



- NOTES:**
- THE FOLLOWING INFORMATION IS OBTAINED FROM THE PROJECT DESIGN DRAWINGS:
    - POLE LENGTH AND STRENGTH.
    - SPECIAL FOUNDATION REQUIREMENTS.
    - POLE EMBEDMENT DEPTH.
    - CONDUCTOR SIZE.
    - CROSSARM SIZE AND BRACE REQUIREMENTS.
    - STAY REQUIREMENTS.
    - DEVIATION ANGLE.
  - THE MAXIMUM LINE DEVIATION ANGLE TO BE CONSTRUCTED ON THIS ARRANGEMENT IS TO BE DETERMINED BY THE LINE DESIGNER.
  - POLE STEPS ARE TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF NS128.
  - IN AREAS WHERE THE 22kV NETWORK CANNOT BE WORKED ON USING LIVE LINE TECHNIQUES, UNDERBUILT CIRCUITS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 1200mm. IN AREAS WHERE THE 22kV NETWORK CAN BE WORKED ON USING LIVE LINE TECHNIQUES, UNDERBUILT CIRCUITS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 2500mm.
  - 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.
  - ALL BOLTS AND INSULATOR PINS PASSING THROUGH TIMBER ARE TO BE COATED WITH GRAPHITE GREASE.
  - 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 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, 514373 & 514377 FOR DRILLING PATTERN OF ALTERNATE CROSSARMS.
  - FOR DETAILS OF APPROVED ALTERNATE WAGNER COMPOSITE FIBRE CROSSARMS, REFER TO DRG: 265964.
  - WHEN SPECIFYING WAGNER COMPOSITE FIBRE CROSSARMS, A REVIEW OF ALL THE HARDWARE ATTACHED TO THE CROSSARM WILL BE REQUIRED.
  - REFER TO DESIGNER SAFETY REPORT D21/48166 FOR ATYPICAL HAZARDS ASSOCIATED WITH THIS STANDARD CONSTRUCTION.

27	STEP - POLE, SCREW-IN (SEE NOTE 3)	250144	185198	A/R
26	JOINT - NON TENSION, COMPRESSION (TO SUIT CONDUCTOR) (SEE NOTE 8)	514053		3
25	TIE - CONDUCTOR, HIGH VOLTAGE, SUPPORT ARRANGEMENT (SEE NOTE 9)	514038		1m
24	INSULATOR - 11/22kV AERODYNAMIC, (22/450) AND PIN ARRANGEMENT	513997		1
23	INSULATOR - 11/22kV LONGROD, STRING ARRANGEMENT AR-2 (SEE NOTE 6)	565715		6
22	BRACKET - POLE TOP, GALVANISED	514380	H17314	1
21	BLOCK - GAIN, ALUMINIUM, 100mm		146274	1
20	EYEBOLT - M20, GALVANISED (LENGTH TO SUIT POLE) (SEE NOTE 5)	513653		1
19	WASHER - CONICAL, M12, GALVANISED	518082	H39639	1
18	WASHER - FLAT, M12, GALVANISED	518081	177982	2
17	BOLT & NUT - M12, HEX., GALVANISED (LENGTH TO SUIT POLE)	515466		1
16	EYENUT - M20, GALVANISED (SEE NOTE 5)	513951	H38853	3
15	WASHER - FLAT, M20, GALVANISED (USE WITH 2700mm CROSSARM)	518081	177986	2
14	WASHER - FLAT, M20, GALVANISED	518081	177986	2
13	WASHER - LIP, M24, GALVANISED	518081	176912	4
12	EYEBOLT - M20x200mm, GALVANISED (SEE NOTE 5)	513653	H37881	2
11	WASHER - CONICAL, M20, GALVANISED (USE WITH HARDWOOD CROSSARM)	518082	H39655	2
	WASHER - SPRING, M20, GALVANISED (USE WITH COMPOSITE FIBRE & STEEL CROSSARMS)	518082	175569	
10	WASHER - CONICAL, M20, GALVANISED	518082	H39655	2
9	WASHER - SQUARE, 75x75x6mm, GALVANISED (Ø22mm HOLE)	518081	H39231	3
8	BOLT & NUT - M20, HEX., GALVANISED (LENGTH TO SUIT POLE)	515466		1
7	WASHER - CONICAL, M12, GALVANISED (USE WITH HARDWOOD CROSSARM)	518082	H39639	2
	WASHER - SPRING, M12, GALVANISED (USE WITH COMPOSITE FIBRE & STEEL CROSSARMS)	518082	H12047	
6	WASHER - FLAT, M12, GALVANISED	518081	177982	4
5	BOLT & NUT - M12x180mm, HEX., GALVANISED (USE WITH 2700mm & 3000mm CROSSARMS)	515466	46888	2
	BOLT & NUT - M12x130mm, HEX., GALVANISED (USE WITH 2706mm & 3006mm CROSSARMS)	515466	46805	
4	CROSSARM - 3000x150x100x5mm, RHS, GALVANISED (SEE NOTES 11, 12, 13, 14 & 15)	514377	H23787	1
	CROSSARM - 2700x150x100mm, TYPE C, HARDWOOD (SEE NOTES 11, 12, 13, 14 & 15)	514373	H23907	
	CROSSARM - 3006x102x102mm, TYPE 13, COMPOSITE FIBRE (SEE NOTES 11, 12, 13, 14 & 15)	262732	186783	
	CROSSARM - 2706x102x102mm, TYPE 12, COMPOSITE FIBRE (SEE NOTES 11, 12, 13, 14 & 15)	262732	186782	
3	SCREW - COACH, M12x100mm, GALVANISED		H40484	1
2	BRACE - CROSSARM, FLAT, 690mm, GALVANISED	514385	H17738	2
1	POLE - TIMBER (AS REQUIRED)	513988		1

ITEM	DESCRIPTION	DRG. No	STOCK CODE	QTY
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ALL DIMENSIONS IN MILLIMETRES UNLESS NOTED OTHERWISE. DO NOT SCALE.

CAD DRAWING DO NOT MANUALLY AMEND	
AMENDMENTS	
DWN: P.R.	
CHKD: C.ROSKELL	
APPD: G.F.	
DATE: 25/09/2024	
WAGNER CROSSARM OPTION REMOVED FROM MATERIAL LIST. COMPOSITE CROSSARM OPTIONS ADDED TO MATERIAL LIST. NOTE ADDED.	
1	

DESCRIPTION	DRG. No
2700mm CROSSARMS FOR LV, 11kV, 22kV AND 33kV CONSTRUCTION DETAILS	514373
COMPOSITE FIBRE CROSSARMS SPECIFICATION	262732
COMPOSITE FIBRE CROSSARMS WAGNER SPECIFICATION	265964
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
DESIGNED	P.JONES
DRAWN	P.RIOS
CHECKED	C.ROSKELL
APPROVED	G.FORD
DATE	22/02/2021
PROJECT NUMBER	STD
PROJTRAK NUMBER	-

STANDARD CONSTRUCTION	
22kV LARGE THROUGH DELTA	
TERMINATION CONSTRUCTION	
3-30	
SIZE	DRAWING No
A2	255619
SHEET	AMD
1	1