PPC.
20. PLANT WATER PUMP CONTROL CABINET. PROVIDE AND INSTALL NEW 120 V CIRCUIT FROM NEW PANELBOARD PPC1 FOR CONTROL FUNCTION. ALL OTHER FUNCTIONS AND DEVICES SHALL REMAIN OR SHALL BE CHANGED PER CUSTOMER REQUIREMENTS.
21. PLANT WATER PUMP CONTROL CABINET. PROGRAM NEW VARIABLE FREQUENCY DRIVE AND SET OVERLOAD PROTECTION FUNCTION PER MANUFACTURERS' RECOMMENDATIONS, PER WATER PUMP NAMEPLATE DATA, AND AS REQUIRED BY "THE PROCESS" (CLIENT PROVIDED INFORMATION).
22. PLANT WATER PUMP. AT EXISTING MOTOR CHANGE THE MOTOR CONNECTION TO HIGH VOLTAGE (480 V). VERIFY PHASING, AMPERE DRAW, AND ROTATION.
23. METHANOL PUMPS CONTROL CABINET. REMOVE EXISTING METHANOL PUMPS CONTROL CABINET. INSTALL NEW OWNER PROVIDED METHANOL PUMPS CONTROL CABINET.
24. METHANOL PUMPS CONTROL CABINET. PROVIDE AND INSTALL NEW 120 V CIRCUITS FROM NEW PANELBOARD PPC1 AS INDICATED ON PLANS. INTERCONNECT WITH METHANOL TANK LEVEL SENSOR PANEL AS REQUIRED. ALL OTHER FUNCTIONS AND DEVICES SHALL REMAIN OR SHALL BE CHANGED PER CUSTOMER REQUIREMENTS.
25. METHANOL TANK LEVEL SENSOR PANEL. PROVIDE AND INSTALL NEW 120 V CIRCUIT FROM NEW PANELBOARD PPC1 AS INDICATED ON PLANS. INTERCONNECT WITH METHANOL PUMPS CONTROL CABINET AS REQUIRED. ALL OTHER FUNCTIONS AND DEVICES SHALL REMAIN OR SHALL BE CHANGED PER CUSTOMER REQUIREMENTS.
26. METHANOL PUMPS. REMOVE EXISTING METHANOL PUMPS. INSTALL NEW OWNER PROVIDED METHANOL PUMPS. MAKE THE FINAL PUMP MOTOR CONNECTIONS. BACKWASH SYSTEM SHALL COMPLY WITH HAZARDOUS LOCATIONS, CLASS 1, AND DIVISION 2 PER NFPA 70.
27. BACKWASH CONTROL PANEL. PROVIDE AND INSTALL NEW FEEDER FROM NEW PANELBOARD PPC1. CLEAN ENCLOSURE INTERIOR, ORGANIZE CABLES AS REQUIRED.
28. INSTRUMENT AIR COMPRESSOR. PROVIDE AND INSTALL NEW OVERLOAD PROTECTION. SET OVERLOAD PROTECTION FUNCTION PER MANUFACTURERS' RECOMMENDATIONS, PER INSTRUMENT AIR COMPRESSOR NAMEPLATE DATA, AND AS REQUIRED BY "THE PROCESS" (CLIENT PROVIDED INFORMATION).
29. INSTRUMENT AIR COMPRESSOR. INSPECT EXISTING CONTROL PANEL. PROVIDE AND INSTALL ANY REQUIRED PARTS TO RUN AT 480 V. ALL OTHER FUNCTIONS AND DEVICES SUCH AS SCADA SHALL REMAIN OR SHALL BE CHANGED PER CUSTOMER REQUIREMENTS.
30. INSTRUMENT AIR COMPRESSOR. PROVIDE AND INSTALL NEW FEEDER FROM NEW PANELBOARD PPC.
31. INSTRUMENT AIR COMPRESSOR. AT EXISTING MOTOR CHANGE THE MOTOR CONNECTION TO HIGH VOLTAGE (480 V). VERIFY PHASING, AMPERE DRAW, AND ROTATION.
32. EXISTING POWER PANELBOARD PPB. REMOVE PANEL INTERIOR. UTILIZE ENCLOSURE AS PULL/JUNCTION BOX FOR ALL EXISTING LOADS PREVIOUSLY CONNECTED TO EXISTING PANELBOARD "PPB". PROVIDE SEPARATION AND LABEL ALL CIRCUITS WITHIN THE ENCLOSURE.
33. PROVIDE ALL INTERCONNECTING WIRING AS REQUIRED FOR A FUNCTIONAL SYSTEM. COORDINATE WITH OWNER FOR ADDITIONAL INFORMATION AND SETTINGS.
34. ALL WIRING SHALL BE MADE IN A NEAT AND WORKMANLIKE MANNER. EXISTING DAMAGED CONDUCTORS, RACEWAYS, AND TERMINATIONS SHALL BE REPLACED WITH NEW.
35. COORDINATE WITH MID COUNTY REPRESENTATIVE FOR ANY EQUIPMENT WIRING DIAGRAM OR TO CONTACT ORIGINAL MANUFACTURER FOR ADDITIONAL INFORMATION.
36. COORDINATE WITH MID COUNTY REPRESENTATIVE FOR ALL REQUIRED SHUTDOWNS, PHASING OF WORK, AND COORDINATION WITH OTHER CONTRACTORS THAT CURRENTLY ARE SERVICING THE FACILITY.

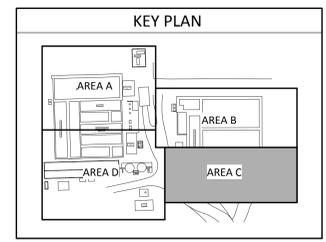


1 ELECTRICAL - SITE PLAN - NEW CONSTRUCTION - AREA C
 0' 5' 10' 20' 30'



NEW CONSTRUCTION LEGEND

SYMBOL	DESCRIPTION
—	EXISTING TO REMAIN
—	NEW CONSTRUCTION
—	CONNECT TO EXISTING AT THIS POINT



**Utilities, Inc. of Florida -
 Mid County**

PRELIMINARY
 NOT FOR
 CONSTRUCTION
 Rolando Martiatus, P.E.
 PE 65078

ISSUE DATE: 06/01/16
 PROJECT NUMBER: 2126

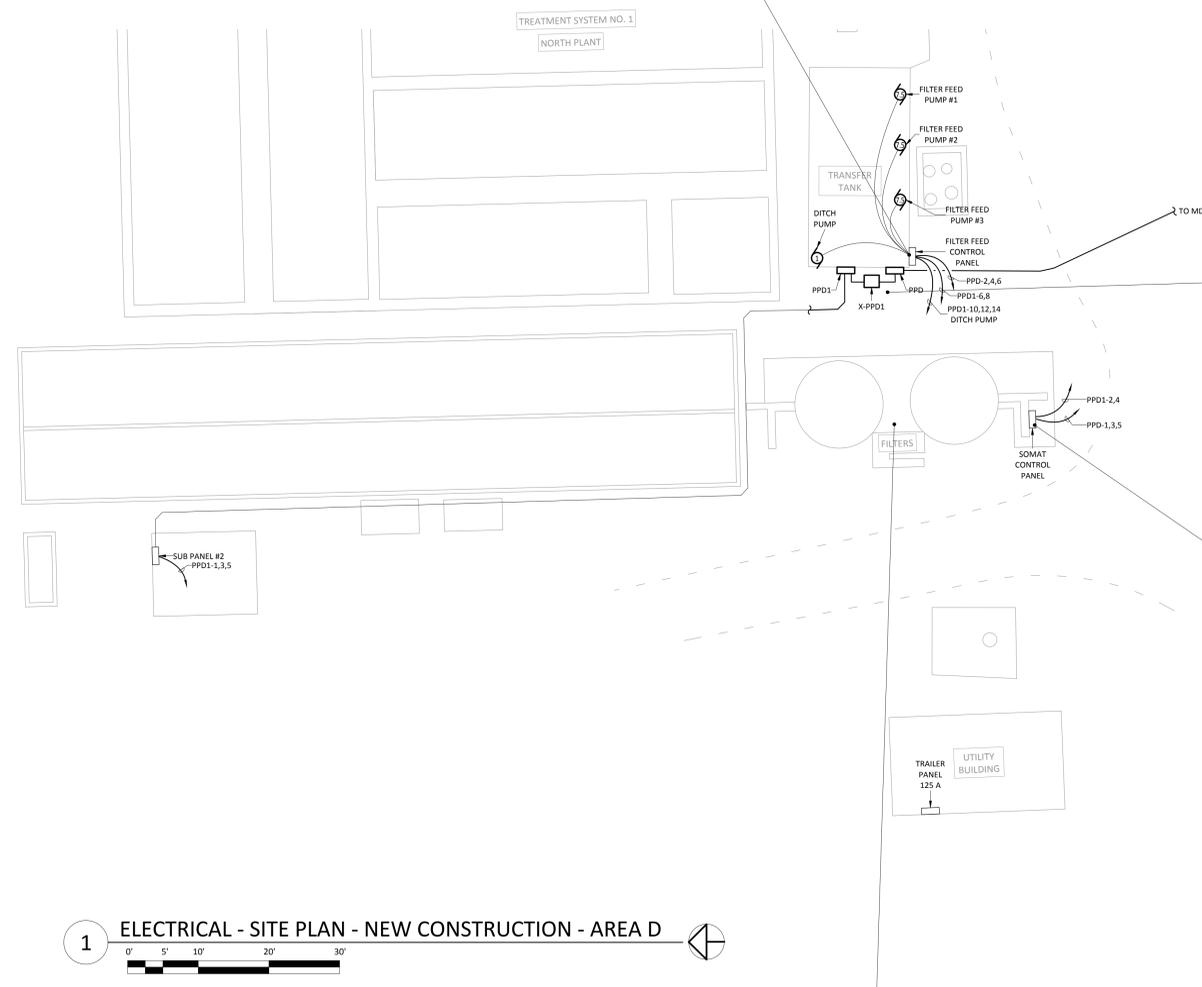
REVISIONS:

NO.	DATE	DESCRIPTION

ELECTRICAL SITE PLAN - AREA C
E2-C

SCOPE OF WORK

1. PROVIDE AND INSTALL NEW PANELBOARD PPD.
2. PROVIDE AND INSTALL NEW FEEDER FROM NEW DISTRIBUTION PANELBOARD MDP TO NEW PANELBOARD PPD.
3. PROVIDE AND INSTALL NEW TRANSFORMER X-PPD1.
4. PROVIDE AND INSTALL NEW PANELBOARD PPD1.
5. SOMAT CONTROL CABINET. PROVIDE AND INSTALL FOUR (4) NEW VARIABLE FREQUENCY DRIVES, HITACHI, CAT NO. WJ200-037HF, 5 HP, 480 V, 3 PHASE, NEMA 1.
6. SOMAT CONTROL CABINET. REMOVE EXISTING VARIABLE FREQUENCY DRIVES. VERIFY DIMENSIONS OF NEW VARIABLE FREQUENCY DRIVES. REPLACE EXISTING CONTROL CABINET IF REQUIRED.
7. SOMAT CONTROL CABINET. PROVIDE AND INSTALL NEW FEEDER FROM NEW PANELBOARD PPD.
8. SOMAT CONTROL CABINET. PROVIDE AND INSTALL TWO (2) NEW 120 V CIRCUITS FROM NEW PANELBOARD PPD1 FOR CONTROL FUNCTIONS. ALL OTHER FUNCTIONS AND DEVICES SUCH AS SCADA COMMUNICATION, ALARM, AND INTERLOCKS SHALL REMAIN OR SHALL BE CHANGED PER CUSTOMER REQUIREMENTS.
9. SOMAT CONTROL CABINET. PROGRAM NEW VARIABLE FREQUENCY DRIVES AND SET OVERLOAD PROTECTION FUNCTIONS PER MANUFACTURERS' RECOMMENDATIONS, PER MOTORS NAMEPLATE DATA, AND AS REQUIRED BY "THE PROCESS" (CLIENT PROVIDED INFORMATION).
10. SOMAT PRESHAL, PRESSURE, FLOCCULATOR, AND SLUDGE PUMP. AT EXISTING MOTORS CHANGE THE MOTOR CONNECTION TO HIGH VOLTAGE (480 V). VERIFY PHASING, AMPERE DRAW, AND ROTATION.
11. FILTER FEED CONTROL CABINET. PROVIDE AND INSTALL NEW SQUARE D, 30 A, 480 V, 3 PHASE, TYPE FAL 3603015M MAG-GARD CIRCUIT BREAKER TO REPLACE EXISTING 30A, 240 V, 3 PHASE, TYPE FAL 32030 CIRCUIT BREAKER.
12. FILTER FEED CONTROL CABINET. PROVIDE AND INSTALL NEW THERMAL OVERLOAD HEATER ELEMENTS TO REPLACE EXISTING THERMAL OVERLOAD HEATER ELEMENTS PER MOTORS NAMEPLATE DATA.
13. FILTER FEED CONTROL CABINET. REMOVE EXISTING 3P/50A, 2P/30A, 3P/15A AND 3P/15 A 240 V CIRCUIT BREAKERS AND ASSOCIATED WIRING. REFEED THESE LOADS FROM NEW PANELBOARD PPD1 AS REQUIRED.
14. FILTER FEED CONTROL CABINET. PROVIDE AND INSTALL NEW FEEDER FROM NEW PANELBOARD PPD.
15. FILTER FEED CONTROL CABINET. PROVIDE AND INSTALL NEW 120 V CIRCUITS FROM NEW PANELBOARD PPD1 FOR CONTROL FUNCTIONS. ALL OTHER FUNCTIONS AND DEVICES SHALL REMAIN OR SHALL BE CHANGED PER CUSTOMER REQUIREMENTS.
16. FILTER FEED CONTROL CABINET. AT EXISTING PHASE MONITOR RELAYS ADJUST NOMINAL VOLTAGE TO 480 V.
17. FILTER FEED CONTROL CABINET. OWNER TO VERIFY INPUT VOLTAGE TO PUMPS IS HIGH VOLTAGE (480V). VERIFY PHASING, AMPERE DRAW, AND ROTATION. OTHERWISE OWNER TO PROVIDE THREE (3) 480 V, 7.5 HP PUMPS AS REPLACEMENTS.
18. FILTER FEED CONTROL CABINET. INSTALL OWNER PROVIDED REPLACEMENT PUMPS IF REQUIRED. MAKE THE PUMP MOTOR CONNECTIONS TO HIGH VOLTAGE (480 V). VERIFY PHASING, AMPERE DRAW, AND ROTATION.
19. FILTER FEED CONTROL CABINET. DITCH PUMP, REUSE EXISTING CONTACTOR WITHIN CABINET.
20. FILTER FEED CONTROL CABINET. DITCH PUMP, PROVIDE AND INSTALL NEW FEED FROM PANEL PPD1. VERIFY PHASING, AMPERE DRAW, AND ROTATION.
21. PROVIDE ALL INTERCONNECTING WIRING AS REQUIRED FOR A FUNCTIONAL SYSTEM. COORDINATE WITH OWNER FOR ADDITIONAL INFORMATION AND SETTINGS.
22. ALL WIRING SHALL BE MADE IN A NEAT AND WORKMANLIKE MANNER. EXISTING DAMAGED CONDUCTORS, RACEWAYS, AND TERMINATIONS SHALL BE REPLACED WITH NEW.
23. COORDINATE WITH MID COUNTY REPRESENTATIVE FOR ANY REQUIRED WIRING DIAGRAM OR TO CONTACT ORIGINAL MANUFACTURER FOR ADDITIONAL INFORMATION.
24. COORDINATE WITH MID COUNTY REPRESENTATIVE FOR ALL EQUIPMENT SHUTDOWN, PHASING OF WORK, AND COORDINATION WITH OTHER CONTRACTORS THAT CURRENTLY ARE SERVING THE FACILITY.

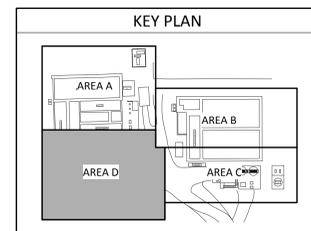


1 ELECTRICAL - SITE PLAN - NEW CONSTRUCTION - AREA D



NEW CONSTRUCTION LEGEND

SYMBOL	DESCRIPTION
—	EXISTING TO REMAIN
—	NEW CONSTRUCTION
—	CONNECT TO EXISTING AT THIS POINT



**Utilities, Inc. of Florida -
Mid County**

PRELIMINARY
NOT FOR
CONSTRUCTION

Rolando Martiatus, P.E.
PE 65078

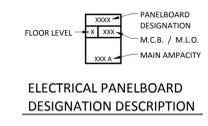
ISSUE DATE: 06/01/16
PROJECT NUMBER: 2126

REVISIONS:

NO.	DATE	DESCRIPTION

ELECTRICAL SITE PLAN - AREA D

E2-D



- ### SHEET NOTES
- ELECTRICAL CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE WITH SCOPE OF WORK PRIOR TO BIDDING.
 - ELECTRICAL CONTRACTOR SHALL PROVIDE ANY NECESSARY EQUIPMENT OR MEASURES TO KEEP TEMPORARY POWER TO LOADS DURING THE DURATION OF WORK NOT DEPICTED ON DRAWINGS.
 - ELECTRICAL CONTRACTOR SHALL VERIFY ALL CONDUCTORS AND RACEWAY SIZES AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
 - ELECTRICAL CONTRACTOR SHALL DETERMINE THE MOST COST EFFECTIVE METHOD TO REFEED EXISTING LOADS THAT REMAIN. INTERCEPTING EXISTING FEEDERS AT A CONVENIENT LOCATION IS ACCEPTABLE.
 - THE INFORMATION PRESENTED ON DRAWINGS WAS DETERMINED BY LIMITED FIELD INVESTIGATION AND EXISTING DRAWINGS. VERIFY EXISTING CONDITIONS PRIOR TO DEMOLITION WORK AND NOTIFY DISCREPANCIES TO THE ENGINEER.

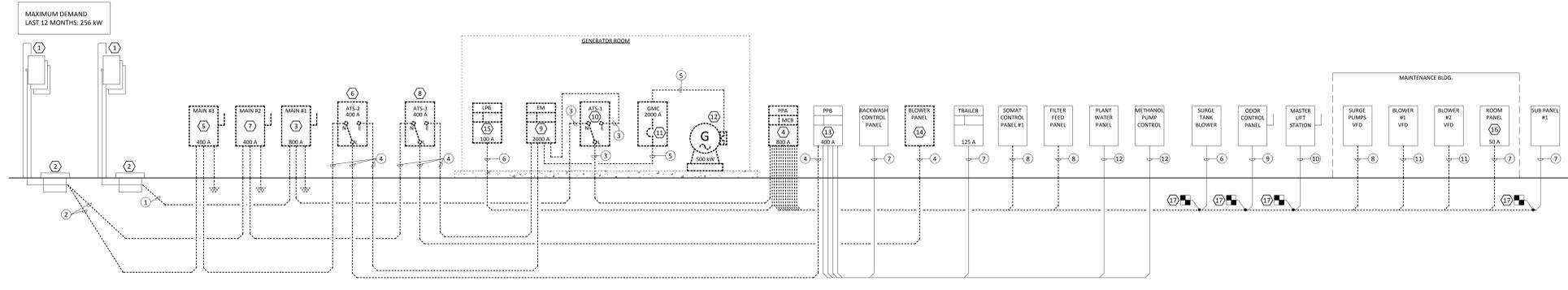
- ### DEMOLITION KEYNOTES
- EXISTING POLE MOUNTED UTILITY TRANSFORMERS, 120/240 V DELTA.
 - EXISTING ABOVE GROUND UTILITY SPLICE BOX. EXISTING UTILITY SPLICE BOX AT BASE OF POLE.
 - EXISTING 800 A, 120/240 V, 3-POLE, FUSIBLE SAFETY SWITCH.
 - EXISTING 800 A DISTRIBUTION PANEL 'PPA'.
 - EXISTING 400 A, 120/240 V, 3-POLE, FUSIBLE SAFETY SWITCH.
 - EXISTING 400 A, 120/240 V, 3-POLE, AUTOMATIC TRANSFER SWITCH.
 - EXISTING 400 A, 120/240 V, 3-POLE, AUTOMATIC TRANSFER SWITCH.
 - EXISTING 400 A, 120/240 V, 3-POLE, AUTOMATIC TRANSFER SWITCH.
 - EXISTING 2000 A, 120/240 V, 3-PHASE, EMERGENCY DISTRIBUTION SWITCHBOARD.
 - EXISTING 2000 A, 120/240 V, 3-PHASE, AUTOMATIC TRANSFER SWITCH.
 - EXISTING GENERATOR CONTROL PANEL WITH MAIN CIRCUIT BREAKER.
 - EXISTING 500 KW/625 KVA, 3-PHASE, 120/208 V, DIESEL, STANDBY EMERGENCY GENERATOR.
 - EXISTING 400 A, 120/240 V, 3-POLE, DISTRIBUTION PANEL.
 - EXISTING BLOWER CONTROL PANEL.
 - EXISTING 100 A, 120/240 V, GENERATOR PANEL.
 - EXISTING 50 A, 120/240V, LIGHTING/RECEPTACLE PANEL AT BLOWER VFD ROOM.
 - INTERCEPT EXISTING FEEDER AT APPROPRIATE LOCATION. FIELD COORDINATE EXACT LOCATION.

FEEDER SCHEDULE

NUMBER	CONDUCTORS (THWN) - Cu.	CONDUIT
1	(2 SETS) 4 #500 kcmil	4"
2	(2 SETS) 4 #3/0 AWG	4"
3	(2 SETS) 4 #500 kcmil, 1 #1/0 AWG GND.	4"
4	4 #500 kcmil, 1 #3 AWG GND.	4"
5	(5 SETS) 4 #500 kcmil, 1 #250 kcmil GND.	4"
6	3 #3 AWG, 1 #8 AWG GND.	1-1/4"
7	3 #8 AWG, 1 #10 AWG GND.	3/4"
8	3 #1 AWG, 1 #6 AWG GND.	1-1/2"
9	4 #3 AWG, 1 #8 AWG GND.	1-1/4"
10	3 #4/0 AWG, 1 #4 AWG GND.	2"
11	3 #250 kcmil, 1 #4 AWG GND.	2-1/2"
12	3 #10 AWG, 1 #10 AWG GND.	3/4"

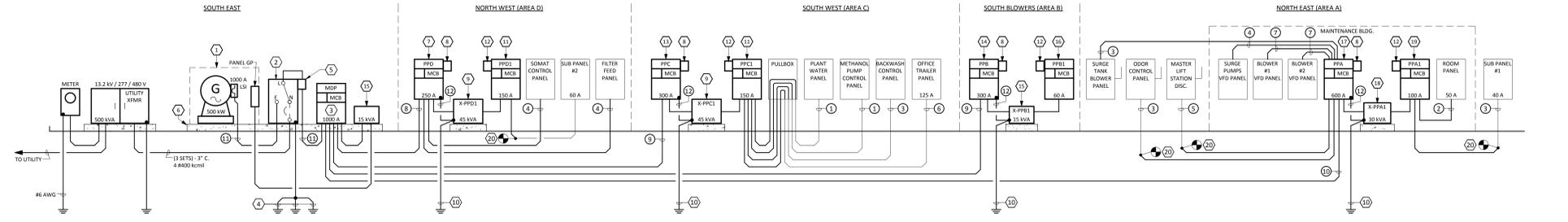
DEMOLITION LEGEND

SYMBOL	DESCRIPTION
—	EXISTING TO REMAIN
----	EXISTING TO BE REMOVED
—X—	DEMOLISH TO THIS POINT



3 EXISTING POWER DISTRIBUTION RISER DIAGRAM
N.T.S.

- ### NEW CONSTRUCTION KEYNOTES
- PROVIDE NEW TIER 4, SOUND ATTENUATED, WEATHER PROTECTIVE, ALUMINUM, 150 MPH RATED, STANDBY 500 KW, 480 V/277 V GENERATOR. PROVIDE WITH 3,500 GALLONS SUB-BASE FUEL TANK. REFER TO ELECTRICAL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. PROVIDE LIGHTNING PROTECTION SYSTEM.
 - PROVIDE NEW 1000 A, 480 V, 3 POLE, SERVICE ENTRANCE RATED, NEMA 3R AUTOMATIC TRANSFER SWITCH. PROVIDE A SET OF CURRENT TRANSFORMERS FOR UTILITY CONNECTION OF REVENUE METER. COORDINATE WITH UTILITY COMPANY FOR ADDITIONAL REQUIREMENTS. CIRCUIT BREAKER WITH LSIG TRIP UNIT.
 - PROVIDE NEW 480 V, 1000 A, MAIN CIRCUIT BREAKER, 65 KAIC RATED, 3 PHASE, NEMA 3R PANELBOARD.
 - PROVIDE NEW 480 V, 1000 A, MAIN CIRCUIT BREAKER, 65 KAIC RATED, 3 PHASE, NEMA 3R PANELBOARD.
 - PROVIDE SURGE PROTECTOR DEVICE. PQ PROTECTION, MODEL PQM200-480. CONNECT TO LOAD SIDE.
 - CONCRETE PAD. PROVIDE ENGINEERING DESIGN DETAIL.
 - NEW PANEL 'PPD'. PROVIDE 250 A, 480 V, MAIN CIRCUIT BREAKER, 3 PHASE, NEMA 3R, SURFACE MOUNTED, 35 KA IC RATED PANELBOARD. PROVIDE UNISTRUT SUPPORT AS REQUIRED.
 - PROVIDE SURGE PROTECTIVE DEVICE. PQ PROTECTION, MODEL PQE100-480.
 - PROVIDE NEW 45 KVA, 480 V - 208/120 V, 3 PHASE, NEMA 3R, VENTILATED TRANSFORMER. PROVIDE NEW 5/8" DIAMETER BY 12' LONG COPPER-CLAD GROUND ROD.
 - PROVIDE NEW 150 A, 208/120 V, MAIN CIRCUIT BREAKER, 3 PHASE, NEMA 3R, SURFACE MOUNTED, 10 KAIC RATED PANELBOARD. PROVIDE UNISTRUT SUPPORT AS REQUIRED.
 - PROVIDE NEW SURGE PROTECTOR DEVICE. PQ PROTECTION, MODEL PQE100-208/120.
 - NEW PANEL 'PPC'. PROVIDE NEW 300 A, 480 V, MAIN CIRCUIT BREAKER, 3 PHASE, NEMA 3R, SURFACE MOUNTED, 35 KA IC RATED PANELBOARD. PROVIDE UNISTRUT SUPPORT AS REQUIRED.
 - NEW PANEL 'PPB'. PROVIDE NEW 300 A, 480 V, MAIN CIRCUIT BREAKER, 3 PHASE, NEMA 3R, SURFACE MOUNTED, 35 KA IC RATED PANELBOARD. PROVIDE UNISTRUT SUPPORT AS REQUIRED.
 - PROVIDE NEW 15 KVA, 480 V - 208/120 V, 3 PHASE, NEMA 3R, VENTILATED TRANSFORMER.
 - NEW PANEL 'PPB1'. PROVIDE NEW 60 A, 208/120 V, MAIN CIRCUIT BREAKER, 3 PHASE, NEMA 3R, SURFACE MOUNTED, 10 KAIC RATED PANELBOARD.
 - NEW PANEL 'PPA'. PROVIDE NEW 600 A, 480 V, 3 PHASE, NEMA 1, SURFACE MOUNTED, 35 KA IC RATED PANELBOARD.
 - PROVIDE NEW 30 KVA, 480 V - 208/120 V, 3 PHASE, NEMA 1, VENTILATED TRANSFORMER.
 - NEW PANEL 'PPA1'. PROVIDE NEW 100 A, 208/120 V, MAIN CIRCUIT BREAKER, 3 PHASE, NEMA 1, SURFACE MOUNTED, 10 KAIC RATED PANELBOARD.
 - INTERCEPT EXISTING FEEDER AT APPROPRIATE LOCATION. PROVIDE RACEWAYS, JUNCTION BOXES AND SPLICES AS REQUIRED. INSTALL QUAZITE STYLE "PQ", 13" X 24", TIER 15, UNDERGROUND ENCLOSURE. FIELD COORDINATE EXACT LOCATION.



4 NEW CONSTRUCTION POWER DISTRIBUTION RISER DIAGRAM
N.T.S.

ALL NEW AND EXISTING EQUIPMENT BEING REUSED SHALL HAVE A SHORT CIRCUIT RATING (SCCR) TO WITHSTAND THE AVAILABLE FAULT CURRENT AT ITS LOCATION. CONSULT THE ENGINEER FOR ADDITIONAL INFORMATION.

ALL OUTDOOR UNISTRUT SUPPORT AND FASTENER HARDWARE SHALL BE STAINLESS STEEL. REFER TO ELECTRICAL SPECIFICATIONS FOR ADDITIONAL INFORMATION.

DRY TYPE TRANSFORMER SCHEDULE

SIZE *	KVA	PRIMARY AMPS	SECONDARY AMPS	480 V OVERCURRENT	208 V OVERCURRENT ¹	480 V FEEDER ²	120/208 V FEEDER ²	GROUNDING ³
T-15	15	18	42	35 A, 3P	60 A, 3P	#10 & #10DG - 1" C.	#6 & 1#8G - 1" C.	1#8 - 1" C.
T-30	30	36	83	50 A, 3P	100 A, 3P	#8 & 1#10DG - 1" C.	#4 & 1#8G - 1 1/2" C.	1#8 - 1" C.
T-45	45	54	125	70 A, 3P	150 A, 3P	#4 & 1#8G - 1" C.	#4 1/2 & 1#6G - 1 1/2" C.	1#6 - 1" C.

TRANSFORMER NOTES:
 1. SECONDARY OVERCURRENT PROTECTION SHALL BE LOCATED WITHIN TEN (10) FEET OF THE TRANSFORMER SECONDARY TERMINALS EITHER IN A PANELBOARD (MAIN BREAKER) OR AN INDIVIDUALLY MOUNTED CIRCUIT BREAKER.
 2. ALL CONDUCTOR SIZES ARE BASED ON N.E.C. TABLE 310.15(B)(16) FOR COPPER CONDUCTORS. PROVIDE GROUND AS SHOWN FOR SYSTEM BONDING JUMPER FROM NEUTRAL BAR IN TRANSFORMER TO FIRST DISCONNECTING MEANS EQUIPMENT GROUND BAR.
 3. SYSTEM BONDING JUMPER AND GROUNDING ELECTRODE CONDUCTOR (COPPER CONDUCTORS) AS SPECIFIED IN N.E.C. SECTION 250.30. BOND THE NEUTRAL BAR OF THE TRANSFORMER SECONDARY TO THE TRANSFORMER CASE, WITH EQUIPMENT BONDING JUMPER. GROUND THE NEUTRAL BAR OF THE TRANSFORMER WITH THE GROUNDING ELECTRODE CONDUCTOR TO THE NEAREST AVAILABLE EFFECTIVELY GROUNDING MEMBER OF THE STRUCTURE, OR THE NEAREST AVAILABLE EFFECTIVELY GROUNDING METAL WATER PIPE OR OTHER ELECTRODES AS SPECIFIED IN N.E.C. SECTIONS 250.50 AND 250.52 WHERE THE PRECEDING ELECTRODES ARE NOT AVAILABLE.
 4. TRANSFORMERS SHALL BE DRY TYPE, VENTILATED, 150°C TEMPERATURE RISE, 220°C INSULATION CLASS UNLESS OTHERWISE NOTED.

NEW CONSTRUCTION FEEDER SCHEDULE

NUMBER	CONDUCTORS (THWN) - Cu.	CONDUIT
1	3 #10 AWG & 1 #10 AWG GND.	3/4"
2	2 #8 AWG & 1 #10 AWG GND.	1"
3	3 #8 AWG & 1 #10 AWG GND.	1"
4	3 #8 AWG & 1 #8 AWG GND.	1"
5	2 #1 AWG & 1 #6 AWG GND.	1-1/2"
6	3 #1 AWG & 1 #6 AWG GND.	2"
7	3 #250 kcmil & 1 #4 AWG GND.	2-1/2"
8	(2 SETS) 3 #500 kcmil & 1 #1 AWG GND.	3"
9	(2 SETS) 3 #500 kcmil & 1 #2/0 AWG GND.	3"
10	1 #4/0 AWG.	1"

NEW CONSTRUCTION LEGEND

SYMBOL	DESCRIPTION
—	EXISTING TO REMAIN
----	EXISTING UNDERGROUND TO REMAIN
—X—	NEW CONSTRUCTION
—X—	NEW UNDERGROUND CONSTRUCTION
—X—	CONNECT TO EXISTING AT THIS POINT

Utilities, Inc. of Florida -
Mid County

PRELIMINARY
NOT FOR
CONSTRUCTION
Rolando Martiatus, P.E.
PE 65078

ISSUE DATE: **02/01/2016**
PROJECT NUMBER: **2126**

REVISIONS:

NO.	DATE	DESCRIPTION

ELECTRICAL POWER RISER
DIAGRAMS
E4

PANEL: MDP LOCATION: NORTH EAST, AREA B FED FROM: MAIN ATS-L NEW SWITCHBOARD		OC DEVICE TYPE: Breaker DEVICE FAMILY: Bolt On	ENCLOSURE: NEMA 3R MOUNTING: Free Standing VOLTAGE: 480/277	MAINS(A): BKR WIRING: 3-Phase 4-Wire	CONTINUOUS(A): 1000 BUS SC RATING(A): 65000 FAULT CURRENT(A): 31710		
CUBICLE NO	DESCRIPTION	CONNECTED KVA	DESIGN KVA	DESIGN MAX AMP	OC DEVICE TYPE	P	NOTES
1	PANEL PPA	271.80	195.11	207.31	LJ	600	3
2	PANEL PPB	162.64	130.27	138.29	LJ	300	3
3	PANEL PPC	85.26	63.93	69.38	LJ	300	3
4	PANEL PPD	42.14	36.32	37.72	JJ	250	3
5	X-PP-P	3.50	3.08	3.08	HJ	35	3
6	SPACE	0.00	0.00	0.00		100	3
7	SPACE	0.00	0.00	0.00		100	3
8	SPACE	0.00	0.00	0.00		100	3
9	SPACE	0.00	0.00	0.00		100	3
10	TVSS	0.00	0.00	0.01	HJ	30	3
ALL CONNECTED		KVA	MAX PH AMPS	* PHASE TOTALS	VA	AMPS	BUS TOTALS
TOTAL CONNECTED		564.31	678.8	* A-N	188102.9	678.8	CONNECTED
TOTAL DEMAND		427.72	514.5	* B-N	188102.9	678.8	DEMAND
TOTAL DESIGN		439.91	529.1	* C-N	188102.9	678.8	DESIGN
TYPE HQ							
MAXIMUM DEMAND LAST 12 MONTH		260 KW					

PANEL: PPA LOCATION: MAINTENANCE BLDG FED FROM: MDP NEW PANELBOARD		OC DEVICE TYPE: Breaker DEVICE FAMILY: Bolt On	ENCLOSURE: NEMA 1 MOUNTING: Surface VOLTAGE: 480/277	MAINS(A): BKR WIRING: 3-Phase 4-Wire	CONTINUOUS(A): 600 BUS SC RATING(A): 35000 FAULT CURRENT(A): 24845							
CKT DESCRIPTION	NOTES	DEMAND CODE	VA	OC AMPS	PHASE	OC AMPS	P	VA	DEMAND CODE	NOTES	DESCRIPTION	CKT
1 X-PPA1-P		NONE	9105	50	A	125	3	75202			BLOWER #1	2
2					B						GENERAL EQUI	4
3					C						GENERAL EQUI	6
4											BLOWER #2	8
5 SUB PANEL #1			56622	70	A	125	3	75202			BLOWER #2	8
6					B						GENERAL EQUI	10
7 SURGE TANK PUMPS					C						GENERAL EQUI	12
8											GENERAL EQUI	14
9											GENERAL EQUI	16
10											GENERAL EQUI	18
11 SURGE PUMP PANEL			37748	70	A	40	3	15040			SURGE TANK BLOWER	20
12					B						SPACE	22
13 SURGE PUMP PANEL					C						SPACE	24
14											SPACE	26
15											SPACE	28
16											SPACE	30
17											SPACE	32
18											SPACE	34
19											SPACE	36
20											SPACE	38
21											SPACE	40
22											SPACE	42
23											SPACE	24
24											SPACE	26
25											SPACE	28
26											SPACE	30
27											SPACE	32
28											SPACE	34
29											SPACE	36
30											SPACE	38
31											SPACE	40
32											SPACE	42
33											SPACE	24
34											SPACE	26
35											SPACE	28
36											SPACE	30
37											SPACE	32
38											SPACE	34
39											SPACE	36
40											SPACE	38
41											SPACE	40
42											SPACE	42
ALL CONNECTED		KVA	MAX PH AMPS	* PHASE TOTALS	VA	AMPS	BUS TOTALS					
TOTAL CONNECTED		271.80	326.9	* A-N	90600.2	326.9	CONNECTED					
TOTAL DEMAND		195.11	234.7	* B-N	90600.2	326.9	DEMAND					
TOTAL DESIGN		207.31	249.4	* C-N	90600.2	326.9	DESIGN					
TYPE NF												

PANEL: PPA1 LOCATION: MAINTENANCE BLDG FED FROM: 3-PPA1-S NEW PANELBOARD		OC DEVICE TYPE: Breaker DEVICE FAMILY: Bolt On	ENCLOSURE: NEMA 3 MOUNTING: Surface VOLTAGE: 208/120	MAINS(A): BKR WIRING: 3-Phase 4-Wire	CONTINUOUS(A): 100 BUS SC RATING(A): 10000 FAULT CURRENT(A): 1896							
CKT DESCRIPTION	NOTES	DEMAND CODE	VA	OC AMPS	PHASE	OC AMPS	P	VA	DEMAND CODE	NOTES	DESCRIPTION	CKT
1 PANEL MAINT BLDG		NONE	3000	50	A	20	1	200			GENERAL EQUI	2
2					B			200			GENERAL EQUI	4
3					C			200			GENERAL EQUI	6
4								200			GENERAL EQUI	8
5 SUB PANEL #1			3500	40	A	20	1	200			GENERAL EQUI	10
6					B			200			GENERAL EQUI	12
7					C			200			GENERAL EQUI	14
8								200			GENERAL EQUI	16
9 SURGE PUMP PANEL			500	20	A	20	1	500			RECEPTACLES	18
10					B			500			RECEPTACLES	20
11 SURGE PUMP PANEL			500	20	A	20	1	500			RECEPTACLES	22
12					B			500			RECEPTACLES	24
13 SURGE PUMP PANEL			500	20	A	20	1	500			RECEPTACLES	26
14					B			500			RECEPTACLES	28
15					C			500			RECEPTACLES	30
16								500			RECEPTACLES	32
17								500			RECEPTACLES	34
18								500			RECEPTACLES	36
19								500			RECEPTACLES	38
20								500			RECEPTACLES	40
21								500			RECEPTACLES	42
22								500			RECEPTACLES	24
23								500			RECEPTACLES	26
24								500			RECEPTACLES	28
25								500			RECEPTACLES	30
26								500			RECEPTACLES	32
27								500			RECEPTACLES	34
28								500			RECEPTACLES	36
29								500			RECEPTACLES	38
30								500			RECEPTACLES	40
31								500			RECEPTACLES	42
32								500			RECEPTACLES	24
33								500			RECEPTACLES	26
34								500			RECEPTACLES	28
35								500			RECEPTACLES	30
36								500			RECEPTACLES	32
37								500			RECEPTACLES	34
38								500			RECEPTACLES	36
39								500			RECEPTACLES	38
40								500			RECEPTACLES	40
41								500			RECEPTACLES	42
ALL CONNECTED		KVA	MAX PH AMPS	* PHASE TOTALS	VA	AMPS	BUS TOTALS					
TOTAL CONNECTED		8.10	32.9	* A-N	1251.7	32.9	CONNECTED					
TOTAL DEMAND		8.19	30.7	* B-N	2201.7	18.3	DEMAND					
TOTAL DESIGN		8.19	30.7	* C-N	2951.7	24.6	DESIGN					
TYPE NQ												

PANEL: PPB LOCATION: SOUTH PLANT, AREA B FED FROM: PANEL MDP NEW PANELBOARD		OC DEVICE TYPE: Breaker DEVICE FAMILY: Bolt On	ENCLOSURE: NEMA 3R MOUNTING: Surface VOLTAGE: 480/277	MAINS(A): BKR WIRING: 3-Phase 4-Wire	CONTINUOUS(A): 300 BUS SC RATING(A): 35000 FAULT CURRENT(A): 21331							
CKT DESCRIPTION	NOTES	DEMAND CODE	VA	OC AMPS	PHASE	OC AMPS	P	VA	DEMAND CODE	NOTES	DESCRIPTION	CKT
1 S-BLOWER #1			40108	90	A	90	3	40108			S-BLOWER #2	2
2					B			40108			CONTROL POWER	4
3					C			40108			CONTROL POWER	6
4								40108			CONTROL POWER	8
5 S-BLOWER #3			40108	90	A	90	3	40108			S-BLOWER #4	10
6					B			40108			CONTROL POWER	12
7					C			40108			CONTROL POWER	14
8								40108			CONTROL POWER	16
9								40108			CONTROL POWER	18
10								40108			CONTROL POWER	20
11								40108			CONTROL POWER	22
12								40108			CONTROL POWER	24
13								40108			CONTROL POWER	26
14								40108			CONTROL POWER	28
15								40108			CONTROL POWER	30
16								40108			CONTROL POWER	32
17								40108			CONTROL POWER	34
18								40108			CONTROL POWER	36
19								40108			CONTROL POWER	38
20								40108			CONTROL POWER	40
21								40108			CONTROL POWER	42
22								40108			CONTROL POWER	24
23								40108			CONTROL POWER	26