

MEMORANDUM

CRAIG A. SMITH & ASSOCIATES, INC.
21045 Commercial Trail
BOCA RATON, FLORIDA 33486
(561) 314-4445
(561) 314-4458 FAX

To: Bidders

From: Craig A. Smith & Associates, Inc.

Date: October 11, 2019

Project: Sun'n Lake of Sebring Improvement District
Matanzas Lift Station Improvements
CAS Project No. 19-2049

Subject: ADDENDUM NO. 1

Bidders are required to acknowledge receipt of this ADDENDUM on Page 00410-1 of the Contract Documents and by returning the acknowledgment on Page 00490-2 of the Contract Documents to our office immediately via fax. Failure to do so may cause the bid to be considered informal or irregular and subject to rejection.

The Contract Documents, Specifications and Drawings are hereby amended as follows:

A. RESPONSE TO RFI'S:

Question No.1

Are there any electrical drawings included with this projects bid set of plans and specifications?

Response No. 1

Please see the attached electrical drawing E-1 through E-7 for your use with this lift station improvements project.

Addendum No. 1

ACKNOWLEDGEMENT OF RECEIPT OF ADDENDUM

I hereby acknowledge receipt of Addendum No. 1 to the Contract Documents, Specifications and Drawings (consisting of two pages) for the **SUN 'N LAKE OF SEBRING IMPROVEMENT DISTRICT MATANZAS LIFT STATION IMPROVEMENTS, CAS Project No. 19-2049.**

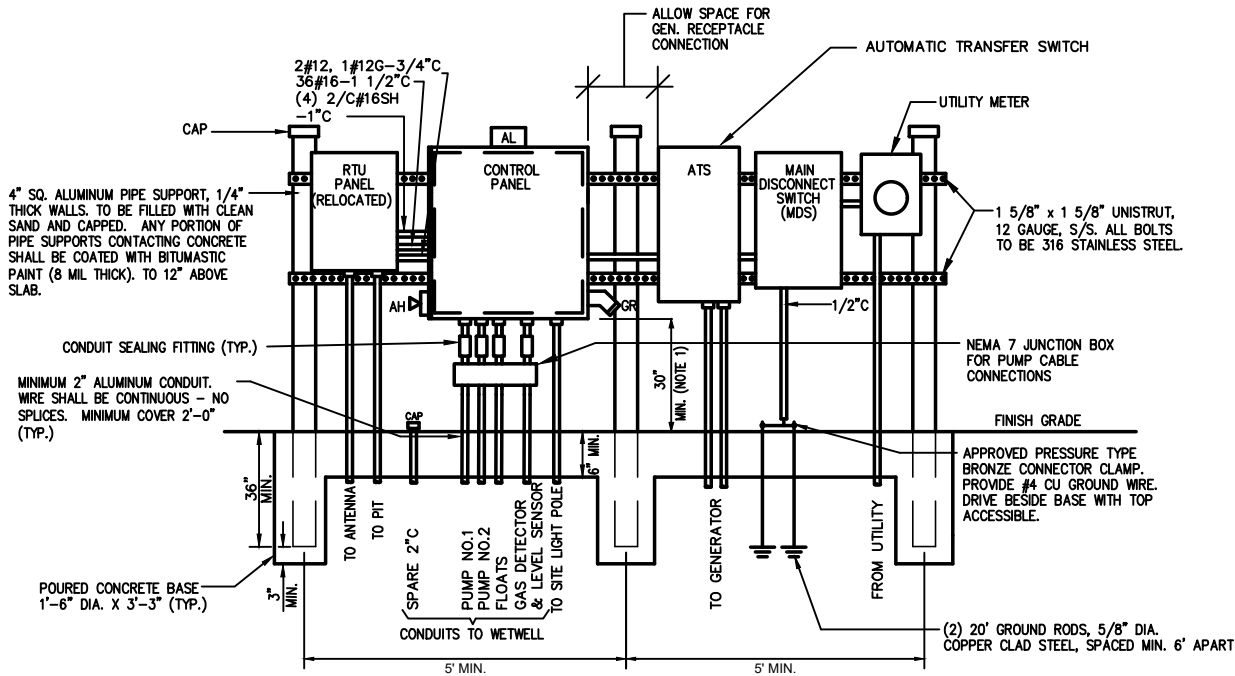
Name of Bidder: _____

By: _____

Title: _____

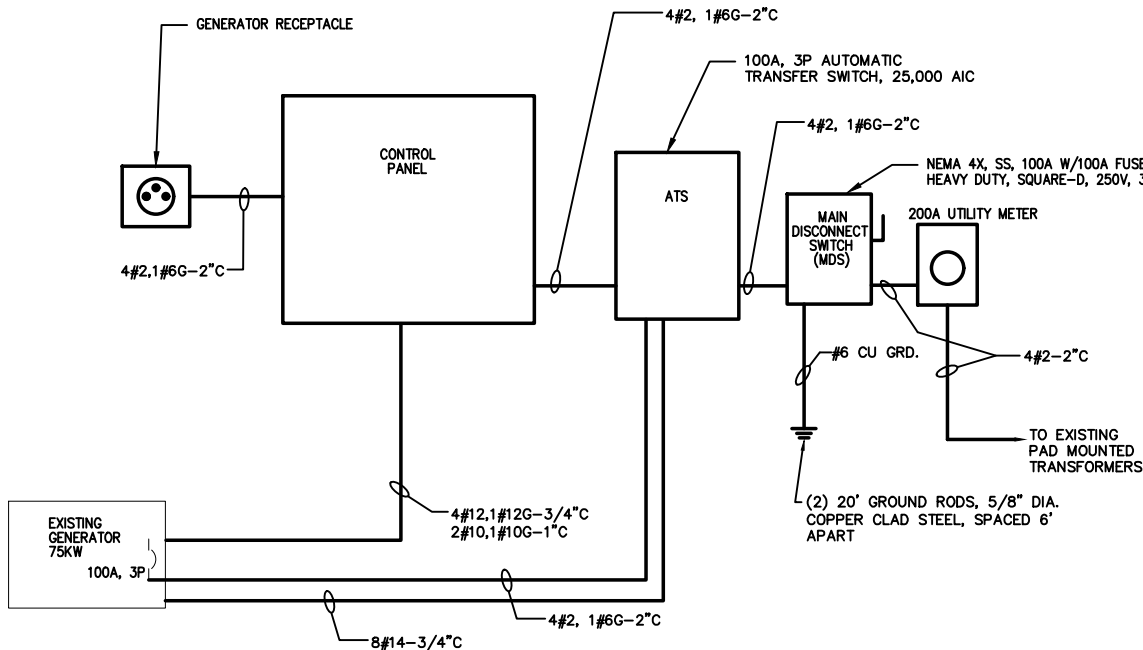
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END OF SECTION



ELECTRICAL EQUIPMENT RACK DETAIL (ELEVATION)

NOTES: 1. INSTALL BOTTOM OF CONTROL PANEL ABOVE THE 100 YEAR FLOOD ELEVATION.



SINGLE LINE DIAGRAM

SERVICE: 120/240V, 3Ø, 4W (HIGH LEG)

LIFT STATION CONTROL PANEL BILL OF MATERIALS

ITEM	QTY.	DESCRIPTION
NEUT.BUS	5	PANDUIT CB35 COPPER LUGS
	1	PANDUIT LAMA250-56-Q LUG
	2	GLASTIC 2165-1B INSULATORS
	2	PANDUIT CB60 COPPER LUGS
GND.BUS	7	PANDUIT CB100 COPPER LUGS
	2	GLASTIC 2165-1B INSULATORS
TERMINALS	2	SQD CLASS 9080 GM6B END BARRIERS
F1-F9	55	SQD CLASS 9080 GR6 600V BOX LUG TERMINALS
	9	BUSSMANN FNQ-1/2 500V 1/2A FUSES
	9	SQD CLASS 9080 MHA10 END CLAMPS
	1	SQD CLASS 9080 GF6B END BARRIER
	9	SQD CLASS 9080 GF6 600V FUSIBLE TERMINALS
GFIR	1	HUBBELL GFR5252-1 15A DUPLEX GFI RECEPTACLE W/ S26 COVER
SS1,SS2	2	SQD CLASS 9001 SKS43B 3 POS. SELECTOR SWITCH W/ 2 KA1 BLOCKS
SS4	1	SQD CLASS 9001 SKS11B 2 POS. SELECTOR SWITCH W/ 1 KA2 BLOCK
PL4,5,6	3	SQD CLASS 9001 SKT1R31 120VAC RED PUSH TO TEST PILOT LIGHTS
PL1,2,7	4	SQD CLASS 9001 SKT1G31 120VAC GREEN PUSH TO TEST PILOT LIGHTS
ALARM HORN (AH)	1	WHEELLOCK WBB-S WEATHERPROOF BACK BOX
	1	WHEELLOCK 31T-115-S ALARM HORN
	2	1/2" X 2" S.S. NIPPLES
	2	T & B H050-TB 1/2" ZINC HUB
ALARM LIGHT (AL)	1	FEDERAL SIGNAL LP3P-120R 120VAC RED STROBE
SA1	1	EDCO DRS-036 SIGNAL SURGE ARRESTER
PS1	1	SIEMENS 6EP1331-2BA10 24VDC .5A POWER SUPPLY
ETM1-ETM2	2	ENM T50B212 ELAPSED HOURMETERS
	4	OMRON PF083A 8 PIN SOCKETS
DCR1-DCR4	4	OMRON MK2P-5-S-AC24 DPDT 24VDC PLUG-IN RELAYS
	10	OMRON PF113A 11 PIN SOCKETS
CR1-CR10	10	OMRON MK3P-5-S-AC120 3PDT 120VAC PLUG-IN RELAYS
CCB8	1	SQD QOU120 1P 20A CIRCUIT BREAKER
CCB2,3,4	3	SQD QOU110 1P 10A CIRCUIT BREAKERS
CCB1,CCB5,CCB6	3	SQD QOU115 1P 15A CIRCUIT BREAKERS
CCB7	1	SQD QOU230 2P 30A CIRCUIT BREAKER
DS	1	SQD CLASS 9007 AP221 DOOR SWITCH
	2	SQD CLASS 9999 SX8 AUXILIARY CONTACTS
	2	SQD CLASS 9999 S04 ISOLATED OVERLOAD ALARM CONTACT
	2	SQD CLASS 9066 RA1 EXTERNAL OVERLOAD RESETS
	6	SQD OVERLOAD HEATERS
M1,M2	2	SQD CLASS 8536 SE01V02S SIZE 1 FVNR MOTOR STARTERS
CB1-CB2	2	SQD HGL36045 240V 3P 45A CIRCUIT BREAKERS
CB3	1	SQD HGL26060 240V 2P 60A CIRCUIT BREAKER
PM1,PM2	2	OMRON PF083A 8 PIN SOCKETS
SC	2	DIVERSIFIED ELECTRONICS SLA-230-ASA PHASE MONITOR RELAYS
LA	1	DELTA CA603R 3Ø SURGE CAPACITOR
GEN.RECPT. PDB	1	SQD CLASS 6671 SDSA3650 3Ø SURGE ARRESTER
MAIN DISC. GEN. DISC. ENCLOSURE	1	APPLETON AJA510 ADAPTER
	1	APPLETON CAT. NO. ADR10044RS 100A, 3PH 4P GENERATOR RECEPTACLE
	1	MARATHON 1433555 3 POLE POWER DISTRIBUTION BLOCK
	1	C.C. CONTROL CORP. MECHANICAL INTERLOCK
	2	SQD LGL36100 240V 100A(TRIP) 3P CIRCUIT BREAKERS
	1	NEMA 12 MODIFIED TO 3R 316 S.S. ENCLOSURE WITH THE FOLLOWING: A) SIZE: 48"H X 36"W X 12"D B) SUBPANEL: STEEL PAINTED WHITE C) ALUMINUM DEADFRONT D) 3 PT. S.S. PADLOCKING HANDLE E) 316 S.S. DRIPSIELD F) DOOR STOP KITS(2)

INSTRUMENT REQUIREMENTS

- SUBMERSIBLE PRESSURE TRANSDUCER (LEVEL SENSOR) SHALL BE BLUE RIBBON INDUSTRIAL PRODUCTS BIRDCAVE W/S.S. SHEATH, 24VDC LOOP POWERED. MODEL #BC01002AACZ, 0-10 PSI.
- PRESSURE INDICATING TRANSMITTER/TRANSDUCER (PIT), SHALL BE ROSEMOUNT MODEL #305ITG2A2B21AM5, 24VDC LOOP POWERED.
- COMBUSTIBLE GAS DETECTOR SHALL BE SENSIDYNE MODEL #701-3276-2XP, SENSOR MODEL #111250-D-1, REMOTE MODEL #701-3276-2R20.

LOAD/GENERATOR CALCULATIONS:

120/240V, 3Ø, 4 WIRE (HIGH LEG)

MISCELLANEOUS LOADS	6.0AMPS
PUMP MOTORS (2-6.5HP)	44.0AMPS
25% OF LARGEST MOTOR (6.5HP)	5.5AMPS
TOTAL	55.5AMPS

100 AMP BREAKER PROVIDED
75KW EXISTING GENERATOR (0.8PF)

GENERAL NOTES

- THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, TOOLS, AND INCIDENTALS REQUIRED FOR A COMPLETE ELECTRICAL SYSTEM AS SHOWN HEREIN.
- ALL EQUIPMENT AND MATERIALS SHALL BE NEW AND UNUSED AND U.L. LISTED.
- ALL APPLICABLE ELECTRICAL CODES (LATEST EDITION) MUST BE ADHERED TO INCLUDING THE N.E.C. AND LOCAL CODES.
- ALL WIRES SHALL BE COPPER RATED XHHW.
- ALL CONDUIT SHALL BE RIGID ALUMINUM TO WET WELL, SCH 40 PVC UNDERGROUND, AND SCH 80 PVC ABOVE GRADE.
- BOND WIRE SIZED PER NEC TABLE 250-95 SHALL BE INSTALLED FROM THE GROUND BUS IN THE CONTROL PANEL TO EACH MOTOR CASING.
- TELEMETRY ANTENNA AND RELATED R.T.U. EQUIPMENT SHALL BE INSTALLED BY THE CONTRACTOR.
- CONTRACTOR SHALL COORDINATE ALL ELECTRIC SERVICE INSTALLATIONS WITH THE POWER UTILITY.
- OPERATE PUMPS, CHECK DIRECTION, RECORD VOLTAGE AND AMPERAGE WITH EACH AND ALL PUMPS RUNNING.
- THE CONTROL PANEL SHALL BE MANUFACTURED BY C.C. CONTROL CORP. OR APPROVED EQUAL UL SHOP.

CONTROL PANEL REQUIREMENTS

THE LIFT STATION CONTROL PANEL SHALL BE PROVIDED WITH THE FOLLOWING FEATURES:

- 316 STAINLESS STEEL MODIFIED NEMA-3R CONTROL PANEL MANUFACTURED BY HOFFMAN OR APPROVED EQUAL WITH DRIPSIELD ALONG THE ENTIRE TOP OF THE PANEL. PROVIDE 3-POINT PADLOCKING HANDLE WITH ACCESSORIES AND DOOR STOP KIT ON THE OUTSIDE DOOR. PROVIDE FAST OPERATING CLAMP ASSEMBLY IN PLACE OF SCREW CLAMPS ON THE INSIDE DOOR. ALL EXTERNAL HARDWARE SHALL BE STAINLESS STEEL. AN ALUMINUM INNER HINGED DEADFRONT PANEL SHALL CONTAIN OPERATOR'S CONTROLS. OUTSIDE DOOR SHALL BE BLANK AND GASKETED. PROVIDE CORROSION INHIBITOR MANUFACTURED BY EATON INDUSTRIES, MODEL C7991 OR APPROVED EQUAL. PANEL ENCLOSURE SHALL BE PAINTED WHITE.
- MAIN BREAKER AND EMERGENCY BREAKER SHALL BE EQUIPPED WITH A MECHANICAL INTERLOCK.
- CONTROL PANEL SHALL BE MOUNTED TO TWO FOUR (4) INCH SQUARE ALUMINUM POST SUPPORTS. PANEL SHALL BE BUILT BY A UL APPROVED SHOP AND ADHERE TO UL STANDARDS. PANEL SHALL HAVE A UL LABEL ON THE INTERIOR OF THE ENCLOSURE DOOR. LENGTH OF THE POST SUPPORTS SHALL BE SIZED SO AS TO PROVIDE FOR 36 INCHES OF BURIAL (IN 2500 PSI CONCRETE) AND EXTEND TO THREE INCHES ABOVE THE TOP OF THE SUPPORTS. THE PANEL SHALL BE MOUNTED TO THE PIPE SUPPORTS WITH 1-5/8" X 1-5/8" 12 GAUGE STAINLESS STEEL UNISTRUT AT A HEIGHT CONSISTENT WITH FP&L'S REQUIREMENT FOR MOUNTING THEIR METER. ALL HARDWARE SHALL BE STAINLESS 316 STEEL.
- THE CONTROL PANEL FINISHED SLAB ELEVATION SHALL BE EQUAL TO THE FINISHED SLAB ELEVATION OF THE WET WELL.
- THE BOTTOM OF THE CONTROL PANEL SHALL BE AT THE 100 YEAR FLOOD ELEVATION OR 30" ABOVE THE CONTROL PANEL FINISHED SLAB WHICHEVER IS HIGHER.
- EMERGENCY GENERATOR RECEPTACLE SHALL BE MOUNTED ON THE SIDE OF THE PANEL APPROXIMATELY THREE (3) FEET ABOVE FINISH GRADE.
- AN 11" X 17" LAMINATED PLASTIC SCHEMATIC AND PUMP DATA SHEET SHALL BE PERMANENTLY AFFIXED TO THE INTERIOR OF THE ENCLOSURE DOOR.
- PANEL SHALL BE SURFACE WIRED WITH NUMBERED TERMINALS. TERMINAL STRIP SHALL BE LOCATED AT LEAST FOUR (4) INCHES FROM THE BOTTOM OF THE ENCLOSURE FOR ACCESSIBILITY.
- ALL CIRCUIT BREAKERS SHALL HAVE A MINIMUM INTERRUPTING RATING OF 22,000 AMPS.
- PHASE MONITORS SHALL BE PROVIDED WITH PROTECTIVE FUSES.

EXISTING RTU PANEL REQUIREMENTS

- CONTRACTOR SHALL PROVIDE THE SERVICES OF DATA FLOW SYSTEMS, INC. TO CHECK THE PANEL TELEMETRY OPERATION, AND PROGRAM THE STATION TO THE CENTRAL CONTROL STATION.

NO.	DATE	REVISION	BY

Date: 09/20/19
Designed: SPH
Drawn: SPH
Checked: LMS

APPROVED BY: LARRY M. SMITH, P.E.
DATE
FLORIDA PROFESSIONAL ENGINEER NO. 45997

CRAIG A. SMITH & ASSOCIATES
CONSULTING ENGINEERS-PLANNERS-SURVEYORS
21045 COMMERCIAL TRAIL
BOCA RATON, FLORIDA 33486
(561) 314-4445
CERTIFICATE NO. LB0003110

PREPARED FOR:
SUN 'N LAKE
IMPROVEMENT DISTRICT

MATANZAS LIFT STATION
IMPROVEMENTS
LIFT STATION
CONTROL PANEL ELEVATION

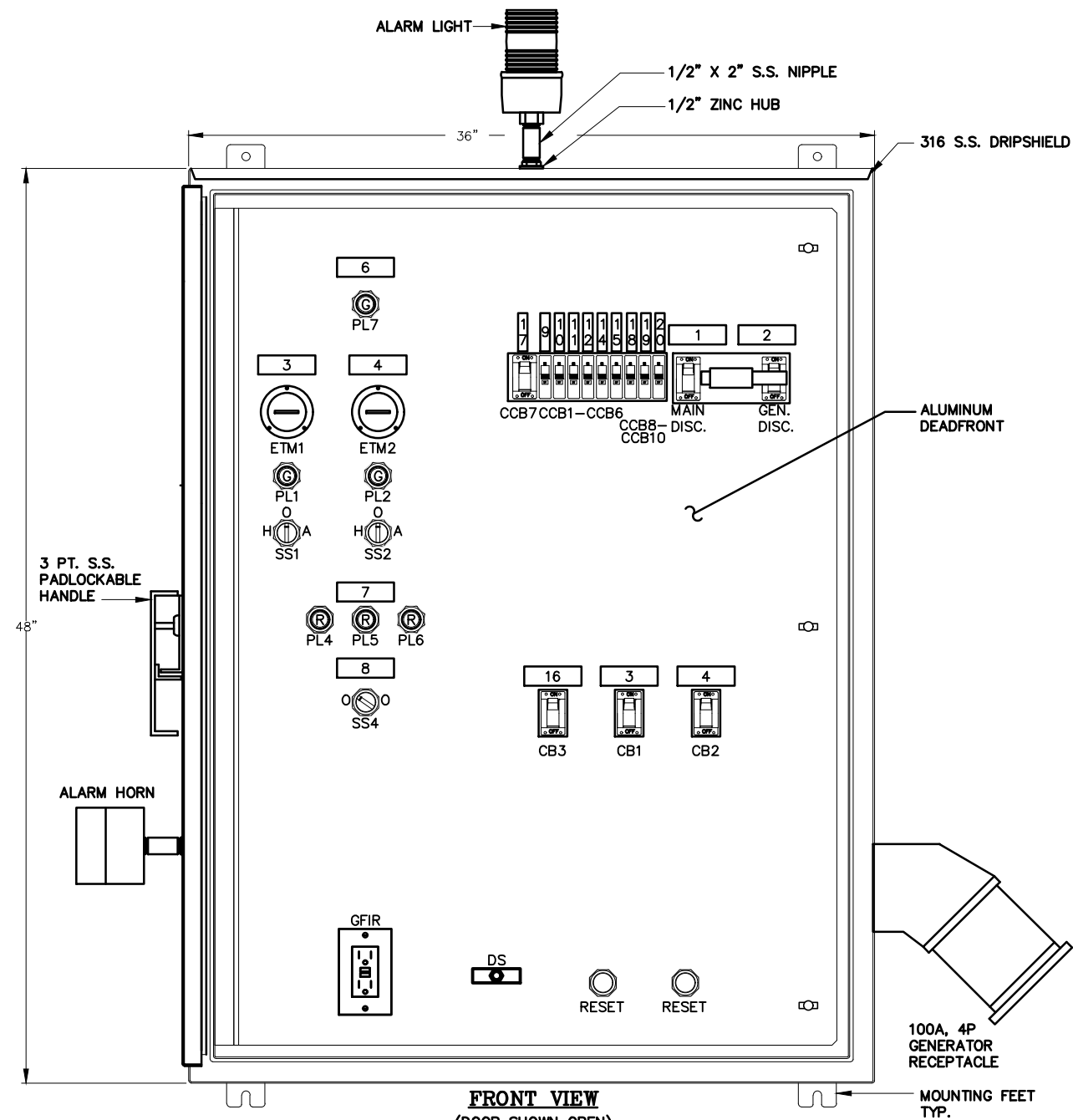
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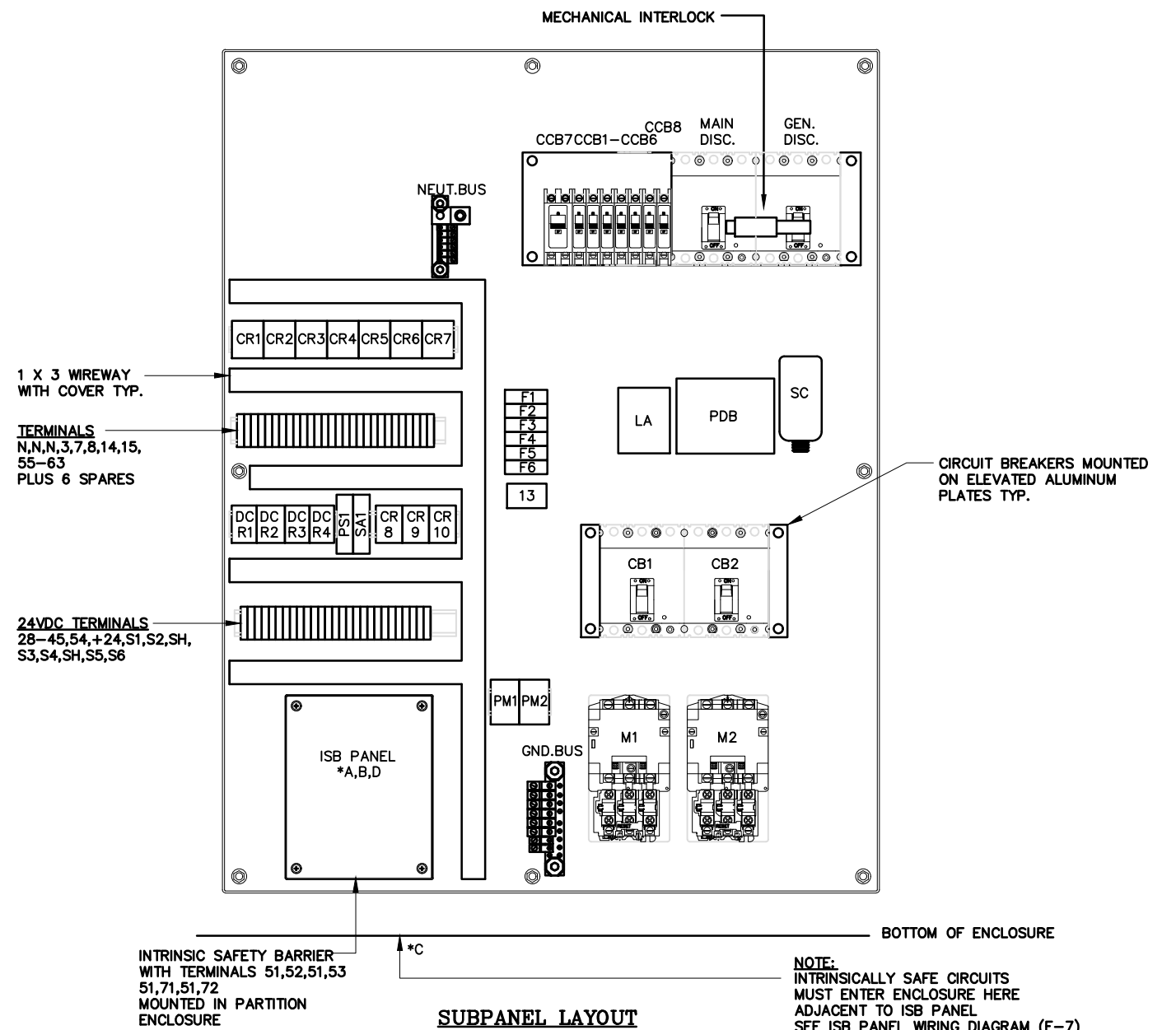
SEC Smith Engineering
Consultants, Inc.
State Auth. #8228
2161 Palm Beach Lakes Blvd., Suite 312
West Palm Beach, Florida 33409
(561) 616-3911 fax (561) 616-3912
www.smithengineeringconsultants.com



FRONT VIEW
(DOOR SHOWN OPEN)

NAME PLATE SCHEDULE

NP	1 X 3	LIFT STATION CONTROL PANEL	PL1,PL2,PL3	RING	RUN
1	1 X 3	MAIN DISCONNECT (RED)	PL4	RING	LOW
2	1 X 3	GENERATOR DISCONNECT	PL5	RING	HIGH
3	1 X 3	PUMP NO.1	PL6	RING	HIGH, HIGH LEVEL
4	1 X 3	PUMP NO.2	PL7	RING	ON
5		NOT USED	SS1,SS2,SS3	RING	HAND - OFF - AUTO
6	1 X 3	CONTROL POWER	SS4	RING	OFF - ON
7	1 X 3	WETWELL LEVEL			
8	1 X 3	ALARM HORN			
9	1/2 X 2	GFIR			
10	1/2 X 2	RTU 120V			
11	1/2 X 2	CONTROL POWER			
12	1/2 X 2	ISB/GAS DETECT.			
14	1/2 X 2	BATTERY CHARGER			
15	1/2 X 2	GENERATOR SPACE HEATR			
13	LABEL	CAUTION: TO REDUCE THE RISK OF FIRE, REPLACE ONLY WITH THE SAME TYPE AND RATING OF FUSE.			
16	1 X 3	MISC. 120V POWER			
17	1/2 X 2	GENERATOR JACKET WATER HEATER			
18	1/2 X 2	SITE LIGHT			
19	1/2 X 2	TELEM. EQUIP			
20	1/2 X 2	SPARE			



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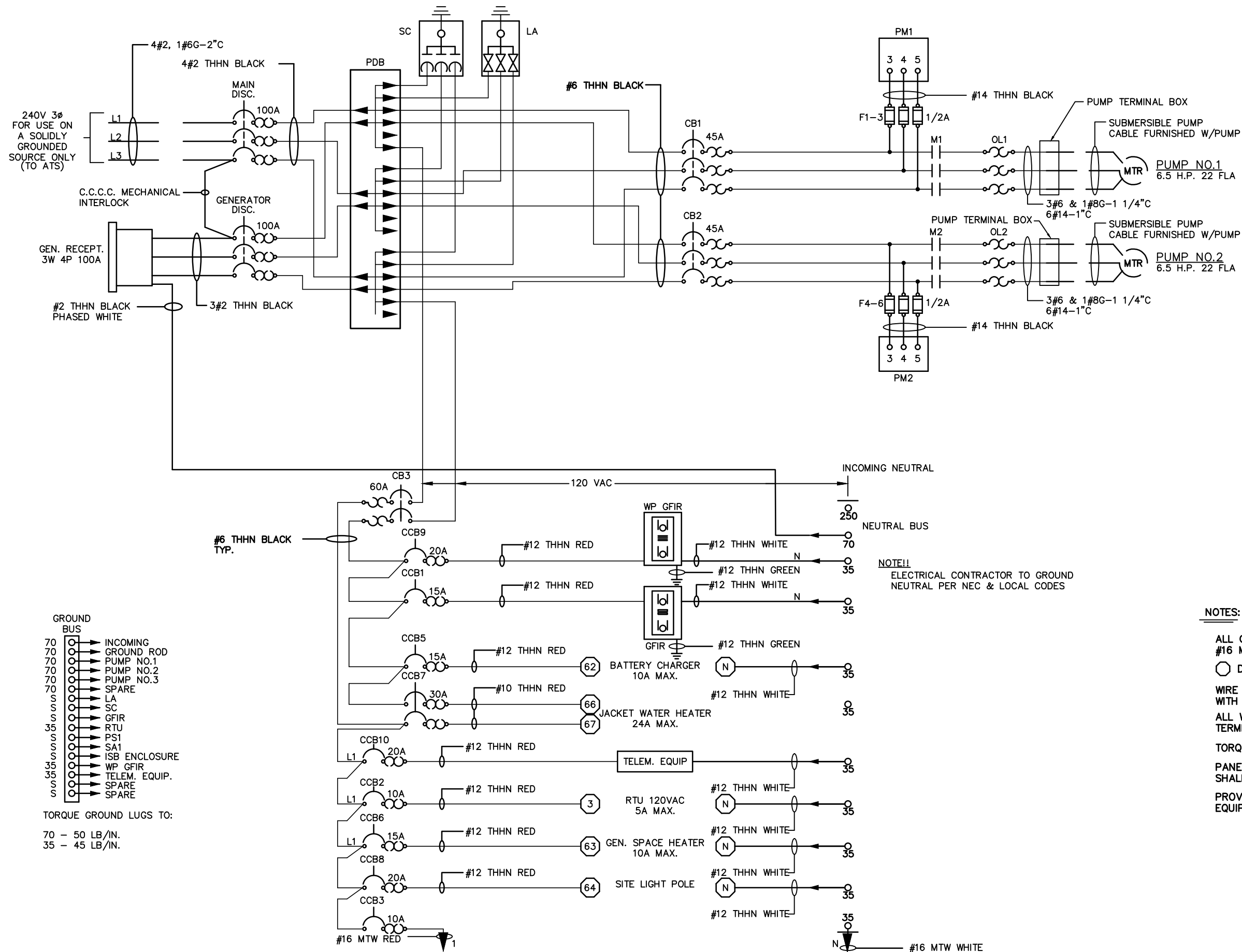
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NOTES:

- ALL CONTROL WIRING WITHIN CONTROL CABINET TO BE #16 MTW CU. UNLESS OTHERWISE NOTED
- DESIGNATES TERMINALS FOR CUSTOMER CONNECTION
- WIRE ENDS WITHIN CABINET TO BE IDENTIFIED WITH HEAT SHRINK WIRE MARKERS.
- ALL WIRES EXTERNAL TO CONTROL CABINET TO BE TERMINATED TO A TERMINAL
- TORQUE CONTROL TERMINALS TO 20 LB. IN.
- PANEL SHALL BE BUILT TO U.L. 698A SPECIFICATIONS AND SHALL BEAR THE U.L. 698A LABEL.
- PROVIDE GROUND WIRES, SIZED PER CODE, TO ALL REMOTE EQUIPMENT.

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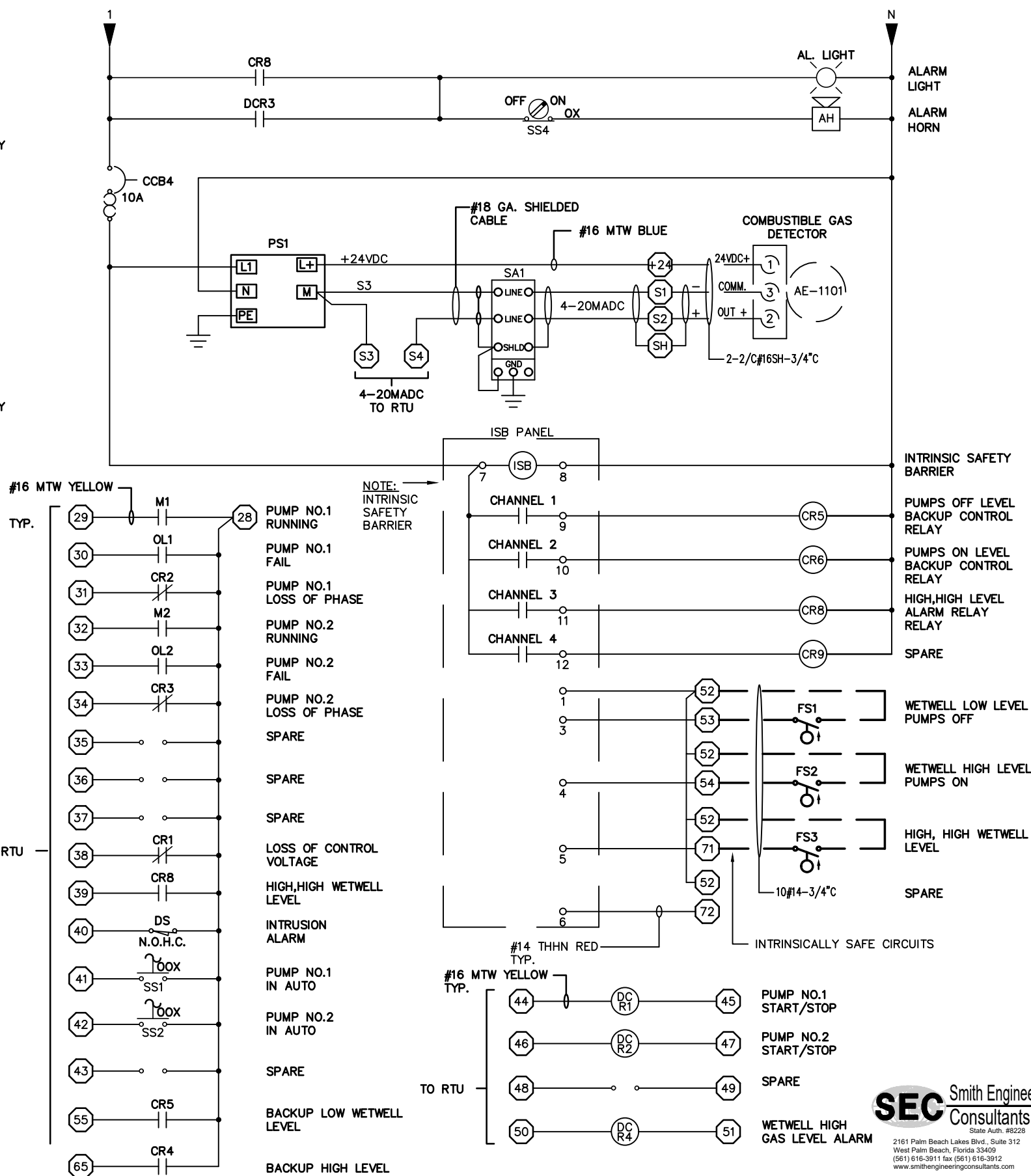
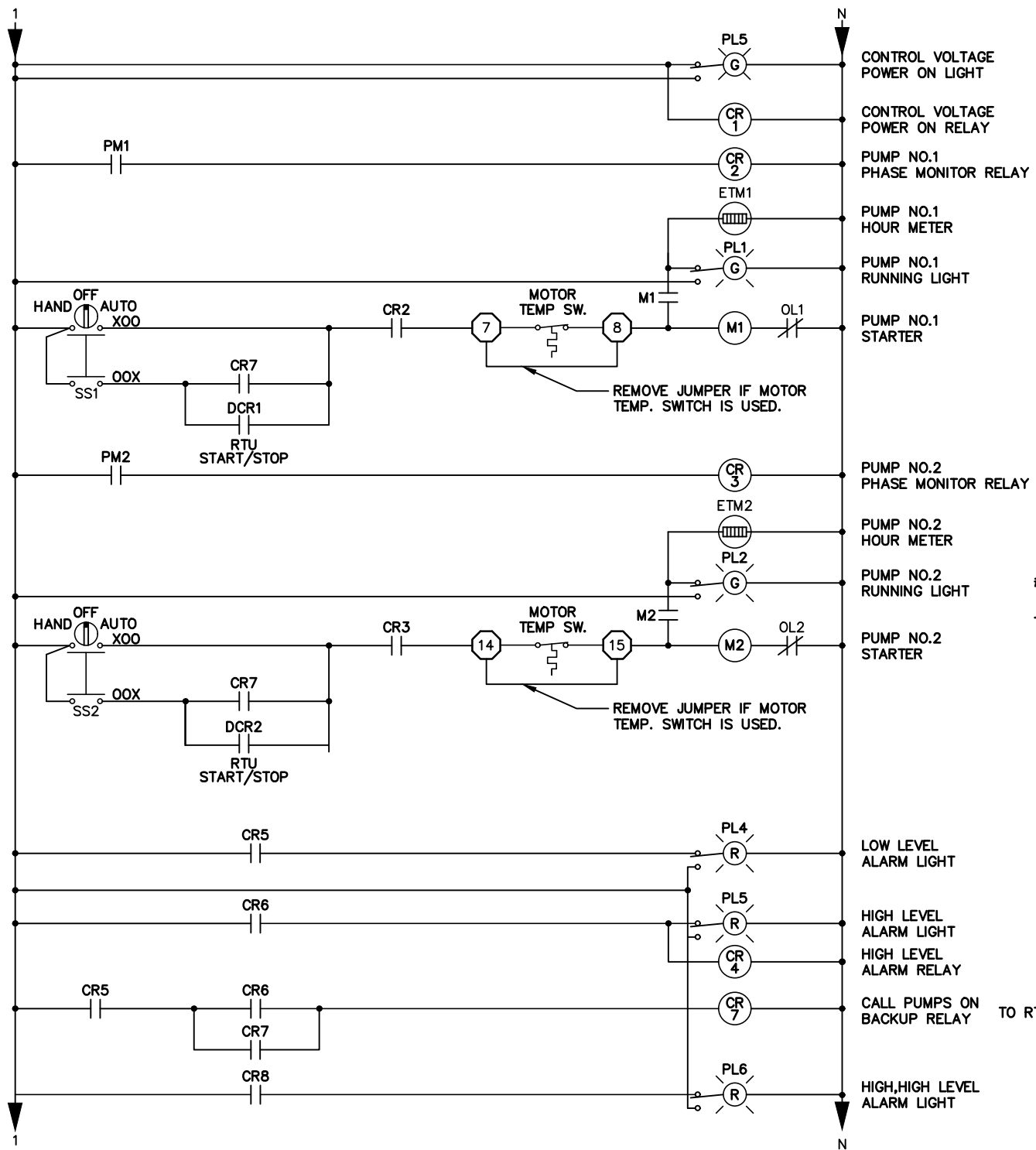
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MATANZAS LIFT STATION
 IMPROVEMENTS
 LIFT STATION
 CONTROL PANEL SCHEMATIC

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 21045 COMMERCIAL TRAIL
 BOCA RATON, FLORIDA 33498
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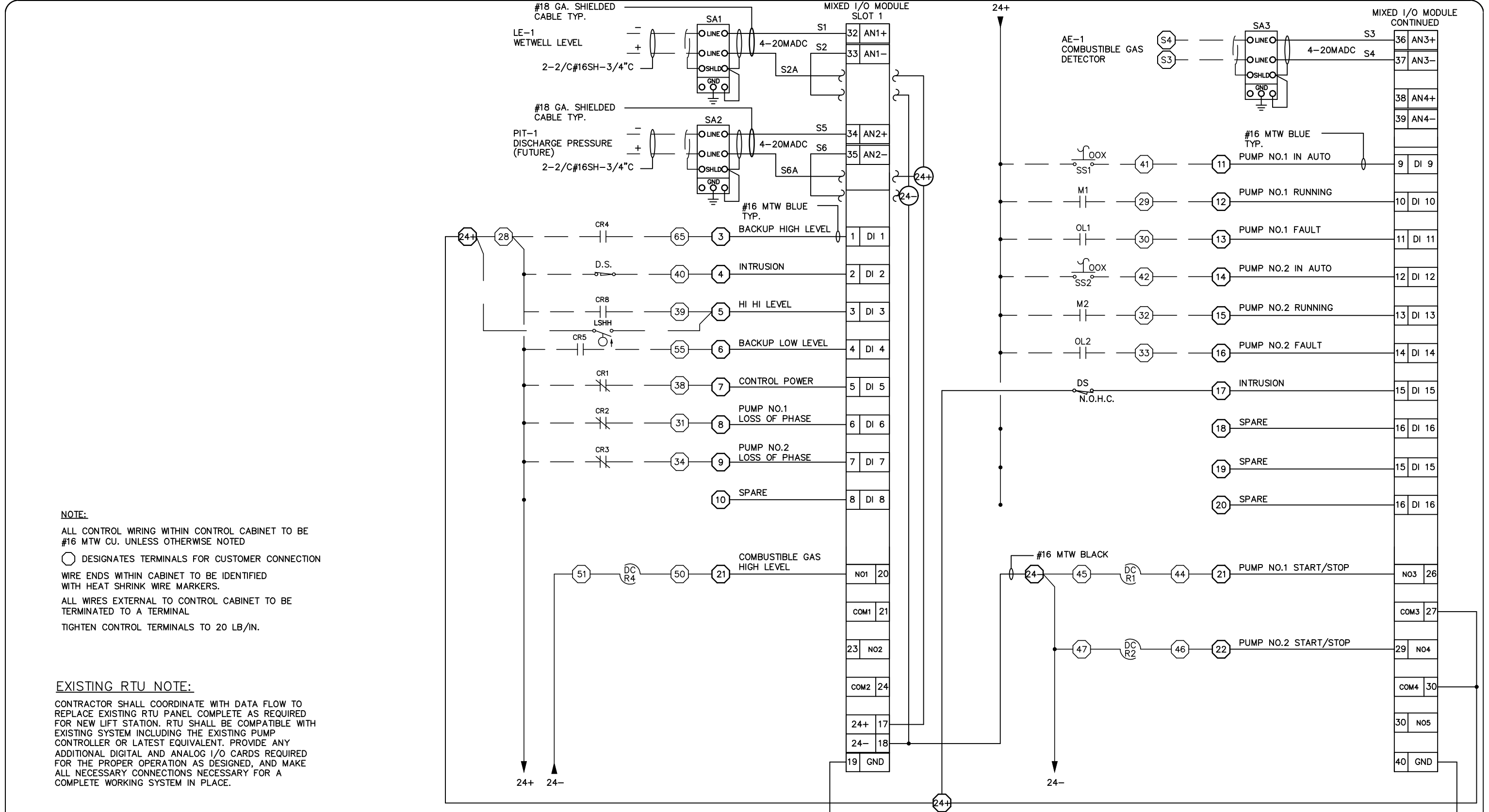
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NOTE:
ALL CONTROL WIRING WITHIN CONTROL CABINET TO BE #16 MTW CU. UNLESS OTHERWISE NOTED
○ DESIGNATES TERMINALS FOR CUSTOMER CONNECTION
WIRE ENDS WITHIN CABINET TO BE IDENTIFIED WITH HEAT SHRINK WIRE MARKERS.
ALL WIRES EXTERNAL TO CONTROL CABINET TO BE TERMINATED TO A TERMINAL
TIGHTEN CONTROL TERMINALS TO 20 LB/IN.

EXISTING RTU NOTE:
CONTRACTOR SHALL COORDINATE WITH DATA FLOW TO REPLACE EXISTING RTU PANEL COMPLETE AS REQUIRED FOR NEW LIFT STATION. RTU SHALL BE COMPATIBLE WITH EXISTING SYSTEM INCLUDING THE EXISTING PUMP CONTROLLER OR LATEST EQUIVALENT. PROVIDE ANY ADDITIONAL DIGITAL AND ANALOG I/O CARDS REQUIRED FOR THE PROPER OPERATION AS DESIGNED, AND MAKE ALL NECESSARY CONNECTIONS NECESSARY FOR A COMPLETE WORKING SYSTEM IN PLACE.

NOTE:
— DESIGNATES EQUIPMENT/WIRING LOCATED IN PANEL
— — DESIGNATES EQUIPMENT/WIRING REMOTE TO PANEL.

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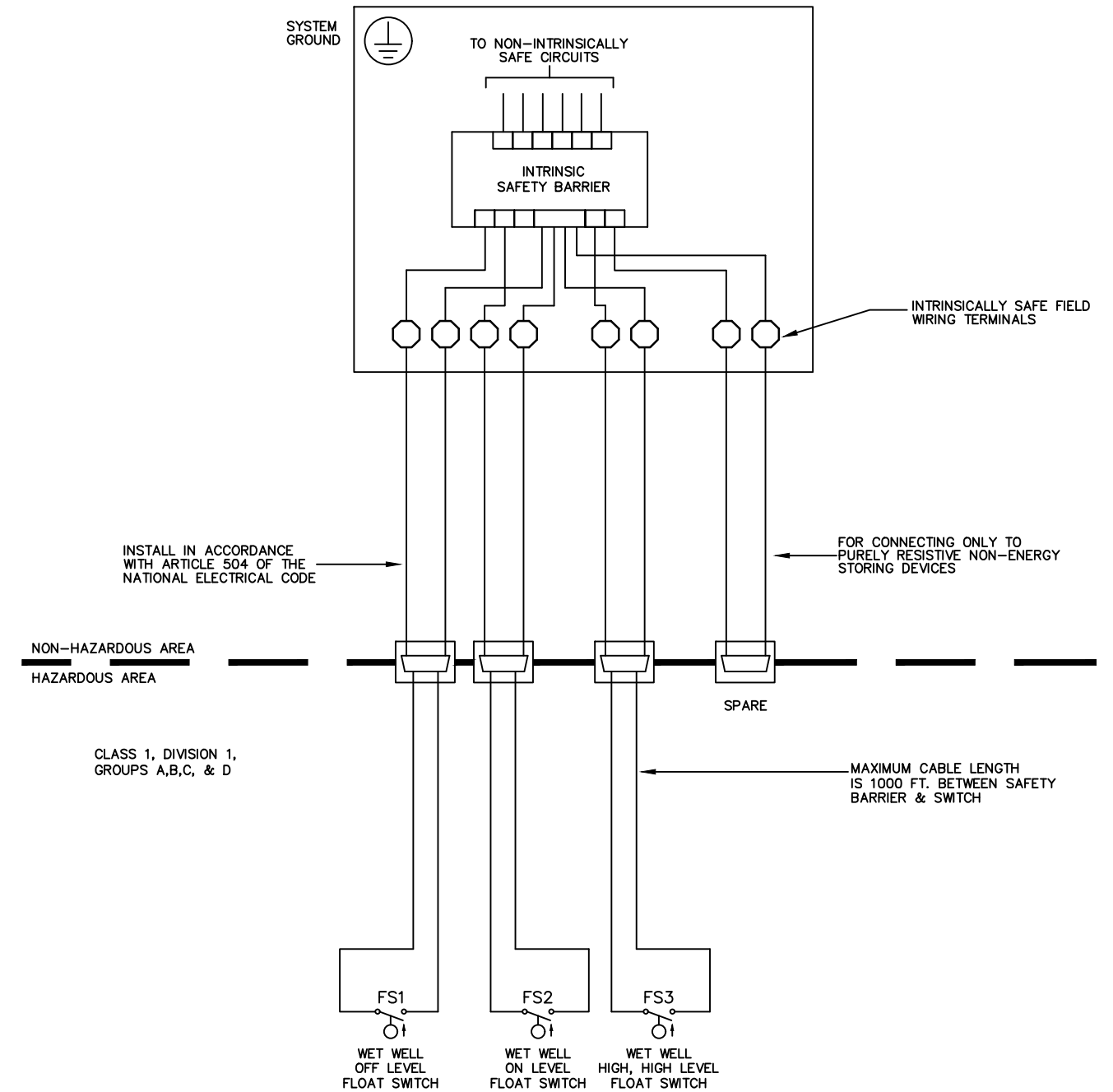
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MATANZAS LIFT STATION
IMPROVEMENTS
LIFT STATION
EXISTING RTU PARTIAL SCHEMATIC

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ISB PANEL WIRING DIAGRAM

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LIFT STATION
ISB PANEL WIRING DIAGRAM**

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