

GENERAL GROUNDING NOTES:

1. ELECTRICAL GROUNDING INSTALLATION SHALL COMPLY WITH THE:
 - CANADIAN ELECTRICAL CODE PART I C22.1-98
 - CANADIAN STANDARDS ASSOCIATION (CSA);
 - ELECTRICAL AND ELECTRONIC MANUFACTURERS ASSOCIATION OF CANADA (EEMAC)
 - FACTORY MUTUAL RECOMMENDATIONS
 - MINE HEALTH AND SAFETY ACT OF NORTHWEST TERRITORIES.
2. DIMENSIONS ARE IN METRIC
3. FOR STANDARD SYMBOLS AND LEGEND SEE DWG. 0000-47DA-9004
4. MAIN PERIMETER GROUNDING CONDUCTORS SHALL BE #4/0 BARE STRANDED MEDIUM-HARD DRAWN COPPER, BURIED 750mm BELOW GRADE AND 1000mm FROM BUILDINGS UNLESS OTHERWISE NOTED.
5. GROUNDING CONDUCTORS SHALL BE INSTALLED PARALLEL TO THE PRINCIPAL BUILDING LINES AND WITHOUT SHARP BENDS.
6. BUILDING STEEL COLUMN GROUNDING CONDUCTORS SHALL BE #4/0 BARE STRANDED MEDIUM-HARD DRAWN COPPER UNLESS OTHERWISE NOTED. INSIDE COLUMNS TO BE BONDED AT EVERY 3RD COLUMN (WHERE THE COLUMN IS NOT A PART OF THE INTEGRAL BUILDING STRUCTURE), AND OUTSIDE COLUMNS TO BE BONDED TO THE BUILDING PERIMETER GROUND LOOP A EVERY 2ND COLUMN.
7. SUFFICIENT SLACK OF GROUNDING CONDUCTOR SHALL BE PROVIDED IN AREAS WHERE COMPACTION AND EXPANSION OF THE SURROUNDING FILL MATERIAL IS REQUIRED.
8. BUILDING STEEL STRUCTURES, HEAVY EQUIPMENT METAL STRUCTURES AND GROUNDING BUS BAR SHALL BE CONNECTED DIRECTLY TO THE MAIN GROUND LOOP.
9. GROUND RODS INSTALLED IN ROCK SHALL BE SET IN 4" DIA. DRILLED HOLES BACKFILLED WITH A GROUNDING ENHANCEMENT MATERIAL "GEM" FROM ERICO PRODUCTS INC. AVAILABLE IN 25LB BAGS.
10. GROUNDING CONDUCTORS IN CORROSIVE AREA SHALL BE INSULATED. EXPOSED CONNECTIONS SHALL BE PRIMED AND PAINTED WITH TWO COATS OF EPOXY PAINT. REFER TO DRAWINGS FOR DESIGNATED CORROSIVE AREAS.
11. BEFORE GROUNDING CONNECTIONS ARE MADE, ENSURE THAT METAL SURFACES ARE THOROUGHLY CLEAN AND PAINT FREE. BOLTED CONNECTION SURFACES SHALL BE COATED WITH PENETROX-E JOINT COMPOUND.
12. GROUNDING CONDUCTORS THROUGH CONCRETE SLABS OR STEEL PLATFORMS SHALL BE PROTECTED BY 25mm DIA. STEEL CONDUIT PROJECTING 150mm ABOVE AND BELOW.
13. GROUNDING CONDUCTOR RUNNING ALONG STEEL OR CONCRETE SURFACES SHALL BE SECURED IN PLACE USING I-HOLE GALVANIZED STEEL STRAPS SPACED AT 1.0m INTERVALS.
14. INSTALL #4/0 BARE COPPER IN 15kV, 5kV, AND MAIN 600V POWER FEEDER CABLE TRAYS. DISCONTINUOUS CABLE TRAYS SHALL BE BONDED TOGETHER.
15. MAJOR ELECTRICAL EQUIPMENT (I.E. TRANSFORMERS, SWITCHGEAR, UNIT SUBSTATIONS, MCC'S ETC.) SHALL BE BONDED TO BUILDING PERIMETER GROUNDING GRID VIA MINIMUM OF 2x# 4/0 BARE COPPER CONDUCTOR.



SECTION: ELECTRICAL	
SCALE: NONE	
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CUMBERLAND
RESOURCES

PERMIT TO PRACTICE
NISHI-KHON/SNC-LAVALIN LIMITED
Signature A.R. WACHMANN
Date MARCH 29 2001
PERMIT NUMBER: P 272
The Association of Professional Engineers,
Geologists and Geophysicists of the Northwest Territories



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SNC ♦ LAVALIN

REV.	DATE	REVISION DESCRIPTION	PREP. BY	APP'D
PA	01 MAY 06	ISSUED FOR FIRE MARSHAL INITIAL REVIEW	FR	RU
REVISIONS				

MEADOWBANK GOLD PROJECT
ELECTRICAL DESIGN STANDARDS
GROUNDING INSTALLATION DETAIL
GROUNDING NOTES

PROJECT NUMBER	DRAWING NUMBER	REV.
017202	2000-47D1-0002	PA

\$DATE\$
\$TIME\$
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