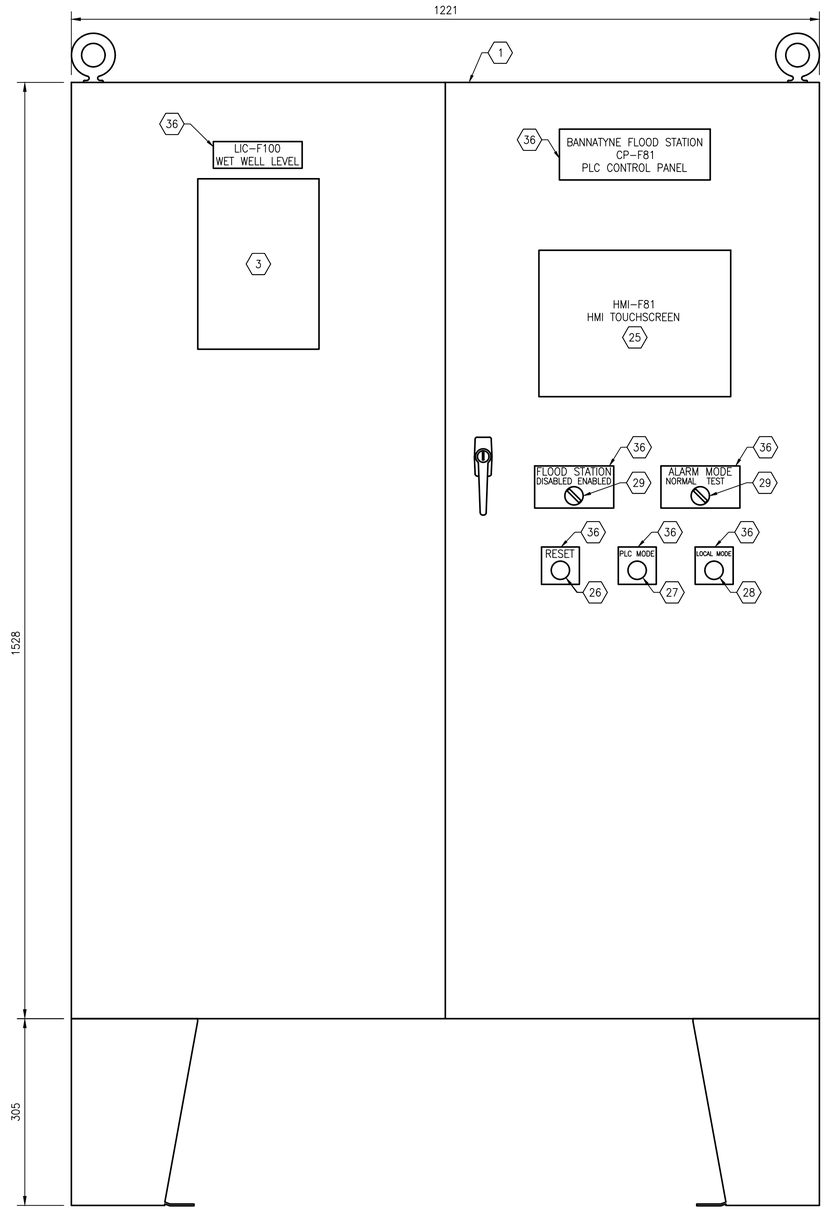
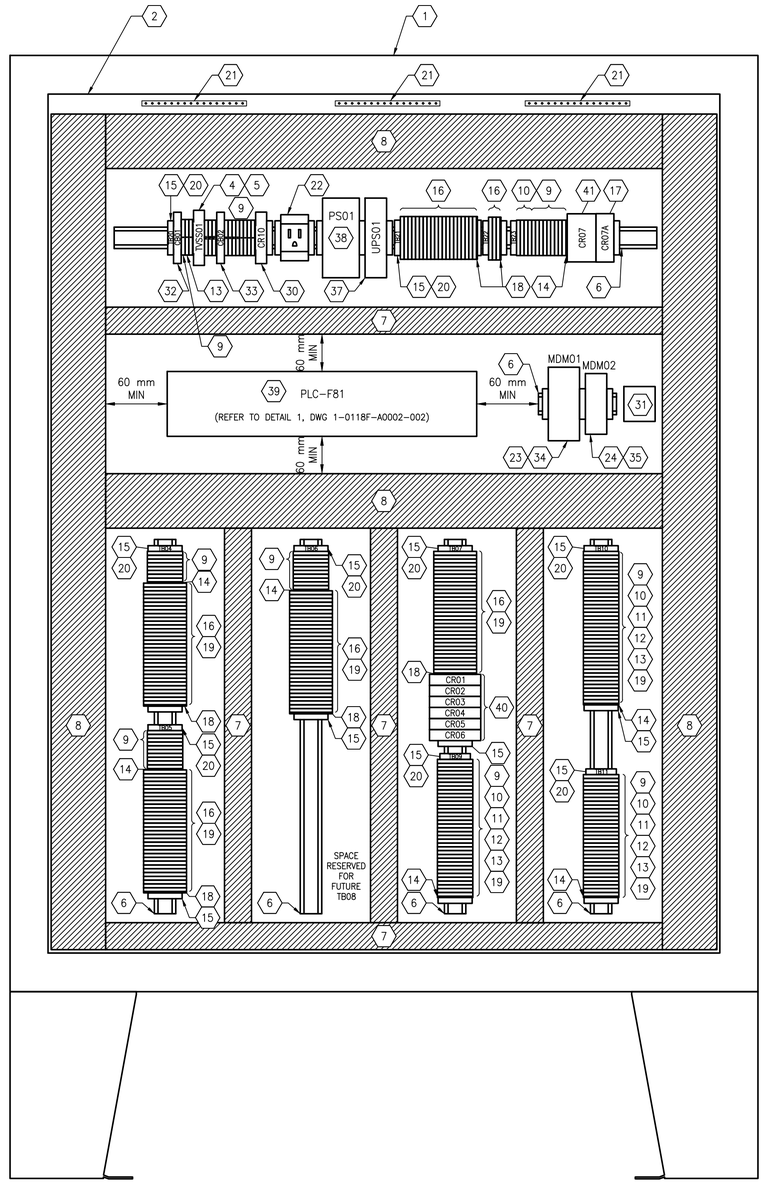
A1 SIZE – 594mm x 841mm



EXTERIOR PANEL VIEW

SCALE: 1 : 5



INTERIOR PANEL VIEW

SCALE: 1 : 5

BILL OF MATERIAL

ITEM	QTY	DESCRIPTION	MANUFACTURER	CATALOG NUMBER
1	1	TWO DOOR FLOOR–MOUNTED TYPE 12 ENCLOSURE	HOFFMAN	A604810LP
2	1	BACKPAN	HOFFMAN	A60P48
3	1	ULTRASONIC LEVEL TRANSMITTER	SIEMENS	7ML5033–1CB00–2A
4	1	SURGE ARRESTER MODULE, 120V	PHOENIX CONTACT	PLT–SEC–T3–120–P (2905234)
5	1	SURGE ARRESTER BASE	PHOENIX CONTACT	PT–BE/FM (2839282)
6	AS REQ'D	35mm DIN RAIL	PHOENIX CONTACT	0801733
7	AS REQ'D	NARROW SLOT WIRING DUCT, 1.75" x 3.12", GREY	PANDUIT	–
8	AS REQ'D	WIDE SLOT WIRING DUCT, 2.25" x 3.12", GREY	PANDUIT	–
9	AS REQ'D	FEED–THROUGH TERMINAL	PHOENIX CONTACT	3046184
10	AS REQ'D	FUSED TERMINAL	PHOENIX CONTACT	3046142
11	AS REQ'D	FUSE CONNECTOR	PHOENIX CONTACT	3036806
12	AS REQ'D	KNIFE–DISCONNECT TERMINAL (SEE NOTE 14)	PHOENIX CONTACT	3046139
13	AS REQ'D	POTENTIAL–EARTH TERMINAL (SEE NOTE 15)	PHOENIX CONTACT	3046207
14	AS REQ'D	TERMINAL END PLATE	PHOENIX CONTACT	3047141
15	AS REQ'D	TERMINAL END CLAMP – CLIPFIX	PHOENIX CONTACT	3022218
16	AS REQ'D	DOUBLE LEVEL FUSED TERMINAL	PHOENIX CONTACT	3044720
17	1	RELAY, 24 VDC, DPDT, LED, AND BASE	OMRON	LY2N–DC24, PTF08A
18	AS REQ'D	DOUBLE LEVEL TERMINAL END PLATE	PHOENIX CONTACT	3047293
19	AS REQ'D	PLUG–IN BRIDGE	PHOENIX CONTACT	3030365
20	AS REQ'D	TERMINAL BLOCK MARKER – KLM–A	PHOENIX CONTACT	1004348
21	3	GROUND BAR, 14 TAPS	ILSCO	D167–14
22	1	RECEPTACLE, 125V, 15A, DIN RAIL MOUNTED	PHOENIX CONTACT	EO–AB/UT/LED/15 (0804155)
23	1	CELLULAR MODEM	SIERRA	RV50X
24	1	PSTN MODEM	PHOENIX CONTACT	PSI–DATA/BASIC–MODEM/RS232 (2313067)
25	1	12" TOUCHSCREEN HMI	SCHNEIDER ELECTRIC	HMI GTO 6310
26	1	PUSHBUTTON, 22mm, 1 N.O., RED	SCHNEIDER ELECTRIC	ZB4BA4
			SCHNEIDER ELECTRIC	ZB4BZ009
			SCHNEIDER ELECTRIC	ZBE101
27	1	PUSHBUTTON, 22mm, 1 N.O., BLUE	SCHNEIDER ELECTRIC	XB4BA61
28	1	PUSHBUTTON, 22mm, 1 N.C., YELLOW	SCHNEIDER ELECTRIC	ZB4BA5
			SCHNEIDER ELECTRIC	ZB4BZ009
			SCHNEIDER ELECTRIC	ZBE102
29	2	SELECTOR SWITCH, 2 POS'N, MAINTAINED, 1 N.O., 1 N.C.	SCHNEIDER ELECTRIC	XB4BD25
30	1	RELAY, 120 VAC, SPDT, LED, AND BASE	OMRON	G2R–1–SN–AC120(S), P2RF–05
31	1	SURFACE MOUNT JACK, RJ11	L–COM	TDA310–4C
32	1	MOULDED CASE CIRCUIT BREAKER, 10 AMP, DIN RAIL MOUNTED	PHOENIX CONTACT	TMC 1 F1 100 10,0A (0914167)
33	1	MOULDED CASE CIRCUIT BREAKER, 5 AMP, DIN RAIL MOUNTED	PHOENIX CONTACT	TMC 1 F1 100 5,0A (0914138)
34	1	ETHERNET PATCH CORD, CAT 6, RJ45	–	–
35	1	SERIAL RS–232 COMMUNICATION CABLE, RJ45 TO 9 PIN D–SHELL CONNECTOR	–	–
36	AS REQ'D	LAMACOID WHITE WITH BLACK TEXT	–	–
37	1	24 VDC UNINTERRUPTIBLE POWER SUPPLY, QUINT SERIES, 10A	PHOENIX CONTACT	QUINT–UPS/24DC/24DC/10 (2320225)
38	1	24 VDC POWER SUPPLY, QUINT SERIES, 10A	PHOENIX CONTACT	QUINT–PS/1AC/24DC/10 (2866763)
39	1	M580 PLC RACK – AS PER DETAIL '1', SHOWN ON SHEET 002.	SCHNEIDER ELECTRIC	–
40	6	RELAY, 24 VDC, SPDT, LED, DIODE, AND BASE	OMRON	G2R–1–SND–DC24(S), P2RF–05
41	1	RELAY, 24 VDC, 4PDT, LED, AND BASE	OMRON	LY4N–DC24, PTF14A

METRIC

WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

125 0 125 250mm

1 : 5

NOTES:

1. WHERE MANUFACTURER AND MODEL ARE SPECIFIED, SUBSTITUTIONS MUST BE APPROVED.
2. ALL 120VAC POWER WIRING TO BE TEW/MTW 300V, 105°C INSULATION, STRANDED COPPER, 14 AWG OR LARGER WHERE CURRENT REQUIREMENTS DICTATE AS PER CEC REQUIREMENTS.
3. ALL 24VDC POWER WIRING TO BE TEW/MTW 300V, 105°C INSULATION, STRANDED COPPER, 12 AWG OR LARGER WHERE CURRENT REQUIREMENTS DICTATE AS PER CEC REQUIREMENTS.
4. ALL CONTROL WIRING TO BE TEW/MTW 300V, 105°C INSULATION, STRANDED COPPER, 16 AWG.
5. WIRE COLOURS:
   120 VAC POWER (HOT): BLACK. 120 VAC NEUTRAL: WHITE,
   24 VDC POWER: BLUE. 24 VDC COMMON: BROWN
   DISCRETE CONTROL AC: RED. DISCRETE CONTROL DC: BLUE
6. ALL ANALOG TWISTED PAIR WIRING TO BE 18 AWG SHIELDED, WITH INSULATION RATED AT 300V.
7. EXTERNAL COMPONENTS ARE TO BE LABELLED AS SHOWN ON THE DRAWINGS.
8. ALL FUSES ARE TO BE PROVIDED. IN ADDITION, TWO SPARES OF EACH FUSE SIZE ARE TO BE PROVIDED.
9. TEST ALL WIRING AND COMPONENTS FOR FUNCTIONAL OPERATION, CORRECT CONNECTION, CONTINUITY AND INSULATION INTEGRITY. THREE COPIES OF CERTIFIED TEST DOCUMENTATION ARE TO BE PROVIDED.
10. ALL MAJOR COMPONENTS INSIDE THE PANEL ARE TO BE LABELED WITH LAMACOIDS IN ACCORDANCE WITH MAJOR DESCRIPTIONS ON THE DRAWINGS.
11. PROVIDE WIRE BARREL FERULES FOR ALL WIRING.
12. ALL TERMINAL BLOCKS SHALL BE NUMBERED AS SHOWN IN THE DRAWINGS, COMPLETE WITH GROUP LABELING.
13. CLEARLY LABEL DEVICE IDENTIFIERS ON THE DOOR INTERIOR USING COMPUTER–GENERATED ADHESIVE LABELS OR LAMACOIDS.

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
SNC-Lavalin Inc.
No. 4489

DRAWING NUMBER	REFERENCE DRAWINGS
1–0118F–A0011	I/O WIRING CONTROL PNL CP–F81 ANALOG INPUTS RACK 00, MOD 11
1–0118F–A0010	I/O WIRING CONTROL PNL CP–F81 ANALOG INPUTS RACK 00, MOD 10
1–0118F–A0009	I/O WIRING CONTROL PNL CP–F81 ANALOG INPUTS RACK 00, MOD 09
1–0118F–A0008	I/O WIRING CONTROL PNL CP–F81 DISCRETE OUTPUTS RACK 00, MOD 07
1–0118F–A0007	I/O WIRING CONTROL PANEL CP–F81 DISCRETE INPUTS RACK 00, MOD 06
1–0118F–A0006	I/O WIRING CONTROL PANEL CP–F81 DISCRETE INPUTS RACK 00, MOD 05
1–0118F–A0005	I/O WIRING CONTROL PANEL CP–F81 DISCRETE INPUTS RACK 00, MOD 04
1–0118F–A0004	POWER DISTRIBUTION SCHEMATIC PLC CONTROL PANEL CP–F81
1–0118F–A0003	NETWORK BLOCK DIAGRAM PLC CONTROL PANEL CP–F81

NO.	REVISIONS	DATE	DESIGN	CHECK
00	ISSUED FOR CONSTRUCTION, TENDER 167–2023	2023/03/02	MS	BC

SNC·LAVALIN
SNC–LAVALIN INC.
148 Nature Park Way
Winnipeg, MB, Canada R3P 0X7
204–786–8080

DESIGNED BY: M. SARIC	CHECKED BY: B. CLEVEN
DRAWN BY: M. SARIC	APPROVED BY: B. CLEVEN
SCALE: 1:5	ISSUED FOR CONSTRUCTION BY: K. ZUREK
DATE: 2022/07/06	DATE: 2023/03/02
CONSULTANT NO.:	

ENGINEER'S SEAL

PROVINCE OF MANITOBA
M. SARIC
Member
46571
REGISTERED PROFESSIONAL ENGINEER
2023-03-02

REV. 00

Winnipeg
THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

BANNATYNE FLOOD PUMPING STATION
2023 UPGRADES
PANEL LAYOUT & BILL OF MATERIAL
PLC CONTROL PANEL CP–F81

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1–0118F–A0002	001	00	A1

1–0118F–A0002–001_Rev00.dwg

LAST SAVE: 2023/03/02 – 4:09pm
PATH: \\Winpdc1\proj$\691232\4ENG\48IC\DD – General DWG\1–0118F–A0002–001_Rev00.dwg