



**NOTES:**

1. WHERE MANUFACTURER AND MODEL ARE SPECIFIED, SUBSTITUTIONS MUST BE APPROVED.
2. 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.
3. 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.
4. ALL CONTROL WIRING TO BE TEW/MTW 300V OR HIGHER, 105°C INSULATION, STRANDED COPPER, 16 AWG.
5. ALL ANALOG WIRING TO BE 18 AWG 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 FERULES 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.

**EXTERIOR PANEL VIEW**

SCALE: 1 : 2

**INTERIOR PANEL VIEW**

SCALE: 1 : 2

**BILL OF MATERIAL**

| ITEM | QTY      | DESCRIPTION   | MANUFACTURER    | CATALOG NUMBER              |
|------|----------|---|-----------------|-----------------------------|
| 1    | 1        | SINGLE-DOOR TYPE 12 & 13 WALL-MOUNTED ENCLOSURE       | HOFFMAN         | A242006LP                   |
| 2    | 1        | BACKPAN   | HOFFMAN         | A24P20                      |
| 3    | 1        | MOULDED CASE CIRCUIT BREAKER, 2 AMP, DIN RAIL MOUNTED | PHOENIX CONTACT | TMC 1 F1 100 2,0A (0914099) |
| 4    | 1        | 120:24VAC TRANSFORMER, 100 VA                         | -               | -                           |
| 5    | 2        | GROUND BAR, 6 TAPS                                    | ILSCO           | D167-6                      |
| 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" 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   | 2        | RELAY, 24VAC, DPDT                                    | OMRON           | LY2N AC24                   |
| 18   | 2        | RELAY BASE  | OMRON           | PTF08A-E                    |



| NO. | REVISIONS                           | DATE       | DESIGN | CHECK |
|-----|-------------------------------------|------------|--------|-------|
| 00  | ISSUED FOR TENDER, BID OP. 331-2016 | 2016/05/05 | BJC    | FA    |

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 APPROVED BY: I. PARKINSON  
 SCALE: 1:2  
 ISSUED FOR CONSTRUCTION BY: K. ZUREK  
 DATE: 2016/02/03  
 DATE: 2016/05/06

CONSULTANT NO.:

ENGINEER'S SEAL  
 ORIGINAL DRAWING  
 SEALED BY:  
 B. CLEVEN  
 SNC-LAVALIN  
 MEMBER #31479  
 2016/05/06  
 REV. 00

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

COCKBURN FLOOD AND WASTEWATER PUMPING STATION  
 2016 UPGRADES  
 PANEL LAYOUT  
 VENTILATION PANEL JBA-A84

|                     |       |      |      |
|---------------------|-------|------|------|
| CITY DRAWING NUMBER | SHEET | REV. | SIZE |
| 1-0127A-A0024       | 001   | 00   | A1   |