



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 MAXIMUM LINE DEVIATION ANGLE TO BE CONSTRUCTED ON THIS ARRANGEMENT IS TO BE DETERMINED BY THE LINE DESIGNER.
3. LONGROD INSULATORS TO BE USED UNDER NORMAL CONDITIONS.
4. STAYS TO BE INSTALLED SO THAT THE STAY WIRE CLEARANCE FROM THE PHASE CONDUCTORS COMPLIES WITH THE STATUTORY REQUIREMENTS.
5. THE OVERHEAD EARTH WIRE DOWN LEAD IS TO BE FIXED TO THE POLE SO AS TO GIVE THE MAXIMUM CLEARANCE TO THE NEAREST PHASE CONDUCTOR.
6. ALL BOLTS AND EYEBOLTS PASSING THROUGH TIMBER ARE TO BE COATED WITH GRAPHITE GREASE.
7. POLES SHALL BE DRILLED, SCARFED AND DRESSED ON SITE. DRILLING AND SCARFING TO BE TREATED WITH APPROVED PRESERVATIVES.
8. THE EARTHING DOWN LEAD IS TO BE FIXED TO THE POLE WITH STAPLES 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.
9. THE LOAD AND DEVIATION ALLOWABLE ON THE EYEBOLT IS TO BE DETERMINED FROM DRG: 520324.
10. EYEBOLTS ARE TO BE INSTALLED IN THE DIRECTION OF THE OVERHEAD CONDUCTORS.
11. THE LOAD AND DEVIATION ALLOWABLE ON THE EYEBOLT AND EYENUT ASSEMBLY IS TO BE DETERMINED FROM DRG: 520331.
12. NON TENSION COMPRESSION JOINTS TO BE USED WHEN REQUIRED TO JOIN CONDUCTORS.
13. WHEN DESIGNING UNDERBUILT CIRCUITS ON A 33kV STRUCTURE, THE POSSIBLE USE OF LIVE LINE WORKING PROCEDURES MUST BE CONSIDERED WHEN NOMINATING THE CIRCUIT SEPARATION TO ALLOW A MINIMUM CLEARANCE OF 2500mm IF REQUIRED.
14. LINE POST INSULATORS ARE TO BE FITTED WHERE LINE DEVIATION IS LESS THAN 90°.
15. CONDUCTOR TO POLE CLEARANCE IS TO BE A MINIMUM OF 380mm.
16. 'A' AND 'C' PHASE CONDUCTORS MAY BE BRIDGED UNDER THE CROSSARM PROVIDED THAT:
 - a. THE LINE IS SINGLE CIRCUIT OR STATUTORY CLEARANCES CAN BE MAINTAINED UNDER ALL OPERATING CONDITIONS.
 - b. MINIMUM CLEARANCES TO EARTH (POLE/HARDWARE) OF 380mm CAN BE MET.
 - c. WHEN THE CONDITIONS IN a AND b ARE NOT MET, A 33kV 33/920 AERODYNAMIC INSULATOR AND PIN ARRANGEMENT IS TO BE INSTALLED FOR THE 'A' AND 'C' PHASE CONDUCTORS.
17. ONLY THE SINGLE PHASE CONDUCTOR WITH OPGW THROUGH TERMINATION OVERHEAD EARTHWIRE OPTION IS SHOWN ON THIS CONSTRUCTION DRAWING.
18. USE THE OPGW THROUGH TERMINATION ARRANGEMENT WHEN ERECTING AN UNBROKEN OPGW OVERHEAD EARTHWIRE.
USE THE OPGW THROUGH SPLICE BOX TERMINATION ARRANGEMENT WHEN BREAKING AN OPGW OVERHEAD EARTHWIRE.
USE THE STANDARD EARTHWIRE TERMINATION ARRANGEMENT WHEN ERECTING A NON OPGW OVERHEAD EARTHWIRE.
19. WHEN USING THE OPGW THROUGH SPLICE BOX TERMINATION ARRANGEMENT, REFER TO DRAWING 565743 FOR SPLICE BOX AND COILED CABLE BRACKET MOUNTING DETAILS.
20. 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 NS128.
21. REFER TO DESIGNER SAFETY REPORT D20/397271 FOR ATYPICAL HAZARDS ASSOCIATED WITH THIS STANDARD CONSTRUCTION.

ITEM	DESCRIPTION	DRG. No	QTY
12	STEP - POLE, SCREW-IN (SEE NOTE 20)	250144	A/R
11	EARTHWIRE - TERMINATION, OVERHEAD, MOUNTING, ARRANGEMENT - 1A (SEE NOTES 17 & 18)	519450	
	OPGW - TERMINATION, CONDUCTOR, MOUNTING, ARRANGEMENT -1C (SEE NOTES 17, 18 & 19)	565747	1
10	JOINT - COMPRESSION, NON TENSION (TO SUIT DUAL CONDUCTORS) (SEE NOTES 12 & 17)	514053	6
	JOINT - COMPRESSION, NON TENSION (TO SUIT CONDUCTOR) (SEE NOTES 12 & 17)	514053	3
9	EARTHWIRE - OVERHEAD, DOWN LEAD, POLE HARDWARE, MOUNTING & BONDING , ARRANGEMENT -2	514145	2
8	INSULATOR - LONGROD, 33kV, DUAL CONDUCTOR, POLYMERIC STRING, ARRANGEMENT -2 (SEE NOTES 3 & 17)	250120	
	INSULATOR - LONGROD, 33kV, POLYMERIC STRING, ARRANGEMENT -2 (SEE NOTES 3 & 17)	158754	6
7	EARTHWIRE - OVERHEAD, DOWN LEAD, POLE HARDWARE, MOUNTING & BONDING , ARRANGEMENT -4	514145	1
6	INSULATOR - HORIZONTAL LINE POST, 66kV, DUAL CONDUCTOR, MOUNTING & BONDING, ARRANGEMENT -1 (SEE NOTE 17)	244699	
	INSULATOR - HORIZONTAL LINE POST, 66kV, MOUNTING & BONDING, ARRANGEMENT -1 (SEE NOTE 17)	514161	1
5	EARTHWIRE - OVERHEAD, DOWN LEAD, POLE HARDWARE, MOUNTING & BONDING , ARRANGEMENT -3	514145	1
4	CROSSARM - MOUNTING ARRANGEMENT 3 (GALVANISED STEEL OR COMPOSITE FIBRE CROSSARM)	514176	1
3	EARTHING - ARRANGEMENT, TIMBER POLE STRUCTURE, TYPE SE-M5	508786	1
2	FOOTING - TIMBER POLE, ARRANGEMENT (SEE NOTE 1)	508726	1
1	POLE - TIMBER (AS REQUIRED)	513988	1

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

CAD DRAWING DO NOT MANUALLY AMEND A M E N D M E N T S DWN: GARY HUGHES CHKD: GARY CRAIG DATE: 14/10/2013 AUSGRID BORDER APPLIED. APPD by: GLENN FORD DWN: PATRICIA RIOS CHKD: PHILLIP JONES DATE: 10/09/2020 SHEET SIZE CHANGED. LINE POST UPDATED & MOVED. EARTHING UPDATED. NOTES & MATERIAL LIST AMENDED. APPD by: GLENN FORD	1	2	3	4	5	6	7	8	
	OPGW CONDUCTOR SPLICE BOX & COILED CABLE BRACKET MTG ARRANGEMENT 565743								
	20mm EYEBOLT & EYENUT ASSEMBLY LOADING & DEVIATION GRAPH 520331								
	20mm EYEBOLT LOADING & DEVIATION GRAPH 520324								
ASSOCIATED DRAWINGS									

NETWORK STANDARD 145 NEWCASTLE RD WALLSEND, NSW 2287	SCALE	1:25	STANDARD CONSTRUCTION 33kV LARGE DELTA THROUGH TERMINATION CONSTRUCTION WITH OVERHEAD EARTHWIRE 4-30E
	DESIGNED	PHIL JONES	
	DRAWN	PATRICIA RIOS	
	CHECKED	PHIL JONES	
	APPROVED	STEPHEN CONNOR	
DATE	20/12/07		
PROJECT NUMBER	STD		
PROJTRAK NUMBER	-		
SIZE	A2	DRAWING No	174424
		SHEET	01
		AMD	2