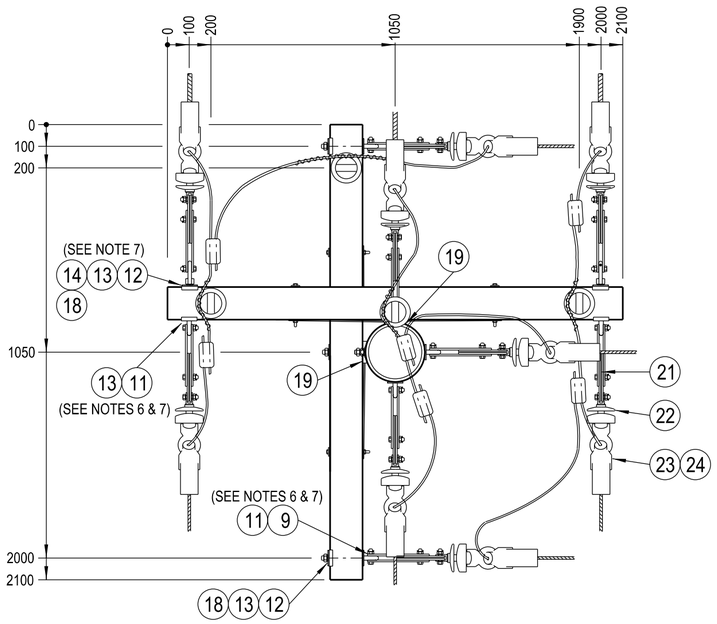

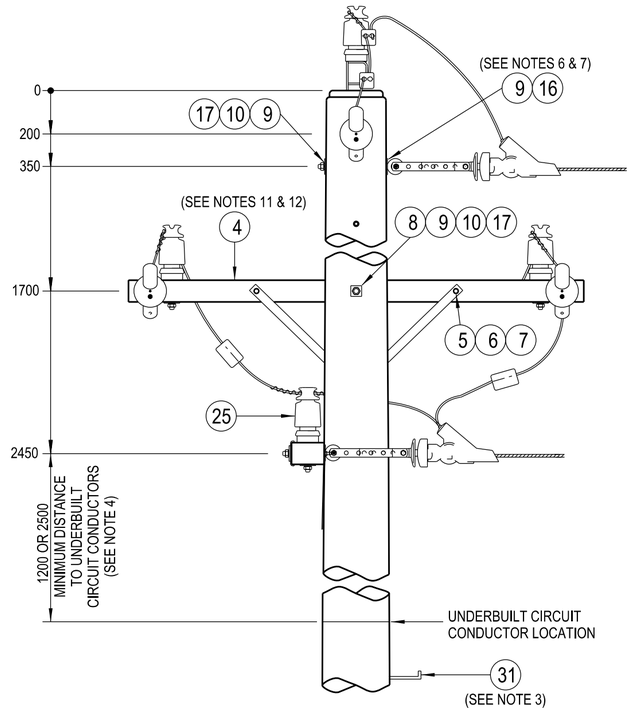

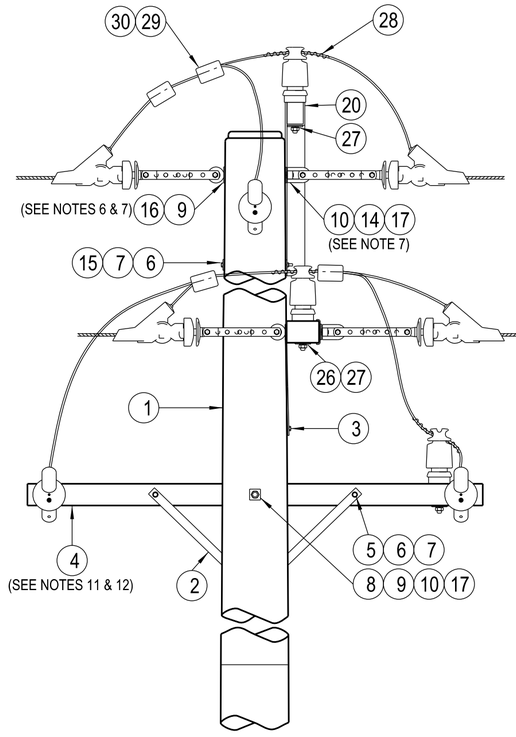

NOTES :

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. CROSSARM SIZE.
   f. STAY REQUIREMENTS.
   g. DEVIATION ANGLE.
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 NS128.
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. THE LOAD AND DEVIATION ALLOWABLE ON THE EYEBOLT AND EYENUT ASSEMBLY IS TO BE DETERMINED FROM DRG: 520331.
8. POLES SHALL BE DRILLED, SCARFED AND DRESSED ON SITE. DRILLING AND SCARFING TO BE TREATED WITH APPROVED PRESERVATIVES.
9. TO MAINTAIN THE INTEGRITY OF A COVERED SYSTEM, IT IS ESSENTIAL THAT ALL STRIPPED AND PUNCTURED INSULATION IS CONTAINED WITHIN THE APPROPRIATE INSULATING COVER.
10. CCT CONDUCTOR INSULATION SHALL ONLY BE REMOVED BY THE USE OF AN APPROVED CCT CONDUCTOR STRIPPING TOOL.
11. A 2100mm CROSSARM IS TO BE USED AS THE DEFAULT TERMINATION CROSSARM. A 3070mm COMPOSITE FIBRE OR 3000mm STEEL CROSSARM IS TO BE USED WHEN THE MAXIMUM LOAD OF A TIMBER CROSSARM IS EXCEEDED.
12. ONLY THE 2100mm CROSSARM OPTION IS SHOWN ON THIS CONSTRUCTION DRAWING. REFER TO DRGS: 514377 & 237491 FOR DRILLING PATTERN OF ALTERNATE CROSSARMS.
13. SURGE ARRESTERS ARE TO BE INSTALLED ON AN OVERHEAD CCT CONDUCTOR SYSTEM IN ACCORDANCE WITH THE REQUIREMENTS OF NS126. IF A SURGE ARRESTER IS TO BE INSTALLED ON THIS CONSTRUCTION, IT IS TO BE INSTALLED AS PER THE RELEVANT ARRANGEMENT SPECIFIED ON DRG: 177151.
14. REFER TO DESIGNER SAFETY REPORT D25/136533 FOR ATYPICAL HAZARDS ASSOCIATED WITH THIS STANDARD CONSTRUCTION.

ITEM	DESCRIPTION	DRG. No	STOCK CODE	QTY
31	STEP - POLE, SCREW-IN (SEE NOTE 3)	250144	185198	A/R
30	COVER - PARALLEL, GROOVE CLAMP		144576	6
29	CLAMP - PARALLEL GROOVE, 2-BOLT		62414	6
28	WIRE - TIE, PREFORMED, INSULATED, CCT180		176312	4
	WIRE - TIE, PREFORMED, INSULATED, CCT120		144600	
	WIRE - TIE, PREFORMED, INSULATED, CCT80		144618	
27	WASHER - CONICAL, M16, GALVANISED	518082	H39647	4
26	WASHER - SQUARE, 50x50x6mm, GALVANISED (Ø18mm HOLE)	518081	H39257	3
25	INSULATOR - PIN POST, LONG STUD		145052	4
24	COVER - STRAIN CLAMP		144543	9
23	CLAMP - CONDUCTOR STRAIN, FOR CCT180		176313	9
	CLAMP - CONDUCTOR STRAIN, FOR CCT120		144527	
	CLAMP - CONDUCTOR STRAIN, FOR CCT80		144535	
22	INSULATOR - STRAIN ROD		144550	9
21	LINK - SAG, 70kN (PLP PART No. CTSLEW-070-1)		PURCHASE	9
20	BRACKET - POLE TOP, GALVANISED	514380	H17314	1
19	BLOCK - GAIN, ALUMINIUM, 125mm (USE WITH 3070mm CROSSARM)		146282	2
	BLOCK - GAIN, ALUMINIUM, 100mm (USE WITH 2100mm & 3000mm CROSSARMS)		146274	
18	WASHER - FLAT, M20, GALVANISED (USE WITH 2100mm CROSSARM)	518081	177986	4
17	WASHER - FLAT, M20, GALVANISED	518081	177986	4
16	EYEBOLT - M20, GALVANISED (LENGTH TO SUIT POLE) (SEE NOTES 6 & 7)	513653		2
15	BOLT & NUT - M12, HEX., GALVANISED (LENGTH TO SUIT POLE)	515466		1
14	EYENUT - M20, GALVANISED (SEE NOTE 7)	513951	H38853	3
13	WASHER - SQUARE, 75x75x6mm, GALVANISED (Ø22mm HOLE) (USE WITH 3070mm CROSSARM)	518081	H39231	6
	WASHER - LIP, M24, GALVANISED (USE WITH 2100mm & 3000mm CROSSARMS)	518081	176912	
12	WASHER - SPRING, M20, GALVANISED (USE WITH 3000mm & 3070mm CROSSARMS)	518082	175569	4
	WASHER - CONICAL, M20, GALVANISED (USE WITH 2100mm CROSSARM)	518082	H39655	
11	EYEBOLT - M20x200mm, GALVANISED (SEE NOTES 6 & 7)	513653	H37881	4
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		2
7	WASHER - SPRING, M12, GALVANISED (USE WITH 3000mm & 3070mm CROSSARMS)	518082	H12047	5
	WASHER - CONICAL, M12, GALVANISED (USE WITH 2100mm CROSSARM)	518082	H39639	
6	WASHER - FLAT, M12, GALVANISED	518081	177982	10
5	BOLT & NUT - M12x150mm, HEX., GALVANISED (USE WITH 3070mm CROSSARM)	515466	46847	4
	BOLT & NUT - M12x180mm, HEX., GALVANISED (USE WITH 2100mm & 3000mm CROSSARMS)	515466	46888	
4	CROSSARM - 3070x125x125mm, ITEM 3, COMPOSITE FIBRE (SEE NOTES 11 & 12)	237491	183935	2
	CROSSARM - 3000x150x100x5mm, RHS, GALVANISED (SEE NOTES 11 & 12)	514377	H23787	
	CROSSARM - 2100x150x100mm, TYPE H, HARDWOOD (SEE NOTES 11 & 12)	514374	H23745	
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.

CAD DRAWING
DO NOT MANUALLY AMEND

AMENDMENTS

1 — DWN: PATRICIA RIOS; CHKED: PHIL JONES; DATE 03/09/2007; NOTE 4 AMENDED.; APP'D by: STEPHEN CONNOR

2 — DWN: PATRICIA RIOS; CHKD: PHILLIP JONES; DATE: 16/08/2019; M20 WASHER ADDED. NOTES & MATERIAL LIST UPDATED. SHEET SIZE CHANGED.; APP'D by: GLENN FORD

3 — DWN: P.R.; CHKD: P.J.; APP'D: G.F.; DATE: 15/05/2025; NOTES & MATERIAL LIST AMENDED.

ASSOCIATED DRAWINGS	
11kV SURGE ARRESTER ARRANGEMENTS	177151
COMPOSITE FIBRE CROSSARM MECHANICAL LOAD REQUIREMENTS	237491
HV TERMINATION STEEL CROSSARM CONSTRUCTION DETAILS	514377
20mm EYEBOLT & EYENUT ASSEMBLY LOADING & DEVIATION GRAPH	520331
20mm EYEBOLT LOADING & DEVIATION GRAPH	520324

NETWORK STANDARD
Ausgrid
42 HONEYSUCKLE DRIVE,
NEWCASTLE WEST NSW 2300

SCALE	1:15
DESIGNED	PHILLIP JONES
DRAWN	PATRICIA RIOS
CHECKED	PHILLIP JONES
APPROVED	STEPHEN CONNOR
DATE	05/12/2006
PROJECT NUMBER	STD
TRIM REF NUMBER	-

STANDARD CONSTRUCTION
11kV LARGE THROUGH DELTA TERMINATION WITH TEE OFF CONSTRUCTION
2-37 CCT

SIZE	DRAWING No	SHEET	REV
A2	174967	1	3

© Ausgrid

20241022

174967-1.dgn 5/15/2025 1:28:35 PM