

CHLORINE BUILDING - ELECTRICAL PLAN LAYOUT (AT GALLERY LEVEL)

CHLORINE BUILDING ELECTRICAL AREA /- 'C' CRIMP COMPRESSION ~ 4/0 AWG, RWU90, GN INSULATED CONDUCTOR CONNECTION (TYP.) SEE DETAIL 2, THIS DWG. IN 35mm CONDUIT TO BUILDING PERIMETER GROUNDING SYSTEM GROUND CONDUCTORS / ELECTRODES -SEE DWG. 1-0640M-E0045 6 AWG — 6 AWG — RW90, GN RW90, GN XFMR-C731E XFMR-C711 . . \_\_\_ , \_\_\_ , \_\_\_ , \_\_\_ , \_\_\_ , \_\_\_ , \_\_\_ , \_\_\_ , \_\_\_ , \_\_\_ , \_\_\_ , \_\_\_ , \_\_\_ , \_\_\_ , \_\_\_ , \_\_\_ , \_\_\_ , \_\_\_ , EQUIPMENT GROUNDING CONNECTION

4/0 AWG, RWU90, ---GN INSULATED, STRANDED, SOFT DRAWN COPPER CONDUCTOR - WALL MOUNT -BRACKET EXTEND BARE COPPER CONDUCTOR AND SUPPORTS FOR MINIMUM DISTANCE OF 1000mm (EXTEND AS REQUIRED TO SUIT THE CONNECTIONS) CABLE GLAND -CONNECTION INSULATION REMOVED -- 6 AWG OR LARGER, GN OR GN/YL STRIPES INSULATED, STRANDED, SOFT DRAWN COPPER CONDUCTOR EMT OR RIGID PVC AS APPLICABLE. RIGID PVC ONLY IN TANK AND EQUIPMENT ROOM

GROUND CONNECTION POINT DETAIL (TYP).

# **CONSTRUCTION NOTES:**

- NOT ALL ELECTRICAL EQUIPMENT ARE SHOWN. REFER TO DRAWING 1-0640C-E0005 FOR COMPLETE LAYOUT.
- SYSTEM GROUND CONDUCTOR TO BE MOUNTED ON THE WALL AT APPROXIMATELY 2500MM ABOVE FLOOR. SEE DETAIL 1 AND 2 ON THIS SHEET FOR EQUIPMENT GROUNDING CONNECTION.
- PROVIDE GROUND CONNECTION FROM SYSTEM GROUND TO NEW TRANSFORMER'S XO TERMINAL.
- PROVIDE THREE RUNS OF 4/O BONDING CABLES IN SEPARATE CONDUITS FROM PERIMETER GROUND AT MAIN PUMPHOUSE TO CHLORINE BUILDING MCC.
- PROVIDE LAMACOID TAG ON WALL, ABOVE THE GROUND CONDUCTORS INDICATING "SYSTEM GROUND".

### GENERAL NOTES:

- 1. CONNECTIONS TO PERIMETER GROUNDING CONDUCTORS SHALL BE 'C' CRIMP PRESSURE CONNECTION OR EXOTHERMIC WELD. ALL COMPRESSION CONNECTIONS SHALL UTILIZE PENETROX JOINT
- 2. ALL GROUNDING CONDUCTOR SHALL BE STRANDED, SOFT DRAWN
- 3. (REFER TO SPECIFICATION 26 05 34 FOR CONDUIT TYPE. )
- 4. ALL WIRES/CABLES SHALL BE RUN IN CONDUIT. SIZE CONDUITS IN ACCORDANCE WITH THE CEC.
- 5. NOT ALL BOND CONNECTION ARE SHOWN. PERFORM AS A MINIMUM BONDING IN ACCORDANCE WITH THE CANADIAN ELECTRICAL CODE.

## LEGEND:

----- GROUNDING CONDUCTOR (ABOVE GRADE / INSIDE OF BUILDING)

EQUIPMENT GROUND CONNECTION

- THIS DRAWING SUPERCEDES PART OF DRAWING Q-MCP-186. SPACE FOR NEW EQUIPMENT IS LIMITED. ENSURE EQUIPMENT PROVIDED FITS IN AVAILABLE
- SPACE AND MEETS APPLICABLE CODES AND STANDARDS. 3. ALL EQUIPMENT ARE NEW UNLESS SPECIFICALLY STATED OTHERWISE.

WHOLE NUMBERS INDICATE MILLIMETRES DECIMALIZED NUMBERS INDICATE METRES 0.0 0.2 0.4 0.8 1:20

APEGIN Certificate of Authorization SNC-Lavalin Inc. No. 4489

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01	ISSUED FOR ADDENDUM 5	2020/01/27	VE	VE	DATE: 2019/08/28	DATE: 2019/10/18	2
00	ISSUED FOR TENDER AND CONSTRUCTION	2019/10/18	VE	KS	CONSULTANT NO.:		1
NO.	REVISIONS	DATE	DESIGN	CHECK			L

NGINEER'S SEAL ELIMBAN Member 34636

#### THE CITY OF WINNIPEG Winnipeg WATER AND WASTE DEPARTMENT

MCPHILLIPS PUMPING STATION ELECTRICAL AND HVAC UPGRADES, MCC REPLACEMENT ELECTRICAL GROUNDING DETAILS CHLORINE BUILDING

SHEET REV. SIZE CITY DRAWING NUMBER 1-0640C-E0011 1-0640C-E0011-001-01.dwg

ELECTRICAL — HAZARDOUS LOCATION, CHLORINE BLDG GROUND LEVEL I-0640C-E0012 ELECTRICAL GROUNDING LAYOUT, MAIN FLOOR PLAN ELECTRICAL GROUNDING, INSTALLATION DETAILS ELECTRICAL EQUIPMENT PLAN, CHLORINE BUILDING

PANEL LAYOUT, MCC-C710/MCC-C720E LOCATION PLAN ELECTRICAL SINGLE LINE DIAGRAM MCC-C710/MCC-C720E 1-0640C-E0003

REFERENCE DRAWINGS

I-0640C-E0005

SCALE: 1 : 20

1-0640M-E0045 I-0640M-E0043 1-0640C-E0007

DRAWING NUMBER