

GENERAL NOTES:

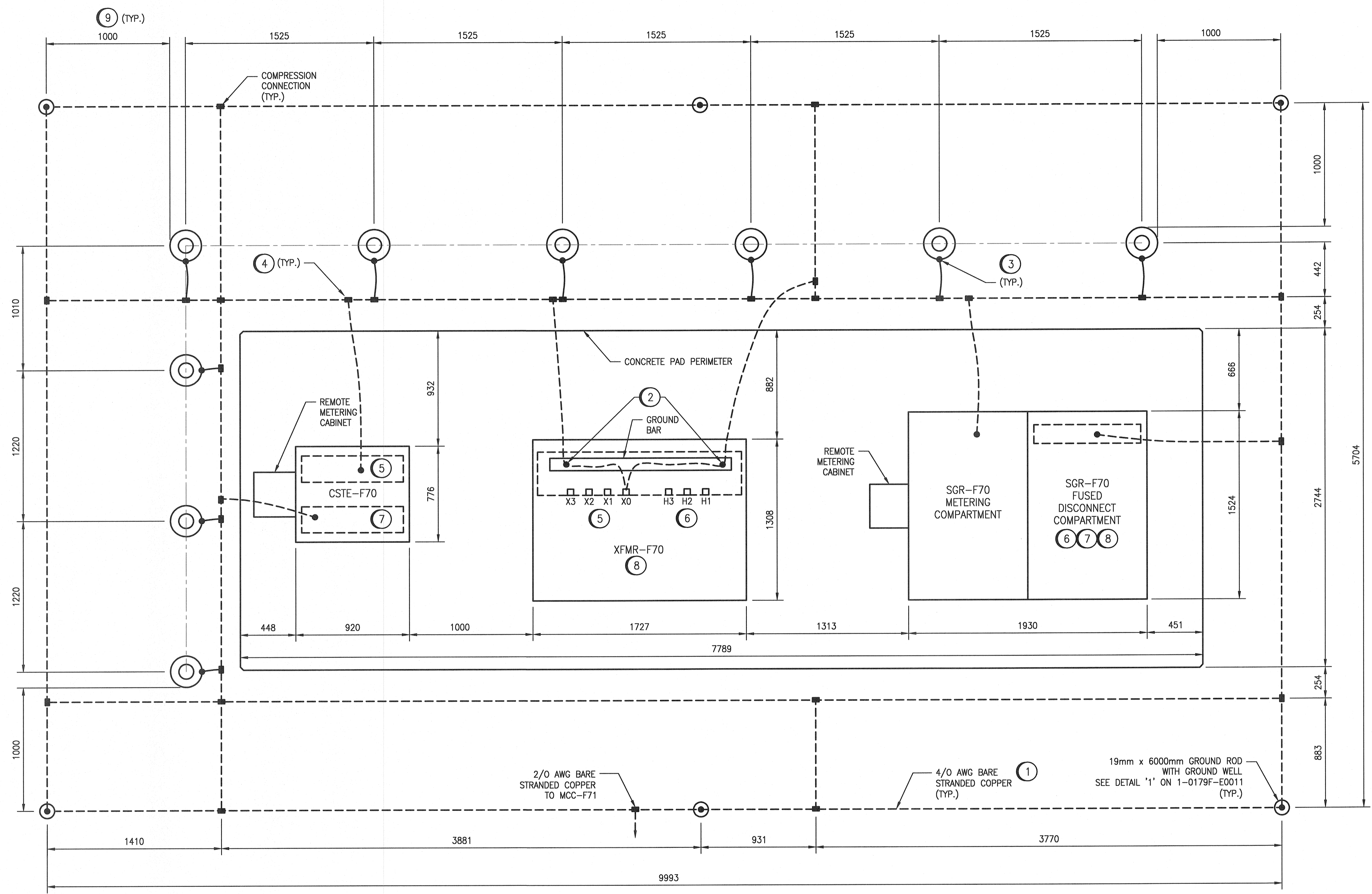
1. COORDINATE EXACT LOCATION OF CONDUITS WITH EQUIPMENT SHOP DRAWINGS PRIOR TO CONCRETE POUR.
2. TRANSFORMER CLEARANCES SHALL BE IN ACCORDANCE WITH CEC RULE 26-242(2)(b)(i).
3. PERIMETER BURIED GROUND CABLE AND GROUND RODS SHALL BE INSTALLED AS PER DETAILS 1 AND 2 ON DRAWING 1-0179F-E0011.
4. ALL GROUND CABLES SHALL BE BARE 4/0 AWG, COPPER, UNLESS OTHERWISE INDICATED.
5. ALL SURFACE RUN CABLEING SHALL BE PHYSICALLY PROTECTED BY EMBEDDING THE CABLE WITHIN THE CONCRETE SLAB, BY DIRECT BURIAL OR BY SURFACE RUN CONDUIT. EXPOSED GROUND CABLES LAID IN TRAFFIC AREAS SUCH AS WALKWAYS OR LAND ON THE CONCRETE SLAB ARE NOT ACCEPTABLE.
6. EQUIPMENT DOOR OPENINGS ARE NOT SHOWN FOR CLARITY.
7. ALL 4160 AND 600 VAC POWER CABLING AND CONDUIT IS NOT SHOWN FOR CLARITY.

CONSTRUCTION NOTES

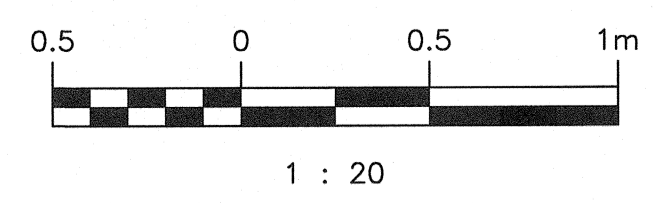
- ① ALL PERIMETER GROUND CABLES SHALL BE BURIED BELOW FINISHED GRADE. ALL BELOW GRADE CONNECTIONS SHALL BE COMPRESSION OR CADWELDED. REFER TO DRAWING 1-0179F-E0011 FOR FURTHER DETAILS.
- ② CONNECTIONS TO TRANSFORMER GROUND BUS BAR SHALL USE A FEED-THROUGH COMPRESSION CONNECTOR ON GROUND BAR.
- ③ PROVIDE GROUND CONNECTION TO GUARD POST. GROUND CABLE SHALL BE BOLTED ON A WELDED STEEL TAB USING 2-HOLE NEMA LONG BARREL COMPRESSION LUGS.
- ④ PROVIDE 4/0 AWG BARE COPPER GROUND RUN IN 53mm ϕ CONDUIT SLEEVE FROM ELECTRICAL EQUIPMENT TO GROUND GRID. PROVIDE TWO GROUNDING CONNECTIONS FOR EACH PIECE OF EQUIPMENT. EQUIPMENT SHALL BE GROUNDED TO TWO DIFFERENT GROUNDING CONDUCTOR RUNS.
- ⑤ PROVIDE MINIMUM THREE (3) 103mm ϕ CONDUITS EMBEDDED IN CONCRETE SLAB FOR SECONDARY CABLES FROM TRANSFORMER XFMR-F70 TO CSTE-F70 CABINET. DETERMINE EXACT LOCATION FROM THE SHOP DRAWINGS OF THE TRANSFORMER AND CSTE. PROVIDE WATERPROOF SEALING OF CABLES AFTER INSTALLATION.
- ⑥ PROVIDE 103mm ϕ CONDUIT EMBEDDED IN CONCRETE SLAB FOR PRIMARY CABLE FROM THE SKV SWITCHGEAR SGR-F70 FUSIBLE DISCONNECT TO TRANSFORMER XFMR-F70. DETERMINE EXACT LOCATION FROM THE SHOP DRAWINGS OF THE TRANSFORMER AND SKV SWITCHGEAR. PROVIDE WATERPROOF SEALING OF CABLES AFTER INSTALLATION.
- ⑦ THE CONDUIT SLEEVES FOR INCOMING AND OUTGOING CABLING SHALL BE EXTENDED 500mm PAST THE EDGE OF THE CONCRETE PAD AND BE SEALED AROUND THE CABLING.
- ⑧ PROVIDE AND INSTALL WARNING SIGNS IN ACCORDANCE WITH CSA 22.1, RULE 36-006.
- ⑨ PERIMETER GROUND CABLEING SHALL BE INSTALLED 1000mm BEYOND THE OUTER EDGE OF EACH GUARD POST.

LEGEND:

- GUARD POST 120mm ϕ x 1500mm FILLED WITH CONCRETE AS PER CITY OF WINNIPEG DRAWING SCD-135 AND COMPLETE WITH YELLOW PLASTIC BOLLARD COVER.
- 4/0 AWG BARE STRANDED COPPER GROUND CABLE
- 600mm LONG (19mm ϕ) COPPER CLAD GROUND ROD WITH GROUND WELL
- CABLE COMPRESSION CONNECTION
- CADWELD OR SERVIT CONNECTION



SERVICE EQUIPMENT LAYOUT
SCALE: 1 : 20

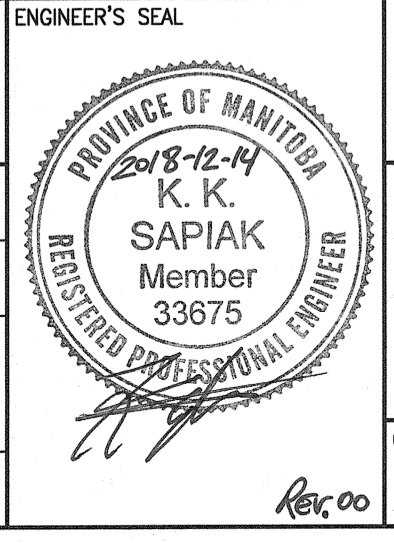


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1-0179F-E0011	GROUNDING INSTALLATION DETAILS
1-0179F-E0006	ELECTRICAL INSTALLATION DETAILS 600 VAC POWER CABLING
1-0179F-E0004	ELECTRICAL SITE PLAN
1-0179F-E0003	ELECTRICAL SINGLE LINE DIAGRAM
DRAWING NUMBER	REFERENCE DRAWINGS

00	ISSUED FOR TENDER AND CONSTRUCTION	2018/12/14	KS	BC
NO.	REVISIONS	DATE	DESIGN	CHECK

DESIGNED BY: K. SAPIAK	CHECKED BY: B. CLEVEN
DRAWN BY: Y. KONIG	APPROVED BY: B. CLEVEN
SCALE: 1 : 20	ISSUED FOR CONSTRUCTION BY: K. ZUREK
DATE: 2018/06/28	DATE: 2018/12/14
CONSULTANT NO.:	



THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT			
ROLAND FLOOD PUMPING STATION 2019 UPGRADES ELECTRICAL INSTALLATION DETAILS SERVICE EQUIPMENT			
CITY DRAWING NUMBER	SHEET	REV.	SIZE
1-0179F-E0005	001	00	A1