1 – EXTERIOR PANEL VIEW
SCALE:1:2

2 – INTERIOR PANEL VIEW
SCALE:1:2

BILL OF MATERIALS				
ITEM	QTY	DESCRIPTION	MANUFACTURER	MODEL No.
1	1	SINGLE DOOR WALL MOUNTED TYPE 12 & 13 ENCLOSURE	HOFFMAN	A302006LP
2	1	BACK PAN	HOFFMAN	A30P20
3	1	MINIATURE CIRCUIT BREAKER, 5A, 1P, DIN RAIL MOUNTED	EATON	FAZ–D5/1–NA–SP
4	1	120:24VAC TRANSFORMER, 200VA	SQUARE D	9070T200D13
5	AS REQ'D	LAMACOID, WHITE PLATE WITH BLACK TEXT	–	–
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, 1.25"X3.12" GREY	PANDUIT	–
15	AS REQ'D	TERMINAL BLOCK MARKER	PHOENIX CONTACT	1004348
16	AS REQ'D	KNIFE DISCONNECT TERMINAL	PHOENIX CONTACT	3046139
17	3	RELAY, 24VAC, DPDT, LED INDICATOR	OMRON	LY2N 24AC
18	3	RELAY BASE, FOR ITEM 17	OMRON	PTF08A–E

GENERAL NOTES:

1. WHERE MANUFACTURER AND MODEL ARE SPECIFIED, SUBSTITUTIONS MUST BE APPROVED.
2. ALL 120VAC POWER WIRING TO BE TEW/MTW 600V, 105°C INSULATION, STRANDED COPPER, #14AWG OR LARGER WHERE CURRENT REQUIREMENTS DICTATE AS PER CEC REQUIREMENTS.
3. ALL 24VAC POWER WIRING TO BE TEW/MTW 300V OR HIGHER, 105°C INSULATION, STRANDED COPPER, #12AWG OR LARGER WHERE CURRENT REQUIREMENTS DICTATE AS PER CEC REQUIREMENTS.
4. ALL CONTROL WIRING TO BE TEW/MTW 300V OR HIGHER, 105°C INSULATION, STRANDED COPPER, #16AWG.
5. ALL ANALOG WIRING TO BE #18AWG SHIELDED TWISTED PAIR, WITH INSULATION RATED AT 300V OR HIGHER.
6. EXTERNAL COMPONENTS ARE TO BE LABELED AS SHOWN ON THE DRAWINGS.
7. ALL FUSES ARE TO BE PROVIDED. IN ADDITION, TWO SPARES OF EACH FUSE SIZE ARE TO BE PROVIDED.
8. ALL MAJOR COMPONENTS INSIDE THE PANEL ARE TO BE LABELED WITH LAMACOIDS IN ACCORDANCE WITH MAJOR DESCRIPTIONS ON THE DRAWINGS.
9. PROVIDE WIRE BARREL FERRULES FOR ALL WIRING.
10. ALL TERMINAL BLOCKS SHALL BE NUMBERED AS SHOWN IN THE DRAWINGS, COMPLETE WITH GROUP LABELING.
11. ALL WIRES SHALL BE MARKED AS INDICATED ON THE DRAWINGS.
12. REFER TO POWER DISTRIBUTION AND LOOP DRAWINGS FOR INTERNAL WIRING REQUIREMENTS. SEE DRAWINGS 1–0162L–A0019–001, 1–0162L–A0026–001, 1–0162L–A0027–001, AND 1–0162L–A0030–001.

NO.	DRAWING NUMBER	REFERENCE DRAWING TITLE
10	–	–
9	–	–
8	–	–
7	–	–
6	–	–
5	1–0162L–A0030–001	LOOP DIAGRAM HVAC DAMPERS AND SUPPLY FAN FV–L641, FV–L642, & FV–L651
4	1–0162L–A0027–001	LOOP DIAGRAM DUCT TEMPERATURE SENSOR AND DUCT HEATER TE–L600, HCE–L61
3	1–0162L–A0026–001	LOOP DIAGRAM STATION OCCUPIED LIGHT SWITCH HS–L600
2	1–0162L–A0019–001	AUTOMATION POWER DISTRIBUTION SCHEMATIC HVAC VENTILATION PANEL JBA–L83
1	1–0162L–A0001–001	AUTOMATION PLAN LAYOUT MAIN FLOOR

REFERENCE DRAWINGS

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
KGS Group
No. 245

B.M.
ELEV.

NO.	REVISIONS	DATE (YYYY/MM/DD)	BY
0	ISSUED FOR CONSTRUCTION	2023 03 24	DDW

KGS GROUP

DESIGNED BY	A. NIRMAL	CHECKED BY	DDW
DRAWN BY	R. GASPAR	APPROVED BY	DDW
SCALE: HORIZONTAL	NTS	RELEASED FOR CONSTRUCTION	
VERTICAL	NTS		
DATE	2022/08/24	DATE	

PLOT DATE: 2023 03 23

ENGINEER'S SEAL
PROVINCE OF MANITOBA
D. WILSON
Member
22552
2023-03-23
REGISTERED PROFESSIONAL ENGINEER

CONSULTANT DRAWING NUMBER
22–0107–004–A18.01

BID OPPORTUNITY: 864-2022

Winnipeg

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
ENGINEERING DIVISION

METCALFE LIFT PUMPING STATION
2022 UPGRADES
AUTOMATION

PANEL LAYOUT & BILL OF MATERIALS
HVAC VENTILATION PANEL JBA–L83

CITY DRAWING NUMBER 1–0162L–A0018–001

SHEET 23 OF 109

FILE PATH: P:\Projects\2022\22-0107-004\Dwg\Elec\
FILE NAME: 1-0162L-A0018-001.dwg