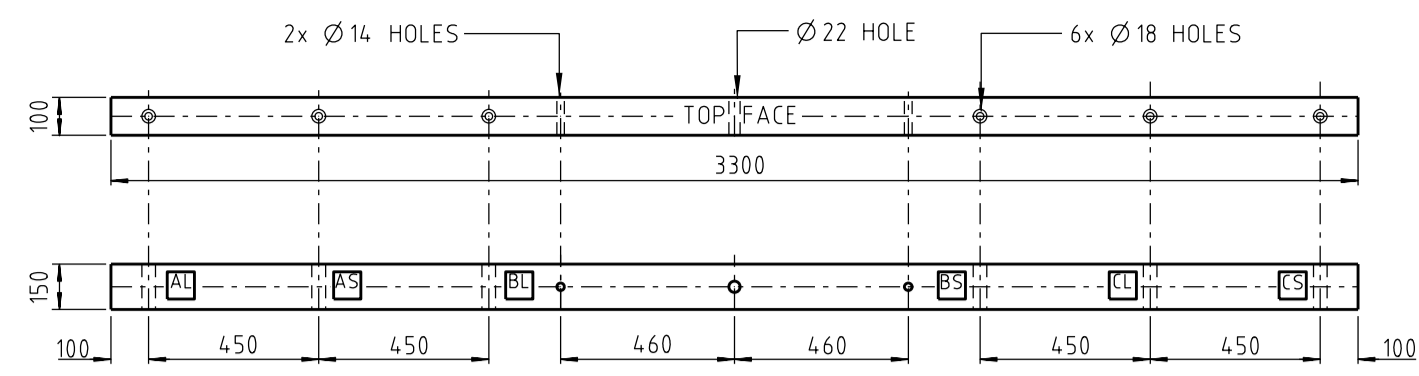
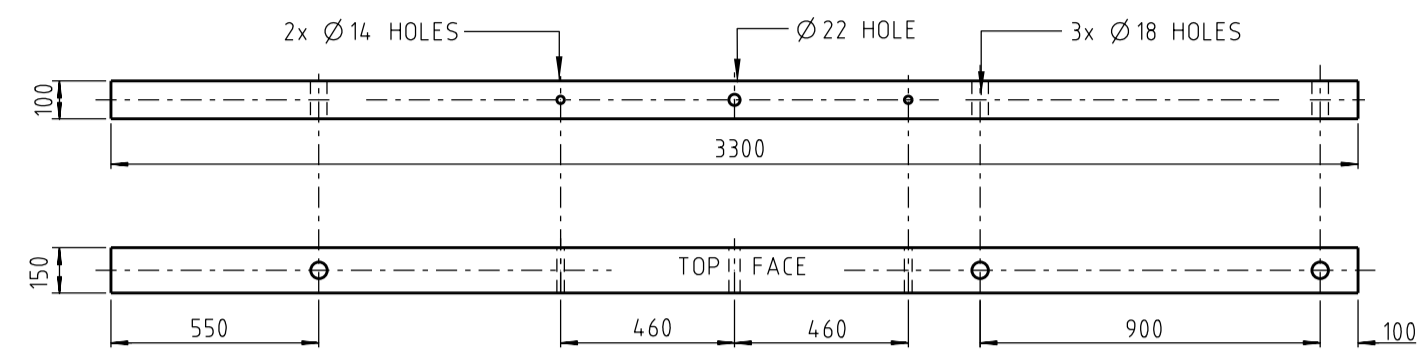


SECTION A
SCALE 1:50

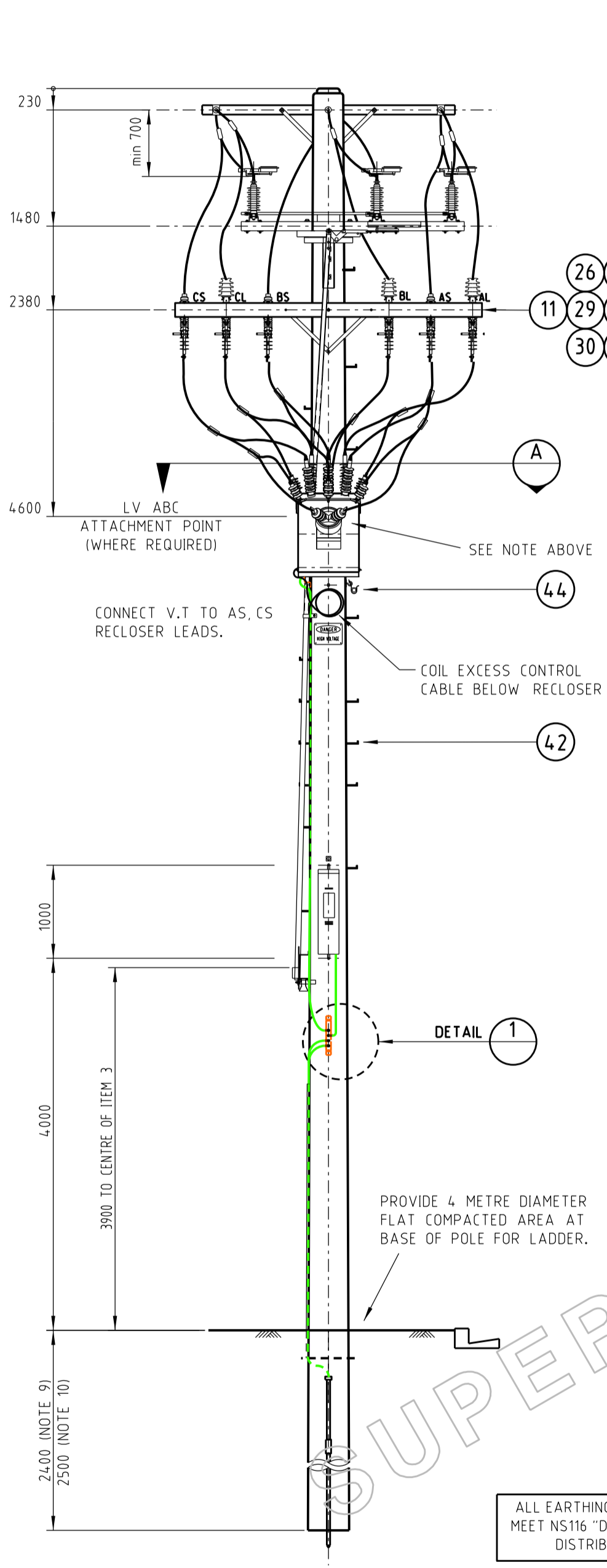
VOLTAGE TRANSFORMER (VT) REQUIRED TO BE INSTALLED IN ALL LOCATIONS IF LV MAINS INSTALLED DO NOT CONNECT TO VT CONTROL PANEL EARTHING SYSTEM TO BE INSTALLED AS SHOWN



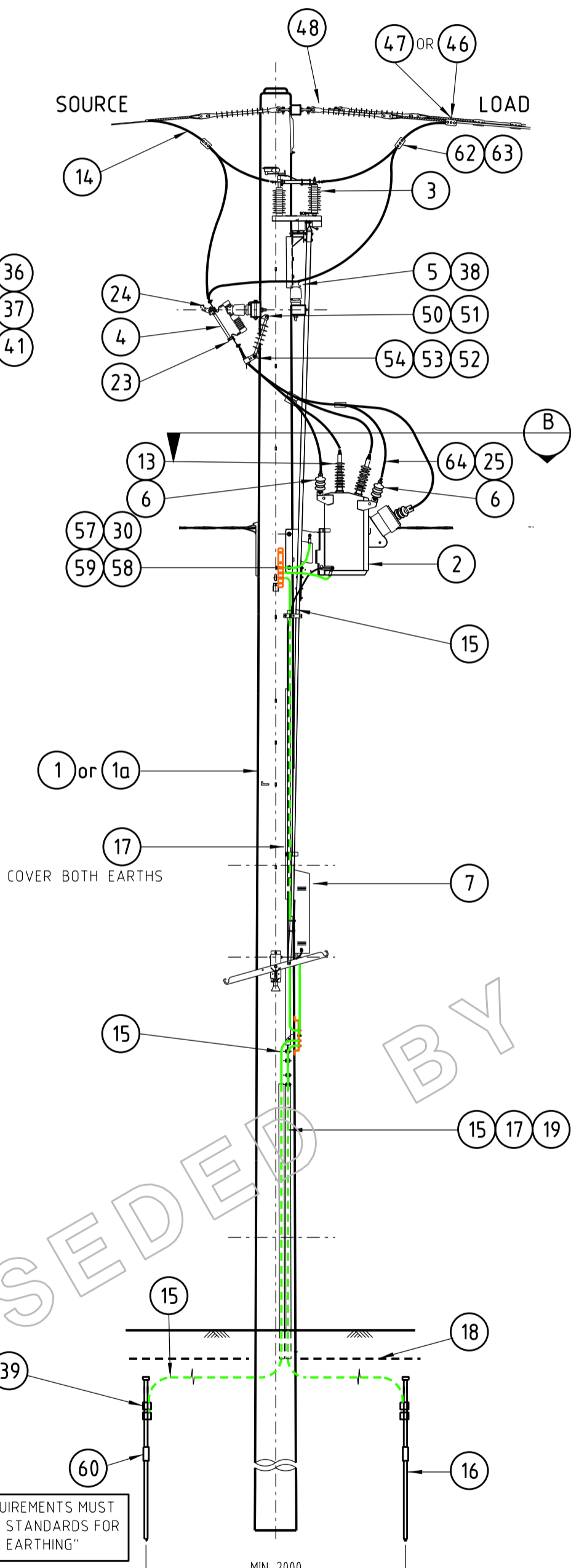
CROSSARM ITEM 8
SCALE 1:20
TIMBER CROSSARM 3300 x 150 x 100



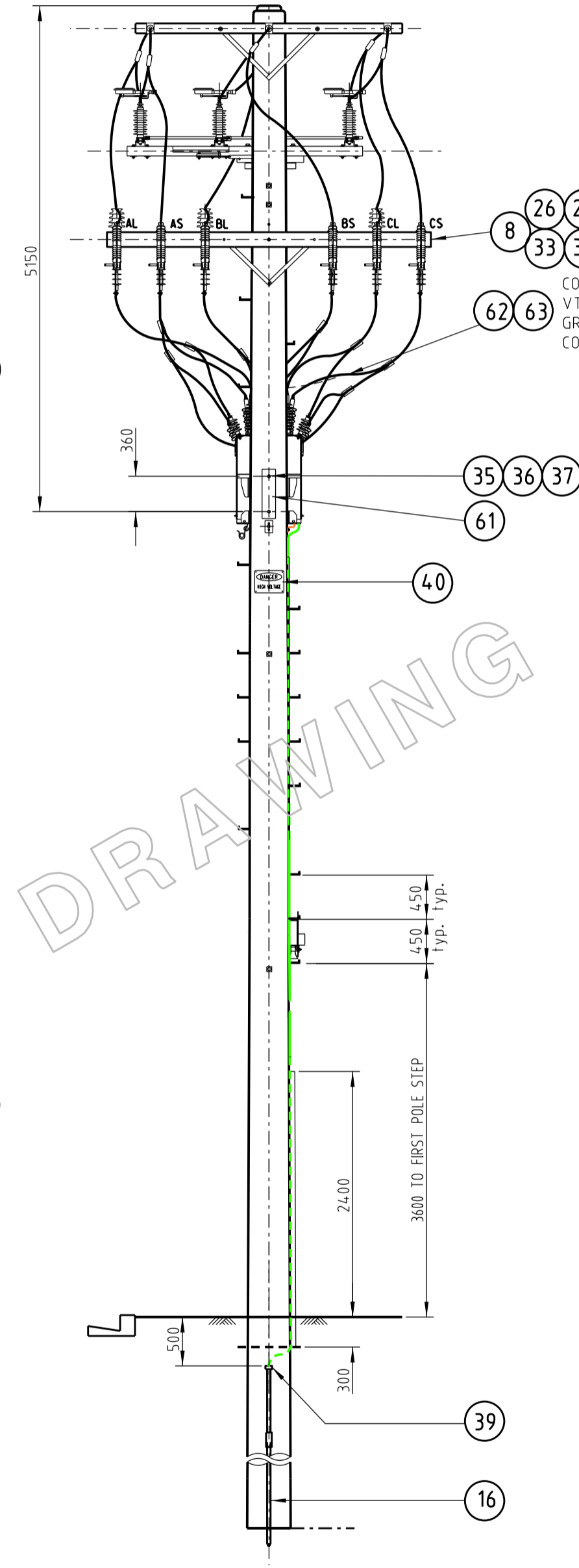
CROSSARM ITEM 11
SCALE 1:20
TIMBER CROSSARM 3300 x 150 x 100



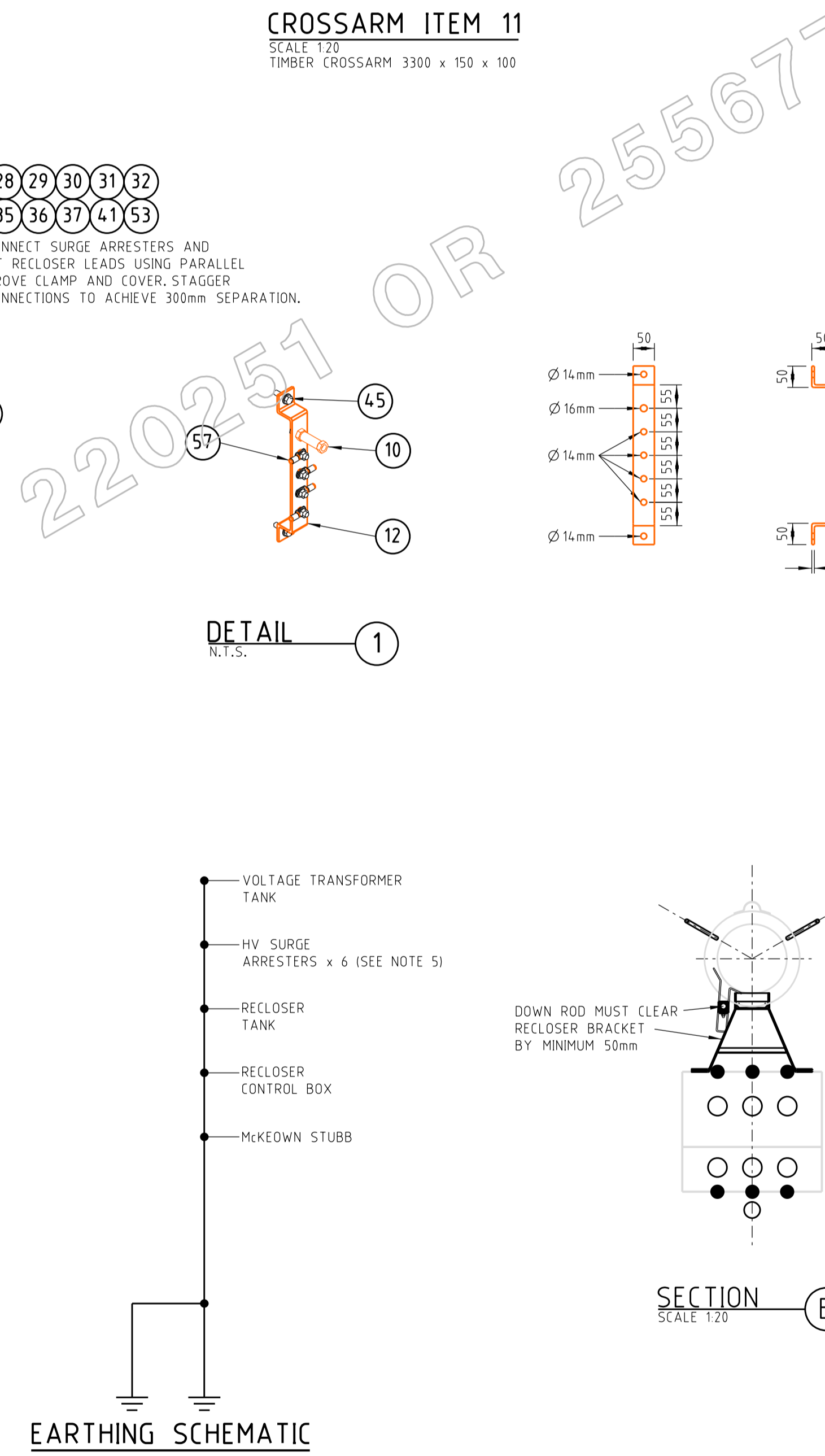
FRONT VIEW
SCALE 1:50



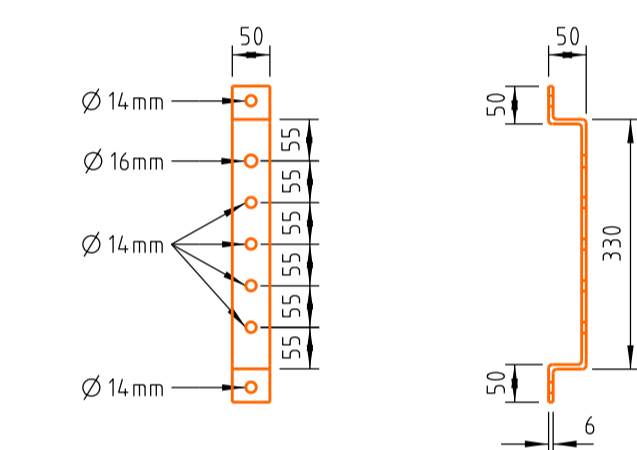
SIDE VIEW
SCALE 1:50



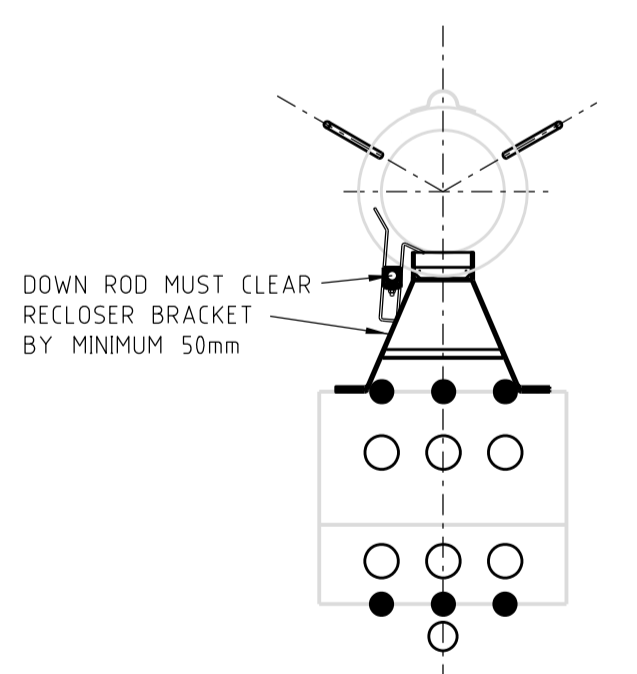
REAR VIEW
SCALE 1:50



EARTHING SCHEMATIC



DETAIL 1
N.T.S.



SECTION B
SCALE 1:20

- NOTES
- REFER TO NS116 FOR ELECTRODE DEPTH AND SPACING DESIGN TO SUIT SPECIFIC LOCATION - VT SUPPLY IS OFTEN PREFERABLE IN DIFFICULT EARTHING AREAS.
 - MINIMUM CLEARANCE 1kV-E TO BE GREATER THAN 200mm. HV PHASE TO PHASE CLEARANCE TO BE GREATER THAN 280mm.
 - SUSPENSION CLAMP (54) MUST BE A FIRM CLAMP ON HV DROPPER CABLES. CONDUIT INSERTS MAY BE USED TO ACHIEVE A FIRM CLAMP.
 - CROSSARMS ALSO DETAILED ON DWG A3-151564. STOCKCODE 177033 COVERS THE SET OF INDICATED CROSSARMS FOR THIS POLE.
 - HV SURGE ARRESTERS TO BE ELECTRICALLY BONDED TO RECLOSER TANK EARTH USING 70mm² PVC INSULATED CABLE (ITEM 15).
 - WHERE BARE LV MAINS ARE ATTACHED TO RECLOSER POLE, THEY SHALL BE CONVERTED TO LV ABC AT LEAST ONE SPAN EITHER SIDE OF RECLOSER.
 - ALL RECLOSERS INSTALLED SHALL HAVE A BYPASS ABS INSTALLED.
 - S/CODE 167734 IS FOR A N15 630A RECLOSER SUPPLIED WITH 400A 3m LEADS AND EXTERNAL VT AND MEGADATA COMMS. S/CODE 175791 IS FOR A N15 630A RECLOSER SUPPLIED WITH 400A 3m LEADS AND EXTERNAL VT AND DNP3 COMMS. OTHER CABLE LENGTHS AVAILABLE ARE 4m, 5m & 6m ON REQUEST.
 - A 15.5m x 12kN POLE MUST BE USED AS PER DRAWING 185171.
 - A 14m x 12kN POLE MAY BE USED FOR OTHER APPLICATION WHERE APPROPRIATE.

CB RATED CURRENT	CABLE CURRENT RATING	CABLE SIZE(Ø)	CABLE MATERIAL	WATER BLOCKED
630A	250A	80mm ²	ALUMINIUM	✓
• 630A	400A	185mm ²	ALUMINIUM	✓
630A	630A	240mm ²	ALUMINIUM	✓
800A	800A	400mm ²	COPPER	X

• STANDARD SUPPLIED. OTHER UNITS AVAILABLE ON SPECIAL ORDER.

ITEM	DESCRIPTION	DWG No	S/CODE	QTY
64	COVERED CONDUCTOR CCT120		147421	AS REQ
63	PARALLEL GROOVE CLAMP COVER		144576	14
62	PARALLEL GROOVE CLAMP 3 BOLT M-METAL 35mm ² - 185mm ² AL/CU		176491	14
61	COVER - FIBREGLASS INSULATION	A4-566374	176961	1
60	COUPLER - EARTH TO SUIT/15 EARTH ROD		H31649	AS REQ
59	WASHER - SPRING, M12, GALVANISED		H12047	3
58	BOLT & NUT - M12 x 40mm, HEX, GALVANISED		46375	3
57	CRIMP LUG - M12 FOR 70mm ² COPPER		74831	8
56				
55				
54	CLAMP - SUSPENSION		63057	7
53	WASHER - FLAT, M16, GALVANISED		177984	18
52	BOLT & NUT - M16 x 50mm, HEX, GALVANISED		46524	6
51	INSULATOR - 22kV LONGROD		150375	6
50	LINK PLATE - TWISTED		176901	6
49				
48	11kV OVERHEAD ARRANGEMENT 2-11 (MINUS BRIDGING)	A3-513915		1
47	CLAMP - CONDUCTOR STRAIN, PARALLEL GROOVE, 2 BOLT		62414	AS REQ
46	CLAMP - CONDUCTOR STRAIN, PARALLEL GROOVE, 3 BOLT		62406	AS REQ
45	COACH SCREW - M12 x 100mm, GALVANISED		H40484	4
44	BRACKET HOOK		66621	1
43				
42	STEPS - POLE AT 450 CENTRES OR AS REQUIRED	A3-517698	H17720	AS REQ
41	WASHER - FLAT, M20, GALVANISED		177986	8
40	SIGN - DANGER HIGH VOLTAGE		H47012	2
39	CONNECTOR CRIMP TYPE YGHC TO SUIT 70mm ²		177942	AS REQ
38	PIN - PATTERN C	A3-514401	H21531	9
37	WASHER - SPRING, SPECIAL CONICAL, M20		H39655	8
36	WASHER - SQUARE, M20 x 65 x 65 x 5mm, GALVANISED		65516	8
35	BOLT & NUT - M20, HEX, GALVANISED, TO SUIT POLE			8
34				
33	WASHER - CONICAL M16 GALVANISED		H39647	6
32	COACH SCREW - M12 x 90mm, GALVANISED		50443	4
31	WASHER - CONICAL, M12, GALVANISED		H39369	23
30	WASHER - FLAT, M12, GALVANISED		177892	26
29	BOLT & NUT - M16 x 150mm, HEX, GALVANISED		175672	10
28	BOLT & NUT - M16 x 180mm, HEX, GALVANISED		47068	6
27				
26	BRACE - CROSSARM, GALVANISED, 690 x 4.0 x 5mm	A3-516385	H17738	4
25	CRIMP LUG - BI-METAL, M12, TO SUIT 120mm ² CCT		176442	8
24	CRIMP LUG - BI-METAL, M10, TO SUIT CONDUCTOR	A3-513569		6
23	CRIMP LUG - BI-METAL, M12, TO SUIT 185mm ²		57927	6
22				
21				
20				
19	CLOUTS - GALVANISED/2.8 x 30mm		50971	AS REQ
18	COVER STRIP - CABLE - 150mm WIDTH		151100	AS REQ
17	PROTECTIVE EARTH GUARD - EARTH x 2700mm		157552	AS REQ
16	ELECTRODE - DRIVEN EARTH/15 x 1800mm		H31631	AS REQ
15	CONDUCTOR - EARTH, 19/2.14, PVC INSULATED HD 70mm ²		60111	AS REQ
14	CONDUCTOR TO SUIT MAINS			AS REQ
13	SHIELD INSULATOR BUSHING		H21858	6
12	EARTH BAR - 50.8mm TINNED HD COPPER		179661	1
11	CROSSARM FOR PIN INSULATORS		H23020	1
10	EARTH STUBB McKEOWN	520088	H108415	1
9				
8	CROSSARM FOR LINKS		H23020	1
7	CONTROL CUBICLE - SUPPLIED WITH RECLOSER			1
6	ARRESTER - 11kV		111948	6
5	INSULATOR - PIN, 22kV TO SUIT PATTERN C PIN		75697	3
4	LINK - 11kV, 630AMP		58750	6
3	DISCONNECTOR - 12/24kV, 630A MID POLE MOUNTED	A2-175902	H95406/66647	1
2	RECLOSER - 11kV NULEC TYPE N15 630A (SEE NOTE 8)			1
1a	POLE - WOOD, 15.5m x 12kN (SEE NOTE 9)		152868	1
1	POLE - WOOD, 14m x 12kN (SEE NOTE 10)		146753	1

AMENDMENTS	INITIAL ISSUE
0	DWN: NATALE SINGLETON CHKD: PETER STOREY DATE: 15/01/2008 DISCONNECTOR MOVED TO OPPOSITE SIDE OF RECLOSER RECIPIENT POSITIONED PARALLEL TO KERB.
14	APPD: BY ROSS HUGHES DWN: NATALE SINGLETON CHKD: PETER STOREY DATE: 03/09/2008 CLARIFICATION OF NULEC RATINGS
15	APPD: BY PETER STOREY DWN: NATALE SINGLETON CHKD: STEPHEN LILLISS DATE: 14/10/2008 ITEM 33 ADDED ITEM 28-BOLT SIZE CHANGED TO M16
16	APPD: BY STEPHEN LILLISS DWN: NATALE SINGLETON CHKD: STEPHEN LILLISS DATE: 07/07/2009 ITEM 1A ADDED NOTES 9 & 10 ADDED
17	APPD: BY STEPHEN LILLISS DWN: RAY DEAL CHKD: DANIEL DAFO DATE: 20/05/2011 SUPERSEDED BY 220251
18	APPD: BY ROSS HUGHES DWN: P. RIDDS CHKD: P. JONES DATE: 15/09/2022 ALSO SUPERSEDED BY 255677
19	APPD: BY G.FORD

ASSOCIATED DRAWINGS	SCALE	AS SHOWN
STANDARD CONSTRUCTION 33kV NU-LEC TYPE N38 RECLOSER	154102	

SUPERSEDED

DESIGN
145 NEWCASTLE RD. WALLSEND, NSW 2287
TEL. 4951 9388 FAX. 4951 9389

DESIGNED	AS SHOWN
DRAWN	dbg
CHECKED	B GRAHAM
APPROVED	R HUGHES
DATE	22/05/01
PRJ/TRK No.	-
PROJECT NUMBER	STD

STANDARD CONSTRUCTION	DRAWING No	SHEET	AMD	SIZE
11kV NU-LEC TYPE N15 RECLOSER GENERAL ARRANGEMENT	151078	01	19	A1