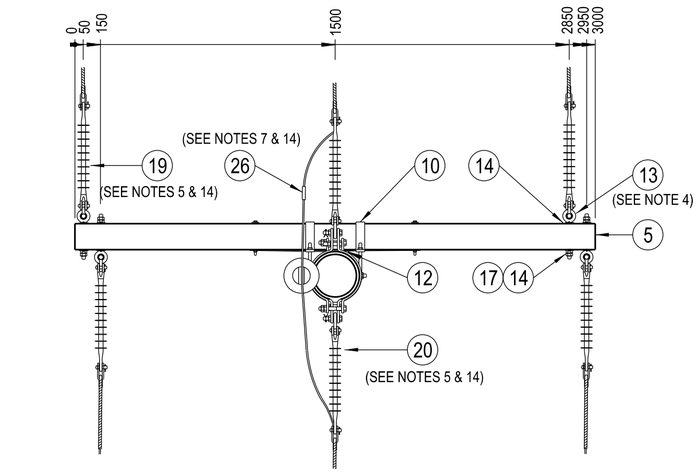

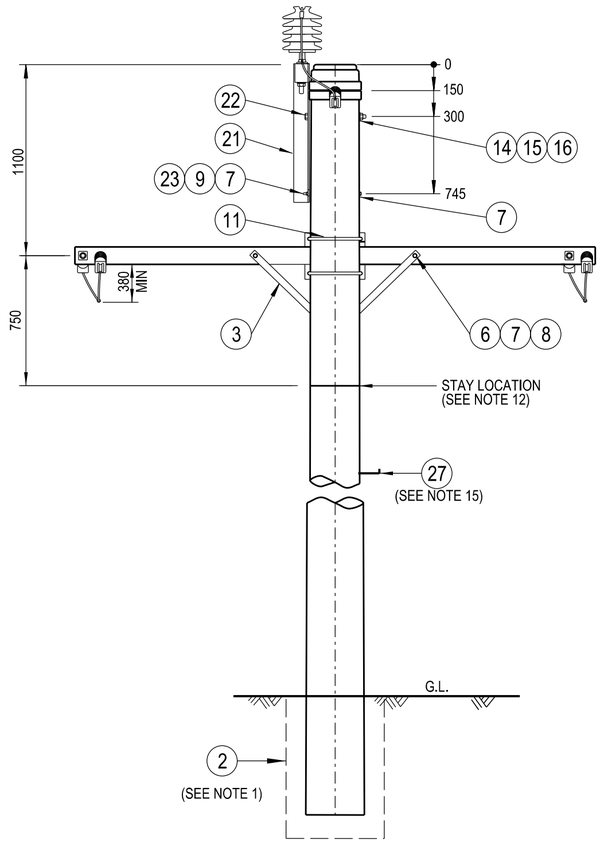

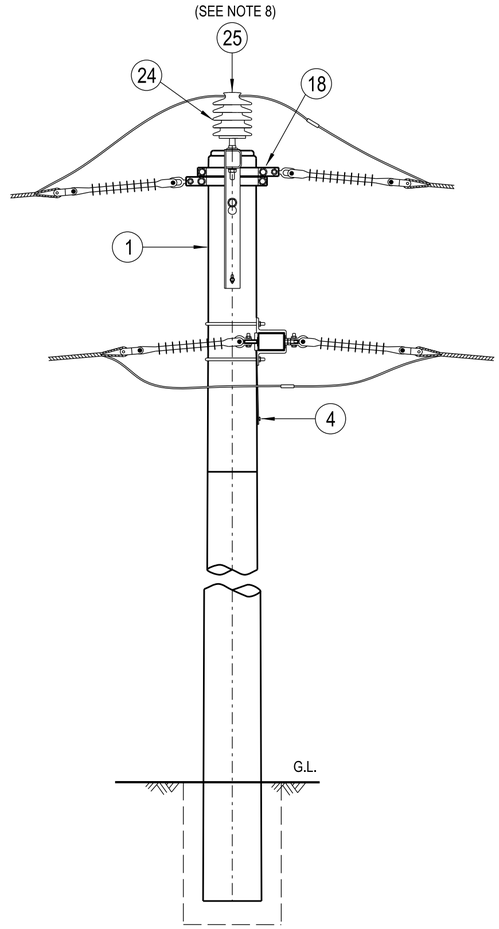

NOTES :

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. CONDUCTOR SIZE.
   e. VARIATIONS TO STANDADRD CROSSARM REQUIREMENTS.
   f. STAY REQUIREMENTS.
   g. DEVIATION ANGLE.
2. THE MAXIMUM LINE DEVIATION ANGLE TO BE CONSTRUCTED ON THIS ARRANGEMENT IS TO BE DETERMINED BY THE LINE DESIGNER.
3. 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.
4. THE LOAD AND DEVIATION ALLOWABLE ON THE EYEBOLT IS TO BE DETERMINED FROM DRG: 520324.
5. LONGROD INSULATORS TO BE USED UNDER NORMAL CONDITIONS.
6. POLES SHALL BE DRILLED, SCARFED AND DRESSED ON SITE. DRILLING AND SCARFING TO BE TREATED WITH APPROVED PRESERVATIVES.
7. NON-TENSION COMPRESSION SLEEVES TO BE USED WHEN REQUIRED TO JOIN CONDUCTORS.
8. USE THE ANGLE TYPE CONDUCTOR TIE ARRANGEMENT AS SHOWN ON DRG: 514038.
9. CONDUCTOR TO POLE CLEARANCE IS TO BE A MINIMUM OF 380mm.
10. '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 ARRANGEMENTIS TO BE INSTALLED FOR THE 'A' AND 'C' PHASE CONDUCTORS.
11. ALL BOLTS PASSING THROUGH TIMBER ARE TO BE COATED WITH GRAPHITE GREASE.
12. STAYS TO BE INSTALLED SO THAT THE STAY WIRE CLEARANCE FROM THE PHASE CONDUCTORS COMPLIES WITH THE STATUTORY REQUIREMENTS.
13. EYEBOLTS ARE TO BE INSTALLED TO BISECT THE ANGLE OF DEVIATION.
14. ONLY THE SINGLE PHASE CONDUCTOR OPTION IS SHOWN ON THIS CONSTRUCTION DRAWING.
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 NS128.
17. REFER TO DESIGNER SAFETY REPORT D22/297037 FOR ATYPICAL HAZARDS ASSOCIATED WITH THIS STANDARD CONSTRUCTION.

ITEM	DESCRIPTION	DRG. No	QTY
27	STEP - POLE, SCREW-IN (SEE NOTE 15)	250144	A/R
26	JOINT - COMPRESSION, NON TENSION (TO SUIT DUAL CONDUCTORS) (SEE NOTES 7 & 14)	514053	6
	JOINT - COMPRESSION, NON TENSION (TO SUIT CONDUCTOR) (SEE NOTES 7 & 14)	514053	3
25	TIE - CONDUCTOR, HIGH VOLTAGE, SUPPORT ARRANGEMENT (SEE NOTE 8)	514038	1m
24	INSULATOR - 33kV, AERODYNAMIC, (33/920) AND PIN ARRANGEMENT	514006	1
23	BOLT & NUT - M12, HEX., GALVANISED (LENGTH TO SUIT POLE)	515466	1
22	BOLT & NUT - M20, HEX., GALVANISED (LENGTH TO SUIT POLE)	515466	1
21	BRACKET - POLE TOP, GALVANISED	514380	1
20	INSULATOR - LONGROD, 33kV, DUAL CONDUCTOR, POLYMERIC STRING, ARRANGEMENT -3 (SEE NOTES 5 & 14)	250120	2
	INSULATOR - LONGROD, 33kV, POLYMERIC STRING, ARRANGEMENT -3 (SEE NOTES 5 & 14)	158754	
19	INSULATOR - LONGROD, 33kV, DUAL CONDUCTOR, POLYMERIC STRING, ARRANGEMENT -2 (SEE NOTES 5 & 14)	250120	4
	INSULATOR - LONGROD, 33kV, POLYMERIC STRING, ARRANGEMENT -2 (SEE NOTES 5 & 14)	158754	
18	BAND - POLE, 3 BOLT (SIZE TO SUIT POLE)	507741	2
17	WASHER - SPRING, M20, GALVANISED	518082	4
16	WASHER - FLAT, M20, GALVANISED	518081	1
15	WASHER - CONICAL, M20, GALVANISED	518082	1
14	WASHER - SQUARE, 75x75x6mm, GALVANISED (Ø22mm HOLE)	518081	9
13	EYEBOLT - M20x350mm, GALVANISED (USE WITH 200x100mm CROSSARM) (SEE NOTE 4)	513653	4
	EYEBOLT - M20x200mm, GALVANISED (USE WITH 150x100mm CROSSARM) (SEE NOTE 4)	513653	
12	BLOCK - GAIN, ALUMINIUM, 100mm (S/C: 146274)		1
11	BOLT - 'U' TYPE, 16mm, GALVANISED	514409	2
10	BRACKET - CROSSARM, ASSEMBLY (USE WITH 200x100mm CROSSARM)	514387	2
	BRACKET - CROSSARM, ASSEMBLY (USE WITH 150x100mm CROSSARM)	514386	
9	WASHER - CONICAL, M12, GALVANISED	518082	1
8	WASHER - SPRING, M12, GALVANISED	518082	2
7	WASHER - FLAT, M12, GALVANISED	518081	4
6	BOLT & NUT - M12x240mm, HEX., GALVANISED (USE WITH 200x100mm CROSSARM)	515466	2
	BOLT & NUT - M12x200mm, HEX., GALVANISED (USE WITH 150x100mm CROSSARM)	515466	
5	CROSSARM - RHS, 3000x200x100x5mm, GALVANISED	514377	1
	CROSSARM - RHS, 3000x150x100x5mm, GALVANISED	514377	
4	SCREW - COACH, M12x100mm, GALVANISED (S/C: H40484)		1
3	BRACE - CROSSARM, FLAT, 690mm, GALVANISED	514385	2
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: P.R.
CHKD: P.J.
APP'D: G.F.

6 DATE: 08/11/2022 FOUNDATION DETAILS ADDED. NOTES & MATERIAL LIST AMENDED. DUAL CONDUCTOR OPTION ADDED.

ASSOCIATED DRAWINGS	
HV CONDUCTOR TIE SUPPORT ARRANGEMENTS	514038
20mm EYEBOLT LOADING AND DEVIATION GRAPH	520324

NETWORK STANDARD
Ausgrid
145 NEWCASTLE RD WALLSEND, NSW 2287

SCALE	1.25
DESIGNED	-
DRAWN	PETER SAUNDERS
CHECKED	P.A.S
APPROVED	R.BREMMELL
DATE	07/06/1996
PROJECT NUMBER	STD
PROJTRAK NUMBER	-

STANDARD CONSTRUCTION
33kV RAILWAY DELTA TERMINATION CONSTRUCTION
WITH RHS GALVANISED CROSSARM
4-28

SIZE A2 | DRAWING No 513935 | SHEET 1 | AMD 6

20110901

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