



NOTES :

1. THE FOLLOWING INFORMATION IS OBTAINED FROM THE PROJECT DESIGN DRAWINGS :
 - a. POLE LENGTH AND STRENGTH.
 - b. SPECIAL FOUNDATION REQUIREMENTS.
 - c. POLE EMBEDMENT DEPTH.
 - d. CONDUCTOR SIZE.
 - e. VARIATIONS TO STANDARD CROSSARM REQUIREMENTS.
 - f. STAY REQUIREMENTS.
 - g. DEVIATION ANGLE.
 - h. ASSESSED EARTHING REQUIREMENTS.
2. THE MAXIMUM LINE DEVIATION ANGLE TO BE CONSTRUCTED ON THIS ARRANGEMENT IS TO BE DETERMINED BY THE LINE DESIGNER.
3. POLE STEPS ARE TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF NS126.
4. IN AREAS WHERE THE 11kV NETWORK CANNOT BE WORKED ON USING LIVE LINE TECHNIQUES, UNDERBUILT CIRCUITS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 1200mm. IN AREAS WHERE THE 11kV NETWORK CAN BE WORKED ON USING LIVE LINE TECHNIQUES, UNDERBUILT CIRCUITS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 2500mm.
5. ALL BOLTS AND INSULATOR PINS PASSING THROUGH TIMBER ARE TO BE COATED WITH GRAPHITE GREASE.
6. THE LOAD AND DEVIATION ALLOWABLE ON THE EYEBOLT IS TO BE DETERMINED FROM DRG : 520324.
7. POLES SHALL BE DRILLED, SCARFED AND DRESSED ON SITE. DRILLING AND SCARFING TO BE TREATED WITH APPROVED PRESERVATIVES.
8. CCT CONDUCTOR INSULATION SHALL ONLY BE REMOVED BY THE USE OF AN APPROVED CCT CONDUCTOR STRIPPING TOOL.
9. IF THE CONDUCTOR DEVIATES AT THE INSULATOR, USE THE ANGLE TYPE CONDUCTOR TIE ARRANGEMENT, OTHERWISE USE THE INTERMEDIATE TYPE CONDUCTOR TIE ARRANGEMENT AS SHOWN ON DRG : 514038.
10. A 2100mm CROSSARM IS TO BE USED AS THE DEFAULT TERMINATION CROSSARM. A 3070mm COMPOSITE FIBRE OR 3000mm STEEL TERMINATION CROSSARM IS TO BE USED WHEN THE MAXIMUM LOAD OF A TIMBER CROSSARM IS EXCEEDED.
11. ONLY THE 2100mm TERMINATION CROSSARM OPTION IS SHOWN ON THIS CONSTRUCTION DRAWING. REFER TO DRGS : 514377 & 237491 FOR DRILLING PATTERN OF ALTERNATE CROSSARMS.

ITEM	DESCRIPTION	DRG. No	STOCK CODE	QTY
37	STEP - POLE, SCREW-IN (SEE NOTE 3)	250144	185198	A/R
36	ARRESTER - SURGE, 11kV, CCT, ARRANGEMENT -3	177151		1
35	ARRESTER - SURGE, 11kV, CCT, ARRANGEMENT -1	177151		2
34	CLAMP - PARALLEL GROOVE, 3-BOLT (TO SUIT CONDUCTOR)	514099		3
33	WIRE - TIE, PREFORMED, INSULATED, FOR CCT180		176312	1
	WIRE - TIE, PREFORMED, INSULATED, FOR CCT120		144600	
32	WASHER - SQUARE, 50x50x6mm, GALVANISED (Ø18mm HOLE)	518081	H39257	1
	WASHER - CONICAL, M16, GALVANISED	518082	H39647	
31	INSULATOR - PIN POST, LONG STUD		145052	1
29	COVER - STRAIN CLAMP		144543	3
28	CLAMP - CONDUCTOR STRAIN, FOR CCT180		176313	3
	CLAMP - CONDUCTOR STRAIN, FOR CCT120		144527	
	CLAMP - CONDUCTOR STRAIN, FOR CCT80		144535	
27	INSULATOR - STRAIN ROD		144550	3
26	LINK - SAG, 70kN (PLP PART No. CTSLEW-070-1)		DIRECT PURCHASE	3
25	TIE - CONDUCTOR, HIGH VOLTAGE, SUPPORT ARRANGEMENT (SEE NOTE 9)	514038		4m
24	INSULATOR - 11/22kV AERODYNAMIC, (22/450) & PIN ARRANGEMENT	513997		3
23	BRACKET - POLE TOP, GALVANISED	514380	H17314	1
22	BLOCK - GAIN, ALUMINIUM, 125mm (USE WITH 3070mm CROSSARM)		146282	1
	BLOCK - GAIN, ALUMINIUM, 100mm (USE WITH 2100mm, 2700mm & 3000mm CROSSARMS)		146274	
21	BLOCK - GAIN, ALUMINIUM, 100mm		146274	1
20	WASHER - FLAT, M20, GALVANISED (USE WITH 2100mm TERMINATION CROSSARM)	518081	177986	2
19	WASHER - FLAT, M20, GALVANISED	518081	177986	4
18	EYEBOLT - M20, GALVANISED (LENGTH TO SUIT POLE) (SEE NOTE 6)	513653		1
17	BOLT & NUT - M12, HEX., GALVANISED (LENGTH TO SUIT POLE)	515466		1
16	WASHER - SPRING, M20, GALVANISED (USE WITH 3000mm & 3070mm TERMINATION CROSSARMS)	518082	175569	2
	WASHER - CONICAL, M20, GALVANISED (USE WITH 2100mm TERMINATION CROSSARM)	518082	H39655	
15	WASHER - SQUARE, 75x75x6mm, GALVANISED (Ø22mm HOLE) (USE WITH 3070mm TERMINATION CROSSARM)	518081	H39231	2
	WASHER - LIP, M24, GALVANISED (USE WITH 2100mm & 3000mm TERMINATION CROSSARMS)	518081	176912	
14	EYEBOLT - M20x200mm, GALVANISED (SEE NOTE 6)	513653	H37881	2
13	WASHER - SPRING, M12, GALVANISED (USE WITH 3000mm & 3070mm TERMINATION CROSSARMS)	518082	H12047	2
	WASHER - CONICAL, M12, GALVANISED (USE WITH 2100mm TERMINATION CROSSARM)	518082	H39639	
12	BOLT & NUT - M12x150mm, HEX., GALVANISED (USE WITH 3070mm TERMINATION CROSSARM)	515466	46847	2
	BOLT & NUT - M12x180mm, HEX., GALVANISED (USE WITH 2100mm & 3000mm TERMINATION CROSSARMS)	515466	46888	
11	CROSSARM - 3070x125x125mm, ITEM 3, COMPOSITE FIBRE (SEE NOTES 10 & 11)	237491	183935	1
	CROSSARM - 3000x150x100x5mm, RHS, GALVANISED (SEE NOTES 10 & 11)	514377	H23787	
	CROSSARM - 2100x150x100mm, TYPE H, HARDWOOD (SEE NOTES 10 & 11)	514374	H23745	
10	WASHER - CONICAL, M20, GALVANISED	518082	H39655	4
9	WASHER - SQUARE, 75x75x6mm, GALVANISED (Ø22mm HOLE)	518081	H39231	9
8	BOLT & NUT - M20, HEX., GALVANISED (LENGTH TO SUIT POLE)	515466		3
7	WASHER - CONICAL, M12, GALVANISED	518082	H39639	3
6	WASHER - FLAT, M12, GALVANISED	518081	177982	10
5	BOLT & NUT - M12x130mm, HEX., GALVANISED	515466	46805	2
4	CROSSARM - 2100x100x100mm, TYPE B, HARDWOOD	514373	H23884	1
3	SCREW - COACH, M12x100mm, GALVANISED		H40484	2
2	BRACE - CROSSARM, FLAT, 690mm, GALVANISED	514385	H17738	4
1	POLE - TIMBER (AS REQUIRED)	513988		1

ALL DIMENSIONS IN MILLIMETRES UNLESS NOTED OTHERWISE. DO NOT SCALE.

F	CAD DRAWING DO NOT MANUALLY AMEND A M E N D M E N T S	1	1
	DWN: PATRICIA RIOS CHKD: PHIL JONES		
F	DATE: 04/09/2007 NOTE 4 AMENDED.	2	2
	APP'D by: STEPHEN CONNOR DWN: PATRICIA RIOS CHKD: PHILIP JONES		
F	DATE: 10/10/2019 M20 FLAT & 50x60 SQUARE WASHERS & ADDITIONAL CROSSARM OPTIONS ADDED. SURGE ARRESTERS ADDED. SIZES & MATERIALS JUST AMENDED. SHEET SIZE CHANGED.	3	3
	APP'D by: GLENN FORD		

COMPOSITE FIBRE CROSSARM MECHANICAL LOAD REQUIREMENTS	237491
HV TERMINATION STEEL CROSSARM CONSTRUCTION DETAILS	514377
HV CONDUCTOR TIE SUPPORT ARRANGEMENTS	514038
20mm EYEBOLT LOADING & DEVIATION GRAPH	520324
ASSOCIATED DRAWINGS	

NETWORK STANDARD
Ausgrid

145 NEWCASTLE RD WALLSEND,
NSW 2287

SCALE	1:20	STANDARD CONSTRUCTION 11kV BARE CONDUCTOR LARGE DELTA WITH CCT TEE OFF CONSTRUCTION 2-438	SIZE A2	DRAWING No 154239	SHEET 01	AMD 2
DESIGNED	PHIL JONES					
DRAWN	PATRICIA RIOS					
CHECKED	PHIL JONES					
APPROVED	STEPHEN CONNOR					
DATE	07/12/06					
PROJECT NUMBER	STD					
PROJ/TRAK NUMBER	-					