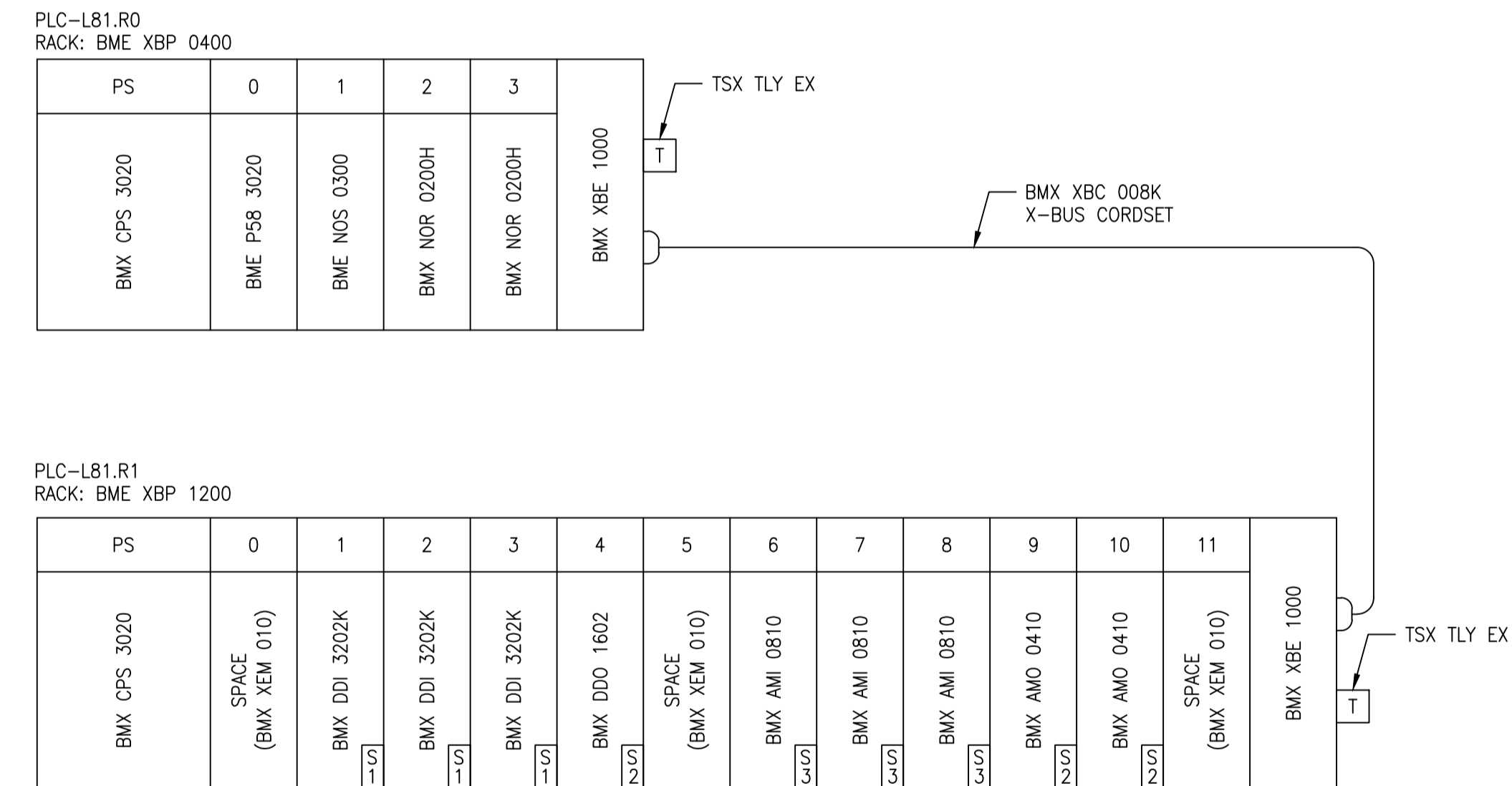


BILL OF MATERIAL

ITEM	QTY	DESCRIPTION	MANUFACTURER	CATALOG NUMBER
1	1	TWO DOOR FLOOR-MOUNTED TYPE 12 ENCLOSURE	HOFFMAN	A726010ULP
2	1	BACKPAN	HOFFMAN	A72P60
3	2	24 VDC POWER SUPPLY, QUINT SERIES, 10A	PHOENIX CONTACT	QUINT-PS/1AC/24DC/10 (2866763)
4	-	NOT USED	-	-
5	1	CELLULAR MODEM (SUPPLIED BY CITY)	SIXNET	5414-24
6	1	M580 PLC RACK - AS PER DETAIL A	SCHNEIDER ELECTRIC	-
7	-	NOT USED	-	-
8	1	ORING REDUNDANCY MODULE, QUINT SERIES, 2X10A	PHOENIX CONTACT	QUINT-ORING/24DC/2X10/1X20 (2320173)
9	2	24 VDC UNINTERRUPTIBLE POWER SUPPLY, QUINT SERIES, 10A, 3.4AH	PHOENIX CONTACT	QUINT-UPS/24DC/24DC/10/3.4AH (2320267)
10	-	NOT USED	-	-
11	1	SURFACE MOUNT JACK, RJ11	L-COM	TDA310-4C
12	2	MOULDED CASE CIRCUIT BREAKER, 10 AMP, DIN RAIL MOUNTED	PHOENIX CONTACT	TMC 1 F1 100 10,0A (0914167)
13	1	MOULDED CASE CIRCUIT BREAKER, 5 AMP, DIN RAIL MOUNTED	PHOENIX CONTACT	TMC 1 F1 100 5,0A (0914138)
14	2	SURGE ARRESTER MODULE, 120V	PHOENIX CONTACT	PT 2-PE/S-120AC-ST (2839334)
	2	SURGE ARRESTER BASE	PHOENIX CONTACT	PT-BE/FM (2839282)
15	1	RELAY, 120VAC, SPDT, LED	OMRON	G2R-1-SN-AC120(S)
16	1	RELAY BASE, SPDT	OMRON	P2RF-05
17	-	NOT USED	-	-
18	AS REQ'D	LAMACOIDS, WHITE WITH BLACK TEXT	-	-
19	AS REQ'D	FEED-THROUGH TERMINAL	PHOENIX CONTACT	3046184
20	AS REQ'D	FUSED TERMINAL - UT 4 WITH FUSE PLUG-P-FU 5X20	PHOENIX CONTACT	3046142 3036806
21	AS REQ'D	KNIFE-DISCONNECT TERMINAL	PHOENIX CONTACT	3046139
22	AS REQ'D	POTENTIAL-EARTH TERMINAL	PHOENIX CONTACT	3046207
23	AS REQ'D	TERMINAL END PLATE	PHOENIX CONTACT	3047141
24	AS REQ'D	35mm DIN RAIL	PHOENIX CONTACT	0801733
25	AS REQ'D	DOUBLE LEVEL FUSED TERMINAL	PHOENIX CONTACT	3044720
26	AS REQ'D	DOUBLE LEVEL TERMINAL END PLATE	PHOENIX CONTACT	3047293
27	AS REQ'D	TERMINAL END CLAMP - CLIPFIX 35	PHOENIX CONTACT	3022218
28	AS REQ'D	TERMINAL BLOCK MARKER - KLM-A	PHOENIX CONTACT	1004348
29	AS REQ'D	NARROW SLOT WIRING DUCT, 3.25" x 3.12", GREY, WITH COVER	PANDUIT	-
30	AS REQ'D	NARROW SLOT WIRING DUCT, 1.26" x 3.12", GREY, WITH COVER	PANDUIT	-
31	3	GROUND BAR, 14 TAPS	ILSCO	-
32	1	12" TOUCHSCREEN HMI	SCHNEIDER ELECTRIC	HMI GTO 6310
33	1	POWER & DATA ACCESS PORT	HUBBELL	P155E
34	1	FOLDING SHELF, GREY	HOFFMAN	AASHLF1818
35	1	PSTN MODEM, SERIAL	PHOENIX CONTACT	PSI-DATA/FAX-MODEM/RS232 (2708203)
36	1	PANEL METER, 24VDC, 4 RELAYS, 4-20mA OUTPUT	PRECISION DIGITAL	PD6000-7H7
37	1	RELAY, 24VDC, 4PDT	OMRON	G2R-1-SND-DC24(S)
38	1	RELAY BASE, FOR ITEM 37	OMRON	LY4N PTF14A-E

NOTES

- WHERE MANUFACTURER AND MODEL ARE SPECIFIED, SUBSTITUTIONS MUST BE APPROVED.
- ALL 120 VAC 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 24 VAC POWER WIRING TO BE TEW/MTW 300V OR HIGHER, 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 OR HIGHER, 105°C INSULATION, STRANDED COPPER, 16 AWG.
- ALL ANALOG TWISTED PAIR WIRING TO BE 18 AWG SHIELDED, WITH INSULATION RATED AT 300V.
- EXTERNAL COMPONENTS ARE TO BE LABELED 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.
- 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 DRAWINGS 1-0103L-A0014 FOR LIC-L500 INTERNAL WIRING CONNECTIONS.



A DETAIL - PLC RACK CONFIGURATION  
 NTS

1-0130L-A0001 001	PANEL LAYOUT, CONTROL PANEL CP-L81
DRAWING NUMBER	REFERENCE DRAWINGS

DESIGNED BY: T. CHURCH DRAWN BY: J. GRACASIN SCALE: NTS DATE: 2017/05/17 CONSULTANT NO.:	CHECKED BY: B. CLEVEN APPROVED BY: B. CLEVEN ISSUED FOR CONSTRUCTION BY: DATE:	ENGINEER'S SEAL  PRELIMINARY NOT TO BE USED FOR CONSTRUCTION	THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT  COMMUNITY ROW WASTEWATER PUMPING STATION 2017 UPGRADES PANEL LAYOUT CONTROL PANEL CP-L81				
				SNC-LAVALIN INC. 148 Nature Park Way Winnipeg, MB, Canada R3P 0X7 204-786-8080			
				CITY DRAWING NUMBER 1-0130L-A0001	SHEET 002	REV. 00	SIZE A1
				NO. REVISIONS	DATE	DESIGN	CHECK