



- NOTES:**
- THE FOLLOWING INFORMATION IS OBTAINED FROM THE PROJECT DESIGN DRAWINGS :
 - POLE LENGTH AND STRENGTH.
 - SPECIAL FOUNDATION REQUIREMENTS.
 - POLE EMBEDMENT DEPTH.
 - PHASE CONDUCTOR AND OVERHEAD EARTHWIRE SIZE.
 - VARIATIONS TO STANDARD CROSSARM 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.
 - 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.
 - 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.
 - THE LOAD AND DEVIATION ALLOWABLE ON THE EYEBOLT AND EYENUT ASSEMBLY IS TO BE DETERMINED FROM DRG: 520331.
 - LONGROD INSULATORS TO BE USED UNDER NORMAL CONDITIONS.
 - STAYS TO BE INSTALLED SO THAT THE STAY WIRE CLEARANCE FROM THE PHASE CONDUCTORS COMPLIES WITH THE STATUTORY REQUIREMENTS.
 - 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.
 - ALL BOLTS AND EYEBOLTS PASSING THROUGH TIMBER ARE TO BE COATED WITH GRAPHITE GREASE.
 - EYEBOLTS ARE TO BE INSTALLED IN THE DIRECTION OF THE OVERHEAD CONDUCTORS.
 - EYEBOLT AND EYENUT ASSEMBLIES ARE TO BE INSTALLED TO BISECT THE ANGLE OF DEVIATION.
 - NON TENSION COMPRESSION JOINTS TO BE USED WHEN REQUIRED TO JOIN CONDUCTORS.
 - CONDUCTOR TO POLE CLEARANCE IS TO BE A MINIMUM OF 380mm.
 - 'A' AND 'C' PHASE CONDUCTORS MAY BE BRIDGED UNDER THE CROSSARM PROVIDED THAT:
 - THE LINE IS SINGLE CIRCUIT OR STATUTORY CLEARANCES CAN BE MAINTAINED UNDER ALL OPERATING CONDITIONS.
 - MINIMUM CLEARANCES TO EARTH (POLE/HARDWARE) OF 380mm CAN BE MET.
 - 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.
 - THE EARTHING DOWN LEAD IS TO BE FIXED TO THE POLE USING DOUBLE SIDED GALVANISED STEEL SADDLES AT INTERVALS OF NOT GREATER THAN 450mm.
 - COMPOSITE FIBRE CROSSARMS ARE TO BE USED AS THE PREFERRED OPTION UNDER NORMAL CIRCUMSTANCES.
 - A 2706mm COMPOSITE FIBRE CROSSARM IS TO BE USED AS THE DEFAULT CROSSARM. A LONGER COMPOSITE FIBRE CROSSARM IS TO BE USED WHERE ADDITIONAL MID SPAN SEPARATION IS REQUIRED. A STEEL CROSSARM IS TO BE USED WHEN THE MAXIMUM LOAD OF THE ALTERNATE CROSSARMS IS EXCEEDED.
 - ONLY THE 2706mm COMPOSITE FIBRE CROSSARM OPTION IS SHOWN ON THIS CONSTRUCTION DRAWING. REFER TO DRGS: 262732 & 514377 FOR DRILLING PATTERN OF ALTERNATE CROSSARMS.
 - FOR DETAILS OF APPROVED ALTERNATE WAGNER COMPOSITE FIBRE CROSSARMS, REFER TO DRG: 265964.
 - ONLY THE SINGLE PHASE CONDUCTOR WITH OPGW THROUGH TERMINATION OVERHEAD EARTHWIRE OPTION IS SHOWN ON THIS CONSTRUCTION DRAWING.
 - 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.
 - WHEN USING THE OPGW THROUGH SPLICE BOX TERMINATION ARRANGEMENT, REFER TO DRAWING 565743 FOR SPLICE BOX AND COILED CABLE BRACKET MOUNTING DETAILS.
 - 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.
 - REFER TO DESIGNER SAFETY REPORT D20/397271 FOR ATYPICAL HAZARDS ASSOCIATED WITH THIS STANDARD CONSTRUCTION.

ITEM	DESCRIPTION	DRG. No	QTY
16	STEP - POLE, SCREW-IN (SEE NOTE 24)	250144	A/R
15	JOINT - COMPRESSION, NON TENSION (TO SUIT DUAL CONDUCTORS) (SEE NOTES 13 & 21)	514053	6
	JOINT - COMPRESSION, NON TENSION (TO SUIT CONDUCTOR) (SEE NOTES 13 & 21)	514053	3
14	EARTHWIRE - TERMINATION, OVERHEAD, MOUNTING, ARRANGEMENT - 1A (SEE NOTES 21 & 22)	519450	1
	OPGW - TERMINATION, CONDUCTOR, MOUNTING, ARRANGEMENT -1C (SEE NOTES 21, 22 & 23)	565747	
13	INSULATOR - LONGROD, 33kV, DUAL CONDUCTOR, POLYMERIC STRING, ARRANGEMENT -2 (SEE NOTES 6 & 21)	250120	6
	INSULATOR - LONGROD, 33kV, POLYMERIC STRING, ARRANGEMENT -2 (SEE NOTES 6 & 21)	158754	
12	EARTHWIRE - OVERHEAD, DOWN LEAD, POLE HARDWARE, MOUNTING & BONDING, ARRANGEMENT -2 (SEE NOTES 3 & 16)	514145	2
11	EARTHWIRE - OVERHEAD, DOWN LEAD, POLE HARDWARE, MOUNTING & BONDING, ARRANGEMENT -4 (SEE NOTES 3 & 16)	514145	1
10	EARTHWIRE - OVERHEAD, DOWN LEAD, POLE HARDWARE, MOUNTING & BONDING, ARRANGEMENT -3 (SEE NOTES 3 & 16)	514145	1
	INSULATOR - HORIZONTAL LINE POST, 66kV, DUAL CONDUCTOR, MOUNTING & BONDING, ARRANGEMENT -1 (SEE NOTE 21)	244699	
9	INSULATOR - HORIZONTAL LINE POST, 66kV, MOUNTING & BONDING, ARRANGEMENT -1 (SEE NOTE 21)	514161	1
8	WASHER - SQUARE, 75x75x6mm, GALVANISED (Ø22mm HOLE)	518081	4
7	EYEBOLT - M20, GALVANISED (LENGTH TO SUIT POLE) (SEE NOTES 8 & 11)	513653	2
6	WASHER - FLAT, M20, GALVANISED	518081	2
5	WASHER - CONICAL, M20, GALVANISED	518082	2
4	CROSSARM - MOUNTING ARRANGEMENT -3 (COMPOSITE FIBRE OR GALVANISED STEEL CROSSARM) (SEE NOTES 17, 18, 19 & 20)	514176	1
3	FOOTING - TIMBER POLE, ARRANGEMENT (SEE NOTE 1)	508726	1
2	EARTHING - ARRANGEMENT, TIMBER POLE STRUCTURE, TYPE SE-M5	508786	1
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: GARY HUGHES CHKD: GARRY CRAIG DATE: 14/10/2013 AUSGRID BORDER APPLIED. APPD by: GLENN FORD DWN: PATRICIA RIOS CHKD: PHILIP JONES DATE: 10/09/2020 SHEET SIZE CHANGED. LINE POST UPDATED & MOVED. EARTHING UPDATED. NOTES & MATERIAL LIST AMENDED. APPD by: GLENN FORD DWN: P.R. CHKD: P.J. APPD: G.F. DATE: 22/08/2024 COMPOSITE CROSSARMS ADDED TO MATERIAL LIST. NOTES & DIMENSIONS AMENDED.	COMPOSITE FIBRE CROSSARMS WAGNER SPECIFICATION 265964 HV TERMINATION STEEL CROSSARM CONSTRUCTION DETAILS 514377 COMPOSITE FIBRE CROSSARMS SPECIFICATION 262732 OPGW CONDUCTOR SPLICE BOX & COILED CABLE BRACKET MTG ARRANGEMENT 565743 20mm EYEBOLT & EYENUT ASSEMBLY LOADING & DEVIATION GRAPH 520331 20mm EYEBOLT LOADING & DEVIATION GRAPH 520324	NETWORK STANDARD 145 NEWCASTLE RD WALLSEND, NSW 2287	SCALE 1:25 DESIGNED PHIL JONES DRAWN PATRICIA RIOS CHECKED PHIL JONES APPROVED STEPHEN CONNOR DATE 20/12/07 PROJECT NUMBER STD PROJTRAK NUMBER -	STANDARD CONSTRUCTION 33kV LARGE DELTA THROUGH TERMINATION CONSTRUCTION WITH OVERHEAD EARTHWIRE 4-30E	SIZE A2 DRAWING No 174424 SHEET 01 AMD 3			
	ASSOCIATED DRAWINGS							
	20110901		1	2	3	4	5	6