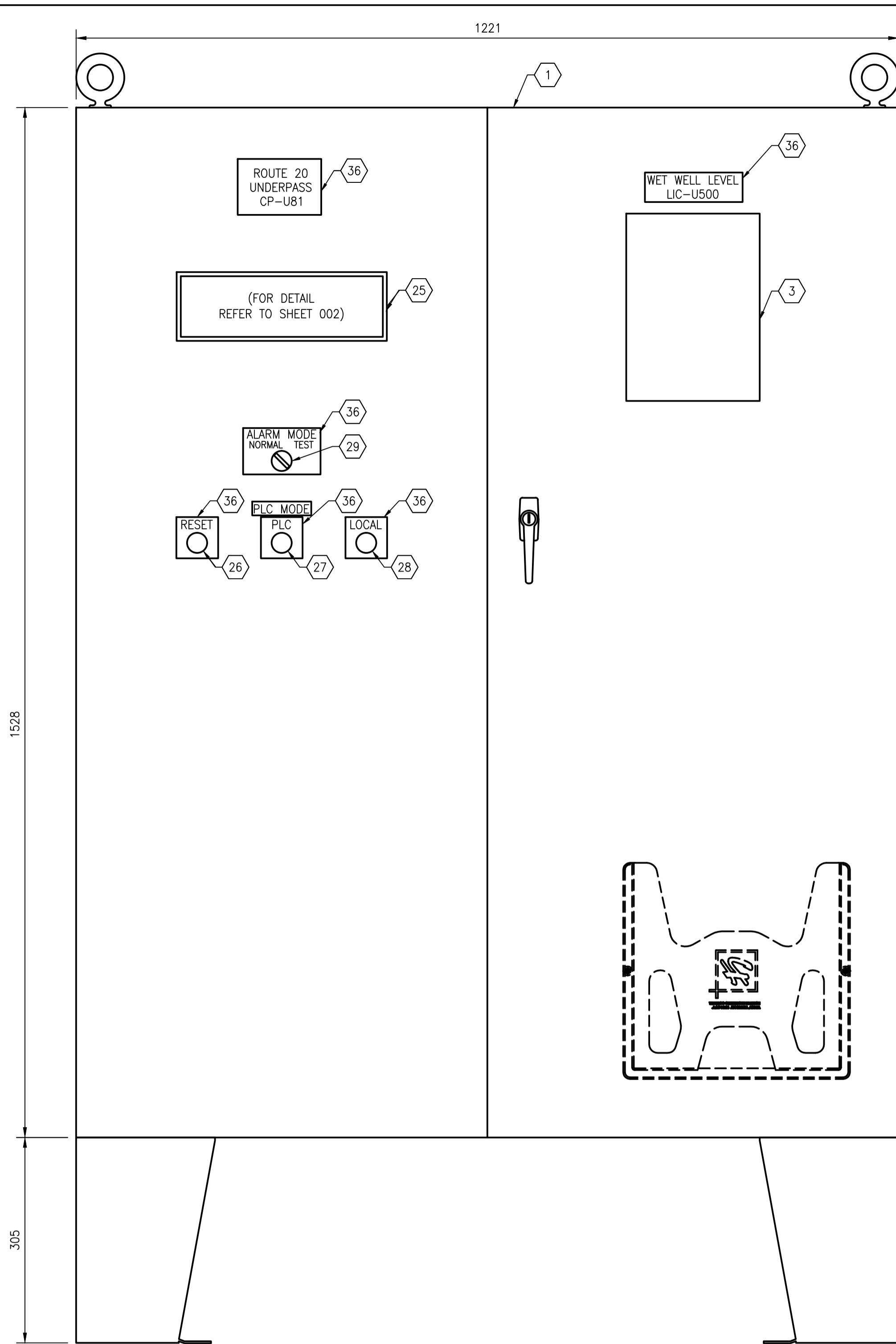
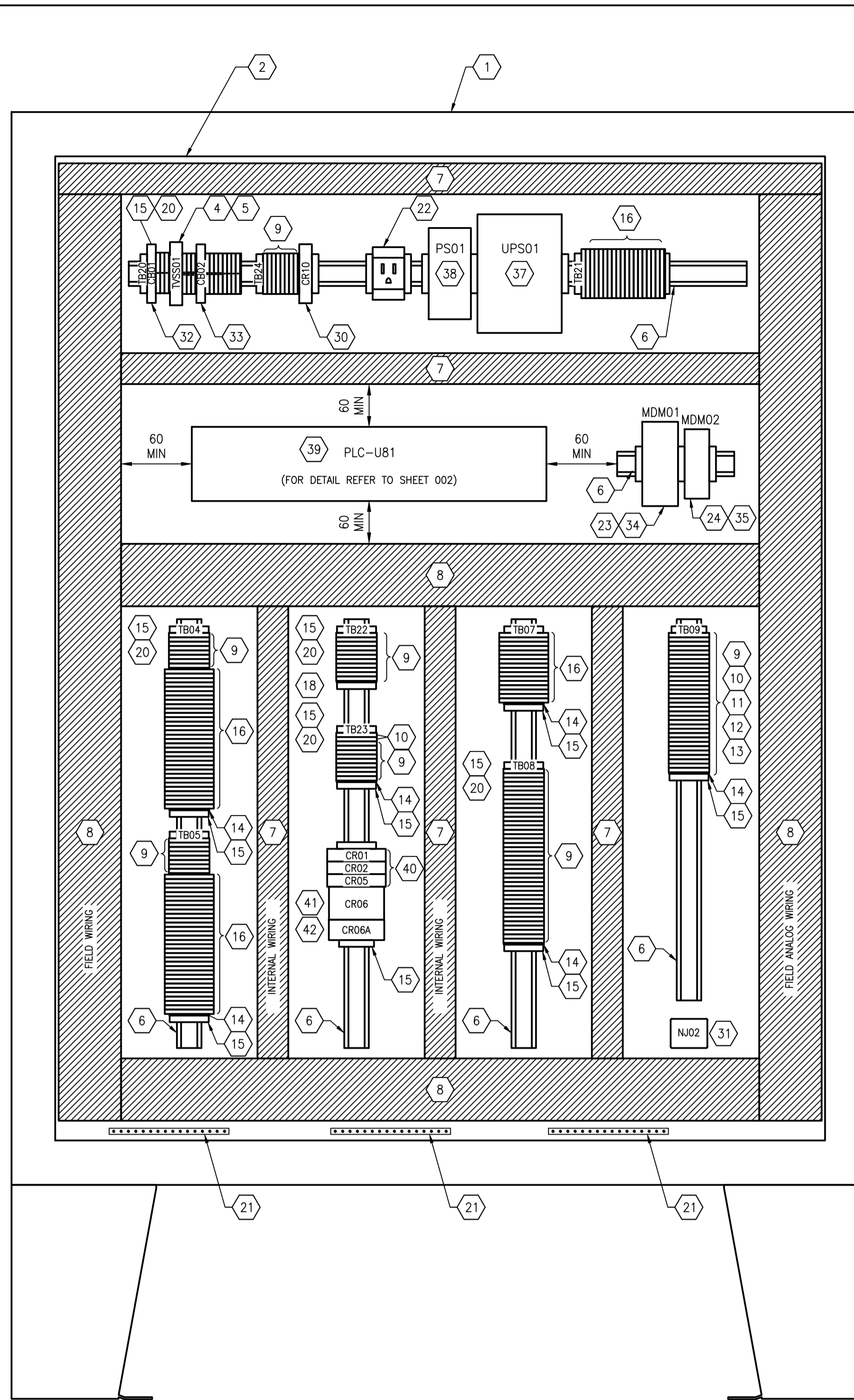


A1 SIZE - 594mm x 841mm



EXTERIOR PANEL VIEW

SCALE: 1:5



INTERIOR PANEL VIEW

SCALE: 1:5

NOTES

- WHERE MANUFACTURER AND MODEL ARE SPECIFIED, SUBSTITUTIONS MUST BE APPROVED.
- 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.
- 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.
- ALL CONTROL WIRING TO BE TEW/MTW 300V, 105°C INSULATION, STRANDED COPPER, 16 AWG.
- AC WIRING TO BE RED IN COLOUR. DC WIRING TO BE BLUE.
- ALL ANALOG TWISTED PAIR WIRING TO BE 18 AWG SHIELDED, WITH INSULATION RATED AT 300V.
- EXTERNAL COMPONENTS ARE TO BE LABELLED AS SHOWN ON THE DRAWINGS.
- ALL FUSES ARE TO BE PROVIDED. IN ADDITION, TWO SPARES OF EACH FUSE SIZE ARE TO BE PROVIDED.
- TEST ALL WIRING AND COMPONENTS FOR FUNCTIONAL OPERATION, CORRECT CONNECTION, CONTINUITY AND INSULATION INTEGRITY. THREE COPIES OF CERTIFIED TEST DOCUMENTATION ARE TO BE PROVIDED.
- ALL MAJOR COMPONENTS INSIDE THE PANEL ARE TO BE LABELED WITH LAMACOIDS IN ACCORDANCE WITH MAJOR DESCRIPTIONS ON THE DRAWINGS.
- PROVIDE WIRE BARREL FERULES FOR ALL WIRING, EXCEPT ON THE SIGNAL ISOLATORS WHERE TWO WIRES ARE REQUIRED ON ONE SIGNAL ISOLATOR TERMINAL.
- ALL TERMINAL BLOCKS SHALL BE NUMBERED AS SHOWN IN THE DRAWINGS, COMPLETE WITH GROUP LABELING.
- CLEARLY LABEL DEVICE IDENTIFIERS ON THE DOOR INTERIOR USING COMPUTER-GENERATED ADHESIVE LABELS OR LAMACOIDS.
- REFER TO LOOP DRAWING 1-0309U-A0008 FOR LIC-U500 INTERNAL PANEL WIRING.
- REFER TO DRAWING 1-0309U-A0009-002 FOR CR10 INTERNAL PANEL WIRING.

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	NARROW 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	PHOENIX CONTACT	3046139
13	AS REQ'D	POTENTIAL-EARTH TERMINAL	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	-	-	-	-
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	SD-US/SC/LA/GY (2963860)
23	1	CELLULAR MODEM (SUPPLIED BY CITY)	SIXNET	S414-24
24	1	PSTN MODEM	PHOENIX CONTACT	PSI-DATA/FAX-MODEM/RS232 (2708203)
25	1	ANNUNCIATOR PANEL - AS PER DETAIL 'A' SHOWN ON SHEET 002.	IDEC	-
26	1	PUSHBUTTON, 22mm, 1 N.O., RED	SCHNEIDER ELECTRIC	ZB4BA4
27	1	PUSHBUTTON, 22mm, 1 N.O., BLUE	SCHNEIDER ELECTRIC	ZB4BZ009
28	1	PUSHBUTTON, 22mm, 1 N.C., YELLOW	SCHNEIDER ELECTRIC	ZBE101
29	1	SELECTOR SWITCH, 2 POS'N, MAINTAINED, 1 N.O., 1 N.C.	SCHNEIDER ELECTRIC	XB4BA61
30	1	RELAY, 120VAC, SPDT, LED, AND BASE	OMRON	ZB4BA5
31	-	SURFACE MOUNT JACK, RJ11	L-COM	ZB4BZ009
32	1	MOULDED CASE CIRCUIT BREAKER, 10 AMP, DIN RAIL MOUNTED	PHOENIX CONTACT	ZBE102
33	1	MOULDED CASE CIRCUIT BREAKER, 5 AMP, DIN RAIL MOUNTED	PHOENIX CONTACT	XB4BD25
34	1	ETHERNET PATCH CORD, CAT 6, RJ45	-	G2R-1-SN-AC120(S), P2RF-05
35	1	SERIAL RS-232 COMMUNICATION CABLE, RJ45 TO 9 PIN D-SHELL CONNECTOR	-	LDA310-4C
36	AS REQ'D	LAMACOID WHITE WITH BLACK TEXT	-	TMC 1 F1 100 10,0A (0914167)
37	1	24 VDC UNINTERRUPTIBLE POWER SUPPLY, QUINT SERIES, 10A, 3.4AH	PHOENIX CONTACT	TMC 1 F1 100 5,0A (0914138)
38	1	24 VDC POWER SUPPLY, QUINT SERIES, 10A	PHOENIX CONTACT	-
39	1	M580 PLC RACK - AS PER DETAIL 'B', SHOWN ON SHEET 002.	SCHNEIDER ELECTRIC	-
40	3	RELAY, 24VDC, SPDT, LED, DIODE, AND BASE	OMRON	-
41	1	RELAY, 24VDC, 4PDT, LED, AND BASE	OMRON	G2R-1-SND-DC24(S), P2RF-05
42	1	RELAY, 24VDC, DPDT, LED, AND BASE	OMRON	LY4N-DC24, PTF14A
				LY2N-DC24, PTF08A



DESIGNED BY:	T. CHURCH	CHECKED BY:	B. CLEVEN
DRAWN BY:	S. HALLU	APPROVED BY:	B. CLEVEN
SCALE:	1:5	ISSUED FOR CONSTRUCTION BY:	
DATE:	2018/01/15	DATE:	
ISSUED FOR TENDER, BID OPP: 475-2018	2018/05/09	TC	BC
NO.	REVISIONS	DATE	DESIGN/CHECK

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

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

ENGINEER'S SEAL

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

METRO ROUTE 20 UNDERPASS PUMPING STATION
2018 UPGRADES
PANEL LAYOUT
CONTROL PANEL CP-U81

CITY DRAWING NUMBER: 1-0309U-A0001
SHEET: 001
REV: 00
SIZE: A1

LAST SAVE: 2018/05/09 - 10:35am
PATH: M:\648185\MEN\481C\DD - General DWG\1-0309U-A0001-001-00.dwg