



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. PHASE CONDUCTOR AND OVERHEAD EARTHWIRE SIZE.
 - e. STAY REQUIREMENTS.
 - f. DEVIATION ANGLE.
 - g. ASSESSED EARTHING REQUIREMENTS.
2. THE STRUCTURE SHALL BE ERECTED SO THAT THE POLES ARE VERTICAL, THE TOPS OF POLES ARE LEVEL AND THE CROSSARM IS HORIZONTAL.
3. THE MAXIMUM LINE DEVIATION ANGLE TO BE CONSTRUCTED ON THIS ARRANGEMENT IS TO BE DETERMINED BY THE LINE DESIGNER.
4. POLES ARE TO BE ERECTED WITH A POLE CENTRE SEPARATION (DIMENSION 'A') OF 4400mm WHEN INSTALLING A 9000mm CROSSARM AND 5400mm WHEN INSTALLING AN 11000mm CROSSARM .
5. A PHASE SEPARATION (DIMENSION 'B') OF 4400mm EXISTS WHEN INSTALLING A 9000mm CROSSARM AND 5400mm WHEN INSTALLING AN 11000mm CROSSARM .
6. STAYS TO BE INSTALLED SO THAT THE STAYWIRE CLEARANCE FROM THE PHASE CONDUCTORS COMPLIES WITH THE STATUTORY REQUIREMENTS.
7. LONGROD INSULATORS TO BE USED UNDER NORMAL CONDITIONS.
8. WHERE A 250 x 90mm CROSSARM AND/OR STAYS ARE SPECIFIED, THE CROSSARM MOUNTING HOLES IN THE TIMBER POLES ARE TO BE COUNTERBORED TO 50mm DIAMETER & 50mm DEEP, AND THE COLLAR (ITEM 9) IS TO BE LET INTO THE POLE BEHIND THE CROSSARM.
9. ALL BOLTS PASSING THROUGH TIMBER ARE TO BE COATED WITH GRAPHITE GREASE.
10. POLES SHALL BE DRILLED, SCARFED AND DRESSED ON SITE. DRILLING AND SCARFING TO BE TREATED WITH APPROVED PRESERVATIVES.
11. THE EARTHING DOWN LEAD IS TO BE FIXED TO THE POLE WITH DOUBLE SIDED GALVANISED STEEL SADDLES AT INTERVALS NOT GREATER THAN 450mm. ONLY SUFFICIENT INSULATION IS TO BE REMOVED FROM THE DOWN LEAD TO MAKE AN EFFECTIVE CONNECTION TO THE POLE HARDWARE. SADDLES MUST BE NO LESS THAN 100mm FROM EDGES OF REMOVED INSULATION.
12. THE BI-METALLIC PARALLEL GROOVE CLAMP IS TO BE INSTALLED WITH THE COPPER CONDUCTOR BELOW THE ALUMINIUM CONDUCTOR SO THAT COPPER SALTS DO NOT WASH ONTO THE ALUMINIUM CONDUCTOR.
13. ONLY THE OPGW OVERHEAD EARTHWIRE OPTION IS SHOWN ON THIS CONSTRUCTION DRAWING.
14. USE THE OPGW SUSPENSION ARRANGEMENT WHEN ERECTING AN OPGW OVERHEAD EARTHWIRE. USE THE STANDARD EARTHWIRE SUSPENSION ARRANGEMENT WHEN ERECTING A NON OPGW OVERHEAD EARTHWIRE.
15. POLE STEPS SHOULD ONLY BE INSTALLED ON POLES WHERE ACCESS FOR NORMAL MAINTENANCE VEHICLES CANNOT BE MAINTAINED FOR THE LIFE OF THE POLE. IF POLE STEPS ARE INSTALLED, THEY ARE TO COMPLY WITH THE REQUIREMENTS OF NETWORK STANDARD NS135.
16. REFER TO DESIGNER SAFETY REPORT D22/123288 FOR ATYPICAL HAZARDS ASSOCIATED WITH THIS STANDARD CONSTRUCTION.

ITEM	DESCRIPTION	DRG. No	QTY
19	STEP - POLE, SCREW-IN (SEE NOTE 15)	250144	A/R
18	SCREW - SELF DRILLING, TIMBER, TYPE 17, 10Gx25mm, GALVANISED (S/C: 184996)		A/R
17	EARTHWIRE - SUSPENSION, OVERHEAD, MOUNTING, ARRANGEMENT -M2 OR M2A (SEE NOTES 13 & 14)	507790	2
	OPGW - SUSPENSION, CONDUCTOR, MOUNTING, ARRANGEMENT -1a (SEE NOTES 13 & 14)	244708	
16	SADDLE - 12.7mm, DOUBLE SIDED, GALVANISED (S/C: 176494) (SEE NOTE 11)		A/R
15	CONDUCTOR - 19/2.14(70mm ²) COPPER, PVC COVERED, BLACK (S/C: 60111) (SEE NOTE 11)		A/R
14	INSULATOR - LONGROD, 132kV, POLYMERIC STRING, ARRANGEMENT -6 (SEE NOTE 7)	520314	3
13	WASHER - SPRING, M20, GALVANISED	518082	6
12	WASHER - FLAT, M20, GALVANISED	518081	12
11	BOLT & NUT - M20x50mm, HEX., GALVANISED	515465	6
10	PLATE - DROPPER, GALVANISED	508727	3
9	COLLAR - Ø50mm (SEE NOTE 8)	507739	2
8	WASHER - FLAT, M24, GALVANISED	518081	2
7	WASHER - CONICAL, M24, GALVANISED	518082	2
6	WASHER - SQUARE, 75x75x6mm, GALVANISED (Ø27mm HOLE)	518081	2
5	BOLT & NUT - M24, HEX., GALVANISED (LENGTH TO SUIT POLE)	515465	2
4	CROSSARM - CHANNEL, 250x90x11000mm, GALVANISED (WP-AA-LH) (SEE NOTES 4 & 5)	507744	1
	CROSSARM - CHANNEL, 180x75x11000mm, GALVANISED (WP-AA-LL) (SEE NOTES 4 & 5)	507744	
	CROSSARM - CHANNEL, 250x90x9000mm, GALVANISED (WP-AA-NH) (SEE NOTES 4 & 5)	507743	
	CROSSARM - CHANNEL, 180x75x9000mm, GALVANISED (WP-AA-NL) (SEE NOTES 4 & 5)	507743	
3	FOOTING - TIMBER POLE, ARRANGEMENT (SEE NOTE 1)	508726	2
2	EARTHING - TIMBER, MULTIPLE POLE, ARRANGEMENT	520225	1
1	POLE - TIMBER, TYPE WPI (AS REQUIRED)	507726	2

CAD DRAWING
DO NOT MANUALLY AMEND

A. AMENDMENTS

INITIAL ISSUE
DWN: E.C. CHKD: B.W.B.
DWN: P.S. CHKD: P.S.

F
DATE: 11-3-94
PREPARED ON CAD NEW
EARTHING DRG. (ITEM 2)
ADDED.

AUTH'D BY: I. NICHOLS
DWN: PATRICIA RIOS
CHKD: PHILLIP JONES

DATE: 07/07/2014
DRAWING NUMBER UPDATED.
DRAWING BORDER UPDATED.
OHEW CHANGED TO OPGW.
DISCS CHANGED TO
LONGRODS. NOTES &
MATERIAL LIST AMENDED.

APP'D BY: DOMINIC SHIELDS
DWN: P. RIOS
CHKD: P. JONES

DATE: 22/04/2022
ITEMS 16 & 19 CHANGED.
ITEM 18 ADDED. NOTES
& MATERIAL LIST AMENDED.

APP'D BY: G. FORD

ASSOCIATED DRAWINGS

NETWORK STANDARD
Ausgrid

145 NEWCASTLE RD WALLSEND,
NSW 2287

SCALE	1:25	STANDARD CONSTRUCTION 132kV HORIZONTAL 'H' POLE SUSPENSION CONSTRUCTION WITH TWIN OVERHEAD EARTHWIRE WP-AA
DESIGNED	-	
DRAWN	P.S.	
CHECKED	P.S.	
APPROVED	I.NICHOLS	
DATE	11/03/94	
PROJECT NUMBER	STD	
PROJ/TRAK NUMBER	-	

SIZE	DRAWING No	SHEET	AMD
A2	507773	01	8