



- NOTES :**
- THE FOLLOWING INFORMATION IS OBTAINED FROM THE PROJECT DESIGN DRAWINGS :
 - POLE LENGTH AND STRENGTH.
 - SPECIAL FOUNDATION REQUIREMENTS.
 - POLE EMBEDMENT DEPTH.
 - CONDUCTOR SIZE.
 - CROSSARM SIZE AND BRACE REQUIREMENTS.
 - STAY REQUIREMENTS.
 - DEVIATION ANGLE.
 - ASSESSED EARTHING REQUIREMENTS.
 - THE MAXIMUM LINE DEVIATION ANGLE TO BE CONSTRUCTED ON THIS ARRANGEMENT IS TO BE DETERMINED BY THE LINE DESIGNER.
 - POLE STEPS ARE TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF NS126.
 - 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.
 - ALL BOLTS AND INSULATOR PINS PASSING THROUGH TIMBER ARE TO BE COATED WITH GRAPHITE GREASE.
 - THE LOAD AND DEVIATION ALLOWABLE ON THE EYEBOLT IS TO BE DETERMINED FROM DRG : 520324.
 - POLES SHALL BE DRILLED, SCARFED AND DRESSED ON SITE. DRILLING AND SCARFING TO BE TREATED WITH APPROVED PRESERVATIVES.
 - USE THE ANGLE TYPE CONDUCTOR TIE ARRANGEMENT AS SHOWN ON DRG : 514038.
 - CCT CONDUCTOR INSULATION SHALL ONLY BE REMOVED BY THE USE OF AN APPROVED CCT CONDUCTOR STRIPPING TOOL.
 - LONGROD INSULATORS TO BE USED TO TERMINATE BARE CONDUCTOR UNDER NORMAL CONDITIONS.
 - A 2100mm & A 2700mm CROSSARM IS TO BE USED AS THE DEFAULT CROSSARMS. FOR NARROW FEEDER ALIGNMENTS, A 2400mm CROSSARM MAY BE CONSIDERED FOR TERMINATION OF THE BARE CONDUCTORS TO OVERCOME DESIGN AND SITE CONSTRAINTS. A 3070mm COMPOSITE FIBRE OR 3000mm STEEL CROSSARM IS TO BE USED WHEN THE MAXIMUM LOAD OF A TIMBER CROSSARM IS EXCEEDED.
 - ONLY THE 2100mm & 2700mm CROSSARM OPTION IS SHOWN ON THIS CONSTRUCTION DRAWING. REFER TO DRGS : 15232, 514377 & 237491 FOR DRILLING PATTERN OF ALTERNATE CROSSARMS.
 - THE 690mm CROSSARM BRACES ARE TO BE USED ON A 2100mm, 2700mm, 3000mm & 3070mm CROSSARM. THE 740mm CROSSARM BRACE IS TO BE USED ON A 2400mm CROSSARM.

ITEM	DESCRIPTION	DRG. No	STOCK CODE	QTY
33	STEP - POLE, SCREW-IN (SEE NOTE 3)	250144	185198	A/R
32	ARRESTER - SURGE, 11kV, CCT, ARRANGEMENT -3	177151		1
31	ARRESTER - SURGE, 11kV, CCT, ARRANGEMENT -1	177151		2
30	CLAMP - PARALLEL GROOVE, 3-BOLT (TO SUIT CONDUCTOR)	514099		3
29	COVER - STRAIN CLAMP		144543	3
	CLAMP - CONDUCTOR STRAIN, FOR CCT180		176313	
28	CLAMP - CONDUCTOR STRAIN, FOR CCT120		144527	3
	CLAMP - CONDUCTOR STRAIN, FOR CCT80		144535	
27	INSULATOR - STRAIN ROD		144550	3
26	LINK - SAG, 70kN (PLP PART No. CTSLEW-070-1)			3
25	TIE - CONDUCTOR, HIGH VOLTAGE, SUPPORT ARRANGEMENT (SEE NOTE 8)	514038		2m
24	INSULATOR - 11/22kV AERODYNAMIC, (22/450) AND PIN ARRANGEMENT	513997		2
23	INSULATOR - 11/22kV LONGROD, STRING ARRANGEMENT AR -2	565715		3
22	BLOCK - GAIN, ALUMINIUM, 125mm (USE WITH 3070mm CROSSARM)		146282	2
	BLOCK - GAIN, ALUMINIUM, 100mm (USE WITH 2100mm, 2400mm, 2700mm & 3000mm CROSSARMS)		146274	
21	WASHER - FLAT, M20, GALVANISED (USE WITH 2100mm, 2400mm & 2700mm CROSSARMS)	518081	177986	4
20	WASHER - FLAT, M20, GALVANISED	518081	177986	4
19	EYEBOLT - M20, GALVANISED (LENGTH TO SUIT POLE) (SEE NOTE 6)	513653		2
18	WASHER - SQUARE, 75x75x6mm, GALVANISED (Ø22mm HOLE) (USE WITH 3070mm CROSSARM)	518081	H39231	4
	WASHER - LIP, M24, GALVANISED (USE WITH 2100mm, 2400mm, 2700mm & 3000mm CROSSARMS)	518081	176912	
17	EYEBOLT - M20x200mm, GALVANISED (SEE NOTE 6)	513653	H37881	4
16	WASHER - SPRING, M20, GALVANISED (USE WITH 3000mm & 3070mm CROSSARMS)	518082	175569	4
	WASHER - CONICAL, M20, GALVANISED (USE WITH 2100mm, 2400mm & 2700mm CROSSARMS)	518082	H39655	
15	WASHER - CONICAL, M20, GALVANISED	518082	H39655	4
14	WASHER - SQUARE, 75x75x6mm, GALVANISED (Ø22mm HOLE)	518081	H39231	12
13	BOLT & NUT - M20, HEX., GALVANISED (LENGTH TO SUIT POLE)	515466		2
12	WASHER - SPRING, M12, GALVANISED (USE WITH 3000mm & 3070mm CROSSARMS)	518082	H12047	2
	WASHER - CONICAL, M12, GALVANISED (USE WITH 2100mm CROSSARM)	518082	H39639	
11	WASHER - FLAT, M12, GALVANISED	518081	177982	4
10	BOLT & NUT - M12x150mm, HEX., GALVANISED (USE WITH 3070mm CROSSARM)	515466	46847	2
	BOLT & NUT - M12x180mm, HEX., GALVANISED (USE WITH 2100mm & 3000mm CROSSARMS)	515466	46888	
	CROSSARM - 3070x125x125mm, ITEM 3, COMPOSITE FIBRE (SEE NOTES 11 & 12)	237491	183935	
9	CROSSARM - 3000x150x100x5mm, RHS, GALVANISED (SEE NOTES 11 & 12)	514377	H23787	1
	CROSSARM - 2100x150x100mm, TYPE H, HARDWOOD (SEE NOTES 11 & 12)	514374	H23745	
8	BRACE - CROSSARM, FLAT, 690mm, GALVANISED (SEE NOTE 13)	514385	H17738	2
	WASHER - SPRING, M12, GALVANISED (USE WITH 3000mm & 3070mm CROSSARMS)	518082	H12047	2
7	WASHER - CONICAL, M12, GALVANISED (USE WITH 2400mm CROSSARM)	518082	H39639	1
	WASHER - CONICAL, M12, GALVANISED (USE WITH 2700mm CROSSARM)	518082	H39639	2
6	WASHER - FLAT, M12, GALVANISED (USE WITH 2400mm CROSSARM)	518081	177982	2
	WASHER - FLAT, M12, GALVANISED (USE WITH 2700mm, 3000mm & 3070mm CROSSARMS)	518081	177982	4
	BOLT & NUT - M12x150mm, HEX., GALVANISED (USE WITH 3070mm CROSSARM)	515466	46847	2
5	BOLT & NUT - M12x150mm, HEX., GALVANISED (USE WITH 2400mm CROSSARM)	515466	46847	1
	BOLT & NUT - M12x180mm, HEX., GALVANISED (USE WITH 2700mm & 3000mm CROSSARMS)	515466	46888	2
	CROSSARM - 3070x125x125mm, ITEM 3, COMPOSITE FIBRE (SEE NOTES 11 & 12)	237491	183935	
4	CROSSARM - 3000x150x100x5mm, RHS, GALVANISED (SEE NOTES 11 & 12)	514377	H23787	1
	CROSSARM - 2400x125x100mm, TYPE H2, HARDWOOD (SEE NOTES 11 & 12)	15232	71910	
	CROSSARM - 2700x150x100mm, TYPE C, HARDWOOD (SEE NOTES 11 & 12)	514373	H23907	
3	SCREW - COACH, M12x100mm, GALVANISED		H40484	2
2	BRACE - CROSSARM, ANGLE, TYPE H, 740mm, GALVANISED (SEE NOTE 13)	46	99119	1
	BRACE - CROSSARM, FLAT, 690mm, GALVANISED (SEE NOTE 13)	514385	H17738	2
1	POLE - TIMBER (AS REQUIRED)	513988		1

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

CAD DRAWING DO NOT MANUALLY AMEND	
AMENDMENTS	
DWN: PATRICIA RIOS	
CHKD: PHIL JONES	
DATE: 04/09/2007	
NOTE 4 AMENDED.	
APP'D by: STEPHEN CONNOR	
DWN: PATRICIA RIOS	
CHKD: PHILIP JONES	
DATE: 10/10/2019	
M20 FLAT WASHER & ADDITIONAL CROSSARM OPTIONS ADDED. SURGE ARRESTERS ADDED. NOTES & MATERIAL LIST AMENDED. SHEET SIZE CHANGED.	
APP'D by: GLENN FORD	

DESCRIPTION	DRG. No
COMPOSITE FIBRE CROSSARM MECHANICAL LOAD REQUIREMENTS	237491
HV TERMINATION STEEL CROSSARM CONSTRUCTION DETAILS	514377
WOODEN CROSSARMS FOR 11kV LINES	15232
HV CONDUCTOR TIE SUPPORT ARRANGEMENTS	514038
20mm EYEBOLT LOADING & DEVIATION GRAPH	520324

ASSOCIATED DRAWINGS

NETWORK STANDARD

145 NEWCASTLE RD WALLSEND, NSW 2287

SCALE	1:20	STANDARD CONSTRUCTION 11kV CCT TO BARE CONDUCTOR LARGE DELTA CORNER CONSTRUCTION 2-431	SIZE A2	DRAWING No 154237	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	-					