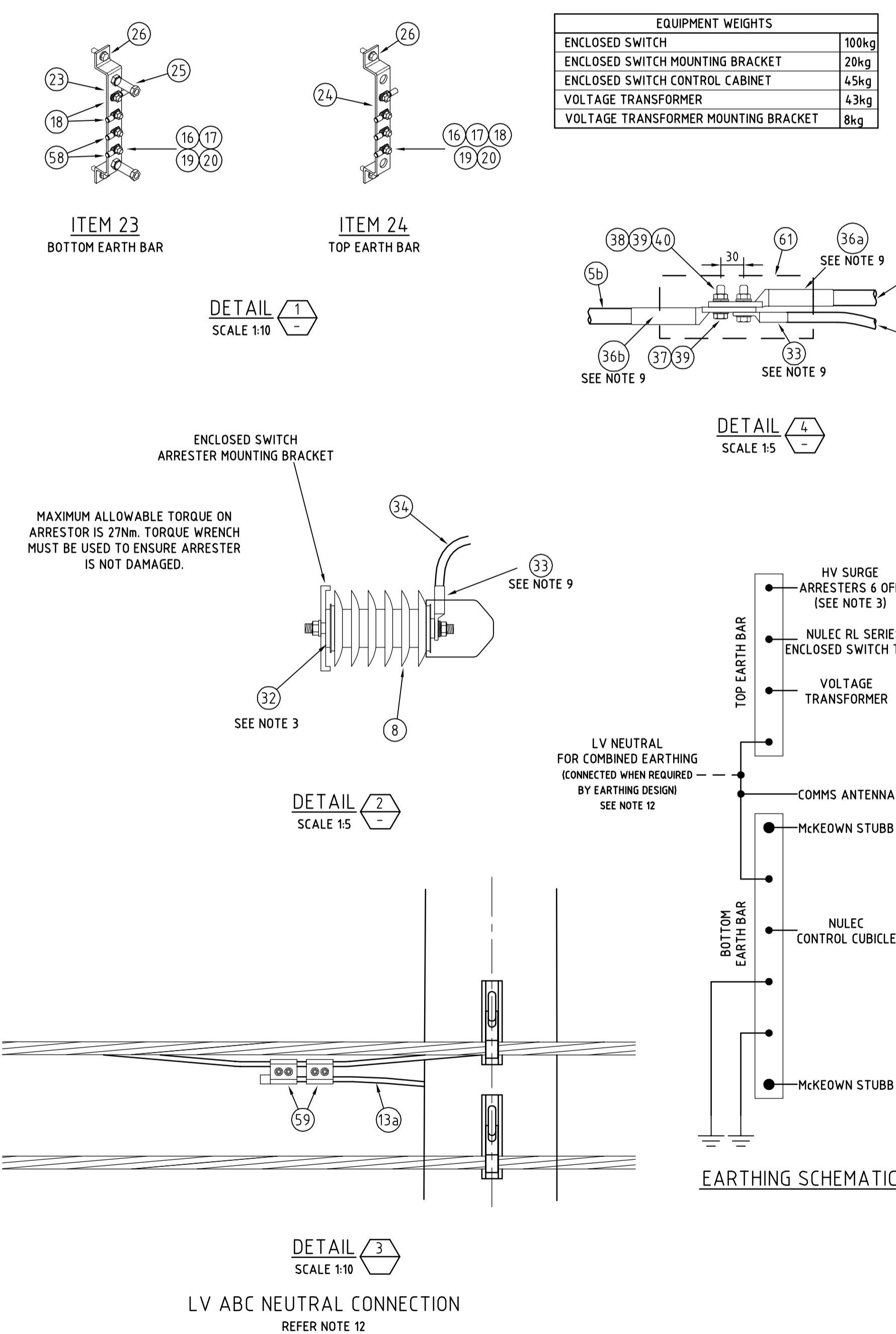
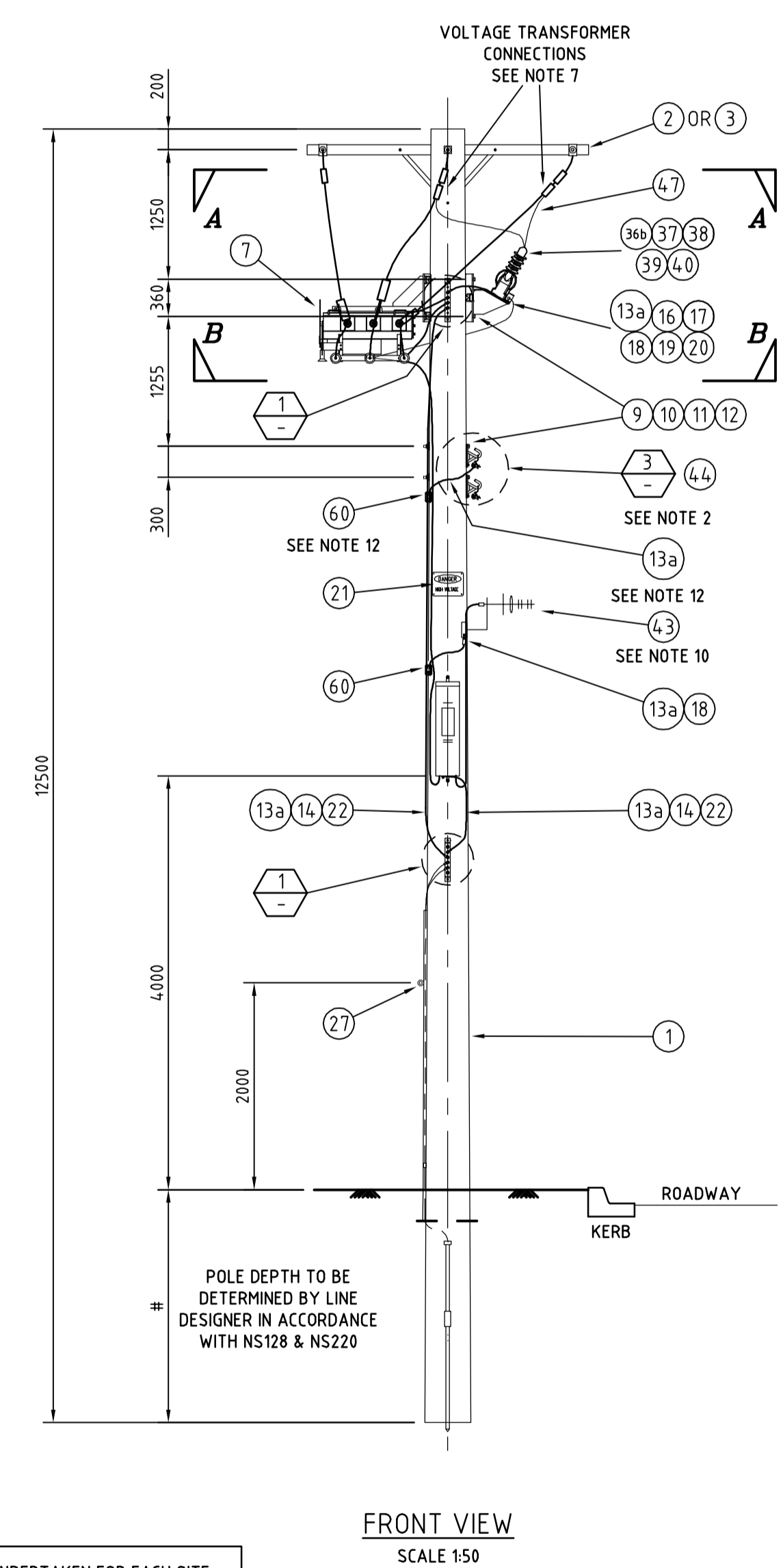
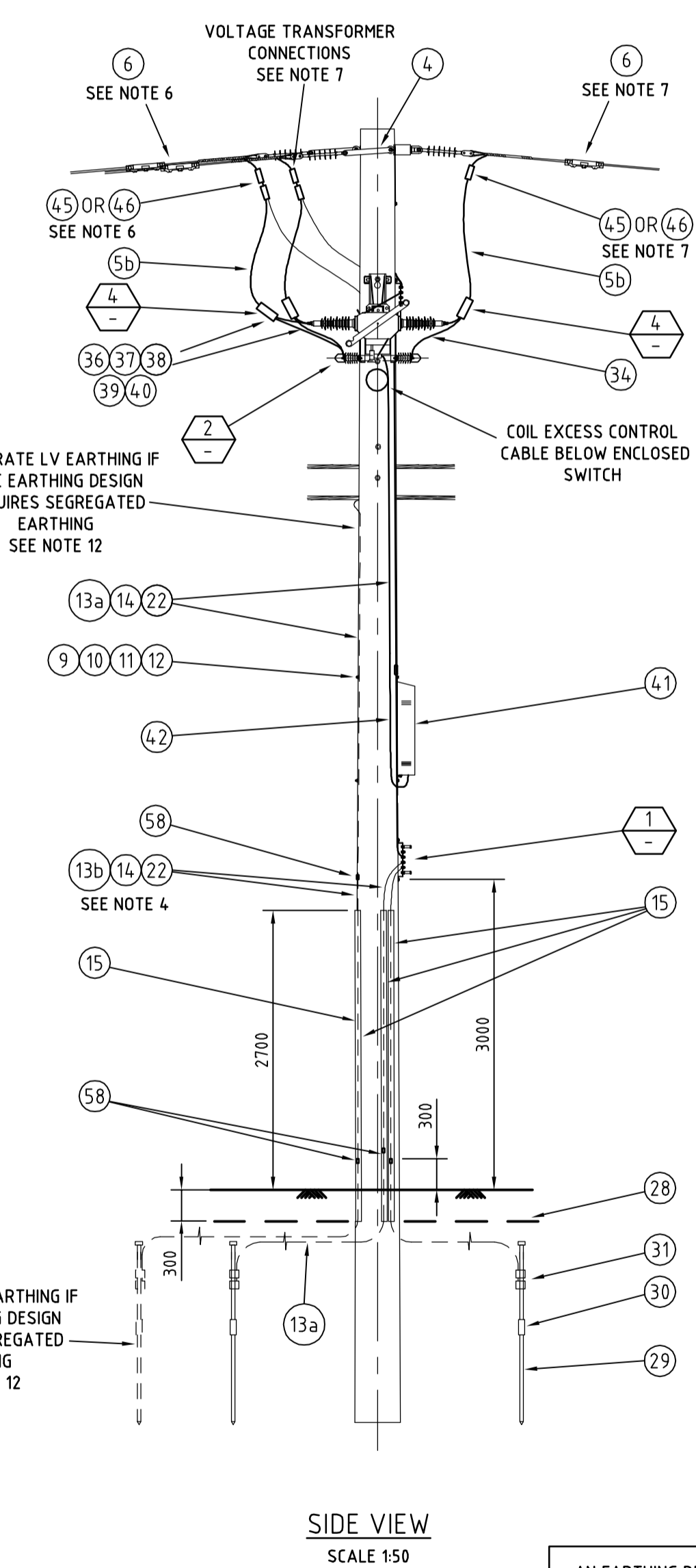
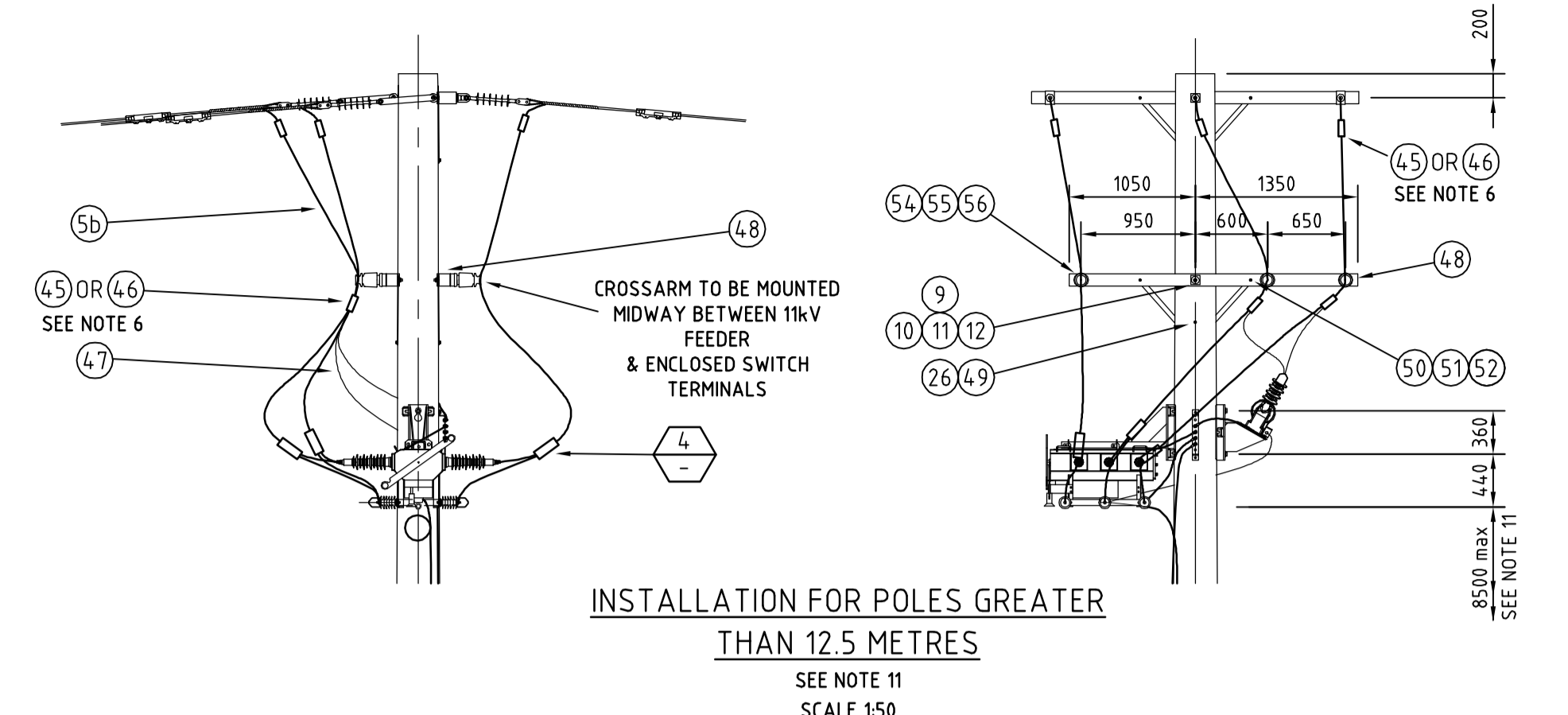
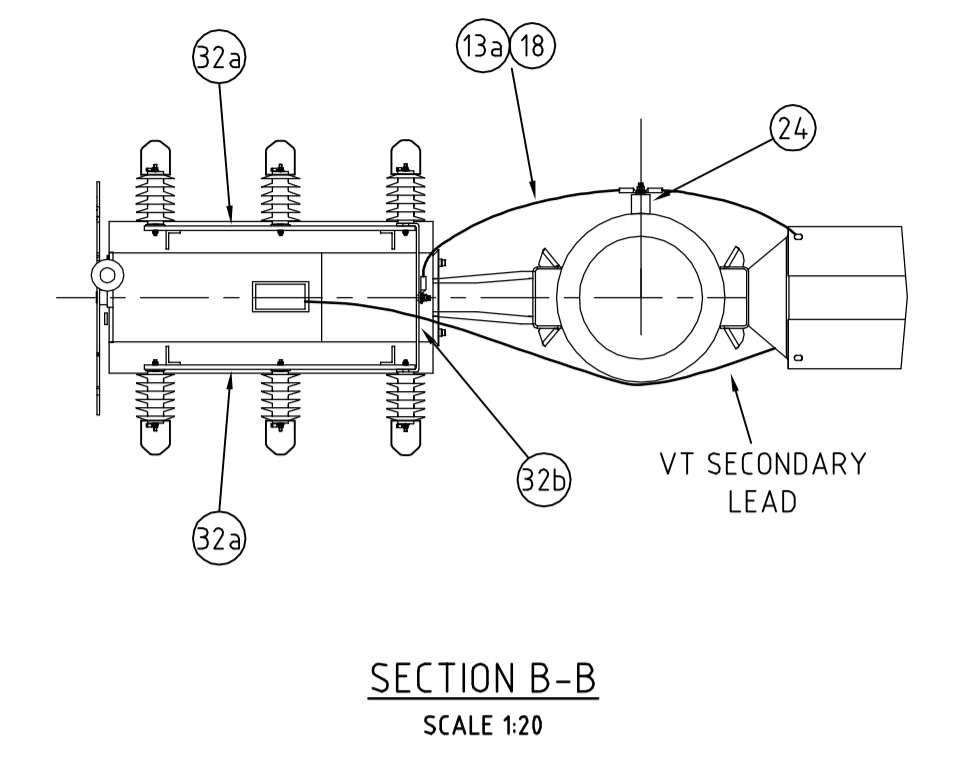
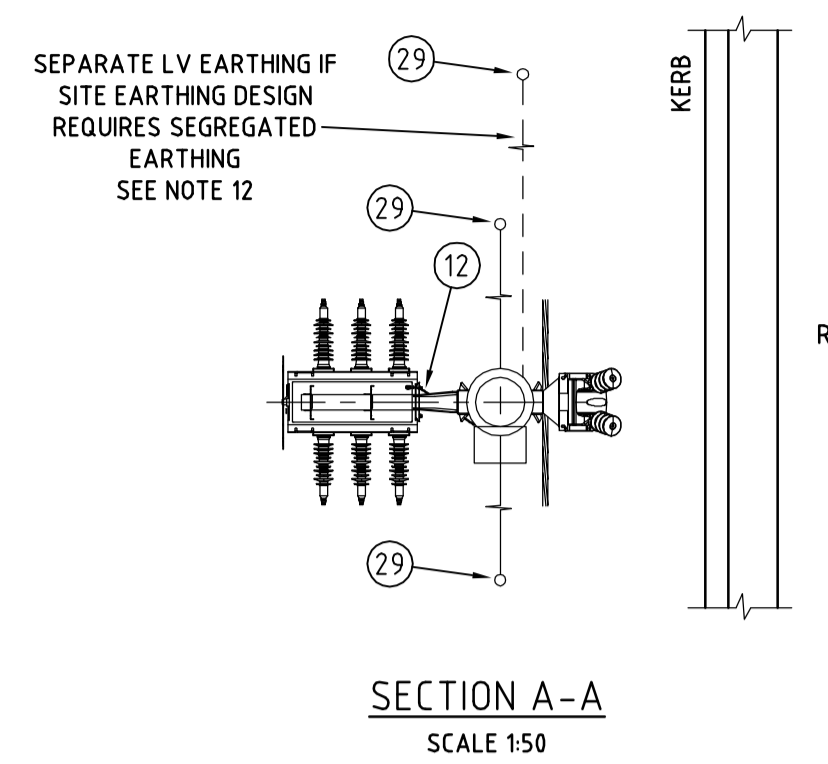


- NOTES**
- MINIMUM CLEARANCE 11kV TO EARTH IS TO BE GREATER THAN 200mm.
 - HV PHASE TO PHASE CLEARANCE IS TO BE GREATER THAN 280mm.
 - LV ATTACHMENT POINT IS TO BE DETERMINED BASED ON GROUND CLEARANCE REQUIREMENTS WHILST GIVING CONSIDERATION TO AUSGRID'S ELECTRICAL SAFETY RULES MINIMUM SAFE WORKING DISTANCES. STAND-OFF BRACKETS FOR LV ABC (STOCKCODE 147256) CAN BE USED TO MAINTAIN OR INCREASE SAFE WORKING CLEARANCES. ABC FUSE/LINK SWITCHES SHOULD BE LOCATED ON AN ADJACENT POLE. SEE NOTE 11 FOR FURTHER DETAILS.
 - HV SURGE ARRESTORS ARE TO BE EARTHED VIA THE EARTH BAR ARRANGEMENT (ITEM 32). THE EARTH BAR IS BE ELECTRICALLY BONDED TO MAIN EARTH CONDUCTOR USING 70mm² PVC INSULATED CONDUCTOR (ITEM 13).
 - 95mm² ALUMINIUM EARTH CONDUCTORS SHALL BE USED FROM THE BOTTOM EARTH BAR TO 300mm ABOVE GROUND WHERE 70mm² COPPER EARTH CONDUCTORS WILL BE EXTENDED VIA BIMETALLIC LINKS TO THE EARTH ELECTRODES. THE BIMETALLIC LINKS ARE TO BE STAGGERED UNDER THE CABLE COVER.
 - DANGER SIGNS TO BE INSTALLED ON BOTH FRONT AND REAR OF POLE. SIGNS MUST BE BENT AROUND POLE BEFORE SECURING.
 - WHERE CCT MAINS ARE USED, STANDARD EARTHING POINTS AND COVERS ARE TO BE INSTALLED AS DETAILED IN NS126.
 - THE VOLTAGE TRANSFORMER IS TO BE CONNECTED TO THE LINE SIDE OF THE ENCLOSED SWITCH WHEN THE SYSTEM IS CONFIGURED NORMALLY ALTHOUGH THIS IS NOT MANDATORY.
 - THE ENCLOSED SWITCH IS TO BE LABELLED IN ACCORDANCE WITH NS158 TABLE 4.6 - 'RECLOSERS & SECTIONALISERS'. THE POLE NUMBER IS TO BE INSTALLED IN ACCORDANCE WITH NS14.8.
 - INSTALL MEDIUM WALLED MASTIC LINED BLACK HEATSHRINK OVER THE BARE LUG BARREL AND CABLE INSULATION. AN EXTERNAL ANTENNA CAN BE INSTALLED WHERE REQUIRED. THE ACTUAL LOCATION OF THE ANTENNA ON THE POLE IS TO BE DETERMINED DURING INSTALLATION OF COMMUNICATION EQUIPMENT. THE LOCATION IS ALWAYS TO COMPLY WITH THE MINIMUM SAFE WORKING DISTANCES SPECIFIED IN AUSGRID'S ELECTRICAL SAFETY RULES.
 - FOR POLES GREATER THAN 12.5 METRES THE ARRANGEMENT ABOVE THE ENCLOSED SWITCH SHOULD BE AS PER THE DETAIL SHOWN. THE SWITCH CAN BE MOUNTED UP TO 8.5 METRES ABOVE THE GROUND. IF A GREATER MOUNTING HEIGHT IS REQUIRED TO MAINTAIN CLEARANCES, LOCAL OPERATING STAFF WILL NEED TO BE CONSULTED.
 - IF THE SITE SPECIFIC EARTHING DESIGN REQUIRES THE LV MAINS NEUTRAL TO BE CONNECTED TO THE ENCLOSED SWITCH EARTHING SYSTEM, DETAIL 3 SHOULD BE USED FOR THE CONNECTION. IF TWO LV MAINS CABLES ARE ON THE POLE, ONLY ONE SERVICE IS TO BE CONNECTED. FOR A COMBINED EARTHING SYSTEM A CONNECTION IS TO BE MADE VIA ITEM 60 AS SHOWN. FOR A SEGREGATED EARTHING SYSTEM THE CABLE SHOWN IN DETAIL 3 AS ITEM 33a IS TO BE RUN DOWN THE POLE USING COPPER AND ALUMINIUM CABLES AS PER NOTE 4 TO A SEPARATE LV EARTH ROD SYSTEM.



EQUIPMENT WEIGHTS

ENCLOSED SWITCH	100kg
ENCLOSED SWITCH MOUNTING BRACKET	20kg
ENCLOSED SWITCH CONTROL CABINET	45kg
VOLTAGE TRANSFORMER	43kg
VOLTAGE TRANSFORMER MOUNTING BRACKET	8kg

@ ITEMS 8, 32a, 32b, 33, 34 & 36a ARE SUPPLIED TO THE MANUFACTURER BY AUSGRID FOR DRESSING OF THE UNIT BY THE MANUFACTURER

ITEMS 5, 7, 41, 42 & 47 ARE SUPPLIED BY MANUFACTURER UNDER STOCKCODE 181887

ITEM	DESCRIPTION	DWG No	STOCK CODE	QTY.	
61	COVER		144576	6	
60	CLAMP - PARALLEL GROOVE 2 BOLT		176946	AS REQ.	
59	IPC 95-150 LV ABC / 50-150 CU (SEE NOTE 12)	'DETAIL 3'	148387	2	
58	BI-METALLIC CRIMP LINK FOR 95mm ² CABLE	517278	H107797	AS REQ.	
57	BI-METALLIC CRIMP LUG FOR 95mm ² AL CABLE		58743	2	
56	WIRE - TIE PREFORMED INSULATED FOR CCT TO SUIT CONDUCTOR SIZE			6	
55	INSULATOR - PIN POST LONG STUD (FOR CCT)		145052	6	
54	WASHER - CONICAL M16 GALVANISED	517278	H39647	6	
53	WASHER - CONICAL M12 GALVANISED	517278	H39639	4	
52	WASHER - FLAT M12 GALVANISED	518081	177982	8	
51	BOLT & NUT - M12x130mm HEX GALVANISED	515466	46805	4	
50	BRACE - CROSSARM FLAT 690mm GALVANISED	514385	H17738	4	
49	BLOCK - GAIN ALUMINIUM 100mm		146274	2	
48	CROSSARM - WOOD 2400mm x 100mm x 100mm		71589	2	
47	COVERED CONDUCTOR THICK (CCT 80)			SUPPLIED	
46	CLAMP - PARALLEL GROOVE 2 BOLT BIMETALLIC		176491	6	
45	CLAMP - PARALLEL GROOVE, 2 BOLT		144568	8	
44	LV ATTACHMENT - ABC INTERMEDIATE CONSTRUCTION (1-70)	513981		AS REQ.	
43	ANTENNA			1	
42	CONTROL CABLE - SUPPLIED WITH ENCLOSED SWITCH			SUPPLIED	
41	CONTROL CUBICLE - SUPPLIED WITH ENCLOSED SWITCH			SUPPLIED	
40	WASHER - M10, BELEVILLE, STAINLESS STEEL	518082	177296	8	
39	WASHER - M10, FLAT, STAINLESS STEEL	518081	49411	8	
38	NUT - M10, HEX, STAINLESS STEEL	515467	H39401	8	
37	BOLT - M10 x 30mm, HEX, STAINLESS STEEL	515467	45088	8	
36b	LUG - COMPRESSION, BI-METALLIC 2 x M10 HOLES, TO SUIT CONDUCTOR	514053		8	
36a	LUG - COMPRESSION, BI-METALLIC 2 x M10 HOLES, TO SUIT CONDUCTOR	514053		6	
35	CLAMP - PARALLEL GROOVE, 2 BOLT, COPPER		176946	1	
34	CONDUCTOR - 25mm ² HENDRIX TAP CABLE			6	
33	LUG - CRIMP, COPPER, M12, FOR 25mm ² HENDRIX TAP CABLE			12	
32b	SURGE ARRESTOR EARTH BAR - FLAT, TINNED COPPER, 50mm x 6.3mm	224405	182462	1	
32a	SURGE ARRESTOR EARTH BAR - FLAT, TINNED COPPER, 50mm x 3mm	224405	182462	2	
31	CONNECTOR - COPPER, COMPRESSION, 70mm ² CONDUCTOR TO Ø15 ROD		H31699	AS REQ.	
30	COUPLER - EARTH ELECTRODE, TO SUIT Ø15 ROD		H31649	AS REQ.	
29	ELECTRODE - DRIVEN EARTH, Ø15 x 1800mm		H31631	AS REQ.	
28	COVER STRIP - CABLE, 150mm WIDE		151100	AS REQ.	
27	EYED LAG BOLT - M8 x 110mm, STAINLESS		182589	1	
26	COACH SCREW - M12 x 100mm, GALVANISED		H40484	4	
25	EARTH STUB - MCKEOWN		520088	H108415	2
24	TOP EARTH BAR - FLAT, TINNED COPPER, 50.8mm x 6.3mm	'DETAIL 1'	182110	1	
23	BOTTOM EARTH BAR - FLAT, TINNED COPPER, 50.8mm x 6.3mm	'DETAIL 1'	182110	1	
22	CLOUT - GALVANISED, Ø2.8 x 30mm		50971	AS REQ.	
21	SIGN - DANGER HIGH VOLTAGE		H47012	2	
20	NUT - M12, STAINLESS STEEL	515467	8987	AS REQ.	
19	WASHER - BELEVILLE, M12, STAINLESS STEEL	518082	175903	AS REQ.	
18	LUG - CRIMP, M12, FOR 70mm ² COPPER	31077	74831	AS REQ.	
17	WASHER - FLAT, M12, STAINLESS STEEL	518081	49429	AS REQ.	
16	SET SCREW - M12 x LENGTH TO SUIT, STAINLESS STEEL	515467		AS REQ.	
15	PROTECTOR - BLACK EARTH CABLE GUARD	205775	157552	AS REQ.	
14	SADDLES - TO SUIT CABLE		PURCHASE	AS REQ.	
13b	CONDUCTOR - SINGLE CORE OF 95mm ² ABC			AS REQ.	
13a	CONDUCTOR - 19/2.14 Cu BLACK PVC INSULATED HD (70mm ² EARTH)		60111	AS REQ.	
12	WASHER - FLAT ROUND, M20, GALVANISED	518081	177986	AS REQ.	
11	WASHER - CONICAL, M20, GALVANISED	517278	H39655	AS REQ.	
10	WASHER - SQUARE, M20 x 75 x 75 x 6mm	518081	H39231	AS REQ.	
9	BOLT & NUT - M20, HEX, GALVANISED, LENGTH TO SUIT	515466		AS REQ.	
8	ARRESTER & CAP - 11kV		111948	6	
7	SCHNEIDER RL SERIES ENCLOSED SWITCH WITH VOLTAGE TRANSFORMER	TBA	181887	SUPPLIED	
6	CCT EARTHING POINT COVER		144741	6	
5b	COVERED CONDUCTOR THICK - TO SUIT FEEDER RATING (MINIMUM CCT 120)			AS REQ.	
5a	COVERED CONDUCTOR THICK - TO SUIT FEEDER RATING (MINIMUM CCT 120)			SUPPLIED	
4	BRACKET MOUNTING EXTENSION		79251	3	
3	11kV OVERHEAD ARRANGEMENT 2-11CCT (MINUS BRIDGING) WITH ITEM 4		174962	1	
2	11kV OVERHEAD ARRANGEMENT 2-11 (MINUS BRIDGING) WITH ITEM 4		513915	1	
1	POLE - WOOD, TO SUIT (MINIMUM 12.5m x 8h)			1	

1. DETAILS & FOR
 CAD DRAWING (DO NOT MANUALLY AMEND)
 AMENDMENTS
 1. DETAILS FOR INSTALLATIONS ON POLES GREATER THAN 12.5 METRES ADDED.
 2. ITEMS 46 TO 57 ADDED.
 3. ITEM 48 SHOWN OPPOSITE SIDE OF POLE TO EARTH BAR.
 4. MANUFACTURER SUPPLIED ITEMS DENOTED AS #.
 5. ITEMS 32a & 32b REVISED.
 6. EARTHING NOTE REVISED.
 7. NOTE 2 DELETED; REMAINING NOTES RE-NUMBERED.
 8. NOTE 12 ADDED.
 9. EARTHING SCHEMATIC REVISED.
 10. UPDATED EQUIPMENT WEIGHTS ADDED.
 11. PN S1-00056-1-2-2 P.JARVIS 4.4.11
 12. CHECKED: M. ANDREWS
 13. APPROVED: D.GRCEV

2. STOCK CODES ADDED TO
 ITEMS 23, 24, 32a & 32b.
 DETAIL 3 WAS FOR ITEMS 32a & 32b.
 LV NEUTRAL CONNECTION SHOWN ON EARTHING SCHEMATIC.
 SEGREGATED EARTH CABLES & RODS ADDED TO SIDE VIEW & SECTION A-A.
 EARTHING CONNECTION FROM BOTTOM EARTH BAR TO EARTH RODS ALTERED TO 95mm² AL CABLE.
 NOTE 4 DELETED.
 REMAINING NOTES RE-NUMBERED.
 NOTE 12 ADDED.
 PN 02-2010-1-3 P.JARVIS 11.5.12
 CHECKED: P.GUNATILLEKE
 APPROVED: D.GRCEV

3. DRAWING TITLE CHANGED
 TO SCHNEIDER
 11kV MAINS AND SURGE ARRESTER CONNECTIONS TO ENCLOSED SWITCH ALTERED TO ALIGN WITH MANUFACTURER'S DRESSING METHOD.
 SURGE ARRESTERS REPOSITIONED AND NEW LOCK SHOWN.
 ITEMS MARKED @ TO SHOW ITEMS PARKED @ TO SHOW ITEMS MARKED @ TO BE FITTED TO ENCLOSED SWITCH BY MANUFACTURER.
 ITEMS 5 & 36 SPLIT INTO 8bb.
 ITEM 41 DELETED AND REMAINING ITEMS RE-NUMBERED.
 ITEM 27 REVISED.
 ITEMS 33 & 34 WERE 35mm² Cu LDPE.
 ITEM 49 STOCK CODE ALTERED.
 ITEMS 53 & 54 WERE GALVANISED.
 ITEM 59 REVISED.
 PN 02-2010-1-3 P.JARVIS 21.12
 CHECKED: M. ANDREWS
 APPROVED: D.GRCEV

4. AN EARTHING DESIGN MUST BE UNDERTAKEN FOR EACH SITE. THE EARTHING SHOWN ON THIS DRAWING IS INDICATIVE ONLY.

CONSTRUCTION

NETWORK STANDARD
Ausgrid
 DISTRIBUTION OPERATIONS & RELIABILITY
 LOGISTICS AND DISTRIBUTION ENGINEERING
 25-27 POMEROY STREET, HOMEBUSH

SCALE	AS SHOWN	STANDARD CONSTRUCTION
DESIGNED	D.DAFO	11kV SCHNEIDER RL SERIES POLE MOUNTED ENCLOSED SWITCH MOUNTED OVER ABC LV MAINS GENERAL ARRANGEMENT
DRAWN	D.DAFO/P.JARVIS	
CHECKED	M. ANDREWS	
APPROVED	D.GRCEV	
DATE	11.2.11	
PROJECT NUMBER	SI-00056-1-2-2	
PROJTRAK NUMBER		
SIZE	A1	
DRAWING No	170234	
SHEET	1	
AMOUNT	3	