



- NOTES :**
- THE FOLLOWING INFORMATION IS OBTAINED FROM THE PROJECT DESIGN DRAWINGS :
 - POLE LENGTH AND STRENGTH.
 - SPECIAL FOUNDATION REQUIREMENTS.
 - POLE EMBEDMENT DEPTH.
 - CONDUCTOR SIZE.
 - VARIATIONS TO STANDARDD CROSSARM REQUIREMENTS.
 - STAY REQUIREMENTS.
 - DEVIATION ANGLE.
 - THE MAXIMUM LINE DEVIATION ANGLE TO BE CONSTRUCTED ON THIS ARRANGEMENT IS TO BE DETERMINED BY THE LINE DESIGNER.
 - 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.
 - POLES SHALL BE DRILLED, SCARFED AND DRESSED ON SITE. DRILLING AND SCARFING TO BE TREATED WITH APPROVED PRESERVATIVES.
 - NON-TENSION COMPRESSION SLEEVES TO BE USED WHEN REQUIRED TO JOIN CONDUCTORS.
 - USE THE ANGLE TYPE CONDUCTOR TIE ARRANGEMENT AS SHOWN ON DRG: 514038.
 - 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.
 - ALL BOLTS AND EYEBOLTS PASSING THROUGH TIMBER ARE TO BE COATED WITH GRAPHITE GREASE.
 - INSTALL A 33/920 PIN INSULATOR ARRANGEMENT TO HOLD THE CONDUCTOR TAPPING TO INCREASE THE CONDUCTOR CLEARANCE TO THE CROSSARM AND REDUCE THE RISK OF A FLASHOVER DUE TO PERCHED BIRDS.
 - STAYS TO BE INSTALLED SO THAT THE STAY WIRE CLEARANCE FROM THE PHASE CONDUCTORS COMPLIES WITH THE STATUTORY REQUIREMENTS.
 - EYEBOLTS ARE TO BE INSTALLED TO BISECT THE ANGLE OF DEVIATION.
 - COMPOSITE FIBRE CROSSARMS ARE TO BE USED AS THE REFERED 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 OPTION IS SHOWN ON THIS CONSTRUCTION DRAWING.
 - 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 D20/476120 FOR ATYPICAL HAZARDS ASSOCIATED WITH THIS STANDARD CONSTRUCTION.

ITEM	DESCRIPTION	DRG. No	QTY
8	STEP - POLE, SCREW-IN (SEE NOTE 20)	250144	A/R
7	JOINT - COMPRESSION, NON TENSION (TO SUIT DUAL CONDUCTORS) (SEE NOTES 7 & 19)	514053	6
	JOINT - COMPRESSION, NON TENSION (TO SUIT CONDUCTOR) (SEE NOTES 7 & 19)	514053	3
6	INSULATOR - LONGROD, 33kV, DUAL CONDUCTOR, POLYMERIC STRING, ARRANGEMENT -2 (SEE NOTES 5 & 19)	250120	6
	INSULATOR - LONGROD, 33kV, POLYMERIC STRING, ARRANGEMENT -2 (SEE NOTES 5 & 19)	158754	
5	TIE - CONDUCTOR, HIGH VOLTAGE, SUPPORT ARRANGEMENT (SEE NOTE 8)	514038	1m
4	INSULATOR - 33kV, AERODYNAMIC, (33/920) AND PIN ARRANGEMENT (SEE NOTE 12)	514006	1
3	CROSSARM - MOUNTING ARRANGEMENT -3 (COMPOSITE FIBRE OR GALVANISED STEEL CROSSARM) (SEE NOTES 15, 16, 17 & 18)	514176	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 AMENDMENTS	DWN: PATRICIA RIOS CHKD: PHILLIP JONES	APPD BY: GLENN FORD DWN: P.R. CHKD: P.J. APPD: G.F.	DATE: 08/11/2022 NOTES & MATERIAL LIST AMENDED. INSULATOR STRING ARRANGEMENT AMENDED.	DWN: P.R. CHKD: P.J. APPD: G.F.	DATE: 23/07/2024 COMPOSITE CROSSARMS ADDED TO MATERIAL LIST. NOTES & DIMENSIONS AMENDED. SHEET SIZE CHANGED.
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NO	DESCRIPTION	DRG. No	QTY
14	NOTES & MATERIAL LIST AMENDED. POLE BASE DETAILS ADDED. SHEET SIZE CHANGED.		
15	COMPOSITE CROSSARMS WAGNER SPECIFICATION	265964	
16	COMPOSITE CROSSARMS SPECIFICATION	262732	
	HV TERMINATION STEEL CROSSARM CONSTRUCTION DETAILS	514377	
	HV CONDUCTOR TIE SUPPORT ARRANGEMENTS	514038	
	20mm EYEBOLT & EYENUT ASSEMBLY LOADING & DEVIATION GRAPH	520331	

ASSOCIATED DRAWINGS

NETWORK STANDARD

145 NEWCASTLE RD WALLSEND, NSW 2287

SCALE	1:20	STANDARD CONSTRUCTION 33kV THROUGH TERMINATION CONSTRUCTION 4-11
DESIGNED	-	
DRAWN	PETER SAUNDERS	
CHECKED	P.A.S	
APPROVED	G SKINNER	
DATE	29/05/1996	
PROJECT NUMBER	STD	
PROJTRAK NUMBER	-	

SIZE	DRAWING No	SHEET	AMD
A2	513930	01	16