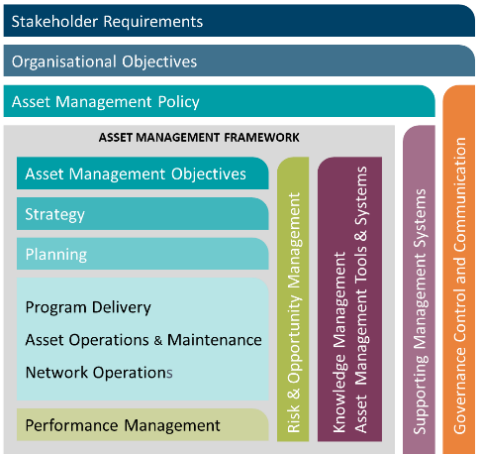
Western Power's
Asset Management System



Distribution Construction Standard Handbook
Low Voltage Aerial Bundled Cable
Part 07 (A)

Original Issue: November 2003

Content Owner/Custodian: Distribution Design and Standards

This Revision: 1 – April 2025

Date for Next Review: April 2028

ABN 18540492861

Document control

Endorsement approvals

	Name	Title	Signature and Date
Compiled by	Nory Cerrado	Distribution Draftsperson	Signature on file
Checked by	Chris Omodei	Principal Engineer	Signature on file
Endorsed by	Ken Tiong	Team Leader	Signature on file
Approved by	Pep Ngwenya	Distribution Design & Standards Manager	Signature on file

Record of revisions

Revision No.	Date	EDM Version	Compiled by	Description
1	01/04/2025	9	Nory Cerrado	First Revision with new Format and 3 yearly review

This document gives direction to and influences the following documents.

Doc	Title of document
ALL CHAPTERS	DDC - DISTRIBUTION DESIGN CATALOGUE
ALL CHAPTERS	DCSH - DISTRIBUTION CONSTRUCTION STANDARD HANDBOOK
ALL CHAPTERS	DSPM - DISTRIBUTION SUBSTATION PLANT MANUAL

Stakeholders (people that were consulted when document was updated)

Business Unit / Function
Asset Management - Asset Performance
Asset Management – Safety Environment Quality and Training
Asset Management - Grid Transformation
Asset Operations – Network Operations
Asset Operations – Operational Services
Asset Operations – Customer Connection Services
Business and Customer Service – Customer Service

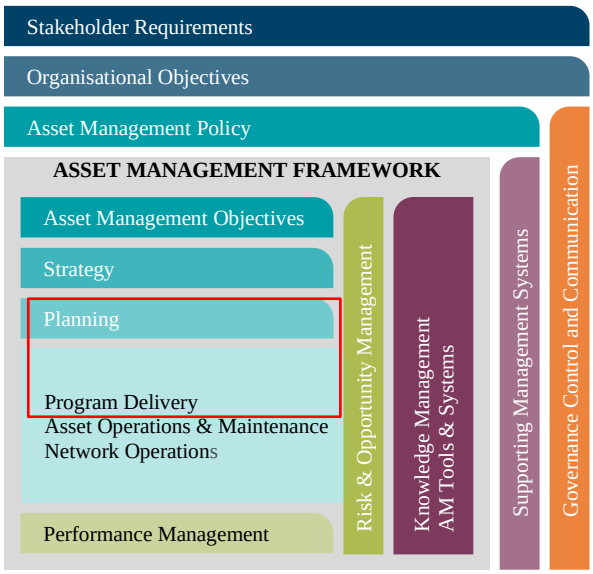
Notification list (people to be notified when document is updated)

Business Unit / Function
Asset Management - Asset Performance
Asset Management – Safety Environment Quality and Training
Asset Management - Grid Transformation
Asset Operations – Network Operations
Asset Operations – Operational Services
Asset Operations – Customer Connection Services
Business and Customer Service – Customer Service

Document classification and hierarchy

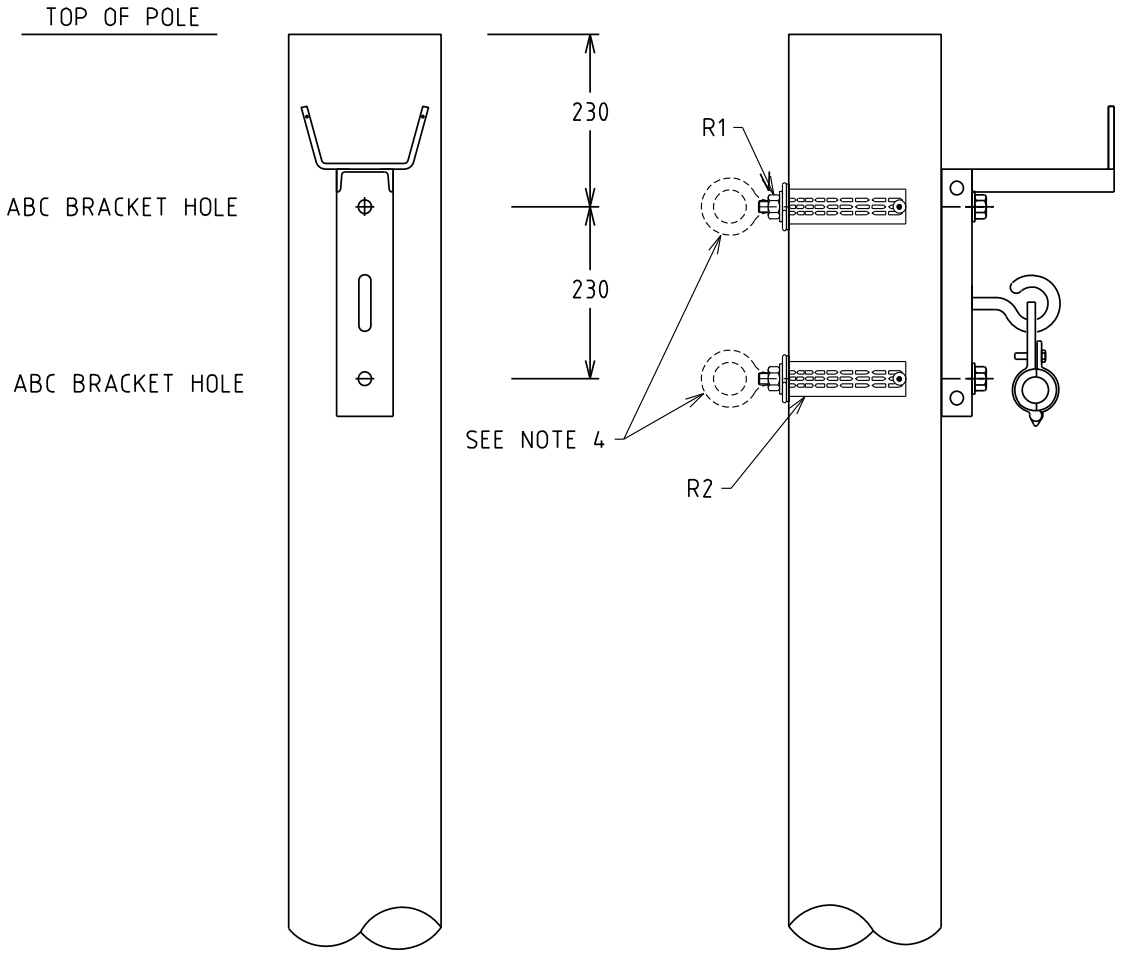
A key requirement of the Western Power Asset Management Policy (AMP) is to develop and maintain an Asset Management System (AMS). This Distribution Substation Plant Manual is defined as a technical document within the AMS document classification and structure and sits within the planning and Program Delivery components of the AMS.

The AMS and the interrelationships between the collection of documents, tools and systems that are used for asset management are described in the AMS document EDM# 40304923.



Drawing Register

Number	Revision	Description
A01	C	Intermediate Angle, 0 - 25 degrees, Drilling detail
A02	C	Angle 26 - 50 degrees, Pole Details
A03-1	E	Termination Pole, ABC Details
A03-2	A	Termination – with or without fusing / isolation
A04-1	F	Strain - With or Without Fusing / isolation
A04-2	A	Strain – LV ABC to Bare With Fuse
A05	D	Tee Off, Drilling Details
A06	D	Tee Off, LV Bare to Fused ABC
A07	B	Tee Off, Bare to ABC
A10	A	In Span - Full Tension Joint



NOTES:-
1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL HOLES 18ϕ U.O.N.
3. DISPERSION PLATES ONLY REQUIRED IF HV IS PRESENT ON POLE.
4. EYEBOLTS MAY BE SUBSTITUTED FOR POLEBOLTS WHERE SERVICE WIRES ARE TO BE SUPPORTED ON THE OPPOSITE SIDE OF THE POLE.

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
C	11.01.19	NOTES REVISED	MS	REE	GS
B	23.11.18	NOTES REVISED	JN	REE	GS
A	13.07.00	ORIGINAL ISSUE			

STRUCTURE

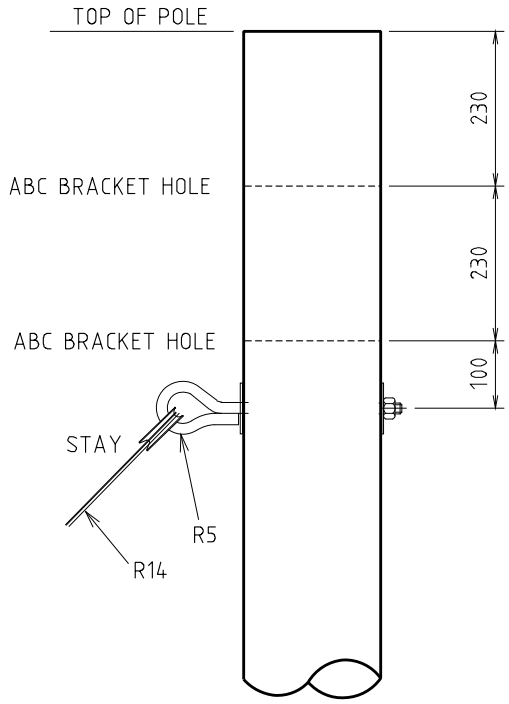
TITLE
INTERMEDIATE ANGLE 0° - 25°
DRILLING DETAILS

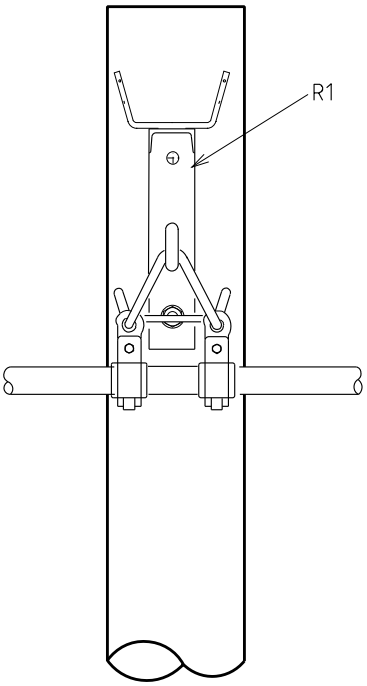
DISTRIBUTION CONSTRN. STANDARD

westernpower

DRAWN: JRR | DATE: 24-03-2014
ORIGINATED: | SCALE: NTS
CHECKED: REE
APPROVED: GRANT STACY

DRG. No. A01
REV. C
SHT.





NOTES:-
1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL HOLES 18ϕ U.O.N.
3. REFER TO Dwg. R15 FOR FURTHER DETAILS OF POLE.
4. DISPERSION PLATES ONLY REQUIRED IF HV IS PRESENT ON POLE.

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
C	23.11.18	NOTES REVISED	JN	REE	GS
B	04.02.16	DWG. FORMAT & TITLE CHANGED AND NOTES REVISED	ME	FK	GS
A	12.12.11	ORIGINAL ISSUE			

STRUCTURE

TITLE

ANGLE 26° - 50°
POLE DETAILS

DISTRIBUTION CONSTRN. STANDARD

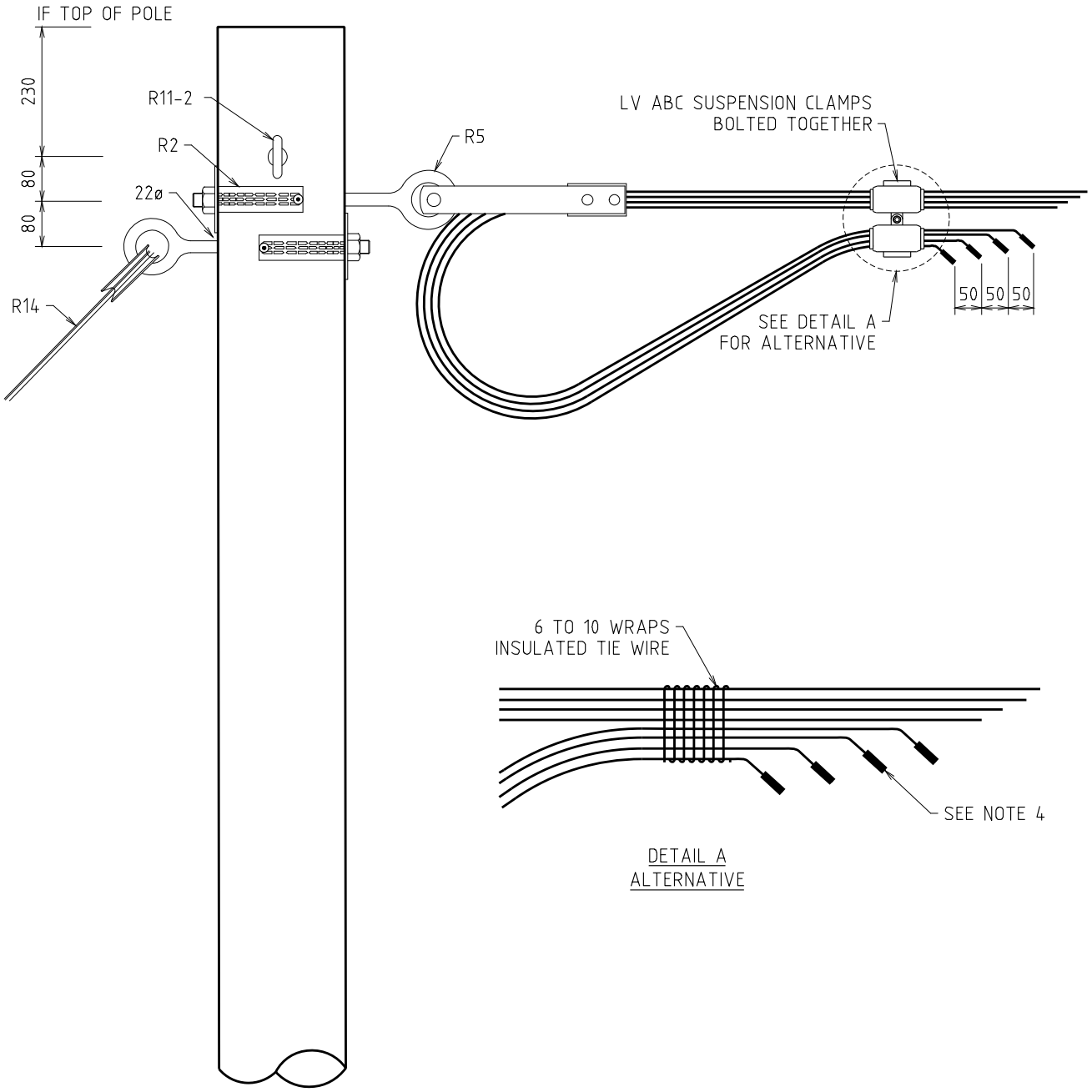
westernpower

DRAWN: JRR | DATE: 24-03-2014 | DRG. No. A02

ORIGINATED: ME | SCALE: NTS

CHECKED: FK

APPROVED: GRANT STACY | REV. C | SHT.



DETAIL A
ALTERNATIVE

NOTES:-
1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL HOLES 18ϕ U.O.N.
3. DISPERSION PLATES ONLY REQUIRED IF HV IS PRESENT ON POLE.
4. LV ABC TAILS TO BE CAPPED/SEALED.
5. SERVICE IPCs CAN BE INSTALLED ON MAINS OR TAIL.

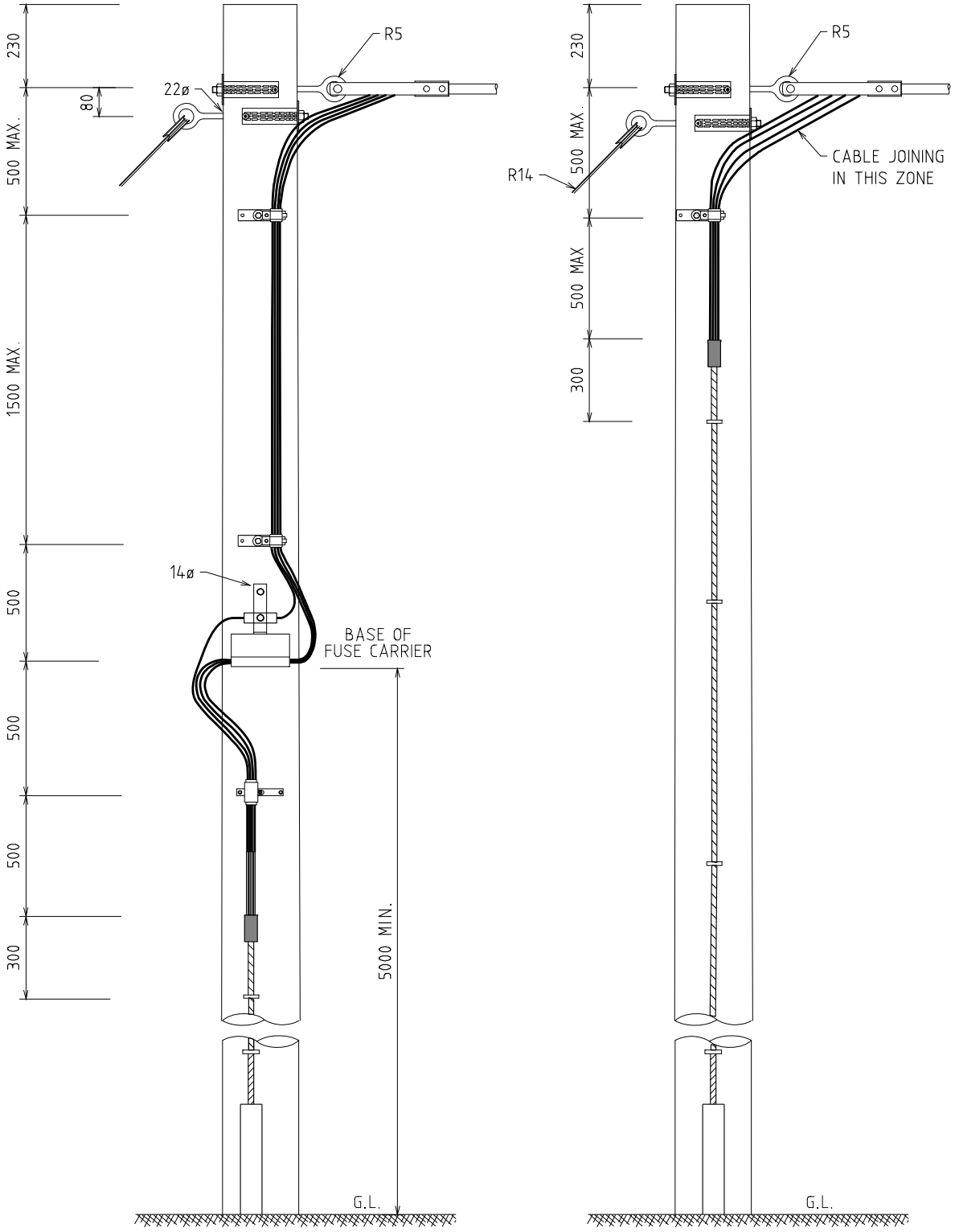
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
E	09.09.22	DRAWING NUMBER CHANGED TO A03-01 & DETAILS REVISED	CO	NMc	GS
D	29.03.19	SUSPENSION CLAMPS & NOTES REVISED	CO	NMc	GS
C	23.11.18	NOTES REVISED	JN	REE	GS
B	15.1104	ORIGINAL ISSUE			

STRUCTURE

TITLE
TERMINATION POLE ABC DETAILS

DISTRIBUTION CONSTRN. STANDARD
westernpower

DRAWN: JRR | DATE: 24-03-2014 | DRG. No. A03-01
ORIGINATED: | SCALE: NTS
CHECKED: REE
APPROVED: GRANT STACY | REV. E | SHT.



NOTES:-
1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL HOLES 18ϕ U.O.N.
3. DISPERSION PLATES ONLY REQUIRED IF HV IS PRESENT ON POLE.

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
A	09.09.22	ORIGINAL ISSUE	CO	SU	GS

STRUCTURE

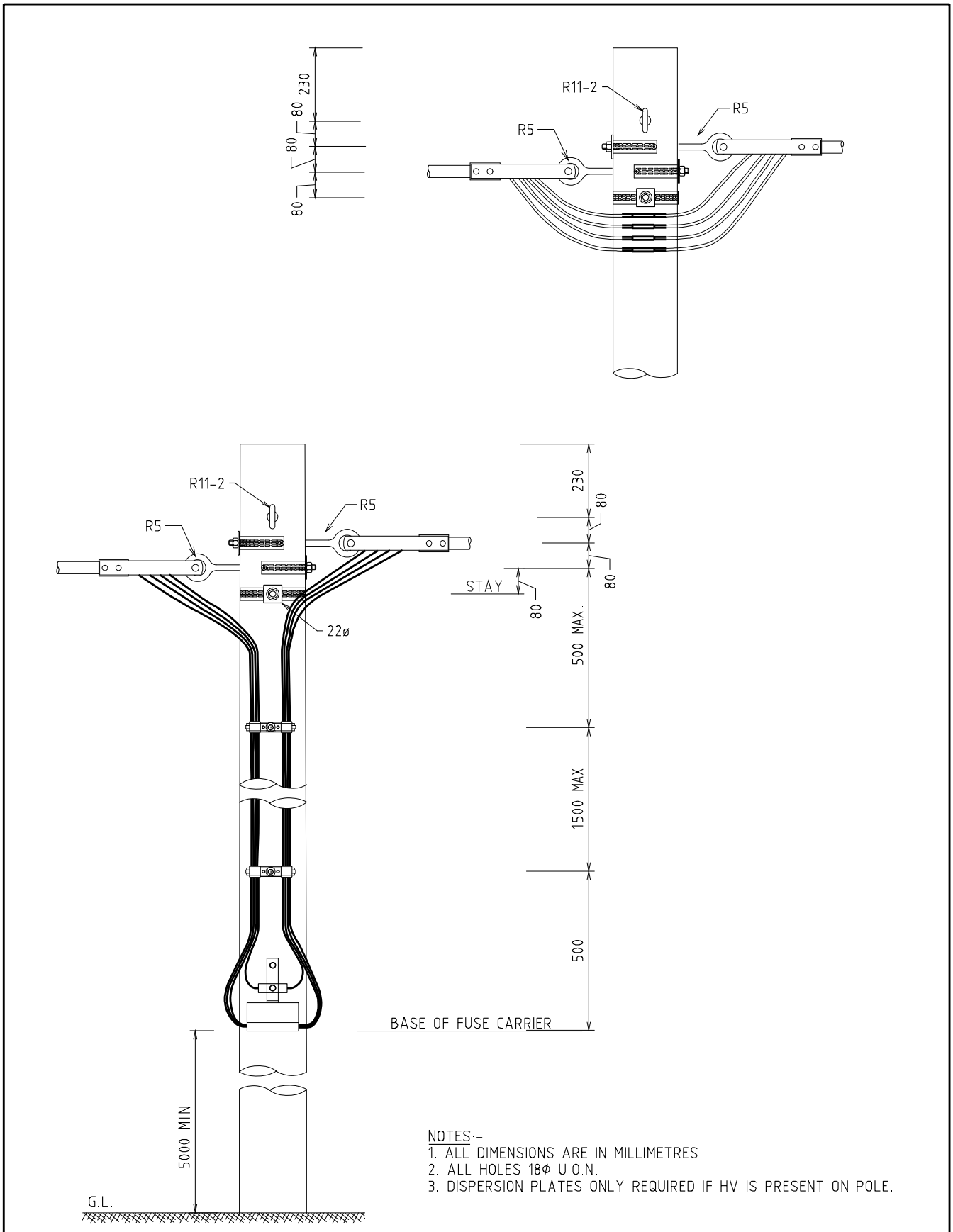
TITLE
TERMINATION – WITH OR WITHOUT FUSING / ISOLATION

DISTRIBUTION CONSTRN. STANDARD

westernpower

DRAWN: JRR | DATE: 30-05-2022
ORIGINATED: CO | SCALE: NTS
CHECKED: SH
APPROVED: GRANT STACY

DRG. No. A03-2
REV. A | SHT.



NOTES:-
1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL HOLES 18Φ U.O.N.
3. DISPERSION PLATES ONLY REQUIRED IF HV IS PRESENT ON POLE.

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
F	09.09.22	SERVICE BRACKET REMOVED	CO	NMc	GS
E	21.06.19	DRAWING NUMBER CHANGED TO A04-1	CO	NMc	GS
D	23.11.18	NOTE 4 ADDED	JN	REE	GS

STRUCTURE

TITLE

STRAIN - WITH OR WITHOUT FUSING / ISOLATION

DISTRIBUTION CONSTRN. STANDARD

westernpower

DRAWN: JRR | DATE: 10-03-2014

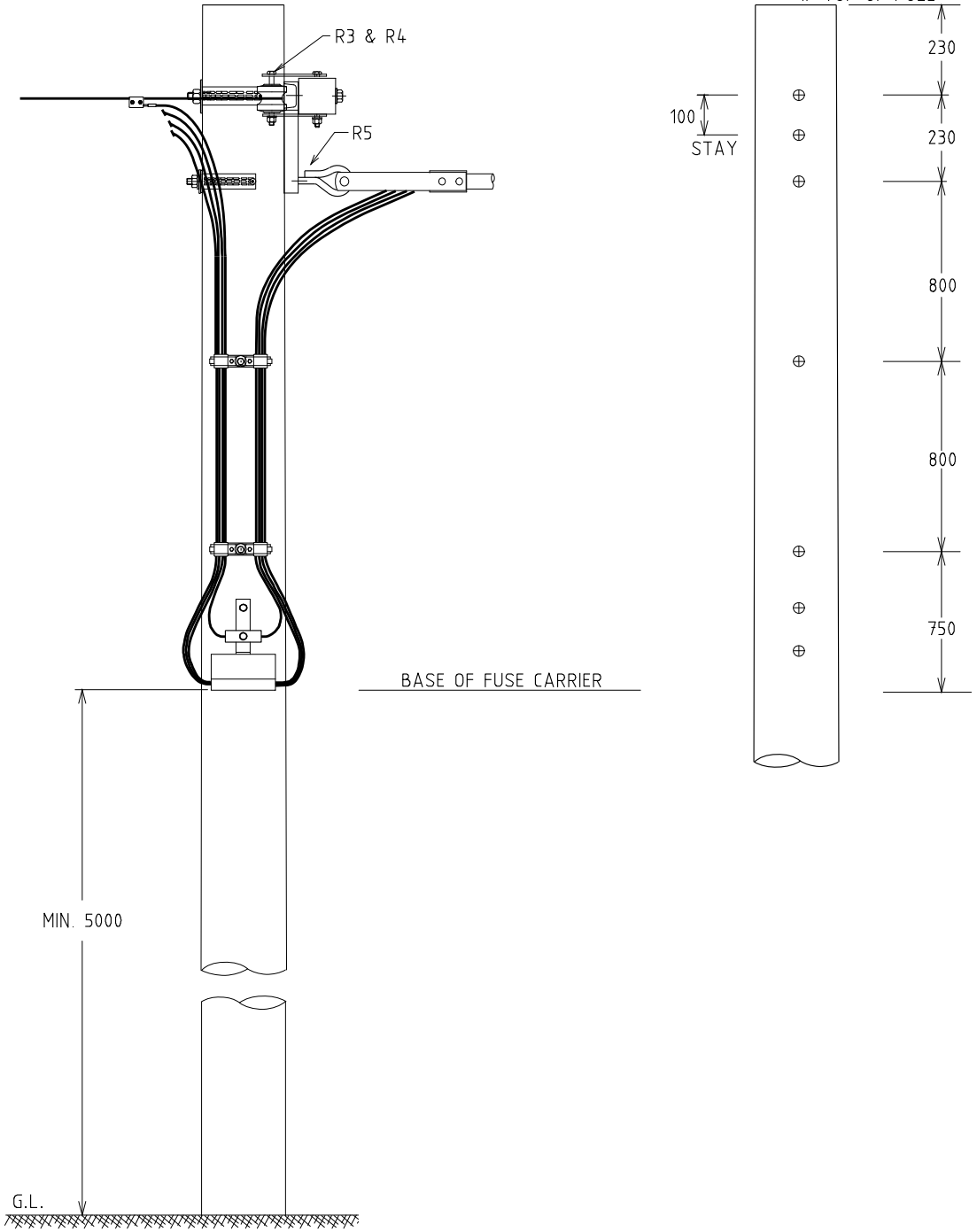
ORIGINATED: ME | SCALE: NTS

CHECKED: FK

APPROVED: GRANT STACY

DRG. No. A04-1

REV. F | SHT.



NOTES:-
1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL HOLES 18ϕ U.O.N.
3. DISPERSION PLATES ONLY REQUIRED IF HV IS PRESENT ON POLE.

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
A	21.06.19	ORIGINAL ISSUE	CO	NMc	GS

STRUCTURE

TITLE

STRAIN - LV ABC TO BARE WITH FUSE

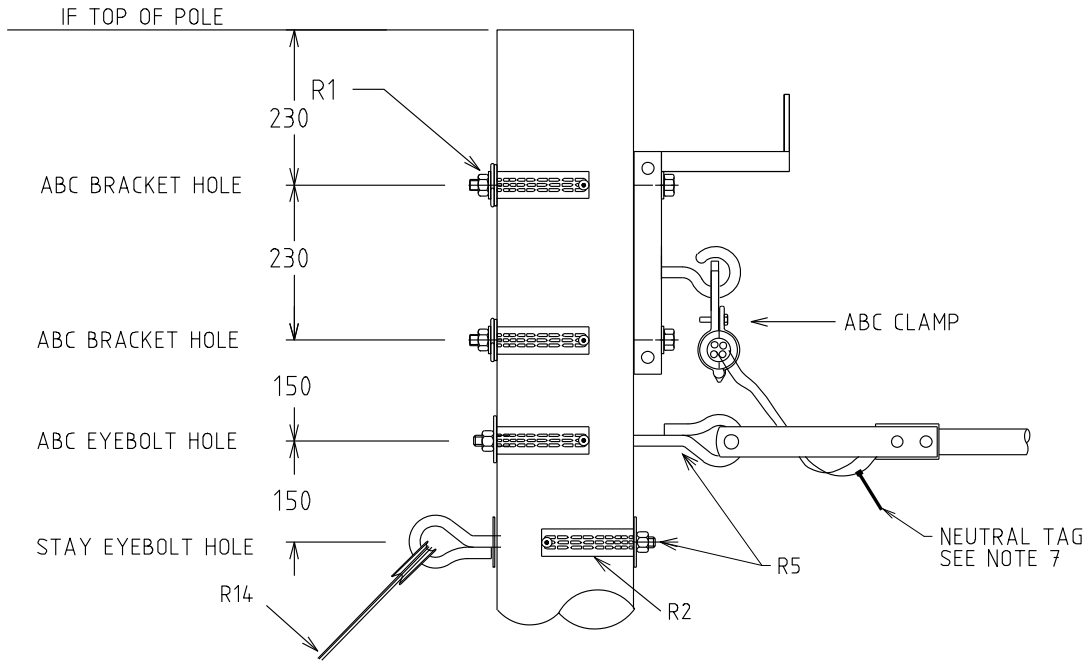
DISTRIBUTION CONSTRN. STANDARD

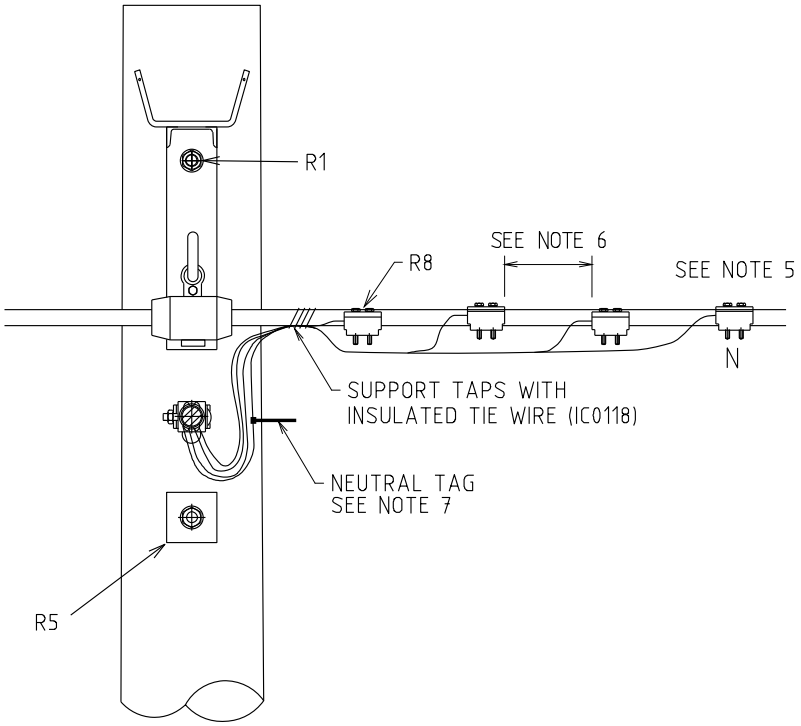
westernpower

DRAWN: JRR	DATE: 20-06-2019
ORIGINATED: CO	SCALE: NTS
CHECKED: NMc	
APPROVED: GRANT STACY	

DRG. No. A04-2

REV. A SHT.





NOTES:-
1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL HOLES 18Ø U.O.N.
3. IPC ARE SINGLE USE ONLY (NOT TO BE RE-USED)
4. DISPERSION PLATES ONLY REQUIRED IF HV IS PRESENT ON POLE.
5. NEUTRAL IPC INSTALLED FURTHERMOST FROM THE POLE.
6. 150mm BETWEEN IPC'S.
7. NEUTRAL TAG (HG2101) APPLIED WITHIN 300mm OF THE ABC TERMINATION CLAMP.

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
D	31.08.23	NOTE AND DETAILS REVISED	SL	NMc	CO
C	23.11.18	NOTE 4 ADDED	JN	REE	GS
B	19.06.18	NOTES REVISED	JC	NMc	GS
A	25.03.04	ORIGINAL ISSUE			

STRUCTURE

TITLE: TEE OFF - DRILLING DETAILS

DISTRIBUTION CONSTRN. STANDARD

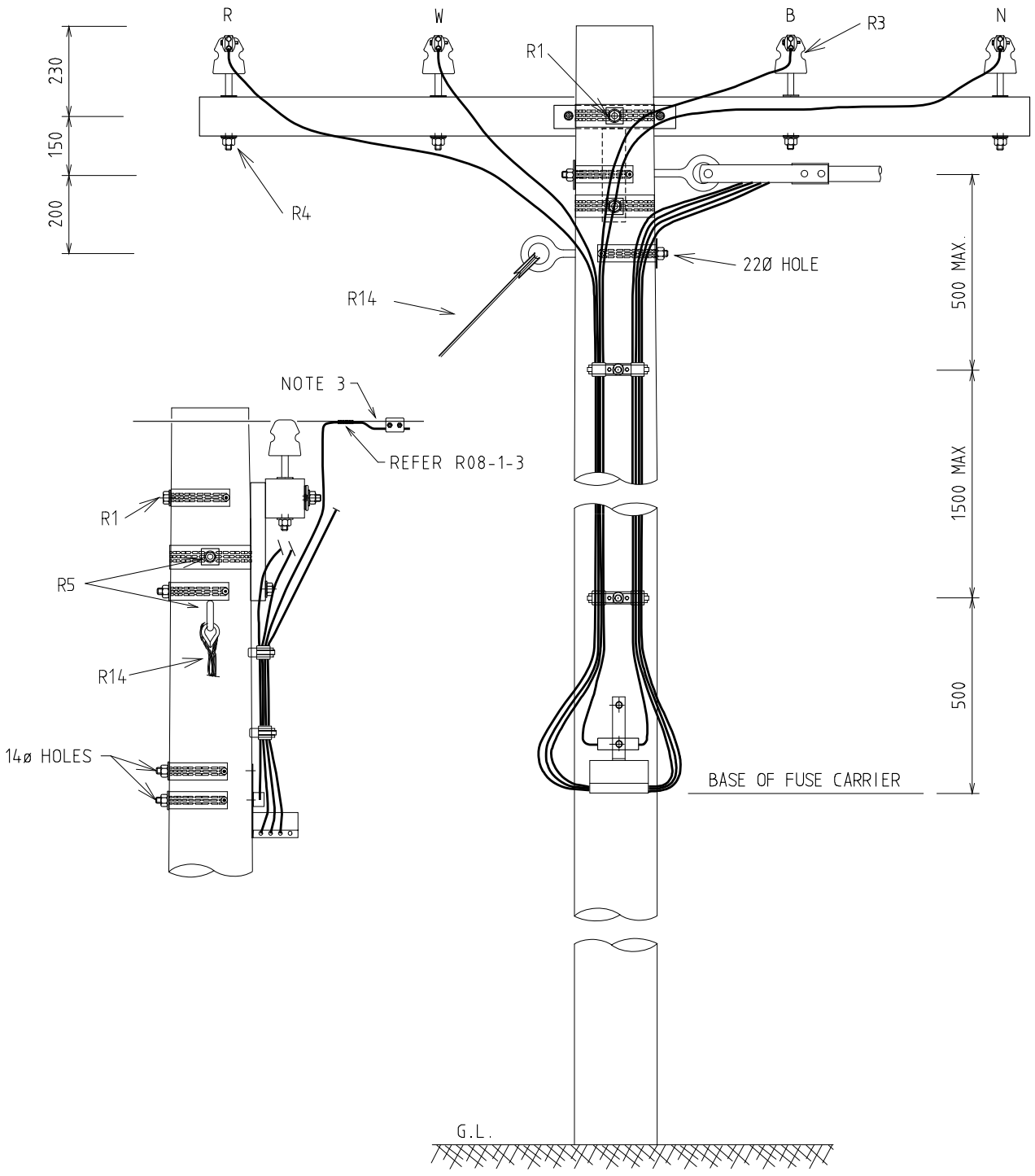
westernpower

DRAWN: JRR | DATE: 24-03-2014 | DRG. No. A05

ORIGINATED: | SCALE: NTS

CHECKED: REE

APPROVED: GRANT STACY | REV. D | SHT.



NOTES:-
1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL HOLES 18ø U.O.N.
3. STALK SPLICE AND PG CLAMP TO BE USED FOR THIS ABC TO BARE AERIAL CONNECTION.
4. DISPERSION PLATES ONLY REQUIRED IF HV IS PRESENT ON POLE.

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
D	09.09 22	DIMENSIONS REVISED	CO	NMc	GS
C	23.11.18	NOTE 7 ADDED	JN	REE	GS
B	17.03.17	NEUTRAL LINK AND EXTRA CLAMP ADDED	JC	REE	GS
A	21.11.02	ORIGINAL ISSUE			

STRUCTURE

TITLE: TEE OFF LV BARE TO FUSED ABC

DISTRIBUTION CONSTRN. STANDARD

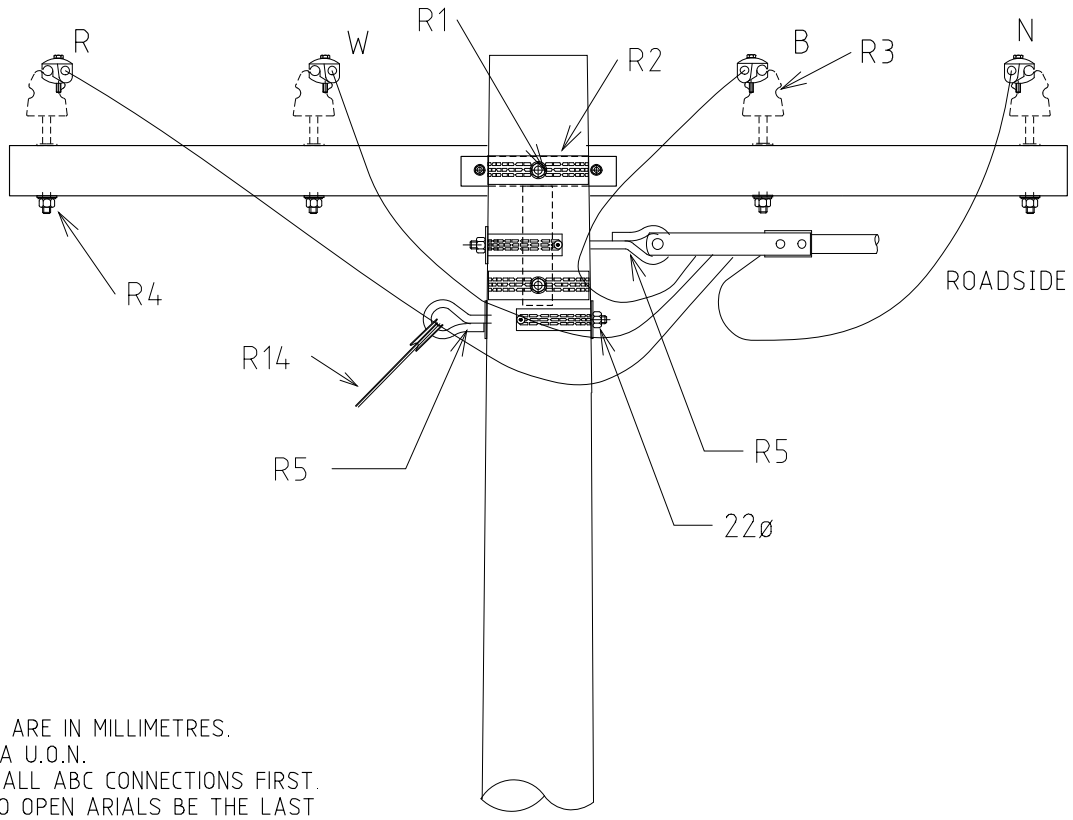
westernpower

DRAWN: JRR | DATE: 24-03-2014 | DRG. No. A06

ORIGINATED: | SCALE: NTS

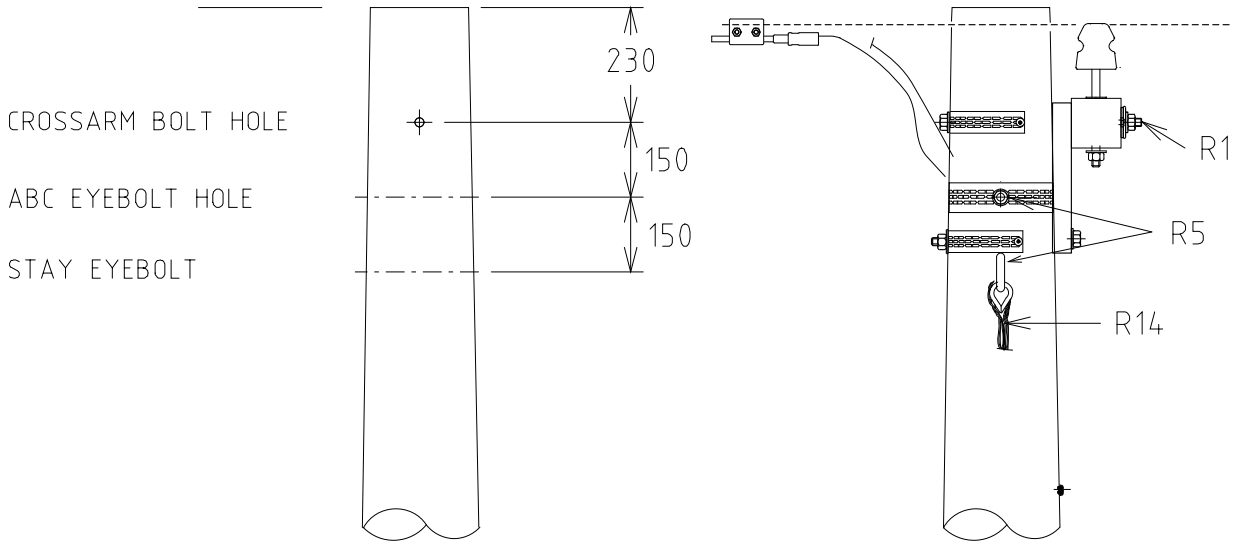
CHECKED: REE

APPROVED: GRANT STACY | REV. D | SHT.



NOTES:-
1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL HOLES 18DIA U.O.N.
3. ALWAYS MAKE ALL ABC CONNECTIONS FIRST.
4. CONNECTIONS TO OPEN ARIALS BE THE LAST PROCEDURE CARRIED OUT.
5. PHASING OUT BETWEEN THE ABC CONDUCTORS AND THE OPEN ARIALS MUST BE CARRIED OUT BEFORE CONNECTION IS MADE.
6. SPLICE AND PG CLAMP TO BE USED FOR THIS ABC TO BARE AERIAL CONNECTION AS ABC IS CONTINUOUS.
7. DISPERSION PLATES ONLY REQUIRED IF HV IS PRESENT ON POLE.

IF TOP OF POLE



REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
B	23.11.18	NOTE 7 ADDED	JN	REE	GS
A	21.11.02	ORIGINAL ISSUE			

STRUCTURE

TITLE

TEE OFF BARE TO ABC

DISTRIBUTION CONSTRN. STANDARD

westernpower

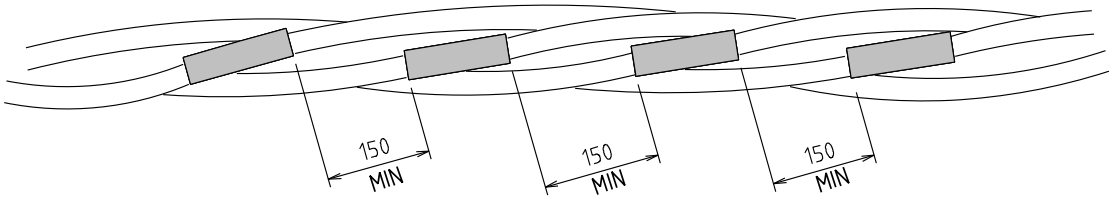
DRAWN: JRR | DATE: 24-03-2014 | DRG. No. A07

ORIGINATED: | SCALE: NTS

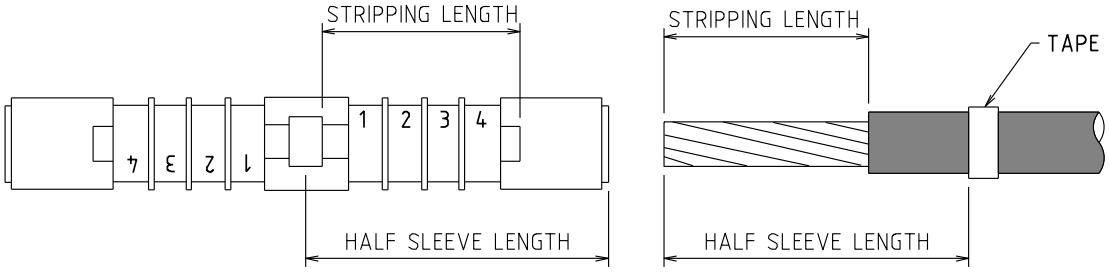
CHECKED: REE

APPROVED: GRANT STACY

REV. B | SHT.



JOINT LAYOUT



JOINT PREPARATION

NOTES:-
1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ENSURE PHASES AND NEUTRAL ARE CORRECTLY MATCHED AND ORIENTED.
3. EACH CORE MUST BE CUT ACCURATELY TO ENSURE CORRECT BALANCE OF TENSIONS.
3. MARK CABLE END WITH TAPE AT HALF SLEEVE LENGTH.
4. STRIP INSULATION AS SHOWN ON DRAWING.
5. INSERT CABLE INTO SLEEVE INSURING TAPE MARK IS WITHIN 1-2mm OF FULL PENETRATION.
6. CRIMP WITH APPROPRIATE DIE, IN SEQUENCE STARTING AT NUMBER 1.
7. DO NOT OVERLAP THE CRIMPS.

REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.
A	02.06.17	ORIGINAL ISSUE	REE	NMc	GS

STRUCTURE

TITLE

IN SPAN - FULL TENSION JOINT

DISTRIBUTION CONSTRN. STANDARD

westernpower

DRAWN: JRR | DATE: 02-06-2017 | DRG. No. A10

ORIGINATED: REE | SCALE: NTS

CHECKED: NMc

APPROVED: GRANT STACY

REV. A | SHT.