



**Distribution Construction
Standard Handbook**

Reference

Part 02 (R)



General Notes

1. Overhead Hardware - Bolt Selection

All bolt holes must be drilled to size for the bolt being fitted as oversize bolt holes allow excess plant/equipment movement which may result in the plant/equipment being damaged.

Pole bolt length selected to avoid excessive thread protrusion, maximum 100mm. Bolt packing (multiple washers/springs etc) must not be used as a permanent fixing.

Pole bolt excess thread may be flat trimmed and sharp edges must be removed to suit the fitting of washers and coil springs as per standard bolt selection. This is to prevent overlength bolts and/or sharp edges presenting a hazard to public and personnel safety (e.g. pole top switch handle bolts). Cold galv or galmet should be applied to exposed metal.

2. Overhead Hardware - Sleeve/Splice Clearances

Fargo and crimp type compression sleeves must have a 100mm minimum clearance from all other line hardware such as insulators, conductor ties, armor rods, PG clamps and dead ends etc.

3. Overhead Hardware - North Country Extreme Pollution Areas

In North Country (from Ledge Point to Kalbarri inclusively), all areas within 20 kilometres of the coast are considered to be in extremely corrosive environments. In such areas, grease and tape must be appropriately applied to all new lugs and connectors (as described in drawing R8/3) to prevent moisture ingress.

4. Overhead Hardware - Steel Strap (Band-It Strap) use on wood poles

Steel straps are not to be used on wood poles as the prime fixing method for equipment due to possible wood shrinkage causing the equipment to become loose and unstable. It may be used in conjunction with other fixing methods (e.g. Bolts, coach screws, TEK screws, etc) but not as the sole support method.

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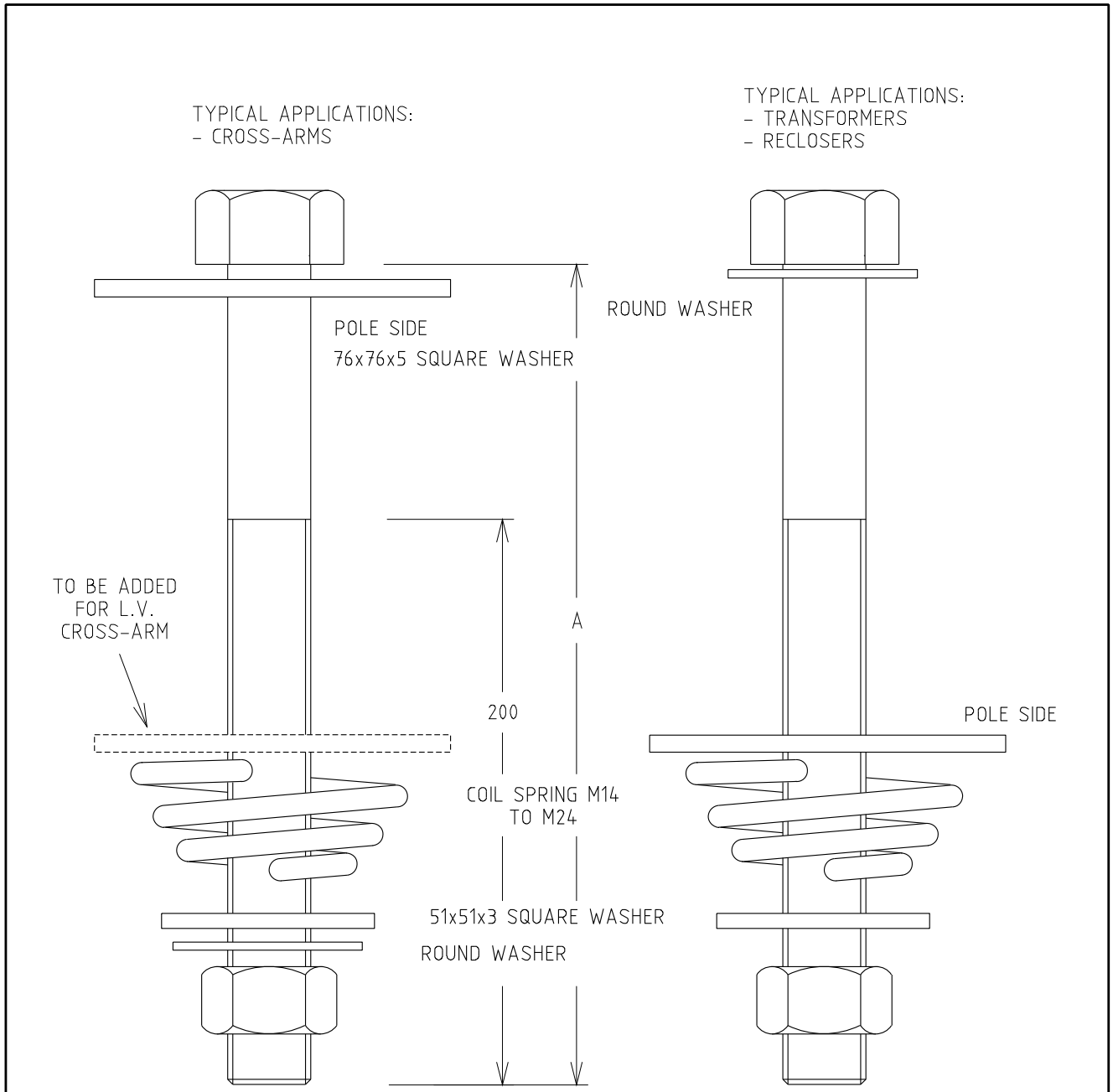
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Drawing Register

Number	Revision	Description
R01	F	Pole Bolt Details
R02-1	D	Bonding - Intermediate
R02-2	C	Bonding - Strain
R02-3	C	Bonding - Running Disc Angle
R02-4	F	Bonding - Wood LV Cross-arm
R02-5	B	Bonding - Retro-fit Wood Cross-arm
R02-6	A	Bond HV Attachments to the Running Earth Conductor
R03-1	K	Insulators and Running Earth
R03-2	B	Insulator Ties
R03-3	L	Armour Rods and Spiral Vibration Dampers
R04	B	Insulator Pin & Pin Details
R05-1	E	Eyebolt
R05-2	B	Eyebolt, Conductor Terminations
R06-1-1	H	Pole top switch Earthing
R06-1-2	C	Pole Earthing
R06-1-3	C	Separate LV & HV Earthing for Pole Transformer
R06-2-1	G	PTS Down Earth Repair for Vandalism/Copper Theft
R06-2-2	C	Pole Down Earth Repair for Vandalism/Copper Theft
R07-1	F	Cable Saddle / Cable Guard - HV Cables
R07-2	F	10, 16 and 25mm Service cable cleat/guard fixing details
R07-3	D	Cable Cleat/Guard 120 to 240mm ² LV cables
R07-4	B	Cable Position Installing Details
R07-5	D	Possum / Wildlife guard
R07-6	A	Bird Flight Diverter Spacing
R08-1-1	K	ABC Taps for Transformer, and Cable Termination
R08-1-2	H	Taps on HV Main Line Connections
R08-1-3	G	Taps on LV Main Line Connections
R08-2	C	Lugs & Connectors, Transformer & Cable
R08-3	G	Lugs & Connectors, Transformer & Cable
R08-4-1	F	Lugs & Connectors, Insulation Piercing Clamp
R08-4-2	B	Shorting LV ABC
R08-5	B	Stirrup Hot Line Clamp Tap - off
R08-6	E	Connectors For 7/16 Galvanized Steel
R08-7	C	Full Tension Compression Joints & Helical Splices for Bare AAC/AAAC, Copper & Steel Conductors

Number	Revision	Description
R08-8	D	Non-Tension Compression Lugs and Sleeves
R09	F	Cable Termination bracket, 1 ph & 3 ph Earth Fitting
R10	L	Dropout Fuse Mounting Details
R11-1	E	Customer service arrangement for open wire
R11-2	B	Customer service arrangement for LV ABC
R11-3	A	Customer service arrangements – Rural Connections
R12-1	E	Single Phase Transformer LV Arrangement Details 10 and 25kVA
R12-2	K	Three Phase Transformer LV Arrangement Details 25, 63 and 100kVA
R12-3	F	Three Phase Transformer LV Arrangement Details 200 and 315kVA
R13-1	F	Pole Embedment Depth, Danger Plate & Equipment Labels
R13-2	D	Self-Supporting Wood Pole Embedment Depth
R13-3-1	D	Distribution Pole Embedment Depth & Foundation Details (Sht. 1/2)
R13-3-2	B	Distribution Pole Embedment Depth & Foundation Details (Sht. 2/2)
R13-4	B	Wood Pole Design Angle of deviation for Urban applications
R13-5-1	B	Wood Pole Design Angle of deviation for Rural applications
R13-5-2	A	Wood Pole Design Angle of deviation for Rural applications
R13-5-3	A	Wood Pole Design Angle of deviation for Rural applications
R14-1	F	Ground Stay
R14-2	K	Outrigger Stay
R14-3	D	Aerial Stay
R15-2	B	Equivalent Conductor
R15-3-1	A	Pole Top Limitations for Urban Applications
R15-3-2	A	Pole Top Limitations for Urban Applications
R15-3-3	B	Pole Top Limitations for Rural Applications
R15-3-4	B	Pole Top Limitations for Rural Applications
R15-3-5	B	Pole Top Limitations for Rural Applications
R15-3-6	B	Pole Top Limitations for Rural Applications
R15-3-7	B	Pole Top Limitations for Rural Applications
R16-1	G	Anchor Flow Chart
R16-2-1	E	Screw Anchor Embedment Depth Dispensation Table for Distribution Poles – 9.5m
R16-2-2	B	Screw Anchor Embedment Depth Dispensation Table for Distribution Poles - 11m (Sht 1/4)
R16-2-3	B	Screw Anchor Embedment Depth Dispensation Table for Distribution Poles – 11m (Sht 2/4)
R16-2-4	B	Screw Anchor Embedment Depth Dispensation Table for Distribution Poles – 11m (Sht 3/4)

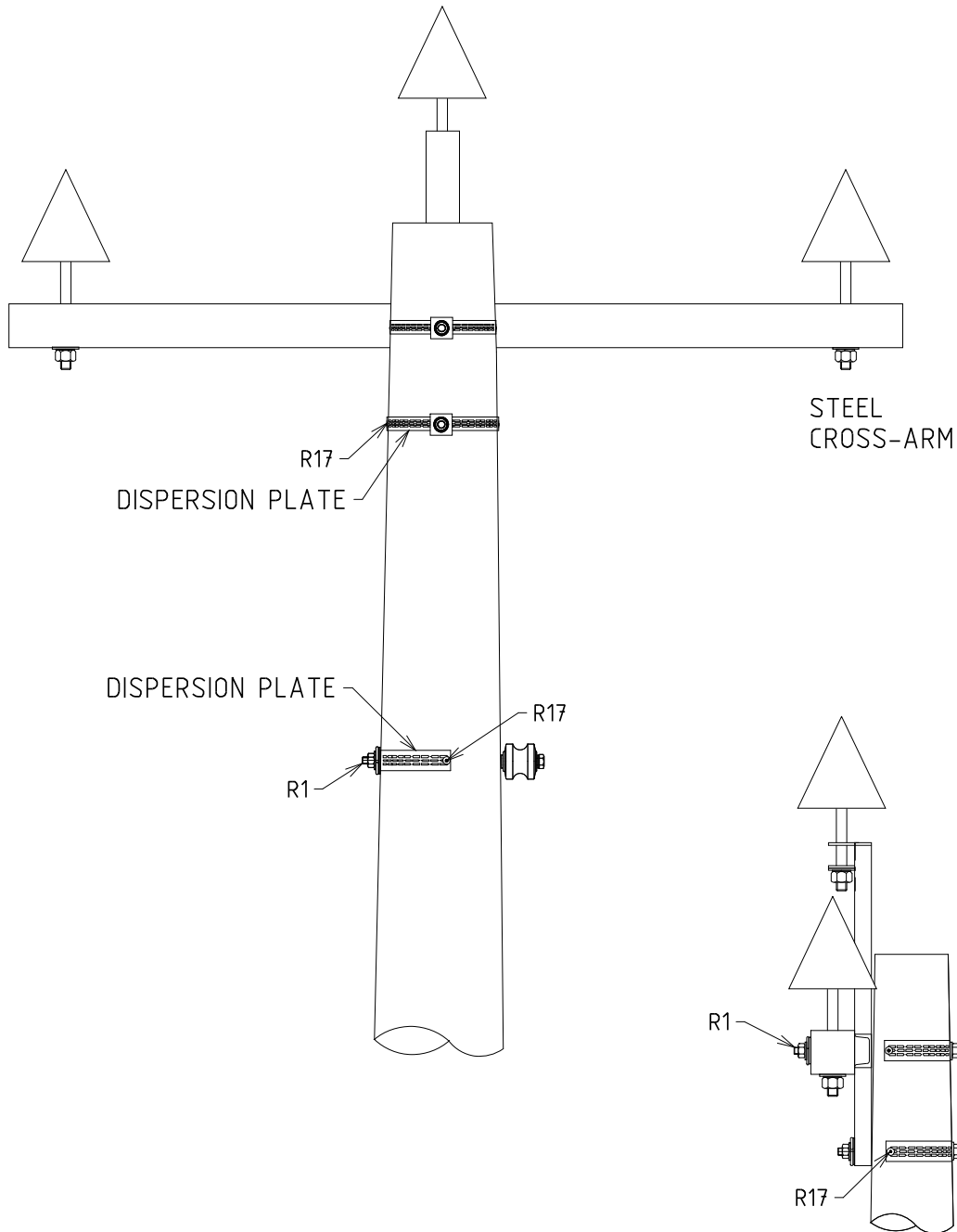
Number	Revision	Description
R16-2-5	B	Screw Anchor Embedment Depth Dispensation Table for Distribution Poles – 11m (Sht. 4/4)
R16-2-6	B	Screw Anchor Embedment Depth Dispensation Table for Distribution Poles - 12.5m (Sht. 1/4)
R16-2-7	B	Screw Anchor Embedment Depth Dispensation Table for Distribution Poles – 12.5m (Sht. 2/4)
R16-2-8	B	Screw Anchor Embedment Depth Dispensation Table for Distribution Poles – 12.5m (Sht. 3/4)
R16-2-9	B	Screw Anchor Embedment Depth Dispensation Table for Distribution Poles – 12.5m (Sht. 4/4)
R16-3-1	B	Screw Anchor Installation for Medium to Hard Soil
R16-3-2	B	Anchor Installation for Soft Soils
R16-3-3	C	Anchor Installation for Hard Soil
R16-3-4	B	Anchor Installation for Rock
R16-3-5	A	Backfill / Concrete Mixing
R17-1	A	Pole Fixing
R17-2	A	Pole Fixtures – Drilling Dimensions for Slotted Pole Mounted Equipment
R26-5	B	Streetlight (LED) Wiring Installation Standard (Part 1)
R26-6	B	Streetlight Wiring Installation Standard (Part 2)
R26-7-1	D	Streetlight Cut-out LED Class II Luminaires
R26-7-2	B	Existing Streetlight Cut-out and Supply Cable with New LED Class II Luminaires
R27	H	Fusing Arrangement for Street Light Columns
R29	A	25kVA Pad mount Tx LV Distribution Board 240V Terminal Block
R30	A	25kVA Pad mount Tx LV Distribution Board 480V Terminal Block
R34-1	D	LV Cable Live End Seal
R34-2	D	HV Cable Live End Seal
R34-3	A	Conduit Sealing Details
R36-1	B	Schneider (Nulec) Recloser Control Box Connection Detail
R36-2	A	Schneider – ADVC2 Power Supply Control Box Connection Details
R37	A	Nulec Recloser Solar Connection
R38	A	Overhead Fault Indicator Solar Connection
R39	A	Installer Identification Tag
R40	B	Installation of Above Ground Cable Marker
R41	A	Customer Service Carryover Connection
R42-1	A	Consumer Service Steel Pole
R42-2	A	Consumer Service Steel Pole – Corrosion Protection Requirements



NOTE:
 - 76X76 SQUARE WASHER ALWAYS IN DIRECT CONTACT WITH THE POLE
 - POLE DIAMETERS VARY, SELECT BOLT FOR MAX. 100MM THREAD PROTRUSION
 - SEE GENERAL NOTES - OVERHEAD HARDWARE BOLT SELECTION

DIMENSION A	DIAMETER OF POLE BOLTS		
PB1 = 300mm	12mm	16mm	20mm
PB2 = 400mm	12mm	16mm	20mm
PB3 = 550mm	12mm	16mm	20mm

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD			
				TITLE		DRAWN: JRR DATE: 27-02-2014 DRG. No.			
				POLE BOLT DETAILS		ORIGINATED: SCALE: NTS		R1	
						CHECKED: REE		APPROVED: GRANT STACY	
						REV. F		SHT.	
REV	DATE	DESCRIPTION	DRG.	CHKD.	APRD.				
F	15.07.15	FORMAT CHANGED AND THREAD PROTRUSION INCREASED	JC	REE	GS				
E	06.12.11	ORIGINAL ISSUE							

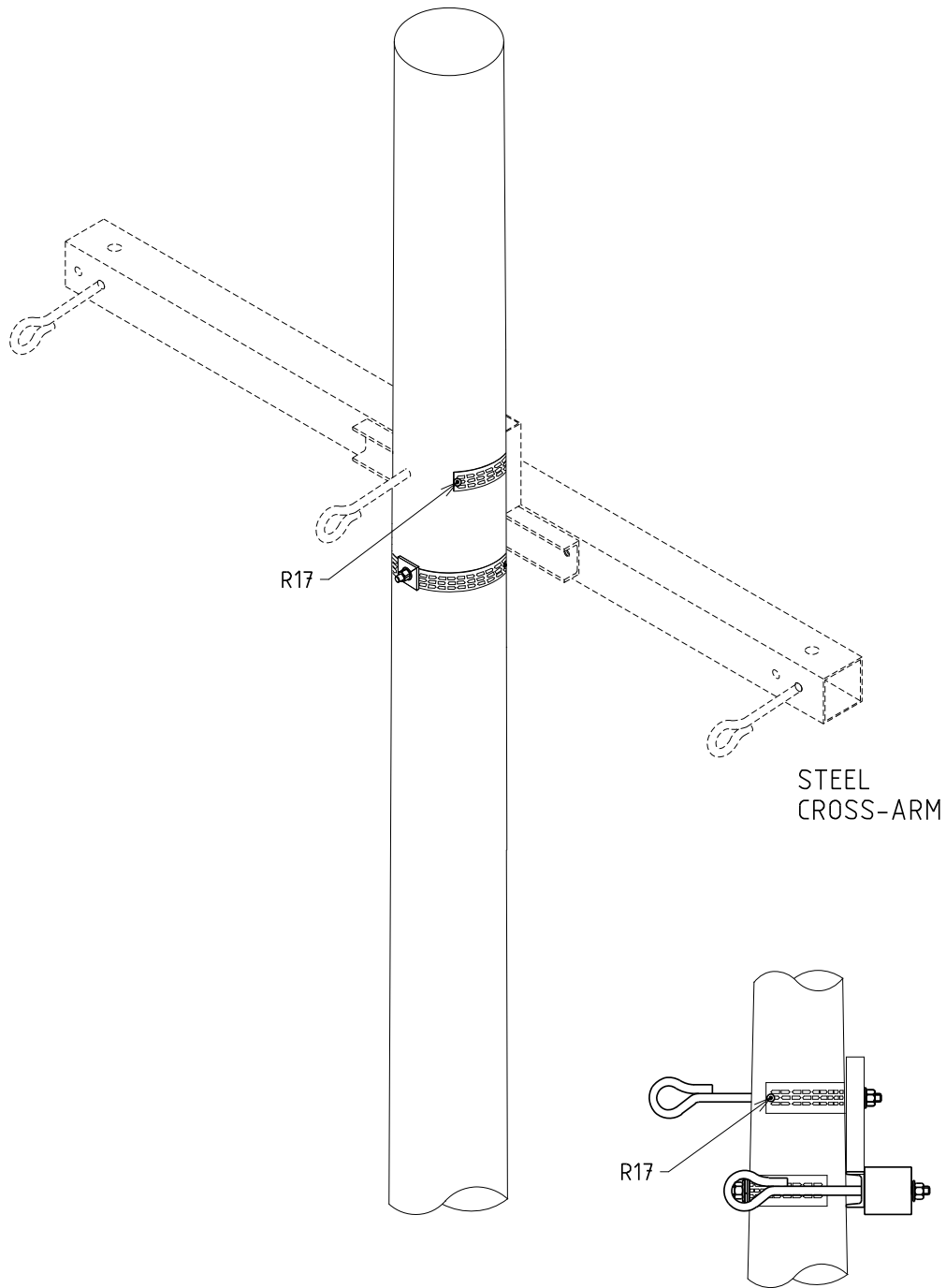


NOTES:-

1. INSTALL A DISPERSION PLATE TO ALL BOLTS WHICH PASS THROUGH A WOOD SECTION OF A POLE INCLUDING STAYS & STREET LIGHTS.
2. MUST BE SECURED DIRECTLY OVER THE HOLE, IN DIRECT CONTACT WITH A SQUARE WASHER OR NUT SIDE OF EYEBOLT.

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD		westernpower	
D	28.05.20	NOTES REVISED		NMc	GS	DRAWN: JRR	DATE: 28-02-2016	ORG. No.	
C	22.02.19	DISPERSION PLATE END FIXING REVISED		CO	NMc	ORIGINATED:	SCALE: NTS	R02-1	
B	07.05.15	FORMAT AND TITLE CHANGED		REE	REE	CHECKED: REE			
A	05.07.13	ORIGINAL ISSUE				APPROVED:		REV. D	SHT.
REV	DATE	DESCRIPTION		ORGD.	CHKD.	APRD.	GRANT STACY		

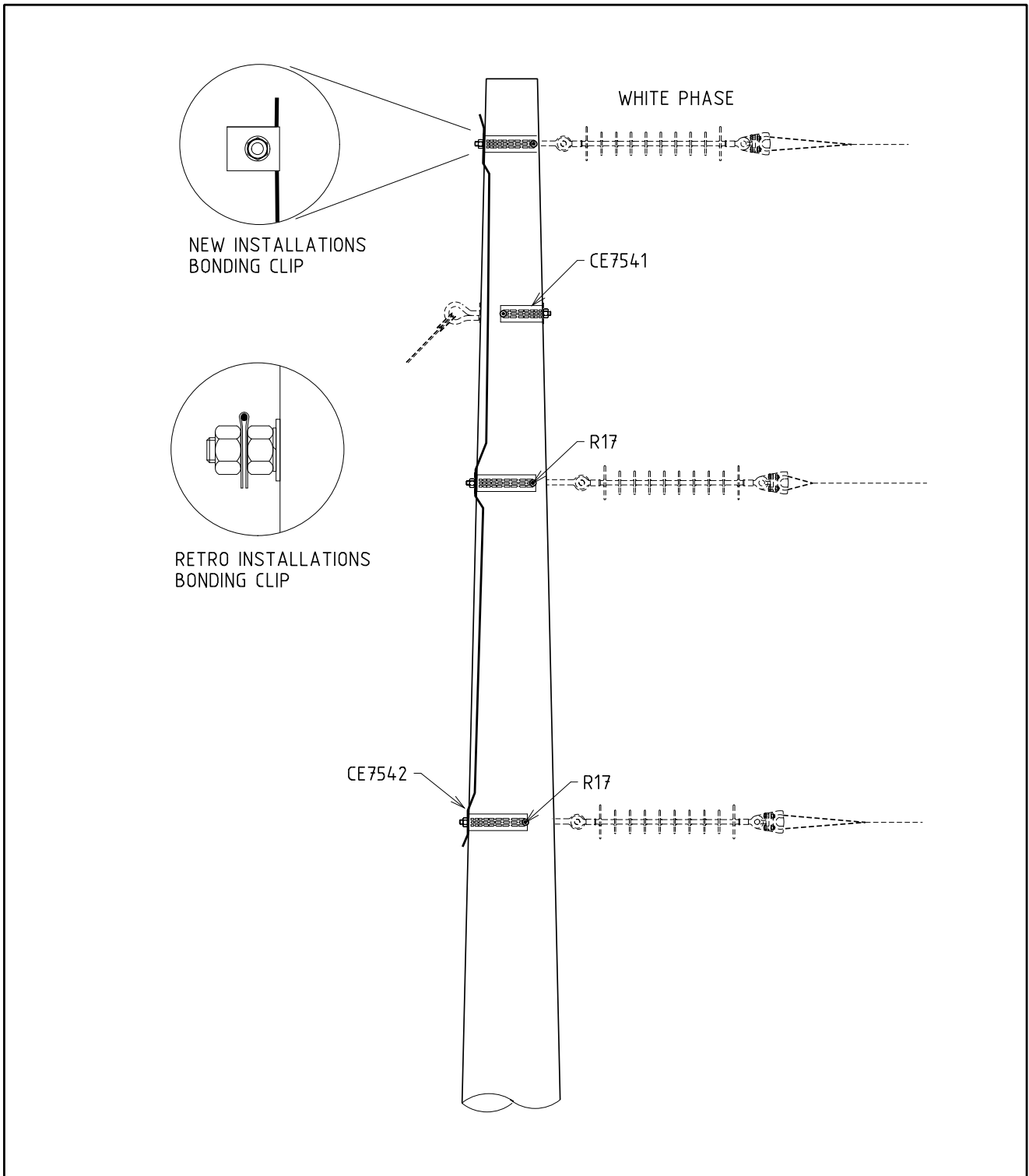
BONDING - INTERMEDIATE



NOTES:-

1. INSTALL A DISPERSION PLATE TO ALL BOLTS WHICH PASS THROUGH A WOOD SECTION OF A POLE INCLUDING STAYS & STREET LIGHTS.
2. MUST BE SECURED DIRECTLY OVER THE HOLE, IN DIRECT CONTACT WITH A SQUARE WASHER.
3. IF NO SQUARE WASHER AS IS THE CASE WITH EYE BOLT THEN MUST BE SECURED BY METAL CROSS-ARM.

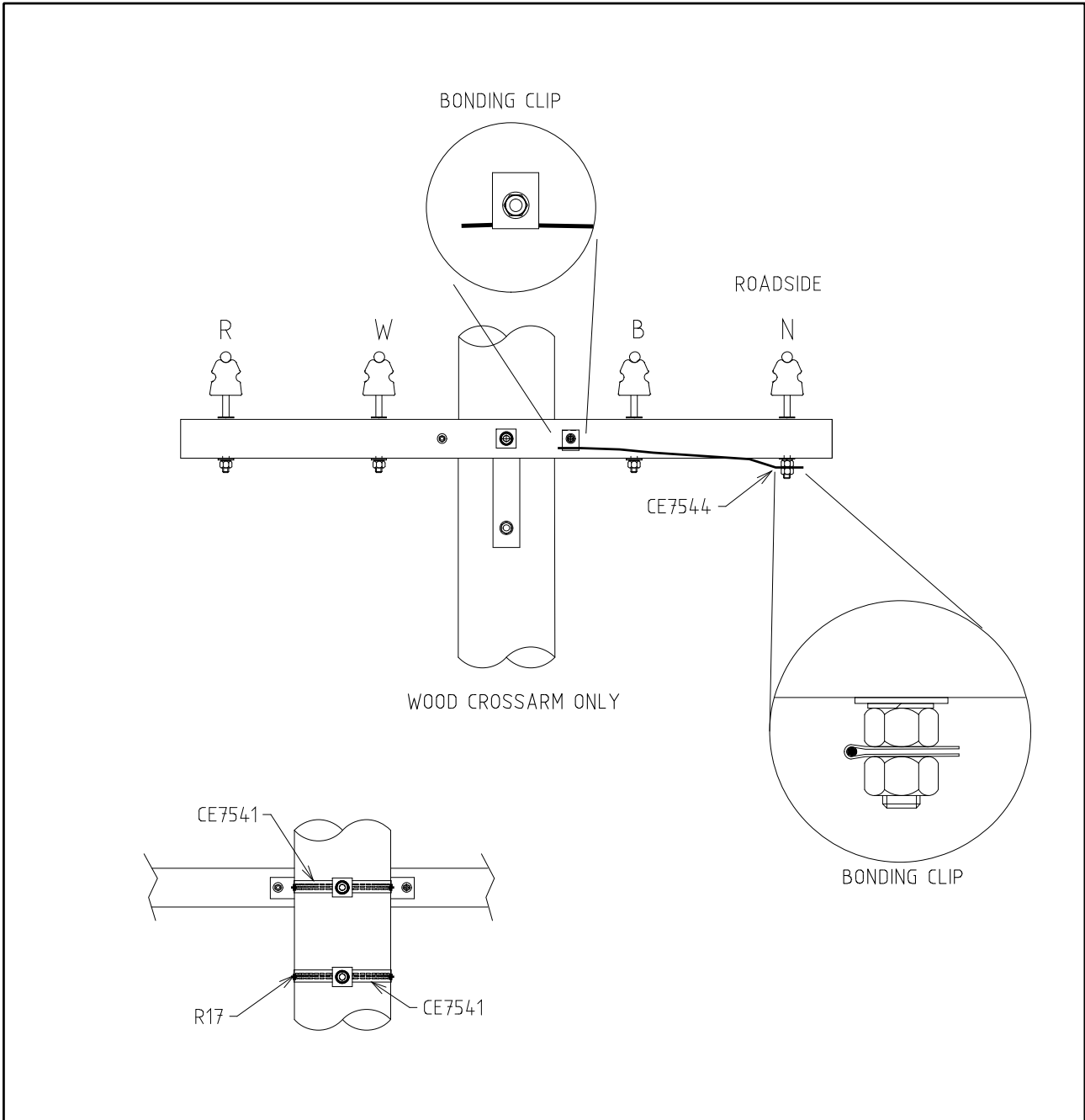
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				BONDING - STRAIN			ORIGINATED:		SCALE: NTS		
							CHECKED: REE		DRG. No. R02-2		
							APPROVED: GRANT STACY		REV. C		
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.						
C	18.01.21	NOTE REVISED		REE	NMc	GS					
B	07.05.15	FORMAT AND TITLE CHANGED		REE	REE	GS					
A	05.07.13	ORIGINAL ISSUE									



NOTES:-

1. INSTALL A DISPERSION PLATE TO ALL BOLTS WHICH PASS THROUGH A WOOD SECTION OF A POLE INCLUDING STAYS & STREET LIGHTS.
2. MUST BE SECURED DIRECTLY OVER THE HOLE, IN DIRECT CONTACT WITH A SQUARE WASHER.

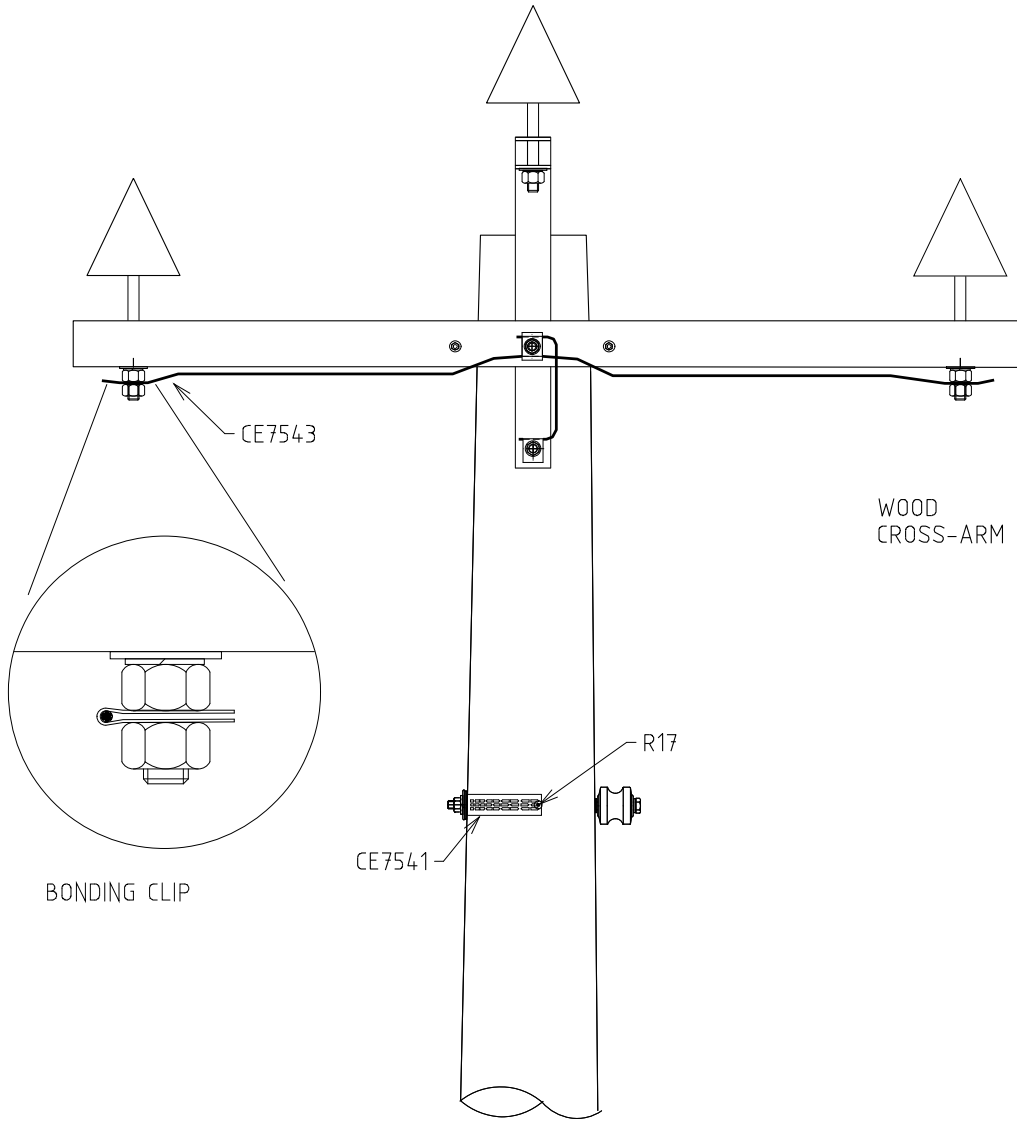
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							CHECKED: REE				APPROVED: GRANT STACY
REV	DATE	DESCRIPTION		ORGD.	CHKD.	APRO					
C	18.01.21	NOTE REVISED		REE	NMc	GS					
B	07.05.15	FORMAT AND TITLE CHANGED		REE	REE	GS					
A	05.07.13	ORIGINAL ISSUE									



NOTES:-

1. NO LV BONDING WIRE OR DISPERSION PLATES ON LV REQUIRED IF ONLY LV ON STRUCTURE OR HV WITH R/E PRESENT.
2. POLES CARRYING BOTH HV AND LV REQUIRE ALL BOLTS ASSOCIATED WITH HV AND LV CONDUCTORS TO BE FITTED WITH DISPERSION PLATES.
 - THIS INCLUDES THE BOLTS FOR R/E, STAYS AND STREETLIGHT FITTINGS.
 - DISPERSION PLATES MUST BE SECURED DIRECTLY OVER THE HOLE, IN DIRECT CONTACT WITH A SQUARE WASHER OR METAL CROSS ARM.
3. POLES CARRYING HV COVERED CONDUCTORS (HENDRIX OR HVABC) WITH OR WITHOUT LV CONDUCTORS DON'T REQUIRE DISPERSION PLATES.

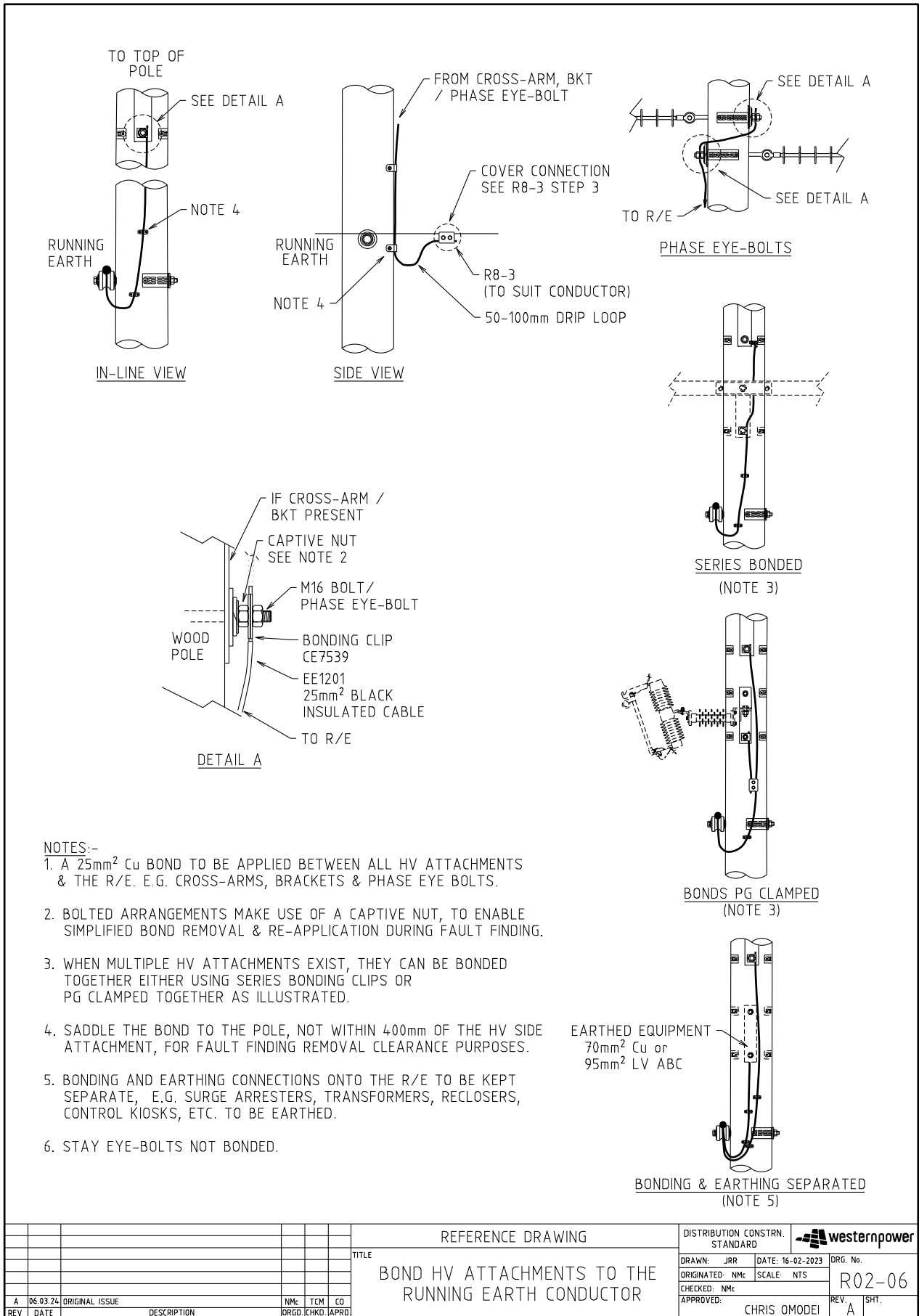
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						APPROVED:		REV. F	
						GRANT STACY			
REV	DATE	DESCRIPTION	DRGD.	CHKD.	APPRD.				
F	12.11.15	NOTES 1 AND TITLE REVISED	FK	REE	GS				
E	03.06.15	FORMAT CHANGED AND NOTE REVISED	CO	JC	GS				
D	05.07.13	ORIGINAL ISSUE							



NOTES:-

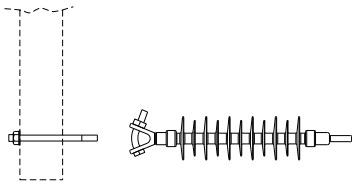
1. INSTALL A DISPERSION PLATE TO BOLTS WHICH PASS THROUGH A WOOD SECTION OF A POLE.
2. MUST BE SECURED DIRECTLY OVER THE HOLE, IN DIRECT CONTACT WITH A SQUARE WASHER OR METAL CROSS-ARM.

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD			
				TITLE		DRAWN: JRR DATE: 28-02-2014 DRG. No.		R02-5	
				BONDING - RETRO-FIT WOOD CROSS-ARM		ORIGINATED: REE SCALE: NTS			
						CHECKED: REE		APPROVED: GRANT STACY	
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.			REV.	SHT.
B	07.05.15	FORMAT AND TITLE CHANGED	REE	REE	GS			B	
A	05.07.13	ORIGINAL ISSUE							

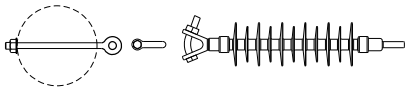


HIGH VOLTAGE (UP TO 33 kV)

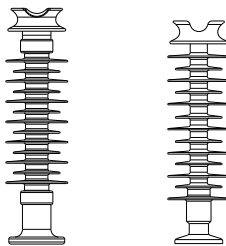
APPLY AS PER DEB ISSUE 70



STRAIN/LONG ROD INSULATOR



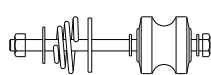
RUNNING DISC ANGLE



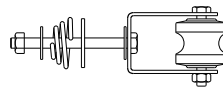
RED EVA GREY SILICONE
POST INSULATORS

LOCATION	INSULATOR TYPE & STOCK CODE
EXTREME POLLUTION AREAS - NORTH COUNTRY AREA - WITHIN 10km OF THE COAST FOR THE REMAINDER OF THE SWIN	* LINE POST IF0001 (GREY SILICONE) * LONG ROD IC0031 (GREY SILICONE) * STAND-OFF IC0083 (RED EVA) * LONG ROD (FALCON 22kV PTS) (BRAID SIDE) IC0040 (RED EVA)
ELSEWHERE	* LINE POST IC0086 (RED EVA) * LONG ROD IC0041 (RED EVA) * STAND-OFF IC0083 (RED EVA) * LONG ROD (FALCON 22kV PTS) (BRAID SIDE) IC0040 (RED EVA)
LOCAL KNOWLEDGE OF HIGH POLLUTION - EG. NEAR SALT LAKES	APPLY AS IN EXTREME POLLUTION AREAS

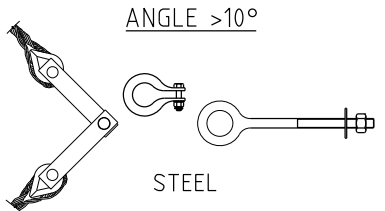
RUNNING EARTH



ANGLE < 2°

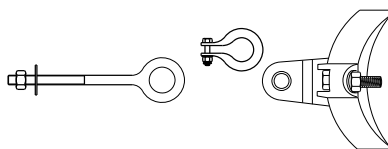


ANGLE 2° TO 10°



ANGLE >10°

STEEL

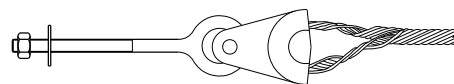


ACSR & ALUMINIUM

TERMINATION

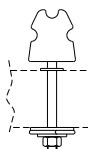


STEEL (SCGZ) & COPPER

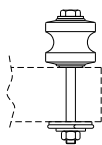


ACSR, ALUMINIUM & SCAC

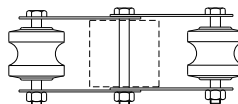
LOW VOLTAGE



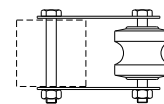
INTERMEDIATE
0° - 2°



ANGLE
UP TO 20°



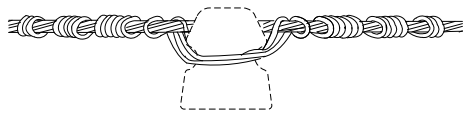
STRAIN OR ANGLE
20°-40°



TERMINATION

REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD		westernpower	
K	23.11.23	TABLE ADDED, TITLE REVISED AND DETAILS REARRANGED	ML	NMc	CO	TITLE	
J	29.08.19	SUB TITLES REVISED	NN		GS	DRAWN: JRR DATE: 04-03-2014 DRG. No.	
H	15.01.16	SUB TITLES REVISED	ME	FK	GS	ORIGINATED: SCALE: NTS	
G	24.04.15	REFERENCE NOTE ADDED	FK	AK	GS	CHECKED: REE	
F	26.03.15	DEVIATION ANGLES REVISED	FK	AK	GS	APPROVED: GRANT STACY REV. K SHT.	
REV	DATE	DESCRIPTION	DRG.	CHKD.	APRD.	INSULATORS AND RUNNING EARTH	

TOP TIE

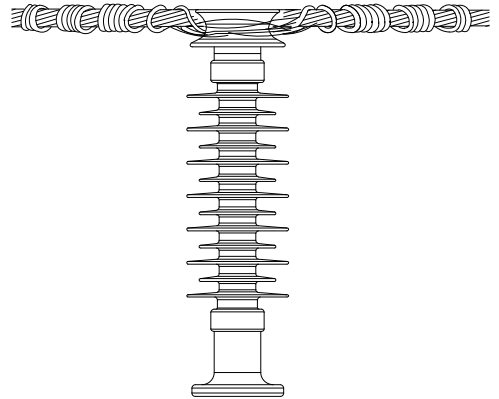


LOW VOLTAGE

SEQUENCE OF OPERATIONS FOR HV & LV

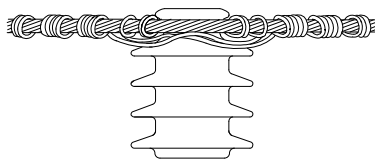
HALVE TIE. START WITH MIDDLE OF TIE AT BACK OF INSULATOR.

- A) TAKE HALF TURN AROUND INSULATOR, UNDER AND AROUND CONDUCTOR FOR ONE TURN.
- B) CROSS TIE AT THE FRONT OF INSULATOR AND CONTINUE UNDER AND AROUND CONDUCTOR FOR ONE TURN.
- C) CROSS TIE AT THE BACK OF INSULATOR AND CONTINUE UNDER AND AROUND CONDUCTOR FOR SIX TURNS.
- D) ONE OPEN TURN.
- E) FIVE TURNS.
- F) ONE OPEN TURN.
- G) THREE TURNS.
- H) TURN ENDS OF TIE DOWN AGAINST THE CONDUCTOR.



HIGH VOLTAGE

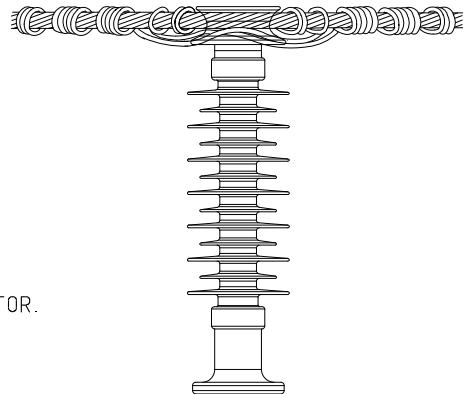
SIDE TIE



SEQUENCE OF OPERATIONS

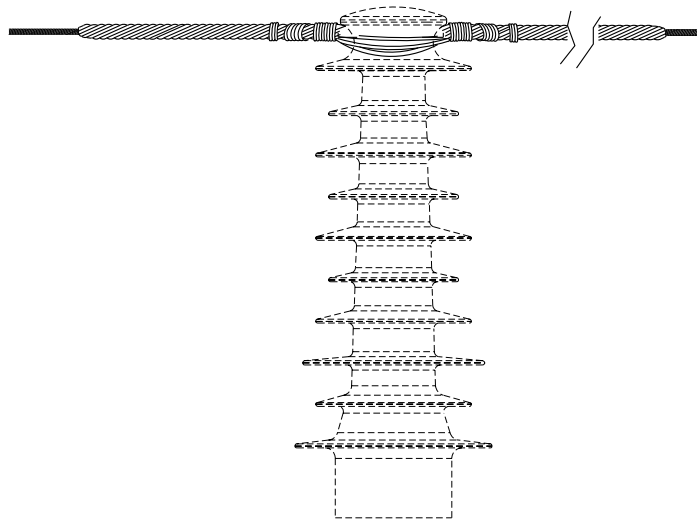
HALVE TIE. START WITH MIDDLE OF TIE AT BACK OF INSULATOR.

- A) TAKE HALF TURN AROUND INSULATOR AND UNDER CONDUCTOR ON EACH SIDE.
- B) TAKE ONE AND HALF TURNS AROUND CONDUCTOR ON EACH SIDE OF INSULATOR.
- C) CROSS ENDS AROUND BACK OF INSULATOR AND RETURN TO BOTTOM OF CONDUCTOR ON EACH SIDE.
- D) TAKE ONE TURN AROUND CONDUCTOR ON EACH SIDE OF INSULATOR
- E) PASS ENDS OVER AND ACROSS IN FRONT OF INSULATOR CARRYING EACH END TO BOTTOM OF CONDUCTOR.
- F) TAKE FIVE TURNS AROUND CONDUCTOR.
- G) ONE OPEN TURN.
- H) FIVE TURNS.
- J) ONE OPEN TURN.
- K) THREE TURNS.
- L) TURN ENDS OF TIE DOWN AGAINST CONDUCTOR.



				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD			
				TITLE			DRAWN: JRR		DATE: 04-03-2014	
				INSULATOR TIES			ORIGINATED: REE		SCALE: NTS	
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							APPROVED: GRANT STACY		REV. B	
									SHT.	
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.					
B	11.08.22	NOTE REVISED								
A	09.11.10	ORIGINAL ISSUE	NMc	CO	GS					

ARMOUR ROD



NOTES:-

1. ARMOUR RODS TO BE USED ON ALL BAYS (PHASE AND RUNNING EARTH) FOR THE FOLLOWING -
 - STEEL CONDUCTORS (SCAC & SCGZ)
 - ALUMINIUM CONDUCTORS (AAC, AAAC, ACSR, AACSR) TENSIONED AT 15% CBL OR GREATER
2. NOT REQUIRED ON RDA STRUCTURES >30° LINE DEVIATION.

VIBRATION DAMPER



GRIPPING SECTION

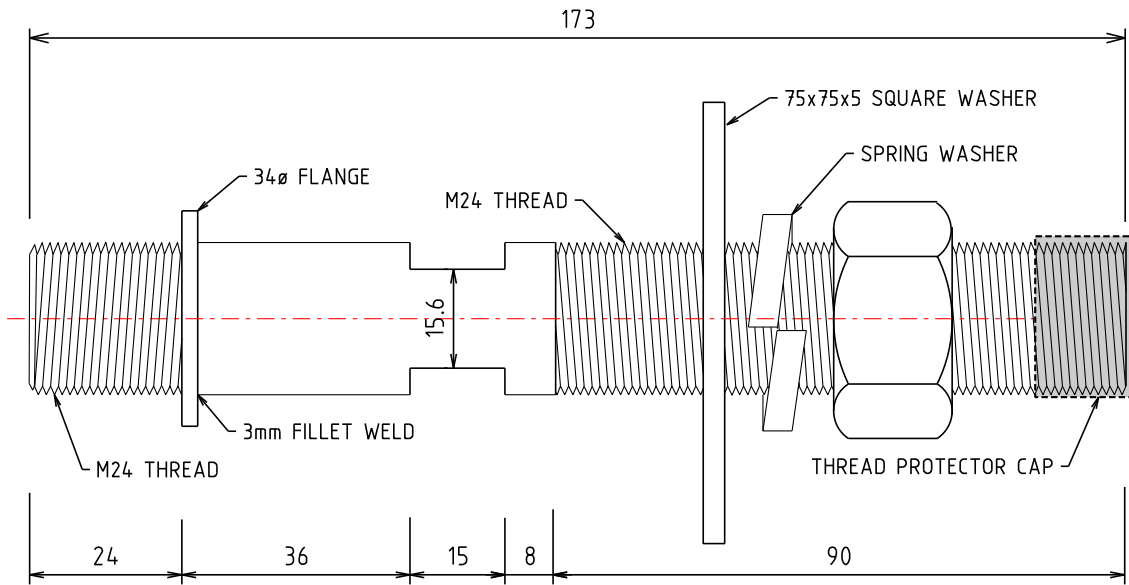
DAMPING SECTION

GENERAL NOTES:-

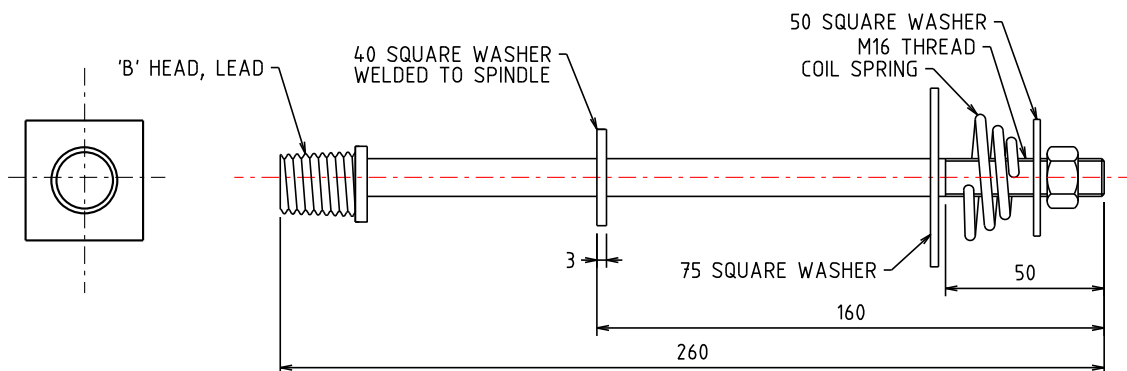
1. INSTALLED ON ALL STEEL AND ACSR CONDUCTORS BOTH SIDES OF A POST INSULATOR. GRIPPING SECTION TO BE INSTALLED BETWEEN 100 AND 150mm FROM ARMOUR ROD.
2. FOR BAYS >250m, A SECOND SVD IS REQUIRED AT EITHER END OF THE SPAN , NO MORE THAN 150mm APART
3. SVD'S NOT REQUIRED AT STRAIN ATTACHMENTS.
4. THE REQUIREMENT TO FIT VIBRATION DAMPERS APPLIES TO NEW CONSTRUCTION AND RECONDUCTORED OVERHEAD LINES ONLY.
5. IF SPLICE INSTALLED AFTER ROD - DAMPER TO BE INSTALLED AFTER SPLICE WITH ALL 100mm APART.

				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD			
				TITLE			DRAWN: JRR DATE: 04-03-2014		DRG. No.	
				ARMOUR RODS & SPIRAL VIBRATION DAMPERS			ORIGINATED: SCALE: NTS		R03-3	
							CHECKED: REE		REV. L	
							APPROVED: GRANT STACY		SHT.	
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APPRD.					
L	18.08.21	NOTES REVISED	REE	CO	GS					
K	14.11.18	NOTE 5 ADDED & ARMOUR ROD NOTE REVISED	NN	REE	GS					
J	07.03.18	ARMOUR ROD NOTE REVISED	REE	CO	GS					
I	03.06.15	ARMOUR ROD NOTE REVISED	CO	JC	GS					

HV INSULATOR BOLT

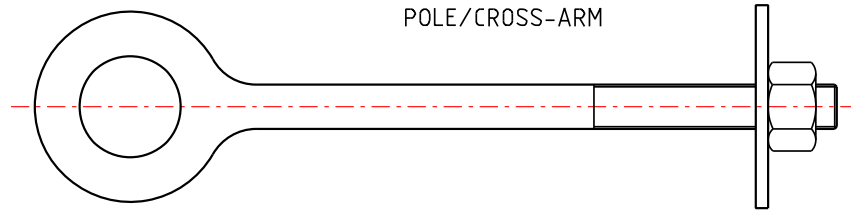


LV INSULATOR PIN



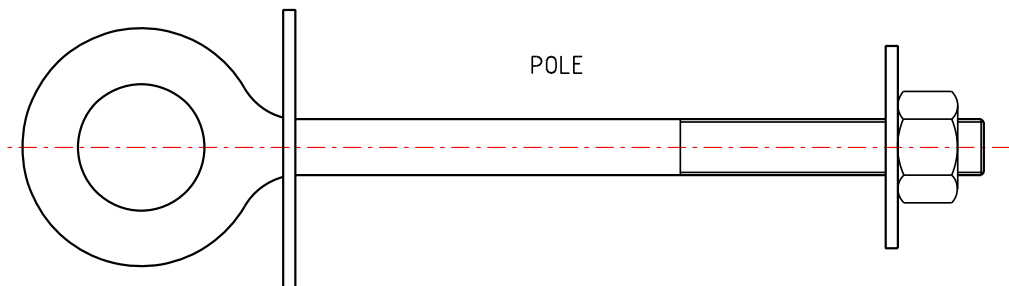
NOTE:
1. ALL DIMENSIONS ARE IN MILLIMETRES.

				STRUCTURE	DISTRIBUTION CONSTR. STANDARD			
				INSULATOR PIN & PIN DETAILS	DRAWN: JRR DATE: 04-03-2016 DRG. No. ORIGINATED: SCALE: NTS CHECKED: REE APPROVED: GRANT STACY	R4	REV. B SHY.	
R. No.	DATE	DESCRIPTION	DRG. CHED. APRD.					
B	28.01.15	FORMAT CHANGED AND HV INSULATOR BOLT REVISED	REE REE GS					
A	11.01.10	ORIGINAL ISSUE						

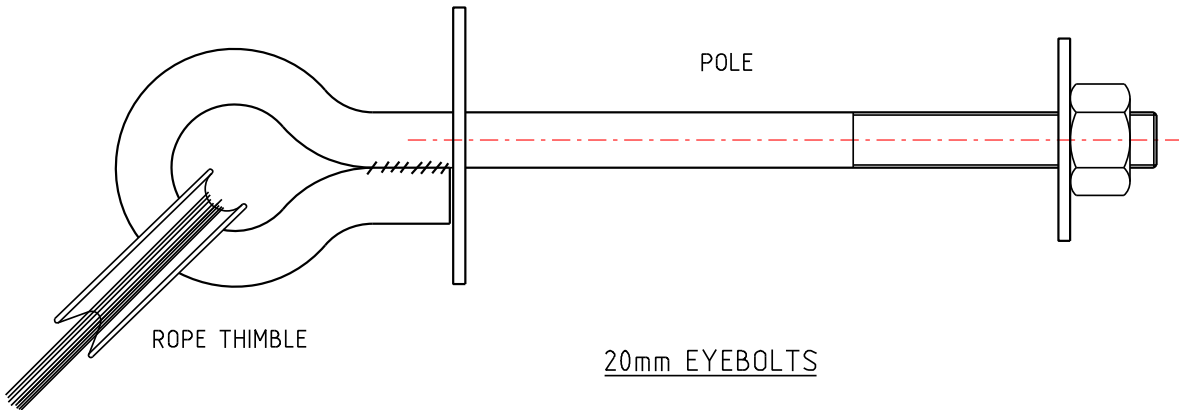


POLE/CROSS-ARM

16mm EYEBOLT FOR CENTRE PHASE / RUNNING DISC ANGLE / CROSS-ARM



POLE



POLE

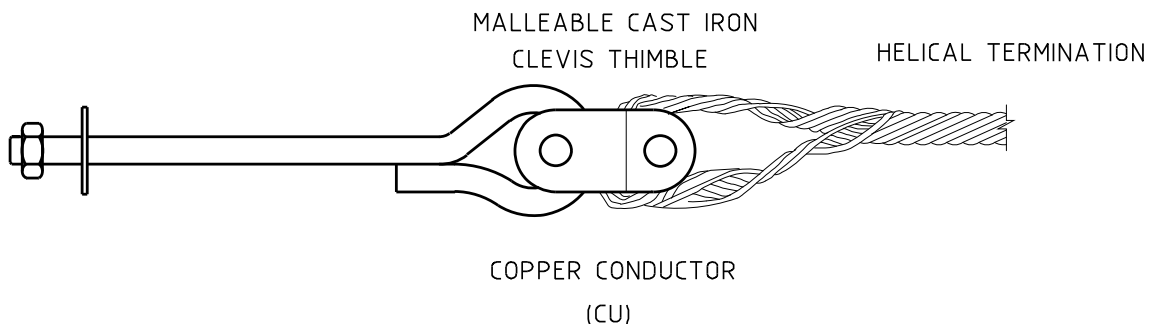
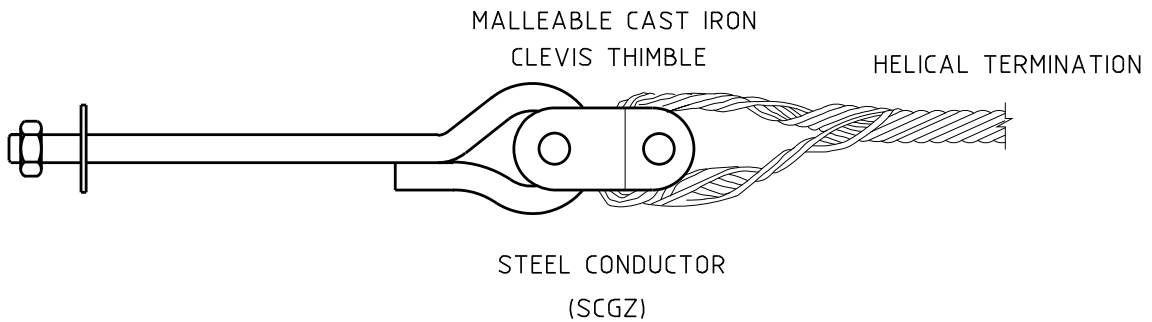
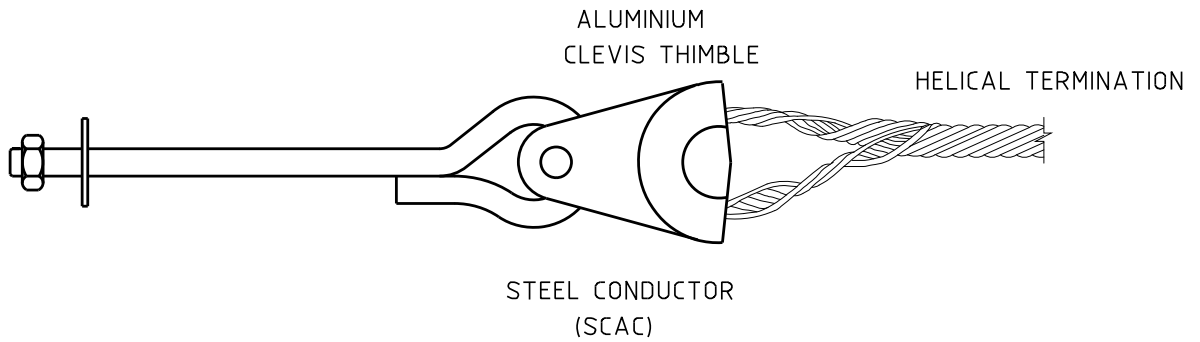
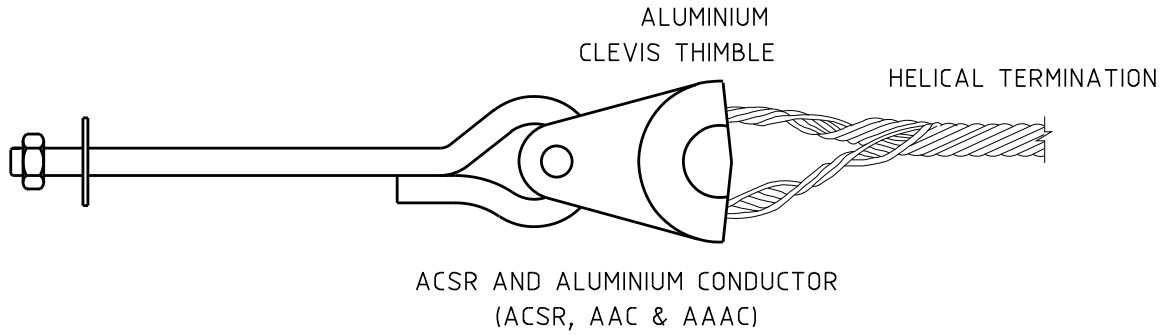
ROPE THIMBLE

20mm EYEBOLTS

HELICAL TERMINATION

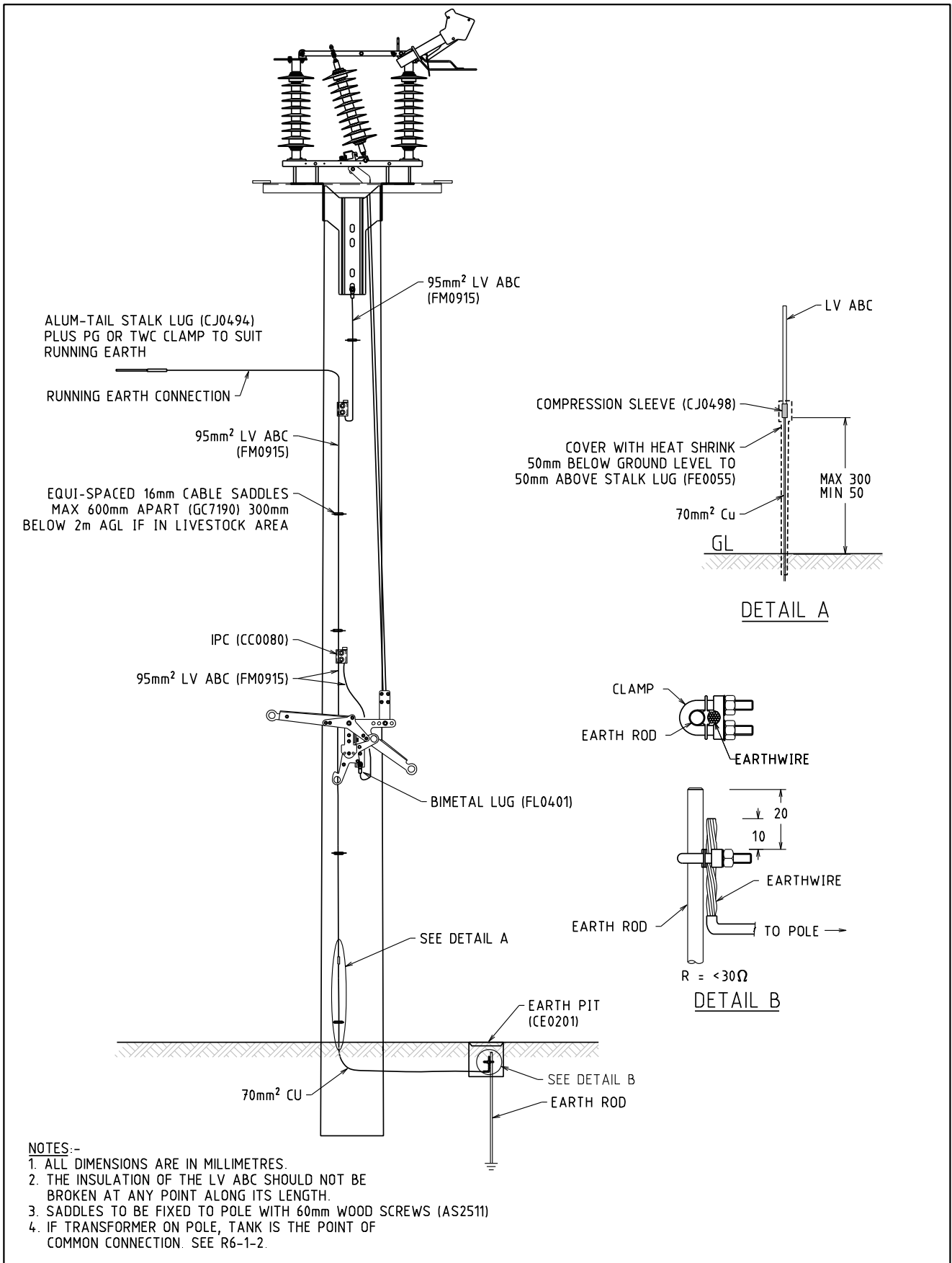
STANDARD STAY	SQUARE WASHERS & EYE RETURN TO BE HARD AGAINST POLE
AERIAL STAY	ONLY ONE WASHER REQUIRED ON NUT SIDE EYE RETURN NOT REQUIRED HARD AGAINST POLE

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE		DRAWN: JRR		DATE: 04-03-2014	
				EYEBOLTS		ORIGINATED:		SCALE: NTS	
						CHECKED: REE		REV. E	
						APPROVED: GRANT STACY		DRG. No. R05-1	
REV	DATE	DESCRIPTION	ORGO	CHKD	APRD			SHT.	



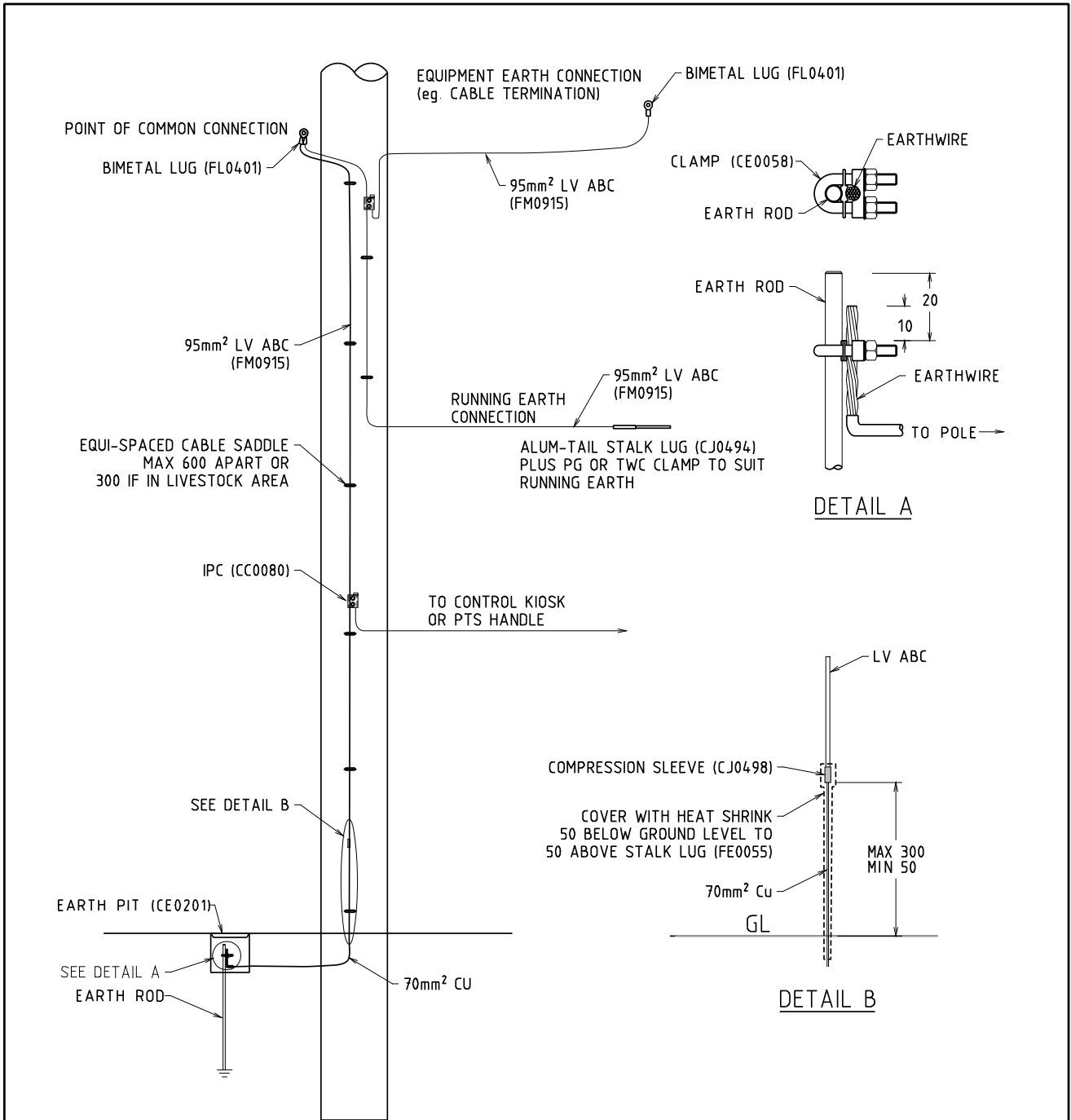
STANDARD CONSTRUCTION 16mm EYE BOLTS

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE		DRAWN: JRR		DATE: 04-03-2014	
				EYEBOLT CONDUCTOR TERMINATIONS		ORIGINATED:		SCALE: NTS	
						CHECKED: REE		DRG. No. R05-2	
						APPROVED: GRANT STACY		REV. B	
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.			SHT.	
B	29.08.19	SUB TITLE REVISED		NW	GS				
A	08.09.03	ORIGINAL ISSUE							



- NOTES:-
1. ALL DIMENSIONS ARE IN MILLIMETRES.
 2. THE INSULATION OF THE LV ABC SHOULD NOT BE BROKEN AT ANY POINT ALONG ITS LENGTH.
 3. SADDLES TO BE FIXED TO POLE WITH 60mm WOOD SCREWS (AS2511)
 4. IF TRANSFORMER ON POLE, TANK IS THE POINT OF COMMON CONNECTION. SEE R6-1-2.

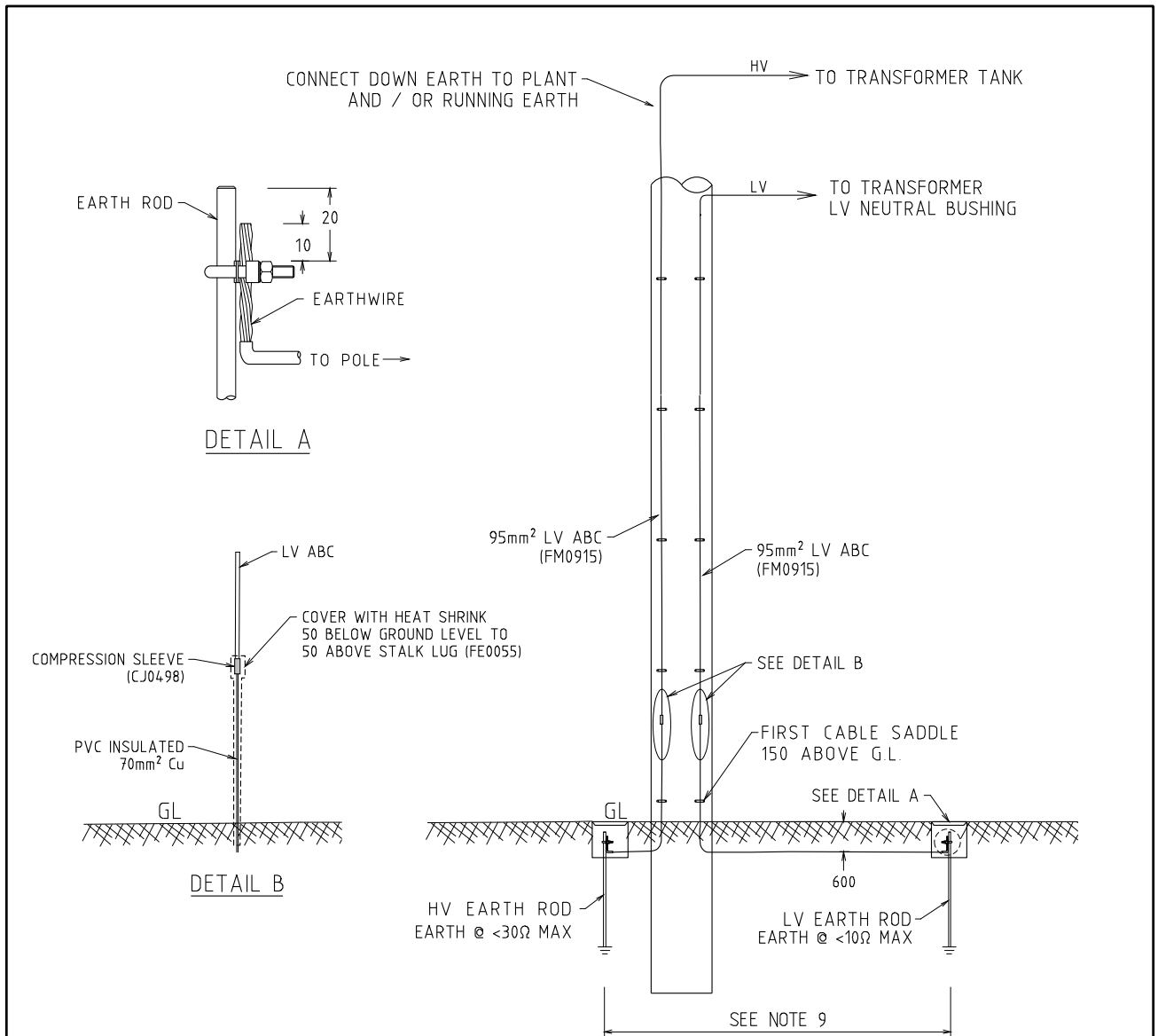
				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE				DRAWN: JRR		DATE: 04-03-2014	
				POLE TOP SWITCH EARTHING				ORIGINATED: SCALE: NTS		DRG. No. R6-1-1	
								CHECKED: REE		APPROVED: GRANT STACY	
								REV. H		SHT.	
REV	DATE	DESCRIPTION		ORGD.	CHKD.	APRD.					
H	21.05.19	EARTH CONNECTION MODIFIED		REE	NN	FK					
G	31.01.18	REVISED TO SUIT NEW PTS		REE	JC	GS					
F	18.12.17	DWG. # & TITLE REVISED, LV ABC & STALK LUG ADDED		GS	JC	GS					



NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. LV ABC SHOULD NOT BE PLACED BELOW GROUND. PVC INSULATED 70mm² Cu CABLE SHOULD BE USED FOR ALL UNDERGROUND CONNECTIONS TO THE EARTH STAKE.
3. THE INSULATION OF THE LV ABC SHOULD NOT BE BROKEN AT ANY POINT ALONG ITS LENGTH.
4. PRIMARY EARTH CONNECTION TO TRANSFORMER TANK. IF NO TRANSFORMER ON POLE THEN RE AND THEN RECLOSER, PTS, CABLE TERM IS THE PRIMARY POINT OF COMMON CONNECTION.
5. SECONDARY EARTH CONNECTIONS SHOULD BE CONNECTED TO THE PRIMARY CONNECTION DOWN-EARTH USING LUGS.
6. ALL LV ABC EARTH WIRE CONNECTIONS TO EQUIPMENT MUST BE BI-METAL LUGS.
7. SADDLES TO BE FIXED TO POLE WITH 60mm WOOD SCREWS (AS2511).
8. WHERE A VALUE OF <math><30\Omega</math> CANNOT BE ACHIEVED (AFTER INSTALLING THE MAXIMUM NUMBER OF RODS POSSIBLE USING A JACK HAMMER), THE VALUE SHOULD BE RECORDED AND FLAGGED AS A NON-CONFORMANCE ON THE CHECK SHEET. A DRILLED 'DEEP EARTH' SHOULD NOT BE INSTALLED TO OBTAIN AN EARTH RESISTANCE READING LESS <math><30\Omega</math>. PLEASE NOTE THAT THE EARTH RESISTANCE MEASUREMENT SHOULD BE TAKEN OFF THE EARTH STAKE BEFORE IT IS CONNECTED TO THE UNDERSLUNG RUNNING EARTH. PLEASE NOTE THAT THIS RELAXATION APPLIES TO INTERMEDIATE POLES. EARTH RESISTANCE VALUES AT KEY STRUCTURE POLES SUCH AS TRANSFORMERS, POLE TOP SWITCHES, CABLE HEADS ETC. ARE STILL REQUIRED TO BE EARTHED TO <math><30\Omega</math>.

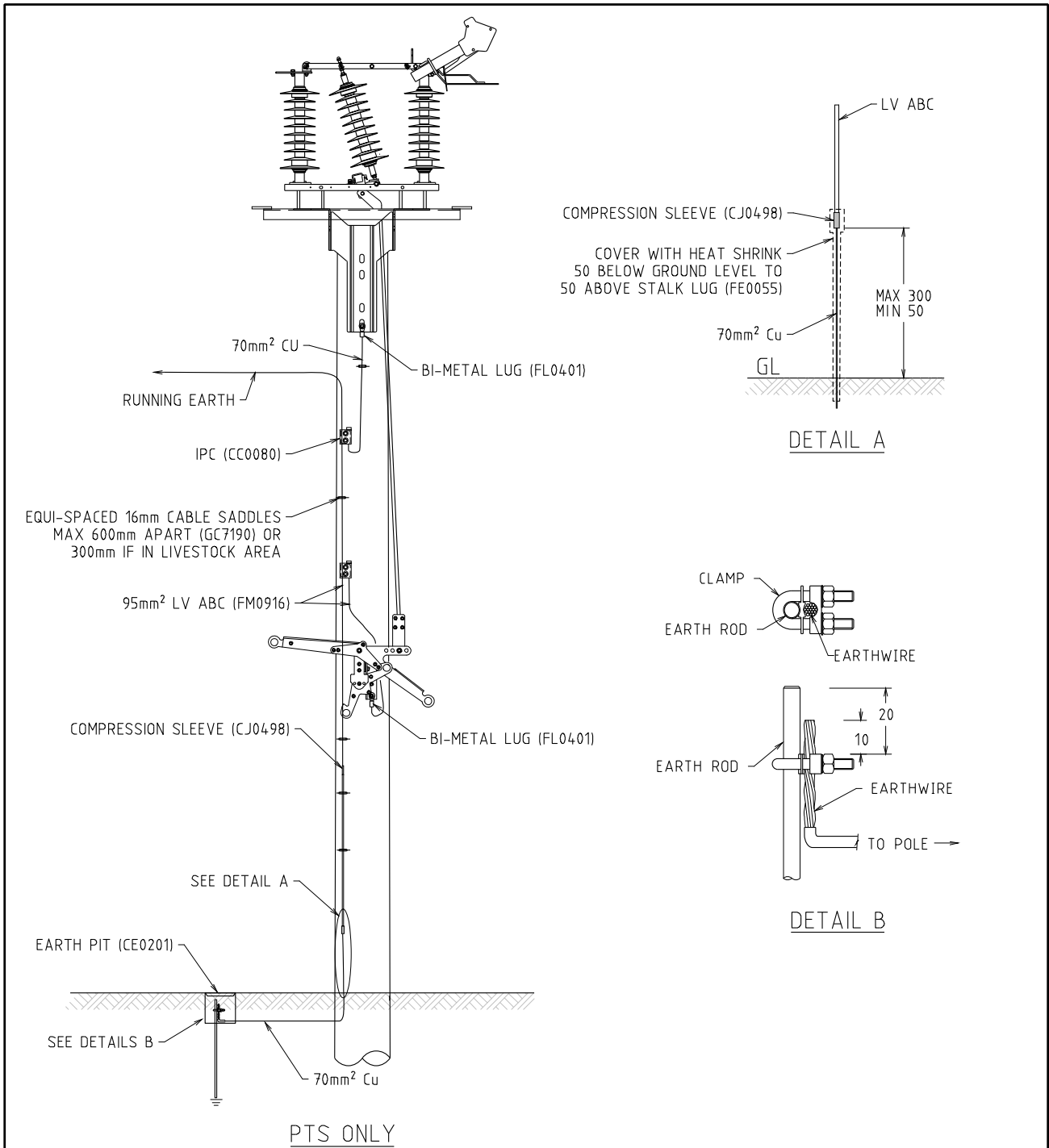
				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE			DRAWN: JRR		DATE: 02-08-2017	
				POLE EARTHING			ORIGINATED: JC		SCALE: NTS	
							CHECKED: CD		R6-1-2	
							APPROVED: GRANT STACY		REV. C	
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.					
C	21.05.19	EARTH CONNECTIONS MODIFIED	REE	NN	FK					
B	14.11.18	EARTH CONNECTIONS MODIFIED & NOTE 8 ADDED	REE	CO	GS					
A	14.12.17	ORIGINAL ISSUE	GS	JC	GS					



NOTES:-

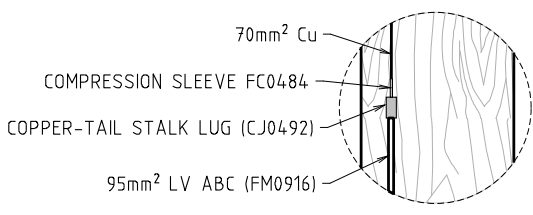
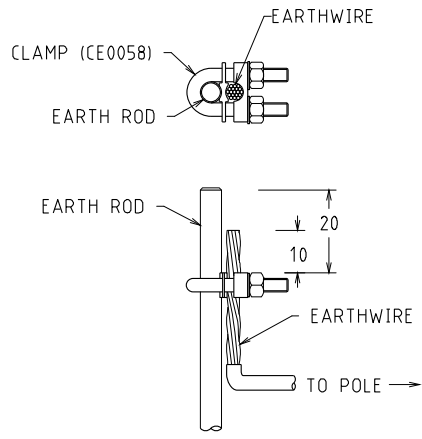
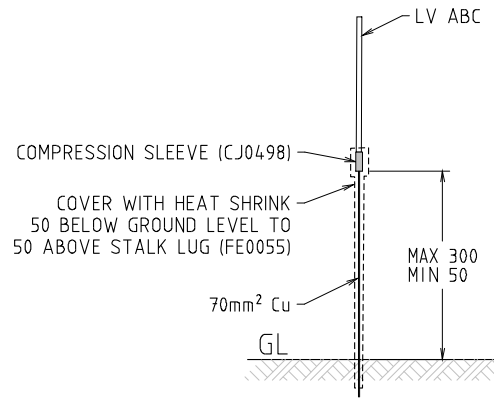
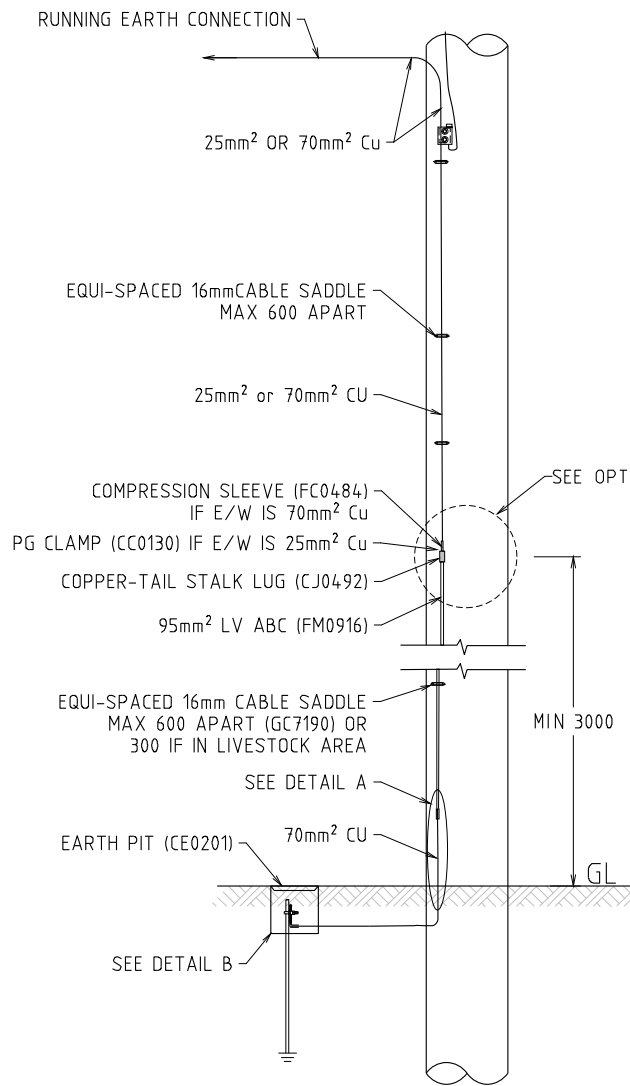
1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ONLY TO BE USED WHEN THE REQUIREMENTS FOR COMMON HV & LV EARTHING ($<1\Omega$) CAN NOT BE MET.
3. NOT TO BE USED FOR TRANSFORMER INSTALLATIONS WHERE BARE HV CONDUCTORS ARE ABOVE BARE LV CONDUCTORS.
4. THE NEUTRAL EARTH LINK AT THE TRANSFORMER MUST BE REMOVED.
5. SCOTCH LINERLESS SPLICING TAPE 130C MUST BE APPLIED 4 LAYERS THICK TO EXPOSED METAL WORK ON ALL TRANSFORMER LV BUSHINGS INCLUDING THE NEUTRAL AND THEN COVERED WITH SCOTCH ELECTRICAL TAPE 22 TO INCREASE THE UV RATING OF THE INSULATION.
6. THE HV AND LV EARTH DOWNLEADS MUST BE SEPARATED BY A MINIMUM OF 150mm ON THE POLE.
7. LV FUSING MUST BE INSTALLED AT THE TRANSFORMER.
8. A LABEL READING "WARNING SEPARATE HV & LV EARTHING" SHOULD BE PLACED ON THE TRANSFORMER AND ON THE POLE.
9. HV AND LV EARTH ROD SEPARATION DISTANCE TO BE SPECIFIED BY EARTHING DESIGNER.

				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE			DRAWN: JRR		DATE: 22-07-2022	
				SEPARATE LV & HV EARTHING FOR POLE TRANSFORMER			ORIGINATED: GS		SCALE: NTS	
							CHECKED: NMc		DRG. No. R06-1-3	
							APPROVED: GRANT STACY		REV. SHT.	
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.					
C	02.12.22	NOTES REVISED	GS	NMc	GS					
B	19.08.22	NOTES REVISED	GS	NMc	GS					
A	03.08.22	ORIGINAL ISSUE	GS	NMc	GS					

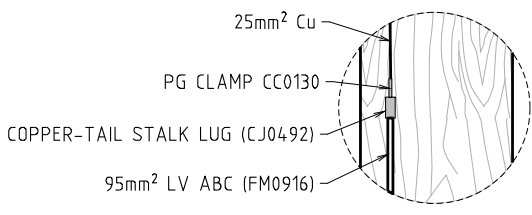


- NOTES:-
1. ALL DIMENSIONS ARE IN MILLIMETRES.
 2. UPPER MOST JOINT POSITION TO REMOVE RISK OF THEFT PREFERABLY AT LEAST 4m ABOVE GROUND, NOTE TO BE AT LEAST 760mm BELOW LV TO ALLOW MAD.
 3. SADDLES TO BE FIXED TO POLE WITH 60mm WOOD SCREWS (AS2511).
 4. EARTH PIT IS NOT REQUIRED TO BE FITTED, IF EARTH ROD CONNECTION IS ABOVE GROUND OR WATER PIPE.
 5. THE INSULATION OF THE LV ABC SHOULD NOT BE BROKEN AT ANY POINT ALONG ITS LENGTH.

				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD		westernpower	
				POLE TOP SWITCH DOWN EARTH REPAIR FOR VANDALISM/COPPER THEFT						
G	21.05.19	EARTH CONNECTION SYSTEM MODIFIED	REE	NN	FK	DRAWN:	JRR	DATE:	04-03-2014	DRG. No.
F	31.01.18	REVISED TO SUIT NEW PTS	REE	JC	GS	ORIGINATED:	SCALE:	NTS		
E	18.12.17	DWG # & TITLE REVISED, LV ABC & STALK LUG ADDED	GS	JC	GS	CHECKED:	REE	R6-2-1		
REV	DATE	DESCRIPTION	ORGD.	CHED.	APRO.	APPROVED:	GRANT STACY	REV.	G	SHT.



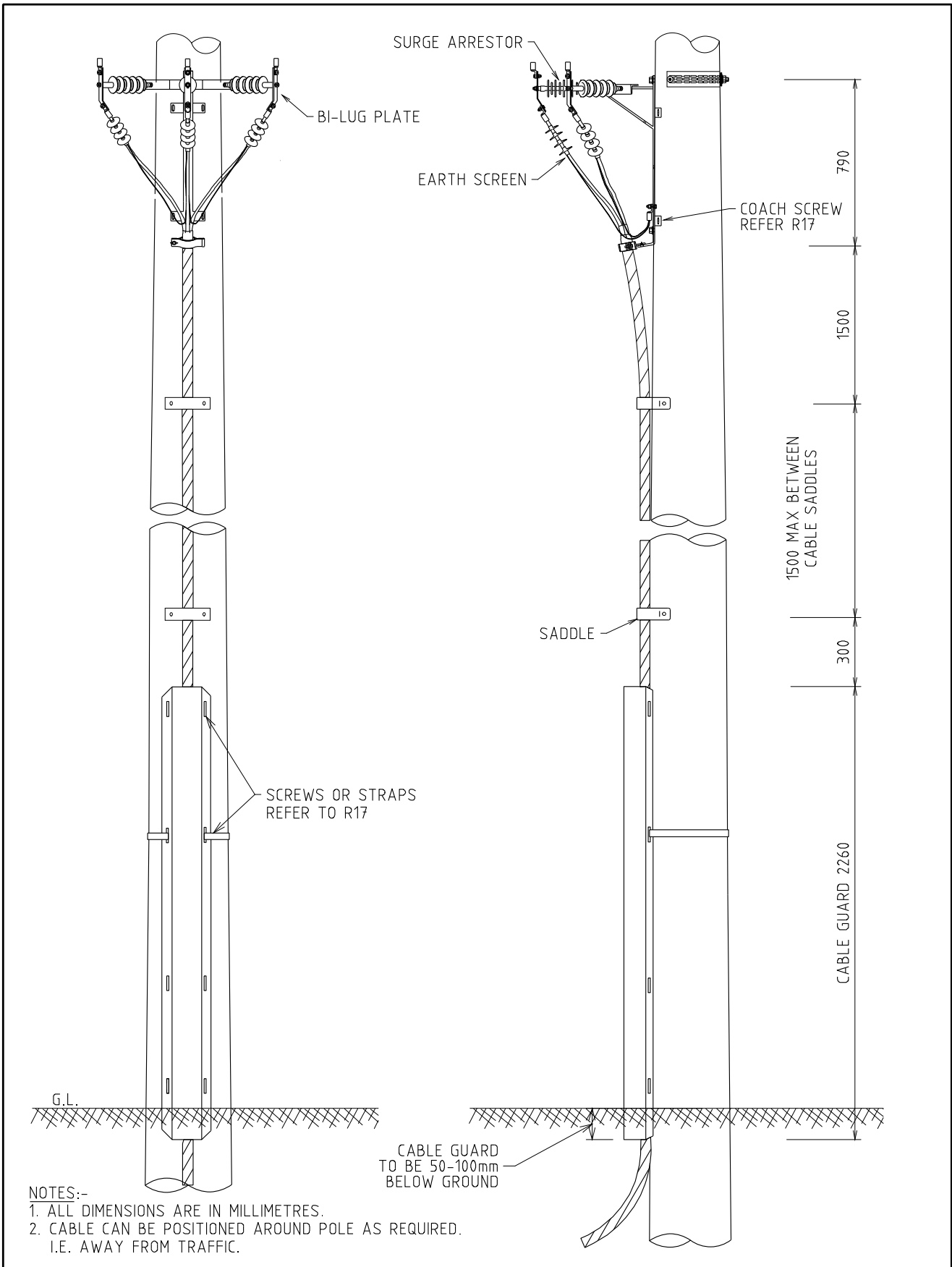
OPTION 1
EARTH WIRE 70mm² Cu



OPTION 2
EARTH WIRE 25mm² Cu

- NOTES:-
1. ALL DIMENSIONS ARE IN MILLIMETRES.
 2. UPPER MOST JOINT POSITION TO REMOVE RISK OF THEFT PREFERABLY AT LEAST 4m ABOVE GROUND, NOTE TO BE AT LEAST 760mm BELOW LV TO ALLOW MAD.
 3. SADDLES TO BE FIXED TO POLE WITH 60mm WOOD SCREWS (AS2511).
 4. EARTH PIT IS NOT REQUIRED TO BE FITTED, IF EARTH ROD CONNECTION IS ABOVE GROUND OR WATER PIPE.
 5. THE INSULATION OF THE LV ABC SHOULD NOT BE BROKEN AT ANY POINT ALONG ITS LENGTH.

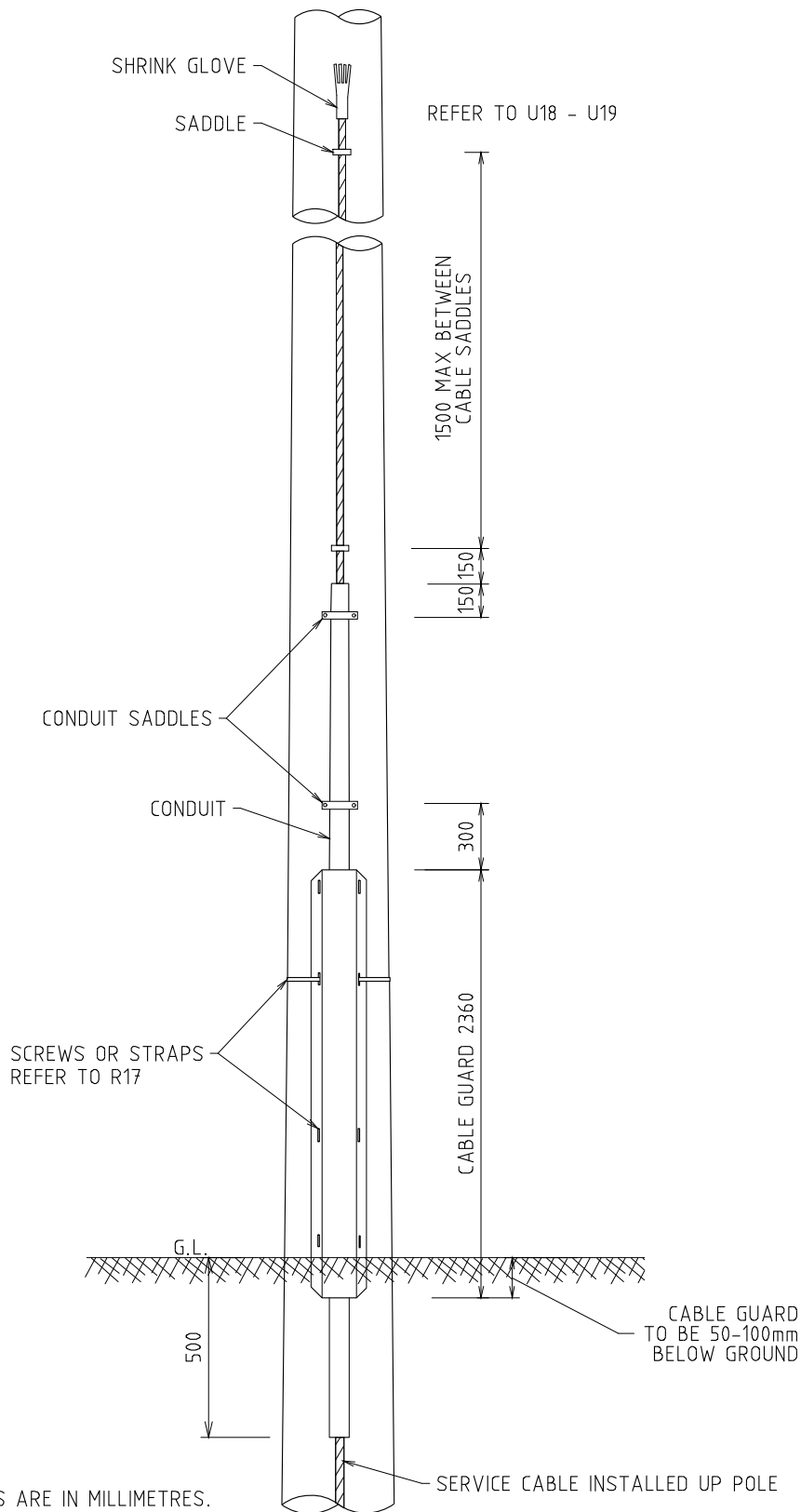
				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD		westernpower	
				POLE DOWN EARTH REPAIR FOR VANDALISM/COPPER THEFT		DRAWN: JRR DATE: 03-08-2017		DRG. No.	
						ORIGINATED: JC SCALE: NTS		R6-2-2	
						CHECKED: CO		REV. B	
						APPROVED: GRANT STACY		SHT.	
								B	
REV	DATE	DESCRIPTION	ORGD.	CHEC.	IAPRD.				
B	21.05.19	EARTH CONNECTION METHOD MODIFIED	REE	NN	FK				
A	14.12.17	ORIGINAL ISSUE	GS	JC	GS				



NOTES:-

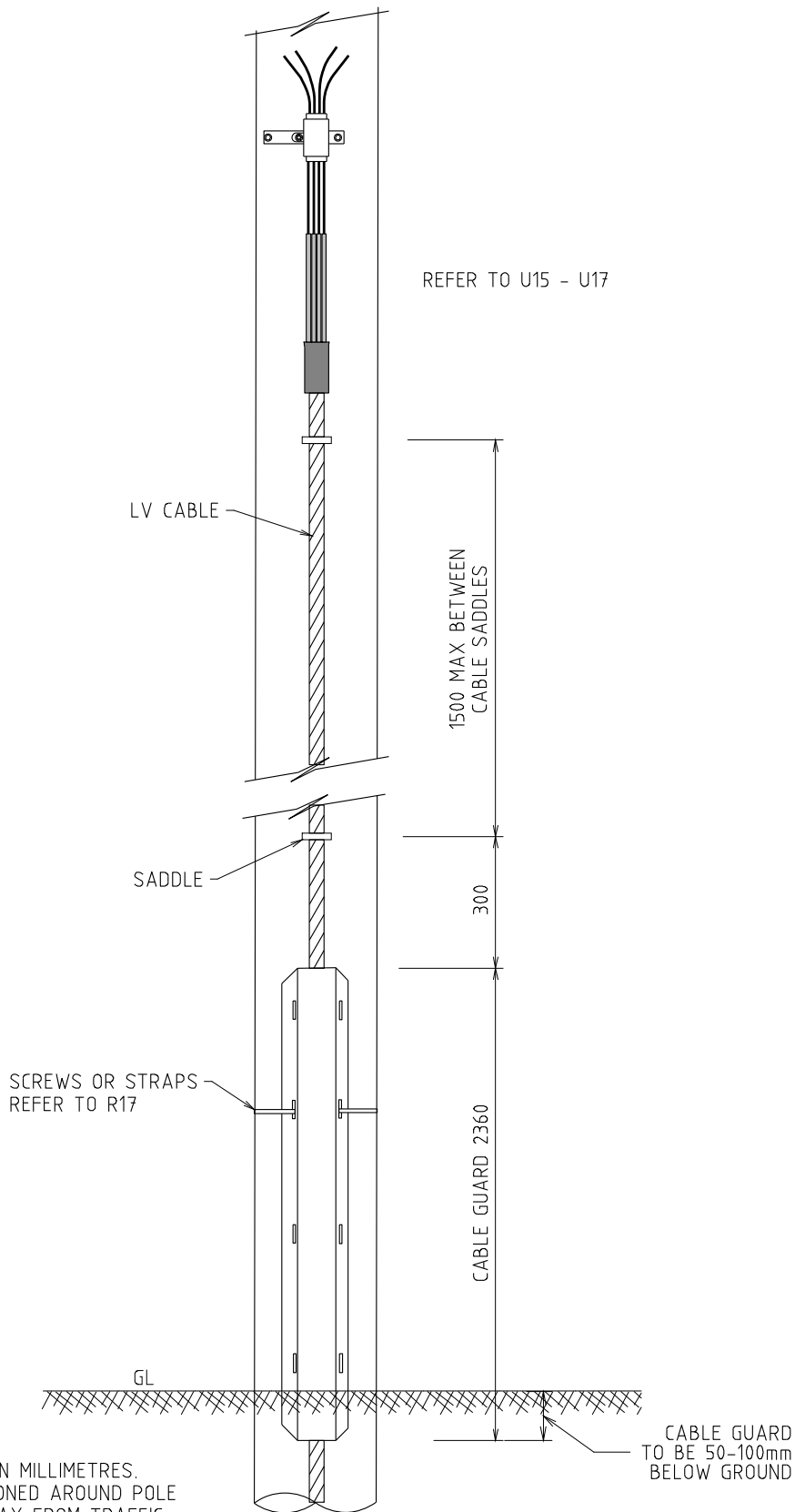
1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. CABLE CAN BE POSITIONED AROUND POLE AS REQUIRED.
I.E. AWAY FROM TRAFFIC.

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD			
				CABLE SADDLE / CABLE GUARD HV CABLES		DRAWN: JRR DATE: 04-03-2014		DRG. No. R07-1	
						ORIGINATED: REE SCALE: NTS			
						CHECKED: REE			
						APPROVED: GRANT STACY		REV: F SHT.	
REV	DATE	DESCRIPTION	ORGO.	CHKD.	APRD.				
F	05.08.21	TITLE CHANGED AND CABLE GUARD LENGTH REVISED	CO	NMc	GS				
E	22.02.19	ANNOTATIONS REVISED	CO	NMc	GS				
D	10.07.13	ORIGINAL ISSUE							



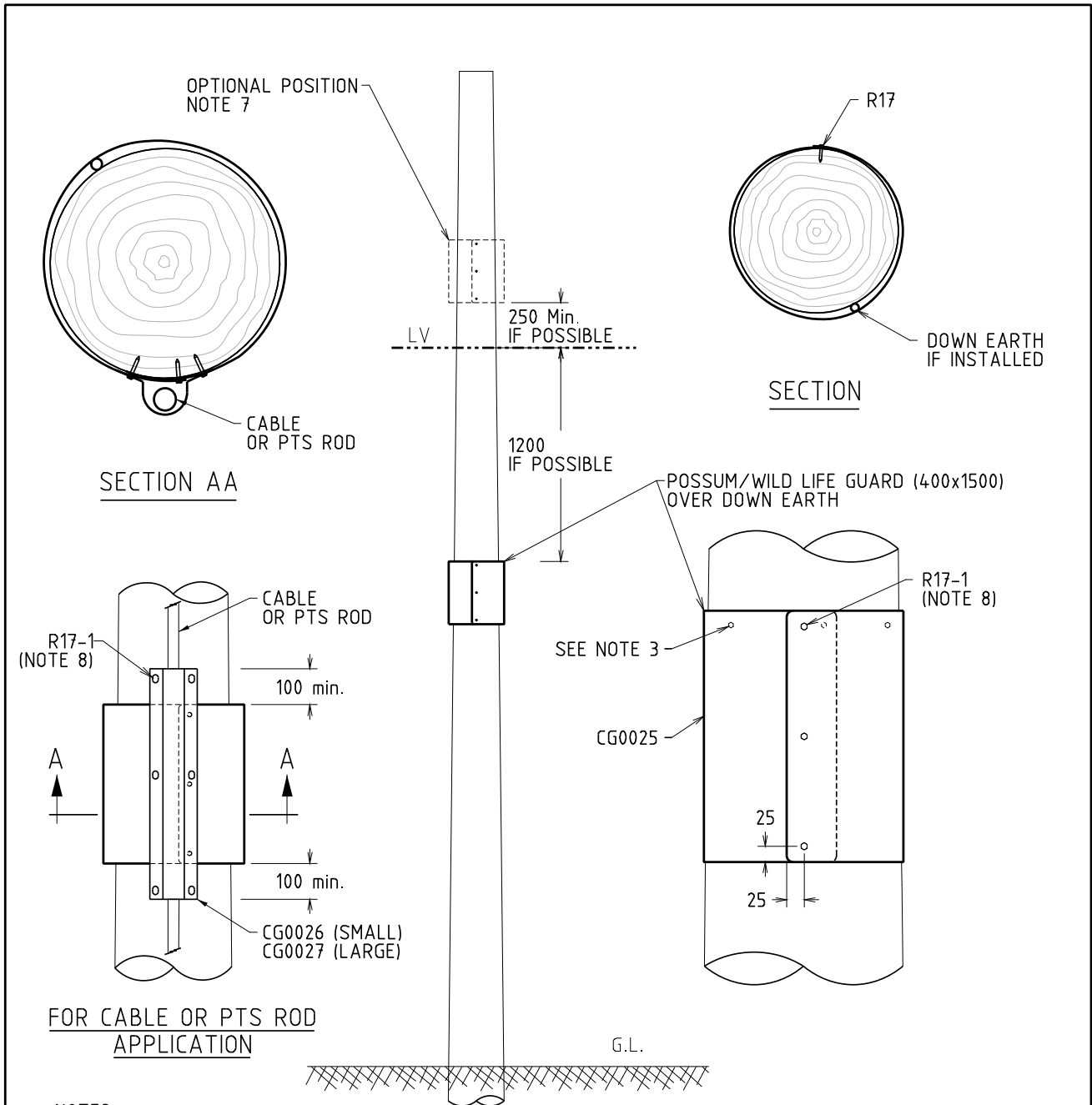
- NOTES:-
 1. ALL DIMENSIONS ARE IN MILLIMETRES.
 2. CABLE CAN BE POSITIONED AROUND POLE AS REQUIRED. I.E. AWAY FROM TRAFFIC.

				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD				
				TITLE			DRAWN: JRR		DATE: 04-03-2014		DRG. No.
				CABLE SADDLES / CABLE GUARD 10, 16 & 25mm ² SERVICE DETAIL			ORIGINATED:		SCALE: NTS		R07-2
							CHECKED: REE				
							APPROVED:		GRANT STACY		REV. F
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APROD.					SHT.	
F	05.08.21	TITLE CHANGED AND CABLE GUARD LENGTH REVISED	CO	NMc	GS						
E	22.02.19	ANNOTATIONS REVISED	CO	NMc	GS						
D	10.07.13	ORIGINAL ISSUE									



- NOTES:-
 1. ALL DIMENSIONS ARE IN MILLIMETRES.
 2. CABLE CAN BE POSITIONED AROUND POLE AS REQUIRED. I.E. AWAY FROM TRAFFIC.

				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD		westernpower	
D	05.08.21	TITLE CHANGED AND CABLE GUARD LENGTH REVISED	CO	NMc	GS	TITLE	DRAWN: JRR	DATE: 04-03-2014	DRG. No.	
C	22.02.19	ANNOTATIONS REVISED	CO	NMc	GS	CABLE SADDLE / CABLE GUARD 120 to 240mm ² LV CABLES	ORIGINATED:	SCALE: NTS	R07-3	
B	24.08.17	POLE TOP DETAILS DELETED	CO	JC	GS		CHECKED: REE			
A	10.07.13	ORIGINAL ISSUE					APPROVED:			
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.		GRANT STACY			

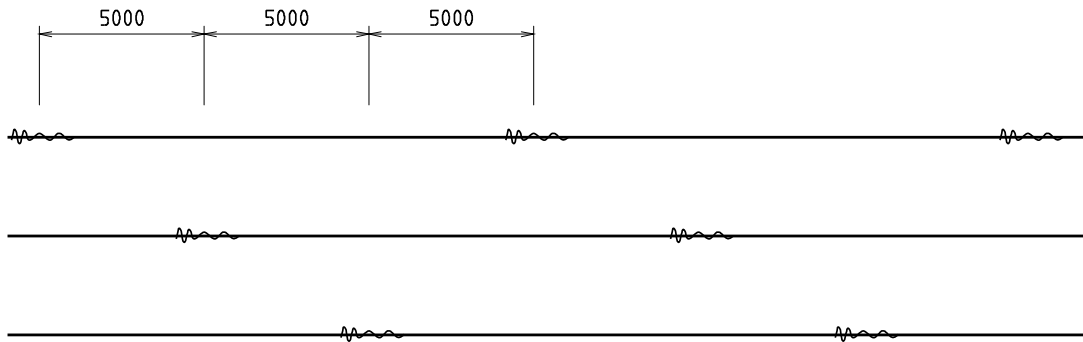


NOTES:

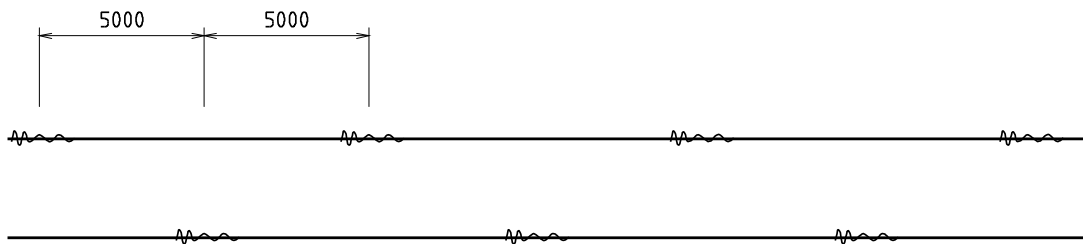
1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. GUARD TIGHTLY WRAPPED AROUND POLE.
3. SCREWS AROUND CIRCUMFERENCE TO ASSIST WITH EASE OF INSTALLATION ONLY AND TO BE KEPT TO A MINIMUM.
4. FOR LV/HV CABLES AND PTS ACTUATOR ROD, INSTALL POSSUM GUARD BETWEEN CABLE OR PTS ROD & POLE.
5. GUARD TO BE INSTALLED WITH MATT FINISH SIDE ON THE OUTSIDE, SHINY SIDE AGAINST POLE.
6. USE THE SMALLEST DIAMETER PLASTIC CABLE GUARD POSSIBLE TO COVER THE CABLE OR PTS ACTUATOR ROD WHICH WILL PREVENT WILDLIFE FROM CLIMBING THROUGH THE GUARD ITSELF.
7. UTILISE OPTIONAL OR ADDITIONAL POSITION IF POSSUM CAN ACCESS ABOVE LV DUE TO CLOSE TREES OR SERVICES.
8. USE SCREW (R17-1) WITH WASHER IF REQUIRED.

				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD		westernpower	
D	12.11.19	CABLE GUARD DETAILS AND NOTE 8 ADDED	REE	CO	GS	TITLE		DRAWN: JRR	DATE: 04-03-2014	DRG. No.
C	22.02.19	WOOD SCREW DTAILS REVISED		CO	NMc	GS	POSSUM/WILD LIFE GUARD	ORIGINATED:	SCALE: NTS	R07-5
B	03.03.15	FORMAT CHANGED AND NOTES REVISED.		REE	REE	GS		CHECKED: REE		
A	20.12.13	ORIGINAL ISSUE						APPROVED: GRANT STACY	REV. D	SHT.
REV	DATE	DESCRIPTION		DRGD	CHKD	APRD				

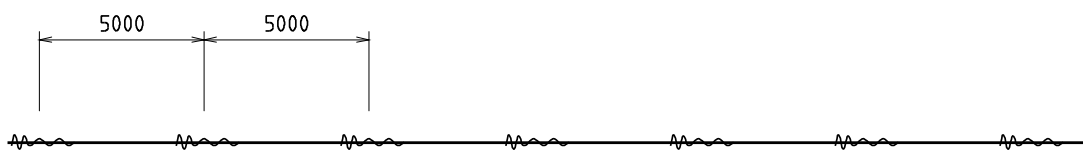
THREE PHASES



TWO PHASES



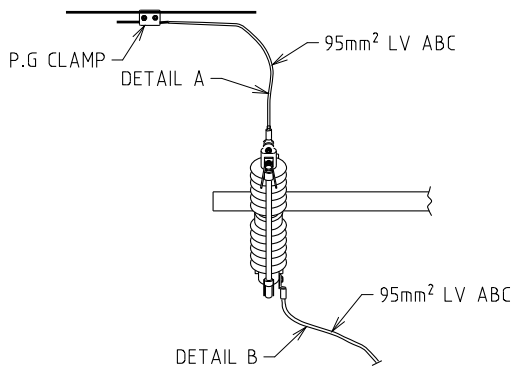
SINGLE PHASE



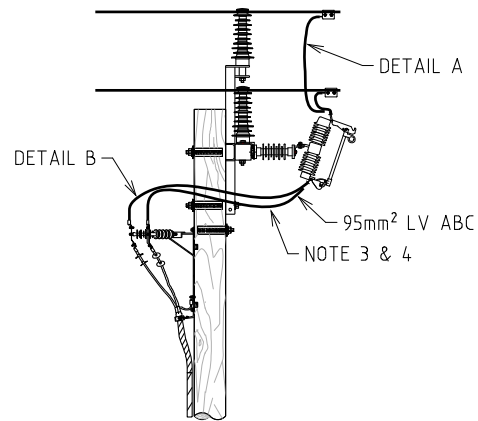
NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. THIS DRAWING IS SUGGESTED INSTALLATION SPACING ONLY.
3. SEE CN79 TO SELECT CORRECT BIRD DIRECTORS FOR CONDUCTOR DIAMETERS.
4. USE ANTI-SWAN TYPE DIVERTOR FOR SWAN AS REQUIRED.

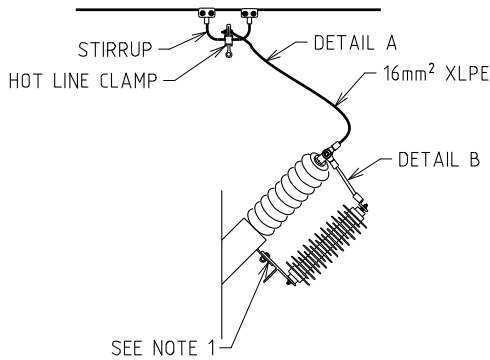
				STRUCTURE			DISTRIBUTION CONSTR. STANDARD			
				TITLE			DRAWN: JRR		DATE: 10-02-2020	
				BIRD FLIGHT DIVERTER SPACING			ORIGINATED: REE		SCALE: NTS	
							CHECKED: NN		DRG. No. R07-6	
							APPROVED: GRANT STACY		REV. A	
A	11.02.20	ORIGINAL ISSUE		REE	NN	GS				
REV	DATE	DESCRIPTION		ORGD.	CHKD.	APPRD.				



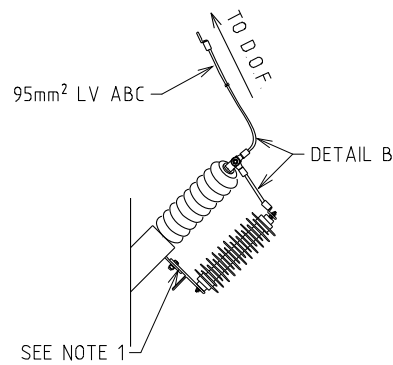
LINE TAPS TO DROPOUT FUSE



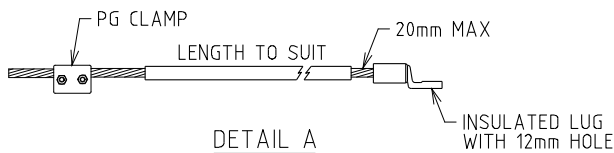
DOF CABLE TERMINATION



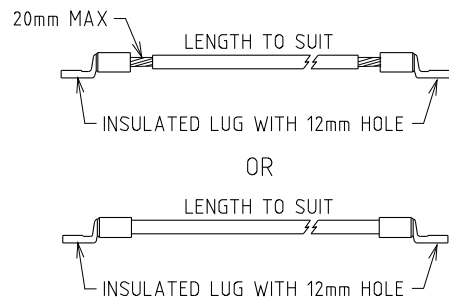
LIVE LINE STIRRUP TO SINGLE PHASE TRANSFORMER.



DOF TO TRANSFORMER



DETAIL A



DETAIL B

NOTES:-

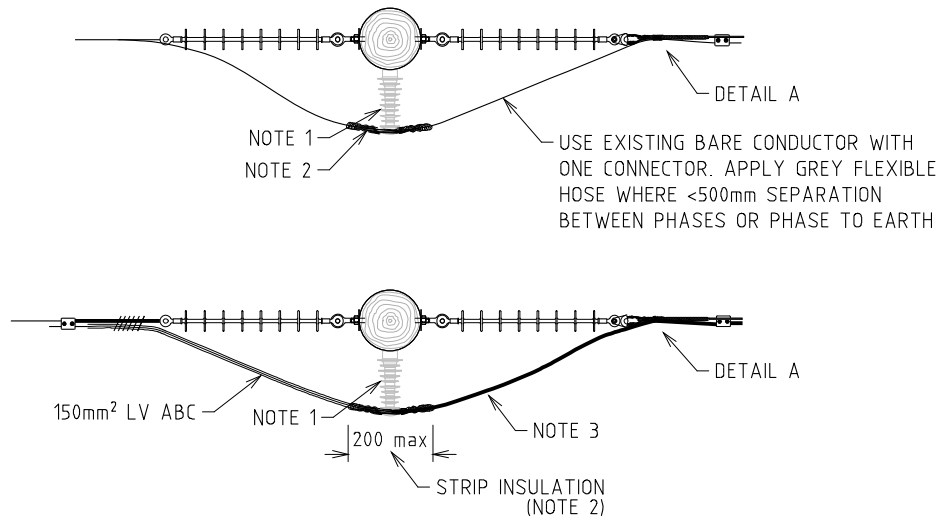
1. IF PAINTED, STRIP OFF PAINT TO ENSURE A GOOD ELECTRICAL CONTACT, APPLY CONDUCTIVE GREASE.
2. EXISTING BARE CONDUCTOR CAN BE USED FOR TAPPING IF GREY FLEXIBLE HOSE AND APPROPRIATE LUGS ARE USED.
3. CUT INSULATION (50mm MAX) AT BOTTOM OF LOOP TO DRAIN WATER.
4. 95mm² LV ABC IS PREFERRED. 150mm² LV ABC MAY BE USED.

GUIDANCE:

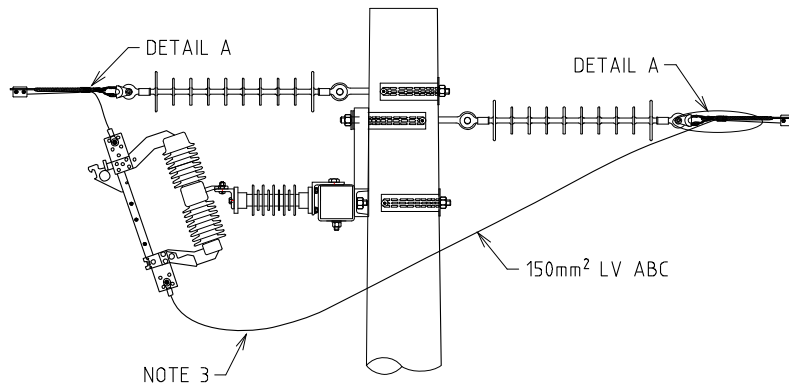
LV ABC FOR HV TAPPING DOES NOT NEED TO BE WATER BLOCKED. FOR EXAMPLE IF SEALED AT THE BOTTOM, THE CONNECTION ON THE TOP MUST BE SEALED.

				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD		westernpower	
J	24.01.24	TITLE UPDATED		NMc	SH	CO	DRAWN: JRR		DATE: 04-03-2016	DRG. No.
K	22.08.22	NOTES, DETAIL A AND B REVISED		SH	CO	GS	ORIGINATED:		SCALE: NTS	R08-1-1
J	24.07.18	NOTES ADDED		REE	CO	GS	CHECKED: REE		REV. L	
H	29.06.18	TITLE CHANGED AND MORE DETAILS ADDED		REE	CO	GS	APPROVED: GRANT STACY		SHT.	
REV	DATE	DESCRIPTION		DRG.	CHKD.	APRD.				

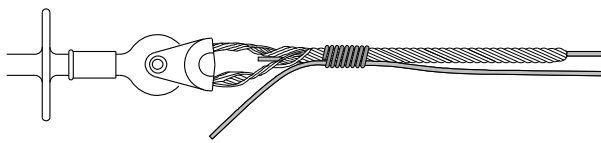
TAPS ON HV FOR EQUIPMENT



LINE TAPS



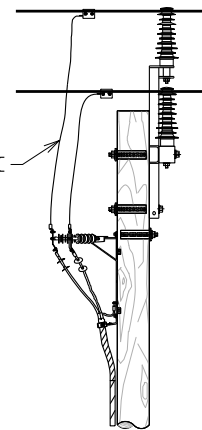
LINE TAPS FOR ISOLATORS/DOF



SUPPORT TAP USING

- TIE WIRE (BARE) – 6 TO 10 WRAPS
- CABLE OR ZIP TIES NOT TO BE USED

DETAIL A



CABLE TERMINATION

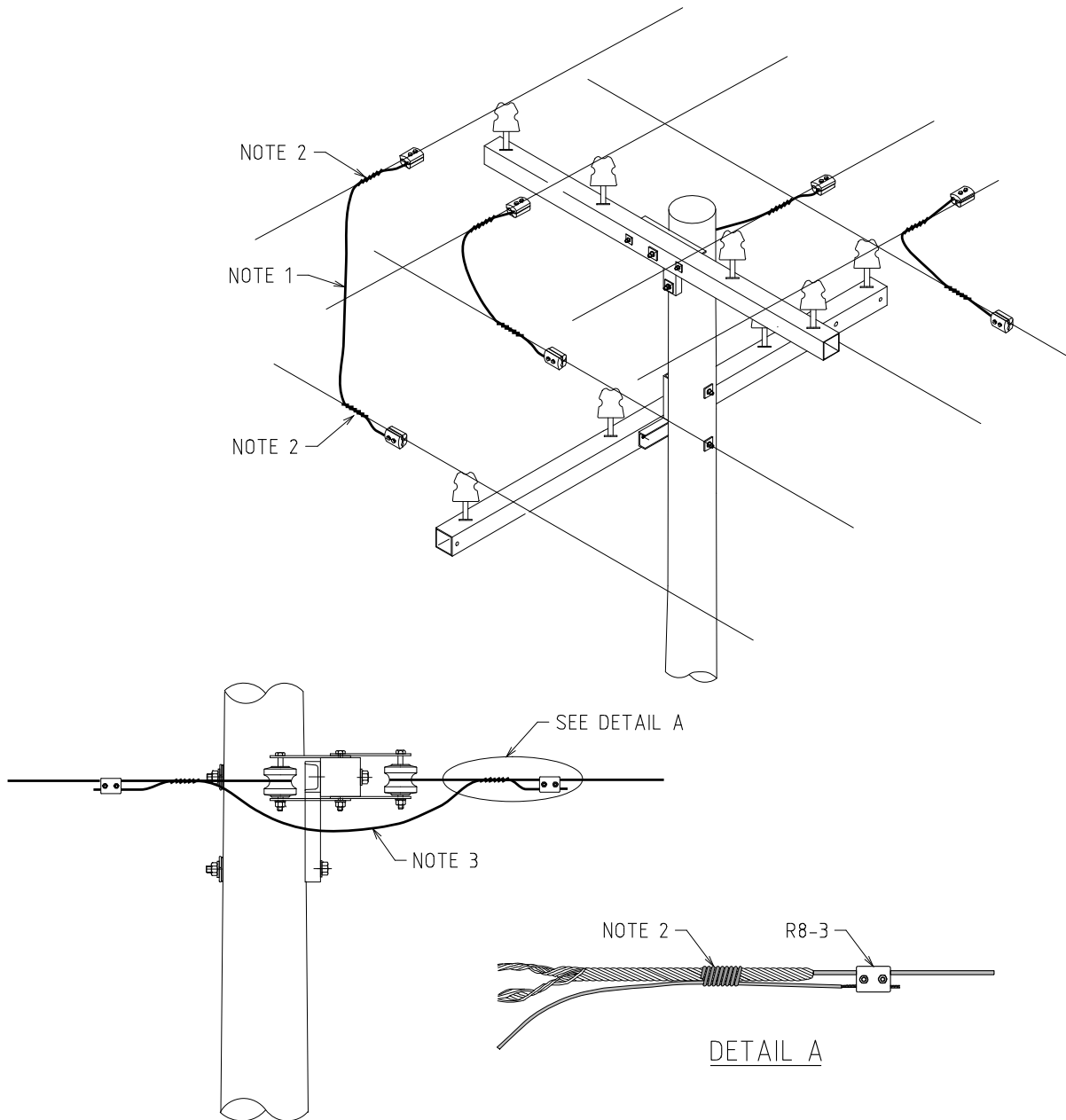
NOTES:-

1. WHERE TAP UNSUPPORTED >3m STAND-OFF INSULATOR REQUIRED.
2. APPLY AS PER R3-2, (FIRST 8 TIE WRAPS EACH SIDE ONLY).
3. CUT INSULATION (50mm MAX) AT THE BOTTOM OF LOOP TO DRAIN WATER.

				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD		westernpower		
H	22.08.22	NOTE 3 ADDED & LOOP TO DRAIN WATER ADDED	SH	CO	GS	TITLE	DRAWN: JRR	DATE: 10-12-2014	DRG. No.		
G	16.04.19	DESCRIPTIONS REVISED AND DETAIL A ADDED	NMc	NN	GS	TAPS ON H.V. MAIN LINE CONNECTIONS	ORIGINATED: REE	SCALE: NTS	R08-1-2		
F	28.06.18	DETAILS REVISED AND NOTES ADDED.	CO	REE	GS		CHECKED: REE			REV. SHY.	
E	10.10.17	CABLE TERMINATION DETAILS ADDED	CO	FK	GS		APPROVED:				
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.			GRANT STACY		H	

LV TAPPING

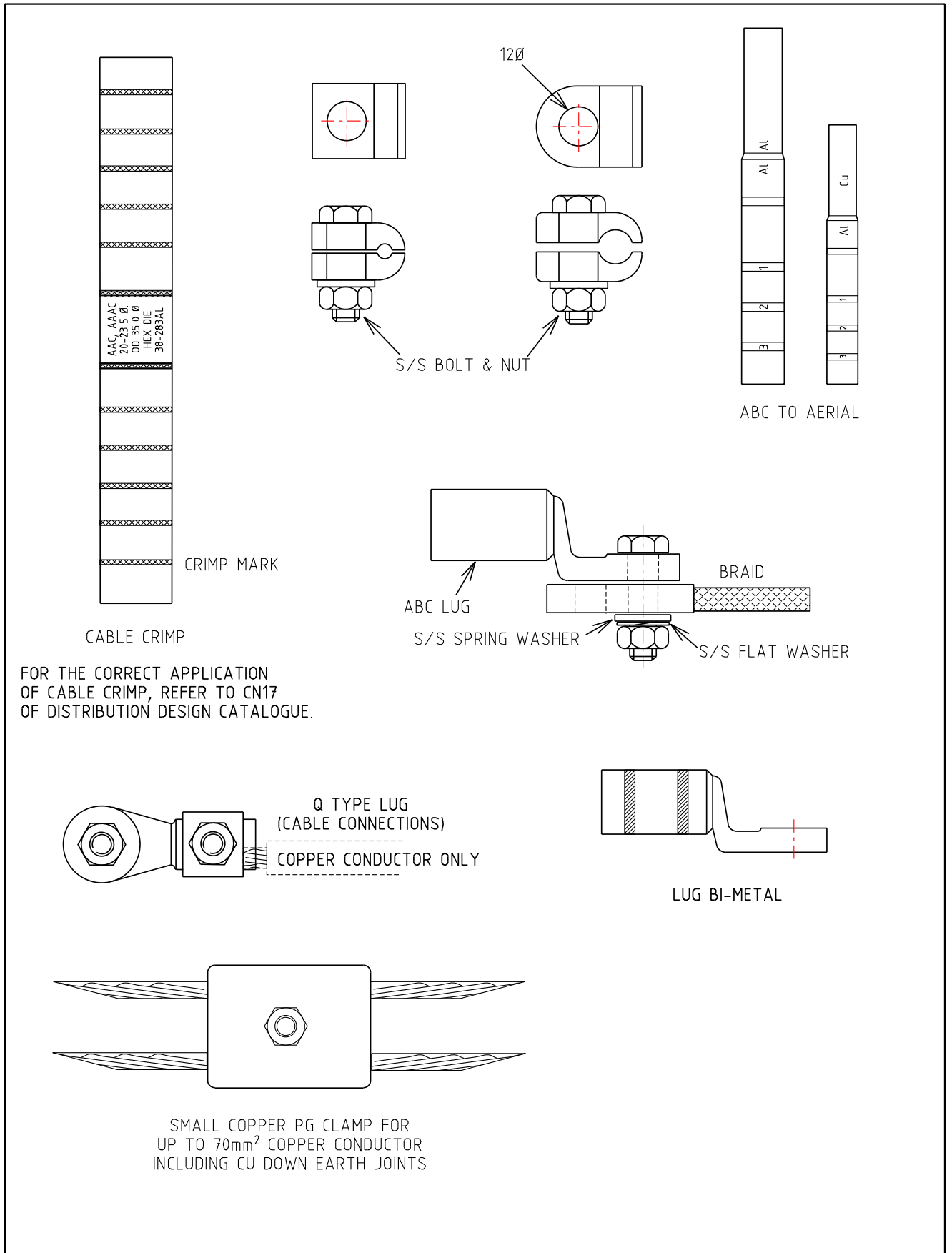
- IF TAP CONDUCTOR OF SAME SIZE AS EXISTING CONDUCTOR – COVER WITH FLEXIBLE HOSE.
- ALTERNATIVELY USE 150mm² LVABC CONDUCTOR.



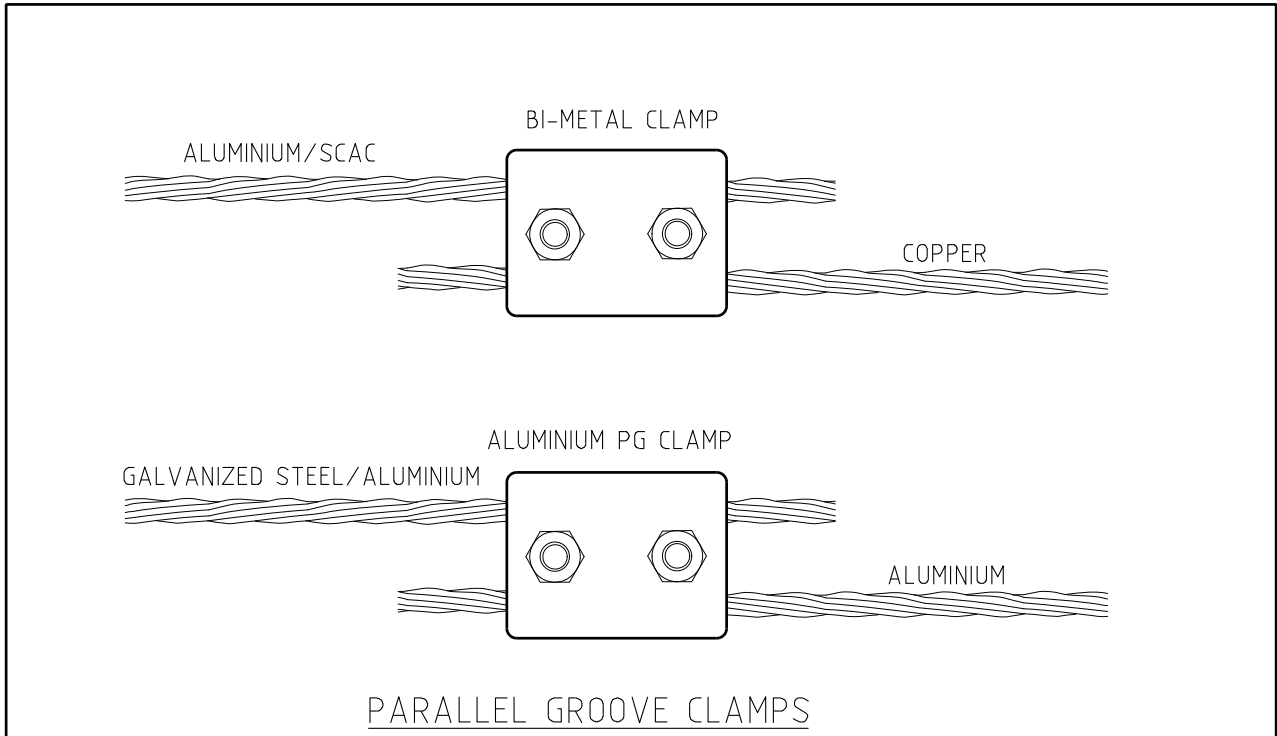
NOTES:-

1. ALLOW SUFFICIENT SLACK IN THE TAP TO ACCOMMODATE CONDUCTOR MOVEMENT.
2. SUPPORT TAP WITH TIE WIRE – 6 TO 10 WRAPS AS SHOWN IN DETAIL A.
CABLE OR ZIP TIES NOT TO BE USED.
3. CUT INSULATION (50mm MAX) AT THE BOTTOM OF THE LOOP TO ALLOW WATER DRAINAGE.

				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD		westernpower		
G	16.02.23	DETAIL A AND NOTES REVISED		CO	ML	PC	TITLE	DRAWN: JRR	DATE: 21-08-2015	DRG. No.	
F	16.04.19	NOTES REVISED		NMc	NN	GS	TAPS ON L.V. MAIN LINE CONNECTIONS	ORIGINATED: REE	SCALE: NTS	R08-1-3	
E	10.10.17	LV ABC TAPPING UPDATED		CO	FK	GS		CHECKED: REE			
D	03.08.17	OPTION NOTES REVISED		GS	REE	GS		APPROVED:	GRANT STACY	REV. G	SHT.
REV	DATE	DESCRIPTION		DRGD.	CHKD.	APRD.					



				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE		DRAWN: JRR DATE: 04-03-2014 DRG. No.		R8/2	
				LUGS & CONNECTORS TRANSFORMER & CABLE		ORIGINATED: SCALE: NTS		REV. C	
						CHECKED: REE		APPROVED: GRANT STACY	
						SHT.			
C	19.12.13	ORIGINAL ISSUE		DRGO	CHKD	APRO			



FOR NEW INSTALLATIONS/APPLICATIONS

STEP 1

- WIRE BRUSH SURFACE OF CONDUCTORS. THEN IMMEDIATELY APPLY JOINTING GREASE TO THE CONDUCTOR (STOCK CODE: PG0002)

STEP 2

- FIT CLAMP AND TIGHTEN BOLTS ACCORDING TO MANUFACTURER'S SPECIFIED TORQUE(Nm) SHOWN ON THE CLAMP.
- IF: * COPPER TO ALUMINIUM THEN ALUMINIUM CONDUCTOR TO BE ABOVE THE COPPER.
* STEEL TO ALUMINIUM THEN STEEL CONDUCTOR TO BE ABOVE.

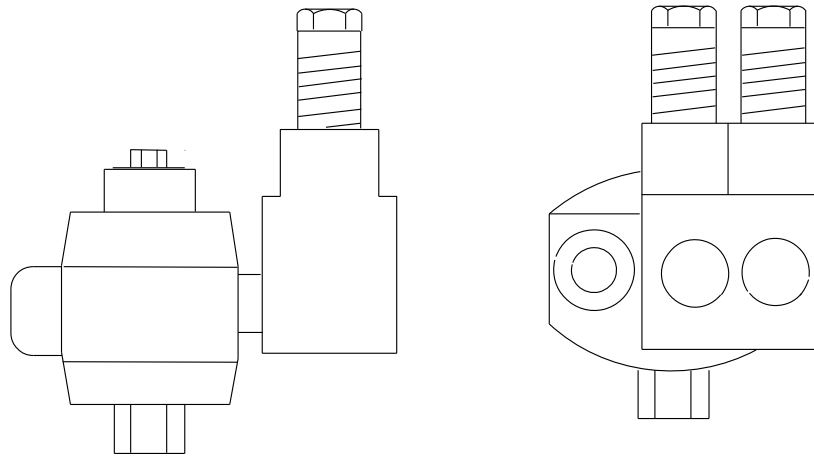
STEP 3

- IN EXTREMELY CORROSIVE ENVIRONMENTS:
 - * WITHIN 5km OF THE COAST IN THE PERTH METRO AND SOUTH COUNTRY AREA.
 - * WITHIN 20km OF THE COAST IN THE NORTH COUNTRY AREA.
 - * NEAR HIGH POLLUTION INDUSTRIAL AREAS.
- APPLY GREASE (STOCK CODE: PG0126) TO COVER ALL PARTS OF JOINT.
- APPLY 510 DENSO TAPE OVER GREASE AND JOINT TO EXCLUDE ALL MOISTURE (STOCK CODE: KT0020)

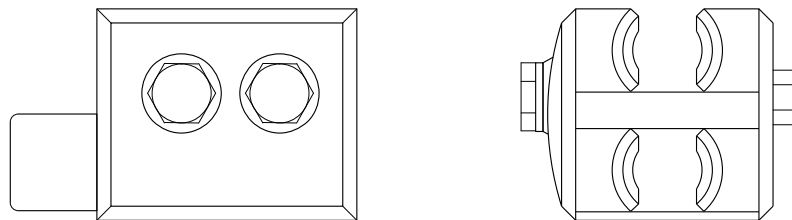
REUSE OF PG CLAMPS

- DO NOT REUSE PG CLAMPS WHICH HAVE BEEN SUBJECTED TO HEAVY FAULT CONDITIONS OR EXCESSIVE CORROSION
- CONTACT GROOVES OF THE PG TO CONDUCTOR INTERFACES MUST BE THOROUGHLY CLEANED TO BRING THE SURFACE BACK TO "AS NEW" CONDITION.
- APPLY CORROSION INHIBITING GREASE (PG0126 OR PG0002) TO REINSTATE THE ENVIRONMENTAL PROTECTION AT THE INTERFACE (CONTACT GROOVES)
- REPEAT STEPS 1 TO 3.

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD					
				TITLE				DRAWN: JRR		DATE: 04-03-2014		DRG. No.	
				LUGS & CONNECTORS TRANSFORMER & CABLE				ORIGINATED: REE		SCALE: NTS		R08-3	
								CHECKED: REE					
								APPROVED: GRANT STACY		REV. G		SHT.	
REV	DATE	DESCRIPTION		DRGD	CHKD	APRD							
G	19.09.23	GRAMMAR CORRECTED		ML	NMc	CO							
F	21.08.14	FORMAT CHANGED AND NOTE STEP 3 REVISED		REE	REE	GS							
E	16.09.13	ORIGINAL ISSUE											



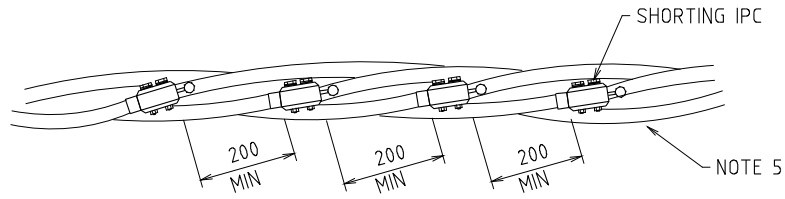
IPC ABC TO SERVICE



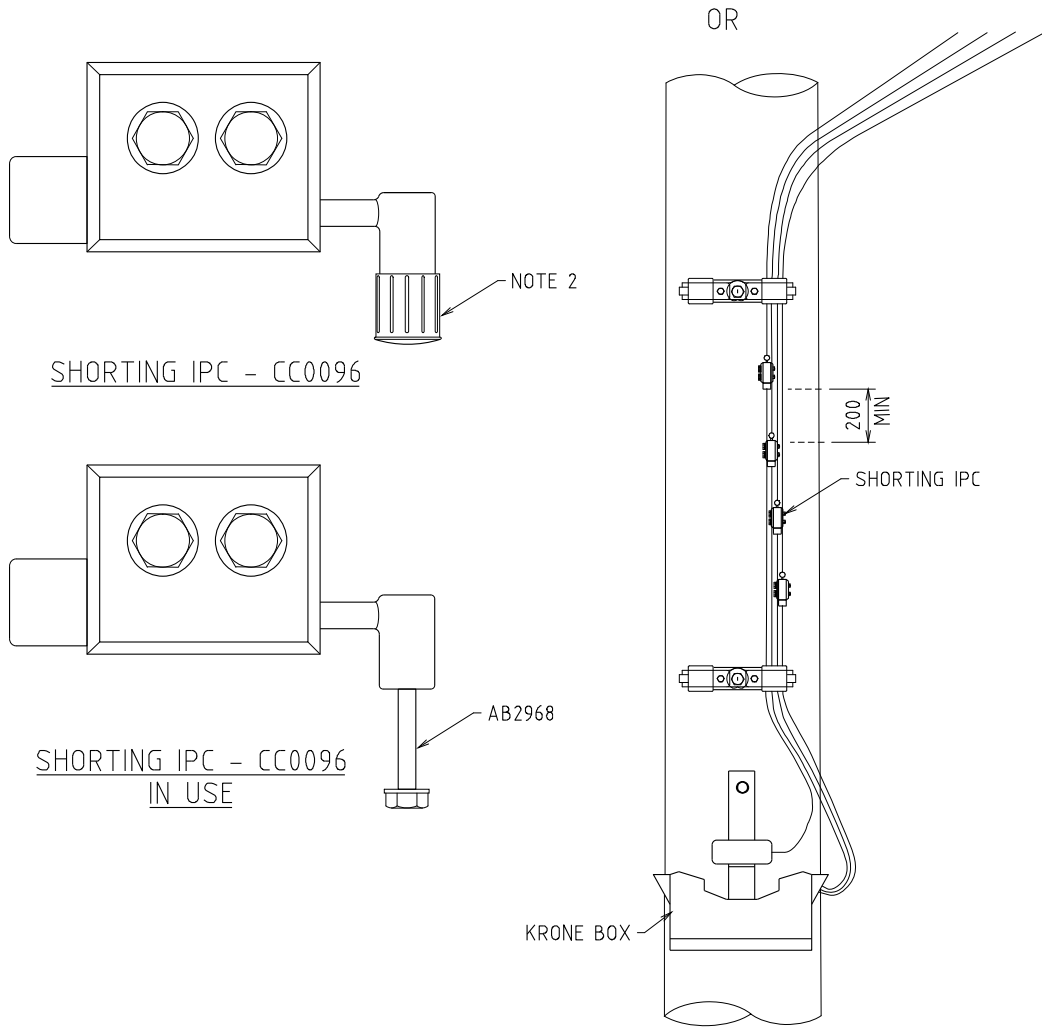
LV MAINS IPC ABC TO ABC

- NOTES:-
 1. IPC ARE SINGLE USE ONLY (NOT TO BE RE-USED).
 2. SPACING BETWEEN IPCs ARE TO BE 150mm.

				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD			
				TITLE			DRAWN: JRR DATE: 04-03-2014		DRG. No.	
				LUGS & CONNECTORS INSULATION PIERCING CLAMP			ORIGINATED: SCALE: NTS		R08-4-1	
				E 09.09.14 FORMAT CHANGED AND BARE MAINS TO IPC ABC DELETED			CHECKED: REE		REV. SHY.	
				D 05.10.10 ORIGINAL ISSUE			APPROVED: GRANT STACY		G	
REV	DATE	DESCRIPTION	DRGD.	CHKD.	APRD.					



HORIZONTAL LAYOUT

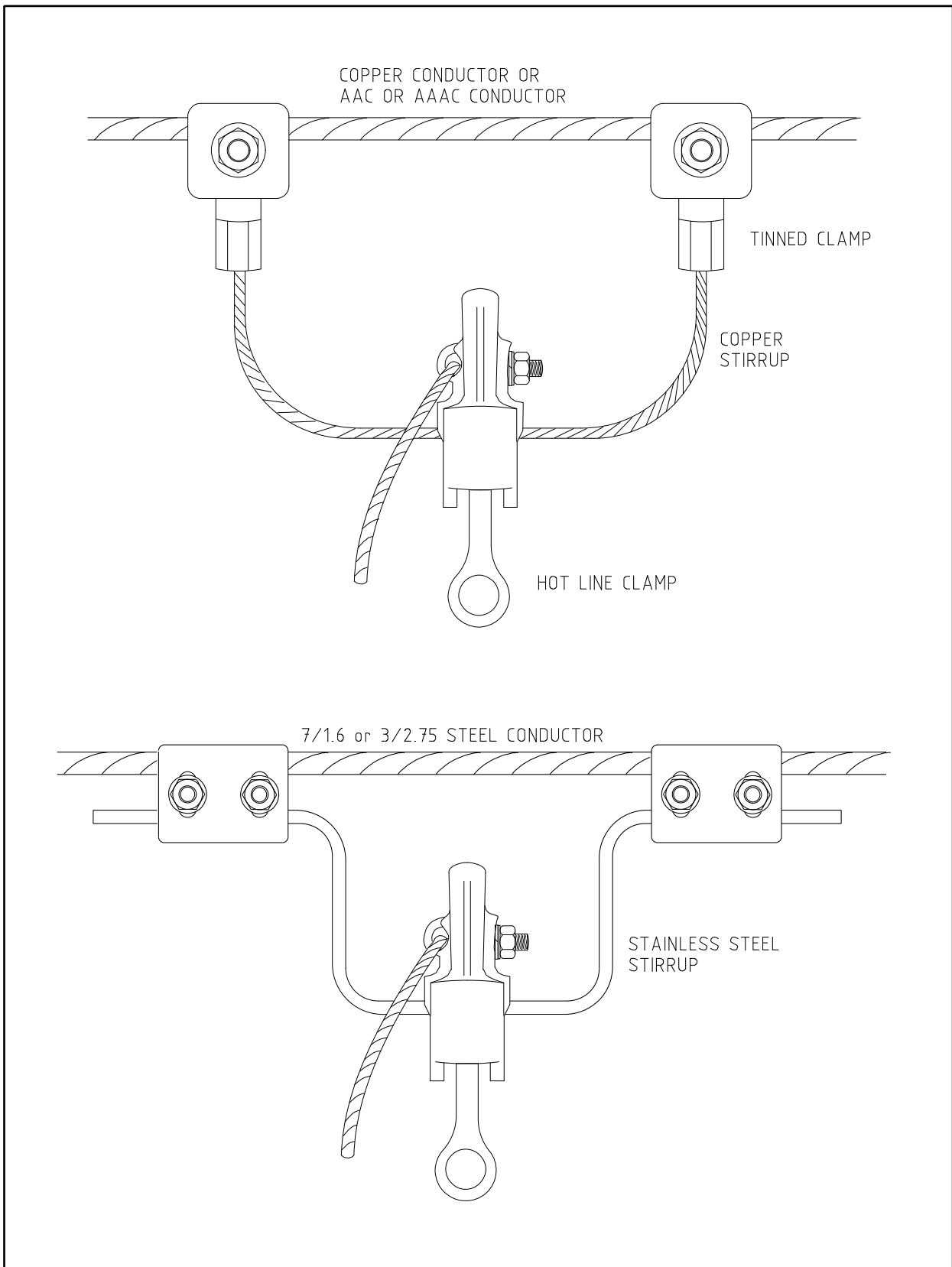


VERTICAL LAYOUT

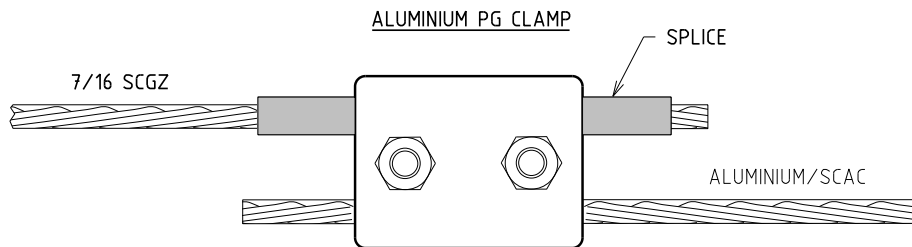
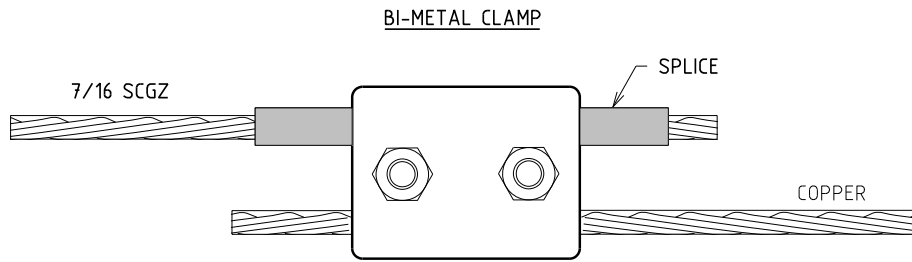
NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. APPLY ALUMINOX AND SECURE CAP AFTER USE.
3. SHORTING IPC MUST ONLY BE INSTALLED ON INSULATED NETWORK.
4. APPLY LV SHORT TO THE NEUTRAL FIRST AND THEN TO THE ACTIVES.
5. IN HORIZONTAL LAYOUT, INSTALL SHORTING IPC WITHIN 3m OF THE POLE.

				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD			
				TITLE			DRAWN: JRR DATE: 19-01-2022		DRG. No.	
				SHORTING LV ABC			ORIGINATED: SH SCALE: NTS		R08-4-2	
							CHECKED: CO		REV. SH.	
							APPROVED: GRANT STACY		B	
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.					
B	14.12.22	UPDATED FROM EARTH IPC TO SHORTING IPC	CO	SH	PC					
A	04.02.22	ORIGINAL ISSUE	SH	CO	GS					



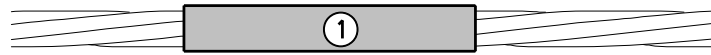
				REFERENCE DRAWING		DISTRIBUTION CONSTN. STANDARD		westernpower	
				TITLE		DRAWN: JRR DATE: 04-03-2014		DRG. No.	
				STIRRUP HOT LINE CLAMP TAP-OFF		ORIGINATED: SCALE: NTS		R08-5	
						CHECKED: REE		REV. B	
						APPROVED: GRANT STACY		SHT.	
REV	DATE	DESCRIPTION	ORGO	CHKD	APRD				
B	02.06.21	CONDUCTOR SPECIFICATION CHANGED	REE	CO	LT				
A	16.09.11	ORIGINAL ISSUE							



CONNECTION OF OTHER CONDUCTORS TO 7/1.6 SC/GZ

7/1.6 SC/GZ	SPLICE TO INCREASE ϕ	OTHER CONDUCTOR	PG CLAMP
7/1.6 SC/GZ	CF0479	ACSR CONDUCTORS	CC0138
7/1.6 SC/GZ	CF0479	ALUMINIUM CONDUCTORS	CC0138
7/1.6 SC/GZ	CF0479	ALL COPPER CONDUCTORS	CC0125
7/1.6 SC/GZ	CF0479	70mm ² EARTH EE1264	CC0125
7/1.6 SC/GZ	CF0479	25mm ² EARTH EE1205	CC0125
7/1.6 SC/GZ	CF0479	BAIL STIRRUP FC0105	CC0224

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD			
E	29.10.20	TITLE AND DETAILS REVISED	REE	CO	GS	TITLE	DRAWN: JRR	DATE: 04-03-2014	DRG. No.
D	14.11.18	CABLE TYPE AACSR ADDED	NN	REE	GS	CONNECTORS FOR 7/16 GALVANIZED STEEL	ORIGINATED:	SCALE: NTS	R08-6
C	11.04.16	TABLE REVISED	CO	REE	GS		CHECKED: REE		
B	04.03.14	FORMAT CHANGED					APPROVED:	GRANT STACY	
A	16.09.13	ORIGINAL ISSUE							SHT.
REV.	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.				

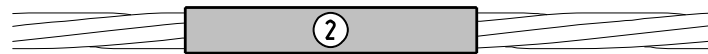


FULL TENSION SLEEVE

This uncontrolled EDM#58754162 is printed on 16/Dec/2021			FULL TENSION	Die (12 ton crimp)	Die A/F
Conductor Strands	Conductor Types	Conductor Diameter mm	WPC Stock Code	Utilux Die Catalogue number	mm
6/1/2.50	ACSR/AZ	7.50	CJ0600	38-140AL	14.0
6/1/2.75	ACSR/AZ	8.25	CJ0593	38-173AL	17.3
6/1/3.00	ACSR/AZ	9.00	CJ0593	38-173AL	17.3
6/4.75-7/1.6	ACSR/AZ	14.30	CJ0208	38-220AL	22.0
6/1/3.00	AACSR/AC	9.00	CJ0593	38-173AL	17.3
7/2.50	AAC / AAAC	7.50	CJ0600	38-140AL	14.0
7/3.00	AAC / AAAC	9.00	CJ0593	38-173AL	17.3
7/3.75	AAC / AAAC	11.30	CJ0583	38-180AL	18.0
7/4.50	AAC / AAAC	13.50	CJ0208	38-220AL	22.0
7/4.75	AAC / AAAC	14.30	CJ0208	38-220AL	22.0
19/3.25	AAC / AAAC	16.30	CJ0591	38-220AL	22.0
7/16 (7/0.064)	HDBC	4.89	CJ0630	38-63CU	6.3
7/14 (7/0.080)	HDBC	6.10	CJ0633	38-77CU	7.7
7/12 (7/0.104)	HDBC	7.92	CJ0622	38-104CU	10.4
19/16 (19/0.064)	HDBC	8.15	CJ0622	38-104CU	10.4
7/2.75	HDBC	8.30	CJ0622	38-104CU	10.4
19/2.14	HDBC	10.70	CJ0636	38-153CU	15.3
95 LVABC	ABC	11.50	CJ0491	38-173AL9	17.3
150 LV ABC	ABC	14.40	CJ0490	38-215AL9	21.5

TABLE 1 – MATCHING TABLE FOR CONDUCTORS, SLEEVES AND DIES

NOTE:-



HELICAL SPLICE FOR SMALL HV STEEL CONDUCTORS

WP Stock code	Conductor
CF0471	3/2.75 SCGZ
CF0160	3/2.75 SCAC
CF0479	7/1.60 SCGZ
CF0475	7/2.75 SCGZ

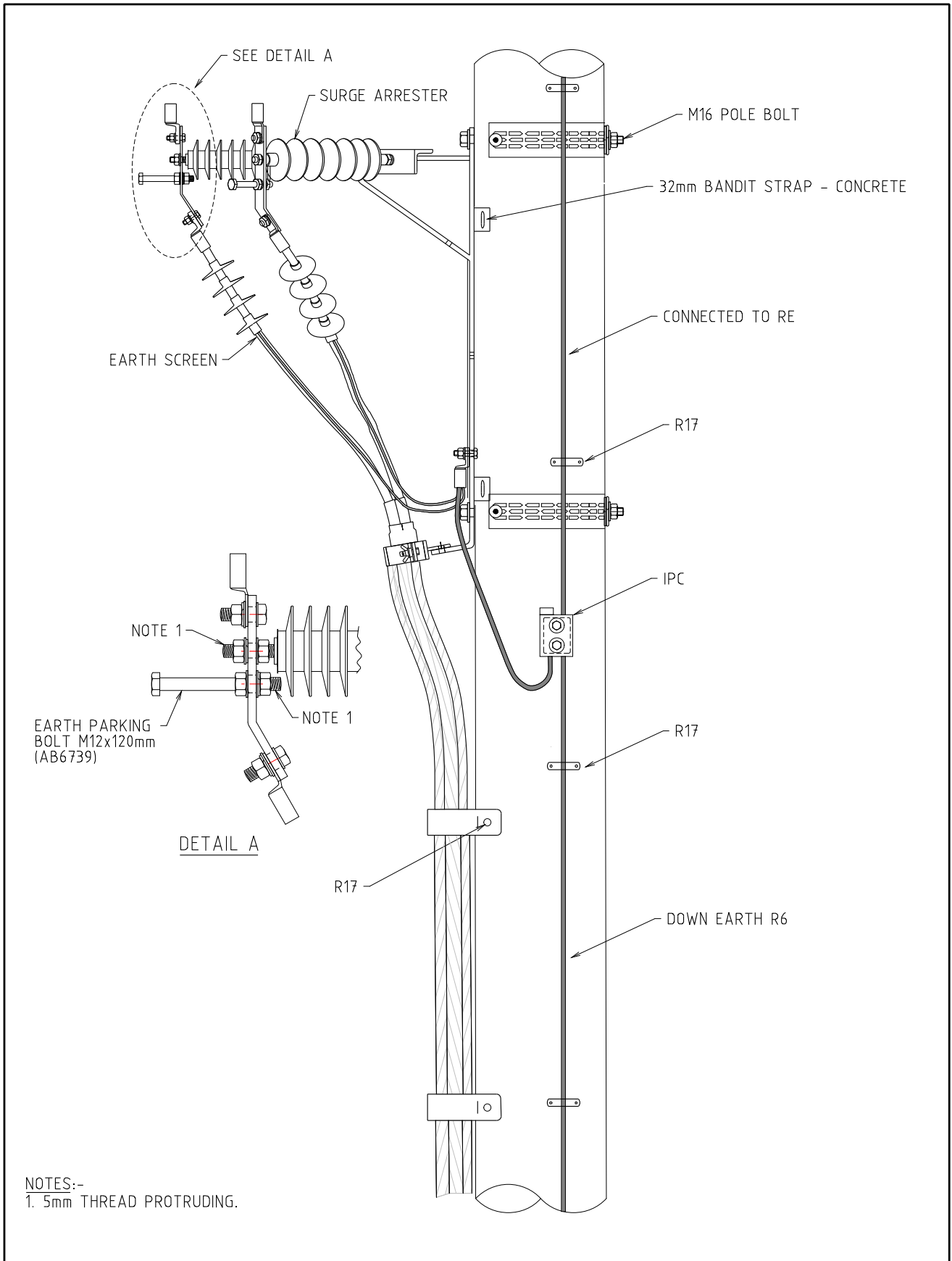
TABLE 2 – STOCK CODES FOR HELICAL SPLICES

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD		westernpower	
				FULL TENSION COMPRESSION JOINTS & HELICAL SPLICES FOR BARE AAC/AAAC, COPPER & STEEL CONDUCTORS		DRAWN: JRR DATE: 08-06-2016 DRG. No. R08-7			
C	17.12.21	TABLE AND EDM # REVISED	REE	GS	ORIGINATED: REE	SCALE: NTS			
B	15.11.18	TABLE 1 REVISED	NN	REE	CHECKED: JC	APPROVED: GRANT STACY	REV. C	ISHT.	
A	14.06.16	ORIGINAL ISSUE	REE	JC	GS				
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.				

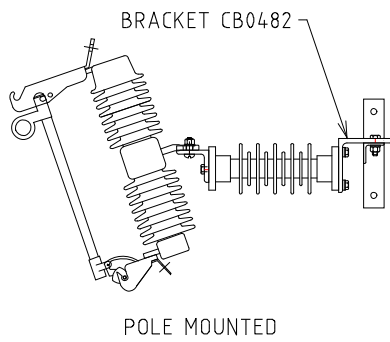
This uncontrolled EDM#58754313 is printed on 17/Dec/2021					
Conductor Strands	Description	Conductor OD mm	WPC Stock Code	Utilux Die Catalogue number	Die A/F mm
COPPER TERMINAL LUG; EYE					
..	0.5 - 2.5 sq mm; M6 hole	..	FL1408	hand tool	..
..	6 sq mm; INSUL; M6 hole; 32mm long	3.12	FL0311	hand tool	..
..	10 sq mm; M8 hole	4.05	FL1423	38-57CU	5.7
7/16	16 sq mm; M6 hole	4.90	FL1427	38-63CU	6.3
7/16	16 sq mm; M8 hole	4.90	FL1428	38-63CU	6.3
7/16	16 sq mm; M10 hole	4.90	FB0256	38-63CU	6.3
7/16	16 sq mm; M12 hole	4.90	FL1430	38-63CU	6.3
7/14	25 sq mm; M8 hole	6.1/6.75	FL1442	38-77CU	7.7
7/14	25 sq mm; M10 hole	6.1/6.75	FL1448	38-77CU	7.7
7/12	35 sq mm; M10 hole	7.9/8.25	FL1453	38-92CU	9.2
19/16	50 sq mm; M10 hole	8.15/8.30	FL1458	38-104CU	10.4
19/16	50 sq mm; M12 hole	8.15/8.30	FL1459	38-104CU	10.4
19/14	70 sq mm; M10 hole	10.50	FL1463	38-115CU	11.5
19/14	70 sq mm; M12 hole	10.50	FL1465	38-115CU	11.5
19/12 (2.56)	95 sq mm; M10 hole	12.83	FL1468	38-142CU	14.2
19/12 (2.75)	120 sq mm; M12 hole	13.75	FL1473	38-165CU	16.5
COPPER CRIMP SLEEVES					
..	6 sq mm; INSUL; 28mm long	3.12	FC0149	hand tool	..
7/16	16 sq mm; UNINSUL	4.90	FC0126	38-63CU	6.3
7/14	25 sq mm; UNINSUL	6.1/ 6.75	FC0480	38-77CU	7.7
19/2.14	70 sq mm; UNINSUL	10.50	FC0484	38-115CU	11.5
ALUMINIUM TERMINAL LUG; EYE					
..	2.5 - 6 sq mm; 12 - 10 awg; 23mm long	..	FL0163	hand tool	..
19/2.14	70 sq mm; M12 hole; 125mm long	10.70	FL0230	38-115CU	11.5
19/3.25	185 sq mm; M12 hole	16.30	FL0028	38-220AL	22.0
BI-METAL TERMINAL LUG; EYE					
7/2.5	35 sq mm; M10 hole	7.50	FL7681	38-90AL	9.0
7/2.5	35 sq mm; M12 hole	7.50	FL7686	38-90AL	9.0
7/2.5	35 sq mm; 2 X 11mm hole	7.50	FL7691	38-90AL	9.0
7/3.0	50 sq mm; M12 hole	9.00	FL7687	38-132AL	13.2
7/3.75	70 sq mm; M10 hole	11.30	FL0139	38-132AL	13.2
7/3.75	70 sq mm; M12 hole	11.30	FL0140	38-132AL	13.2
7/4.50	95 sq mm; M12 hole	13.50	FL7688	38-173AL	17.3
7/4.75	120 sq mm; M10 hole	14.30	FL7684	38-173AL	17.3
7/4.75	120 sq mm; M12 hole	14.30	FL7689	38-173AL	17.3
95 LVABC	95 sq mm; M12 hole	11.50	FL0401	38-215AL	21.5
150 LVABC	150 sq mm; M12 hole	14.30	FL0402	38-215AL	21.5
19/3.25	185 sq mm; M10 hole	16.30	FL7685	38-220AL	22.0
19/3.25	185 sq mm; M12 hole	16.30	FL7690	38-220AL	22.0
7/4.50	*STALK*; for 120 sq mm; 12mm dia copper stalk	13.50	FL7722	38-173AL	17.3
19/3.25	*STALK*; for 185 sq mm; 16 mm dia copper stalk	16.30	FL7723	38-220AL	22.0
ALUMINIUM CRIMP SLEEVES					
95 LVABC	95 sq mm; w/pre-crimped bare copper tail	11.50	CJ0492	38-173AL	17.3
150 LVABC	150 sq mm; w/pre-crimped bare copper tail	14.30	CJ0493	38-215AL	21.5
95 LVABC	95 sq mm; w/pre-crimped bare aluminium tail	11.50	CJ0494	38-215AL	21.5
150 LVABC	150 sq mm; w/pre-crimped bare aluminium tail	14.30	CJ0496	38-215AL	21.5
7/2.50 to 7/3.0	35 - 50 sq mm; REDUCING SPLICE	7.5/9.0	FC0150	38-132AL	13.2
7/2.50 to 19/2.14	35 - 70 sq mm; REDUCING SPLICE	7.5/10.7	FC0151	38-132AL	13.2
7/2.50	35 sq mm; SPLICE; parallel crimp	7.50	FC0152	38-90AL	9.0

						REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD				
D	17.12.21	TABLE AND EDM # REVISED	REE		GS	TITLE NON TENSION COMPRESSION LUGS AND SLEEVES		DRAWN: JRR	DATE: 08-06-2016	DRG. No. R08/8		
C	03.12.21	TABLE REVISED	REE		GS			ORIGINATED: REE	SCALE: NTS			
B	30.06.16	TABLE REVISED	REE	JC	GS			CHECKED: JC				
A	21.06.16	ORIGINAL ISSUE	REE	JC	GS			APPROVED: GRANT STACY		REV. D	SHT.	
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.							

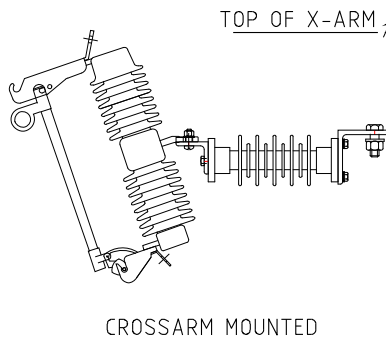




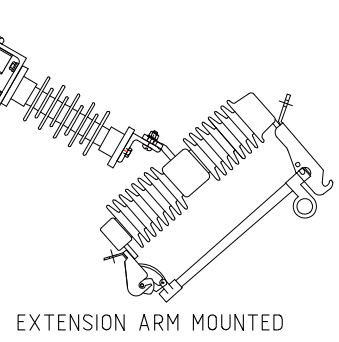
				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD		westernpower	
F	23.08.22	CONNECTOR PLATE DETAILS ADDED	CO	NMc	GS	DRAWN: JRR DATE: 05-03-2014		DRG. No.	
E	22.02.19	EARTHING SYSTEM MODIFIED	CO	NMc	GS	ORIGINATED: SCALE: NTS		R09	
D	09.05.16	EARTHING SYSTEM MODIFIED	CO	FK	GS	CHECKED: REE		REV. F SHY.	
C	08.10.10	ORIGINAL ISSUE				APPROVED: GRANT STACY			
REV	DATE	DESCRIPTION	DRG.	CHKD.	APRD.				



POLE MOUNTED

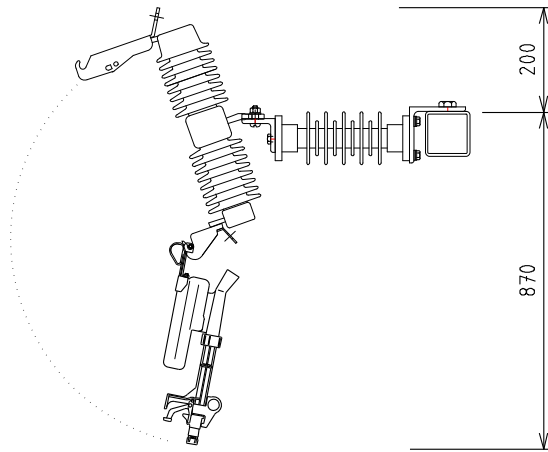


CROSSARM MOUNTED

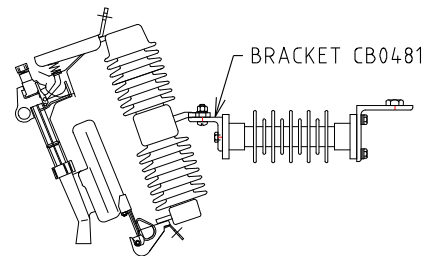


EXTENSION ARM MOUNTED

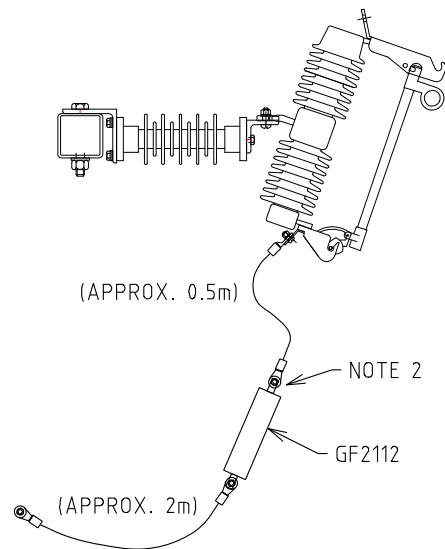
STANDARD 170kV TYPE C SERIES DOF – UP TO 33kV



FAULT TAMER FUSE
BARREL SWING DIMENSIONS



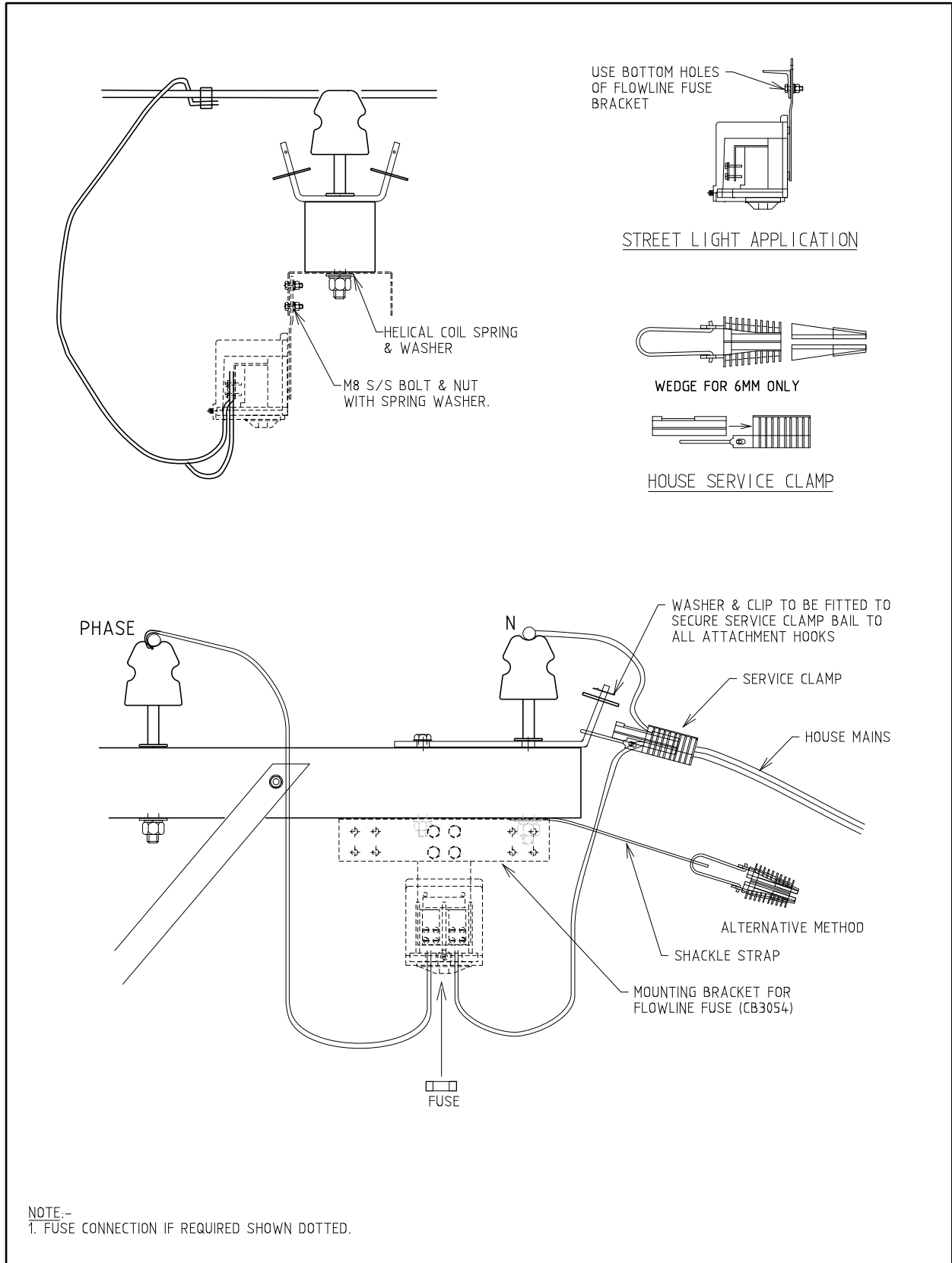
FAULT TAMER FUSE – UP TO 22kV



TYPICAL K-MATE INSTALLATION

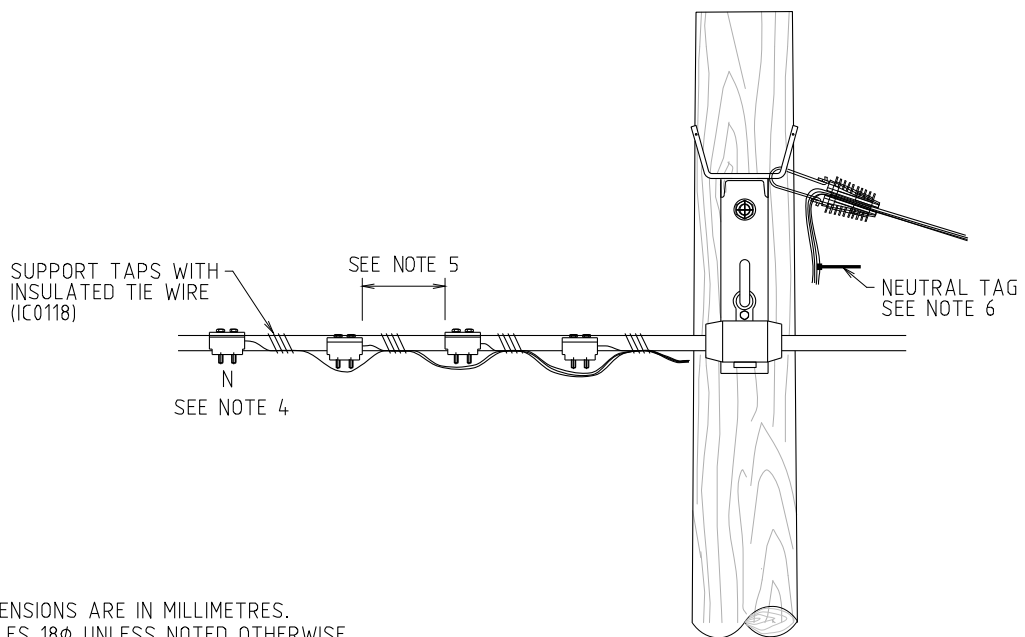
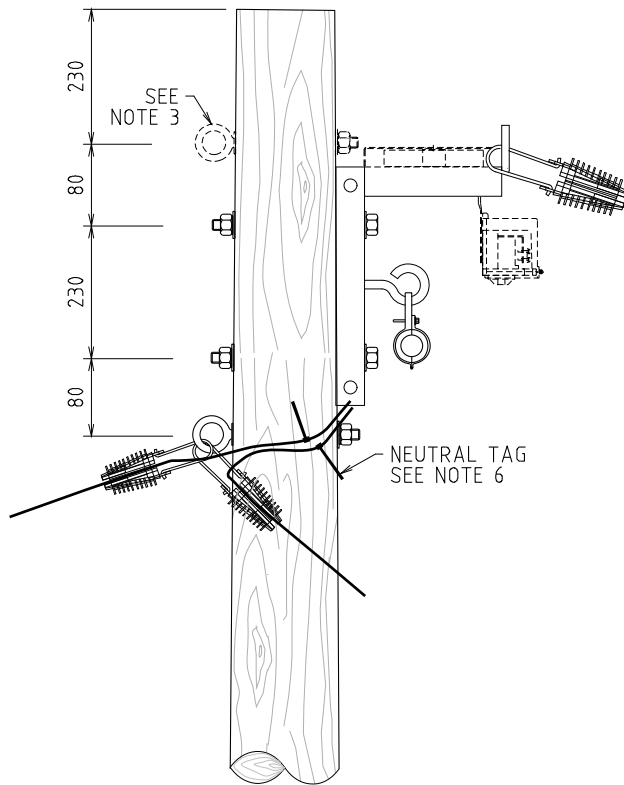
- NOTES:-
 1. ALL DIMENSIONS ARE IN MILLIMETRES.
 2. REMOVE PG CLAMP COMPONENTS.

				STRUCTURE			DISTRIBUTION CONSTR. STANDARD			
				TITTLE			DRAWN: JRR DATE: 03-01-2018 DRG. No.		R10	
				DROPOUT FUSE MOUNTING DETAILS			ORIGINATED: REE SCALE: NTS			
							CHECKED: JC			
							APPROVED: GRANT STACY			
REV	DATE	DESCRIPTION		ORGD.	CHKD.	APPRD.				



NOTE:-
1. FUSE CONNECTION IF REQUIRED SHOWN DOTTED.

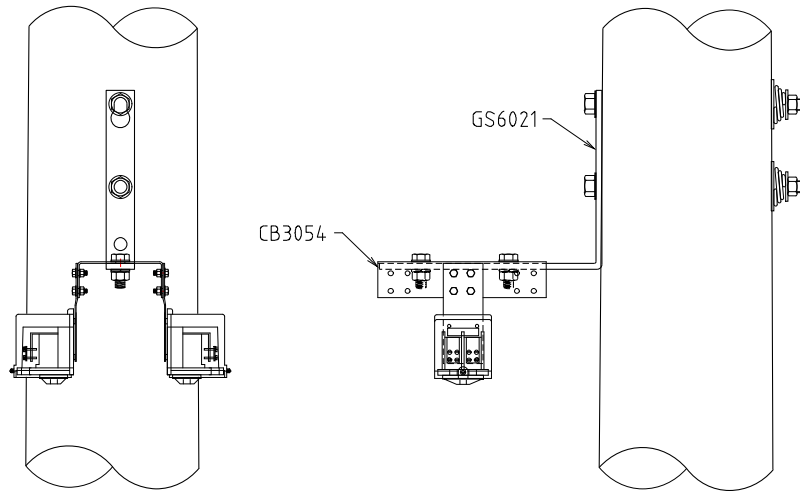
				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE		DRAWN: JRR DATE: 05-03-2014 DRG. No.		R11-1	
				CUSTOMER SERVICE ARRANGEMENT FOR OPEN WIRE		ORIGINATED: SCALE: NTS			
						CHECKED: REE		REV. E	
						APPROVED: GRANT STACY		SHT.	
REV	DATE	DESCRIPTION	ORGO	CHKD	APRD				
E	03.11.15	DRAWING TITLE & NUMBER CHANGED AND NOTE 1 ADDED	REE	CO	GS				
D	02.10.12	ORIGINAL ISSUE							



NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL HOLES 18 ϕ UNLESS NOTED OTHERWISE.
3. ALTERNATIVE POSITION OF SERVICE CONNECTION.
4. NEUTRAL IPC INSTALLED FURTHERMOST FROM THE POLE.
5. 150mm BETWEEN IPC'S.
6. NEUTRAL TAG (HG2101) APPLIED WITHIN 300mm OF THE WEDGE CLAMP.

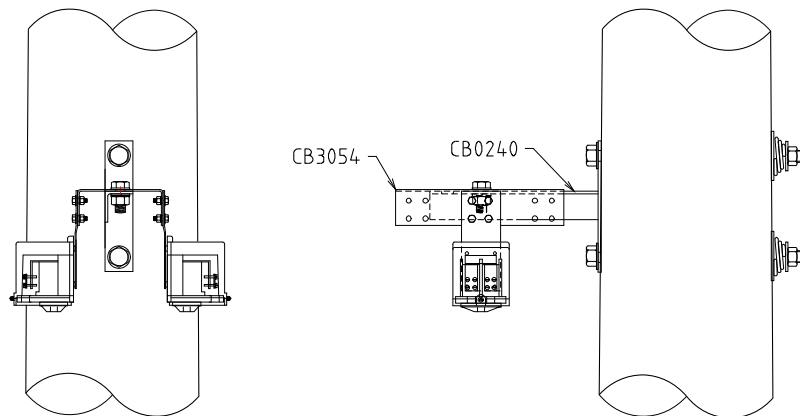
				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD			
				TITLE			DRAWN: JRR		DATE: 02-11-2015	
				CUSTOMER SERVICE ARRANGEMENTS FOR LV ABC			ORIGINATED: REE		SCALE: NTS	
							CHECKED: REE		DRG. No. R11-2	
							APPROVED: GRANT STACY		REV. B	
									SHT.	
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.					
B	31.08.23	MORE DETAILS ADDED AND NOTES REVISED	SL	NMc	CO					
A	03.11.15	ORIGINAL ISSUE	REE	CO	GS					



FRONT VIEW

SIDE VIEW

PREFERRED



FRONT VIEW

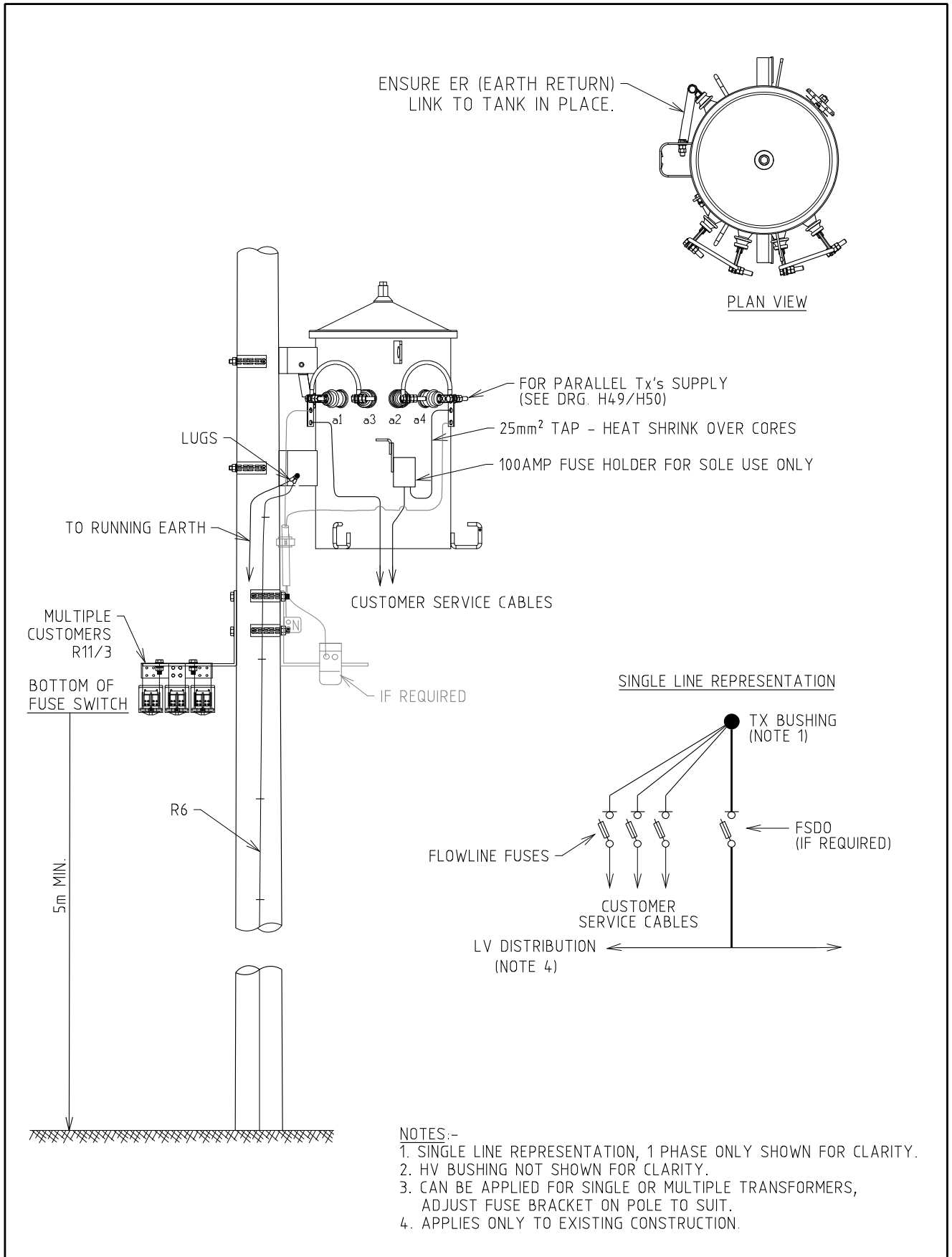
SIDE VIEW

ALTERNATIVE

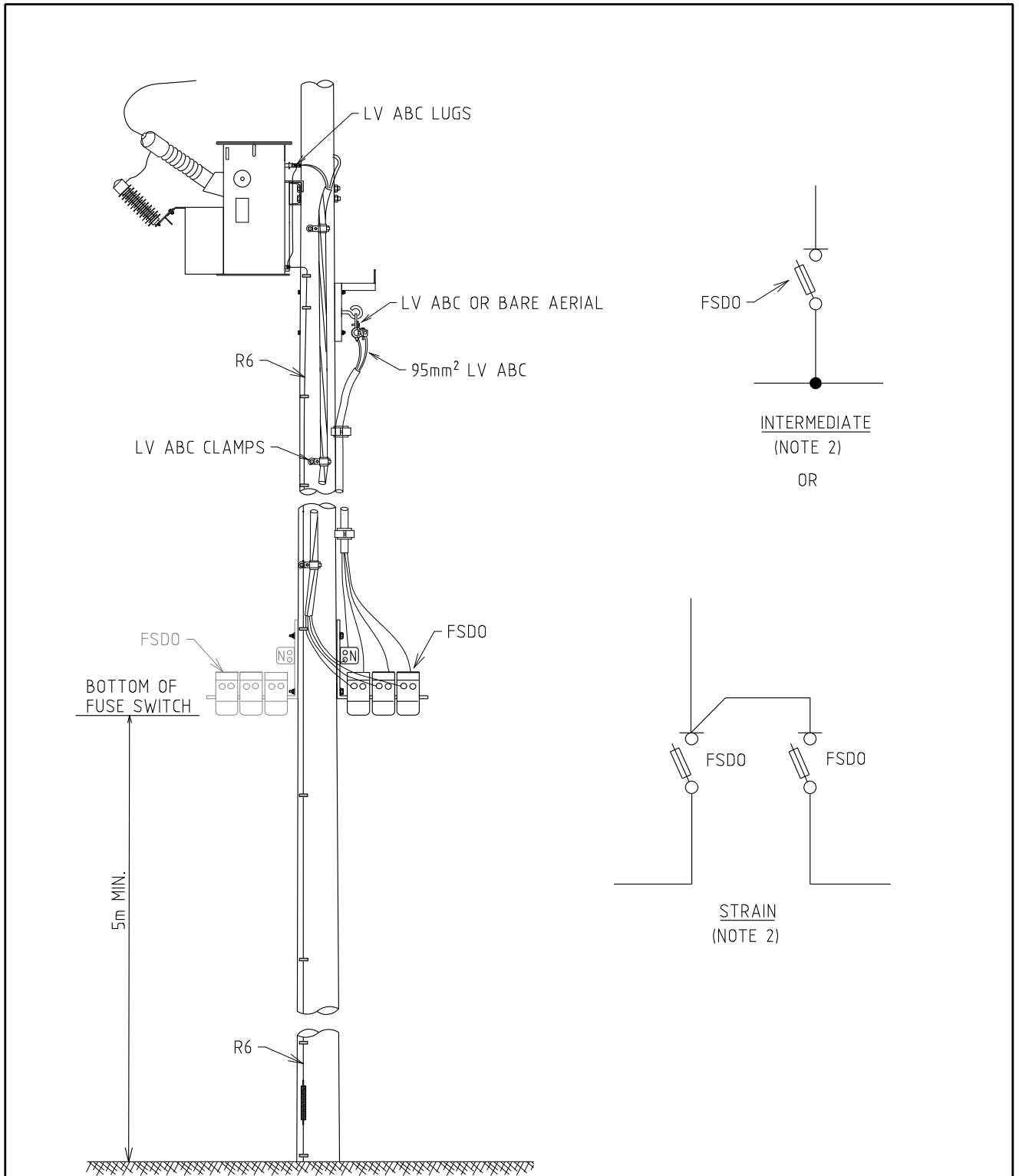
NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL HOLES 18φ UNLESS NOTED OTHERWISE.
3. USED WHERE ADDITIONAL FUSES ARE REQUIRED ON A POLE.

				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD			
				TITLE						
				CUSTOMER SERVICE ARRANGEMENTS						
				RURAL CONNECTIONS						
DRAWN: JRR		DATE: 01-07-2020		ORG. No.						
ORIGINATED: CO		SCALE: NTS		R11-3						
CHECKED: NMc										
APPROVED: GRANT STACY				REV. A		SHT.				
A	07.12.21	ORIGINAL ISSUE		CO	NMc	GS				
REV	DATE	DESCRIPTION		ORGD.	CHKD.	APRD.				



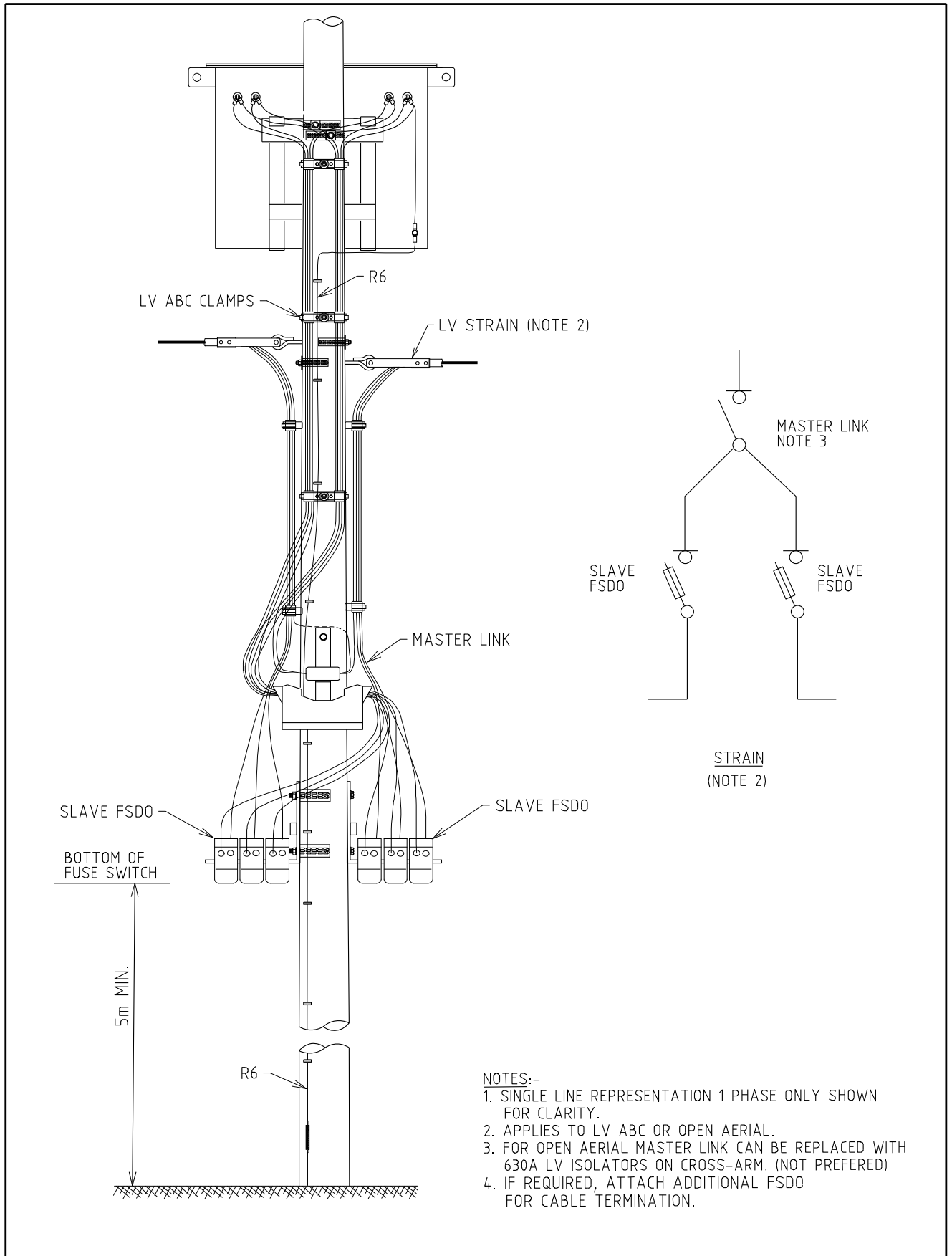
				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD			
				TITLE				DRAWN: JRR		DATE: 05-03-2014 DRG. No.	
				SINGLE PHASE TRANSFORMER				ORIGINATED:		SCALE: NTS	
				LV ARRANGEMENT DETAILS				CHECKED: REE		R12-1	
				10 & 25kVA - LV ABC & BARE				APPROVED:		REV. F	
								GRANT STACY		SHT.	
REV	DATE	DESCRIPTION		DRGD.	CHKD.	APRD.					
F	14.08.23	TITLE CHANGED		JT	NMc	CO					
E	09.12.22	MORE DETAILS ADDED AND REARRANGED		CO	NMc	GS					
D	31.10.17	TRANSFORMER TYPE CHANGED		NMc	CO	GS					
C	15.10.14	REDRAWN AND TITLE MODIFIED		FK	REE	GS					



NOTES:-

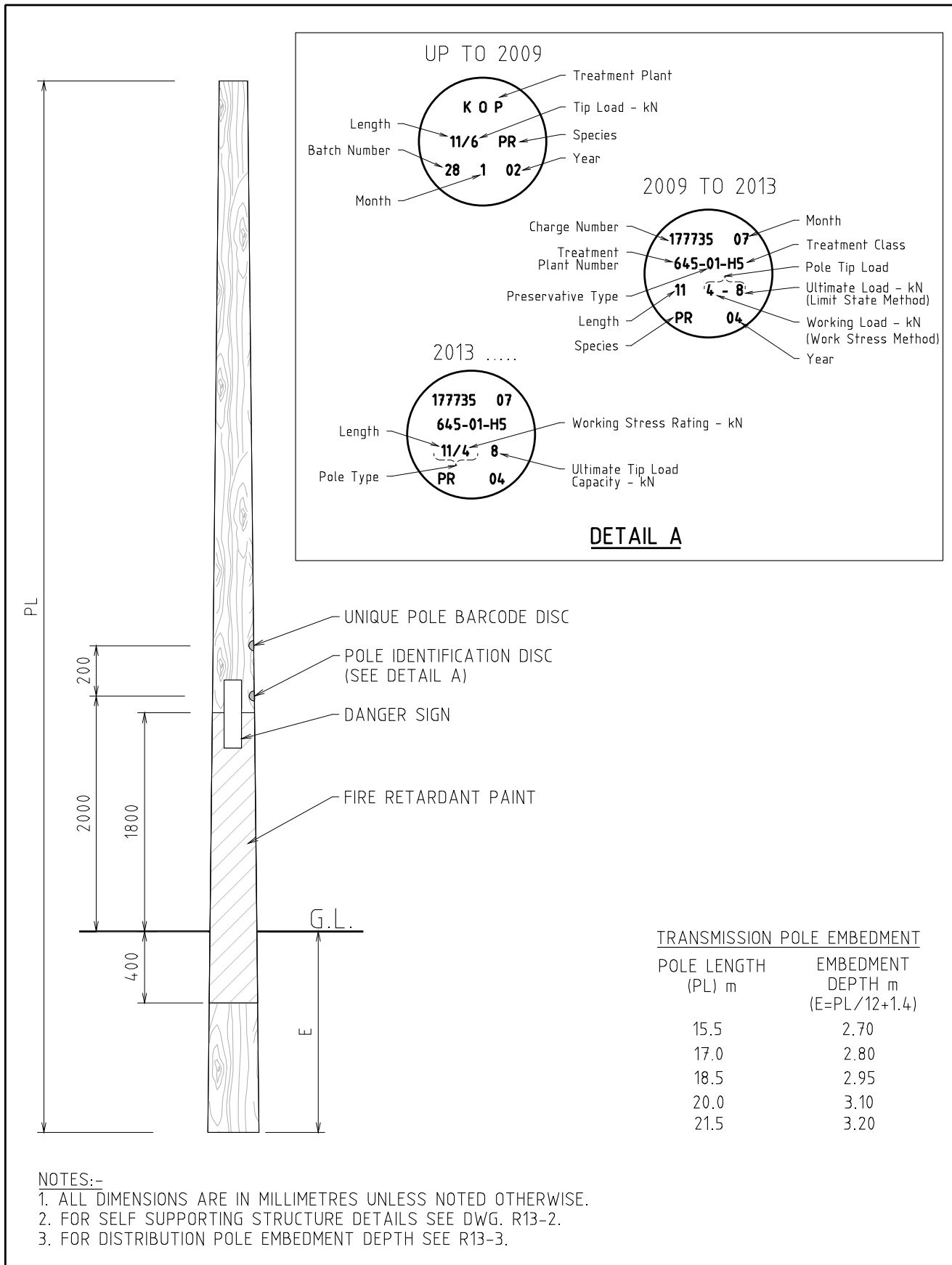
1. SINGLE LINE REPRESENTATION - 1 PHASE ONLY SHOWN FOR CLARITY.
2. APPLIES TO LV ABC OR OPEN AERIAL.
3. FOR CABLE TERMINATION USE 3X FLOWLINE FUSES FOR 25mm² CABLE, FSDO FOR ALL OTHER CABLES.

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD			
				TITLE				DRAWN: JRR		DATE: 05-03-2014 DRG. No.	
				THREE PHASE TRANSFORMER				ORIGINATED:		SCALE: NTS	
				LV ARRANGEMENT DETAILS				CHECKED: REE		R12-2	
				25, 63 & 100kVA - LV ABC & BARE				APPROVED:		REV. L SHT.	
								GRANT STACY			



- NOTES:-
1. SINGLE LINE REPRESENTATION 1 PHASE ONLY SHOWN FOR CLARITY.
 2. APPLIES TO LV ABC OR OPEN AERIAL.
 3. FOR OPEN AERIAL MASTER LINK CAN BE REPLACED WITH 630A LV ISOLATORS ON CROSS-ARM. (NOT PREFERRED)
 4. IF REQUIRED, ATTACH ADDITIONAL FSDO FOR CABLE TERMINATION.

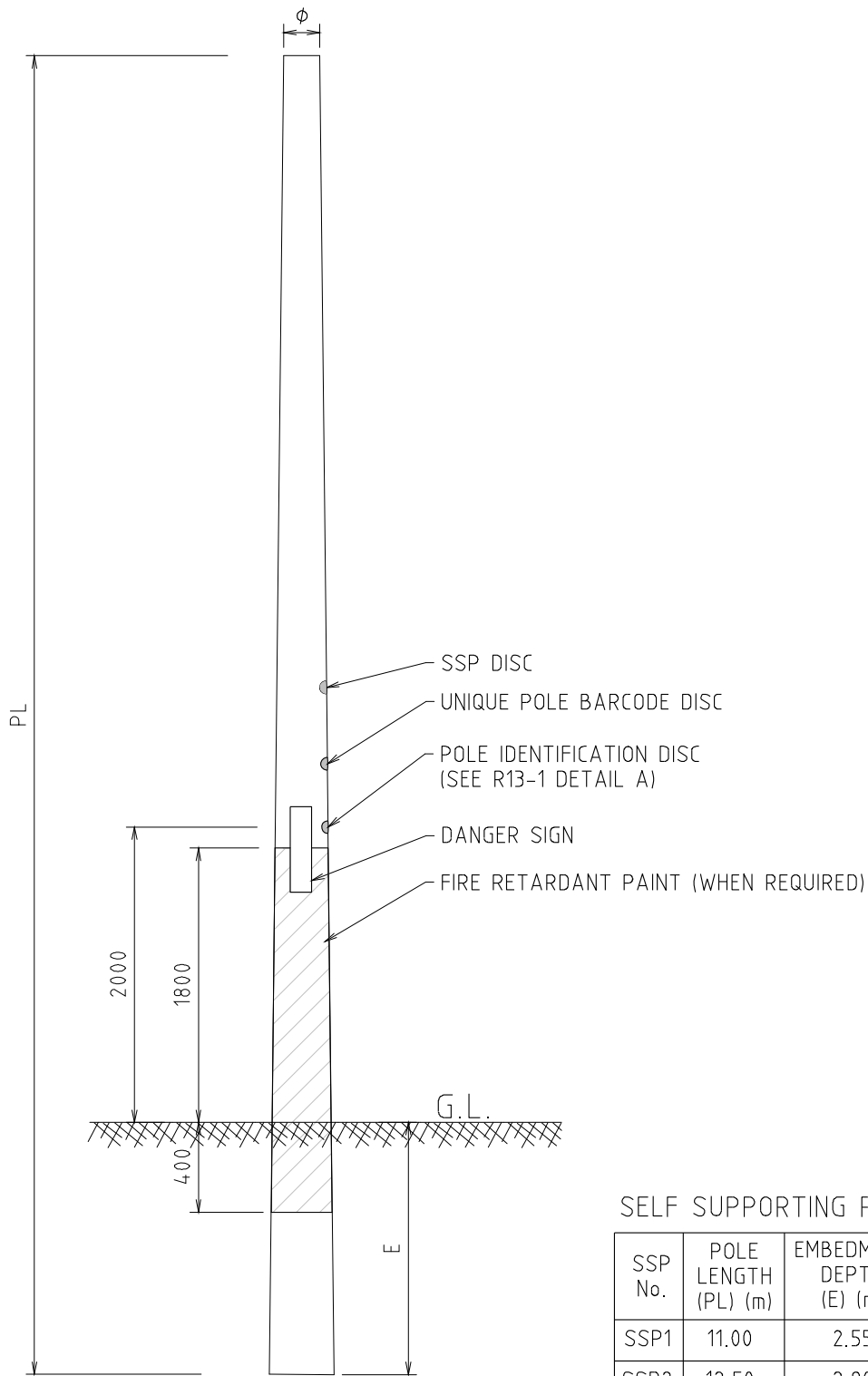
				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD			
				TITLE THREE PHASE TRANSFORMER LV ARRANGEMENT DETAILS 200 & 315kVA - LV ABC & BARE				DRAWN: JRR DATE: 05-03-2014 DRG. No.		R12-3	
								ORIGINATED: CO REE GS			
								CHECKED: REE			
								APPROVED: GRANT STACY		REV. G SHT.	
REV	DATE	DESCRIPTION		ORGO.	CHKD.	APPR.					
G	14.08.23	TITLE CHANGED		JT	NMc	CO					
F	09.12.22	DETAILS REVISED		CO	NMc	GS					
E	01.05.17	SINGLE LINE DIAGRAMS MODIFIED		CO	REE	GS					
D	23.09.15	"MASTER" KRONE WITH LINK DELETED FROM OPTION 4A		REE	REE	CO					



NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. FOR SELF SUPPORTING STRUCTURE DETAILS SEE DWG. R13-2.
3. FOR DISTRIBUTION POLE EMBEDMENT DEPTH SEE R13-3.

				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD		westernpower		
F	17.06.21	DRAWING TITLE CHANGED & EQUIPMENT LABEL DELETED	CO	REF	GS	TITLE	DRAWN: JRR	DATE: 05-03-2014	DRG. No.		
E	15.07.15	MORE DETAILS ADDED	DVT	AK	GS	POLE DETAILS TRANSMISSION EMBEDMENT DEPTH, DANGER PLATE & EQUIPMENT LABELS	ORIGINATED: DVT	SCALE: NTS	R13-1		
D	13.08.14	FORMAT, DWG No. AND E OF PL 15.5 CHANGED		DVT	GS		CHECKED: AK				
C	12.08.13	ORIGINAL ISSUE			GS		APPROVED: GRANT STACY	REV. F		SHT.	
R No	DATE	DESCRIPTION	ORGD.	CHED.	APPROD.						



SELF SUPPORTING POLE EMBEDMENT

SSP No.	POLE LENGTH (PL) (m)	EMBEDMENT DEPTH (E) (m)	RAKE OR POLE PRE-SET POLE DIAMETER
SSP1	11.00	2.55	1.0
SSP2	12.50	2.80	1.0
SSP3	14.00	3.00	2.0

NOTES:-
 1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.

			REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD		westernpower	
			TITLE			DRAWN: JRR		DATE: 01-07-2014	
			SELF SUPPORTING WOOD POLE EMBEDMENT DEPTH			ORIGINATED: DVT		SCALE: NTS	
						CHECKED: AK		DRG. No. R13-2	
						APPROVED: GRANT STACY		REV. E	
REV	DATE	DESCRIPTION	ORGO.	CHKD.	APROD.			SHT.	
E	22.02.23	REMOVED RULES	CD	LT	CO				
D	17.06.21	POLE MOUNTED EQUIPMENT LABEL DELETED	CO	REE	GS				
C	05.02.16	TABLE REVISED	DVT	AT	GS				

BACKFILL COMPACTED IN 300 LAYERS

Es

600

FIRM SANDY SOIL

SOIL RATING = GOOD (NO ENHANCEMENT)

BACKFILL WITH EITHER
a) ROAD BASE
b) CRUSHED LIMESTONE OR
c) 10:1 SOIL:CEMENT MIX (REF R13-3-2 FOR PREPARATION)
COMPACTED IN 300 LAYERS

Es

600/700*

FIRM SANDY SOIL (ENHANCED)

SOIL RATING = GOOD (BEFORE ENHANCEMENT)
VERY GOOD (AFTER ENHANCEMENT)

POLE LENGTH (m)	Es (m)
9.5	1.55
11	1.70
12.5	1.85
14	2.00
SSP1	2.55
SSP2	2.80
SSP3	3.00

EXCAVATED MATERIAL CAN BE USED AS BACKFILL IF THE SIZE OF THE AGGREGATE IS <50 COMPACTED IN 300 LAYERS.

ALTERNATIVELY, BACK FILL WITH BLUE METAL OR CRUSHED LIMESTONE COMPACTED IN 300 LAYERS

Er

600/700*

ROCKY SOIL
(eg. GRAVEL)

SOIL RATING = VERY GOOD (NO ENHANCEMENT)

BACK FILL WITH BLUE METAL OR CRUSHED LIMESTONE COMPACTED IN 300 LAYERS

S

SOLID ROCK

Er

600/700*

SOLID ROCK

SOIL RATING = EXCELLENT (BEFORE & AFTER ENHANCEMENT)

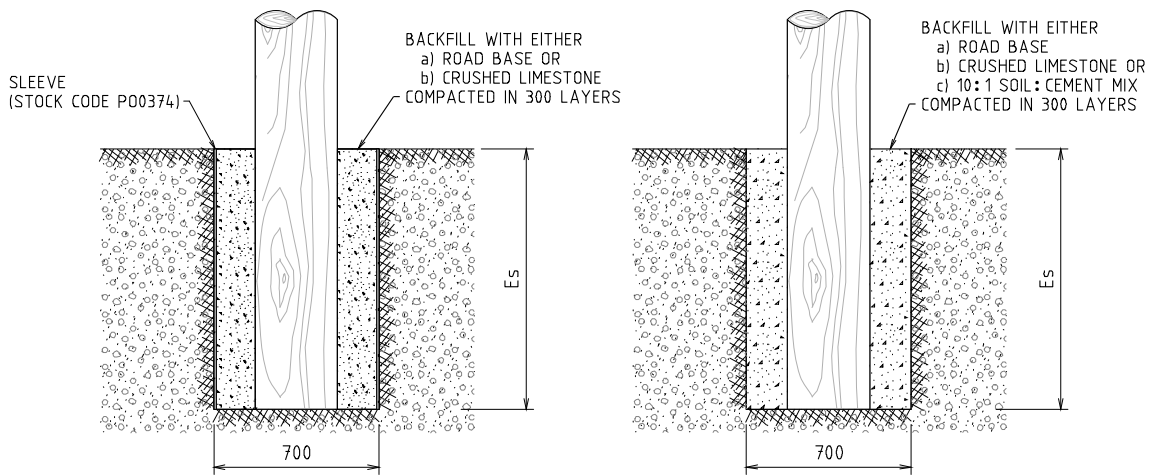
POLE TYPE	ER (m)
9.5/5	1.45
11/4	1.40
11/5	1.50
11/6	1.60
12.5/4	1.50
12.5/6	1.70
12.5/8	1.90
14/8	1.90
SSP1	2.00
SSP2	2.20
SSP3	2.40

SOIL ABOVE ROCK S (m)	EMBEDMENT DEPTH ER (m)			
	POLE TYPE			
	9.5m	11m	12.5m	14m
ROCK AT GROUND	0.90	1.00	1.15	1.20
Up to 0.25	1.00	1.10	1.20	1.35
0.25 to 0.50	1.10	1.20	1.30	1.40
0.50 to 0.75	1.25	1.35	1.45	1.50
0.75 to 1.00	1.35	1.45	1.55	1.65
1.00 to 1.25	1.50	1.60	1.70	1.75
1.25 to 1.50	Es	1.65	1.75	1.90
1.50 to 1.75	Es	Es	1.80	1.95
1.75 to 2.00	Es	Es	Es	Es

NOTE:- APPLICABLE ONLY WHEN REQUIRED DESIGN EMBEDMENT DEPTH IS UNACHIEVABLE.

- NOTES:-
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
 2. Es – STANDARD EMBEDMENT DEPTH.
 3. Er – REDUCED EMBEDMENT DEPTH.
 4. S – SOIL ABOVE ROCK.
- * 700mm AUGERED HOLE IF THE POLE BUTT DIAMETER EXCEEDS 350mm.

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD			
				TITLE				DRAWN: JRR		DATE: 12-06-2015	
				DISTRIBUTION POLE EMBEDMENT DEPTH & FOUNDATION DETAILS				ORIGINATED: DVT		SCALE: NTS	
								CHECKED: AK		DRG. No. R13-3-1	
								APPROVED: GRANT STACY			
REV	DATE	DESCRIPTION	ORGO.	CHKO.	APRO.						



COLLAPSING SOIL (DRY OR WET)
(eg. LOOSE SANDY SOILS, PEAT SOILS)

SOIL RATING = POOR (BEFORE ENHANCEMENT)
MEDIUM (AFTER ENHANCEMENT)

SOFT SANDY SOIL

SOIL RATING = MEDIUM (BEFORE ENHANCEMENT)
GOOD (AFTER ENHANCEMENT)

NOTE: THE SOIL OUTSIDE THE SLEEVE, IF DISTURBED, MUST BE COMPACTED IN THE SAME MANNER AS INSIDE THE SLEEVE.

SOIL & CEMENT PREPARATION GUIDELINE

1. MATERIAL REQUIRED:

- a. SOIL – CLEAN NATIVE SOIL FREE FROM ORGANIC MATERIAL (GRASS, ROOTS ETC.,)
- b. CEMENT (DC0040 – 20KG BAGS)
- c. POTABLE WATER

- 2. SOIL & CEMENT DRY MIXING – MIX 10 PARTS SOIL TO 1 PART CEMENT
- 3. MOISTURE CONDITIONING – MOISTEN THE EXCAVATED AUGAR HOLE IF IT IS DRY.
- 4. BACKFILL WITH DRY SOIL & CEMENT MIX IN 300MM LAYER
- 5. SPRINKLE WITH CLEAN WATER AND WELL COMPACT
- 6. REPEAT STEP 3 TO 4 TILL GROUND LEVEL IS ACHIEVED

CAUTION – FOR WET SOILS, MOISTURE CONDITIONING IS NOT REQUIRED

POLE LENGTH (m)	Es (m)	CEMENT 20KG BAGS DC0040	SOIL MEASURED EQUIVALENT TO CEMENT BAG IN VOLUME
9.5	1.55	2	24
11	1.7	3	27
12.5	1.85	3	27
14	2	3	29
SSP1	2.55	3	33
SSP2	2.85	3	27
SSP3	3	4	45

NOTES:-

- 1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
- 2. Es – STANDARD EMBEDMENT DEPTH.
- 3. FOR SWAMPY SOILS/ POOR SOILS, ROAD BASE AS BACKFILL IS PREFERRED.

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD			
				TITLE		DRAWN: JRR		DATE: 20-06-2015	
				DISTRIBUTION POLE EMBEDMENT DEPTH & FOUNDATION DETAILS		ORIGINATED: DVT		SCALE: NTS	
						CHECKED: LT		DRG. No. R13-3-2	
						APPROVED:		REV. B	
						GRANT STACY		SHT.	
B	08.12.22	FOUNDATION WIDTH CHANGED		SJ	LT	GS			
A	29.08.17	ORIGINAL ISSUE		DVT	LT	GS			
REV	DATE	DESCRIPTION		ORGO	CHKD	APRO			

MAX ANGLE OF DEVIATION

Conductor Type	Equivalent Conductor
19/3.25 - AAC	19/3.25 AAAC Krypton
7/4.5 - AAC	
19/.083 Cu or 19/2.14 Cu	
19/14 Cu or 19/2.1 Cu	
19/16 Cu or 19/1.63 Cu	

TABLE 1

NOTES:

- 1 Select current Conductor from Tables 1 or 2
- 2 Read off equivalent Conductor
- 3 From Table 3, select the number of HV and LV conductors
- 4 Select Pole within the Allowable Angle Limit for the specific Wind Region
- 5 If angle exceeds Allowable Angle Limit, stay is required

Conductor Type	Equivalent Conductor
7/4.75 - AAC	7/4.75 AAAC Iodine
7/4.5 - AAC	
7/3.75 - AAC	
7/3.0 - AAC	
7/2.5 - AAC	
7/4.50 - AAAC	
7/3.75 - AAAC	
7/3.0 - AAAC	
7/2.5 - AAAC	
7/14 Cu or 7/2.03 Cu	
7/16 Cu or 7/1.63 Cu	
7/2.75 Cu	

TABLE 2

URBAN/METRO Max Span = 60m				Standard Pole	SSP	Allowable Angle Wind Region A		Allowable Angle Wind Region B	
Equivalent SSP Conductor		No off Conductors				Standard Pole	SSP	Standard Pole	SSP
HV	LV	HV	LV						
	19/3.25AAAC-7%		4	9.5M	SSP 1	7	15	4	11
	7/4.75AAAC-7%		4	9.5M	SSP 1	9	19	6	14
	ABC150 (LV)-7%		1	9.5M	SSP 1	15	35	13	27
7/4.75AAAC-7%		3		11M	SSP 2	15	38	13	30
19/3.25AAAC-7%		3		11M	SSP 2	13	30	10	23
7/4.75AAAC-7%		4		11M	SSP 2	12	27	8	20
19/3.25AAAC-7%		4		11M	SSP 2	9	21	6	16
7/4.75AAAC-7%	7/4.75AAAC-7%	3	4	11M	SSP 2	4	12	2	9
19/3.25AAAC-7%	19/3.25AAAC-7%	3	4	11M	SSP 2	3	9	1	6
19/3.25AAAC-7%	7/4.75AAAC-7%	3	4	11M	SSP 2	4	11	1	7
7/4.75AAAC-7%	ABC150 (LV)-7%	3	1	11M	SSP 2	7	17	4	12
19/3.25AAAC-7%	ABC150 (LV)-7%	3	1	11M	SSP 2	5	15	3	11
7/4.75AAAC-7%	7/4.75AAAC-7%	4	4	11M	SSP 2	3	10	1	7
19/3.25AAAC-7%	19/3.25AAAC-7%	4	4	11M	SSP 2	2	7	0	5
19/3.25AAAC-7%	7/4.75AAAC-7%	4	4	11M	SSP 2	2	9	0	6
7/4.75AAAC-7%	ABC150 (LV)-7%	4	1	11M	SSP 2	5	14	2	9
19/3.25AAAC-7%	ABC150 (LV)-7%	4	1	11M	SSP 2	4	11	1	8

TABLE 3

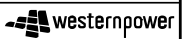
				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD			
				TITLE			DRAWN: JRR		DATE: 04-06-2015	
				WOOD POLE DESIGN ANGLE OF DEVIATION FOR URBAN APPLICATIONS			ORIGINATED: DVT		SCALE: NTS	
							CHECKED: AK		DRG. No. R13-4	
							APPROVED: GRANT STACY		REV. B	
REV	DATE	DESCRIPTION	DRGD.	CHKD.	APRD.					
B	16.02.16	TABLES AND TITLE REVISED	DVT	AT	GS					
A	15.07.15	ORIGINAL ISSUE	DVT	AK	GS					

EQUIVALENT CONDUCTOR - RURAL/COUNTRY

EXISTING CONDUCTOR TYPE	EQUIVALENT CONDUCTOR TYPE
ACSR/AZ-6/4.75&7/1.6Fe	19/3.25 AAAC KRYPTON
ACSR/GZ-6/4.75&7/1.6Fe	
SC/GZ 7/1.6	SC/AC 3/2.75 SCAC
SC/GZ 3/2.75	
7/3.0 - AAAC	7/4.75 AAAC IODINE
7/3.75 - AAAC	
7/4.0 - AAAC	
ACSR/GZ-6/1/3.75	7/2.5 - AAAC CHLORINE
ACSR/AZ-6/1/3.75	
7/2.5 - AAC	
6/1/3.00 AACSR/AC	6/1/3.00 AACSR/AC ARCHERY AA
ACSR/GZ-6/1/2.5	
ACSR/GZ-6/1/3.0	
ACSR/AZ-6/1/2.6	
ACSR/AZ-6/1/3.0	
SC/GZ 7/2.0	SC/GZ 7/2.0 * SCGZ
SC/GZ 7/2.75	

TABLE 4

* QUERIES REGARDING SC/GZ 7/20 MUST BE SENT TO Dx STANDARD SUPPORT FOR ASSESSMENT.

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD			
				TITLE				DRAWN: JRR DATE: 15-02-2016		DRG. No.	
				WOOD POLE DESIGN				ORIGINATED: DVT SCALE: NTS		R13-5-1	
				ANGLE OF DEVIATION				CHECKED: AT		REV. B	
				RURAL APPLICATION				APPROVED: GRANT STACY		SHT.	
B	01.05.20	CABLE TYPE AACSR/AC ADDED & DRAWING No. CHANGED	SA	LT	GS						
A	17.02.16	ORIGINAL ISSUE	DVT	AT	GS						
REV	DATE	DESCRIPTION	DRGD.	CHKD.	APRD.						

EQUIVALENT CONDUCTOR	No OF CONDUCTORS	SPAN LENGTH (m)	ALLOWABLE ANGLE WIND REGION A												ALLOWABLE ANGLE WIND REGION B												
			STANDA RD POLE / STANDA RD FOUNDATION						STANDA RD POLE / STANDA RD FOUNDATION						STANDA RD POLE / STANDA RD FOUNDATION			STANDA RD POLE / STANDA RD FOUNDATION									
			11/4	11/5	11/6	SSP2	12.5/4	12.5/6	12.5/8	SSP3	11/4	11/5	11/6	SSP2	12.5/4	12.5/6	12.5/8	SSP3	11/4	11/5	11/6	SSP2	12.5/4	12.5/6	12.5/8	SSP3	
SCAC 3/2.75-2.5%	RE	1	80	12	13	14	37	16	18	20	33	10	11	11	37	12	14	15	33	8	9	10	37	11	12	13	33
SCAC	RE	1	100	10	12	13	37	13	16	18	33	8	9	10	37	11	12	13	33	7	8	8	36	9	11	12	33
			120	9	11	12	37	12	15	17	33	6	7	7	35	8	10	10	32	6	7	7	35	8	10	12	32
			135	8	10	11	37	12	14	16	33	5	6	6	33	7	9	9	32	5	6	6	33	7	9	10	32
			150	8	10	10	37	11	13	15	32	4	4	4	30	5	6	6	30	4	4	4	30	5	6	7	27
			175	7	8	8	36	10	12	13	32	3	3	3	27	4	4	4	27	3	3	3	27	4	4	5	23
			200	6	7	8	35	9	11	12	32	1	1	1	24	3	3	3	24	1	1	1	24	3	3	4	21
			225	5	6	6	32	7	9	10	29	1	1	1	23	2	2	2	23	1	1	1	23	2	2	3	19
			250	5	5	6	31	7	9	10	29	0	1	1	24	2	2	2	24	0	1	1	24	2	2	3	17
			275	3	4	4	29	5	7	8	26	NA	0	0	19	1	1	1	19	NA	0	0	19	1	1	2	15
			300	3	4	4	27	5	7	8	25	NA	0	0	17	0	0	0	17	NA	0	0	17	0	0	1	14
			325	2	2	3	24	3	4	6	22	NA	NA	NA	16	0	0	0	16	NA	NA	NA	16	0	0	1	11
			350	2	2	3	23	3	5	6	20	NA	NA	NA	15	0	0	0	15	NA	NA	NA	15	0	0	1	11
			375	1	1	2	22	2	4	5	20	NA	NA	NA	14	0	0	0	14	NA	NA	NA	14	0	0	1	11
			400	1	1	2	21	2	4	5	19	NA	NA	NA	13	0	0	0	13	NA	NA	NA	13	0	0	1	11
7/2.5 - AAAC		3	80	9	9	10	45	12	14	14	45	5	6	6	45	9	10	11	45								
CHLORINE-18%			100	7	7	8	45	10	11	12	45																
			120																								
7/2.5 - AAAC		3	80	6	8	9	45	10	13	14	40	3	2	4	30	5	7	7	30								
CHLORINE-18%			100	4	5	6	35	7	9	10	30																
			120																								
7/4.75AAAAC-18%		3	80	1	1	2	21	2	3	3	16	NA	NA	NA	12	0	1	1	12	NA	NA	NA	12	0	1	1	12
IODINE			100	0	0	1	17	1	2	2	12	NA	NA	NA	10	NA	NA	NA	10	NA	NA	NA	10	NA	NA	NA	9
			120	NA	NA	NA	15	0	1	1	10	NA	NA	NA	7	NA	NA	NA	7	NA	NA	NA	7	NA	NA	NA	6
			135	NA	NA	NA	13	NA	0	0	8	NA	NA	NA	6	NA	NA	NA	6	NA	NA	NA	6	NA	NA	NA	5
			150	NA	NA	NA	12	NA	NA	0	8	NA	NA	NA	4	NA	NA	NA	4	NA	NA	NA	4	NA	NA	NA	4
			175	NA	NA	NA	10	NA	NA	NA	6	NA	NA	NA	3	NA	NA	NA	3	NA	NA	NA	3	NA	NA	NA	4
			200																								

TABLE 5 (1/2)

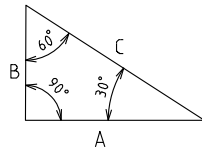
NOTES -
 1. SELECT CURRENT CONDUCTOR FROM TABLE-4, R15-5-1
 2. READ OFF EQUIVALENT CONDUCTOR
 3. FROM TABLE 5, SELECT THE NUMBER OF HV AND LV CONDUCTORS
 4. SELECT POLE WITHIN THE ALLOWABLE ANGLE LIMIT FOR THE SPECIFIC WIND REGION.
 5. IF ANGLE EXCEEDS ALLOWABLE ANGLE LIMIT, STAY IS REQUIRED.
 6. STANDARD POLE AND STANDARD EMBEDMENT DEPTH IN "MEDIUM" FOUNDATION CONDITIONS.

FOR FIELD CREW ONLY.
 # DESIGNERS TO REFER TO OVERHEAD LINE DESIGN MANUAL
 # POLE FOUNDATIONS CHAPTER FOR THE DESIGN ANGLES.
 # THIS TABLE IS FOR POLE LIMITATIONS ONLY.
 # THIS DRAWING READ IN CONJUNCTION WITH Dwg R15

A 01 05 20 ORIGINAL ISSUE			SA LT GS			TITLE		DISTRIBUTION CONSTR STANDARD		westernpower		
REV	DATE	DESCRIPTION	ORGO	CHKD	APRD	STRUCTURE			DRAWN	JRR	DATE	19-03-2020
						WOOD POLE DESIGN ANGLE OF DEVIATION FOR RURAL APPLICATION			SCALE	NTS	DRG No	R13-5-2
									CHECKED	NN	REV	A
									APPROVED	GRANT STACY	SHT	



30° STAY

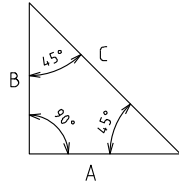


LENGTH TENSION IN STAY WIRE

$A = B \times 1.73$
 $C = B \times 2$

C = THE SUM OF THE LINE LOAD x 1.15

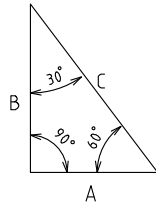
45° STAY



$A = B$
 $C = B \times 1.41$

C = THE SUM OF THE LINE LOAD x 1.41

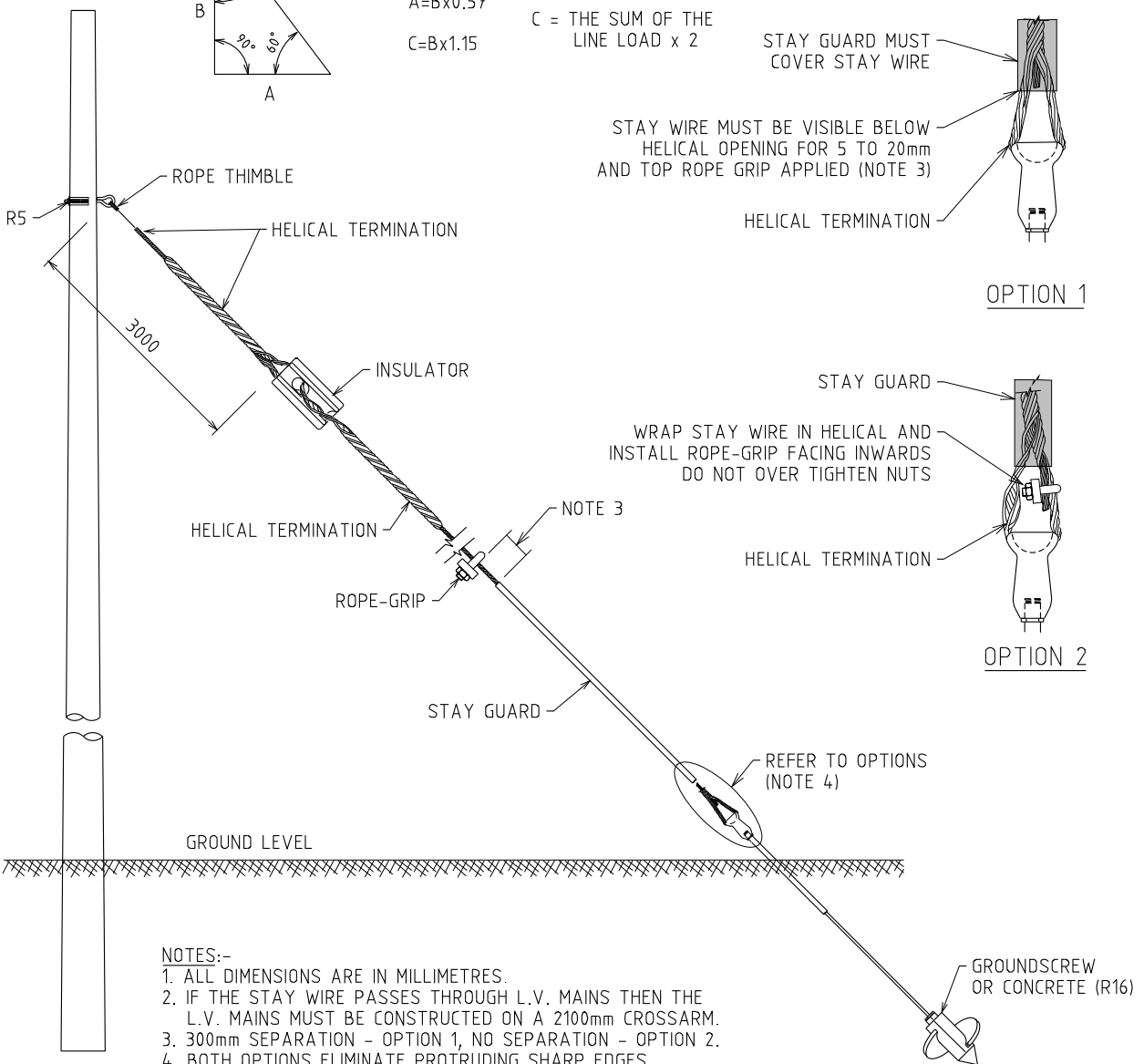
60° STAY



$A = B \times 0.57$
 $C = B \times 1.15$

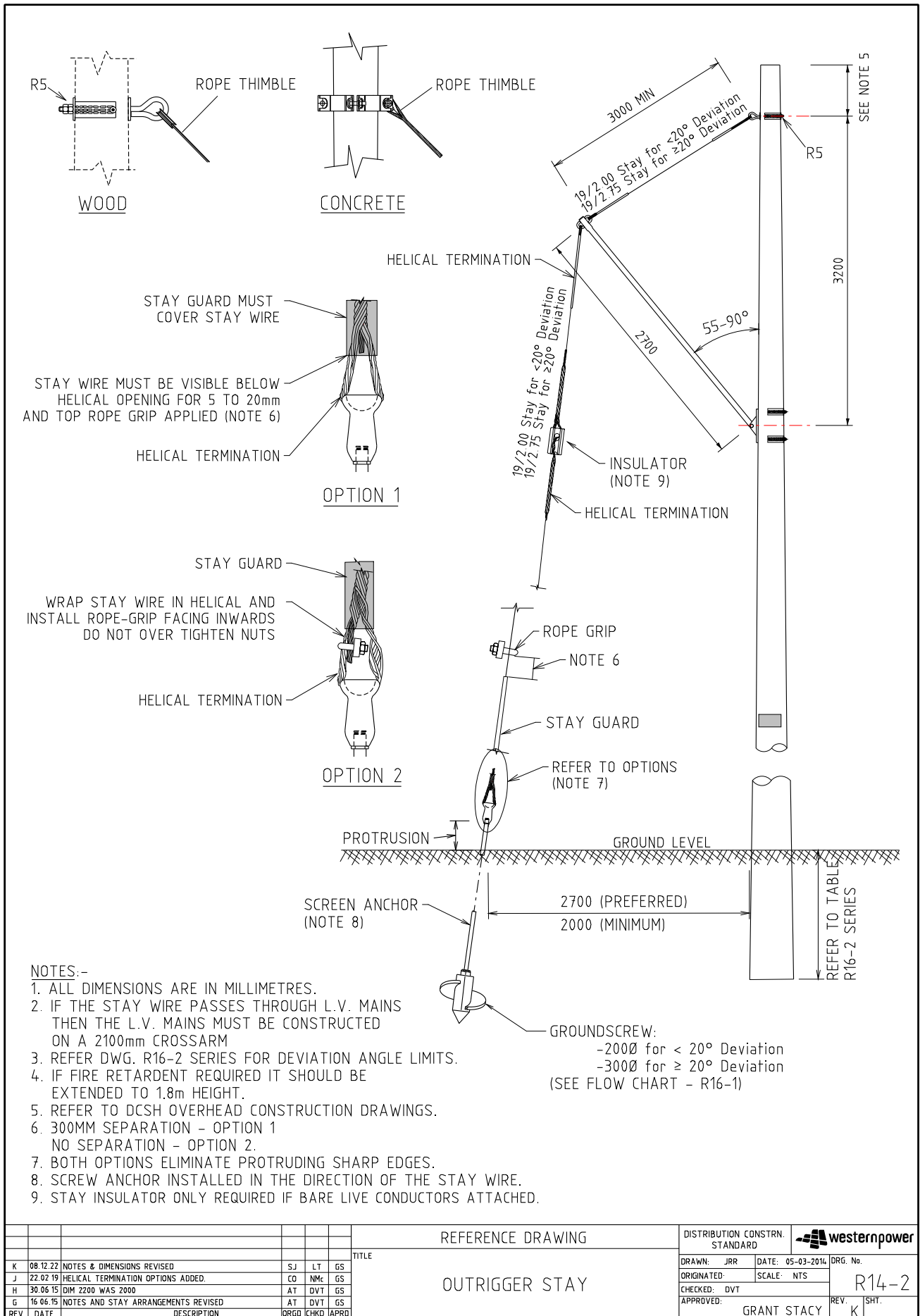
C = THE SUM OF THE LINE LOAD x 2

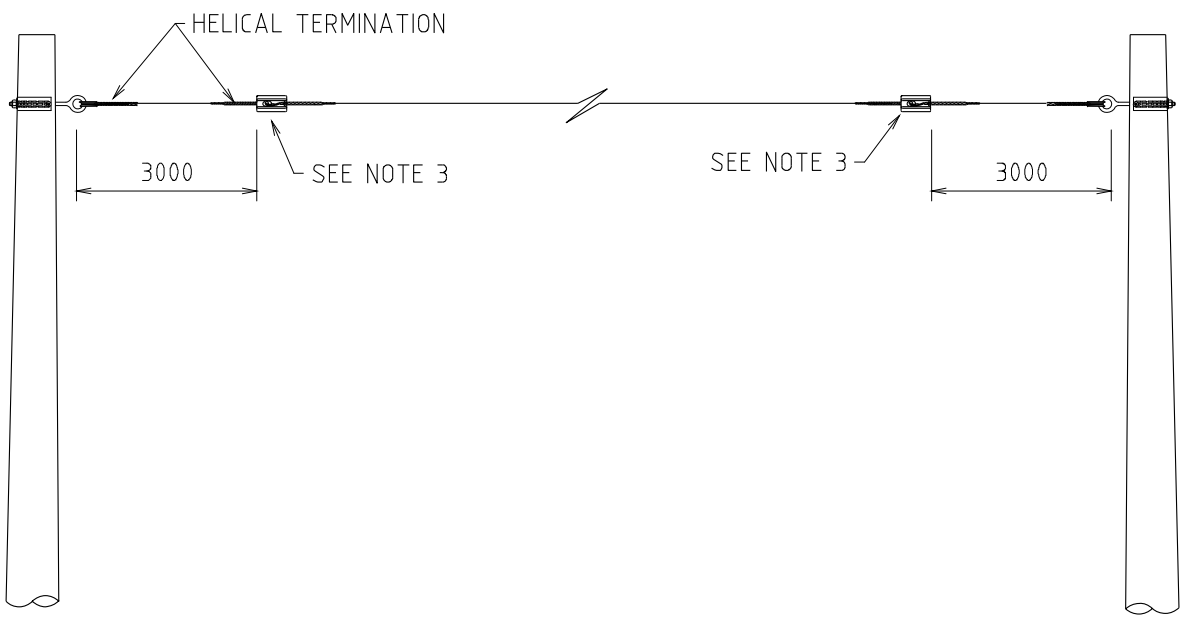
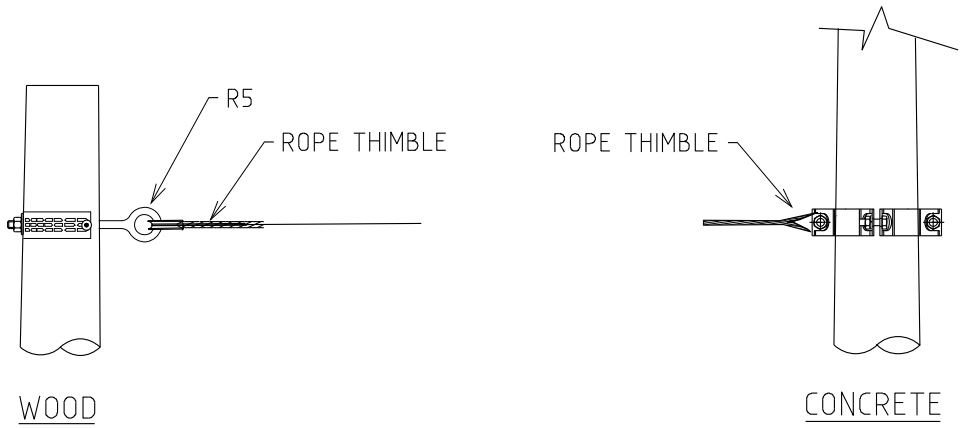
A - POSITION OF STAY ROD FROM BASE OF POLE
 B - HEIGHT OF STAY ATTACHMENT ABOVE GROUND
 C - LENGTH OF STAY WIRE



- NOTES:-
 1. ALL DIMENSIONS ARE IN MILLIMETRES.
 2. IF THE STAY WIRE PASSES THROUGH L.V. MAINS THEN THE L.V. MAINS MUST BE CONSTRUCTED ON A 2100mm CROSSARM.
 3. 300mm SEPARATION - OPTION 1, NO SEPARATION - OPTION 2.
 4. BOTH OPTIONS ELIMINATE PROTRUDING SHARP EDGES.
 5. STAY INSULATOR ONLY REQUIRED IF BARE LIVE CONDUCTORS ATTACHED.

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE		DRAWN: JRR DATE: 05-03-2014 DRG. No.		R14-1	
				GROUND STAY		ORIGINATED: SCALE: NTS			
						CHECKED: REE			
						APPROVED: GRANT STACY		REV. F SHT.	
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.				
F	03.03.23	NOTES REVISED	CO	NMc	GS				
E	05.08.20	SUB TITLES ADDED	CO	NMc	GS				
D	22.02.19	HELICAL TERMINATION OPTIONS ADDED	CO	NMc	GS				





NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. STAY WIRE SHOULD NOT BE INSTALLED ABOVE HV CONDUCTORS (INCLUDING LINE TAPS).
3. STAY INSULATOR ONLY REQUIRED ADJACENT TO POLE WHERE BARE CONDUCTORS PRESENT.

				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD			
				TITLE			DRAWN: JRR DATE: 05-03-2014 DRG. No.			
				AERIAL STAY			ORIGINATED: SCALE: NTS		R14-3	
							CHECKED: REE		REV. D	
							APPROVED: GRANT STACY		SHT.	
REV	DATE	DESCRIPTION	ORGO	CHKD	APRD					
D	19.09.23	DRAWING AND NOTES REVISED	NMc	ML	CO					
C	16.04.19	NOTES REVISED	NMc	NN	GS					
B	26.09.14	FORMAT CHANGED AND DRAWING & NOTES REVISED	REE	REE	GS					
A	01.10.10	ORIGINAL ISSUE								

URBAN/METRO

RURAL/COUNTRY

Existing Conductor Type	Equivalent Conductor Type
19/3.25 - AAC	19/3.25 AAAC Krypton
7/4.5 - AAC	
19/.083 Cu or 19/2.14 Cu	
19/14 Cu or 19/2.1 Cu	
19/16 Cu or 19/1.63 Cu	
7/3.0 - AAC	7/4.75 AAAC Iodine
7/3.75 - AAC	
7/4.75 - AAC	
7/3.0 - AAAC	
7/3.75 - AAAC	
7/4.0 - AAAC	
7/14 Cu or 7/2.03 CU	
7/16 Cu or 7/1.63 Cu	
7/2.75 Cu	7/2.5 - AAAC Chlorine
7/2.5 - AAC	

TABLE 1

Existing Conductor Type	Equivalent Conductor Type
ACSR/AZ-6/4.75&7/1.6Fe	19/3.25 AAAC Krypton
ACSR/GZ-6/4.75&7/1.6Fe	
SC/GZ 7/1.6	SC/AC 3/2.75 SCAC
SC/GZ 3/2.75	
7/3.0 - AAAC	7/4.75 AAAC Iodine
7/3.75 - AAAC	
7/4.0 - AAAC	
ACSR/GZ-6/1/3.75	
ACSR/AZ-6/1/3.75	7/2.5 - AAAC Chlorine
7/2.5 - AAC	
6/1/3.00 AACSR/AC	6/1/3.00 AACSR/AC ARCHERY AA
ACSR/GZ-6/1/2.5	
ACSR/GZ-6/1/3.0	
ACSR/AZ-6/1/2.6	
ACSR/AZ-6/1/3.0	
SC/GZ 7/2.0	SC/GZ 7/2.0 * SCGZ
SC/GZ 7/2.75	

TABLE 2

NOTES:-

1. SELECT CURRENT CONDUCTOR FROM TABLES 1 OR 2.

* QUERIES REGARDING SC/GZ 7/20 MUST BE SENT TO Dx STANDARD SUPPORT FOR ASSESSMENT.

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD			
				TITLE				DRAWN: JRR		DATE: 23-12-2015	
				EQUIVALENT CONDUCTOR				ORIGINATED: DVT		SCALE: NTS	
								CHECKED: AT		REV. No. R15-2	
								APPROVED: GRANT STACY		REV. B	
REV	DATE	DESCRIPTION	ORGO.	CHKD.	APRD.	SA	REE	GS			
B	01.05.20	TABLE 2 REVISED									
A	29.08.16	ORIGINAL ISSUE									



DDC HV01, HV12, HV21, HV38 & HV39
3phase - Intermediate (M16 king bolt)

Urban		Allowable Angle	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/2.50 AAAC 7% CBL @ 15 deg CHLORINE	50	45	38
	60	40	32
	70	35	25
7/4.75 AAAC 7% CBL @ 15 deg IODINE	50	18 (22*)	13 (16*)
	60	16 (19*)	11 (13*)
	70	14 (17*)	9 (11*)
19/3.25 AAAC 7% CBL @ 15 deg KRYPTON	50	14 (17*)	11 (13*)
	60	12 (15*)	9 (11*)
	70	10 (13*)	7 (9*)

*Use cross-arm bracing strap (CB0485)

DDC HV03 & HV30
Running Disc Angle

Urban		Minimum Angle of Deviation
Equivalent Conductor	Span Length (m)	
7/2.50 AAAC 7% CBL @ 15 deg CHLORINE	<50	22
	50-60	24
	60-70	26
7/4.75 AAAC 7% CBL @ 15 deg IODINE	<50	19
	50-60	21
	60-70	23
19/3.25 AAAC 7% CBL @ 15 deg KRYPTON	<50	12
	50-60	14
	60-70	16

DDC HV19, HV23, HV25 & HV40
Pole Top Switch

Urban		Allowable Angle	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/2.50 AAAC 7% CBL @ 15 deg CHLORINE	50	32	28
	60	28	24
	70	24	20
7/4.75 AAAC 7% CBL @ 15 deg IODINE	50	14	10
	60	12	8
	70	10	6
19/3.25 AAAC 7% CBL @ 15 deg KRYPTON	50	12	8
	60	10	6
	70	8	4

Use Shackle (OS0050) for deviation > 2°

DDC HV45

3phase - Intermediate Double Cross-arm (M16 king bolt)

Urban		Allowable Angle	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/2.50 AAAC 7% CBL @ 15 deg CHLORINE	50	45	45
	60	45	45
	70	45	45
7/4.75 AAAC 7% CBL @ 15 deg IODINE	50	42	33
	60	38	29
	70	32	24
19/3.25 AAAC 7% CBL @ 15 deg KRYPTON	50	34	26
	60	30	23
	70	25	18

DDC HV06 & HV14

3 phase - Intermediate Offset

Urban		Allowable Angle	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/2.50 AAAC 7% CBL @ 15 deg CHLORINE	50	45	45
	60	45	40
	70	45	35
7/4.75 AAAC 7% CBL @ 15 deg IODINE	50	24	18
	60	22	15
	70	20	13
19/3.25 AAAC 7% CBL @ 15 deg KRYPTON	50	18	14
	60	16	12
	70	14	10

DDC HV09 & HV10

Strain (CB1121 - M16 strain eye bolt)

Urban		Allowable Angle	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/2.50 AAAC 7% CBL @ 15 deg CHLORINE	50	45	42
	60	45	38
	70	40	30
7/4.75 AAAC 7% CBL @ 15 deg IODINE	50	20	15
	60	18	13
	70	14	9
19/3.25 AAAC 7% CBL @ 15 deg KRYPTON	50	16	12
	60	14	10
	70	11	7

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD			
				TITLE				DRAWN: JRR DATE: 21-12-2015 DRG. No.		R15-3-1	
				POLE TOP LIMITATIONS FOR URBAN APPLICATIONS				ORIGINATED: AT SCALE: NTS			
								CHECKED: DVT		REV. A	
								APPROVED: GRANT STACY		SHT.	
A	29.08.16	ORIGINAL ISSUE		AT	DVT	GS					
REV	DATE	DESCRIPTION		ORGO	CHKD	APRD					



DDC HV05 & HV07

Termination (CB0116) - Single Cross-arm

Urban		Allowable	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/2.50 AAAC 7% CBL @ 15 deg CHLORINE	50	✓	✓
	60	✓	✓
	70	✓	✓
7/4.75 AAAC 7% CBL @ 15 deg IODINE	50	✓	✓
	60	✓	✓
	70	✓	✓
19/3.25 AAAC 7% CBL @ 15 deg KRYPTON	50	✓	✓
	60	✓	✓
	70	✓	✓

DDC HV15

Termination (CB1121) - Single Cross-arm

Urban		Allowable	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/2.50 AAAC 7% CBL @ 15 deg CHLORINE	50	✓	✓
	60	✓	✓
	70	✓	✓
7/4.75 AAAC 7% CBL @ 15 deg IODINE	50	✓	✓
	60	✓	✓
	70	✓	✓
19/3.25 AAAC 7% CBL @ 15 deg KRYPTON	50	✓	✓
	60	✓	✓
	70	✓	✓

DDC HV08

Termination (CB0117) - Single Cross-arm

Urban		Allowable	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/2.50 AAAC 7% CBL @ 15 deg CHLORINE	50	✓	✓
	60	✓	✓
	70	✓	✓
7/4.75 AAAC 7% CBL @ 15 deg IODINE	50	✓	✓
	60	✓	✓
	70	✓	✓
19/3.25 AAAC 7% CBL @ 15 deg KRYPTON	50	✓	✓
	60	✓	✓
	70	✓	✓

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD			
				TITLE POLE TOP LIMITATIONS FOR URBAN APPLICATION				DRAWN: JRR DATE: 23-12-2015		DRG. No.	
								ORIGINATED: AT SCALE: NTS		R15-3-2	
								CHECKED: DVT		REV. A	
								APPROVED: GRANT STACY		SHT.	
A	29.08.16	ORIGINAL ISSUE		AT	DVT	GS					
REV	DATE	DESCRIPTION		ORGO	CHKD	APRO					



DDC HV01, HV12, HV21, HV38 & HV39
3phase - Intermediate (M16 king bolt)

Equivalent Conductor	Rural Span Length (m)	Allowable Angle	
		Wind Region A	Wind Region B
7/4.75 AAAC 18% CBL @ 15 deg IODINE	60	11 (13*)	8 (10*)
	80	8 (10*)	5 (7*)
	100	6 (8*)	3 (5*)
	135	3 (5*)	N/A
	185	N/A	N/A
19/3.25 AAAC 18% CBL @ 15 deg KRYPTON	60	8 (10*)	5 (7*)
	80	5 (7*)	3 (5*)
	100	4 (6*)	2 (4*)
	135	2 (4*)	N/A
	185	N/A	N/A
3/2.75 SCAC 25% CBL @ 15 deg SCAC	60	13	13
	80	13	13
	100	13	12
	135	12	10
	185	10	7
6/1/3.00 AACSR/AC 22% CBL @ 15 deg ARCHERY AA	60	11 (13*)	8 (10*)
	80	8 (10*)	5 (7*)
	100	6 (8*)	3 (5*)
	135	3 (5*)	N/A
	185	N/A	N/A
250	N/A	N/A	

*Use cross-arm bracing strap (CB0485)

DDC HV03 & HV30
Running Disc Angle

Equivalent Conductor	Rural Span Length (m)	Minimum Angle of Deviation
	80-135	14
	135-185	18
	185-250	N/A
	19/3.25 AAAC 18% CBL @ 15 deg KRYPTON	<80
	80-135	12
	135-185	15
	185-250	N/A
3/2.75 SCAC 25% CBL @ 15 deg SCAC	<80	5
	80-135	7
	135-185	9
	185-250	12
6/1/3.00 AACSR/AC 22% CBL @ 15 deg ARCHERY AA	<80	10
	80-135	14
	135-185	18
	185-250	N/A

DDC HV45
3phase - Intermediate Double Cross-arm (M16 king bolt)

Equivalent Conductor	Rural Span Length (m)	Allowable Angle	
		Wind Region A	Wind Region B
7/4.75 AAAC 18% CBL @ 15 deg IODINE	60	26	22
	80	22	18
	100	18	15
	135	14	10
	185	10	N/A
	250	6	N/A
19/3.25 AAAC 18% CBL @ 15 deg KRYPTON	60	20	17
	80	18	14
	100	15	11
	135	10	8
	185	7	4
	250	4	N/A
3/2.75 SCAC 25% CBL @ 15 deg SCAC	60	32	32
	80	32	32
	100	32	30
	135	30	26
	185	25	20
	250	20	16
6/1/3.00 AACSR/AC 22% CBL @ 15 deg ARCHERY AA	60	26	22
	80	22	18
	100	18	15
	135	14	10
	185	N/A	N/A
	250	N/A	N/A

DDC HV06 & HV14
3 phase - Intermediate Offset

Equivalent Conductor	Rural Span Length (m)	Allowable Angle	
		Wind Region A	Wind Region B
7/4.75 AAAC 18% CBL @ 15 deg IODINE	60	15	12
	80	12	9
	100	10	6
	135	7	3
	185	3	N/A
19/3.25 AAAC 18% CBL @ 15 deg KRYPTON	250	N/A	N/A
	60	11	9
	80	9	6
	100	7	4
	135	4	1
3/2.75 SCAC 25% CBL @ 15 deg SCAC	185	N/A	N/A
	250	N/A	N/A
	60	16	14
	80	16	14
	100	16	14
6/1/3.00 AACSR/AC 22% CBL @ 15 deg ARCHERY AA	135	16	12
	185	14	10
	250	10	6
	60	15	12
	80	12	9
	100	10	6
	135	7	3
	185	N/A	N/A
	250	N/A	N/A

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD			
				TITLE				DRAWN: JRR DATE: 14-01-2016		DRG. No.	
				POLE TOP LIMITATIONS FOR RURAL APPLICATIONS				ORIGINATED: AT SCALE: NTS		R15-3-3	
								CHECKED: DVT		REV. B	
								APPROVED: GRANT STACY		SHT.	
REV	DATE	DESCRIPTION	ORGD.	CHKD.	JAPRD.						
B	01.05.20	TABLE REVISED		SA	LT	GS					
A	29.08.16	ORIGINAL ISSUE		AT	DVT	GS					




**DDC HV19, HV23, HV25 & HV40
Pole Top Switch**

Rural		Allowable Angle	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/4.75 AAAC 18% CBL @ 15 deg IODINE	60	9	8
	80	7	5
	100	5	3
	135	2	0
	185	N/A	N/A
	250	N/A	N/A
19/3.25 AAAC 18% CBL @ 15 deg KRYPTON	60	7	5
	80	5	3
	100	3	0
	135	0	N/A
	185	N/A	N/A
	250	N/A	N/A
3/2.75 SCAC 25% CBL @ 15 deg SCAC	60	12	12
	80	12	12
	100	12	12
	135	12	9
	185	8	6
	250	6	4
6/1/3.00 AACSR/AC 22% CBL @ 15 deg ARCHERY AA	60	9	8
	80	7	5
	100	5	3
	135	2	0
	185	N/A	N/A
	250	N/A	N/A

**DDC HV09 & HV10
Strain (CB1121 - M16 strain eye bolt)**

Rural		Allowable Angle	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/4.75 AAAC 18% CBL @ 15 deg IODINE	60	12	9
	80	10	7
	100	8	4
	135	5	2
	185	2	N/A
	250	N/A	N/A
19/3.25 AAAC 18% CBL @ 15 deg KRYPTON	60	9	7
	80	7	5
	100	N/A	N/A
	135	N/A	N/A
	185	N/A	N/A
	250	N/A	N/A
3/2.75 SCAC 25% CBL @ 15 deg SCAC	60	14	14
	80	14	14
	100	14	14
	135	14	11
	185	11	8
	250	8	5
6/1/3.00 AACSR/AC 22% CBL @ 15 deg ARCHERY AA	60	12	9
	80	10	7
	100	8	4
	135	5	2
	185	N/A	N/A
	250	N/A	N/A

Use Shackle (OS0050) for deviation > 2°

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD			
				TITLE POLE TOP LIMITATIONS FOR RURAL APPLICATIONS				DRAWN: JRR DATE: 29-12-2015		ORG. No.	
								ORIGINATED: AT SCALE: NTS		R15-3-4	
								CHECKED: DVT			
								APPROVED: GRANT STACY		REV. B	
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.						
B	01.05.20	TABLE REVISED		SA	LT	GS					
A	29.08.16	ORIGINAL ISSUE		AT	DVT	GS					

DDC HV08

Termination (CB0117) - Single Cross-arm

Rural		Allowable	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/4.75 AAAC 18% CBL @ 15 deg IODINE	60	✓	✓
	80	✓	✓
	100	✓	✓
	135	✓	N/A
	185	N/A	N/A
	250	N/A	N/A
19/3.25 AAAC 18% CBL @ 15 deg KRYPTON	60	✓	✓
	80	✓	✓
	100	✓	N/A
	135	N/A	N/A
	185	N/A	N/A
	250	N/A	N/A
3/2.75 SCAC 25% CBL @ 15 deg SCAC	60	✓	✓
	80	✓	✓
	100	✓	✓
	135	✓	✓
	185	✓	✓
	250	✓	✓
6/1/3.00 AACSR/AC 22% CBL @ 15 deg ARCHERY AA	60	✓	✓
	80	✓	✓
	100	✓	✓
	135	✓	N/A
	185	N/A	N/A
	250	N/A	N/A

DDC HV15

Termination (CB1121) - Single Cross-arm

Rural		Allowable	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/4.75 AAAC 18% CBL @ 15 deg IODINE	60	✓	✓
	80	✓	✓
	100	✓	N/A
	135	✓	N/A
	185	N/A	N/A
	250	N/A	N/A
19/3.25 AAAC 18% CBL @ 15 deg KRYPTON	60	✓	✓
	80	✓	N/A
	100	N/A	N/A
	135	N/A	N/A
	185	N/A	N/A
	250	N/A	N/A
3/2.75 SCAC 25% CBL @ 15 deg SCAC	60	✓	✓
	80	✓	✓
	100	✓	✓
	135	✓	✓
	185	✓	✓
	250	✓	✓
6/1/3.00 AACSR/AC 22% CBL @ 15 deg ARCHERY AA	60	✓	✓
	80	✓	✓
	100	✓	N/A
	135	✓	N/A
	185	N/A	N/A
	250	N/A	N/A

DDC HV05, HV07 & HV42

Termination (CB0118) - Single Cross-arm

Rural		Allowable	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/4.75 AAAC 18% CBL @ 15 deg IODINE	60	✓	✓
	80	✓	✓
	100	✓	✓
	135	✓	✓
	185	✓	N/A
	250	N/A	N/A
19/3.25 AAAC 18% CBL @ 15 deg KRYPTON	60	✓	✓
	80	✓	✓
	100	✓	✓
	135	✓	N/A
	185	✓	N/A
	250	N/A	N/A
3/2.75 SCAC 25% CBL @ 15 deg SCAC	60	✓	✓
	80	✓	✓
	100	✓	✓
	135	✓	✓
	185	✓	✓
	250	✓	✓
6/1/3.00 AACSR/AC 22% CBL @ 15 deg ARCHERY AA	60	✓	✓
	80	✓	✓
	100	✓	✓
	135	✓	✓
	185	N/A	N/A
	250	N/A	N/A

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD			
				TITLE		DRAWN: JRR		DATE: 23-12-2015	
				POLE TOP LIMITATIONS FOR RURAL APPLICATIONS		ORIGINATED: AT		SCALE: NTS	
						CHECKED: DVT		DRG. No. R15-3-5	
						APPROVED: GRANT STACY		REV. B	
B	01.05.20	TABLES CHANGED		SA	LT	GS			
A	29.08.16	ORIGINAL ISSUE		AT	DVT	GS			
REV	DATE	DESCRIPTION		ORGO.	CHKD.	APROD.			



DDC HV29
Single Phase Intermediate

Rural		Allowable Angle	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/4.75 AAAC 18% CBL @ 15 deg IODINE	60	24	20
	80	20	16
	100	17	13
	135	13	9
	185	9	N/A
	250	N/A	N/A
19/3.25 AAAC 18% CBL @ 15 deg KRYPTON	60	19	15
	80	16	12
	100	13	10
	135	10	6
	185	6	3
	250	N/A	N/A
3/2.75 SCAC 25% CBL @ 15 deg SCAC	60	24	24
	80	24	24
	100	24	24
	135	24	22
	185	22	18
	250	18	14
6/1/3.00 AACSR/AC 22% CBL @ 15 deg ARCHERY AA	60	24	20
	80	20	16
	100	17	13
	135	13	9
	185	N/A	N/A
	250	N/A	N/A

DDC HV41
Single Phase Anti Galah Intermediate

Rural		Allowable Angle	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/4.75 AAAC 18% CBL @ 15 deg IODINE	60	18	15
	80	15	11
	100	12	9
	135	9	5
	185	5	N/A
	250	N/A	N/A
	60	14	11
19/3.25 AAAC 18% CBL @ 15 deg KRYPTON	80	11	8
	100	9	6
	135	6	3
	185	3	N/A
	250	N/A	N/A
	60	18	18
	80	18	18
3/2.75 SCAC 25% CBL @ 15 deg SCAC	100	18	18
	135	18	16
	185	16	12
	250	13	8
	60	18	15
	80	15	11
	100	12	9
6/1/3.00 AACSR/AC 22% CBL @ 15 deg ARCHERY AA	135	9	5
	185	N/A	N/A
	250	N/A	N/A

DDC HV46
Single Phase Anti Galah Strain

Rural		Allowable Angle	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/4.75 AAAC 18% CBL @ 15 deg IODINE	60	24	20
	80	20	16
	100	17	13
	135	13	9
	185	9	N/A
	250	N/A	N/A
19/3.25 AAAC 18% CBL @ 15 deg KRYPTON	60	19	15
	80	16	12
	100	13	10
	135	10	6
	185	6	3
	250	N/A	N/A
3/2.75 SCAC 25% CBL @ 15 deg SCAC	60	24	24
	80	24	24
	100	24	24
	135	24	22
	185	22	18
	250	18	14
6/1/3.00 AACSR/AC 22% CBL @ 15 deg ARCHERY AA	60	24	20
	80	20	16
	100	17	13
	135	13	9
	185	N/A	N/A
	250	N/A	N/A

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD			
				TITLE		DRAWN: JRR DATE: 14-01-2016		DRG. No.	
				POLE TOP LIMITATIONS FOR RURAL APPLICATIONS		ORIGINATED: AT SCALE: NTS		R15-3-6	
						CHECKED: DVT		APPROVED: GRANT STACY	
						REV. B		SHT.	
B	01.05.20	TABLES REVISED		SA	LT	GS			
A	29.08.16	ORIGINAL ISSUE		AT	DVT	GS			
REV	DATE	DESCRIPTION		ORGO.	CHKD.	APPRD.			



DDC HV43

Anti Swan - Intermediate (M16 Bolt)

Rural		Allowable Angle	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/4.75 AAAC 18% CBL @ 15 deg IODINE	60	9 (11*)	7 98*
	80	7 (9*)	4 (5*)
	100	5 (7*)	2 (3*)
	135	2 (4*)	N/A
	185	N/A	N/A
	250	N/A	N/A
19/3.25 AAAC 18% CBL @ 15 deg KRYPTON	60	7 (9*)	5 (6*)
	80	5 (7*)	3 (4*)
	100	3 (5*)	1 (2*)
	135	1 (2*)	N/A
	185	N/A	N/A
	250	N/A	N/A
3/2.75 SCAC 25% CBL @ 15 deg SCAC	60	12	12
	80	12	12
	100	12	10
	135	10	8
	185	8	5
	250	5	3
6/1/3.00 AACSR/AC 22% CBL @ 15 deg ARCHERY AA	60	9 (11*)	7 98*
	80	7 (9*)	4 (5*)
	100	5 (7*)	2 (3*)
	135	2 (4*)	N/A
	185	N/A	N/A
	250	N/A	N/A

DDC HV44

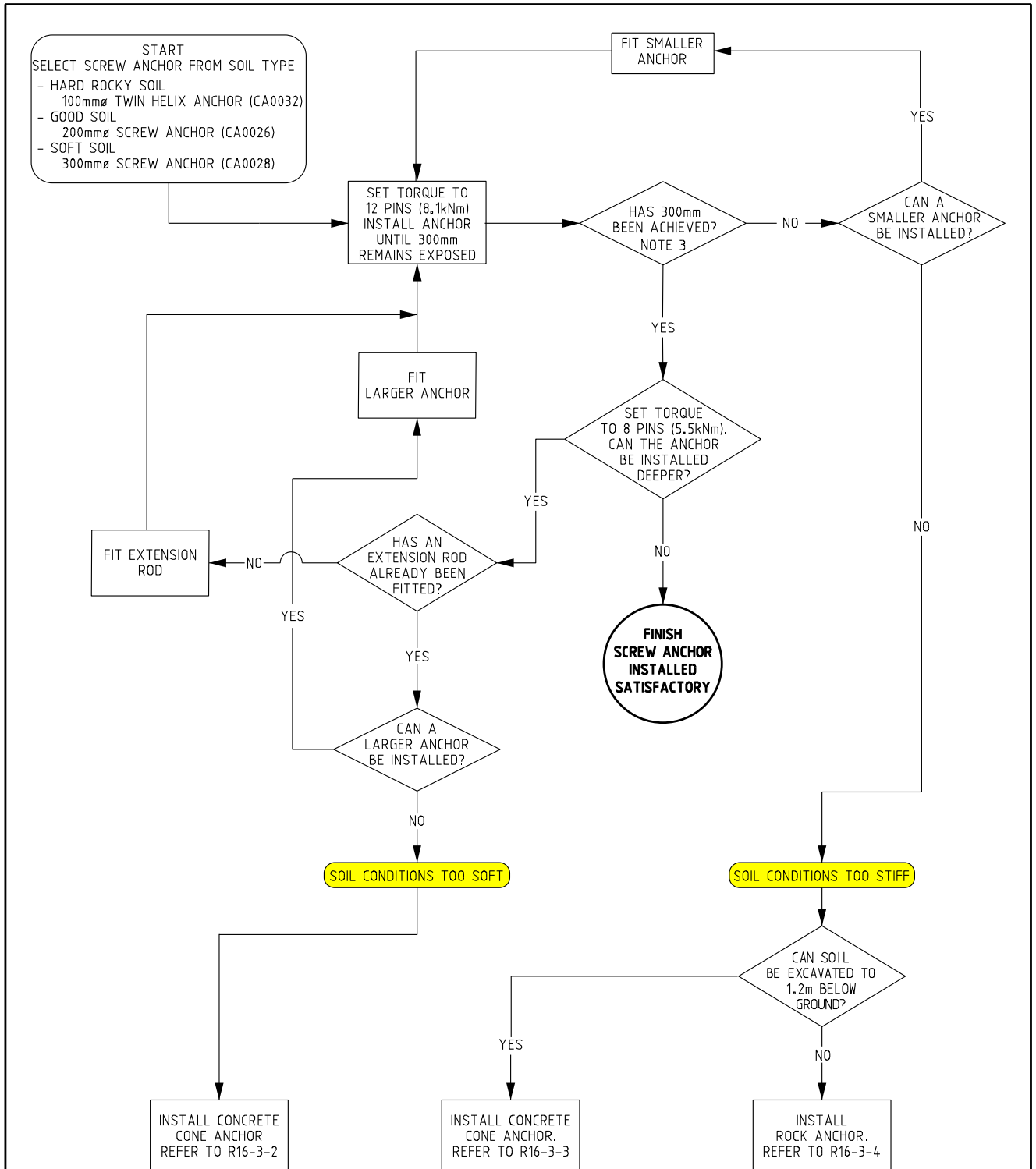
Anti Swan Termination(CB0107) - Double Cross-arm

Rural		Allowable	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/4.75 AAAC 18% CBL @ 15 deg IODINE	60	✓	✓
	80	✓	✓
	100	✓	✓
	135	✓	✓
	185	✓	N/A
	250	✓	N/A
19/3.25 AAAC 18% CBL @ 15 deg KRYPTON	60	✓	✓
	80	✓	✓
	100	✓	✓
	135	✓	✓
	185	✓	✓
	250	✓	N/A
3/2.75 SCAC 25% CBL @ 15 deg SCAC	60	✓	✓
	80	✓	✓
	100	✓	✓
	135	✓	✓
	185	✓	✓
	250	✓	✓
6/1/3.00 AACSR/AC 22% CBL @ 15 deg ARCHERY AA	60	✓	✓
	80	✓	✓
	100	✓	✓
	135	✓	✓
	185	N/A	N/A
	250	N/A	N/A

*Use cross-arm bracing starp (CB0485)

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD			
				TITLE				DRAWN: JRR		DATE: 22-08-2016	
				POLE TOP LIMITATIONS FOR RURAL APPLICATIONS				ORIGINATED: AT		SCALE: NTS	
								CHECKED: DVT		ORG. No. R15-3-7	
								APPROVED: GRANT STACY		REV. B	
B	01.05.20	TABLES REVISED		SA	LT	GS					
A	29.08.16	ORIGINAL ISSUE		AT	DVT	GS					
REV	DATE	DESCRIPTION		ORGO.	CHKD.	APROD.					





VISUAL GRADING OF SOIL (Guide)

1. TAKE DRY SOIL IN HAND AND RUB IN TWO FINGERS. SANDY SOIL HAS COARSE FEEL; CLAYEY SOIL HAS SMOOTH FEEL
2. MAKE A SMALL BALL OF MOIST SOIL, TRY TO BREAK IT BY PRESSING BETWEEN THUMB AND FOREFINGER
 - a. BREAKS TO POWDER UNDER SMALL PRESSURE - SOFT SOIL
 - b. BARELY BREAKS BETWEEN FOREFINGER AND THUMB, BREAKS IN HAND WITHOUT DIFFICULTY - MEDIUM SOIL
 - c. CANNOT BE BROKEN BREAKS BETWEEN FOREFINGER AND THUMB, BREAKS IN HAND WITH DIFFICULTY - GOOD SOIL

NOTES :-

1. IF THERE ARE UNDERGROUND SERVICES IN AREA, GO TO R16-3 (HAND EXCAVATION REQUIRED)
2. START WITH TWIN HELIX (CA0032) FOR HARD ROCK SOILS WITH MINIMUM 6PINS (4.1kNm) TORQUE TO ACHIEVE HOLDING CAPACITY
3. CHECK FOR MAXIMUM ALLOWABLE PROTRUSION ABOVE GROUND (MM) PROVIDED IN R16-2 TABLES (RAINBOW TABLES)

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD			
				TITLE				DRAWN: JRR		DATE: 05-03-2014 DRG. No.	
				ANCHOR INSTALLATION FLOW CHART				ORIGINATED: DVT		SCALE: NTS	
								CHECKED: REE		R16-1	
								APPROVED: GRANT STACY			
REV		DATE		DESCRIPTION		ORGO		CHKD		APRD	

9.5m/5kN Pole

Location	Span Length	Configuration	Descriptions	Deviation Angle (deg)	Maximum Allowable Protrusion above Ground (mm)						
					Wind Region A			Deviation Angle (deg)	Wind Region B		
					45° Stay	60° Stay	Out-rigger Stay		45° Stay	60° Stay	Out-rigger Stay
Metro or Urban	Span Length < 60m		4 LV 7/4.75 AAAC 7%	Up to 9 degrees	No stay required			Up to 6 degrees	No stay required		
				9 to 10	700	700	700	6 to 10	700	700	700
				10 to 15	700	700	700	10 to 15	700	700	700
				15 to 20	700	700	700	15 to 20	700	700	11/6, 700
				20 to 25	700	700	11/6, 700	20 to 25	700	700	11/6, 700
				25 to 30	700	700	11/6, 700	25 to 30	700	700	SSP1, 700
				30 to 45	700	600	SSP1, 600	30 to 45	700	600	SSP1, 500
				45 to 90	DSC, 700	DSC, 700	N/A	45 to 90	DSC, 700	DSC, 600	N/A
				Inline termination	700	700	SSP1, 600	Inline termination	700	600	SSP1, 500
				Up to 6 degrees	No stay required			Up to 4 degrees	No stay required		
				6 to 10	700	700	700	4 to 10	700	700	700
				10 to 15	700	700	700	10 to 15	700	700	700
		15 to 20	700	700	11/6, 700	15 to 20	700	700	11/6, 600		
		20 to 25	700	700	11/6, 700	20 to 25	700	700	SSP1, 600		
		25 to 30	700	700	SSP1, 600	25 to 30	700	700	SSP1, 600		
		30 to 45	700	600	SSP1, SS1, 500	30 to 45	700	500	SSP1, 500		
		45 to 90	DSC, 700	DSC, 600	N/A	45 to 90	11/6, DSC, 700	11/6, DSC, 500	N/A		
		Inline termination	700	600	SSP1, SS1, 500	Inline termination	700	500	SSP1, SS1, 500		
		Up to 10 degrees	No stay required			Up to 8 degrees	No stay required				
		10 to 15	700	700	700	8 to 10	700	700	700		
		15 to 20	700	700	700	10 to 15	700	700	700		
		20 to 25	700	700	700	15 to 20	700	700	700		
		25 to 30	700	700	700	20 to 25	700	700	700		
		30 to 45	700	700	SSP1, 700	25 to 30	700	700	11/6, 700		
		45 to 90	DSC, 700	DSC, 700	N/A	30 to 45	700	700	SSP1, 700		
		Inline termination	700	700	SSP1, 700	45 to 90	DSC, 700	DSC, 700	N/A		
		Up to 4 degrees	No stay required			Up to 2 degrees	No stay required				
		4 to 10	700	700	700	2 to 10	700	700	700		
10 to 15	700	700	700	10 to 15	700	700	SSP1, 700				
15 to 20	700	700	SSP1, 700	15 to 20	700	700	SSP1, 700				
20 to 25	700	700	SSP1, 700	20 to 25	700	700	SSP1, 700				
25 to 30	700	700	SSP1, 600	25 to 30	700	600	SSP1, 600				
30 to 45	600	SS1, 400	SSP1, SS1, 300	30 to 45	600	SS1, 400	SSP1, SS1, 300				
45 to 90	11/6, DSC, 600	11/6, DSC, 400	N/A	45 to 90	11/6, DSC, 400	11/6, DSC, 400	N/A				
Inline termination	600	SS1, 400	SSP1, SS1, 300	Inline termination	600	SS1, 400	SSP1, SS1, 300				
Up to 18 degrees	No stay required			Up to 13 degrees	No stay required						
13 to 15	700	700	700	13 to 15	700	700	700				
18 to 20	700	700	700	15 to 20	700	700	700				
20 to 25	700	700	700	20 to 25	700	700	700				
25 to 30	700	700	700	25 to 30	700	700	700				
30 to 45	700	700	700	30 to 45	700	700	11/6, 700				
45 to 90	DSC, 700	DSC, 700	N/A	45 to 90	DSC, 700	DSC, 600	N/A				
Inline termination	700	700	700	Inline termination	700	700	11/6, 700				
			ABC LV ABC 150 7%								

Notes: Use 9.5m/5kN pole with standard embedment depth (Drawing R13-3 in DCSH) for all cases unless otherwise specified
 Use 19/2.00 SC/GZ Stay and 200mm Screw Anchor for all cases unless otherwise specified
 11/6 Use 11m/6kN pole with standard embedment depth
 SS1 Increase stay size to 19/2.75 SC/GZ Stay with 300mm screw anchor
 DSC Double Stay (Stays to be inline with conductor's direction)

- 19/2.00 SC/GZ Stay and 200mm Screw Anchor
- Use standard pole with standard embedment depth
- SSP1 Use SSP1 as per Drawing R13-2 in DCSH (11m/6kN pole with Embedment Depth of 2.55m)
- N/A Not Applicable (Specific Design Required)

FOR FIELD CREW ONLY.
 # DESIGNERS TO REFER TO OVERHEAD LINE DESIGN MANUAL,
 STAYS & GROUND ANCHORS CHAPTER SECTION 7.3 FOR STAY DESIGN.

F	08.03.16	TABLE REVISED AND FOOT NOTE ADDED	AT	DVT	GS	REFERENCE DRAWING SCREW ANCHOR EMBEDMENT DEPTH DISPENSATION TABLE FOR DISTRIBUTION POLES – 9.5m	DISTRIBUTION CONSTR. STANDARD			
E	11.08.15	TABLE REVISED	AT	DVT	GS		DRAWN: JRR	DATE: 07-08-2014		DRG. No.
D	16.06.15	DRG # & TITLE CHANGED AND TABLE REVISED	AT	DVT	GS		ORIGINATED: TTT	SCALE: NTS		R16/2/1
C	11.11.14	FORMAT CHANGED AND TABLE REVISED	TTT	SL	GS		CHECKED: DVT	APPROVED: GRANT STACY		
B	17.09.14	MORE DETAILS ADDED		DVT	GS					SHT.
A	07.08.14	ORIGINAL ISSUE		DVT	GS					
REV	DATE	DESCRIPTION	DRGD	CHKD	APRD					

11m/6kN Pole (1 of 4)				Maximum Allowable Protrusion above Ground (mm)							
Location	Span Length	Configuration	Descriptions	Deviation Angle (deg)	Wind Region A			Deviation Angle (deg)	Wind Region B		
					45° Stay	60° Stay	Out-rigger Stay		45° Stay	60° Stay	Out-rigger Stay
Metro or Urban	Span Length < 60m		3HV + RE or 4 LV 7/4.75 AAAC 7%	Up to 13 degrees	No stay required			Up to 9 degrees	No stay required		
				9 to 10	700	700	700	700	700	700	
				10 to 15	700	700	700	700	700	700	
				15 to 20	700	700	700	700	700	700	
				20 to 25	700	700	700	700	700	700	
				25 to 30	700	700	700	700	700	12/8, 500	
			30 to 45	700	500	SSP2, 500	30 to 45	700	500	SSP2, 400	
			45 to 90	DSC, 700	DSC, 300	N/A	45 to 90	DSC, 700	DSC, 500	N/A	
			Inline termination	700	600	SSP2, 500	Inline termination	700	500	SSP2, 400	
			3HV + RE or 4 LV 19/3.25 AAAC 7%	Up to 10 degrees	No stay required			Up to 7 degrees	No stay required		
				7 to 10	700	700	700	700	700	700	
				10 to 15	700	700	700	700	700	700	
				15 to 20	700	700	700	700	700	600	
				20 to 25	700	700	700	700	700	12/8, 500	
				25 to 30	700	700	12/8, 500	25 to 30	700	600	SSP2, 500
			30 to 45	700	500	SSP2, 400	30 to 45	600	400	SSP2, 300	
			45 to 90	DSC, 700	DSC, 500	N/A	45 to 90	DSC, 400	12.5/8, DSC, 400	N/A	
			Inline termination	700	500	SSP2, 400	Inline termination	600	400	SSP2, 300	
			3HV + RE or 4LV 7/2.75 Cu 15%	Up to 15 degrees	No stay required			Up to 12 degrees	No stay required		
				12 to 15	700	700	700	700	700	700	
				15 to 20	700	700	700	700	700	700	
				20 to 25	700	700	700	700	700	700	
				25 to 30	700	700	700	700	700	700	
				30 to 45	700	700	SSP2, 600	30 to 45	700	600	SSP2, 500
		45 to 90	DSC, 700	DSC, 500	N/A	45 to 90	DSC, 700	DSC, 600	N/A		
		Inline termination	700	700	SSP2, 600	Inline termination	700	600	SSP2, 600		
		3HV + RE or 4LV 19/0.101 HDBC 15%	Up to 6 degrees	No stay required			Up to 4 degrees	No stay required			
			4 to 10	700	700	700	4 to 10	700	700	700	
			10 to 15	700	700	700	10 to 15	700	700	600	
			15 to 20	700	600	12/8, 500	15 to 20	700	600	SSP2, 500	
			20 to 25	700	600	SSP2, 600	20 to 25	700	600	SSP2, 500	
			25 to 30	700	600	SSP2, 500	25 to 30	700	500	SSP2, 400	
		30 to 45	500	300	N/A	30 to 45	500	300	SSP2, 300		
		45 to 90	DSC, 500	DSC, 300	N/A	45 to 90	DSC, 500	12.5/8, DSC, 300	N/A		
		Inline termination	500	300	N/A	Inline termination	500	300	SSP2, 300		
		3HV + RE + ABC 7/4.75 AAAC 7% LV ABC 150 7%	Up to 5 degrees	No stay required			Up to 2 degrees	No stay required			
			2 to 10	700	700	700	2 to 10	700	700	700	
			10 to 15	700	700	700	10 to 15	700	700	12/8, 500	
			15 to 20	700	700	12/8, 500	15 to 20	700	600	SSP2, 500	
			20 to 25	700	700	SSP2, 600	20 to 25	700	600	SSP2, 500	
			25 to 30	700	600	SSP2, 500	25 to 30	700	500	SSP2, 400	
		30 to 45	600	400	SSP2, 300	30 to 45	500	300	SSP2, 300		
		45 to 90	DSC, 600	DSC, 400	N/A	45 to 90	DSC, 500	DSC, 300	N/A		
		Inline termination	600	400	SSP2, 300	Inline termination	500	300	SSP2, 300		
		3HV + RE + ABC 19/3.25 AAAC 7% LV ABC 150 7%	Up to 4 degrees	No stay required			Max 1 degree	No stay required			
			1 to 10	700	700	700	1 to 10	700	700	600	
			10 to 15	700	700	SSP2, 600	10 to 15	700	500	SSP2, 500	
			15 to 20	700	600	SSP2, 500	15 to 20	700	500	SSP2, 551, 500	
20 to 25	700		600	SSP2, 500	20 to 25	700	500	SSP2, 500			
25 to 30	700		500	SSP2, 500	25 to 30	700	500	SSP2, 400			
30 to 45	500	300	N/A	30 to 45	400	300	N/A				
45 to 90	DSC, 600	DSC, 400	N/A	45 to 90	DSC, 500	DSC, 300	N/A				
Inline termination	600	300	N/A	Inline termination	500	300	N/A				
3HV + 4LV 7/4.75 AAAC 7%	Up to 5 degrees	No stay required			Up to 2 degrees	No stay required					
	2 to 10	700	700	700	2 to 10	700	700	700			
	10 to 15	700	700	12/8, 600	10 to 15	700	700	12/8, 500			
	15 to 20	700	700	SSP2, 600	15 to 20	700	600	SSP2, 500			
	20 to 25	700	600	SSP2, 600	20 to 25	700	600	SSP2, 500			
	25 to 30	700	600	SSP2, 500	25 to 30	700	500	SSP2, 400			
30 to 45	600	400	SSP2, 300	30 to 45	500	300	SSP2, 300				
45 to 90	DSC, 600	DSC, 400	N/A	45 to 90	DSC, 500	12.5/8, DSC, 300	N/A				
Inline termination	600	400	SSP2, 300	Inline termination	500	300	SSP2, 300				
3HV + 4LV 19/3.25 AAAC 7%	Up to 3 degrees	No stay required			Max 1 degree	No stay required					
	1 to 10	700	700	700	1 to 10	700	700	12/8, 600			
	10 to 15	700	700	SSP2, 600	10 to 15	700	600	SSP2, 400			
	15 to 20	700	600	SSP2, 500	15 to 20	700	500	SSP2, 551, 400			
	20 to 25	700	600	SSP2, 500	20 to 25	700	500	SSP2, 400			
	25 to 30	700	500	SSP2, 400	25 to 30	600	400	SSP2, 300			
30 to 45	500	300	N/A	30 to 45	400	DSL, 500	N/A				
45 to 90	DSC, 500	12.5/8, DSC, 300	N/A	45 to 90	DSC, 400	12.5/8, DSC, 300	N/A				
Inline termination	500	300	N/A	Inline termination	400	DSL, 500	N/A				
3HV + 4LV 7/2.75 Cu 15%	Up to 8 degrees	No stay required			Up to 6 degrees	No stay required					
	6 to 10	700	700	700	6 to 10	700	700	700			
	10 to 15	700	700	700	10 to 15	700	700	700			
	15 to 20	700	700	700	15 to 20	700	700	12/8, 600			
	20 to 25	700	700	SSP2, 700	20 to 25	700	700	SSP2, 600			
	25 to 30	700	700	SSP2, 600	25 to 30	700	600	SSP2, 600			
30 to 45	700	500	SSP2, 400	30 to 45	600	400	SSP2, 300				
45 to 90	DSC, 700	DSC, 500	N/A	45 to 90	DSC, 700	DSC, 400	N/A				
Inline termination	700	500	SSP2, 400	Inline termination	700	400	SSP2, 400				
3HV + 4LV 19/0.101 HDBC 15%	Up to 2 degrees	No stay required			Max 0 degree	No stay required					
	0 to 10	700	700	700	0 to 10	700	700	SSP2, 600			
	10 to 15	700	600	SSP2, 551, 500	10 to 15	700	500	SSP2, 551, 500			
	15 to 20	700	551, 500	SSP2, 551, 400	15 to 20	600	551, 400	SSP2, 551, 400			
	20 to 25	700	500	SSP2, 400	20 to 25	600	400	SSP2, 300			
	25 to 30	600	400	SSP2, 300	25 to 30	600	300	SSP2, 300			
30 to 45	300	DSL, 400	N/A	30 to 45	300	12.5/8, DSL, 500	N/A				
45 to 90	12.5/8, DSC, 300	12.5/8, DSC, 400	N/A	45 to 90	12.5/8, DSC, 400	12.5/8, DSC, 300	N/A				
Inline termination	300	DSC, 400	N/A	Inline termination	300	12.5/8, DSC, 300	N/A				

REFERENCE DRAWING

SCREW ANCHOR EMBEDMENT DEPTH DISPENSATION TABLE FOR DISTRIBUTION POLES - 11m (Sht. 1/4)

DISTRIBUTION CONSTR. STANDARD

DRAWN: JRR DATE: 10-06-2015 DRG. No. R16/2/2

ORIGINATED: AT SCALE: NTS

CHECKED: DVT

APPROVED: GRANT STACY REV. C

REV	DATE	DESCRIPTION	ORGD	CHKD	APRD
C	08.03.16	TABLE REVISED	AT	DVT	GS
B	11.08.15	TABLE REVISED	AT	DVT	GS
A	16.06.15	ORIGINAL ISSUE	AT	DVT	GS

11m/6kN Pole (2 of 4)				Maximum Allowable Protrusion above Ground (mm)					
Location	Span Length	Configuration	Descriptions	Deviation Angle (deg)	Wind Region A		Deviation Angle (deg)	Wind Region B	
					45° Stay	60° Stay		45° Stay	60° Stay
Country or Rural	Span Length < 135m		HV + RE 7/4.75 AAAC 18%	Up to 2 degrees	No stay required		Max 1 degree	No stay required	
				2 to 10	700	700	1 to 10	700	700
				10 to 15	700	700	10 to 15	700	700
				15 to 20	700	700	15 to 20	700	600
				20 to 25	700	700	20 to 25	700	600
				25 to 30	700	600	25 to 30	700	500
				30 to 45	700	500	30 to 45	700	400
				45 to 90	DSC, 700	DSC, 500	45 to 90	DSC, 600	DSC, 400
				Inline termination	700	500	Inline termination	600	400
				Up to 1 degrees	No stay required		Max 0 degree	No stay required	
				1 to 10	700	700	Up to 10 degrees	700	700
				10 to 15	700	700	10 to 15	700	600
		15 to 20	700	600	15 to 20	700	500		
		20 to 25	700	600	20 to 25	700	500		
		25 to 30	700	600	25 to 30	700	500		
		30 to 45	600	400	30 to 45	500	300		
		45 to 90	DSC, 600	DSC, 400	45 to 90	12.5/8, DSC, 500	12.5/8, DSC, 300		
		Inline termination	600	400	Inline termination	500	300		
		Up to 2 degrees	No stay required		Max 0 degree	No stay required			
		2 to 10	700	700	Up to 10 degrees	700	700		
		10 to 15	700	700	10 to 15	700	700		
		15 to 20	700	700	15 to 20	700	600		
		20 to 25	700	700	20 to 25	700	600		
		25 to 30	700	600	25 to 30	700	500		
30 to 45	600	400	30 to 45	500	300				
45 to 90	DSC, 600	DSC, 400	45 to 90	12.5/8, DSC, 500	12.5/8, DSC, 300				
Inline termination	600	400	Inline termination	500	300				
Up to 15 degrees	No stay required		Up to 12 degrees	No stay required					
15 to 20	700	700	12 to 15	700	700				
20 to 25	700	700	15 to 20	700	700				
25 to 30	700	700	20 to 25	700	700				
30 to 45	700	700	25 to 30	700	700				
45 to 90	DSC, 700	DSC, 700	30 to 45	700	700				
45 to 90	DSC, 700	DSC, 700	45 to 90	DSC, 700	DSC, 700				
Inline termination	700	700	Inline termination	700	700				
Max 1 degree	No stay required		Max 0 degree	No stay required					
1 to 10	700	700	Up to 10 degrees	700	700				
10 to 15	700	700	10 to 15	700	700				
15 to 20	700	700	15 to 20	700	600				
20 to 25	700	600	20 to 25	700	600				
25 to 30	700	600	25 to 30	700	500				
30 to 45	600	400	30 to 45	500	300				
45 to 90	DSC, 600	DSC, 400	45 to 90	DSC, 500	12.5/8, DSC, 300				
Inline termination	600	400	Inline termination	500	300				
	3HV + RE 7/4.75 AAAC 18%	Max 0 degree	No stay required		Max 0 degree	No stay required			
		Up to 10 degrees	700	600	Up to 10 degrees	700	551, 500		
		10 to 15	700	551, 500	10 to 15	600	551, 400		
		15 to 20	600	551, 400	15 to 20	500	551, 300		
		20 to 25	600	400	20 to 25	500	300		
		25 to 30	500	300	25 to 30	400	D5L, 300		
		30 to 45	300	12.5/8, DSL, 400	30 to 45	400	12.5/8, DSL, 300		
		45 to 90	12.5/8, DSC, 300	N/A	45 to 90	N/A	N/A		
		Inline termination	300	12.5/8, DSC, 400	Inline termination	12.5/8, DSC, 300	12.5/8, DSC, 300		
		Max 0 degree	No stay required		Max 0 degree	No stay required			
		Up to 10 degrees	700	500	Up to 10 degrees	600	551, 400		
		10 to 15	600	551, 400	10 to 15	500	551, 300		
15 to 20	500	551, 300	15 to 20	551, 400	551, 300				
20 to 25	500	300	20 to 25	400	D5L, 300				
25 to 30	400	D5L, 500	25 to 30	300	D5L, 500				
30 to 45	12.5/8, DSL, 500	12.5/8, DSL, 300	30 to 45	400	12.5/8, DSL, 300				
45 to 90	N/A	N/A	45 to 90	N/A	N/A				
Inline termination	12.5/8, DSC, 500	12.5/8, DSC, 300	Inline termination	12.5/8, DSC, 500	12.5/8, DSC, 300				
Max 0 degree	No stay required		Max 0 degree	No stay required					
Up to 10 degrees	700	600	Up to 10 degrees	700	551, 500				
10 to 15	700	551, 500	10 to 15	600	551, 400				
15 to 20	600	551, 400	15 to 20	551, 500	551, 300				
20 to 25	600	300	20 to 25	500	300				
25 to 30	500	300	25 to 30	400	D5L, 500				
30 to 45	300	12.5/8, DSL, 400	30 to 45	400	12.5/8, DSL, 500				
45 to 90	N/A	N/A	45 to 90	N/A	N/A				
Inline termination	300	12.5/8, DSC, 400	Inline termination	12.5/8, DSC, 500	12.5/8, DSC, 300				
Up to 6 degrees	No stay required		Up to 4 degrees	No stay required					
6 to 10	700	700	4 to 10	700	700				
10 to 15	700	700	10 to 15	700	700				
15 to 20	700	700	15 to 20	700	700				
20 to 25	700	700	20 to 25	700	700				
25 to 30	700	700	25 to 30	700	600				
30 to 45	700	500	30 to 45	600	400				
45 to 90	DSC, 500	DSC, 500	45 to 90	DSC, 600	DSC, 400				
Inline termination	700	500	Inline termination	600	400				
Max 0 degree	No stay required		Max 0 degree	No stay required					
Up to 10 degrees	700	600	Up to 10 degrees	700	551, 500				
10 to 15	700	551, 400	10 to 15	600	551, 400				
15 to 20	600	551, 400	15 to 20	551, 500	551, 300				
20 to 25	500	300	20 to 25	500	300				
25 to 30	500	D5L, 500	25 to 30	400	D5L, 500				
30 to 45	12.5/8, DSL, 500	12.5/8, DSL, 300	30 to 45	400	12.5/8, DSL, 500				
45 to 90	N/A	N/A	45 to 90	N/A	N/A				
Inline termination	12.5/8, DSC, 500	12.5/8, DSC, 300	Inline termination	12.5/8, DSC, 500	12.5/8, DSC, 300				

REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD			
TITLE SCREW ANCHOR EMBEDMENT DEPTH DISPENSATION TABLE FOR DISTRIBUTION POLES - 11m (Sht. 2/4)				DRAWN: JRR DATE: 10-06-2015		DRG. No. R16/2/3	
				ORIGINATED: AT SCALE: NTS			
				CHECKED: DVT			
				APPROVED: GRANT STACY		REV. C SHT.	

C	08.03.16	TABLE REVISED	AT	DVT	GS
B	11.08.15	TABLE REVISED	AT	DVT	GS
A	16.06.15	ORIGINAL ISSUE	AT	DVT	GS
REV	DATE	DESCRIPTION	DRG.	CHKD.	APRD.



11m/6kN Pole (3 of 4)

Span Length	Configuration	Descriptions	Deviation Angle (deg)	Maximum Allowable Protrusion above Ground (mm)				
				Wind Region A		Wind Region B		
				45° Stay	60° Stay	45° Stay	60° Stay	
Span Length < 16.5m		HV + RE 7/2.00 SC/GZ 25%	Up to 8 degrees	No stay required	No stay required	Up to 6 degrees	No stay required	
			8 to 10	700	700	6 to 10	700	700
			10 to 15	700	700	10 to 15	700	700
			15 to 20	700	700	15 to 20	700	700
			20 to 25	700	700	20 to 25	700	700
			25 to 30	700	700	25 to 30	700	700
		30 to 45	700	600	30 to 45	700	500	
		45 to 90	DSC, 700	DSC, 600	45 to 90	DSC, 700	DSC, 500	
		Inline termination	700	600	Inline termination	700	500	
		HV + RE 7/2.75 SC/GZ 25%	Up to 4 degrees	No stay required	No stay required	Up to 2 degrees	No stay required	No stay required
			4 to 10	700	700	2 to 10	700	700
			10 to 15	700	700	10 to 15	700	700
15 to 20	700		600	15 to 20	700	600		
20 to 25	700		600	20 to 25	700	600		
25 to 30	700		500	25 to 30	700	500		
30 to 45	600	300	30 to 45	500	300			
45 to 90	DSC, 500	12.5/8, DSC, 300	45 to 90	12.5/8, DSC, 500	12.5/8, DSC, 400			
Inline termination	500	300	Inline termination	500	300			
Span Length < 25.0m		3HV + RE 7/2.00 SC/GZ 25%	Up to 2 degrees	No stay required	No stay required	Max 0 degrees	No stay required	
			2 to 10	700	700	Up to 10 degrees	700	700
			10 to 15	700	600	10 to 15	700	600
			15 to 20	700	500	15 to 20	700	500
			20 to 25	700	500	20 to 25	700	500
			25 to 30	700	400	25 to 30	600	400
		30 to 45	500	DSL, 500	30 to 45	400	DSL, 500	
		45 to 90	12.5/8, DSC, 500	12.5/8, DSC, 400	45 to 90	12.5/8, DSC, 400	12.5/8, DSC, 300	
		Inline termination	500	DSC, 500	Inline termination	400	DSC, 500	
		3HV + RE 7/2.75 SC/GZ 25%	Max 0 degree	No stay required	No stay required	Up to 10 degrees	700	500
			Up to 10 degrees	700	500	10 to 15	600	SS1, 400
			10 to 15	600	SS1, 400	15 to 20	551, 500	SS1, 300
15 to 20	500		SS1, 300	20 to 25	400	300		
20 to 25	500		300	25 to 30	400	DSL, 500		
25 to 30	400		DSL, 400	30 to 45	400	DSL, 500		
30 to 45	12.5/8, DSL, 500	12.5/8, DSL, 300	45 to 90	12.5/8, DSL, 500	12.5/8, DSL, 300			
45 to 90	N/A	N/A	45 to 90	N/A	N/A			
Inline termination	12.5/8, DSC, 500	12.5/8, DSC, 300	Inline termination	12.5/8, DSC, 500	12.5/8, DSC, 300			
Span Length < 25.0m		HV + RE 3/2.75 SC/AC 25%	Up to 6 degrees	No stay required	No stay required	Up to 4 degrees	No stay required	
			6 to 10	700	700	4 to 10	700	700
			10 to 15	700	700	10 to 15	700	700
			15 to 20	700	700	15 to 20	700	700
			20 to 25	700	700	20 to 25	700	700
			25 to 30	700	700	25 to 30	700	700
		30 to 45	700	600	30 to 45	700	500	
		45 to 90	DSC, 700	DSC, 600	45 to 90	DSC, 700	DSC, 500	
		Inline termination	700	600	Inline termination	700	500	
		HV + RE 3/2.75 SC/GZ 25%	Up to 6 degrees	No stay required	No stay required	Up to 4 degrees	No stay required	No stay required
			6 to 10	700	700	4 to 10	700	700
			10 to 15	700	700	10 to 15	700	700
15 to 20	700		700	15 to 20	700	700		
20 to 25	700		700	20 to 25	700	700		
25 to 30	700		700	25 to 30	700	700		
30 to 45	700	600	30 to 45	700	500			
45 to 90	DSC, 700	DSC, 600	45 to 90	DSC, 700	DSC, 500			
Inline termination	700	600	Inline termination	700	500			
HV + RE 7/1.60 SC/GZ 25%	Up to 8 degrees	No stay required	No stay required	Up to 6 degrees	No stay required	No stay required		
	8 to 10	700	700	6 to 10	700	700		
	10 to 15	700	700	10 to 15	700	700		
	15 to 20	700	700	15 to 20	700	700		
	20 to 25	700	700	20 to 25	700	700		
	25 to 30	700	700	25 to 30	700	700		
30 to 45	700	700	30 to 45	700	600			
45 to 90	DSC, 700	DSC, 700	45 to 90	DSC, 700	DSC, 600			
Inline termination	700	700	Inline termination	700	600			
HV + RE 7/2.00 SC/GZ 25%	Up to 6 degrees	No stay required	No stay required	Up to 2 degrees	No stay required	No stay required		
	6 to 10	700	700	2 to 10	700	700		
	10 to 15	700	700	10 to 15	700	700		
	15 to 20	700	700	15 to 20	700	700		
	20 to 25	700	700	20 to 25	700	700		
	25 to 30	700	700	25 to 30	700	600		
30 to 45	700	600	30 to 45	600	500			
45 to 90	DSC, 700	DSC, 600	45 to 90	DSC, 700	DSC, 500			
Inline termination	700	600	Inline termination	700	500			
Span Length < 25.0m		HV + RE 7/2.75 SC/GZ 25%	Up to 2 degrees	No stay required	No stay required	Max 0 degrees	No stay required	
			2 to 10	700	700	Up to 10 degrees	700	700
			10 to 15	700	600	10 to 15	700	600
			15 to 20	700	500	15 to 20	700	SS1, 500
			20 to 25	700	500	20 to 25	700	500
			25 to 30	700	500	25 to 30	600	400
		30 to 45	500	DSL, 400	30 to 45	400	DSL, 500	
		45 to 90	12.5/8, DSC, 500	12.5/8, DSC, 300	45 to 90	12.5/8, DSC, 400	12.5/8, DSC, 300	
		Inline termination	500	DSC, 500	Inline termination	400	DSC, 500	
		3HV + RE 3/2.75 SC/AC 25%	Max 0 degree	No stay required	No stay required	Max 0 degree	No stay required	No stay required
			Up to 10 degrees	700	700	Up to 10 degrees	700	600
			10 to 15	700	600	10 to 15	700	500
15 to 20	700		500	15 to 20	600	SS1, 400		
20 to 25	700		500	20 to 25	600	400		
25 to 30	700		400	25 to 30	500	400		
30 to 45	500	DSL, 500	30 to 45	400	DSL, 500			
45 to 90	12.5/8, DSC, 500	12.5/8, DSC, 300	45 to 90	12.5/8, DSC, 400	12.5/8, DSC, 300			
Inline termination	500	DSC, 500	Inline termination	400	DSC, 500			
3HV + RE 3/2.75 SC/GZ 25%	Max 0 degree	No stay required	No stay required	Max 0 degree	No stay required	No stay required		
	Up to 10 degrees	700	700	Up to 10 degrees	700	600		
	10 to 15	700	600	10 to 15	700	500		
	15 to 20	700	500	15 to 20	600	SS1, 400		
	20 to 25	700	500	20 to 25	600	400		
	25 to 30	600	400	25 to 30	600	300		
30 to 45	400	DSL, 500	30 to 45	400	DSL, 500			
45 to 90	12.5/8, DSC, 400	12.5/8, DSC, 300	45 to 90	12.5/8, DSC, 400	12.5/8, DSC, 300			
Inline termination	400	DSC, 500	Inline termination	400	DSC, 500			

<p>REFERENCE DRAWING</p> <p>TITLE: SCREW ANCHOR EMBEDMENT DEPTH DISPENSATION TABLE FOR DISTRIBUTION POLES - 11m (Sht. 3/4)</p>				<p>DISTRIBUTION CONSTR. STANDARD</p> <p>westernpower</p>	
<p>DRWN: JRR DATE: 10-06-2015</p> <p>ORIG: AT SCALE: NTS</p> <p>CHECKED: DVT</p> <p>APPROVED: GRANT STACY</p>		<p>DRG. No. R16/2/4</p> <p>REV. C SHT.</p>			
<p>08.03.16 TABLE REVISED</p> <p>11.08.15 TABLE REVISED</p> <p>16.06.15 ORIGINAL ISSUE</p>	<p>AT DVT GS</p> <p>AT DVT GS</p> <p>AT DVT GS</p>	<p>AT DVT GS</p> <p>AT DVT GS</p> <p>AT DVT GS</p>	<p>DRG. CHKD. APRD.</p>		



11m/6kN Pole (4 of 4)

Location	Span Length	Configuration	Descriptions	Deviation Angle (deg)	Maximum Allowable Protrusion above Ground (mm)				
					Wind Region A		Deviation Angle (deg)	Wind Region B	
					45° Stay	60° Stay		45° Stay	60° Stay
Span Length <300m	Location	[Diagram of pole with stay lines]	HV + RE 3/2.75 SC/AC 25%	Up to 6 degrees	No stay required		Up to 2 degrees	No stay required	
				6 to 10	700	700	2 to 10	700	700
				10 to 15	700	700	10 to 15	700	700
				15 to 20	700	700	15 to 20	700	700
				20 to 25	700	700	20 to 25	700	700
				25 to 30	700	700	25 to 30	700	600
				30 to 45	700	500	30 to 45	700	500
				45 to 90	DSC, 700	DSC, 500	45 to 90	DSC, 700	DSC, 500
				Inline termination	700	500	Inline termination	700	500
				HV + RE 3/2.75 SC/GZ 25%	Up to 6 degrees	No stay required		Up to 2 degrees	No stay required
			6 to 10		700	700	2 to 10	700	700
			10 to 15		700	700	10 to 15	700	700
			15 to 20		700	700	15 to 20	700	700
			20 to 25		700	700	20 to 25	700	700
			25 to 30		700	700	25 to 30	700	600
			30 to 45		700	500	30 to 45	700	500
			45 to 90		DSC, 700	DSC, 500	45 to 90	DSC, 700	DSC, 500
			Inline termination		700	500	Inline termination	700	500
			HV + RE 7/1.60 SC/GZ 25%		Up to 8 degrees	No stay required		up to 4 degrees	No stay required
				8 to 10	700	700	4 to 10	700	700
10 to 15	700	700		10 to 15	700	700			
15 to 20	700	700		15 to 20	700	700			
20 to 25	700	700		20 to 25	700	700			
25 to 30	700	700		25 to 30	700	700			
30 to 45	700	600		30 to 45	700	600			
45 to 90	DSC, 700	DSC, 600		45 to 90	DSC, 700	DSC, 600			
Inline termination	700	600		Inline termination	700	600			
HV + RE 7/2.00 SC/GZ 25%	Up to 4 degrees	No stay required		Up to 2 degrees	No stay required				
	4 to 10	700	700	2 to 10	700	700			
	10 to 15	700	700	10 to 15	700	700			
	15 to 20	700	700	15 to 20	700	600			
	20 to 25	700	700	20 to 25	700	600			
	25 to 30	700	700	25 to 30	700	600			
	30 to 45	700	500	30 to 45	600	400			
	45 to 90	DSC, 700	12.5/8, DSC, 500	45 to 90	DSC, 600	DSC, 400			
	Inline termination	700	500	Inline termination	600	400			
	HV + RE 7/2.75 SC/GZ 25%	Max 4 degrees	No stay required		Max 0 degree	No stay required			
4 to 10		700	700	Up to 10 degrees	700	600			
10 to 15		700	600	10 to 15	700	500			
15 to 20		700	500	15 to 20	700	SS1, 500			
20 to 25		700	500	20 to 25	400	400			
25 to 30		700	400	25 to 30	600	400			
30 to 45		400	DSL, 500	30 to 45	400	DSL, 500			
45 to 90		12.5/8, DSC, 400	12.5/8, DSC, 400	45 to 90	12.5/8, DSC, 400	12.5/8, DSC, 300			
Inline termination		400	DSC, 500	Inline termination	400	DSC, 500			

Notes: Use 11m/6kN pole with standard embedment depth (Drawing R13-3 in DCSH) for all cases unless otherwise specified

12.5/8 Use 12.5m/8kN pole with standard embedment depth (Drawing R13-3 in DCSH)

SS1 Increase stay size to 19/2.75 SC/GZ Stay with 300mm screw anchor

DSL Double Stay (both stays inline with bisector load's direction)

DSC Double Stay (Stays to be inline with conductor's direction)

19/2.00 SC/GZ Stay and 200mm Screw Anchor for <math>< 20^\circ</math> Deviation

19/2.75 SC/GZ Stay and 300mm Screw Anchor for $\geq 20^\circ$ Deviation

Use standard pole with standard embedment depth

SSP2 Use SSP2 as per Drawing R13-2 in DCSH (12.5m/8kN pole with Embedment Depth of 2.8m)

N/A Not Applicable (Specific Design Required)

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD			
				TITLE				DRAWN: JRR		DATE: 11-06-2015	
				SCREW ANCHOR EMBEDMENT DEPTH DISPENSATION TABLE FOR DISTRIBUTION POLES - 11m (Sht. 4/4)				ORIGINATED: AT		SCALE: NTS	
								CHECKED: DVT		DRG. No. R16/2/5	
								APPROVED: GRANT STACY		REV. C	
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.					SHT.	

12.5m/6kN (1 of 4)				Maximum Allowable Protrusion above Ground (mm)							
Location	Span Length	Configuration	Descriptions	Deviation Angle (deg)	Wind Region A			Deviation Angle (deg)	Wind Region B		
					45° Stay	60° Stay	Out-rigger Stay		45° Stay	60° Stay	Out-rigger Stay
Metro or Urban	Span Length < 60m		3HV + RE or 4LV 7/4.75 AAAC 7%	Up to 18 degrees	No stay required			Up to 13 degrees	No stay required		
				13 to 15	700	700	700	13 to 15	700	700	700
				15 to 20	700	700	700	15 to 20	700	700	600
				18 to 20	700	700	700	18 to 20	700	700	600
				20 to 25	700	700	700	20 to 25	700	700	600
				25 to 30	700	700	600	25 to 30	700	700	500
				30 to 45	700	600	SSP3, 400	30 to 45	700	500	SSP3, 300
				45 to 90	DSC, 600	DSC, 400	N/A	45 to 90	DSC, 700	DSC, 500	N/A
				Inline termination	700	600	SSP3, 400	Inline termination	700	500	SSP3, 300
				3HV + RE or 4LV 19/3.25 AAAC 7%	Up to 13 degrees	No stay required			Up to 10 degrees	No stay required	
			13 to 15	700	700	700	10 to 15	700	700	600	
			15 to 20	700	700	600	15 to 20	700	700	500	
			20 to 25	700	700	600	20 to 25	700	700	500	
			25 to 30	700	700	500	25 to 30	700	600	400	
			30 to 45	700	500	SSP3, 300	30 to 45	600	400	N/A	
			45 to 90	DSC, 700	DSC, 500	N/A	45 to 90	DSC, 600	DSC, 400	N/A	
			Inline termination	700	500	SSP3, 300	Inline termination	600	400	N/A	
			3HV + RE or 4LV 7/2.75 Cu 15%	Up to 18 degrees	No stay required			Up to 13 degrees	No stay required		
			13 to 15	700	700	700	13 to 15	700	700	700	
			15 to 20	700	700	700	15 to 20	700	700	700	
		18 to 20	700	700	700	18 to 20	700	700	700		
		20 to 25	700	700	700	20 to 25	700	700	700		
		25 to 30	700	700	700	25 to 30	700	700	600		
		30 to 45	700	700	500	30 to 45	700	700	400		
		45 to 90	DSC, 700	DSC, 700	N/A	45 to 90	DSC, 700	DSC, 700	N/A		
		Inline termination	700	700	500	Inline termination	700	700	400		
		3HV + RE or 4LV 19/0.101 HD8C 15%	Up to 8 degrees	No stay required			Up to 6 degrees	No stay required			
		8 to 10	700	700	700	6 to 10	700	700	700		
		10 to 15	700	700	600	10 to 15	700	700	600		
		15 to 20	700	700	500	15 to 20	700	700	500		
		20 to 25	700	700	500	20 to 25	700	600	400		
		25 to 30	700	600	400	25 to 30	700	600	SSP3, 300		
		30 to 45	500	400	N/A	30 to 45	500	300	N/A		
		45 to 90	DSC, 500	DSC, 400	N/A	45 to 90	DSC, 500	DSC, 300	N/A		
		Inline termination	500	400	N/A	Inline termination	500	300	N/A		
		3HV + RE + ABC 7/4.75 AAAC 7% LV ABC 150 7%	Up to 8 degrees	No stay required			Up to 4 degrees	No stay required			
		8 to 10	700	700	700	4 to 10	700	700	600		
		10 to 15	700	700	600	10 to 15	700	700	500		
		15 to 20	700	700	500	15 to 20	700	700	500		
		20 to 25	700	700	500	20 to 25	700	600	SSP3, 400		
25 to 30	700	600	SSP3, 400	25 to 30	700	500	SSP3, 300				
30 to 45	600	400	N/A	30 to 45	500	400	N/A				
45 to 90	DSC, 600	DSC, 400	N/A	45 to 90	DSC, 500	DSC, 400	N/A				
Inline termination	600	400	N/A	Inline termination	500	400	N/A				
3HV + RE + ABC 19/3.25 AAAC 7% LV ABC 150 7%	Up to 6 degrees	No stay required			Up to 3 degrees	No stay required					
6 to 10	700	700	600	3 to 10	700	700	600				
10 to 15	700	700	500	10 to 15	700	700	500				
15 to 20	700	600	500	15 to 20	700	600	500				
20 to 25	700	600	400	20 to 25	700	600	SSP3, 400				
25 to 30	700	600	SSP3, 300	25 to 30	700	500	SSP3, 300				
30 to 45	500	400	N/A	30 to 45	500	300	N/A				
45 to 90	DSC, 500	DSC, 400	N/A	45 to 90	DSC, 500	DSC, 300	N/A				
Inline termination	500	400	N/A	Inline termination	500	300	N/A				
3HV + 4LV 7/4.75 AAAC 7%	Up to 7 degrees	No stay required			Up to 4 degrees	No stay required					
7 to 10	700	700	700	4 to 10	700	700	600				
10 to 15	700	700	600	10 to 15	700	700	500				
15 to 20	700	700	600	15 to 20	700	600	400				
20 to 25	700	700	SSP3, 500	20 to 25	700	600	SSP3, 300				
25 to 30	700	600	SSP3, 400	25 to 30	700	500	N/A				
30 to 45	600	400	N/A	30 to 45	500	300	N/A				
45 to 90	DSC, 600	DSC, 400	N/A	45 to 90	DSC, 500	DSC, 300	N/A				
Inline termination	600	400	N/A	Inline termination	500	300	N/A				
3HV + 4LV 19/3.25 AAAC 7%	Up to 5 degrees	No stay required			Up to 3 degrees	No stay required					
5 to 10	700	700	600	3 to 10	700	700	600				
10 to 15	700	700	600	10 to 15	700	600	500				
15 to 20	700	600	SSP3, 500	15 to 20	700	500	SSP3, 400				
20 to 25	700	600	SSP3, 400	20 to 25	700	500	SSP3, 300				
25 to 30	700	500	SSP3, 300	25 to 30	600	500	SSP3, 300				
30 to 45	500	300	N/A	30 to 45	400	300	N/A				
45 to 90	DSC, 500	DSC, 400	N/A	45 to 90	DSC, 400	DSC, 300	N/A				
Inline termination	500	300	N/A	Inline termination	400	300	N/A				
3HV + 4LV 7/2.75 Cu 15%	Up to 15 degrees	No stay required			Up to 8 degrees	No stay required					
8 to 10	700	700	700	8 to 10	700	700	700				
10 to 15	700	700	600	10 to 15	700	700	600				
15 to 20	700	700	600	15 to 20	700	700	600				
20 to 25	700	700	500	20 to 25	700	700	500				
25 to 30	700	700	500	25 to 30	700	700	SSP3, 400				
30 to 45	700	500	SSP3, 400	30 to 45	600	500	N/A				
45 to 90	DSC, 700	DSC, 500	N/A	45 to 90	DSC, 600	DSC, 500	N/A				
Inline termination	700	500	SSP3, 400	Inline termination	600	500	N/A				
3HV + 4LV 19/0.101 HD8C 15%	Up to 4 degrees	No stay required			Up to 2 degrees	No stay required					
4 to 10	700	700	600	2 to 10	700	700	500				
10 to 15	700	600	500	10 to 15	700	600	SSP3, 400				
15 to 20	700	500	SSP3, 400	15 to 20	600	550	SSP3, 300				
20 to 25	600	500	SSP3, 300	20 to 25	600	500	N/A				
25 to 30	600	400	N/A	25 to 30	500	400	N/A				
30 to 45	300	DSL, 500	N/A	30 to 45	300	DSL, 400	N/A				
45 to 90	DSC, 600	DSC, 400	N/A	45 to 90	DSC, 300	DSC, 300	N/A				
Inline termination	300	DSC, 500	N/A	Inline termination	300	DSC, 400	N/A				

REFERENCE DRAWING

TITLE
SCREW ANCHOR EMBEDMENT DEPTH
DISPENSATION TABLE FOR
DISTRIBUTION POLES – 12.5m (Sht. 1/4)

DISTRIBUTION CONSTR. STANDARD westernpower

DRAWN: JRR DATE: 11-06-2015 DRG. No.
 ORIGINATED: AT SCALE: NTS
 CHECKED: DVT
 APPROVED: GRANT STACY
 R16/2/6
 REV. C SHT.

REV	DATE	DESCRIPTION	DRGD.	CHKD.	APRD.
C	08.03.16	TABLE REVISED	AT	DVT	GS
B	11.08.15	TABLE REVISED	AT	DVT	GS
A	16.06.15	ORIGINAL ISSUE	AT	DVT	GS



12.5m/6kN (2 of 4)				Maximum Allowable Protrusion above Ground (mm)					
Location	Span Length	Configuration	Descriptions	Deviation Angle (deg)	Wind Region A		Deviation Angle (deg)	Wind Region B	
					45° Stay	60° Stay		45° Stay	60° Stay
Country or Rural	Span Length < 135m		HV + RE 7/4.75 AAAC 18%	Up to 3 degrees	No stay required		Max 0 degree	No stay required	
				3 to 10	700	700	Up to 10 degrees	700	700
				10 to 15	700	700	10 to 15	700	700
				15 to 20	700	700	15 to 20	700	600
				20 to 25	700	700	20 to 25	700	600
				25 to 30	700	700	25 to 30	700	600
				30 to 45	700	500	30 to 45	600	400
				45 to 90	DSC, 700	DSC, 500	45 to 90	DSC, 600	12.5/8, DSC, 400
				Inline termination	700	500	Inline termination	600	400
				Up to 2 degrees	No stay required		Max 0 degree	No stay required	
				2 to 10	700	700	Up to 10 degrees	700	700
				10 to 15	700	700	10 to 15	700	700
			15 to 20	700	700	15 to 20	700	600	
			20 to 25	700	700	20 to 25	700	600	
			25 to 30	700	600	25 to 30	700	500	
			30 to 45	600	400	30 to 45	500	300	
			45 to 90	DSC, 600	DSC, 400	45 to 90	DSC, 500	12.5/8, DSC, 300	
			Inline termination	600	400	Inline termination	500	300	
			Up to 2 degrees	No stay required		Max 0 degree	No stay required		
			2 to 10	700	700	Up to 10 degrees	700	700	
			10 to 15	700	700	10 to 15	700	700	
			15 to 20	700	700	15 to 20	700	600	
			20 to 25	700	700	20 to 25	700	600	
			25 to 30	700	600	25 to 30	700	600	
			30 to 45	600	400	30 to 45	500	400	
			45 to 90	DSC, 600	DSC, 400	45 to 90	DSC, 500	12.5/8, DSC, 400	
			Inline termination	600	400	Inline termination	500	400	
			Up to 15 degrees	No stay required		Up to 10 degrees	No stay required		
			15 to 20	700	700	10 to 15	700	700	
			20 to 25	700	700	20 to 25	700	700	
			25 to 30	700	700	25 to 30	700	700	
			30 to 45	700	700	30 to 45	700	700	
			45 to 90	DSC, 700	DSC, 700	45 to 90	DSC, 700	DSC, 700	
			Inline termination	700	700	Inline termination	700	700	
			Up to 2 degrees	No stay required		Max 0 degree	No stay required		
			2 to 10	700	700	Up to 10 degrees	700	700	
			10 to 15	700	700	10 to 15	700	700	
			15 to 20	700	700	15 to 20	700	600	
			20 to 25	700	700	20 to 25	700	600	
			25 to 30	700	600	25 to 30	700	600	
			30 to 45	600	400	30 to 45	500	400	
			45 to 90	DSC, 600	DSC, 400	45 to 90	DSC, 500	12.5/8, DSC, 400	
			Inline termination	600	400	Inline termination	500	400	
			Max 0 degree	No stay required		Max 0 degree	No stay required		
			Up to 10 degrees	700	600	Up to 10 degrees	700	500	
			10 to 15	700	500	10 to 15	600	551, 400	
			15 to 20	600	551, 400	15 to 20	500	551, 300	
			20 to 25	600	400	20 to 25	500	300	
25 to 30	500	300	25 to 30	400	300				
30 to 45	12.5/8, 300	12.5/8, DSL, 400	30 to 45	12.5/8, DSL, 500	12.5/8, DSL, 300				
45 to 90	N/A	N/A	45 to 90	N/A	N/A				
Inline termination	12.5/8, 300	12.5/8, DSC, 400	Inline termination	12.5/8, DSC, 500	12.5/8, DSC, 300				
Max 0 degree	No stay required		Max 0 degree	No stay required					
Up to 10 degrees	700	600	Up to 10 degrees	600	551, 500				
10 to 15	600	551, 500	10 to 15	500	551, 400				
15 to 20	500	551, 400	15 to 20	400	551, 300				
20 to 25	500	300	20 to 25	400	300				
25 to 30	400	12.5/8, DSL, 500	25 to 30	300	DSL, 500				
30 to 45	12.5/8, DSL, 500	12.5/8, DSL, 400	30 to 45	12.5/8, DSL, 400	12.5/8, DSL, 300				
45 to 90	N/A	N/A	45 to 90	N/A	N/A				
Inline termination	12.5/8, DSC, 500	12.5/8, DSC, 400	Inline termination	12.5/8, DSC, 400	12.5/8, DSC, 300				
Max 0 degree	No stay required		Max 0 degree	No stay required					
Up to 10 degrees	700	600	Up to 10 degrees	700	500				
10 to 15	700	551, 500	10 to 15	600	551, 400				
15 to 20	600	551, 400	15 to 20	500	551, 300				
20 to 25	600	400	20 to 25	500	300				
25 to 30	500	300	25 to 30	400	DSL, 500				
30 to 45	12.5/8, DSL, 500	12.5/8, DSL, 400	30 to 45	12.5/8, DSL, 500	12.5/8, DSL, 300				
45 to 90	N/A	N/A	45 to 90	N/A	N/A				
Inline termination	12.5/8, DSC, 500	12.5/8, DSC, 400	Inline termination	12.5/8, DSC, 500	12.5/8, DSC, 300				
Up to 8 degrees	No stay required		Up to 2 degrees	No stay required					
8 to 10	700	700	2 to 10	700	700				
10 to 15	700	700	10 to 15	700	700				
15 to 20	700	700	15 to 20	700	700				
20 to 25	700	700	20 to 25	700	700				
25 to 30	700	700	25 to 30	700	700				
30 to 45	700	500	30 to 45	700	700				
45 to 90	DSC, 700	DSC, 500	45 to 90	DSC, 700	DSC, 700				
Inline termination	700	500	Inline termination	700	700				
Max 0 degree	No stay required		Max 0 degree	No stay required					
Up to 10 degrees	700	600	Up to 10 degrees	700	500				
10 to 15	700	500	10 to 15	600	551, 400				
15 to 20	600	551, 400	15 to 20	500	551, 300				
20 to 25	500	400	20 to 25	600	300				
25 to 30	500	300	25 to 30	400	300				
30 to 45	12.5/8, DSL, 500	12.5/8, DSL, 400	30 to 45	12.5/8, DSL, 500	12.5/8, DSL, 300				
45 to 90	N/A	N/A	45 to 90	N/A	N/A				
Inline termination	12.5/8, DSC, 500	12.5/8, DSC, 400	Inline termination	12.5/8, DSC, 500	12.5/8, DSC, 300				

REFERENCE DRAWING

SCREW ANCHOR EMBEDMENT DEPTH DISPENSATION TABLE FOR DISTRIBUTION POLES - 12.5m (Sht. 2/4)

DISTRIBUTION CONSTR. STANDARD



DRAWN: JRR DATE: 11-06-2015 DRG. No.
 ORIGINATED: AT SCALE: NTS
 CHECKED: DVT
 APPROVED: GRANT STACY REV. C SHT.

R16/2/7

REV	DATE	DESCRIPTION	DRG.	CHKD.	APRD.
C	08.03.16	TABLE REVISED	AT	DVT	GS
B	11.08.15	TABLE REVISED	AT	DVT	GS
A	16.06.15	ORIGINAL ISSUE	AT	DVT	GS



12.5m/6kN (3 of 4)				Maximum Allowable Protrusion above Ground (mm)						
Location	Span Length	Configuration	Descriptions	Deviation Angle (deg)	Wind Region A		Deviation Angle (deg)	Wind Region B		
					45° Stay	60° Stay		45° Stay	60° Stay	
Country or Rural	Span Length < 15m		HV + RE 7/2.00 SC/GZ 25%	Up to 10 degrees	No stay required	No stay required	Up to 4 degrees	No stay required	No stay required	
				10 to 15	700	700	4 to 10	700	700	
				15 to 20	700	700	10 to 15	700	700	
				20 to 25	700	700	15 to 20	700	700	
				25 to 30	700	700	20 to 25	700	700	
				30 to 45	700	700	25 to 30	700	700	
			45 to 90	DSC, 700	DSC, 600	30 to 45	DSC, 700	DSC, 600		
			Inline termination	700	600	45 to 90	DSC, 700	DSC, 600		
			7/2.00 SC/GZ 25%	Up to 4 degrees	No stay required	Up to 2 degrees	No stay required	No stay required	No stay required	No stay required
			4 to 10	700	700	2 to 10	700	700		
			10 to 15	700	700	10 to 15	700	700		
			15 to 20	700	700	15 to 20	700	600		
	20 to 25	700	700	20 to 25	700	600				
	25 to 30	700	600	25 to 30	700	500				
	30 to 45	600	300	30 to 45	500	300				
	45 to 90	DSC, 500	12.5/8, DSC, 300	45 to 90	DSC, 500	DSC, 300				
	Inline termination	600	300	Inline termination	500	300				
	3HV + RE 7/2.00 SC/GZ 25%	Up to 2 degrees	No stay required	Max 0 degree	No stay required	No stay required	No stay required			
	2 to 10	700	700	Up to 10 degrees	700	700				
	10 to 15	700	700	10 to 15	700	600				
	15 to 20	700	600	15 to 20	700	500				
	20 to 25	700	600	20 to 25	700	500				
	25 to 30	700	500	25 to 30	600	500				
	30 to 45	500	200	30 to 45	400	DSL, 500				
45 to 90	12.5/8, DSC, 500	12.5/8, DSC, 300	45 to 90	12.5/8, DSC, 400	12.5/8, DSC, 400					
Inline termination	500	300	Inline termination	400	DSC, 500					
7/2.75 SC/GZ 25%	Max 0 degree	No stay required	Max 0 degree	No stay required	No stay required	No stay required				
Up to 10 degrees	700	600	Up to 10 degrees	700	500					
10 to 15	600	SS1, 500	10 to 15	600	SS1, 400					
15 to 20	500	SS1, 400	15 to 20	SS1, 500	SS1, 300					
20 to 25	500	300	20 to 25	400	300					
25 to 30	400	DSL, 500	25 to 30	400	DSL, 500					
30 to 45	12.5/8, DSL, 500	12.5/8, DSL, 300	30 to 45	12.5/8, DSL, 400	12.5/8, DSL, 300					
45 to 90	N/A	N/A	45 to 90	N/A	N/A					
Inline termination	12.5/8, DSC, 500	12.5/8, DSC, 300	Inline termination	12.5/8, DSC, 400	12.5/8, DSC, 300					
Span Length < 250m		HV + RE 3/2.75 SC/AC 25%	Up to 8 degrees	No stay required	No stay required	Up to 2 degrees	No stay required	No stay required		
			8 to 10	700	700	2 to 10	700	700		
			10 to 15	700	700	10 to 15	700	700		
			15 to 20	700	700	15 to 20	700	700		
			20 to 25	700	700	20 to 25	700	700		
			25 to 30	700	700	25 to 30	700	700		
		30 to 45	700	600	30 to 45	700	500			
		45 to 90	DSC, 700	DSC, 600	45 to 90	DSC, 500	DSC, 600			
		Inline termination	700	600	Inline termination	700	600			
		3/2.75 SC/GZ 25%	Up to 8 degrees	No stay required	Up to 2 degrees	No stay required	No stay required	No stay required		
		8 to 10	700	700	2 to 10	700	700			
		10 to 15	700	700	10 to 15	700	700			
15 to 20	700	700	15 to 20	700	700					
20 to 25	700	700	20 to 25	700	700					
25 to 30	700	700	25 to 30	700	700					
30 to 45	700	600	30 to 45	700	500					
45 to 90	DSC, 700	DSC, 600	45 to 90	DSC, 700	DSC, 500					
Inline termination	700	600	Inline termination	700	500					
7/1.60 SC/GZ 25%	Up to 10 degrees	No stay required	Up to 4 degrees	No stay required	No stay required	No stay required				
10 to 15	700	700	4 to 10	700	700					
15 to 20	700	700	10 to 15	700	700					
20 to 25	700	700	15 to 20	700	700					
25 to 30	700	700	20 to 25	700	700					
30 to 45	700	600	25 to 30	700	700					
45 to 90	DSC, 700	DSC, 600	30 to 45	700	700					
45 to 90	DSC, 700	DSC, 600	45 to 90	DSC, 700	DSC, 700					
Inline termination	700	600	Inline termination	700	700					
7/2.00 SC/GZ 25%	Up to 6 degrees	No stay required	Up to 2 degrees	No stay required	No stay required	No stay required				
6 to 10	700	700	2 to 10	700	700					
10 to 15	700	700	10 to 15	700	700					
15 to 20	700	700	15 to 20	700	700					
20 to 25	700	700	20 to 25	700	700					
25 to 30	700	700	25 to 30	700	700					
30 to 45	700	700	30 to 45	700	700					
45 to 90	DSC, 700	DSC, 700	45 to 90	DSC, 700	DSC, 500					
Inline termination	700	700	Inline termination	700	500					
7/2.75 SC/GZ 25%	Up to 2 degrees	No stay required	Max 0 degree	No stay required	No stay required	No stay required				
2 to 10	700	700	Up to 10 degrees	700	700					
10 to 15	700	700	10 to 15	700	600					
15 to 20	700	600	15 to 20	700	500					
20 to 25	700	600	20 to 25	700	500					
25 to 30	700	500	25 to 30	600	500					
30 to 45	500	300	30 to 45	400	DSL, 500					
45 to 90	DSC, 500	DSC, 300	45 to 90	12.5/8, DSC, 400	12.5/8, DSC, 300					
45 to 90	DSC, 500	DSC, 300	45 to 90	12.5/8, DSC, 500	12.5/8, DSC, 300					
Inline termination	500	300	Inline termination	400	DSC, 500					
3HV + RE 3/2.75 SC/AC 25%	Max 0 degree	No stay required	Max 0 degree	No stay required	No stay required	No stay required				
Up to 10 degrees	700	700	Up to 10 degrees	700	700					
10 to 15	700	600	10 to 15	700	600					
15 to 20	700	500	15 to 20	600	500					
20 to 25	700	500	20 to 25	600	500					
25 to 30	600	500	25 to 30	600	500					
30 to 45	500	DSL, 500	30 to 45	400	DSL, 400					
45 to 90	DSC, 500	DSC, 300	45 to 90	12.5/8, DSC, 500	12.5/8, DSC, 300					
45 to 90	DSC, 500	DSC, 300	45 to 90	12.5/8, DSC, 500	12.5/8, DSC, 300					
Inline termination	500	DSC, 500	Inline termination	400	DSC, 500					
3HV + RE 3/2.75 SC/GZ 25%	Max 0 degree	No stay required	Max 0 degree	No stay required	No stay required	No stay required				
Up to 10 degrees	700	700	Up to 10 degrees	700	700					
10 to 15	700	600	10 to 15	700	600					
15 to 20	700	500	15 to 20	600	500					
20 to 25	700	500	20 to 25	600	500					
25 to 30	700	500	25 to 30	600	500					
30 to 45	600	500	30 to 45	600	500					
45 to 90	400	DSL, 500	45 to 90	400	DSL, 500					
45 to 90	400	DSL, 500	45 to 90	400	DSL, 500					
Inline termination	400	DSC, 500	Inline termination	400	DSC, 500					

REFERENCE DRAWING

TITLE
SCREW ANCHOR EMBEDMENT DEPTH
DISPENSATION TABLE FOR
DISTRIBUTION POLES - 12.5m (Shft. 3/4)

DISTRIBUTION CONSTR.
STANDARD



DRAWN: JRR	DATE: 11-06-2015	DRG. No.
ORIGINATED: AT	SCALE: NTS	R16/2/8
CHECKED: DVT	APPROVED: GRANT STACY	
REV. C	SHT.	

REV	DATE	DESCRIPTION	DRG.	CHKD.	APRD.
C	08.03.16	TABLE REVISED	AT	DVT	GS
B	11.08.15	TABLE REVISED	AT	DVT	GS
A	16.06.15	ORIGINAL ISSUE	AT	DVT	GS

12.5m/6kN (4 of 4)

Location	Span Length	Configuration	Descriptions	Deviation Angle (deg)	Maximum Allowable Protrusion above Ground (mm)				
					Wind Region A		Deviation Angle (deg)	Wind Region B	
					45° Stay	60° Stay		45° Stay	60° Stay
Country or Rural	Span Length < 300m		HV + RE 3/2.75 SC/AC 25%	Up to 6 degrees	No stay required		Up to 2 degrees	No stay required	
				6 to 10	700	700	2 to 10	700	700
				10 to 15	700	700	10 to 15	700	700
				15 to 20	700	700	15 to 20	700	700
				20 to 25	700	700	20 to 25	700	700
				25 to 30	700	700	25 to 30	700	700
				30 to 45	700	600	30 to 45	700	500
				45 to 90	DSC, 700	DSC, 600	45 to 90	DSC, 700	DSC, 500
				Inline termination	700	600	Inline termination	700	500
				HV + RE 3/2.75 SC/GZ 25%	Up to 6 degrees	No stay required		Up to 2 degrees	No stay required
			6 to 10		700	700	2 to 10	700	700
			10 to 15		700	700	10 to 15	700	700
			15 to 20		700	700	15 to 20	700	700
			20 to 25		700	700	20 to 25	700	700
			25 to 30		700	700	25 to 30	700	700
			30 to 45		700	600	30 to 45	700	500
			45 to 90		DSC, 700	DSC, 600	45 to 90	DSC, 700	DSC, 500
			Inline termination		700	600	Inline termination	700	500
			HV + RE 7/1.60 SC/GZ 25%		Up to 10 degrees	No stay required		Up to 4 degrees	No stay required
				10 to 15	700	700	10 to 15	700	700
				15 to 20	700	700	15 to 20	700	700
				20 to 25	700	700	20 to 25	700	700
				25 to 30	700	700	25 to 30	700	700
				30 to 45	700	700	30 to 45	700	600
45 to 90	DSC, 700	DSC, 700		45 to 90	DSC, 700	DSC, 600			
Inline termination	700	700		Inline termination	700	600			
HV + RE 7/2.00 SC/GZ 25%	Up to 6 degrees	No stay required		Up to 2 degrees	No stay required				
	6 to 10	700	700	2 to 10	700	700			
	10 to 15	700	700	10 to 15	700	700			
	15 to 20	700	700	15 to 20	700	700			
	20 to 25	700	700	20 to 25	700	700			
	25 to 30	700	700	25 to 30	700	600			
	30 to 45	700	500	30 to 45	600	600			
	45 to 90	DSC, 700	DSC, 500	45 to 90	DSC, 600	DSC, 500			
Inline termination	700	500	Inline termination	600	500				
HV + RE 7/2.75 SC/GZ 25%	Up to 2 degrees	No stay required		Max 0 degree	No stay required				
	2 to 10	700	700	Up to 10 degrees	700	700			
	10 to 15	700	700	10 to 15	700	600			
	15 to 20	700	600	15 to 20	700	500			
	20 to 25	700	600	20 to 25	700	500			
	25 to 30	700	500	25 to 30	600	400			
	30 to 45	400	DSL, 500	30 to 45	400	DSL, 500			
	45 to 90	DSC, 400	DSC, 300	45 to 90	12.5/8, DSC, 400	12.5/8, DSC, 300			
Inline termination	400	DSC, 500	Inline termination	400	DSC, 500				

Notes: Use 12m/6kN pole with standard embedment depth (Drawing R13-3 in DCSH) for all cases unless otherwise specified

12.5/8 Use 12.5m/8kN pole with standard embedment depth (Drawing R13-3 in DCSH)

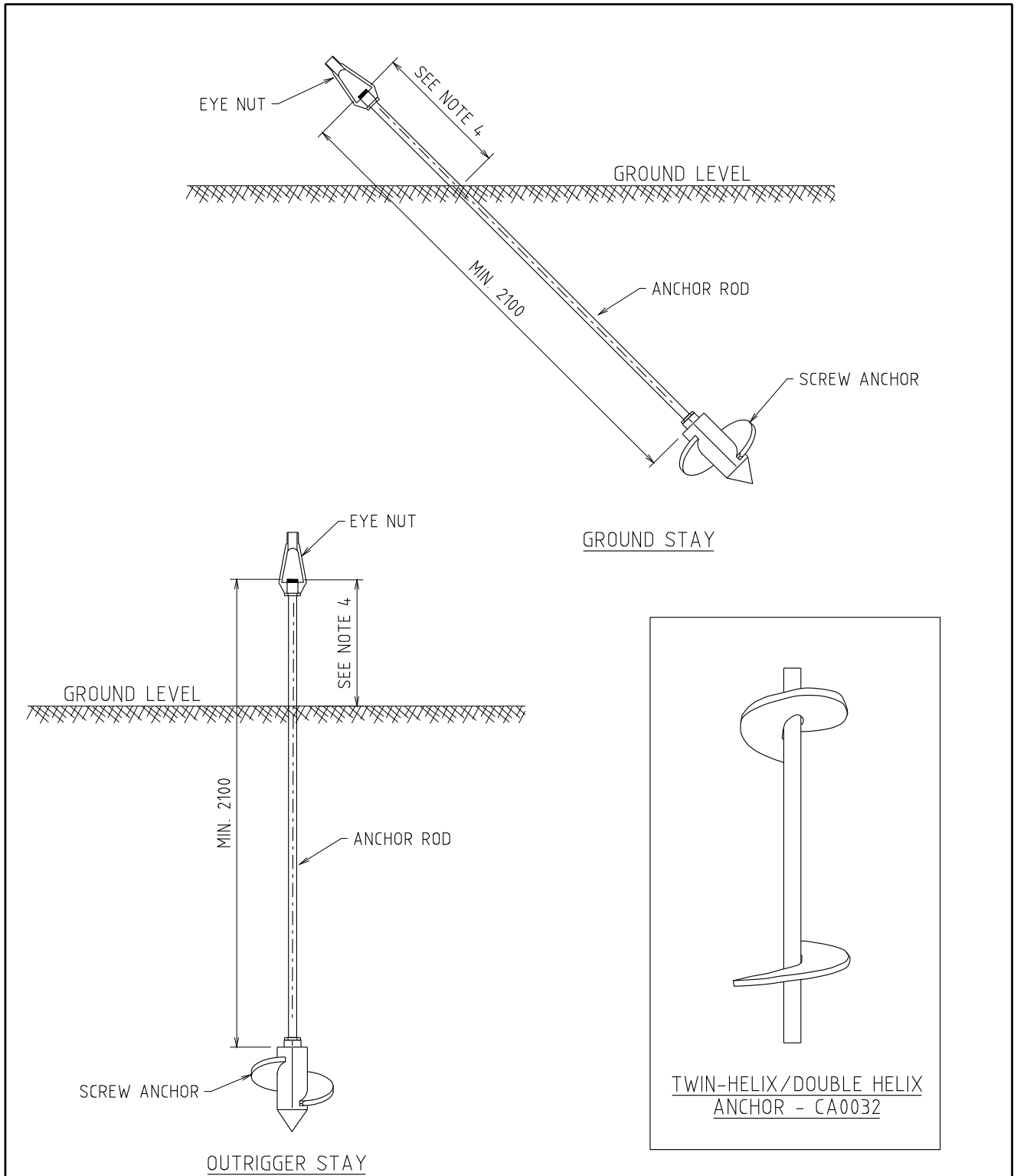
SS1 Increase stay size to 19/2.75 SC/GZ Stay with 300mm screw anchor

DSL Double Stay (both stays inline with bisector load's direction)

DSC Double Stay (Stays to be inline with conductor's direction)

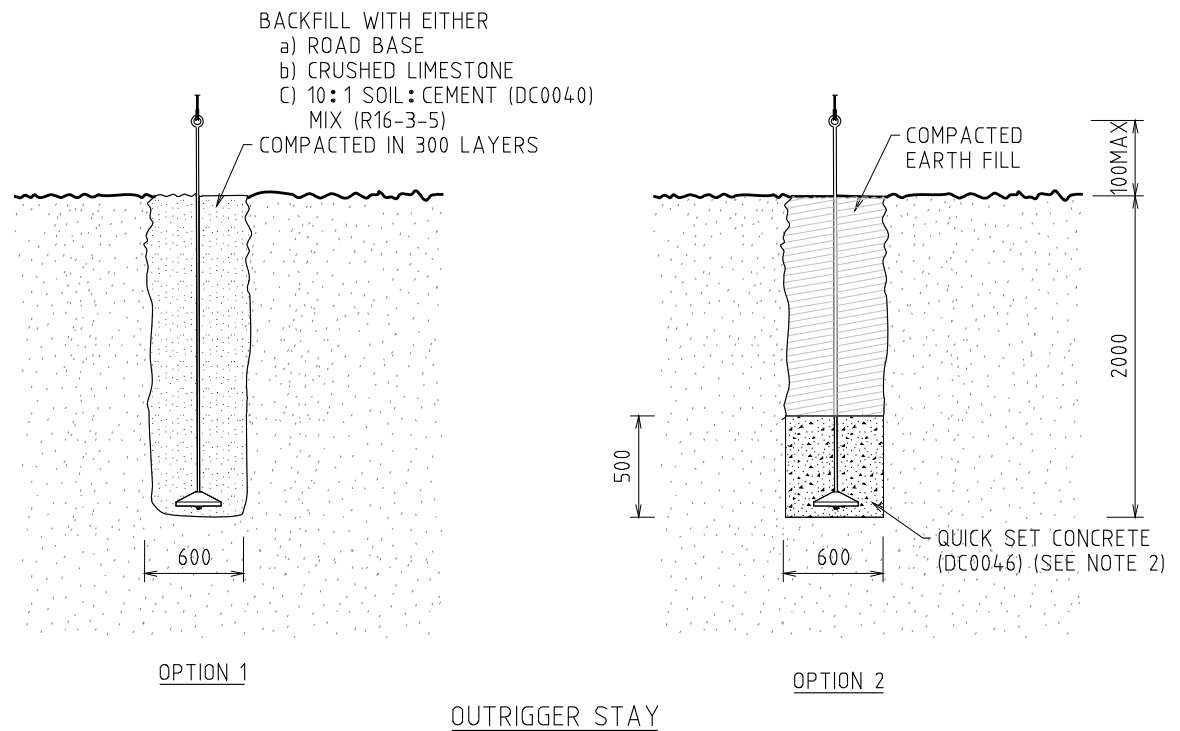
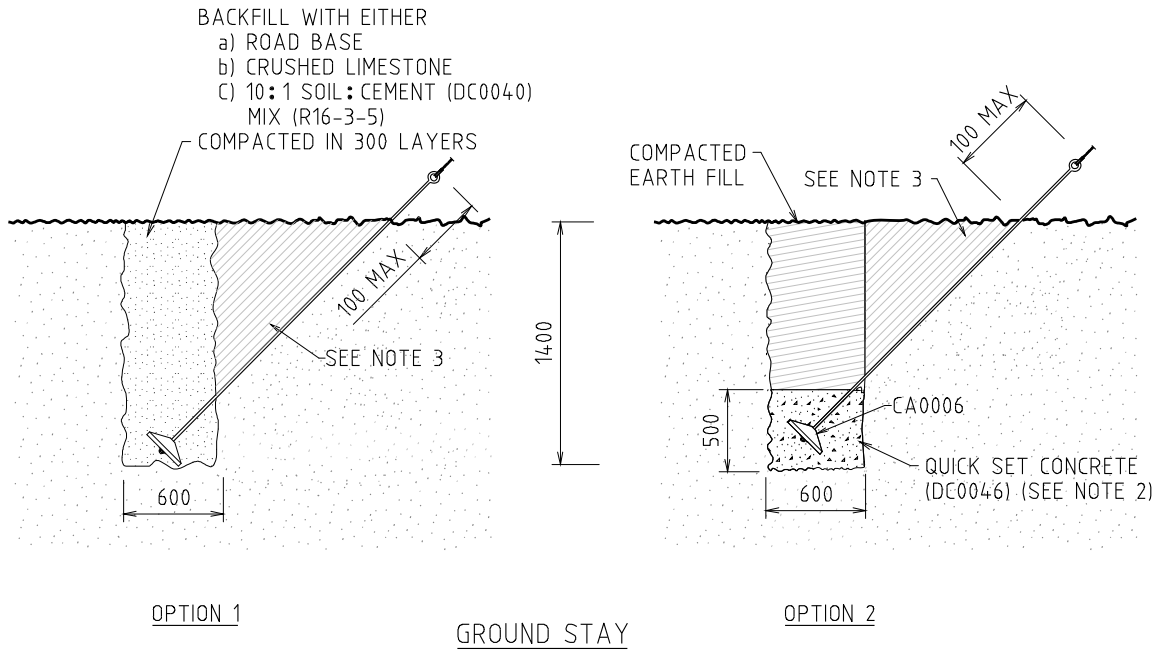
- 19/2.00 SC/GZ Stay and 200mm Screw Anchor for < 20° Deviation
- 19/2.75 SC/GZ Stay and 300mm Screw Anchor for ≥ 20° Deviation
- Use standard pole with standard embedment depth
- SSP3 Use SSP3 as per Drawing R13-2 in DCSH (14m/8kN pole with Embedment Depth of 3.0m)
- N/A Not Applicable (Specific Design Required)

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD			
				TITLE				DRAWN: JRR		DATE: 11-06-2015	
				SCREW ANCHOR EMBEDMENT DEPTH DISPENSATION TABLE FOR DISTRIBUTION POLES – 12.5m (Sht. 4/4)				ORIGINATED: AT		SCALE: NTS	
								CHECKED: DVT		DRG. No. R16/2/9	
								APPROVED: GRANT STACY		REV. C	
REV	DATE	DESCRIPTION	DRGO	CHKD	APRD						



- NOTES:-
1. ALL DIMENSIONS ARE IN MILLIMETRES.
 2. START WITH TWIN HELIX FOR HARD ROCKY SOILS.
 3. ANCHOR DIRECTION IS ALIGNED TO STAY WIRE.
 4. CHECK FOR MAXIMUM ALLOWABLE PROTRUSION ABOVE GROUND IN R16-2.

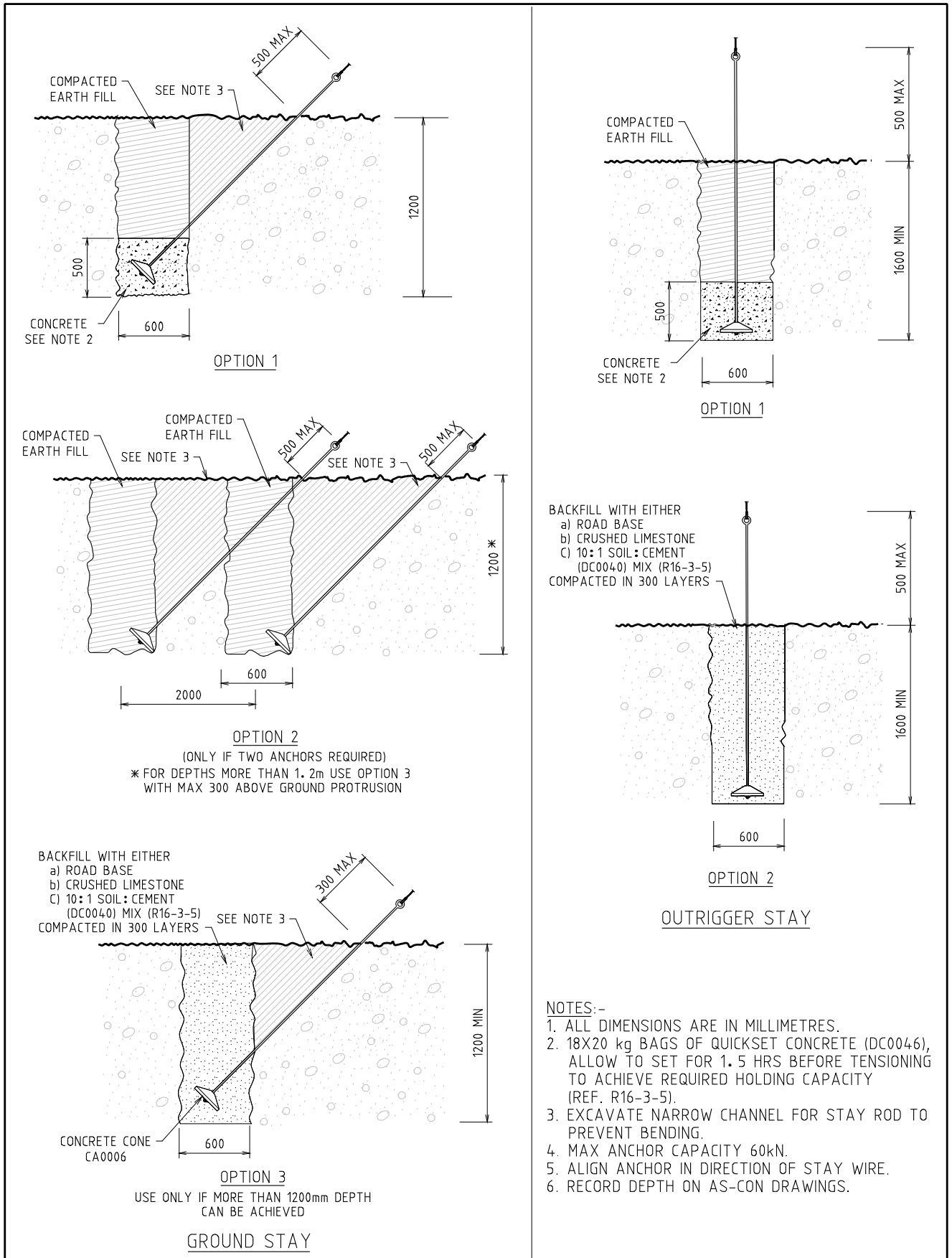
				REFERENCE		DISTRIBUTION CONSTR. STANDARD			
				TITLE		DRAWN: JRR DATE: 29-06-2017 DRG. No.		R16-3-1	
				SCREW ANCHOR INSTALLATION FOR MEDIUM TO HARD SOIL		ORIGINATED: DVT SCALE: NTS			
						CHECKED: LT		REV. B	
						APPROVED: GRANT STACY			
B	08.12.22	NOTES REVISED AND MORE DETAILS ADDED		SJ	LT	GS			
A	02.08.17	ORIGINAL ISSUE		DVT	LT	GS			
REV	DATE	DESCRIPTION		ORGD.	CHKD.	APROD.			



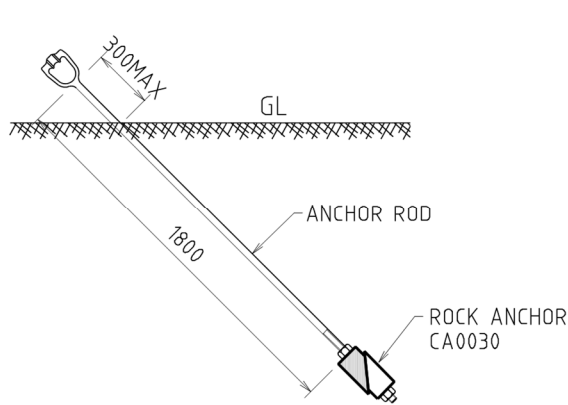
NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. 18X20 KG BAGS OF QUICKSET CONCRETE (DC0046), ALLOW TO SET FOR 1.5 HRS. BEFORE TENSIONING TO ACHIEVE REQUIRED HOLDING CAPACITY (REF. R16-3-5).
3. EXCAVATE NARROW CHANNEL FOR STAY ROD TO PREVENT BENDING.
4. MAX ANCHOR CAPACITY 60kN.
5. ALIGN ANCHOR IN DIRECTION OF STAY WIRE.
6. RECORD DEPTH ON AS-CON DRAWINGS.

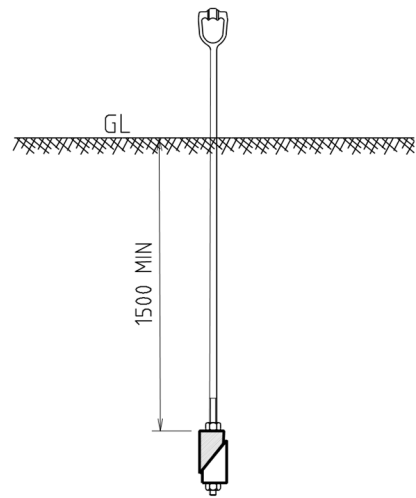
				REFERENCE		DISTRIBUTION CONSTR. STANDARD			
				TITLE		DRAWN: JRR DATE: 03-07-2017 DRG. No.			
				ANCHOR INSTALLATION FOR SOFT SOILS		ORIGINATED: DVT SCALE: NTS		R16-3-2	
						CHECKED: LT		REV. SHT.	
						APPROVED: GRANT STACY		B	
REV	DATE	DESCRIPTION	DRGD.	CHKD.	APRD.				
B	08.12.22	ANCHOR CHANGED	SJ	LT	GS				
A	02.08.17	ORIGINAL ISSUE	DVT	LT	GS				



				REFERENCE			DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE			DRAWN: JRR		DATE: 03-07-2017	
				ANCHOR INSTALLATION FOR HARD SOIL			ORIGINATED: DVT		SCALE: NTS	
							CHECKED: LT		R16-3-3	
							APPROVED: GRANT STACY		REV. C	
REV	DATE	DESCRIPTION	ORGO.	CHKD.	APRD.					
C	08.12.22	NOTE REVISED AND OPTION 3 ADDED	SJ	LT	GS					
B	21.08.17	NOTE ADDED TO GROUND ANCHOR OPTION 2	DVT	LT	GS					
A	02.08.17	ORIGINAL ISSUE	DVT	LT	GS					



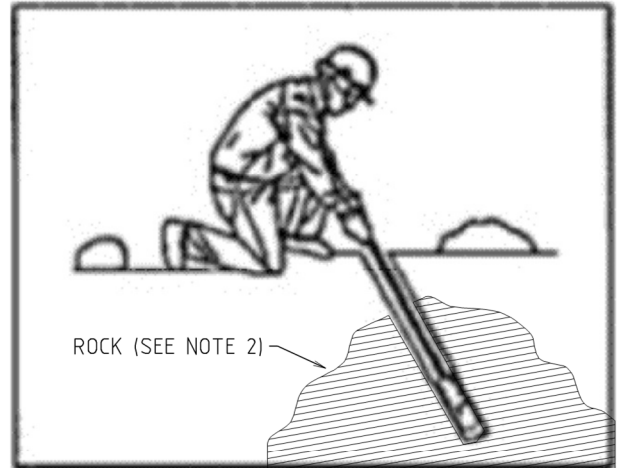
GROUND STAY



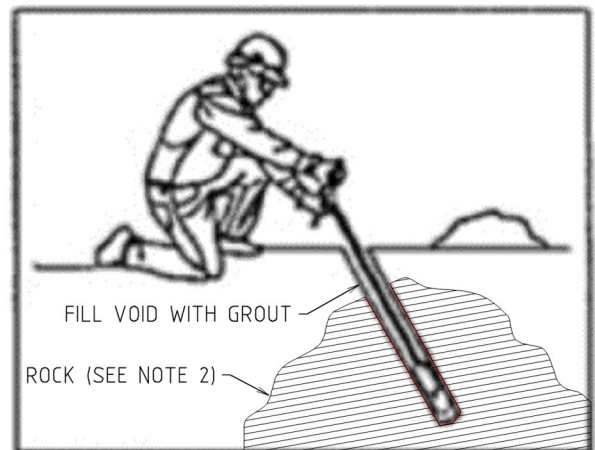
OUTRIGGER STAY



DRILL HOLE



PUSH ANCHOR INTO HOLE



USING BAR TURN ROD TO FIRMLY EXPAND AGAINST WALLS OF HOLE

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. MIN. PENETRATION IN ROCK 600mm TO ACHIEVE REQUIRED HOLDING CAPACITY.
3. MAX HOLE SIZE 63mm, RECOMMENDED DRILL SIZE 60mm.
4. HOLE DRILLING SHALL ALIGN TO STAY WIRE.
5. FOR GROUT PREPARATION REF R16-3-5

				REFERENCE				DISTRIBUTION CONSTR STANDARD		westernpower	
				TITLE				DRAWN JRR DATE 30-06-2017		DRG No	
				ANCHOR INSTALLATION FOR ROCK				ORIGINATED DVT SCALE NTS		R16-3-4	
								CHECKED LT		REV B	
								APPROVED GRANT STACY		SHT.	
REV	DATE	DESCRIPTION	ORGD	CHKD	APRD						
B	08 12 22	EXPANSION ROCK ANCHOR ADDED	SJ	LT	GS						
A	02 08 17	ORIGINAL ISSUE	DVT	LT	GS						

SOIL & CEMENT PREPARATION GUIDELINE

1. MATERIAL REQUIRED:
 - a. SOIL – CLEAN NATIVE SOIL FREE FROM ORGANIC MATERIAL (GRASS, ROOTS ETC.,)
 - b. CEMENT (DC0040 – 20KG BAGS)
 - c. POTABLE WATER
2. SOIL & CEMENT DRY MIXING – MIX 10 PARTS SOIL TO 1 PART CEMENT
3. MOISTURE CONDITIONING – MOISTEN THE EXCAVATED AUGAR HOLE IF IT IS DRY.
4. BACKFILL WITH DRY SOIL & CEMENT MIX IN 300MM LAYER
5. SPRINKLE WITH CLEAN WATER AND WELL COMPACT
6. REPEAT STEP 3 TO 4 TILL GROUND LEVEL IS ACHIEVED

CAUTION – FOR WET SOILS, MOISTURE CONDITIONING IS NOT REQUIRED
FOR SWAMPY SOILS/ POOR SOILS, ROAD BASE AS BACKFILL IS PREFERRED OPTION.

MATERIAL ESTIMATE FOR R16-3-2 AND R16-3-3				
DIAMETER OF AUGAR HOLE	600MM		700MM	
	CEMENT 20KG BAGS (DC0046)	SOIL MEASURED EQUIVALENT TO CEMENT BAG IN VOLUME	CEMENT 20KG BAGS (DC0046)	SOIL MEASURED EQUIVALENT TO CEMENT BAG IN VOLUME
1200	2	12	3	17
1400	3	14	4	20
1600	3	16	4	22
2000	4	20	5	28

QUICKSET CONCRETE PREPARATION GUIDELINE

1. MATERIAL REQUIRED:
 - a. QUICKSET CONCRETE – DC0046
 - b. POTABLE WATER
2. USE APPROX 2 LITRE OF WATER PER BAG TO PREPARE QUICKSET CONCRETE (DC0046)
3. MIX WELL TO THICK CONSISTENCY.
4. MOISTURE CONDITIONING: MOISTEN THE EXCAVATED AUGAR HOLE IF IT IS DRY.
5. POUR THE MIXED QUICKSET CONCRETE IN EXCAVATED HOLE IN 150MM LAYER
6. PLACE CONCRETE CONE ANCHOR (CA006) AT REQUIRED ANGLE, POUR REMAINING CONCRETE AND TAMP
7. ALLOW TO SET FOR 1.5 HOURS BEFORE TENSIONING TO ACHIEVE REQUIRED HOLDING CAPACITY

CAUTION – CONCRETE STARTS TO SET IN 15 MINUTES OF MIXING

DIAMETER OF AUGAR HOLE	DEPTH OF IN SITU CONCRETE BLOCK	QUICKSET CONCRETE 20 KG BAG DC0046	POTABLE WATER LITRE	MIN. SETTING TIME BEFORE TENSIONING
700MM	500MM	18	36	1.5 Hrs.

GROUT PREPARATION GUIDELINE

1. MATERIAL REQUIRED:
 - a. CEMENT – DC0040
 - b. POTABLE WATER
2. SLOWLY ADD WATER TO DRY CEMENT (DC0040)
3. MIX WELL TO POURABLE CREAMY CONSISTENCY

DIAMETER OF HOLE	DEPTH	CEMENT BAG 20 KG BAG DC0040
63MM	UPTO 1000MM	1

				REFERENCE			DISTRIBUTION CONSTR. STANDARD			
				TITLE			DRAWN: JRR DATE: 24-11-2022		DRG. No.	
				BACKFILL/ CONCRETE MIXING			ORIGINATED: SJ SCALE: NTS		R16-3-5	
							CHECKED: LT		APPROVED: GRANT STACY	
							REV. DATE		REV. A SHT.	
							DESCRIPTION		ORG. CHKD. APPRO.	

WOOD SCREWS

- WOOD SCREWS FOR FIXING SMALL ITEMS TO POLES, EG. SADDLES, CLEATS, END OF DISPERSION PLATES, GUARDS, SIGNS, POLE LABELS, ETC. (WOOD POLES ONLY).

STOCK CODE	DESCRIPTION	UNIT	TYPICAL APPLICATION
AS2512	WOOD SCREW 25mm LONG	PACK OF 500	HARD WOOD POLES *
AS2513	WOOD SCREW 50mm LONG	PACK OF 1000	SOFT WOOD POLES

* AS2512 MAY BE USED ON SOFT WOOD POLES TO ATTACH POLE LABELS.

COACH SCREWS

- COACH SCREWS FOR FIXING CABLE SUPPORTS (LV MAINS AND MV CABLES).
- REQUIRE PRE DRILLING (HOLE SIZE DEPENDANT ON WOOD TYPE)
- NOT TO BE HAMMER APPLIED.

STOCK CODE	DESCRIPTION	UNIT	HOLE SIZE	
			SOFT WOOD	HARD WOOD
AS1421	COACH SCREW M10, 50mm LONG	EACH	6mm MAX	8mm MAX
AS1423	COACH SCREW M10, 75mm LONG	EACH	6mm MAX	8mm MAX
AS1440	COACH SCREW M12, 65mm LONG	EACH	8mm MAX	10mm MAX
AS1441	COACH SCREW M12, 75mm LONG	EACH	8mm MAX	10mm MAX
AS1442	COACH SCREW M12, 90mm LONG	EACH	8mm MAX	10mm MAX
AS1443	COACH SCREW M12, 100mm LONG	EACH	8mm MAX	10mm MAX

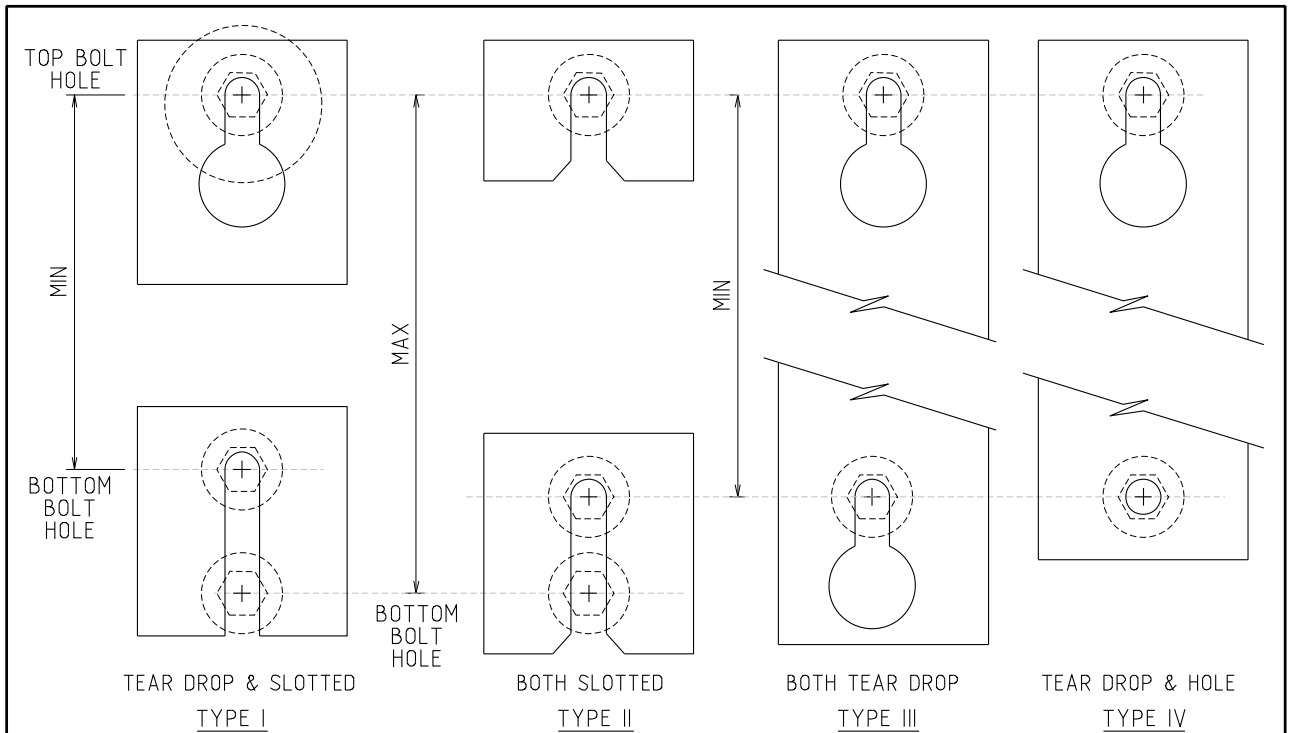
POLE STRAPS

- POLE STRAPS FOR FIXING ITEMS TO CONCRETE POLES.

STOCK CODE	COMPATIBLE CLIP STOCK CODE	DESCRIPTION	UNIT	TYPICAL APPLICATION
OZ0012	OZ0017	STAINLESS STEEL STRAP 15.8mm	30m ROLL	NON-STRUCTURAL ATTACHMENTS
OZ0025	OZ0015	STAINLESS STEEL STRAP 32mm	30m ROLL	STRUCTURAL - MAX. 100kg

LOADS MORE THAN 100kg REQUIRE STRUCTURAL ASSESSMENT.

				REFERENCE		DISTRIBUTION CONSTR. STANDARD			
				TITLE		DRAWN: JRR DATE: 07-12-2018		DRG. No.	
				POLE FIXINGS		ORIGINATED: CO SCALE: NTS		R17-1	
						CHECKED: NMc		APPROVED:	
						APPROVED: GRANT STACY		REV. A SHT.	
A	22.02.19	ORIGINAL ISSUE		CO	NMc	GS			
REV	DATE	DESCRIPTION		DRG.	CHKD.	APRD.			








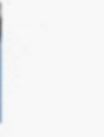


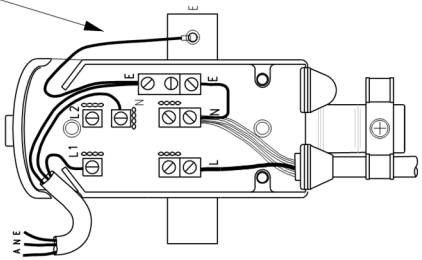


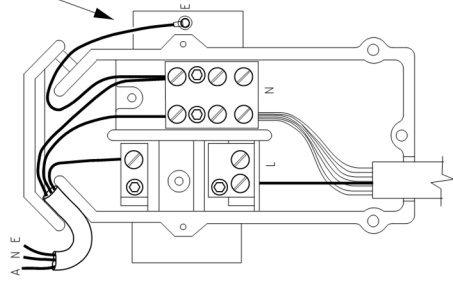
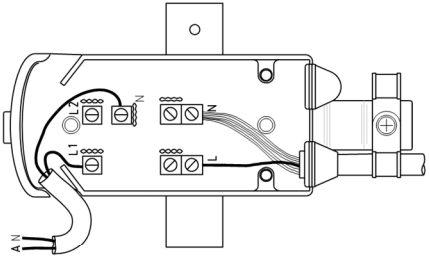
Equipment Type	Make & Model	Stock Code	Dimension TOP bolt to BOTTOM bolt		Type
			MIN (mm)	MAX (mm)	
Transformers All single phase (old & new)	Tyree	XT0202-XT0210	285	335	2
	ETEL	XT0202-XT0210	285	335	2
	ABB	XT0007-XT0040	285	335	2
Reclosers	NuLec N Series (N27) 3 phase	GS0311	360	380	1
	NuLec N Series (N33) 3 phase	GS0312	360	380	1
	NuLec W Series (W24) 1 phase	GS0310	360	380	1
	NOJA OSM38 3 phase	GS0315* & GS0320	280	320	1
	NOJA OSM 1 phase	GS0314* & GS0319	280	320	1
LBS (Load Break Switch)	Nulec RL38	GS0131	360	380	1
Capacitor Banks	ABB 22kV	RC0001/RC0002	460	470	2
	ABB 33kV	RC0013/RC0014	450	455	2
	Cooper	RC0031/RC0032	480	490	2
Voltage Regulator	General Electric	XA2601	TBA	TBA	2
	General Electric	XA2602	900	930	2
Pole Top Switch	Acculec Power BTLD 36/400	GS0130	240		3
Control Kiosk	NOJA	GS0316	1020		4
	Voltage Regulator		550		4
	Cap Bank	RC0015	460		4
	Nulec (Ultra Enclosure)		1080		1

*DOES NOT INCLUDE CONTROL KIOSK

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL DIMENSIONS ARE HOLE CENTRE TO CENTRE.
3. DRILLING TOLLERANCE -0/+5mm.
4. NULEC CHANGED TO SCHNEIDER.

						REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE		POLE FIXTURES DRILLING DIMENSIONS FOR SLOTTED POLE MOUNTED EQUIPMENT		DRAWN: JRR DATE: 26-04-2023 DRG. No.		R17-2	
								ORIGINATED: LK SCALE: NTS			
								CHECKED: NMc			
B 03.11.23 TABLE REVISED				JT ML CO				APPROVED: CHRIS OMODEI		REV: B	
A 15.05.23 ORIGINAL ISSUE				LK NMc CO						SHT.	
REV	DATE	DESCRIPTION		DRGD	CHKD	APRD					

<p>A</p> <p>CLASS II LED LUMINAIRE</p>  <p>NO CONNECTIONS TO EARTH. ALL EQUIPMENT CLASS II INSULATED</p>  <p>CLASS II SYMBOL INDICATED ON UNDERSIDE OF LUMINAIRE</p> 	<p>B</p> <p>DOUBLE INSULATED (DI) LUMINAIRE</p>  <p>Luminaire has earth terminal as parking place for earth but must NOT be earthed to the bodywork of the luminaire.</p>  <p>Di (double insulation) indicated on the underside of the luminaire.</p> 	<p>C</p> <p>SINGLE INSULATED (SI) LUMINAIRE</p>   <p>TPS cabling</p>  <p>SEPARATE NEUTRAL/EARTH (SNE) CONNECTED AS COMBINED NEUTRAL/EARTH (CNE) SEE MM13-R26-2</p>	<p>D</p> <p>SINGLE INSULATED (SI) LUMINAIRE</p>   <p>TPS cabling</p>  <p>COMBINED NEUTRAL/EARTH (CNE) SEE MM13-R26-1</p>																																					
<p>CLASS II (TYPICAL) SEE R26-7 SERIES</p> 		<p>NOTES:- 1. SEE R26-6 FOR EXPLANATION.</p>																																						
<p>REFERENCE DRAWING STREETLIGHT (LED) WIRING INSTALLATION STANDARD (PART 1)</p>																																								
<table border="1"> <thead> <tr> <th>REV</th> <th>DATE</th> <th>DESCRIPTION</th> <th>ORGD</th> <th>CHKD</th> <th>IAPRD</th> </tr> </thead> <tbody> <tr> <td>B</td> <td>03 08 20</td> <td>DETAILS UPDATED</td> <td>CO</td> <td>REE</td> <td>GS</td> </tr> <tr> <td>A</td> <td>16 08 18</td> <td>ORIGINAL ISSUE</td> <td>REE</td> <td>JC</td> <td>GS</td> </tr> </tbody> </table>		REV	DATE	DESCRIPTION	ORGD	CHKD	IAPRD	B	03 08 20	DETAILS UPDATED	CO	REE	GS	A	16 08 18	ORIGINAL ISSUE	REE	JC	GS	<p>TITLE</p>		<table border="1"> <tr> <td colspan="2">DISTRIBUTION CONSTR STANDARD</td> <td colspan="2"></td> </tr> <tr> <td>DRAWN: JRR</td> <td>DATE: 04-05-2018</td> <td>DRG No:</td> <td rowspan="3">R26-5</td> </tr> <tr> <td>ORIGINATED: REE</td> <td>SCALE: NTS</td> <td></td> </tr> <tr> <td>CHECKED: JC</td> <td></td> <td></td> </tr> <tr> <td>APPROVED:</td> <td>GRANT STACY</td> <td>REV: B</td> <td>SHT:</td> </tr> </table>	DISTRIBUTION CONSTR STANDARD				DRAWN: JRR	DATE: 04-05-2018	DRG No:	R26-5	ORIGINATED: REE	SCALE: NTS		CHECKED: JC			APPROVED:	GRANT STACY	REV: B	SHT:
REV	DATE	DESCRIPTION	ORGD	CHKD	IAPRD																																			
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CHECKED: JC																																								
APPROVED:	GRANT STACY	REV: B	SHT:																																					

STANDARD A OF R26-5 :

- ◆ CLASS II INSTALLATIONS ARE NOW STANDARD FOR ALL LED LUMINAIRE INSTALLATION.
- ◆ CLASS II INSTALLATIONS REQUIRE NO EARTH CONNECTIONS AND USES 2 CORE CABLING (NO EARTH LEAD). ALTHOUGH THE CUTOUT HAS AN EARTHING TERMINAL THIS IS NEVER USED, THE EARTH AND NEUTRAL TERMINAL MUST NOT BE BRIDGED.

STANDARD B OF R26-5 :

- ◆ DOUBLE INSULATED INSTALLATION WAS THE STANDARD FROM 2006 TO 2019.
- ◆ THE INSTALLATION REQUIRES THE USE OF A SNE SEPARATE NEUTRAL EARTH CUT-OUT BOX AT THE BASE OF THE COLUMN. ALTHOUGH BOTH THE CUT OUT AND THE LUMINAIRE HAVE EARTHING TERMINALS THEY ARE PURELY A PARKING PLACE FOR THE EARTH CABLE. THE EARTH MUST NOT BE BONDED TO THE STEEL COLUMN OR LUMINAIRE BODY AT ANY POINT AND THE EARTH MUST NOT BE BRIDGED TO THE NEUTRAL AT ANY POINT. THE INSTALLATION MUST BE WIRED IN ACCORDANCE WITH STANDARD B AND R26/3.

STANDARD C OF R26-5 :

FOR SINGLE INSULATED INSTALLATIONS. WESTERN POWER ONLY STOCK SNE SEPARATE NEUTRAL EARTH CUT-OUTS. IF REPLACING AN OLDER CNE COMMON NEUTRAL EARTH CUT-OUT FROM A SINGLE INSULATED INSTALLATION WITH A SNE CUT-OUT, IT MUST BE WIRED IN ACCORDANCE WITH STANDARD C AND MM13 - R26-2. THE EARTH MUST BE BONDED TO THE STEEL COLUMN AT THE CUT-OUT AND BONDED TO THE LUMINAIRE BODY. THE EARTH MUST ALSO BE BRIDGED TO THE NEUTRAL AT THE CUT-OUT. THIS ARRANGEMENT CAN ONLY BE USED WITH SINGLE INSULATED EQUIPMENT.

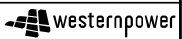
STANDARD D OF R26-5 :

OLD SINGLE INSULATED INSTALLATIONS. THIS IS A SUPERSEDED INSTALLATION THAT SHOWS AN OLD HENLEY STYLE CNE CUT-OUT WHICH HAS A COMMON NEUTRAL EARTH TERMINATION BLOCK WHICH CAN ONLY BE USED FOR SINGLE INSULATED INSTALLATIONS. THE EARTH IS BONDED TO THE COLUMN AT THE CUT-OUT AND ALSO BONDED TO THE BODY WORK OF THE LUMINAIRE. SHOULD, UPON INSPECTION, YOU FIND ONE OF THESE INSTALLATIONS CONNECTED TO A DOUBLE INSULATED LUMINAIRE, MARKED DI AS IN THE PHOTO, IT MEANS THE CUT-OUT WIRING ARRANGEMENT IS NOT COMPLIANT WITH THE TYPE OF LUMINAIRE AND THE INSTALLATION MUST BE NOTED FOR REMEDIAL ACTION. THE DOUBLE INSULATED LUMINAIRES ARE CLEARLY MARKED DI AND ARE VISIBLE FROM STREET LEVEL.

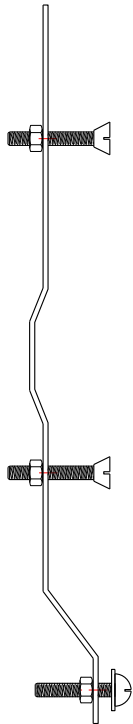
THERE CAN NOT BE ANY COMBINATION OF SINGLE OR DOUBLE INSULATED / CLASS II EQUIPMENT.

FOR ALL SYSTEMS :

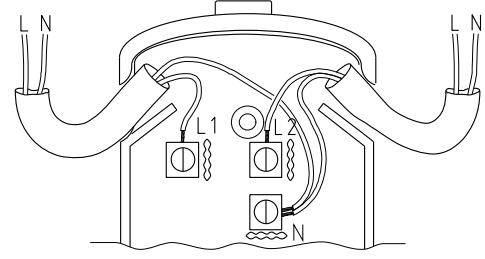
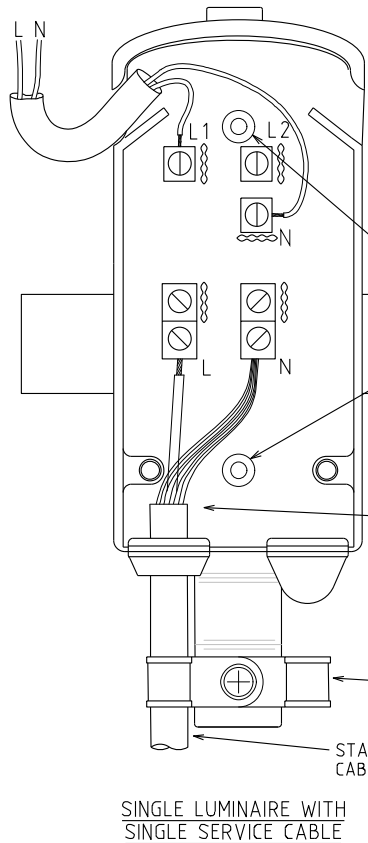
- ◆ CURRENT CABLING IS 2 CORE CABLE WITH PVC OVER SHEATH (BLUE, BROWN CORES)
- ◆ THERMO - PLASTIC SHEATHED CABLING (TWIN & EARTH TPS) WAS USED FOR STREETLIGHTING UP TO 2019.
- ◆ HOWEVER, OLDER INSTALLATIONS MAY HAVE SINGLE INSULATED CABLES AND THIS SHOULD BE NOTED DURING INSPECTION. SINGLE INSULATED CABLE BETWEEN THE CUT-OUT AND THE LUMINAIRE IS NOT ACCEPTABLE WITH DOUBLE INSULATED INSTALLATIONS. THE OUTER INSULATION OF THE TPS SHOULD ONLY BE BARED BACK THE MINIMUM NECESSARY TO CONNECT TO THE CUT-OUT AND LUMINAIRE. THERE SHOULD NOT BE EXCESSIVE AMOUNTS OF EXPOSED SINGLE INSULATED TPS VISIBLE. THE NEUTRAL SCREEN FROM THE INCOMING CABLE TO THE CUT-OUT MUST BE SLEEVED.

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD			
				TITLE				DRAWN: JRR		DATE: 30-12-2015	
				STREETLIGHT WIRING				ORIGINATED:		SCALE: NTS	
				INSTALLATION STANDARD				CHECKED: REE		DRG. No.	
				(PART 2)				APPROVED: GRANT STACY		R26-6	
										REV. B	
										SHT.	
REV	DATE	DESCRIPTION	ORIG.	CHKD.	APPRD.						
B	16 08 18	INSTALLATION STANDARD REVISED	REE	JC	GS						
A	30 12 15	ORIGINAL ISSUE	REE	REE	GS						

MOUNTING BRACKET (HZ0135)



BILL CUTOUT (HZ0131)



DOUBLE LUMINAIRE DETAIL

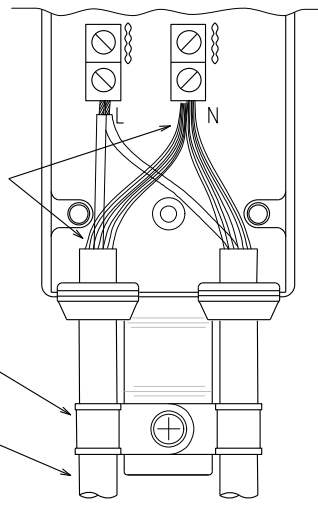
INSULATING CAPS TO BE FIXED OVER SCREWS

BLACK PVC TAPED NEUTRAL SCREEN WIRES

NOTE 2

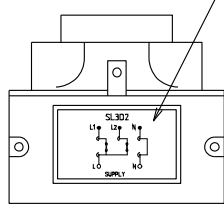
STANDARD STREETLIGHT CABLE (10 OR 16mm²)

SINGLE LUMINAIRE WITH SINGLE SERVICE CABLE



LOOPED SERVICE CABLE DETAIL

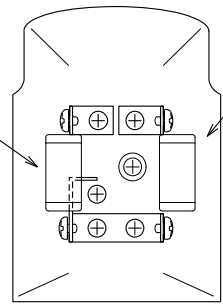
LABEL WITHOUT EARTH TERMINAL



LOWER COVER

NOTE 1

10A FUSE FOR STREETLIGHT/S



VIEW OF INSIDE OF FUSE LINK COVER

NOTES:-

- 1. INSERT SECOND FUSE FOR SECOND LUMINAIRE.
- 2. CABLE CLAMPS SUPPLIED WITH MOUNTING BRACKET.

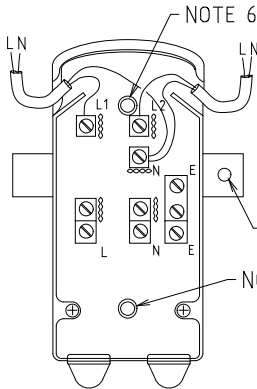
				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD		westernpower	
D	27.02.24	PHASE INSULATION CLARIFIED	NMc	NMc	CO	DRAWN: JRR	DATE: 27-04-2018	DRG. No.	
C	03.08.20	FUSE DETAILS REVISED	CO	NMc	GS	ORIGINATED: REE	SCALE: NTS	R26-7-1	
B	30.10.18	ANNOTATION REVISED	CO	REE	GS	CHECKED: NMc		REV. D	
A	16.08.18	ORIGINAL ISSUE	REE	JC	FK	APPROVED: GRANT STACY		SHT.	
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.				

STREETLIGHT CUTOUT LED CLASS II LUMINAIRES

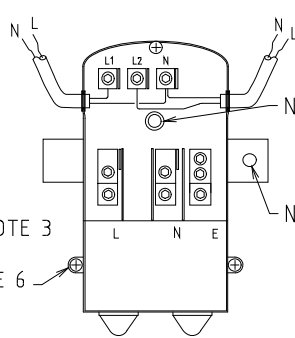
APPROVED: GRANT STACY
REV. D

CUTOUT CONFIGURATIONS

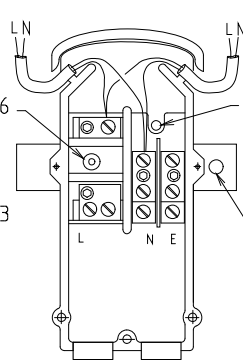
BILL - SEPARATE NEUTRAL/EARTH



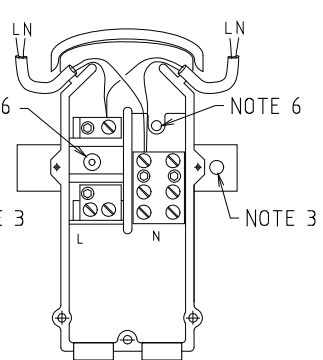
CHARLES - SEPARATE NEUTRAL/EARTH



HENLEY - SEPARATE NEUTRAL/EARTH

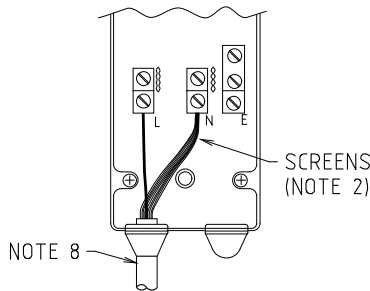


HENLEY - COMBINED NEUTRAL/EARTH



SUPPLY CABLE CONFIGURATIONS

DOUBLE INSULATED HELICAL SCREENED

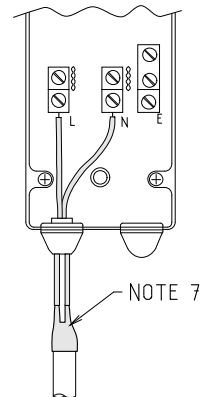


SINGLE INSULATION

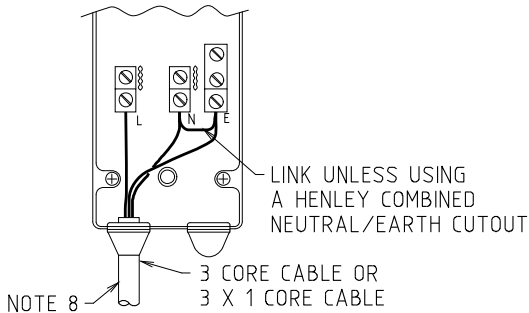
APPLY MM13-01 AND INSTALL HELICAL CABLE

BILL CUTOUT (OLD OR NEW) WITH NEW MOUNTING BRACKET (HZ0135) TO BE INSTALLED

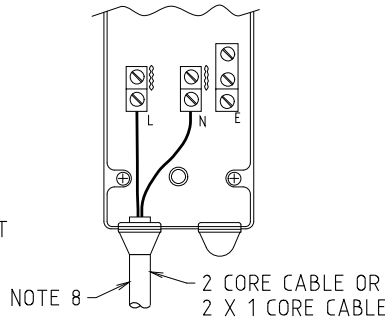
DOUBLE INSULATED HELICAL SCREENED WITH SHEATH CUT OUTSIDE OF CUTOUT



DOUBLE INSULATION TPS (ACTIVE, NEUTRAL & EARTH)



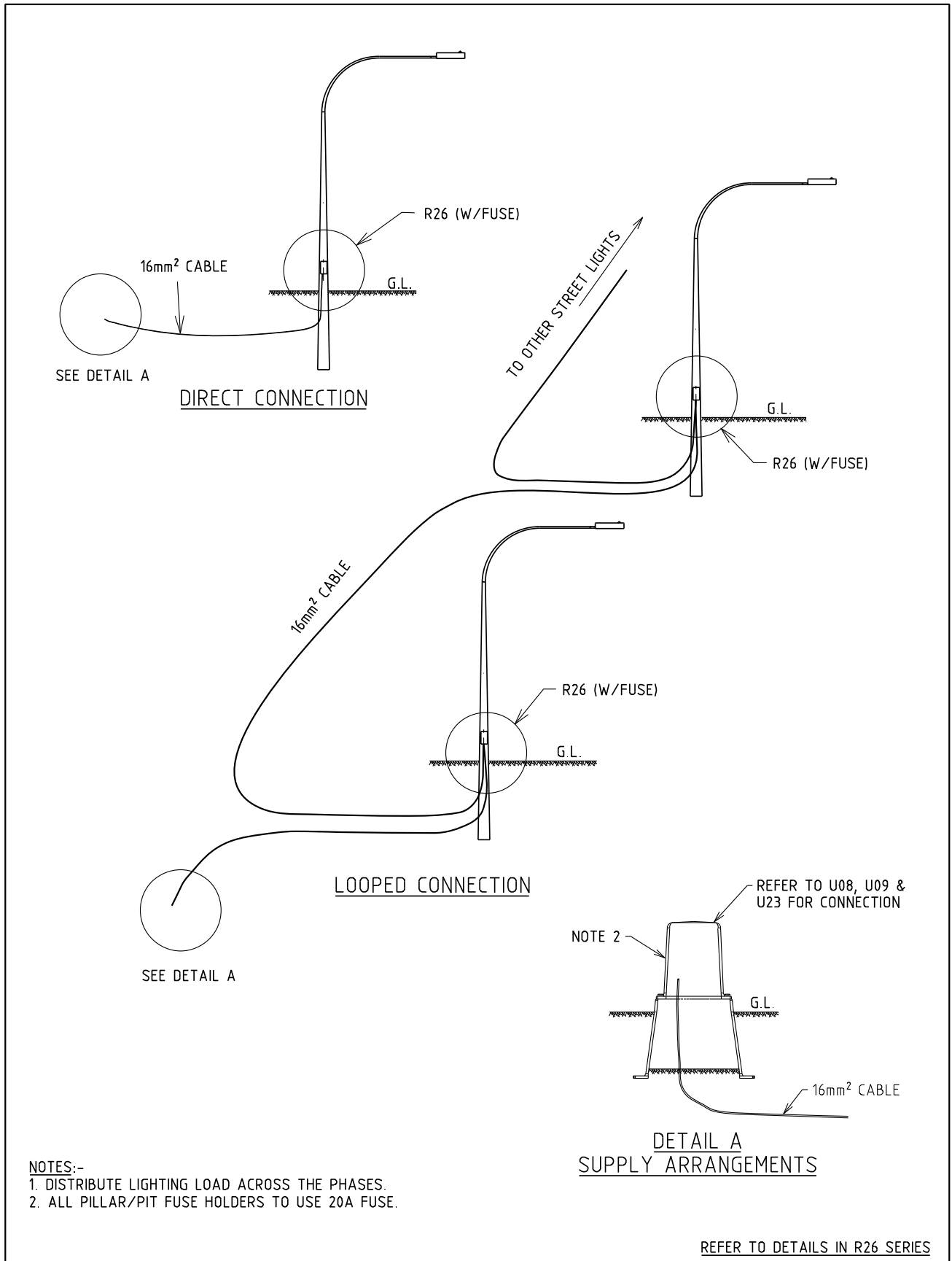
DOUBLE INSULATION TPS (ACTIVE & NEUTRAL)



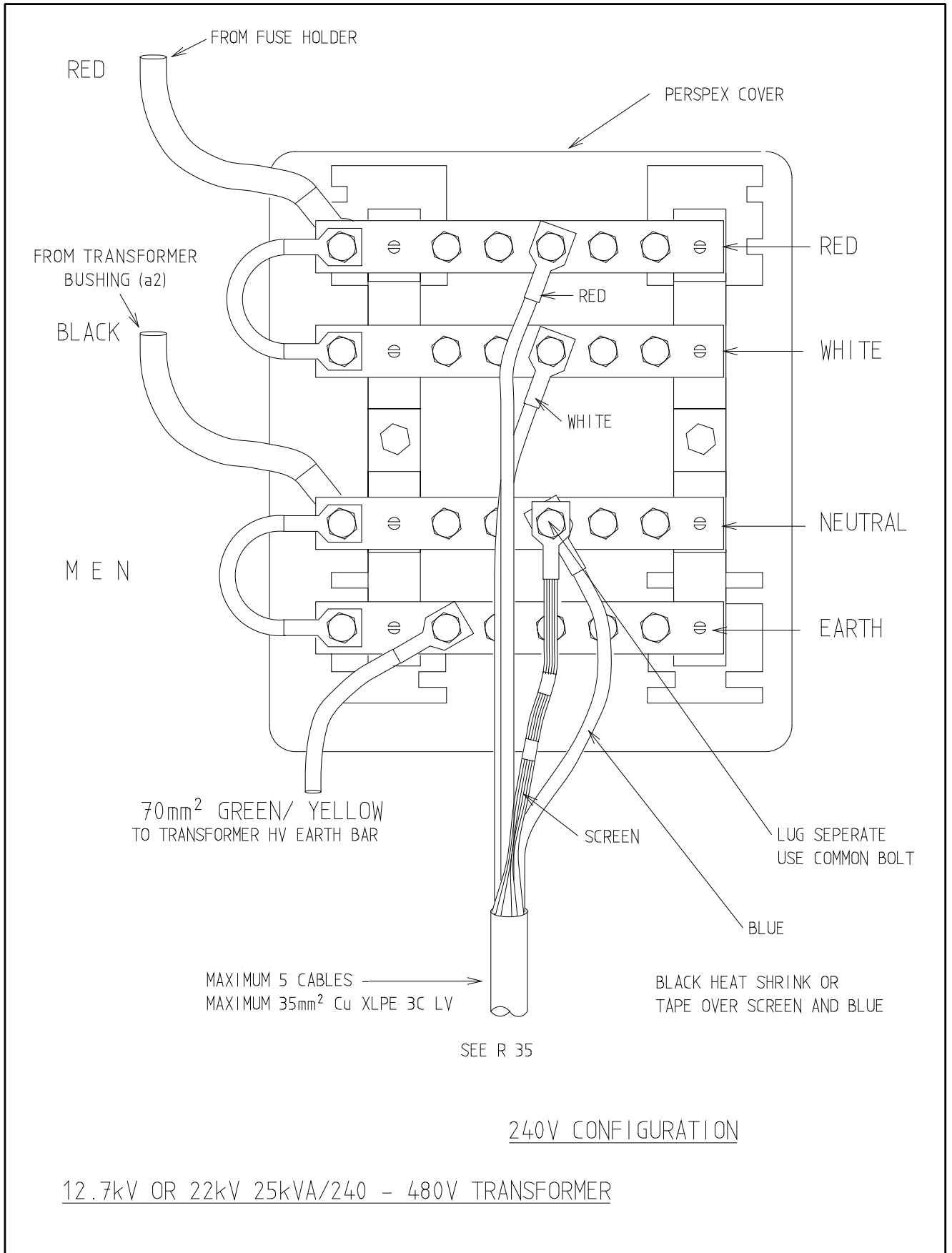
NOTES:-

1. IF SIGNIFICANTLY DEGRADED OR UNSERVICEABLE REPLACE CUTOUT TO R26-7-1 STANDARD CONSTRUCTION. CONSIDER THE CONDITION OF THE CUTOUT BODY, SCREW HEADS, SPRING CONTACTS, CORROSION AT TERMINAL BLOCKS, EVIDENCE OF ARCING ETC.
2. NEUTRAL SCREEN WIRES SHALL BE TAPED WITH BLACK PVC TAPE.
3. NO EARTH CONNECTIONS FROM EARTH TERMINAL TO THE COLUMN OR LUMINAIRE.
4. ALL TERMINALS REQUIRED TO BE RE-TIGHTENED.
5. IF REPLACING A LUMINAIRE REPLACE ALL LUMINAIRES, E.G. LED AND TRADITIONAL SHALL NOT COEXIST ON A DOUBLE OUTREACH.
6. APPLY SILICONE SEALANT OVER FIXING SCREW HEAD(S) TO PREVENT ACCIDENTAL CONTACT WITH WIRES.
7. APPLY GLOVE AND HEAT SHRINK SLEEVE (FE0112) OVER PHASE AND NEUTRAL.
8. SUPPLY CABLE SHEATH MUST ENTER CUTOUT.

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD			
				TITLE EXISTING STREETLIGHT CUT-OUT AND SUPPLY CABLE WITH NEW LED CLASS II LUMINAIRES				DRAWN: JRR DATE: 16-06-2020		DRG. No.	
								ORIGINATED: CO SCALE: NTS		R26-7-2	
								CHECKED: NMc		REV. B	
								APPROVED: GRANT STACY		SHT.	
REV	DATE	DESCRIPTION	ORGD	CHKD	JAPRD	CO	NMc	GS			
B	23.05.22	DETAILS REVISED									
A	23.07.21	ORIGINAL ISSUE									



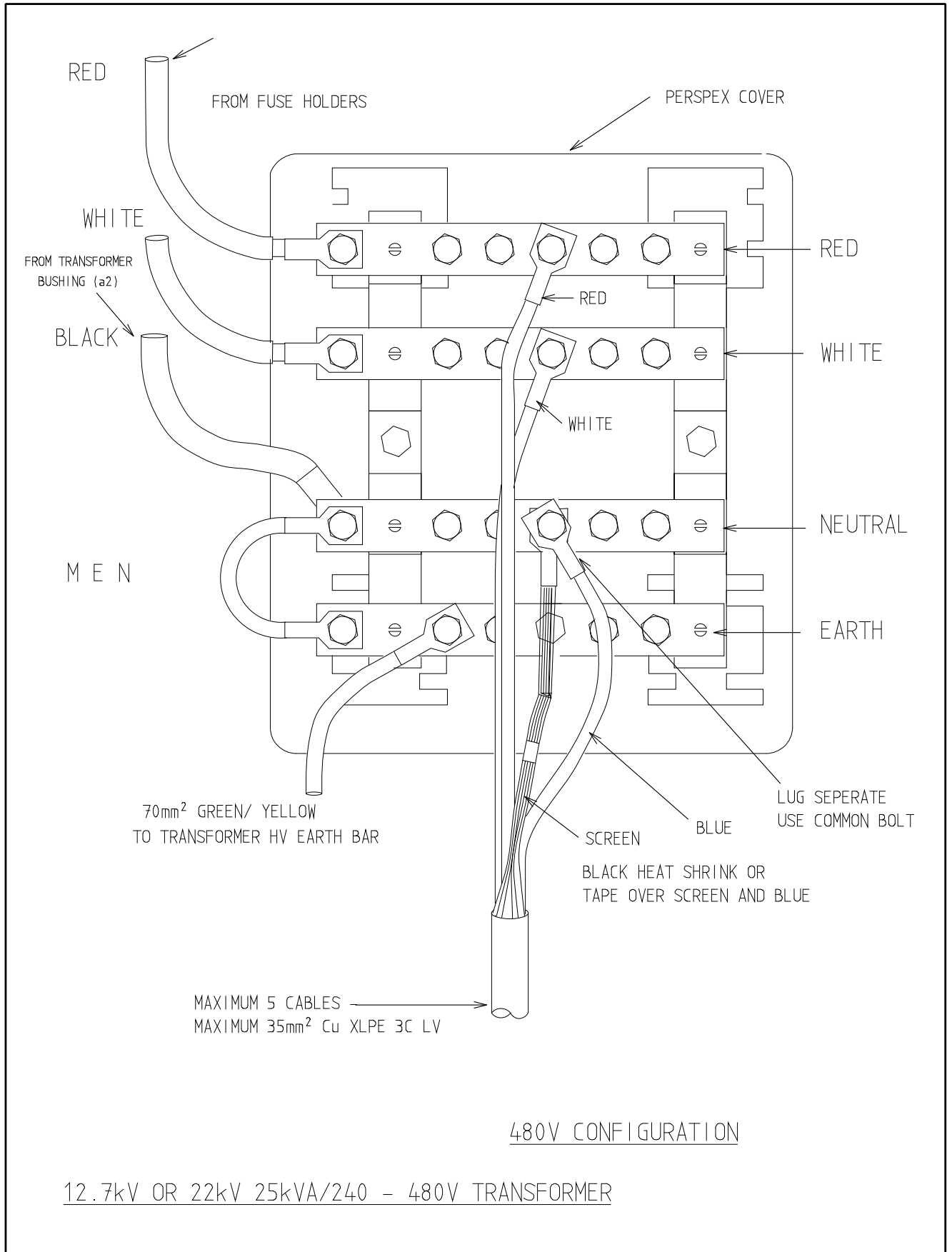
				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE			DRAWN: JRR		DATE: 06-03-2014	
				FUSING ARRANGEMENT FOR STREET LIGHT COLUMNS			ORIGINATED: JRR		SCALE: NTS	
							CHECKED: REE		REV. H	
							APPROVED: GRANT STACY		SHT.	
REV.	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.			DRG. No. R27		
H	30.10.18	NOTES REVISED	CO	REE	GS					
G	16.08.18	NOTES REVISED	REE	JE	GS					
F	09.01.18	ANNOTATION ADDED	REE	JE	GS					
E	03.02.17	MOUNTING BOARD DELETED & NOTES REVISED	CO	RE	GS					



240V CONFIGURATION

12.7kV OR 22kV 25kVA/240 - 480V TRANSFORMER

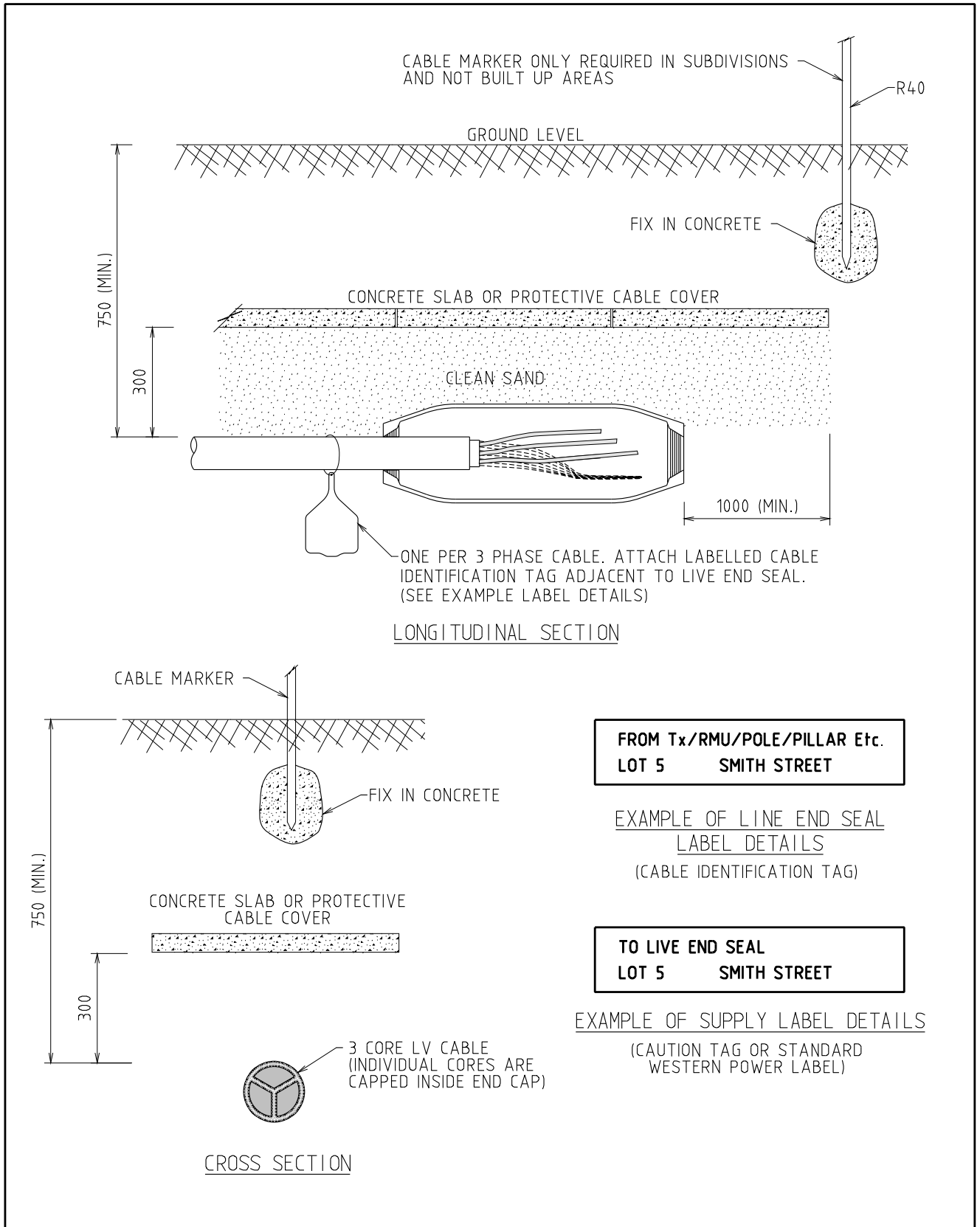
				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD			
				TITLE		DRAWN: JRR DATE: 06-03-2014 DRG No		R29	
				25kV PADMOUNT Tx LV DIST BOARD		ORIGINATED: SCALE: NTS			
				240V STREET FEEDER/CONSUMER MAINS		CHECKED: RE			
				TERMINAL BLOCK		APPROVED: GRANT STACY		REV. A ISHT.	
A	13.07.00	ORIGINAL ISSUE		DRGD	CHKD	APRD			



480V CONFIGURATION

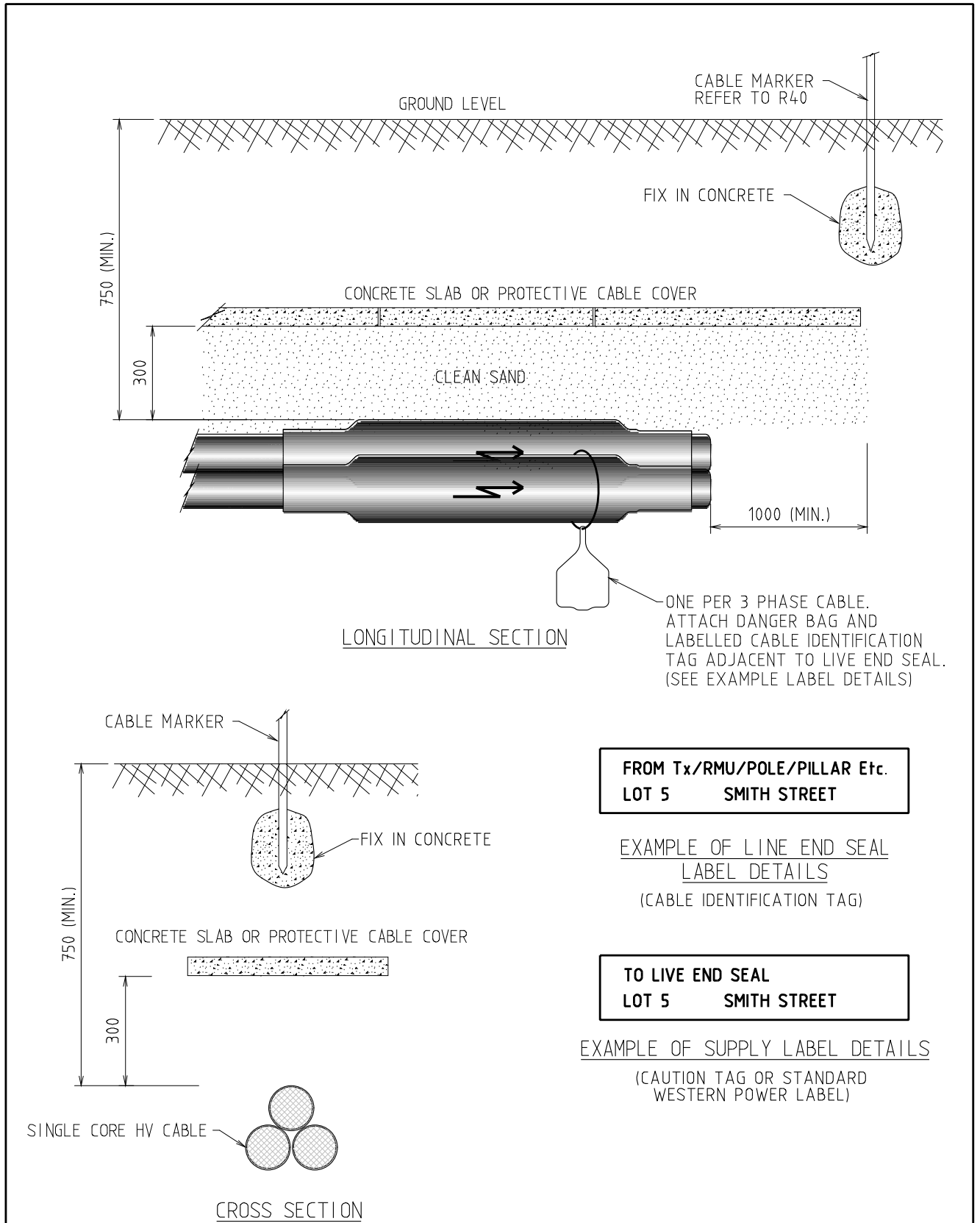
12.7kV OR 22kV 25kVA/240 - 480V TRANSFORMER

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD			
				25kV PADMOUNT Tx LV DISTR BOARD)		DRAWN: JRR		DATE: 06-03-2014	
				480V STREET FEEDER/CONSUMER MAINS		ORIGINATED:		SCALE: NTS	
				TERMINAL BLOCK		CHECKED: RE		R30	
						APPROVED:			
						GRANT STACY		A	
A	12.12.06	ORIGINAL ISSUE	DESCRIPTION	DRGD.	CHKD.	APRD.			



NOTES:-
1. ALL DIMENSIONS ARE IN MILLIMETRES.

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD		westernpower		
REV	DATE	DESCRIPTION	DRG.	CHKD.	APPR.	TITLE	DRAWN:	DATE:	DRG No	
F	09.09.22	SHELL TYPE REVISED	CO	SH	GS	LV CABLE LIVE END SEAL	JRR	29-06-2015	R34-1	
E	24.08.16	CABLE DEPTH CHANGED & PLAN DELETED	CO	FK	GS		ORIGINATED:	NB	SCALE:	NTS
D	08.01.16	TAG AND LABEL ADDED	CO	NB	GS		CHECKED:	CO	APPROVED:	GRANT STACY
C	22.07.15	MORE DIMS & DETAILS ADDED	NB	CO	GS		REV.	F	SHT.	



**FROM Tx/RMU/POLE/PILLAR Etc.
LOT 5 SMITH STREET**

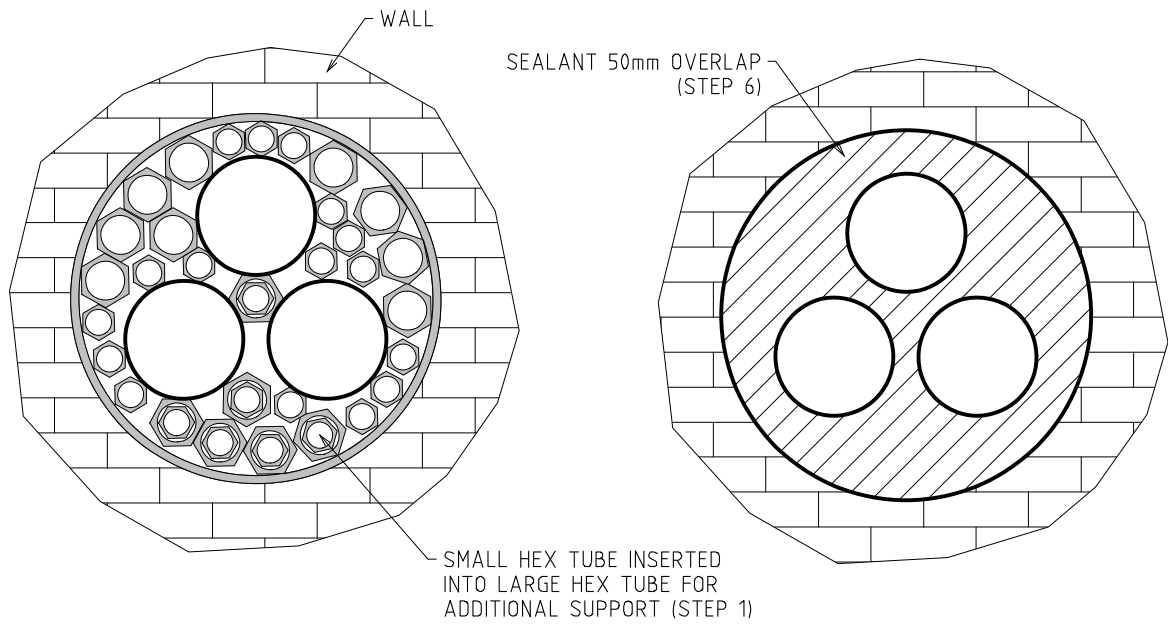
EXAMPLE OF LINE END SEAL LABEL DETAILS
(CABLE IDENTIFICATION TAG)

**TO LIVE END SEAL
LOT 5 SMITH STREET**

EXAMPLE OF SUPPLY LABEL DETAILS
(CAUTION TAG OR STANDARD WESTERN POWER LABEL)

NOTES:-
1. DIMENSIONS ARE IN MILLIMETRES.

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD		westernpower		
E	24.08.16	PLAN DELETED, CABLE DEPTH CHANGED AND REARRANGED	CO	FK	GS	TITLE	DRAWN: JRR	DATE: 29-06-2015	DRG. No.	
D	08.01.16	TAG AND LABEL ADDED	CO	NB	GS	HV CABLE LIVE END SEAL	ORIGINATED: NB	SCALE: NTS	R34-2	
C	22.07.15	LONGITUDINAL SECTION REVISED	NB	CO	GS		CHECKED: CO			
B	03.07.15	CABLE MARKER AND MORE DETAILS ADDED	NB	CO	GS		APPROVED:	GRANT STACY	REV. E	ISHT.
A	30.06.15	ORIGINAL ISSUE	NB	CO	GS					
REV	DATE	DESCRIPTION	DRG.	CHKD.	APRD.					



DETAIL 1
INSTALL PRIOR TO SEALANT APPLICATION

DETAIL 2
FINISHED INSTALL

INSTALLATION INSTRUCTIONS FILOSEAL KIT FM0215

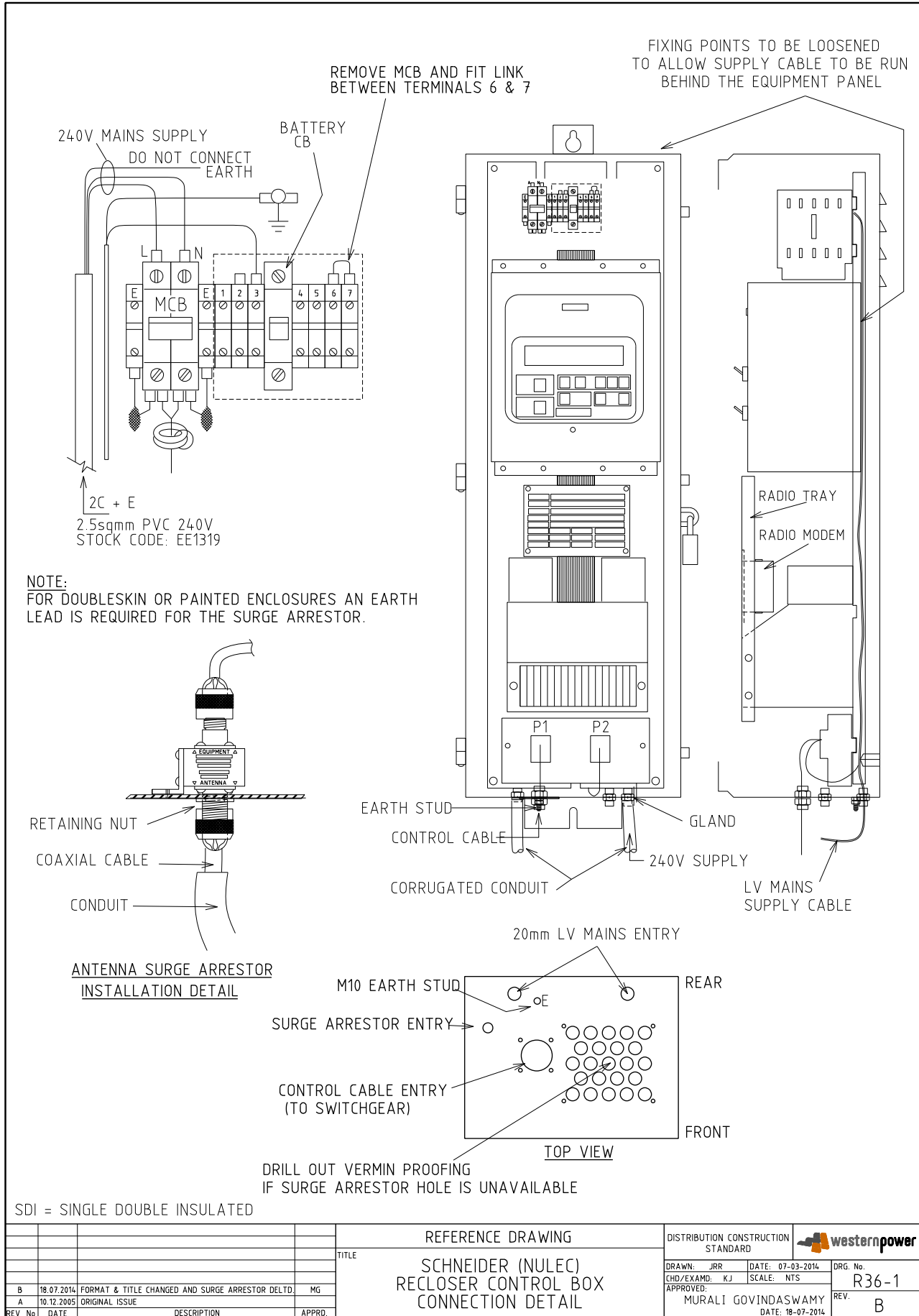
STEPS:-

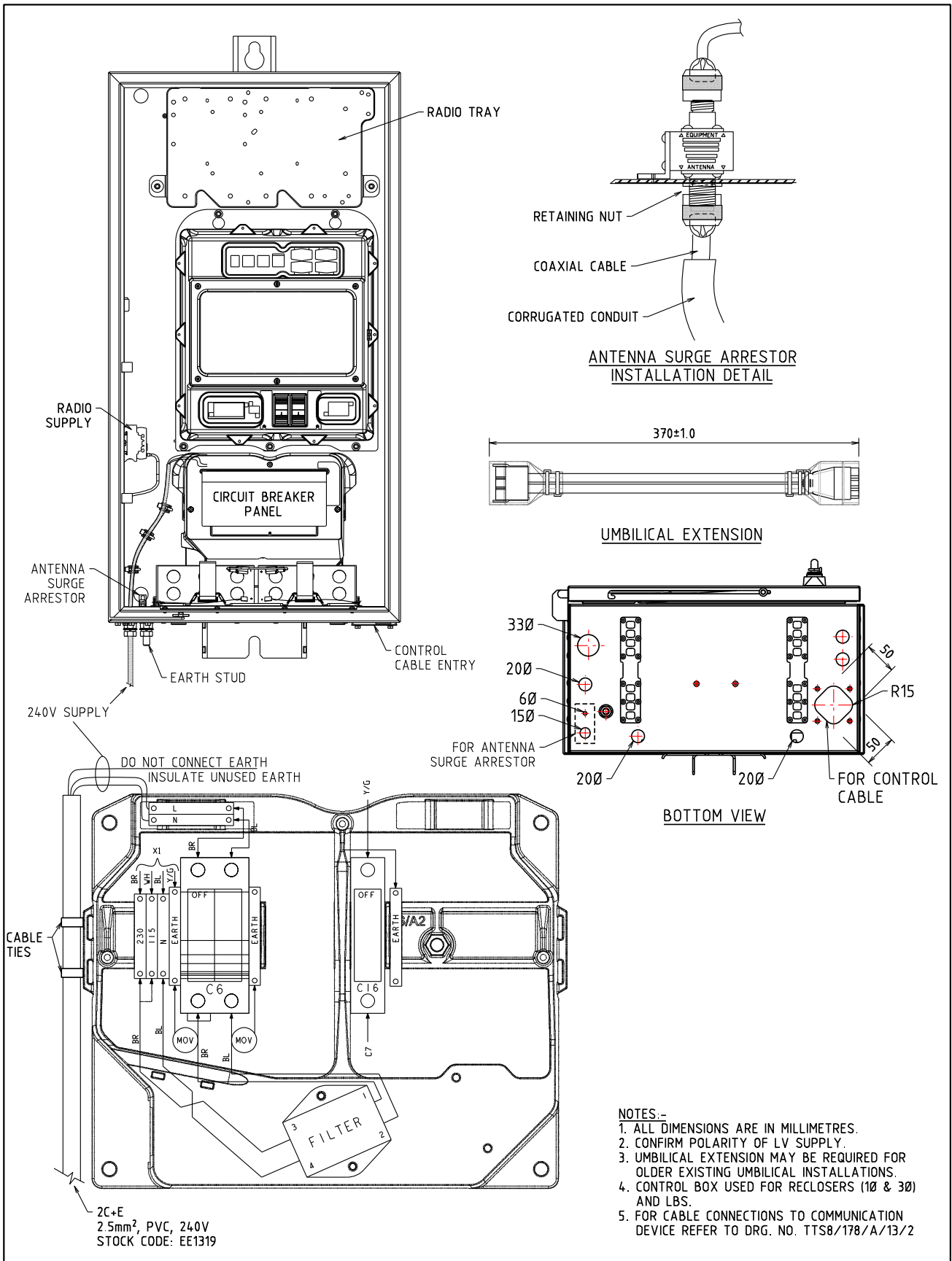
1. INSERT HEX TUBES AROUND AND BETWEEN THE CABLES ENSURING 5mm SPACING IS MAINTAINED. ALL HEX TUBES SHOULD BE INSERTED SO THAT THE FIRST 25mm OF THE DUCT IS CLEAR IN FRONT FOR THEM WHERE THE SEALANT IS TO BE PLACED.
2. CLEAN THE FIRST 25mm OF THE DUCT INNER AND THE CABLES
3. ABRADE THE DUCT INNER AND CABLES FOR THE FIRST 25mm TO PROVIDE A SURFACE FOR THE SEALANT TO ADHERE TO.
4. APPLY THE SEALANT IN FRONT OF THE HEX TUBES UNTIL SLIGHTLY PROUD OF THE DUCT END.
5. IMMERSE THE PROVIDED FINISHING CLOTH IN WATER AND PAT THE SEALANT INTO THE DUCT ENSURING THE SEAL IS APPLIED EVENLY.
6. USE THE PAD TO APPLY SEALANT OVER WALL BY 50mm TO SEAL THE GAP BETWEEN CONDUIT AND WALL.
7. ONCE INSTALLED THE CABLES ARE NOT TO BE DISTURBED IN ANY WAY FOR 8-10 DAYS. THE INSTALLATION OF CABLE CLAMPS PRIOR TO SEALING WILL MITIGATE THIS RISK.

NOTES :-

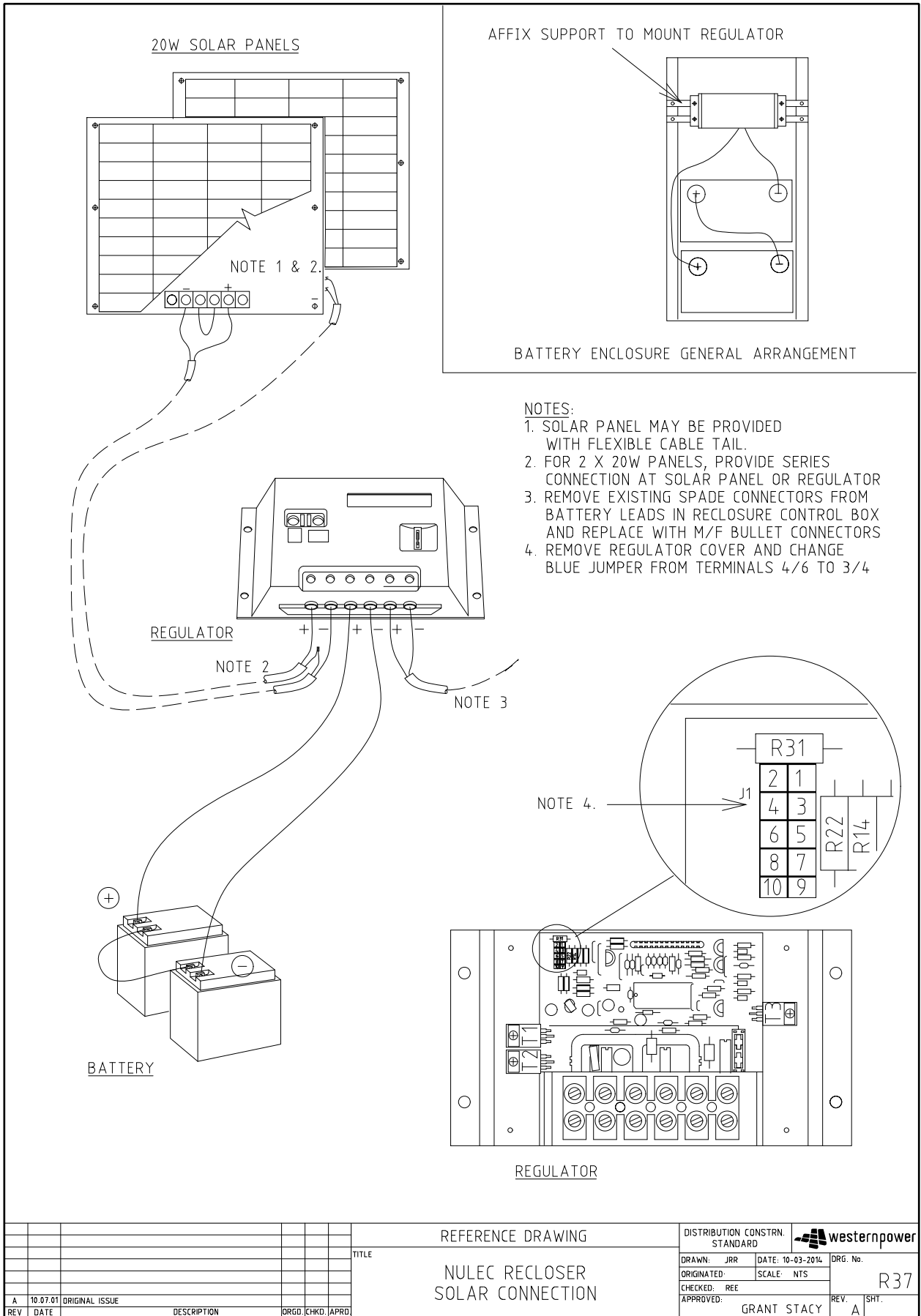
1. 3x1 CORE FEEDER CABLE SHOWN. KIT CAN BE USED FOR VARYING CABLES TYPES AND DUCT SIZES.

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD			
				TITLE				DRAWN: JRR DATE: 12-12-2022		DRG. No.	
				CONDUIT SEALING DETAILS				ORIGINATED: CO SCALE: NTS		R34-3	
								CHECKED: SH		REV. A	
								APPROVED: PHILLIP CAPPER		SHT.	
A	23.12.22	ORIGINAL ISSUE		CO	SH	PC					
REV	DATE	DESCRIPTION		DRGD.	CHKD.	APPRD.					

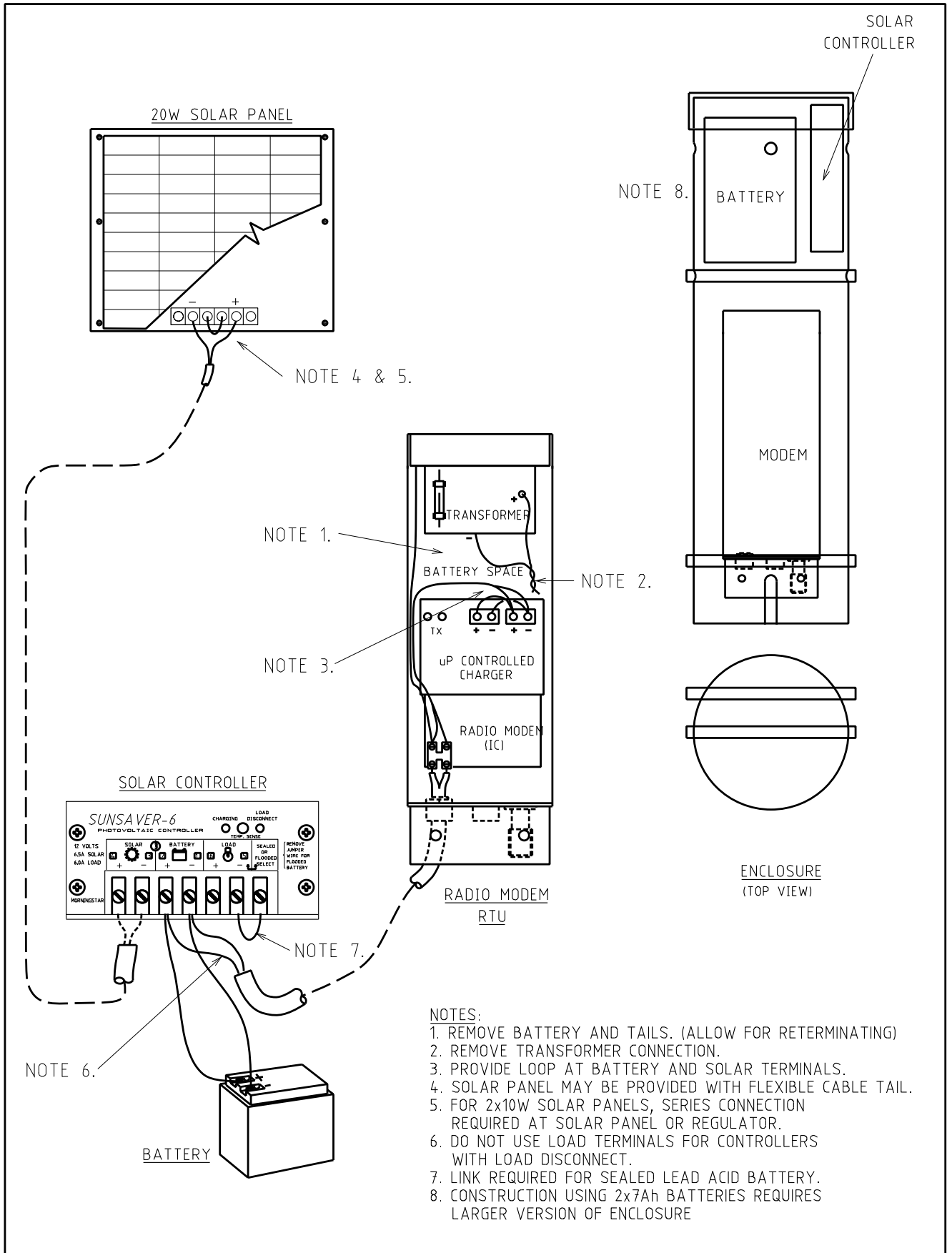




				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE		DRAWN: JRR DATE: 06-06-2014 DRG. No.		R36-2	
				SCHNEIDER - ADV C2		ORIGINATED: KJ SCALE: NTS			
				POWER SUPPLY CONTROL BOX		CHECKED: KJ			
				CONNECTION DETAIL		APPROVED: MURALI GOVINDASWAMY		REV: A SHT.	
REV	DATE	DESCRIPTION	ORG.	CHKD.	APRD.				
A	18.07.14	ORIGINAL ISSUE							

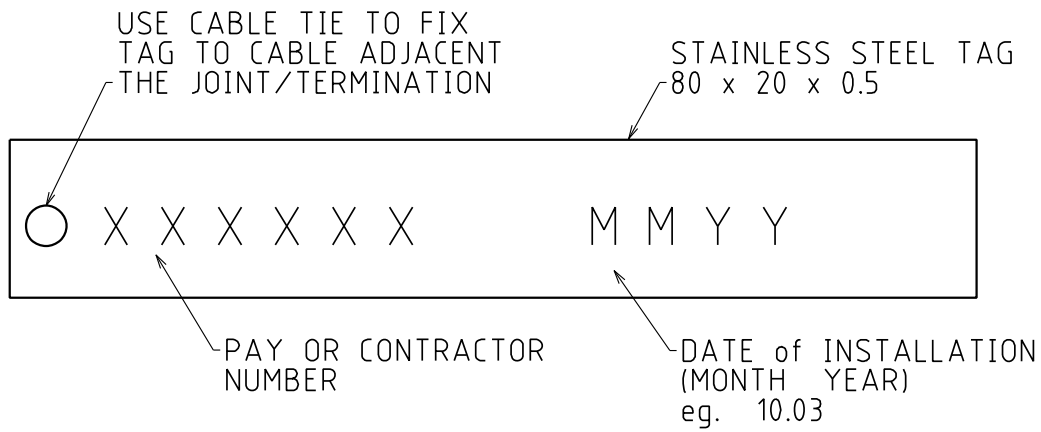


				REFERENCE DRAWING	DISTRIBUTION CONSTR. STANDARD	
				TITLE	DRAWN: JRR	DATE: 10-03-2014
				NULEC RECLOSER SOLAR CONNECTION	ORIGINATED: SCALE: NTS	DRG. No. R37
					CHECKED: REE	APPROVED: GRANT STACY
A	10.07.01	ORIGINAL ISSUE				
REV	DATE	DESCRIPTION	ORGO.	CHKD.	APRD.	SHT.



- NOTES:
1. REMOVE BATTERY AND TAILS. (ALLOW FOR RETERMINATING)
 2. REMOVE TRANSFORMER CONNECTION.
 3. PROVIDE LOOP AT BATTERY AND SOLAR TERMINALS.
 4. SOLAR PANEL MAY BE PROVIDED WITH FLEXIBLE CABLE TAIL.
 5. FOR 2x10W SOLAR PANELS, SERIES CONNECTION REQUIRED AT SOLAR PANEL OR REGULATOR.
 6. DO NOT USE LOAD TERMINALS FOR CONTROLLERS WITH LOAD DISCONNECT.
 7. LINK REQUIRED FOR SEALED LEAD ACID BATTERY.
 8. CONSTRUCTION USING 2x7Ah BATTERIES REQUIRES LARGER VERSION OF ENCLOSURE

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE		DRAWN: JRR		DATE: 10-03-2016	
				OVERHEAD FAULT INDICATOR SOLAR CONNECTION		ORIGINATED: REE		SCALE: NTS	
						CHECKED: REE		DRG. No. R38	
						APPROVED: GRANT STACY		REV. A	
								SHT.	
A	10.07.01	ORIGINAL ISSUE							
REV	DATE	DESCRIPTION	DRGD	CHKD	APRD				



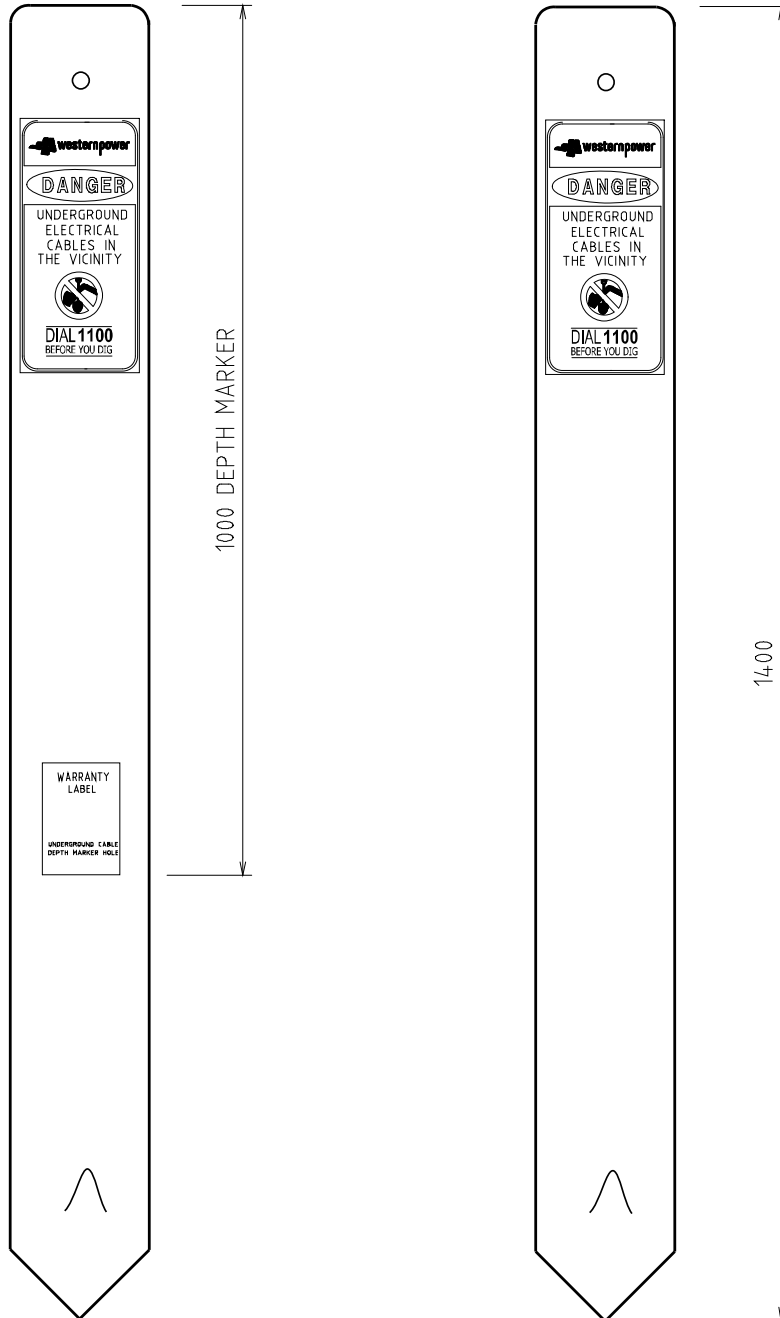
NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. INSTALLER TO MARK TAG AS DETAILED WITH SUITABLE PUNCH SET
3. ONE TAG ONLY IS REQUIRED WHERE A 3 PHASE SET IS INSTALLED
4. TAG SHALL BE EASILY AND DIRECTLY VISIBLE FOR INSPECTION

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD			
				TITLE		DRAWN: JRR DATE: 10-03-2014		DRG. No.	
				INSTALLER IDENTIFICATION TAG		ORIGINATED: SCALE: NTS		R39	
						CHECKED: REE		REV. SHT.	
						APPROVED: GRANT STACY		REV. B	
B	20.01.12	ORIGINAL ISSUE							
REV	DATE	DESCRIPTION		ORGD.	CHKD.	APRD.			

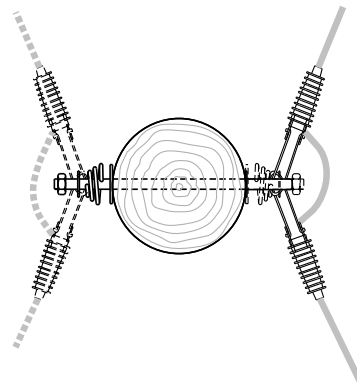
FRONT VIEW

BACK VIEW

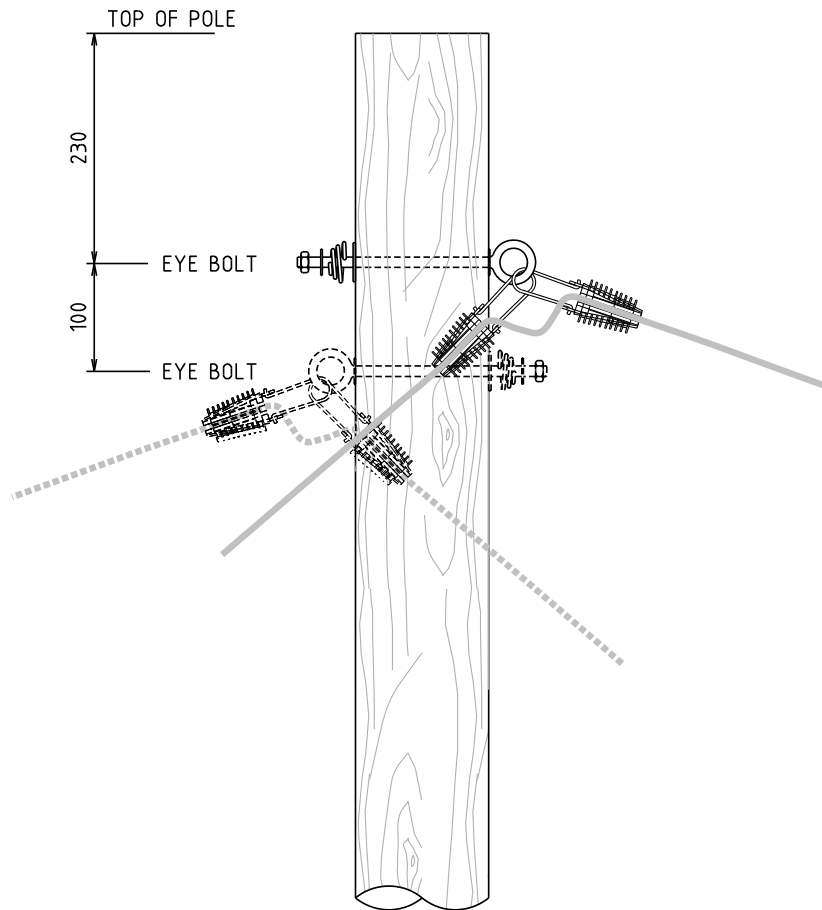


NOTE:
1. ALL DIMENSIONS ARE IN MILLIMETRES UNO.

				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD			
				TITLE			DRAWN: JRR		DATE: 10-03-2014	
				INSTALLATION OF ABOVE GROUND CABLE MARKER			ORIGINATED:		SCALE: NTS	
							CHECKED: REE		DRG. No. R40	
							APPROVED: GRANT STACY		REV. B	
									SHT.	
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APPRD.					
B	18.12.19	CABLE MARKER LENGTH REVISED	CO	NMc	GS					
A	30.07.09	ORIGINAL ISSUE								



TOP VIEW

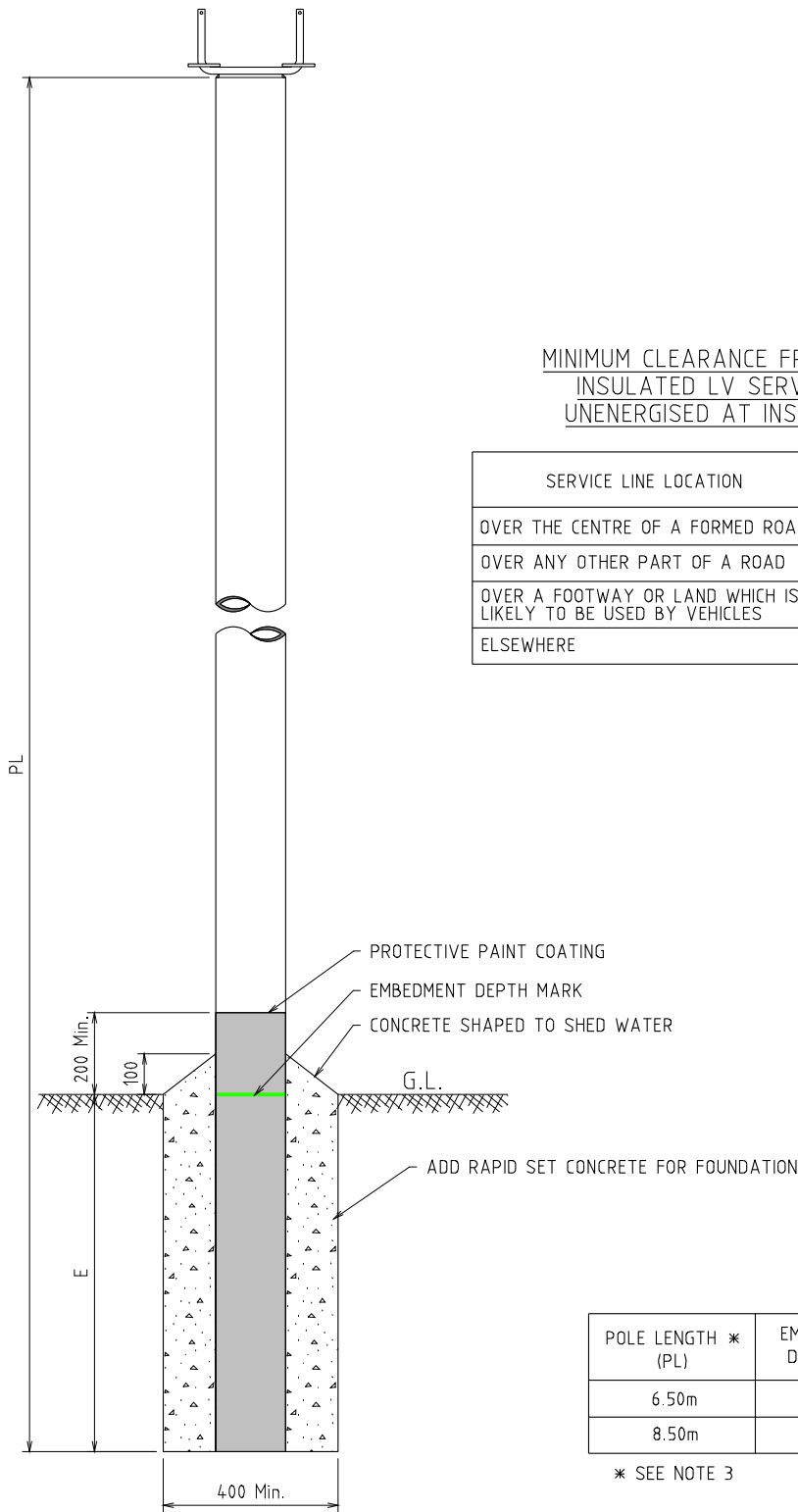


WOOD POLE

NOTES:

1. MAXIMUM SPAN LENGTH OF 30m, GOVERNED BY THE STRENGTH OF THE WEDGE CLAMP.
2. THREE CUSTOMER SERVICE CONNECTIONS ARE ALLOWED PER EYEBOLT WITH THE CONDITION THAT THE CUSTOMER SERVICE WIRE DOES NOT RUB AGAINST THE POLE.

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD			
				TITLE		DRAWN: JRR DATE: 30-09-2014		ORG. No.	
				CUSTOMER SERVICE CARRYOVER CONNECTION		ORIGINATED: JC SCALE: NTS		R41	
						CHECKED: REE		REV. A	
						APPROVED: GRANT STACY		SHT.	
A	13.10.14	ORIGINAL ISSUE		JC	REE	GS			
R. No.	DATE	DESCRIPTION		DRGD.	CHEC.	APRD.			



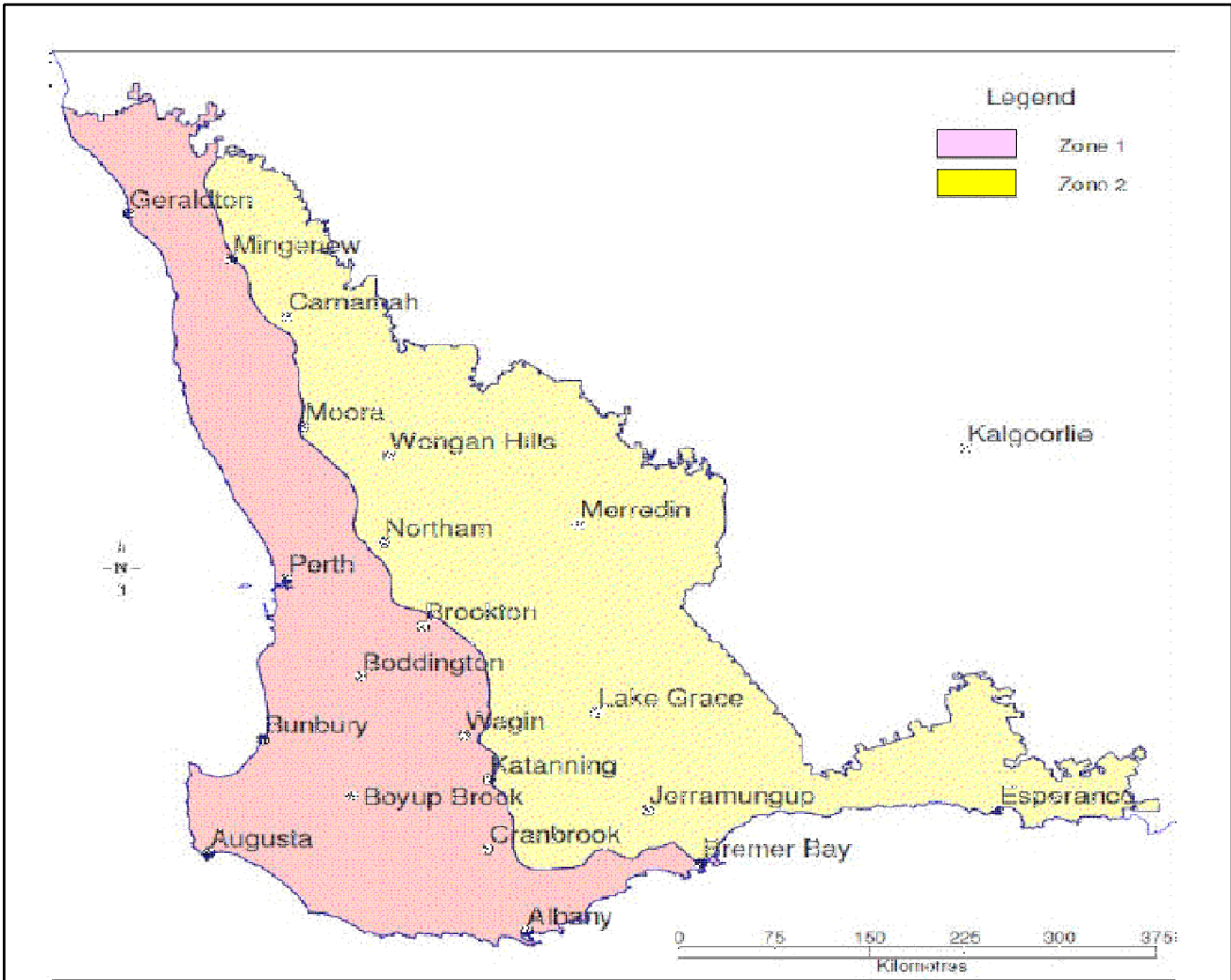
MINIMUM CLEARANCE FROM GROUND,
INSULATED LV SERVICE LINES
UNENERGISED AT INSTALLATION

SERVICE LINE LOCATION	DISTANCE TO GROUND IN ANY DIRECTION
OVER THE CENTRE OF A FORMED ROAD	5.8m
OVER ANY OTHER PART OF A ROAD	4.9m
OVER A FOOTWAY OR LAND WHICH IS LIKELY TO BE USED BY VEHICLES	3.3m
ELSEWHERE	3.0m

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. REFER TO DRAWING No. R42-2 FOR CORROSION PROTECTION REQUIREMENTS.
3. 8.5m POLE REQUIRED FOR ROAD CROSSING WHEN USING 16mm² 4 CORE CU SERVICE LINE.

				STRUCTURE		DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE		DRAWN: JRR DATE: 11-02-2016		DRG. No.	
				CONSUMER SERVICE STEEL POLE		ORIGINATED: AK SCALE: NTS		R42-1	
						CHECKED: DVT		REV. SHT.	
						APPROVED: GRANT STACY		A 1/2	
REV	DATE	DESCRIPTION	AK	DVT	GS				
A	18.02.16	ORIGINAL ISSUE							



LOCATION (REFER TO THE MAP)	LOCAL GROUND CONDITION	REQUIRED POLE TYPES	
		UNPAINTED STEEL POLE	PAINTED STEEL POLE
ZONE 1	WELL DRAINED SOIL	✓	
	SALINE SOIL OR LOW LYING AREA SUBJECT TO SEASONAL FLOODING		✓
ZONE 2	ALL SOILS		✓
REST OF THE STATE	WELL DRAINED SOIL	✓	
	SALINE SOIL OR LOW LYING AREA SUBJECT TO SEASONAL FLOODING		✓

THIS DRAWING TO BE READ INCONJUNCTION WITH Dwg. No. R42-1.

				STRUCTURE		DISTRIBUTION CONSTR. STANDARD			
				TITLE		DRAWN: JRR DATE: 11-02-2016		DRG. No.	
				CONSUMER SERVICE STEEL POLE		ORIGINATED: AK SCALE: NTS		R42-2	
				CORROSION PROTECTION REQUIREMENTS		CHECKED: DVT		REV. A	
						APPROVED: GRANT STACY		SHT. 2/2	
A	18.02.16	ORIGINAL ISSUE		AK	DVT	GS			
REV	DATE	DESCRIPTION		ORGO	CHKD	APRD			