



NOTES

- ALL EARTH RODS AND EARTH MESH SHALL BE CONNECTED AS SHOWN WITH THE EARTHING TAIL BROUGHT UP AGAINST THE SWITCHING STATION WALL IN THE VICINITY OF THE EARTH BAR POSITION PRIOR TO POURING THE CONCRETE FLOOR.
- EARTH ELECTRODES SHALL BE EITHER 14MM DIAMETER STAINLESS STEEL RODS DRIVEN INTO THE GROUND OR BARE 70SQMM COPPER CABLES INSTALLED AS FOLLOWS:
 - USE 50MM DIAMETER AUGER TO BORE HOLES 3-5 METERS DEEP (DEEPER IS PREFERRED)
 - INSERT BARE COPPER CABLE INTO THE BORE HOLE. A EARTH STAKE MAY BE CRIMPED ONTO THE CABLE FOR EXTRA WEIGHT.
 - BACK FILL THE HOLE WITH A MIXTURE OF EARTHING COMPOUND AND WATER, RATIOS ARE 1 BAG EARTH COMPOUND TO 5L OF WATER.
- THE EARTHING SYSTEM SHALL HAVE A RESISTANCE NO GREATER THAN 1 OHM WITH ALL CMEN CONNECTIONS MADE.
- THE EARTHING SYSTEM SHALL HAVE A RESISTANCE NO GREATER THAN 30 OHMS WITH ALL CMEN CONNECTIONS REMOVED.
- THE MAIN EARTH BAR SHALL BE 50 x 6.3 HIGH CONDUCTIVITY COPPER BUS BAR, AS LONG AS REQUIRED, MOUNTED ON INSULATORS 25MM OFF THE WALL APPROXIMATELY 300MM ABOVE THE FINISHED FLOOR LEVEL, DRILLED WITH 14MM DIAMETER HOLES UNLESS OTHERWISE NOTED.
- PIT EARTH BAR SHALL BE DRILLED WITH 14MM DIAMETER HOLES TO SUIT SWITCHGEAR BANK CONFIGURATION UNLESS OTHERWISE NOTED. BUS BAR SHALL BE SINGLE PIECE 50 x 6.3 HIGH CONDUCTIVITY COPPER AND SHALL BE CONNECTED TO THE MAIN EARTH BAR AT BOTH ENDS OF THE SWITCHGEAR BANK VIA 70sqmm INSULATED CABLE.
- THE SWITCHING STATION'S EARTH NETWORK SHALL BE SEPARATED FROM ANY THIRD PARTY INSTALLATION AND METALWORK.
- ALL METAL GRATES SHALL BE BONDED TO THE EARTH GRID WITH 70sqmm FLEXIBLE COPPER CABLE WITH ENOUGH SLACK TO REMOVE THE GRATES FROM THE CABLE TRENCH WITHOUT REMOVING THE EARTH BOND.

ITEM	QTY	DESCRIPTION	STOCK CODE	DWG No.
12	AR	EARTH COMPOUND	400915	S02-1-5-02
11	AR	YELLOW/GREEN INSULATED 16SQMM COPPER CABLE	-	S02-1-1-23
10	AR	EARTH MESH	288415	-
9	2	COPPER COMPRESSION LUGS, 16SQMM	-	S02-1-2-11
7	7	COPPER COMPRESSION LUG, 70SQMM	5512	S02-1-2-11
6	4	'6' PROFILE COMPRESSION LINK, 70SQMM CABLE TO 14MM DIAMETER ROD	257394	S01-1-5-08
5	AR	YELLOW/GREEN INSULATED 70SQMM COPPER CABLE	401059	S02-1-1-23
4	AR	BARE 70SQMM COPPER CABLE	9803	S01-1-5-05
3	AR	COPPER BUS BAR, 50 x 6.3mm	3079	S01-1-5-06
2	8	'C' PROFILE COMPRESSION LINK 70SQMM	255786	S01-1-5-08
1	4	STAINLESS STEEL EARTH ROD, REFER NOTE 2	414060	S01-1-5-01

MATERIAL SCHEDULE

NO	DESCRIPTION	DRN	DATE	CKD	APPD
3	PIT EARTH BAR DETAILS AMENDED	P.H.	APR'18	B.V.	B.C.
2	ITEM 3 STOCK CODE CHANGED	A.T.	JUL'13	B.C.	B.C.
1	ITEM 8 REMOVED. NOTE 8 ADDED, NOTE 5, 6 CHANGED. SECOND LINK BETWEEN SWITCHGEAR AND EARTH BAR ADDED	A.T.	FEB'13	B.C.	B.C.
0	ISSUED FOR CONSTRUCTION	A.T.	SEP'12	V.T.	B.C.



DES	A. TAYLOR	POWER STANDARD DRAWING	
DRN	A. TAYLOR	INDOOR SWITCHING STATION EARTHING LAYOUT	
CKD	V. TANG		
APPD	B. CHEUNG	A3	DRAWING NUMBER S02-2-5-09
SCALE	AS SHOWN		
ISSUED	SEP' 2012	DRAFTING STANDARD TO A.S.1100	
ALL DIM.	IN mm		
CAD PRODUCT - DO NOT AMEND MANUALLY		AMDT	