



EXTERIOR PANEL VIEW  
 SCALE: 1 : 3

INTERIOR PANEL VIEW  
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BILL OF MATERIAL				
ITEM	QTY	DESCRIPTION	MANUFACTURER	CATALOG NUMBER
1	1	SINGLE-DOOR TYPE 12 & 13 WALL-MOUNTED ENCLOSURE	HOFFMAN	A362406LP
2	1	BACKPAN	HOFFMAN	A36P24
3	2	MOULDED CASE CIRCUIT BREAKER, 2 AMP, DIN RAIL MOUNTED	PHOENIX CONTACT	TMC 1 F1 100 2,0A (0914099)
4	1	ON-DELAY TIMER, DPDT, 24VAC/VDC	OMRON	H3CR-A8
5	1	TIMER BASE, 8 PIN SOCKET	OMRON	P2CF-08
6	AS REQ'D	35mm DIN RAIL	PHOENIX CONTACT	0801733
7	AS REQ'D	FEED-THROUGH TERMINAL	PHOENIX CONTACT	3046184
8	AS REQ'D	FUSED TERMINAL	PHOENIX CONTACT	3046142
9	AS REQ'D	FUSE CONNECTOR	PHOENIX CONTACT	3036806
10	AS REQ'D	POTENTIAL EARTH TERMINAL	PHOENIX CONTACT	3046207
11	AS REQ'D	TERMINAL END PLATE	PHOENIX CONTACT	3047141
12	AS REQ'D	TERMINAL END CLAMP	PHOENIX CONTACT	1201442
13	AS REQ'D	PLUG-IN BRIDGE	PHOENIX CONTACT	3030365
14	AS REQ'D	NARROW SLOT WIRING DUCT, 1.75" x 2.12"	PANDUIT	-
15	AS REQ'D	TERMINAL BLOCK MARKER	PHOENIX CONTACT	1004348
16	AS REQ'D	KNIFE DISCONNECT TERMINAL	PHOENIX CONTACT	3046139
17	1	RELAY, 24 VAC, SPDT, LED	OMRON	G2R-1-SN-AC24(S)
18	3	RELAY, 24 VDC, DPDT, DIODE, LED	OMRON	G2R-2-SND-DC24(S)
19	1	RELAY, 120 VAC, SPDT, LED	OMRON	G2R-1-SN-AC120(S)
20	2	RELAY BASE, SPDT	OMRON	P2RF-05
21	3	RELAY BASE, DPDT	OMRON	P2RF-08
22	1	RELAY, 24 VAC, 3PDT, LED	OMRON	LY3N-AC24
23	1	RELAY BASE, 3PDT	OMRON	PTF11A
24	1	RELAY, 24 VDC, 4PDT, LED	OMRON	LY4N-DC24
25	1	RELAY BASE, 4PDT	OMRON	PTF14A
26	1	120:24VAC TRANSFORMER, 100 VA	HAMMOND	-

NOTES

- WHERE MANUFACTURER AND MODEL ARE SPECIFIED, SUBSTITUTIONS MUST BE APPROVED.
- ALL 120 VAC POWER WIRING TO BE TEW/MTW 600V, 105°C INSULATION, STRANDED COPPER, 14 AWG OR LARGER WHERE CURRENT REQUIREMENTS DICTATE AS PER CEC REQUIREMENTS.
- ALL 24 VAC/VDC 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 WIRING TO BE 18 AWG SHIELDED TWISTED PAIR, WITH INSULATION RATED AT 300V OR HIGHER.
- 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.
- 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.
- ALL TERMINAL BLOCKS SHALL BE NUMBERED AS SHOWN IN THE DRAWINGS, COMPLETE WITH GROUP LABELING.
- ALL WIRES SHALL BE MARKED AS INDICATED ON THE DRAWINGS.



NO.	REVISIONS	DATE	DESIGN	CHECK
00	ISSUED FOR TENDER, BID OPP. 767-2016	2016/08/23	BJC	FA

**SNC-LAVALIN INC.**  
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 Winnipeg, MB, Canada R3P 0X7  
 204-786-8080

DESIGNED BY: B. CLEVEN  
 CHECKED BY: F. ATAEI  
 DRAWN BY: Y. KONIG  
 APPROVED BY: I. PARKINSON  
 SCALE: 1:3  
 ISSUED FOR CONSTRUCTION BY: K. ZUREK  
 DATE: 2016/06/30  
 DATE: 2016-08-29

CONSULTANT NO.:

ENGINEER'S SEAL  
 ORIGINAL DRAWING  
 SEALED BY:  
 B. J. CLEVEN  
 SNC-LAVALIN INC.  
 MEMBER #31479  
 2016-08-29  
 REV. 00

**THE CITY OF WINNIPEG**  
 WATER AND WASTE DEPARTMENT

ROUTE 90 UNDERPASS PUMPING STATION  
 2016 UPGRADES  
 PANEL LAYOUT  
 VENTILATION PANEL JBA-U86

CITY DRAWING NUMBER: 1-0310U-A0020  
 SHEET: 001  
 REV.: 00  
 SIZE: A1