SECTION 7 – OTHER POLE MOUNTED PLANT AND ATTACHMENTS

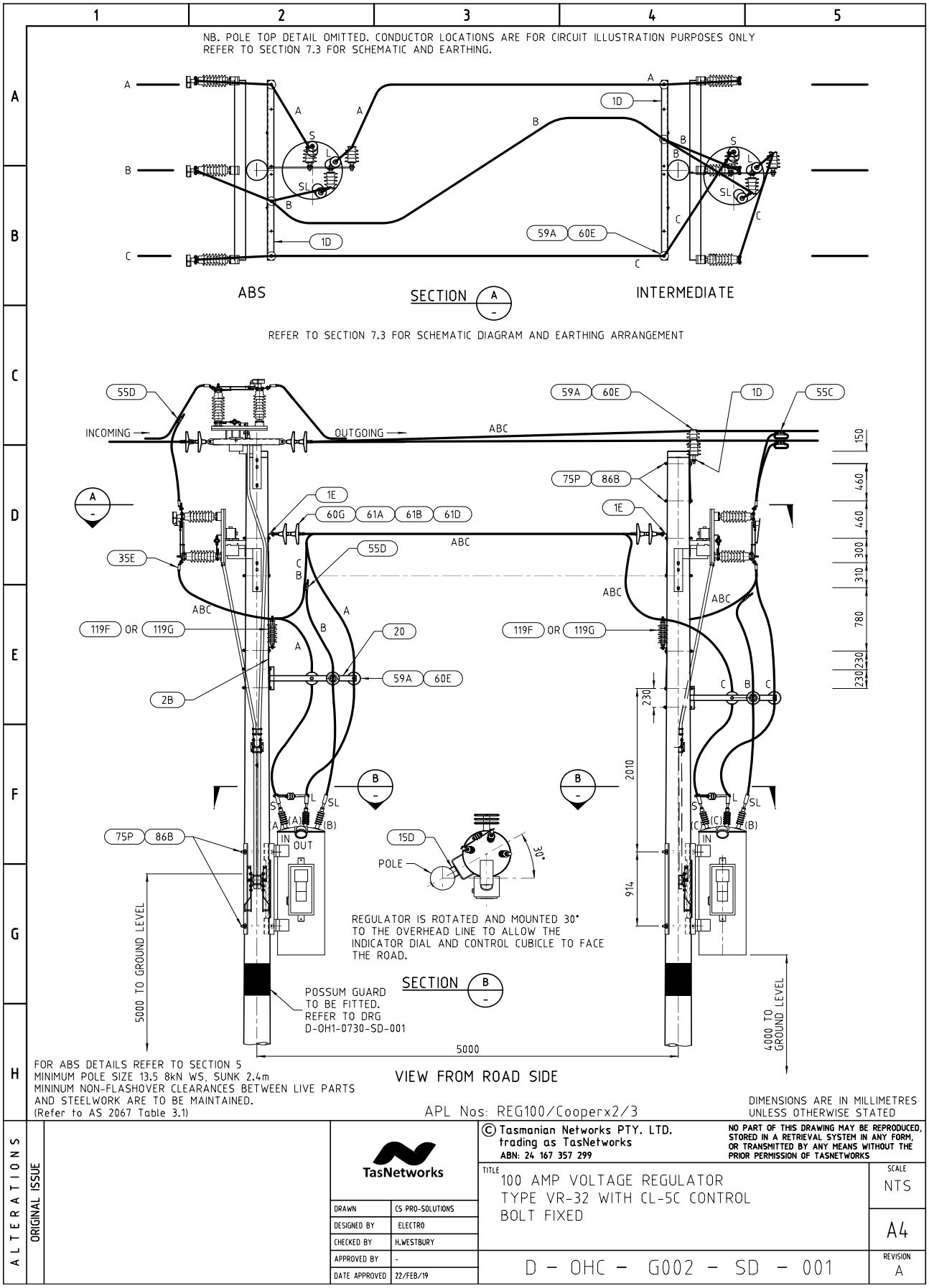
VERSION 2.0

7 SECTION 7 – OTHER POLE MOUNTED PLANT & ATTACHMENTS

For Streetlight Brackets Refer to the Public Lighting Manual

POLE MOUNTED EQUIPMENT

7.1 100A HV Voltage Regulator Type VR-32 – Pole Mounted



100A Voltage Regulator - Materials List

Unit Assembly	Store Type	Item Ref	Stock Item	Stock Item Description	Quantity
REG100/COOPERX2/3PLM	S	4	323311	L Bracket Mk11	1
(includes X-arms, excludes		5	323312	Spacing Plate Mk12	12
pole, regulators, ABSs, HVABC)		20	323363	Transposition Bracket	2
		89	66803	Washer 75 x 75 x 6 (M20 Hole)	2
		15D	323461	Regulator Mounting Bracket	1
		1D	323304	Crossarm Mk4	5
		1E	323305	Crossarm Mk5	2
		2B	323317	Crossarm Strap Mk17	2
		35E	141363	Lug Crimp 70mm2 tinned copper	24
		36C	141304	Q LUG bolted 50 70mm2 tinned copper	9
		36E	141306	Q LUG bolted 120 150mm2 tinned copper	7
		48B	101621	Conductor AAC - 19/3.25 (Neptune)	18
		51P	94184	Wire Electrical Cu 70mm2 1c Black	30
		53H	146440	Cond Term Hel 19/3.25 AAC	12
		54F	146510	Top Tie Helical 19/3.25 unarmoured	3
		55C	146618	Dee Clamp for 7.5-16.25mm Dia AL ACSR/GZ (19/2.00 Cu Tail) - 355mm Long	6
		55D	144950	Parallel groove clamp (7.0-16.3mm Al)	6
		55E	144955	Parallel groove clamp (7.5-17.5mm Bi metal)	6
		55H	146856	Split Bolt C (up to 19/.083)	10
		55L	225798	Tee Clamp AL TCDA19	6
		59A	322721	Pin,Insulator 22kV	15
		60E	320531	Insulator Pin 22/450	15
		60G	321260	Insulator Disc Porcelain 16mm 70kN 146mm	24
		61A	322056	Ball Clevis & Pin 16mm	12
		61B	322386	Socket Termination 16mm	12
		61D	322090	Kink Pin 16mm	12
		62F	144620	Bushing Cover 22kV	6
		75P	32289	Bolt Hex M16 X 375	8
		75R	32291	Bolt Hex M16 X 425	12
		75T	32293	Bolt Hex M16 X 475	6
		77B	33771	Bolt Tower M12 X 35	10
		82A	40441	Nut M16	52
		82B	40442	Nut M20	8
		86B	65158	Washer Els 16	26
		88A	66412	Washer Tower 12	10
			32348	Bolt Hex M20 x 600	4
		2A	323314	Crossarm Strap Mk14	10
		119F	225772	Surge Arrester 11kV with cap	6 (or AR)
		119G	225773	Surge Arrester 11kV with cap	6 (or AR)

ALTERATIONS

ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	22/FEB/19

TITLE: 100 AMP VOLTAGE REGULATOR
TYPE VR-32 WITH CL-5C CONTROL
BOLT FIXED
MATERIAL LIST

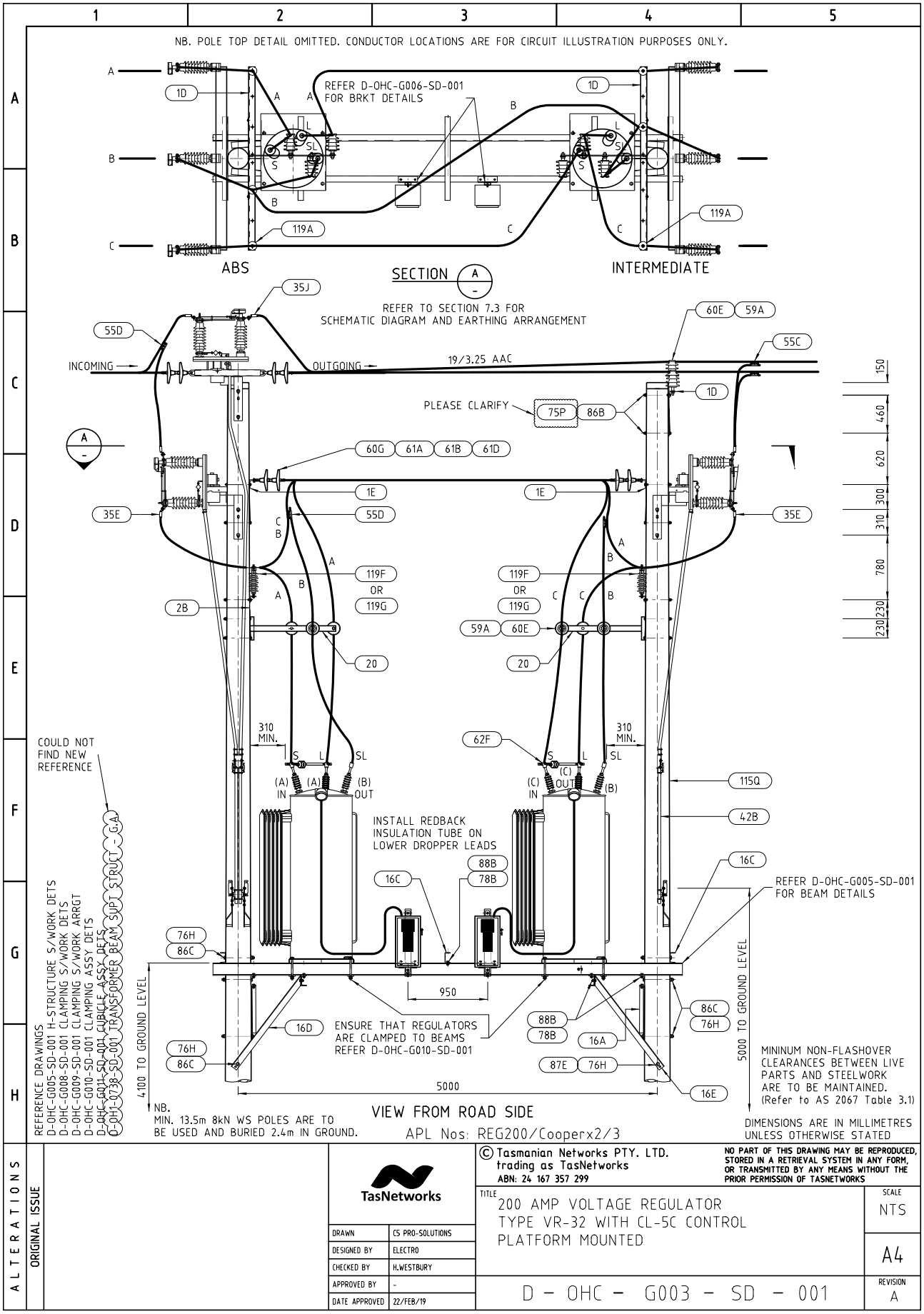
SCALE: NTS

A4

D - OHC - G002 - SD - 002

REVISION: A

7.2 200A Voltage Regulator Type VR-32 – Platform Mounted



200A Voltage Regulator - Materials List

P

Unit Assembly	Store Type	Item Ref	Stock Item	Stock Item Description	Quantity
REG200/COOPERX2/3PLM (includes X-arms, excludes pole, regulators, ABSs, HVABC)	S	4	323311	L Bracket Mk11	1
		5	323312	Spacing Plate Mk12	6
		20	323363	Transposition Bracket	2
		15C	323349	V Bracket Mk49	2
		16C	323351	T/F Crossmember Mk51	7
		16D	323352	T/F Prop Lh Mk52	2
		16E	323353	T/F Prop Rh Mk53	2
		16F	323377	T/F Guide Mk77	4
		1D	323304	Crossarm Mk4	5
		1E	323305	Crossarm Mk5	2
		2B	323317	Crossarm Strap Mk17	2
		35E	141363	Lug Crimp 70mm2 tinned copper	24
		36C	141304	Q LUG bolted 50 70mm2 tinned copper	9
		36E	141306	Q LUG bolted 120 150mm2 tinned copper	7
		48B	101621	Conductor AAC - 19/3.25 (Neptune)	18
		51P	94184	Wire Electrical Cu 70mm2 1c Black	30
		53H	146440	Cond Term Hel 19/3.25 AAC	12
		54F	146510	Top Tie Helical 19/3.25 unarmoured	3
		55C	146618	Dee Clamp for 7.5-16.25mm Dia AL ACSR/GZ (19/2.00 Cu Tail) - 355mm Long	6
		55D	144950	Parallel groove clamp (7.0-16.3mm Al)	6
		55E	144955	Parallel groove clamp (7.5-17.5mm Bi metal)	6
		55H	146856	Split Bolt C (up to 19/.083)	10
		55L	225798	Tee Clamp AL TCDA19	6
		59A	322721	Pin,Insulator 22kV	15
		60E	320531	Insulator Pin 22/450	15
		60G	321260	Insulator Disc Porcelain 16mm 70kN 146mm	24
		61A	322056	Ball Clevis & Pin 16mm	12
		61B	322386	Socket Termination 16mm	12
		61D	322090	Kink Pin 16mm	12
		62F	144620	Bushing Cover 22kV	6
		75P	32289	Bolt Hex M16 X 375	8
		75R	32291	Bolt Hex M16 X 425	12
		75T	32293	Bolt Hex M16 X 475	6
		77B	33771	Bolt Tower M12 X 35	10
		82A	40441	Nut M16	52
		82B	40442	Nut M20	8
		86B	65158	Washer Els 16	26
		88A	66412	Washer Tower 12	10
		2A	323314	Crossarm Strap Mk14	10
		119F	225772	Surge Arrester 11kV with cap	6 (or AR)
		119G	225773	Surge Arrester 22kV with cap	6 (or AR)

ALTERATIONS

ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	22/FEB/19

TITLE
200 AMP VOLTAGE REGULATOR
TYPE VR-32 WITH CL-5C CONTROL
PLATFORM MOUNTED
MATERIAL LIST

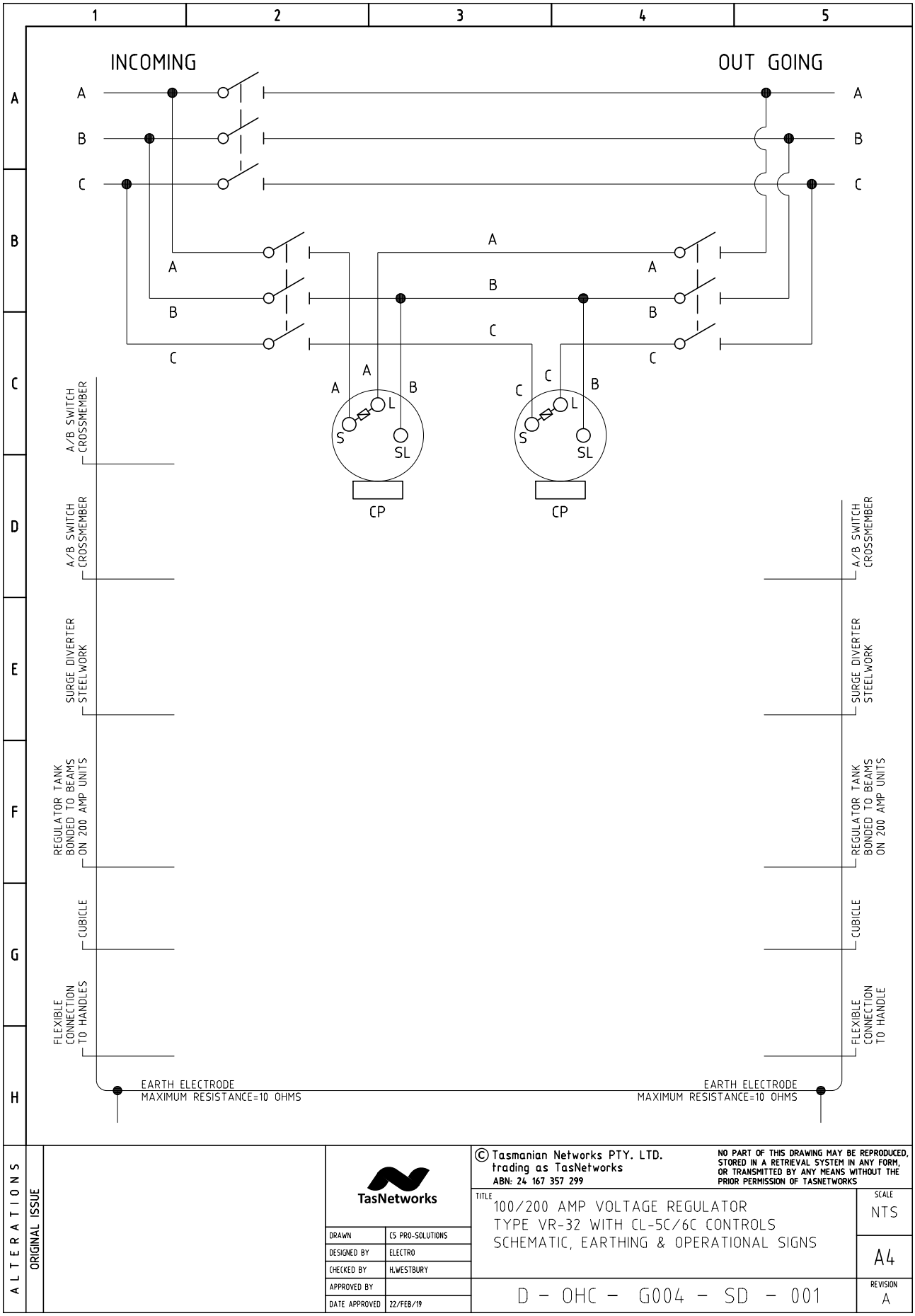
SCALE NTS

A4

D - OHC - G003 - SD - 002

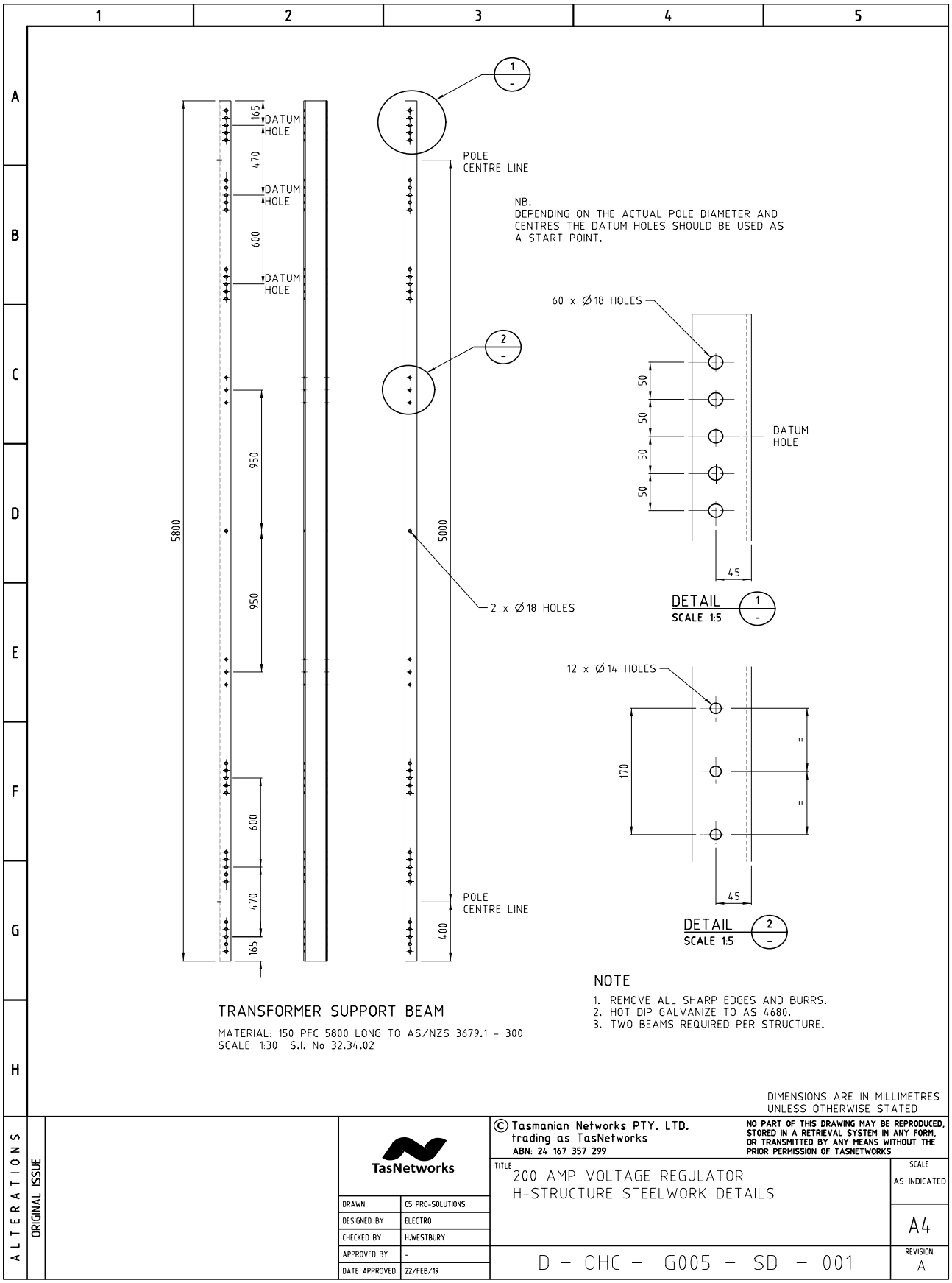
REVISION A

7.3 HV Voltage Regulator Schematic, Earthing & Operational Signs

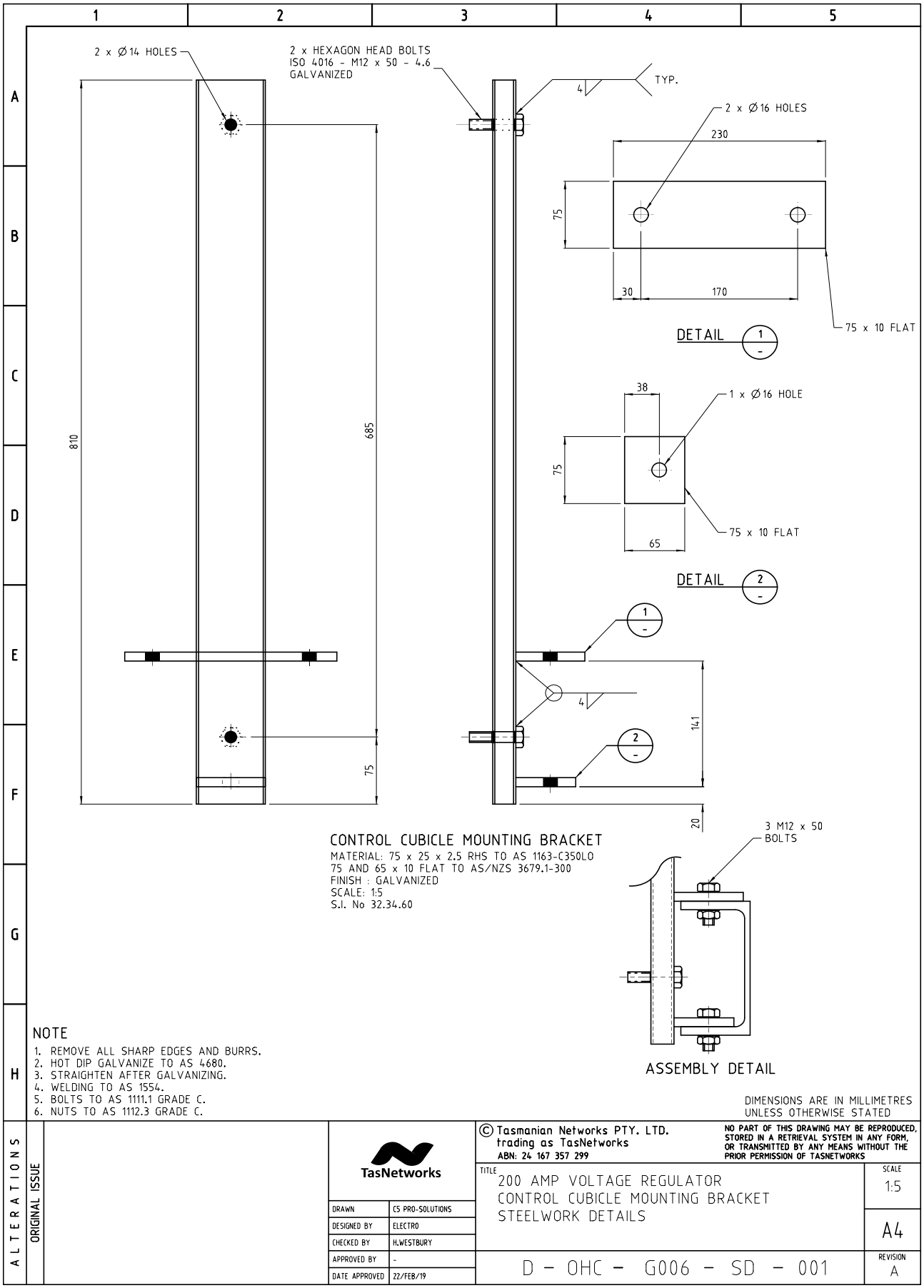


7.4 200A HV Voltage Regulator Steel Work

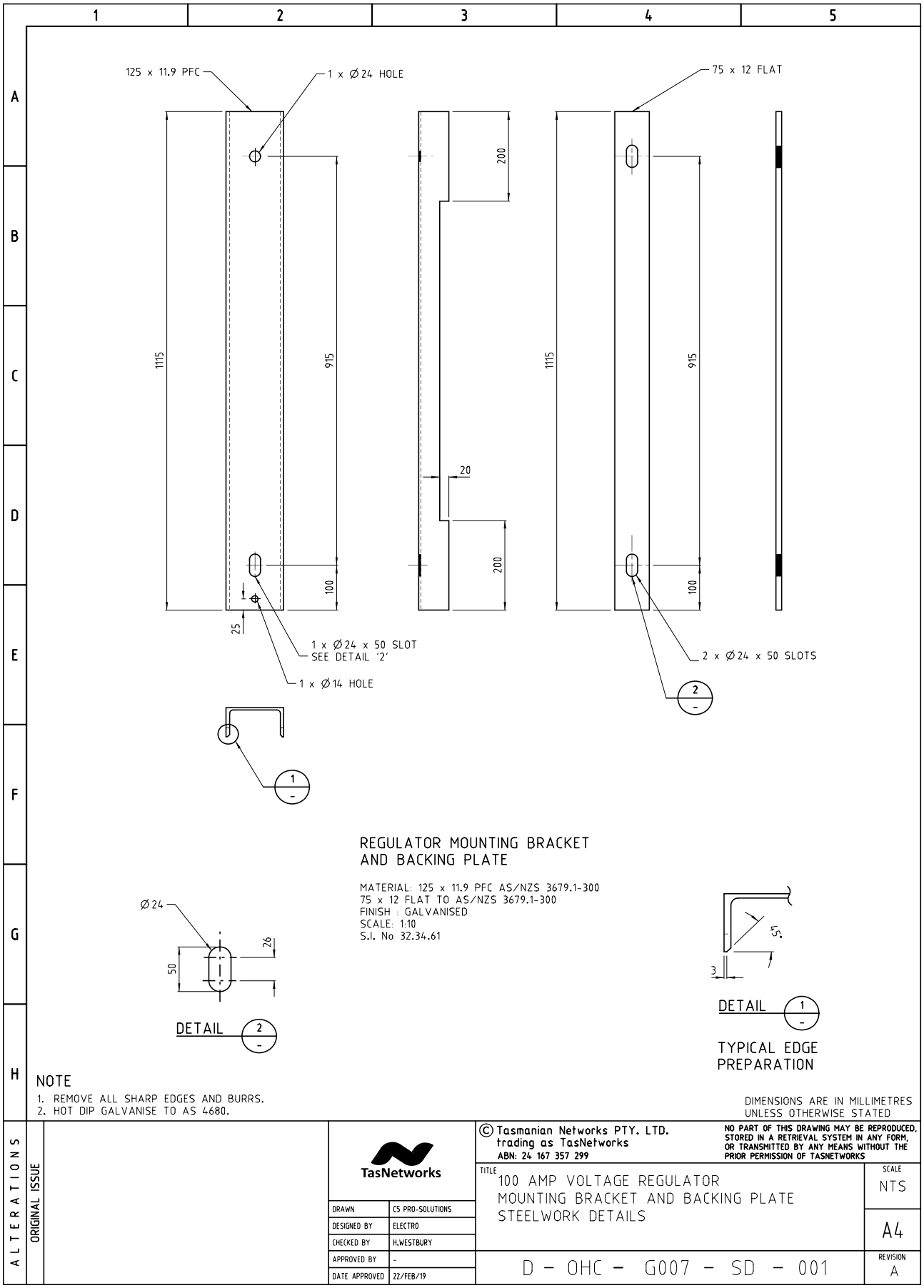
7.4.1 H-Structure



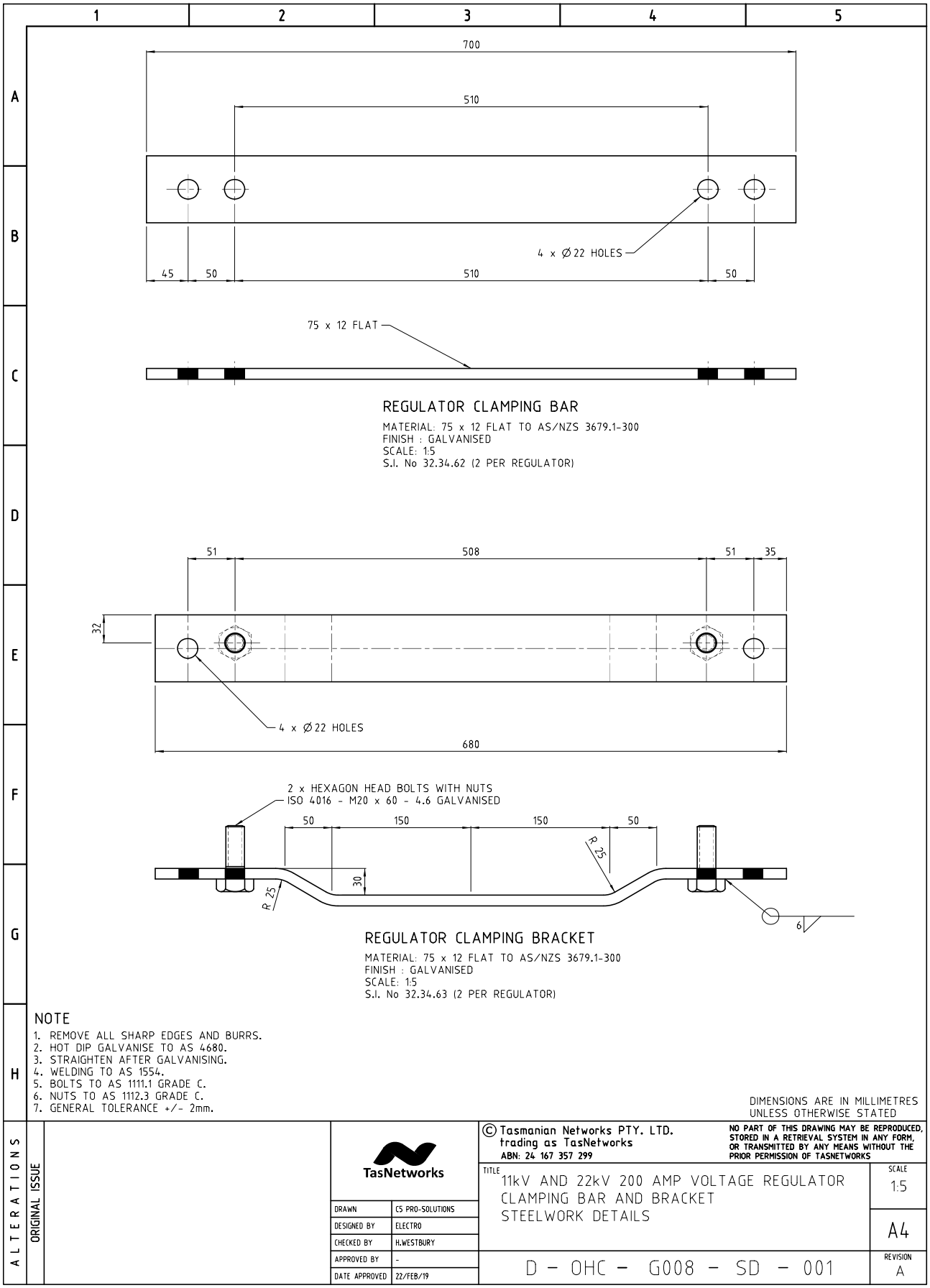
7.4.2 Control Cubicle Mounting



7.4.3 Mounting Bracket & Back Plate



7.4.4 Clamping Bar & Bracket



REGULATOR CLAMPING BAR

MATERIAL: 75 x 12 FLAT TO AS/NZS 3679.1-300
FINISH : GALVANISED
SCALE: 1:5
S.I. No 32.34.62 (2 PER REGULATOR)

REGULATOR CLAMPING BRACKET

MATERIAL: 75 x 12 FLAT TO AS/NZS 3679.1-300
FINISH : GALVANISED
SCALE: 1:5
S.I. No 32.34.63 (2 PER REGULATOR)

NOTE
1. REMOVE ALL SHARP EDGES AND BURRS.
2. HOT DIP GALVANISE TO AS 4680.
3. STRAIGHTEN AFTER GALVANISING.
4. WELDING TO AS 1554.
5. BOLTS TO AS 1111.1 GRADE C.
6. NUTS TO AS 1112.3 GRADE C.
7. GENERAL TOLERANCE +/- 2mm.

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS: ORIGINAL ISSUE

TasNetworks

DRAWN	C5 PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	22/FEB/19

TITLE: 11kV AND 22kV 200 AMP VOLTAGE REGULATOR CLAMPING BAR AND BRACKET STEELWORK DETAILS

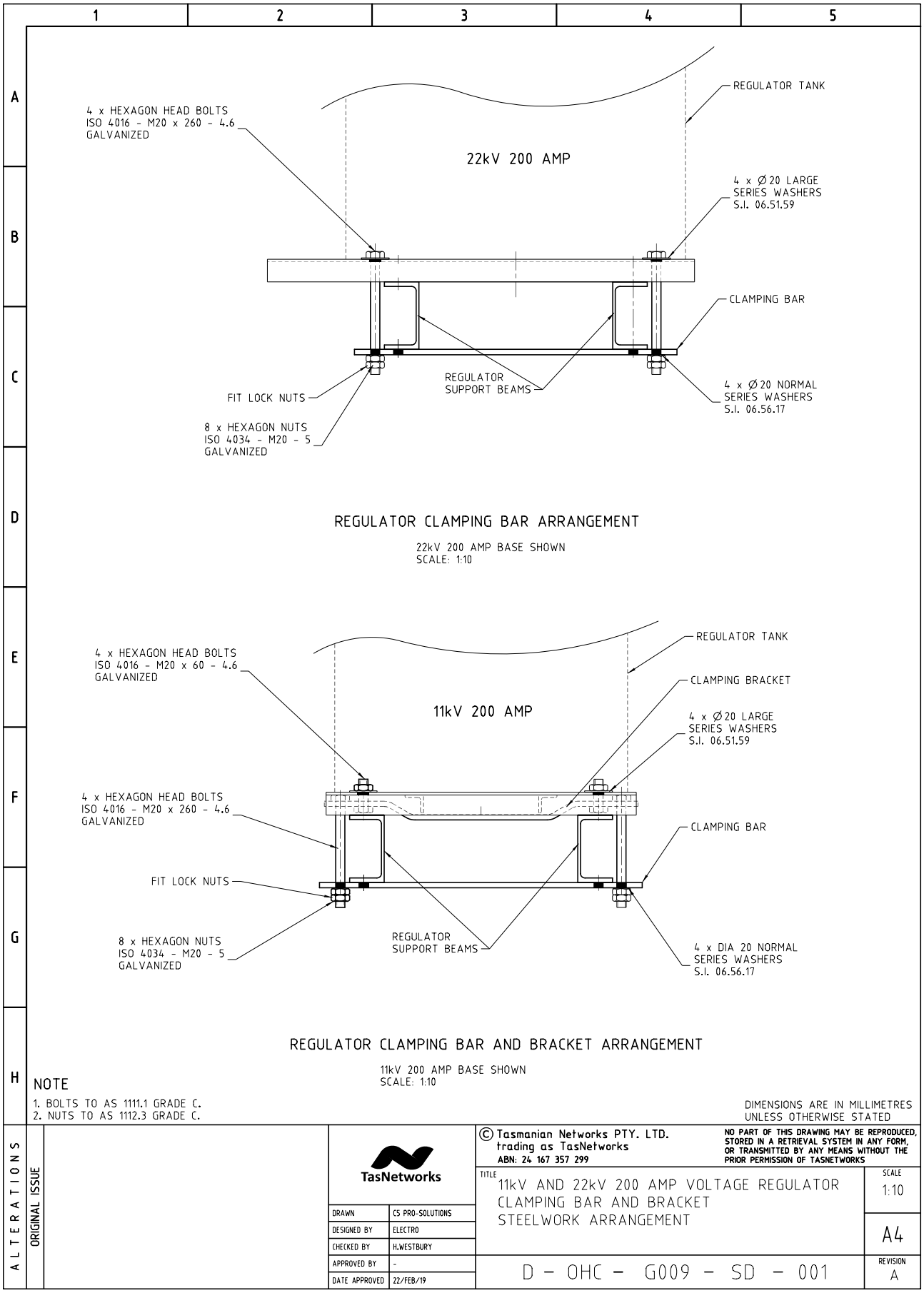
SCALE: 1:5

A4

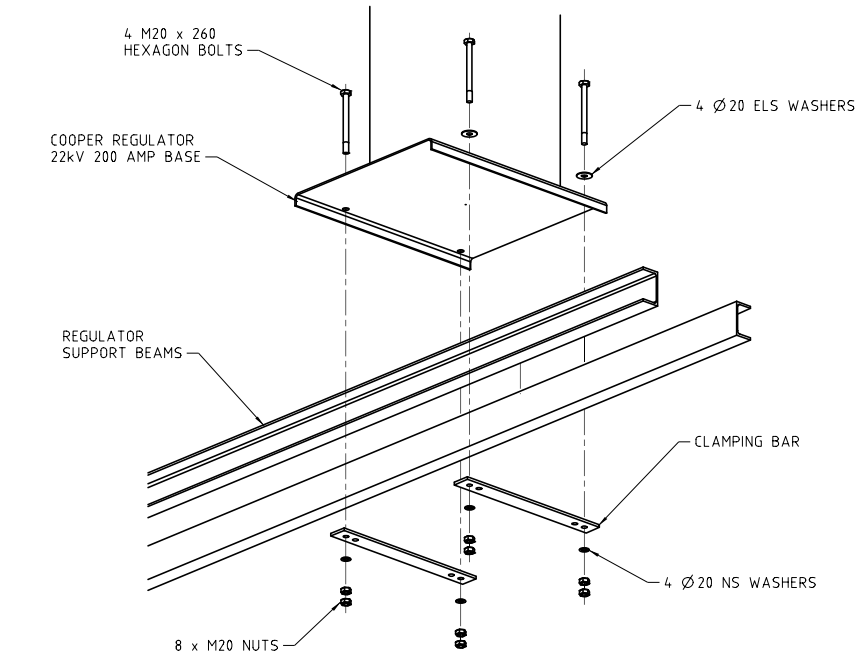
D - OHC - G008 - SD - 001

REVISION: A

7.4.5 Clamping Bar & Bracket Arrangement

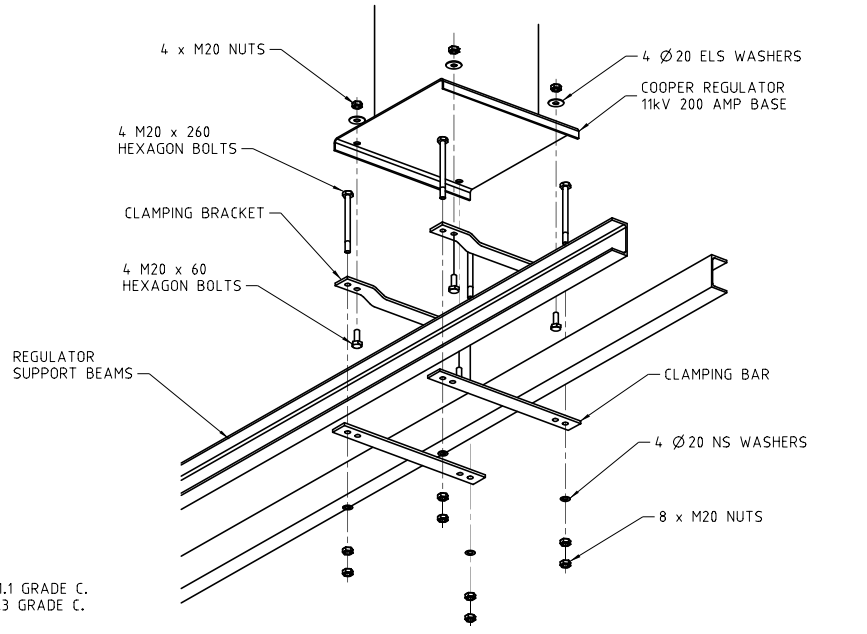


7.4.6 Assembly Details – Clamping Bar & Bracket



REGULATOR CLAMPING BAR ASSEMBLY

22kV 200 AMP BASE SHOWN
SCALE: 1:10



NOTE
1. BOLTS TO AS 1111.1 GRADE C.
2. NUTS TO AS 1112.3 GRADE C.

REGULATOR CLAMPING BAR AND BRACKET ASSEMBLY

11kV 200 AMP BASE SHOWN
SCALE: 1:10

REFERENCE DRAWINGS
STEELWORK DETAILS D-OHC-G008-SD-001
STEELWORK ARRANGEMENT D-OHC-G009-SD-001

DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE STATED

ALTERATIONS
ORIGINAL ISSUE

TasNetworks

DRAWN	C5 PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	C5 PRO-SOLUTIONS
APPROVED BY	-
DATE APPROVED	22/FEB/19

TITLE: 11kV AND 22kV 200 AMP VOLTAGE REGULATOR CLAMPING BAR AND BRACKET ASSEMBLY DETAILS

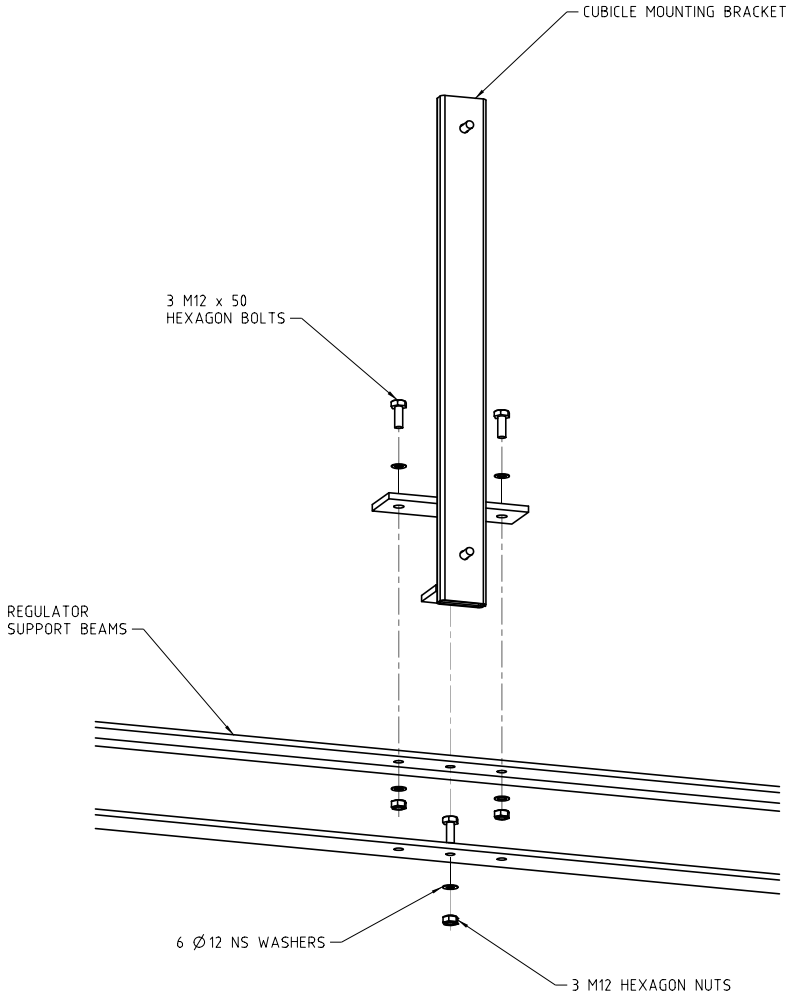
SCALE: 1:10

A4

D - OHC - G010 - SD - 001

REVISION: A

7.4.7 Assembly Details – Cubicle Mounting Bracket



CUBICLE MOUNTING BRACKET ASSEMBLY

11kV AND 22kV 200 AMP BASE SHOWN
SCALE: 1:10

NOTE
1. BOLTS TO AS 1111.1 GRADE C.
2. NUTS TO AS 1112.3 GRADE C.

REFERENCE DRAWINGS

STEELWORK DETAILS	D-OHC-G009-SD-001
H-STRUCTURE STEELWORK DETAILS	D-OHC-G005-SD-001

DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE STATED

ALTERATIONS: ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	22/FEB/19

TITLE: 11kV AND 22kV 200 AMP VOLTAGE REGULATOR CUBICLE MOUNTING BRACKET ASSEMBLY DETAILS

SCALE: 1:10

A4

D - OHC - G011 - SD - 001

REVISION: A

7.5 ABB Pole Mounted Capacitor Bank

7.5.1 General Arrangement

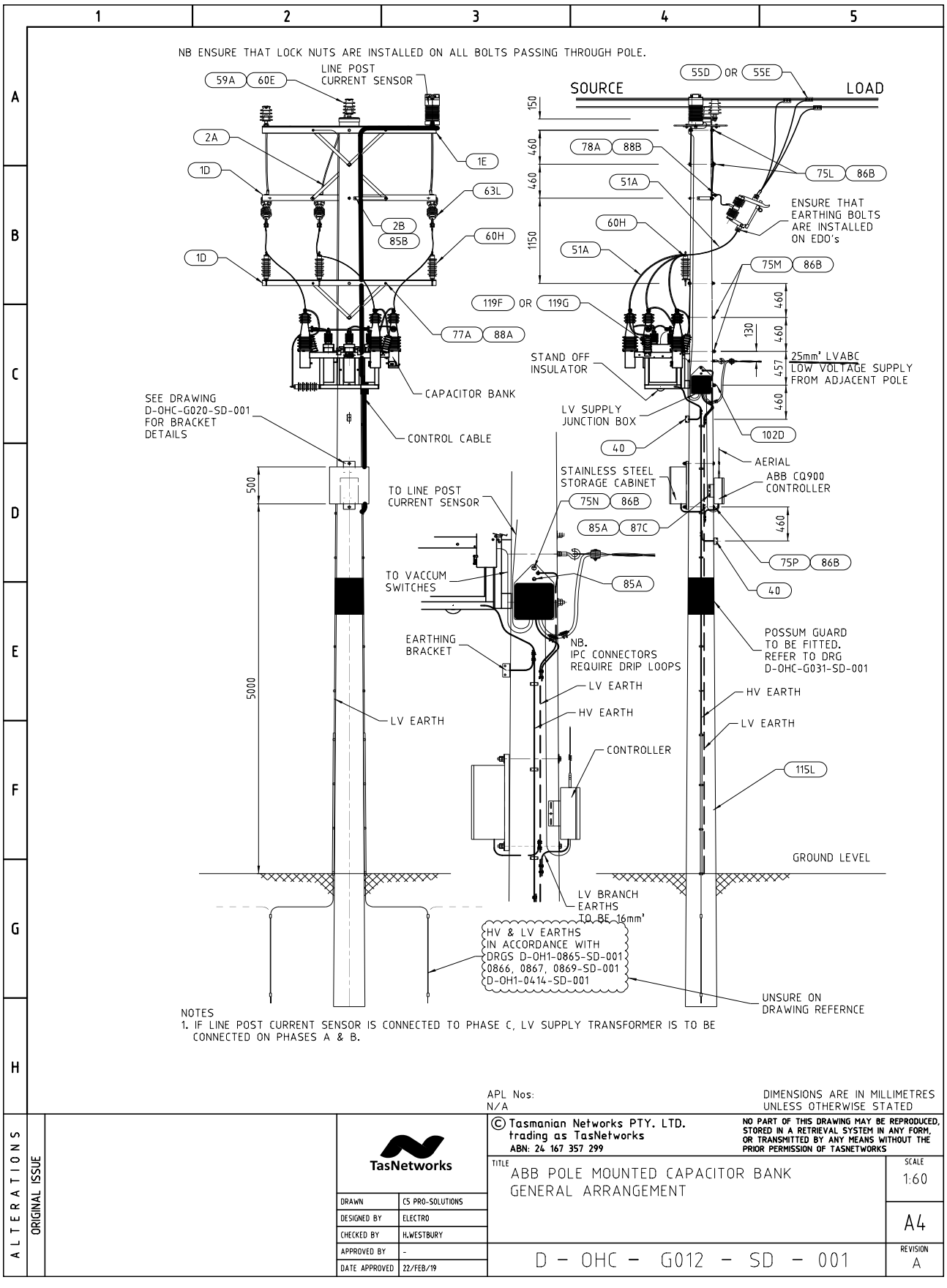
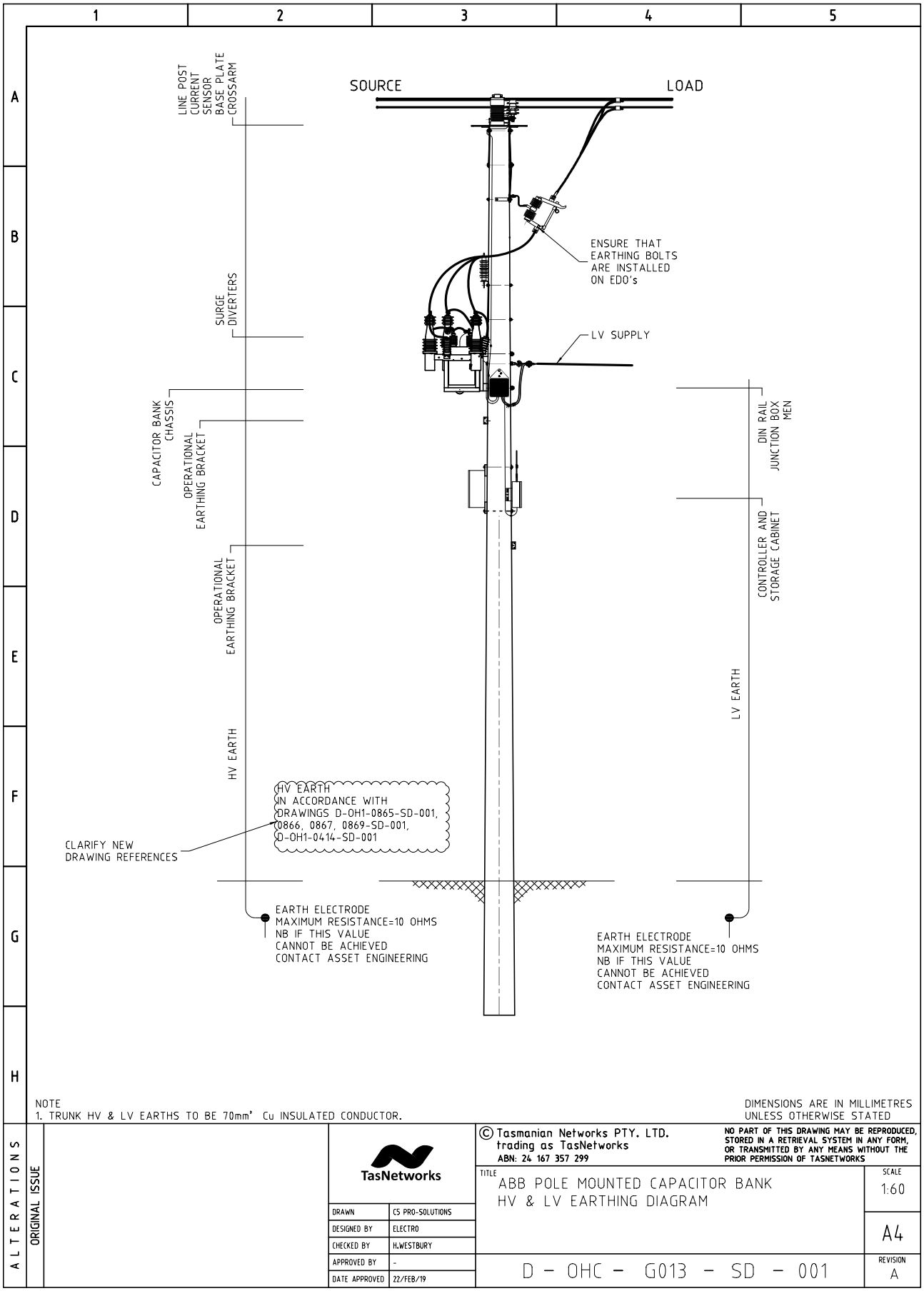


ABB Pole Mounted Capacitor Bank – Materials List

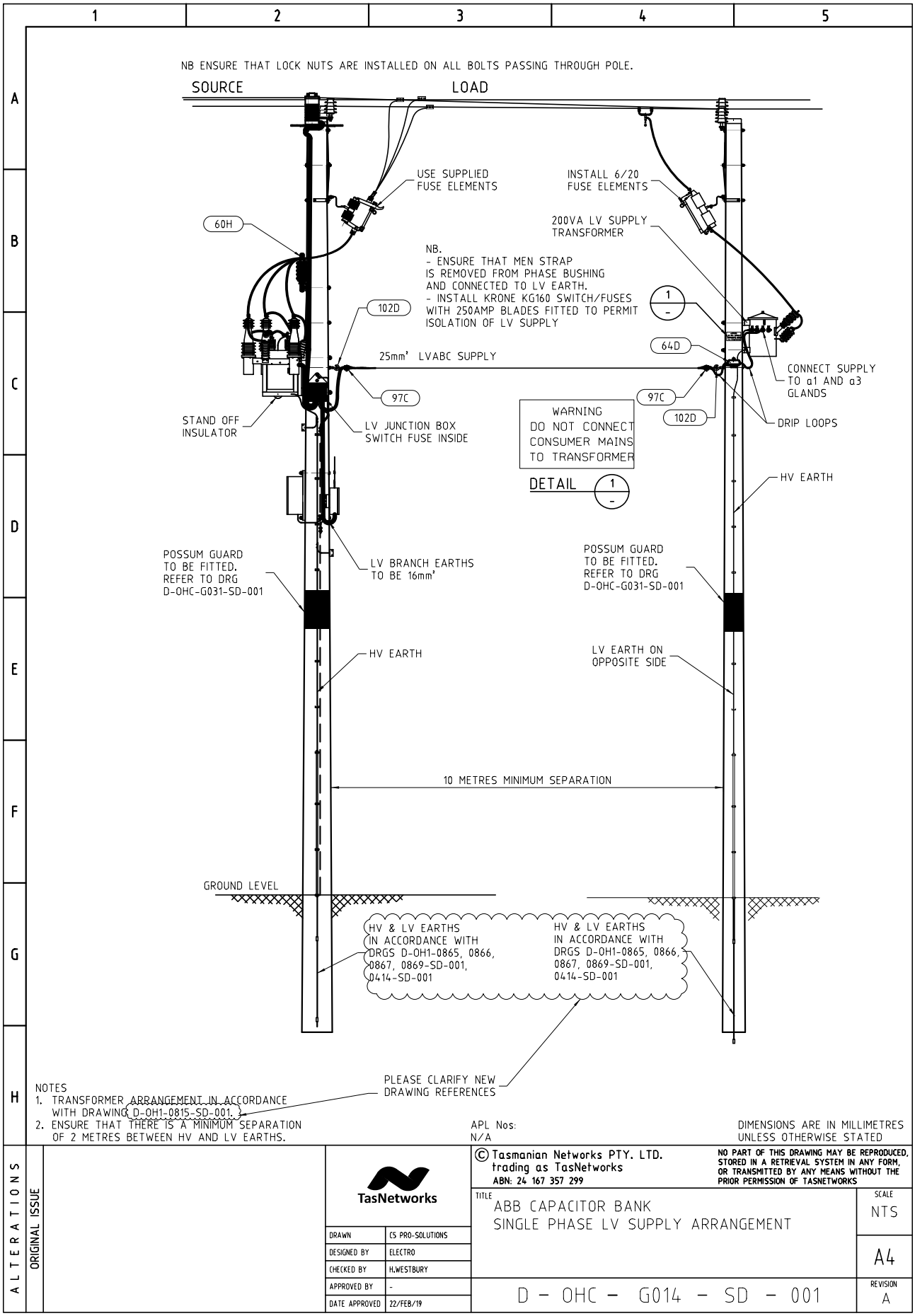
Unit Assembly	Store Type	Item Ref	Stock Item	Stock Item Description	Quantity
	S				
	S				
	S				
	S				

ALTERATIONS	ORIGINAL ISSUE		TasNetworks	© Tasmanian Networks PTY. LTD. trading as TasNetworks ABN: 24 167 357 299	NO PART OF THIS DRAWING MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM IN ANY FORM, OR TRANSMITTED BY ANY MEANS WITHOUT THE PRIOR PERMISSION OF TASNETWORKS
			DRAWN: CS PRO-SOLUTIONS DESIGNED BY: ELECTRO CHECKED BY: H.WESTBURY APPROVED BY: - DATE APPROVED: 22/FEB/19	TITLE: ABB POLE MOUNTED CAPACITOR BANK GENERAL ARRANGEMENT MATERIAL LIST	SCALE: 1:60 A4
				D - OHC - G012 - SD - 001	REVISION: A

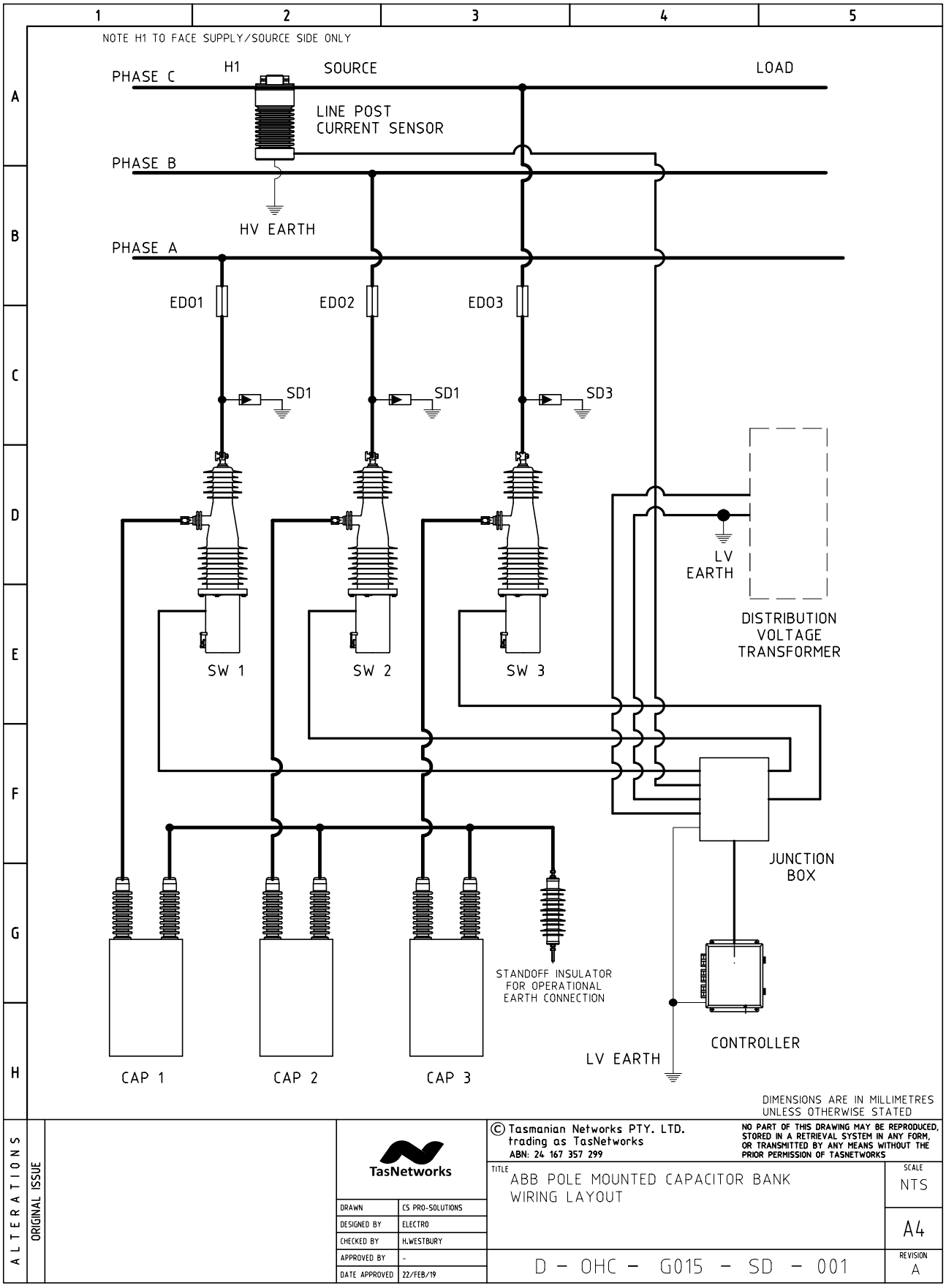
7.5.2 HV & LV Earthing Diagram



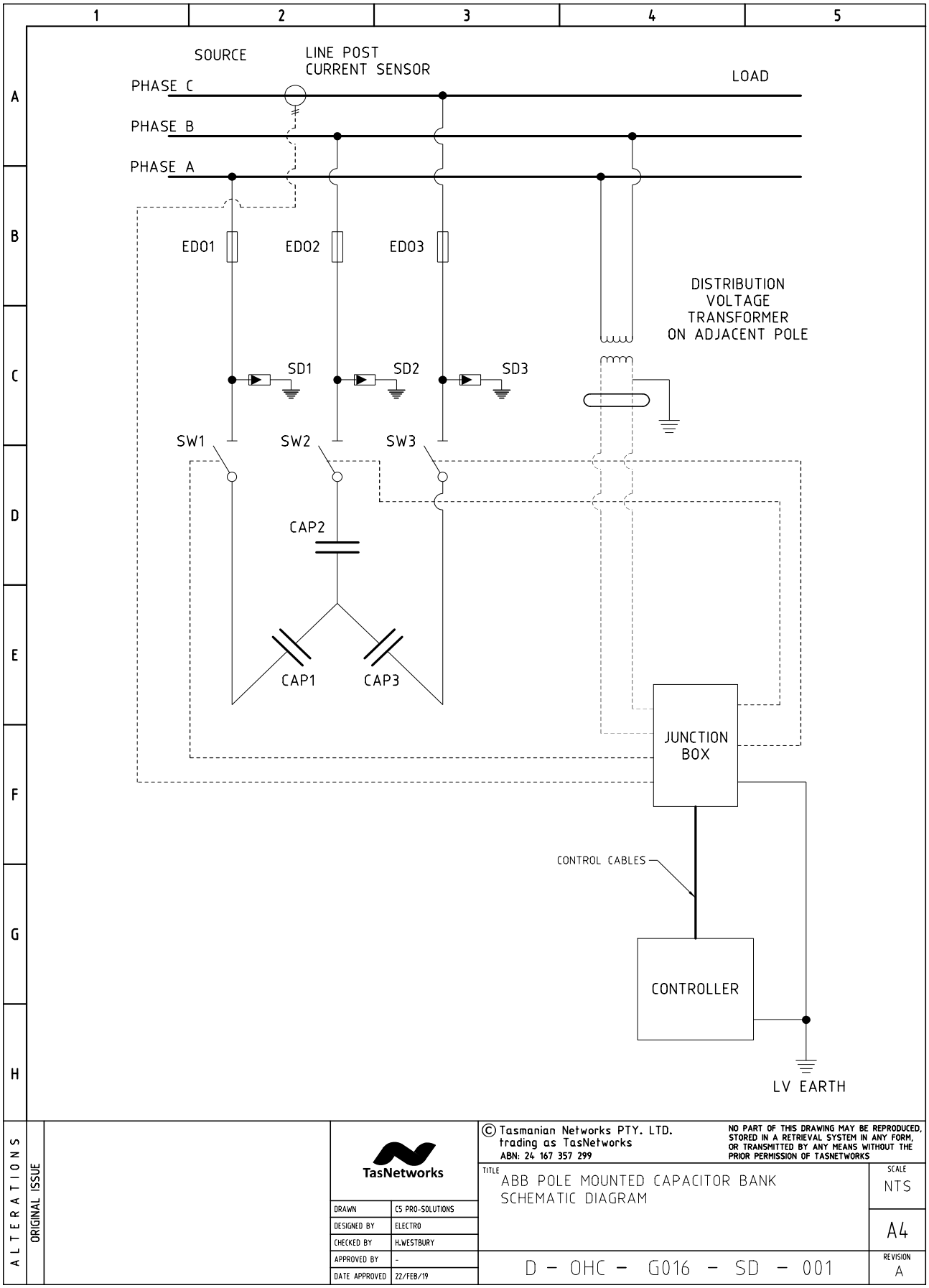
7.5.3 Single Phase Supply Arrangement



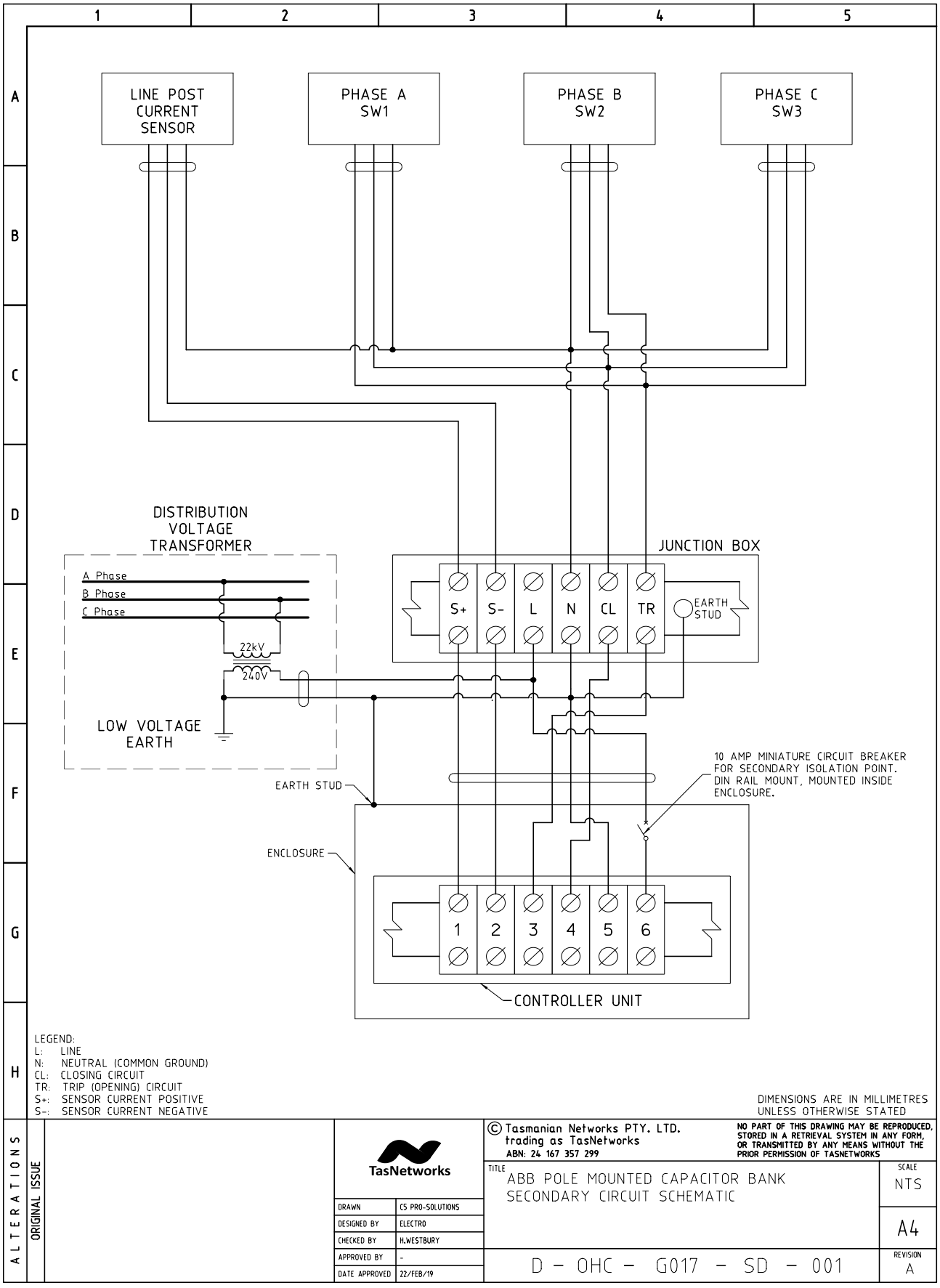
7.5.4 Wiring Layout



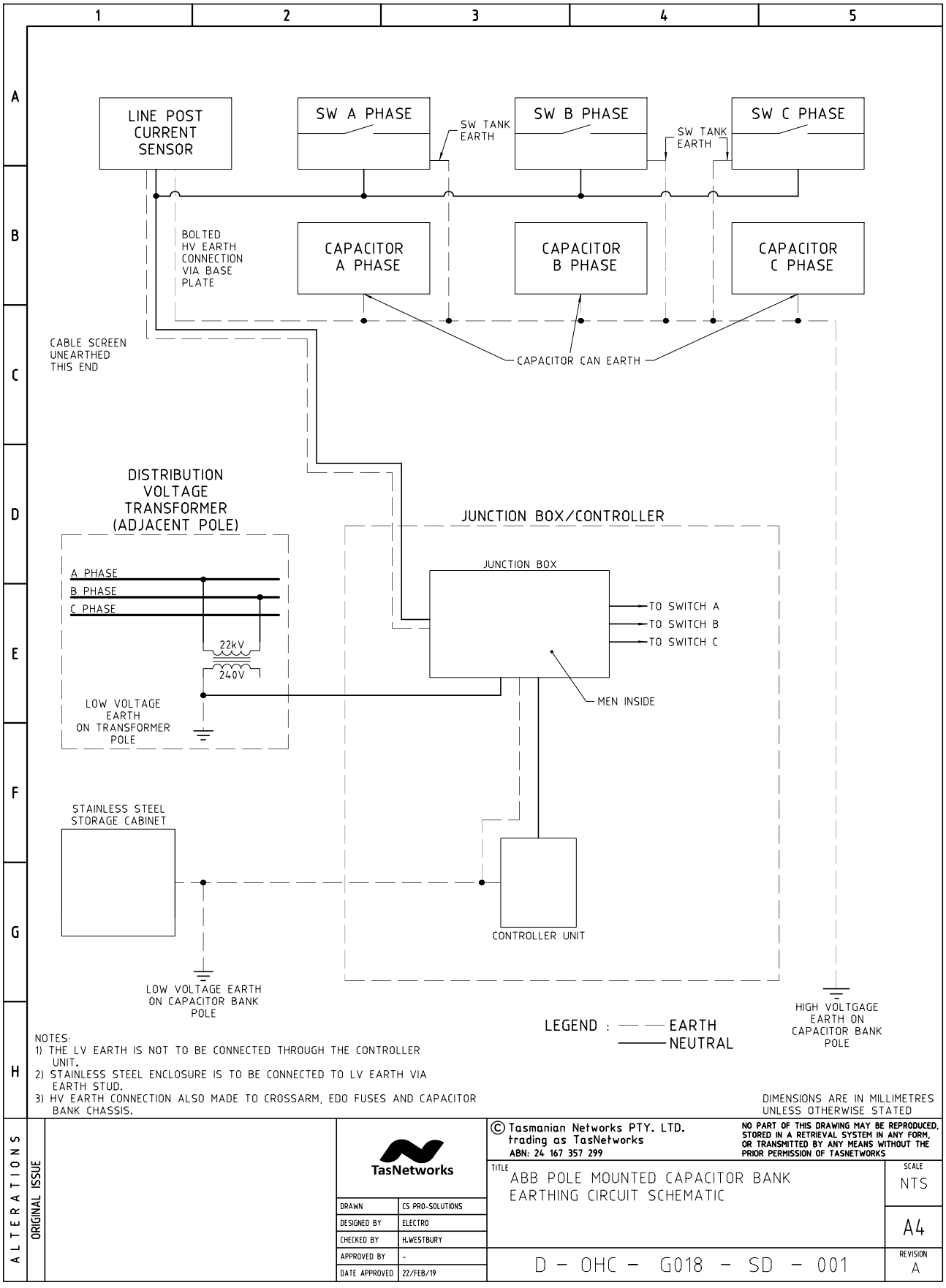
7.5.5 Schematic Diagram



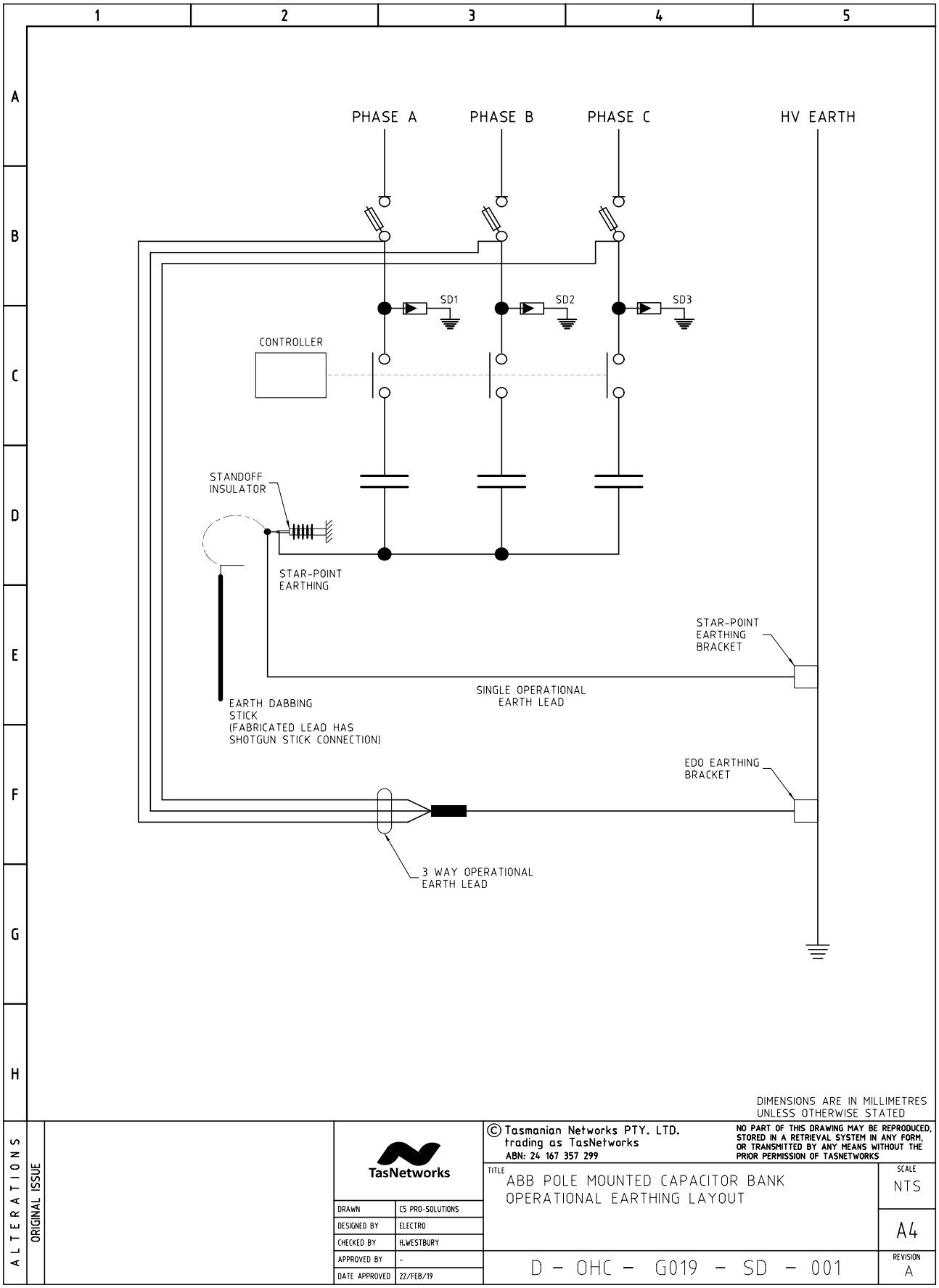
7.5.6 Secondary Circuit Schematic



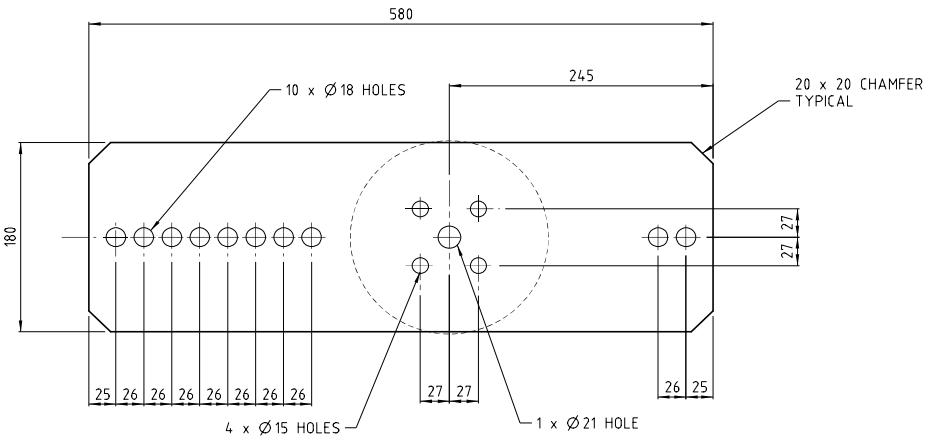
7.5.7 Earthing Circuit Schematic



7.5.8 Operational Earthing Layout

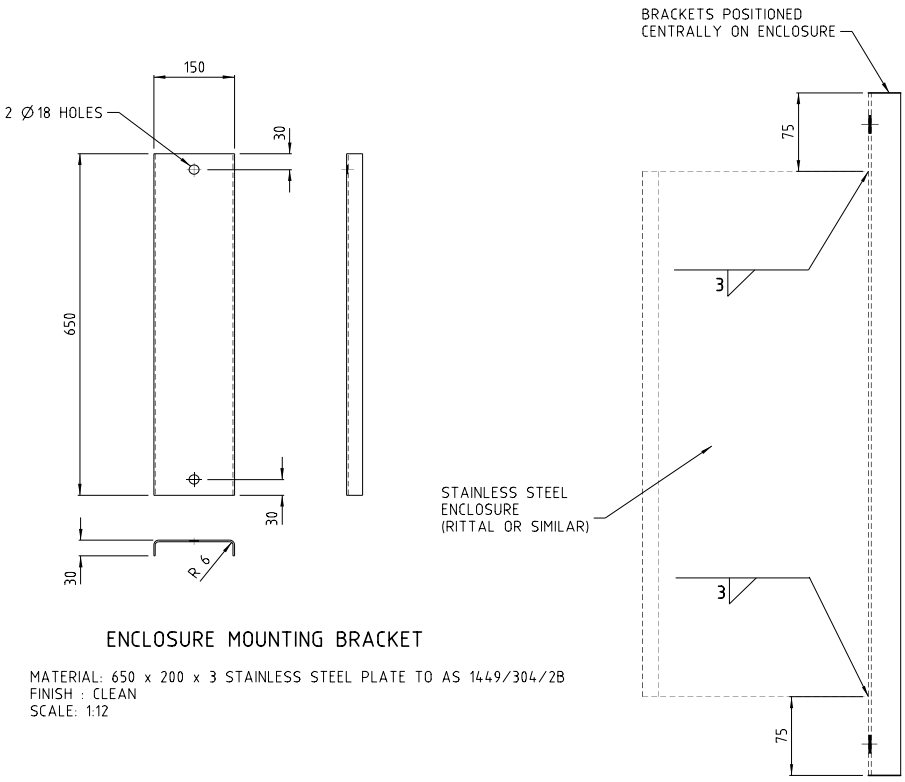


7.5.9 Steel Work Details



LINE POST CURRENT SENSOR MOUNTING PLATE

MATERIAL: 180 x 580 x 12 PLATE TO AS/NZS 3678 - 250
FINISH : GALVANISED
SCALE: 1:6



ENCLOSURE MOUNTING BRACKET

MATERIAL: 650 x 200 x 3 STAINLESS STEEL PLATE TO AS 1449/304/2B
FINISH : CLEAN
SCALE: 1:12

NOTE
1. REMOVE ALL SHARP EDGES AND BURRS.
2. HOT DIP GALVANISE STEEL COMPONENTS TO AS 4680.
3. STRAIGHTEN STEEL MEMBERS AFTER GALVANIZING.

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS: ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	25/FEB/19

TITLE: POLE MOUNTED CAPACITOR BANK STEELWORK DETAILS

SCALE: AS INDICATED

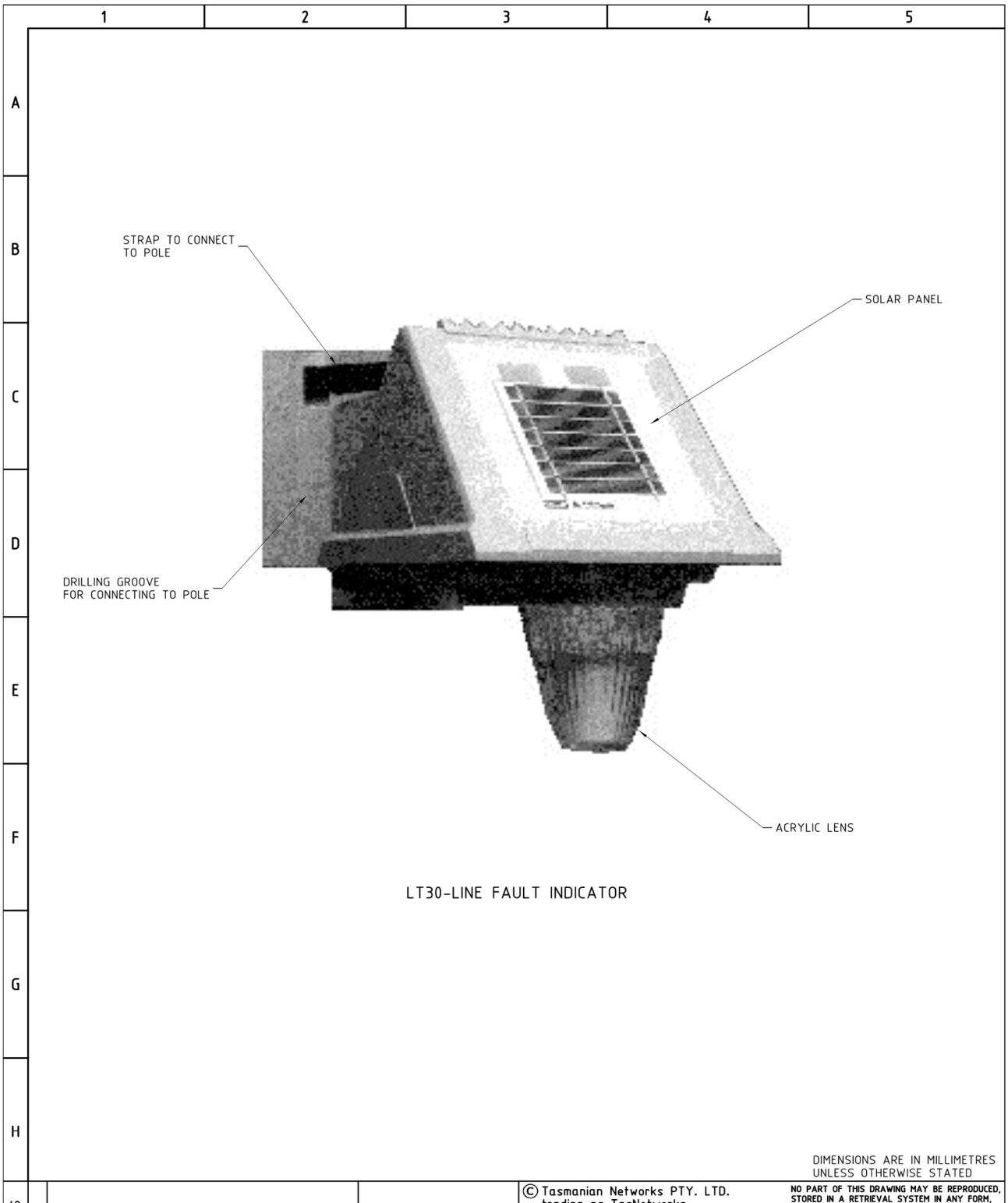
A4

D - OHC - G020 - SD - 001

REVISION: A

7.6 Line Fault Indicator Tracker LT30

7.6.1 Line Tracker LT30



LT30-LINE FAULT INDICATOR

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS	
ORIGINAL ISSUE	

TasNetworks

DRAWN	C5 PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	25/FEB/19

TITLE: LINE FAULT INDICATOR LINE TRACKER LT30

SCALE: NTS

A4

D - OHC - G022 - SD - 001

REVISION: A

7.6.2 Line Tracker LT30 Specification

LINE TRACKER LT30 PRODUCT SPECIFICATIONS	
OVERHEAD SYSTEM	3 OR 2 WIRE, SINGLE EARTH, SWER
LINE VOLTAGE	5 - 66kV (FOR VOLTAGE > 66kV, CONTACT CHK)
LOAD SENSING CURRENT	25 AMPS - 1000A (WITH TYPICAL MOUNTING ARRANGEMENT
FAULT CURRENT SENSING	5 AMPS - 25000 AMPS FOR EARTH FAULT 25 AMPS - 25000 AMPS FOR PHASE TO PHASE FAULT
TRIGGER PRINCIPLE	100% INCREASE OVER PRIOR LOAD "HISTORY", FAULT TYPE DETERMINED BY POST FAULT VOLTAGE STATUS. RATIO BASED DISCRIMINATION FOR INRUSH CURRENTS
FAULT SENSING TIME	TWO CYCLE AFTER FAULT ONSET (40MSEC @50Hz, 33.3MSEC @60Hz)
No. OF EVENTS RECORDED	15 (LAST 10 PERMANENT/TRANSIENT FAULTS AND LAST 5 SELF CLEARING FAULTS
DETAILS STORED PER EVENT	TYPE, VOLTAGE WITH TIME STAMP (VALID FOR 12 MONTHS) MAGNETIC FIELD RATIOS
POWER SOURCE	SINGLE ARRAY OF MONOCRYSTALLINE CELLS
ENERGY STORAGE	2 x 2V 2.5Ah GEP CYCLON CELLS. XENON CAPACITY WITHOUT INPUT FROM SOLAR CELLS IS 5 FAULTS (4 HOUR RESET) THEN CONTINUING LED INDICATION
LIGHT SOURCE	SINGLE XENON FLASH TUBE. TWO HIGH INTENSITY LED'S RED AND AMBER
FLASH RATES XENON TUBE	PERMANENT FAULT: 1 FLASH EVERY 4 SECONDS IN SUNLIGHT
	1 FLASH EVERY 8 SECONDS AT NIGHT
LED	2 OR 6 MULTIPLE FLASH/BURST/MINUTE (REFER TABLE D-OHC-G025-SD-001)
VISIBILITY	XENON TUBE 150M IN DAYLIGHT
	1KM AT NIGHT
	LED 20M WHEN VIEWED FROM UNDERNEATH
INDICATOR RESET XENON TUBE	- VOLTAGE RETURN (PERMANENT FAULTS ONLY), TIME OR LTC30 - TIME:
	4 HOURS (DEFAULT) 0,2,4 OR 8 HOURS PROGRAMMABLE)
LED	- VOLTAGE RETURN (PERMANENT FAULTS ONLY), TIME - TIME:
	2,4,8,12,24 HOURS, THEN 2-7 DAYS, ALL FAULTS
OPERATING TEMPERATURE RANGE	CASE SURFACE TEMPERATURE: 10°C TO +80°C
	AMBIENT: -10°C TO +50°C
MATERIALS	HOUSING, FOAMED LURAN S
DIMENSIONS	285(W)x203(H)x167(D) (MOUNTING BRACKET)
WEIGHT	3KG SHIPPED

DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE STATED

ALTERATIONS: ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	25/FEB/19

TITLE: LINE FAULT INDICATOR
LINE TRACKER LT30 SPECIFICATION

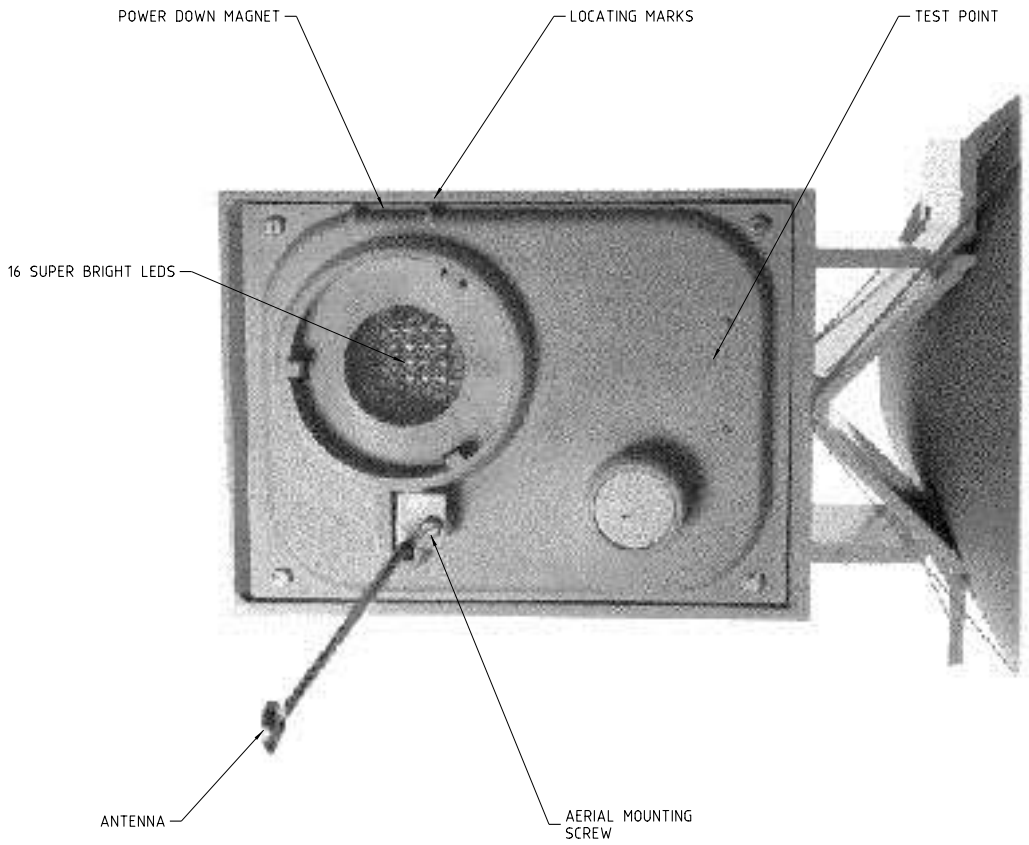
SCALE: NTS
A4
D - OHC - G023 - SD - 001
REVISION: A

7.6.3 Remote Controller Specification

IR REMOTE CONTROLLER LTC30: SUMMARY SPECIFICATIONS/OPERATION

PLEASE REFER TO IR REMOTE CONTROLLER LTC30 USER MANUAL FOR DETAILED OPERATIONS INFORMATION

POWER SOURCE	INTERNAL RECHARGEABLE BATTERIES
DISPLAY	BACKLIT LCD 16 CHARACTER x 2 LINE
KEYBOARD	12 BUTTON KEYPAD
BASIC FUNCTIONS	CALENDER CLOCK DISPLAY
No. OF RECORDED EVENTS AVAILABLE	LAST 15 FAULTS PER LT30, TOTAL STORAGE FOR 16 LT30'S
EVENT DETAILS DISPLAYED	TIME, MAGNETIC FIELD RATIO, VOLTAGE STATUS
LINETRACKER DETAILS DISPLAY/REPROGRAM	UNIT IDENTIFICATION EG. POLE ID, GPS LOCATION
LINETRACKER CONFIGURATION	ACTIVATE NULLING METER FUNCTION
	RESET INDICATORS, CHANGE RESET TIMES,
	RESET UNIT (RE-INSTALLATION)
	ACTIVATE POWER-DOWN (STORAGE MODE)



VIEW OF BASE SHOWING FITTED VOLTAGE AERIAL, COMMUNICATION PORT, TEST POINT & LED'S (LENS REMOVED)

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS: ORIGINAL ISSUE

TasNetworks

DRAWN	C5 PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	25/FEB/19

TITLE: LINE FAULT INDICATOR
LINE TRACKER LT30
REMOTE CONTROLLER SPECIFICATION

SCALE: NTS

A4

D - OHC - G024 - SD - 001

REVISION: A

7.6.4 Site Selection & Installation

LT30 INSTALLATION OF FAULT INDICATORS

LT30 IS THE CURRENT MODEL OF FAULT INDICATOR USED ON TASNETWORKS'S NETWORK. RPU - S4 WAS USED BEFORE THE LT30.

SITE SELECTION

LT30 LINE FAULT INDICATORS SHOULD BE MOUNTED ON THE DISTRIBUTION SYSTEM AT STRATEGIC LOCATIONS, FOR EXAMPLE, BEYOND ISOLATING SWITCHGEAR, (EG RECLOSERS, SECTIONALISERS AND THREE PHASE GANGED FUSES) BRANCH LINES AT TEE-OFFS (AT LEAST ONE SPAN AWAY FROM THE TEE-OFF ON THE LOAD SIDE), WHERE THE LINE ENTERS AND LEAVES INACCESSIBLE AREAS AND AS OTHERWISE REQUIRED TO OPTIMISE FAULT LOCATION AND ISOLATION.

POLE AND SYSTEM SELECTION

ALWAYS KEEP IN MIND THAT THE CONDITIONS FOR TRIGGERING AT THE LT30 MOUNTING LOCATION ARE:

"A 100% OR MORE INCREASE IN THE MAGNETIC FIELD, FOLLOWED WITHIN 1 MINUTE BY COMPLETE LOSS OF ALTERNATING ELECTRIC FIELD, I.E. ALL 50HZ VOLTAGE". THESE REQUIREMENTS MUST BE MET.

CAN BE MOUNTED ON WOOD, STOBIE, LATTICE OR SPUN CONCRETE POLES.

WHERE THERE IS A CHOICE, SELECT THE CLEANEST POLE POSSIBLE AND DO NOT USE ON TEE-OFF POLES OR THOSE WITH CONCENTRATED SOURCES OF MAGNETIC FIELDS SUCH AS THOSE WITH TRANSFORMERS, UNDERGROUND CABLES, MAGNETICALLY OPERATED SWITCHES ETC.

HV ONLY SINGLE CIRCUIT POLES ARE PREFERRED.

IF THERE IS LV BELOW THE HV THE LT30 CAN BE USED, BUT ONLY IF THE LV IS MOUNTED ALL IN LINE ON A HORIZONTAL CROSS ARM. IN SUCH CASES IT IS CRITICAL THAT THE LT30 IS MOUNTED PRECISELY AT THE HORIZONTAL ELECTROMAGNETIC FIELD NULL POINT OF THE LV. IF THIS IS NOT DONE, THE LV CURRENT, PARTICULARLY DURING EARTH FAULTS IN THE NEUTRAL, MAY CAUSE FALSE TRIGGERING OF THE LT30. REFER TO D-OH1-0338-SD-001 FOR MOUNTING LT30'S ON MIXED HV AND LV CIRCUITS. AVOID POLES WITH SERVICES, STREET LIGHTING CONDUCTORS, CABLE TELEVISION CATENARY WIRES ETC.

AT 'TEES' MOUNT THE LT30 A SPAN AWAY FROM THE JUNCTION, ON THE LOAD SIDE, SO THE FIELDS FROM THE FAULTED SECTION WILL NOT TRIGGER THE 'NON' FAULTED LINE LT30.

IN RURAL AREAS, POLES AT ELEVATED POSITIONS WHERE THEY CAN BE SEEN, ARE PREFERRED.

THE LT30 SHOULD BE KEPT THE FOLLOWING DISTANCES FROM NEARBY LINES WHICH REMAIN ENERGISED AFTER A FAULT:

LINE VOLTAGE	SEPARATION
11kV	25m
22kV	35m
33kV	50m

FOR OTHER VOLTAGES THE DISTANCES ARE PROPORTIONAL TO VOLTAGE

MOUNTING

PRIOR TO MOUNTING, THE LT30 SHOULD BE CHECKED TO ENSURE THAT THE INTERNAL BATTERY IS STILL CHARGED. REMOVE THE LT30 FROM ITS PACKING, REMOVE THE "POWER DOWN" MAGNET FROM THE BASE OF THE LT30. THE LT30 SHOULD IMMEDIATELY FLASH THE RED LED, FOLLOWED BY THE AMBER LED AND FINALLY THE STROBE - THESE INDICATORS ARE ALL INSIDE THE CLEAR BEZEL.

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS: ORIGINAL ISSUE

TasNetworks

DRAWN	C5 PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	25/FEB/19

TITLE: LINE FAULT INDICATOR LINE TRACKER LT30 SITE SELECTION AND INSTALLATION

SCALE: NTS

A4

D - OHC - G025 - SD - 001

REVISION: A

Site Selection & Installation

MOUNTING

REPLACE THE "POWER DOWN" MAGNET UNTIL READY TO MOUNT THE UNIT ON THE POLE. IF THE LED'S AND THE STROBE DO NOT FLASH, THIS INDICATES THAT THE BATTERY REQUIRES RECHARGING. IN THIS CASE, REPLACE THE "POWER DOWN" MAGNET, THEN PLACE THE LT30 IN A SUNNY POSITION FOR AT LEAST 8 HOURS TO RESTORE CHARGE TO THE INTERNAL BATTERY (33 HOURS OF DIRECT SUNLIGHT IS REQUIRED FOR FULL CHARGE).

THE LT30 SHOULD BE MOUNTED BETWEEN 1.2 AND 3.5 METRES BELOW THE LOWEST HV CONDUCTOR, ON THE SUNNIEST SIDE OF THE POLE, WITH THE SOLAR PANEL POINTING IN THE SAME DIRECTION AS THE HV CONDUCTORS DIRECTLY ABOVE. BEST SENSITIVITY IS GAINED BY KEEPING TO THE LOWER SPACING OF 1.2M (BUT TAKING CARE TO MAINTAIN SAFE WORKING LIMITS WHEN MOUNTING THE LT30).

NOTES

(I) THE LT30 STATUS INDICATORS (AMBER LED'S INSIDE CLEAR BEZEL) SHOW LINE STATUS. IF THE LT30 IS SENSING BOTH MAGNETIC AND ELECTRIC FIELDS, THEN THE LT30 WILL EMIT ONE FLASH EVERY 30 SECONDS. IF THE STATUS LED FLASHES TWICE OR THREE TIMES EVERY 30 SECONDS, THEN CHECK CONDITIONS AS SHOWN BELOW.

STATUS LED (AMBER LED)		
BURST TYPE	LINE CONDITION	NOTES
1 FLASH EVERY 30 SECONDS	VOLTAGE AND CURRENT SENSED	LINE NORMAL
2 FLASHES EVERY 30 SECONDS	VOLTAGE ONLY SENSED	LT30 CANNOT SENSE ANY LINE CURRENT. IF LINE CURRENT > 25 AMPS, MOVE LT30 CLOSER TO CONDUCTORS
3 FLASHES EVERY 30 SECONDS	VOLTAGE NOT SENSED	LT30 CANNOT SENSE ANY ELECTRIC FIELD. IF LINE IS ENERGISED, MOVE MOVE LT30 CLOSER TO CONDUCTORS

(II) THE SOLAR PANEL WILL CHARGE THE BATTERY EVEN IF THE LT30 IS NOT IN DIRECT SUNLIGHT. IF FACTORS OTHER THAN SOLAR GAIN ARE MORE IMPORTANT, SUCH AS VISIBILITY FROM ONE DIRECTION, THEN MOUNT ACCORDINGLY, BUT STILL ENSURE THAT THE SOLAR PANEL POINTS IN THE SAME DIRECTION AS THE HV CONDUCTORS.

(III) THE 1.2-3.5 METRE MOUNTING POSITION IS NOT CRITICAL SINCE TRIGGERING IS BASED ON A RATIO INCREASE OF FAULT TO LOAD CURRENT, BUT THIS RANGE GENERALLY PROVIDES THE GREATEST SENSITIVITY AND BALANCE. SEE (I) ABOVE FOR USE OF STATUS LED FOR MOUNTING HINTS.

FOR DUAL CIRCUIT LOCATIONS (E.G. HV WITH LV OR OTHER CONDUCTORS BENEATH), THE LT30 SHOULD BE PLACED IN THE NULL POINT IN LINE WITH THE LOW VOLTAGE CIRCUIT. TO CARRY OUT THE SELF NULLING PROCEDURE SEE D-OH1-336-SD-001.

MOUNT THE LT30 ON THE POLE USING METAL OR PLASTIC STRAPS OR BY DRILLING AND SCREWING THROUGH THE MOUNTING PLATES. A GROOVE IS PROVIDED TO LOCATE THE DRILL BIT. ALTERNATIVELY FIT A COACH SCREW WITH A LARGE WASHER THROUGH THE STRAP SLOT. REFER DIAGRAM 1.

REMOVE THE "POWER DOWN MAGNET". THE LT30 IS DISABLED UNTIL THE MAGNET IS REMOVED. THE MAGNET SHOULD BE KEPT FOR FUTURE STATUS TESTING OR TO SWITCH OFF THE LT30 DURING TRANSFER ETC.

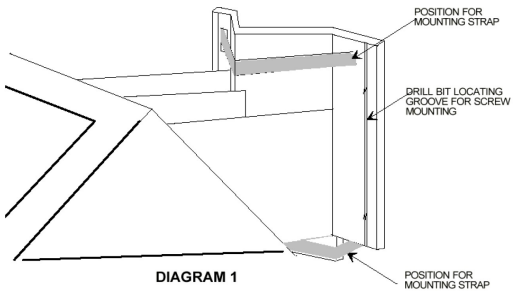


DIAGRAM 1

MOUNTING ON HV/LV POLES

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS: ORIGINAL ISSUE

TasNetworks

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DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	26/FEB/19

TITLE: LINE FAULT INDICATOR LINE TRACKER LT30 SITE SELECTION AND INSTALLATION

SCALE: NTS

A4

D - OHC - G025 - SD - 002

REVISION: A

Site Selection & Installation

MOUNTING ON HV/LV POLES - NULLING

FOR POLES WITH LV OR OTHER CONDUCTOR (EARTH WIRE, CATENARY ETC) MOUNTED HORIZONTALLY BELOW THE HV, THE HORIZONTAL COMPONENT OF THE MAGNETIC FIELD DUE TO THE LV IN THE PLANE OF THE LV CONDUCTORS IS ZERO AND THEREFORE WILL NOT BE SENSED BY THE LT30 COIL AT THIS POINT. THIS IS THE POSITION THAT THE LT30 SHOULD BE MOUNTED - REFER ALSO TO NULLING METER' AND 'LTC30 REMOTE CONTROLLER' BELOW. TO ALLOW PREFERENTIAL SENSITIVITY TO PHASE TO PHASE FAULTS BETWEEN THE OUTER HV CONDUCTORS, IT IS RECOMMENDED THAT THE LT30 BE MOVED HORIZONTALLY AWAY FROM THE POLE CENTERLINE BY ABOUT 80 MM - SEE DIAGRAM 2.

ATTENTION

IN ADDITION TO MOUNTING THE LT30 AT THE NULL POINT, IT IS ALSO IMPORTANT THAT THE LT30 IS PROGRAMMED TO HAVE THE MIXED HV/LV CONFIGURATION TURNED ON - REFER TO SECTION 5. IF THIS IS NOT DONE, THE LT30 MAY BE FALSELY TRIGGERED BY THE LV.

THERE ARE TWO METHODS OF DETERMINING THIS NULL POINT OF THE HORIZONTAL COMPONENT OF THE MAGNETIC FIELD
- USE THE CHK RPU3-DN NULLING METER, OR
- USE THE LTC30 HANDHELD REMOTE CONTROLLER

RPU3-DN (OR OTHER) NULLING METER

THE NULLING METER IS MOVED UP AND DOWN THE POLE NEAR THE PLANE OF THE LV. THE CORRECT MOUNTING POSITION OF THE LT30 IS THE LOCATION WHERE THE NULLING METER SHOWS A MINIMUM.

LTC30 REMOTE CONTROLLER

TURN ON THE NULL FUNCTION ON THE LTC30. POINT THE LTC30 TOWARDS THE BASE OF THE LINETRACKER, WAIT FOR THE CONTROLLER TO ESTABLISH THE LINK WITH THE LT30. ON THE LCD SCREEN, OBSERVE THE READOUT DISPLAYING THE HORIZONTAL MAGNETIC FIELD STRENGTH AS SEEN BY THE LINETRACKER. THIS NUMBER WILL RANGE BETWEEN 2 AND 262,000. NOW MOVE THE LT30 UP OR DOWN, WHILE OBSERVING THE SCREEN READOUT. THE CORRECT MOUNTING POSITION OF THE LT30 IS THE LOCATION WHERE THE SCREEN READOUT SHOWS A MINIMUM.

NOTE

SOME HAVE EXPERIENCED A "FALSE NULL" WELL BELOW OR ABOVE THE LV CONDUCTORS. IF THIS OCCURS THE LT30 MUST BE MOUNTED AT THE POINT WHICH APPROXIMATELY ALIGNS THE TOP OF THE DECORATIVE TRIANGLE ON THE SIDE OF THE LT30 IN LINE WITH THE LV CONDUCTORS. REFER DIAGRAM. 2

HV/LV - Nulling the LV field

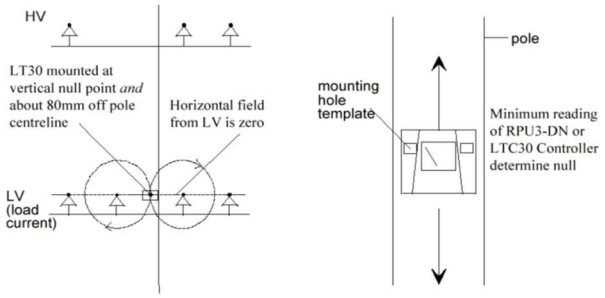

DIAGRAM 2

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS: ORIGINAL ISSUE

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DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	26/FEB/19

TITLE: LINE FAULT INDICATOR LINE TRACKER LT30 SITE SELECTION AND INSTALLATION

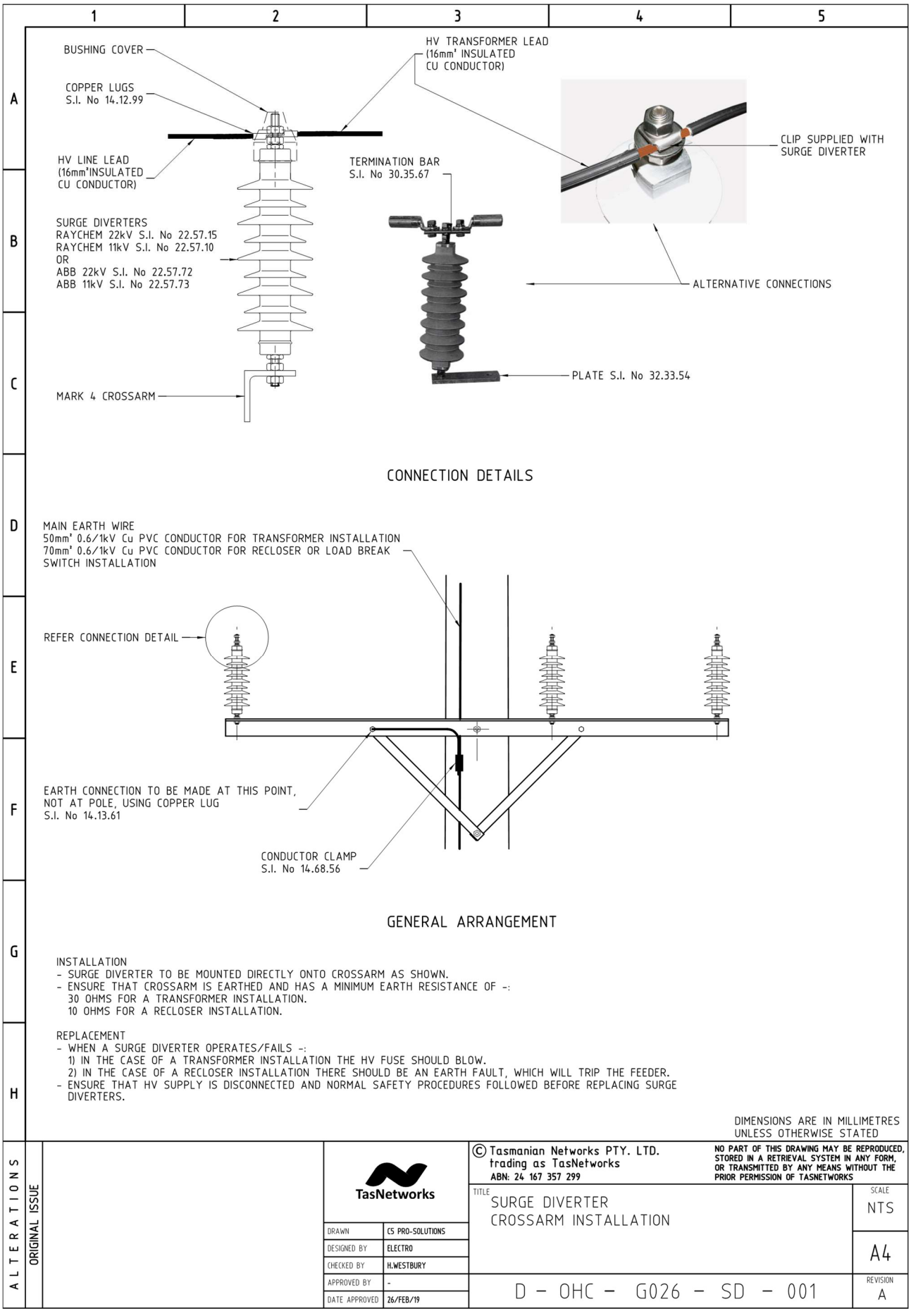
SCALE: NTS

A4

D - OHC - G025 - SD - 003

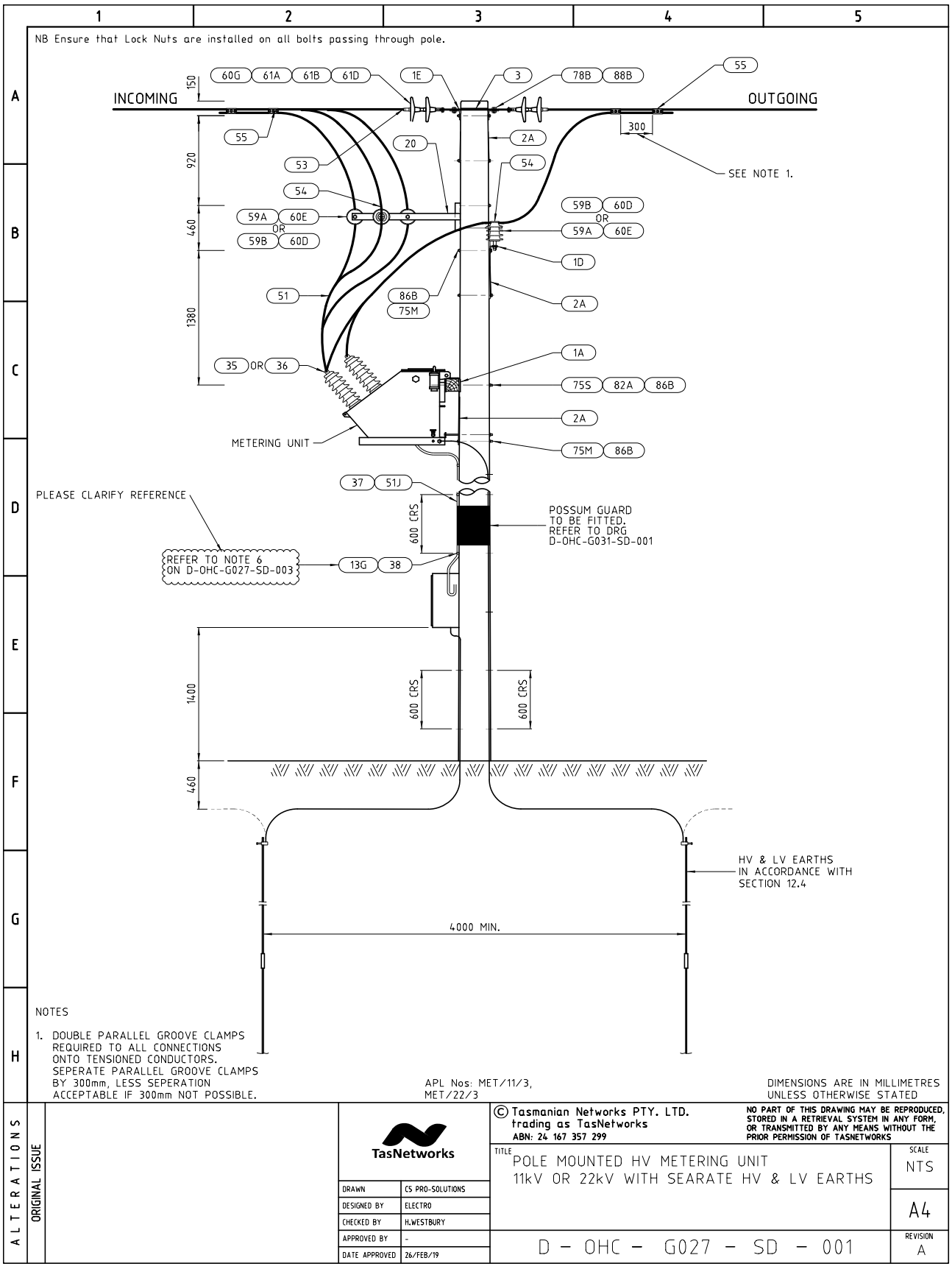
REVISION: A

7.7 Surge Diverter Crossarm Installation



7.8 HV Metering Unit

7.8.1 Separate HV & LV Earths



HV Metering Unit – Separate Earths - Materials List

Unit Assembly	Store Type	Item Ref	Stock Item	Stock Item Description	Quantity
MET/11/3	S	75N	32288	Bolt Hex M16 360	6
		75P	32289	Bolt Hex M16 375	1
		75T	32283	Bolt Hex M16 475	1
		75Z	32261	Bolt Hex M16 45	4
		82A	40441	Nut M16	4
		86B	65158	Washer ELS 16	7
		88B	66413	Washer Tower 16	4
		62E	144617	Bushing Cover 11kV	6
		37	152723	Conduit Rigid 20mm	2
		13J	154542	Saddle 20mm	9
		60E	320531	Insulator PIB 22/450	6
		60G	321260	Insulator Disc	6
		61A	322056	Ball Clevis & Pin	6
		61D	322090	Kink Pin	6
		61B	322386	Socket Termination	6
		59A	322721	Pin Insulator 22kV	6
		1A	323210	Crossarm MK1 Wood at No1 Store	1
		1D	323304	Crossarm MK4	1
		1E	322305	Crossarm MK5	2
		3	323310	Strain Plate MK10	2
		2A	323314	Crossarm Strap MK15	8
		20	323363	Transposition Bracket	1
MET/22/3	S	75M	32287	Bolt Hex M16 325	4
		75N	32288	Bolt Hex M16 350	2
		75P	32289	Bolt Hex M16 375	2
		75T	32293	Bolt Hex M16 475	1
		75Z	32261	Bolt Hex M16 45	4
		82A	40441	Nut M16	4
		86B	65158	Washer ELS 16	6
		88B	66413	Washer Tower 16	6
		62F	144620	Bushing Cover 22kV	6
		37	152723	Conduit Rigid 20mm	4
		60E	320531	Insulator Pin 22/450	6
		60G	321260	Insulator Disc	12
		61A	322056	Ball Clevis & Pin	6
		61D	322090	Kink Pin	6
		61B	322386	Socket Termination	6
		59A	322721	Pin Insulator 22kV	6
		1A	323210	Crossarm MK1 Wood at No1 Store	1
		1D	323304	Crossarm MK4	1
		1E	322305	Crossarm MK5	2
		3	323310	Strain Plate MK10	2
		2A	323314	Crossarm Strap MK14	8
		20	323363	Transposition Bracket	1
		23B	323366	Conduit Clip MK66	15

ALTERATIONS
ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	26/FEB/19

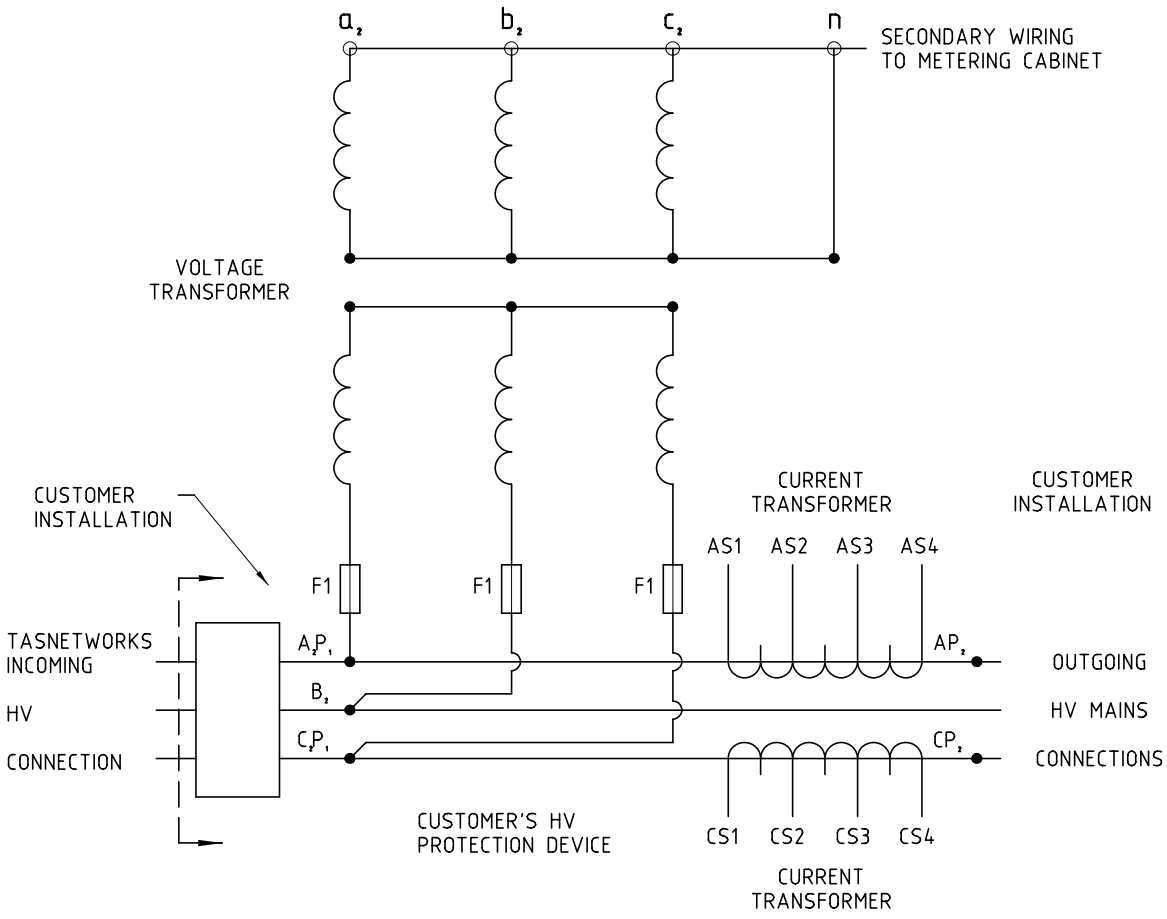
TITLE: POLE MOUNTED HV METERING UNIT
11kV OR 22kV WITH SEPARATE HV & LV EARTHS
MATERIAL LIST

SCALE: NTS
A4

D - OHC - G027 - SD - 002

REVISION: A

7.8.2 Operating Procedure & Notes



WIRING DIAGRAM

NOTES

1. CUSTOMER MUST INSTALL AN HV PROTECTION DEVICE TO PROTECT TASNETWORKS METERING UNIT AND CUSTOMER'S INSTALLATION. DEVICE MUST BE GANG-OPERATED, FAULT MAKE/BREAK CAPABILITY, eg POLE MOUNTED RECLOSER.
2. MAXIMUM RESISTANCE OF EARTH CONNECTION TO BE 30 OHMS.
3. ADDITIONAL ELECTRODES WHEN REQUIRED TO BE INSTALLED ALONG THE POLE LINE AT A DISTANCE APART EQUAL TO THE ELECTRODE DEPTH.
4. HV EARTH CONDUCTOR TO BE 50mm² 0.6/1kV Cu PVC FIXED TO POLE ON OPPOSITE SIDE TO METERING WIRING.
5. MINIMUM POLE STRENGTH TO BE 6kN.
6. METERING SECONDARY WIRING TO BE SLEEVED WITH PVC TUBE AND SEALED TO PROVIDE PROTECTION AND WEATHER PROOFING.
7. POLE SUPPORTING METERING UNIT MAY BE INSTALLED WITH NORMAL EARTH BACKFILL.

OPERATING PROCEDURE

1. ISOLATION OF METERING UNIT FOR REPLACEMENT OF HV METERING FUSES. (F1)
   (a) REQUEST CUSTOMER TO OPEN HV OR LV CIRCUIT BREAKER AT MAIN SWITCHBOARD.
   (b) OPEN CUSTOMER HV PROTECTION DEVICE OR HV FUSES ON INCOMING LINE.
   (c) PROVE DEAD AND EARTH INCOMING LINE.
   (d) REPLACE ALL THREE VT FUSES, (F1).
2. RESTORATION OF SUPPLY.
   (a) REMOVE EARTHS APPLIED IN ITEM (c) ABOVE.
   (b) CLOSE CUSTOMER HV PROTECTION DEVICE OR HV FUSES ON INCOMING HV LINE.
   (c) REQUEST CUSTOMER TO CLOSE HV OR LV CIRCUIT BREAKER AT MAIN SWITCHBOARD.

ALTERATIONS	
ORIGINAL ISSUE	

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	26/FEB/19

TITLE: WIRING DIAGRAM - OPERATING PROCEDURE AND NOTES FOR METERING UNIT

SCALE: NTS

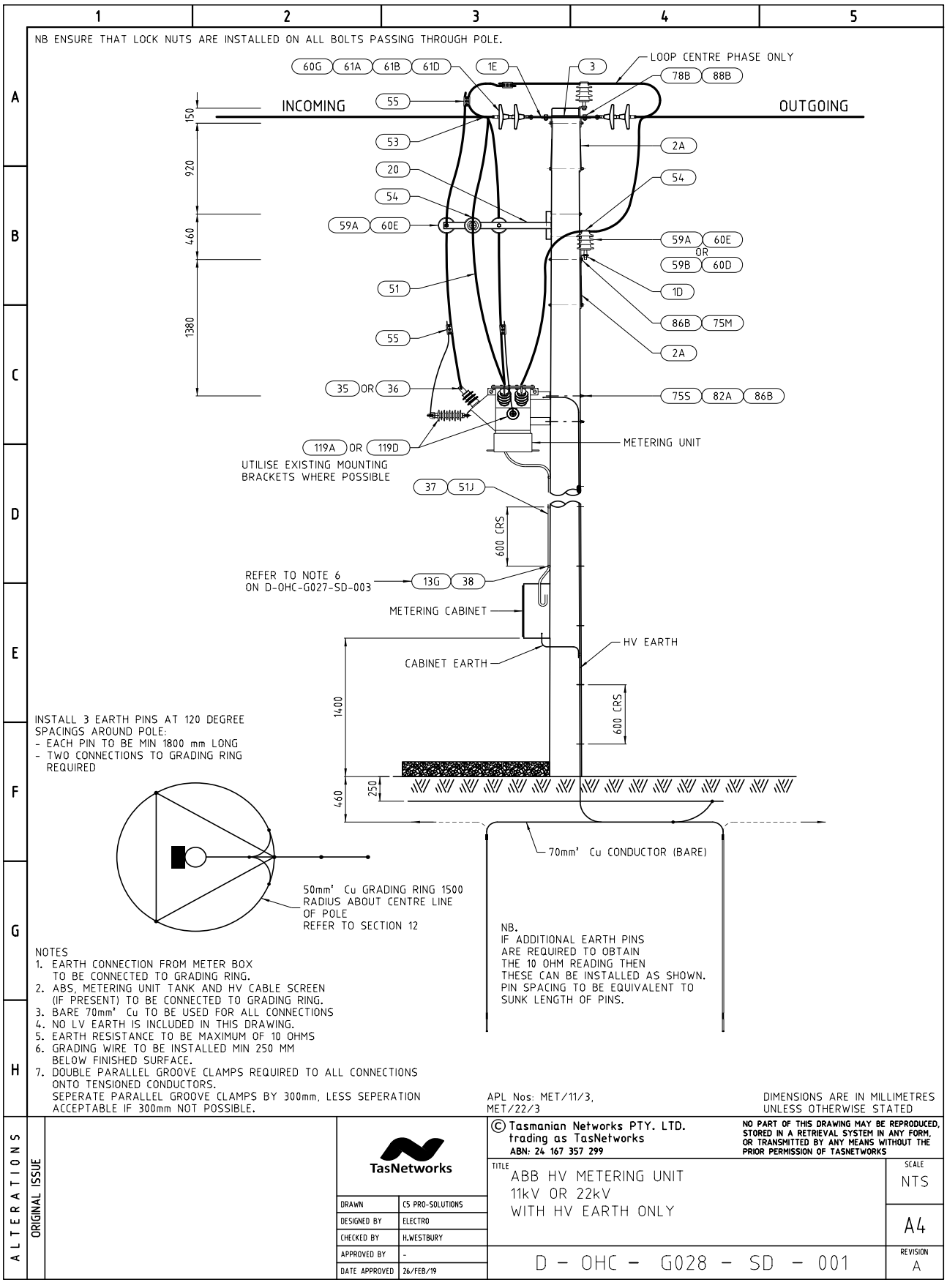
A4

D - OHC - G027 - SD - 003

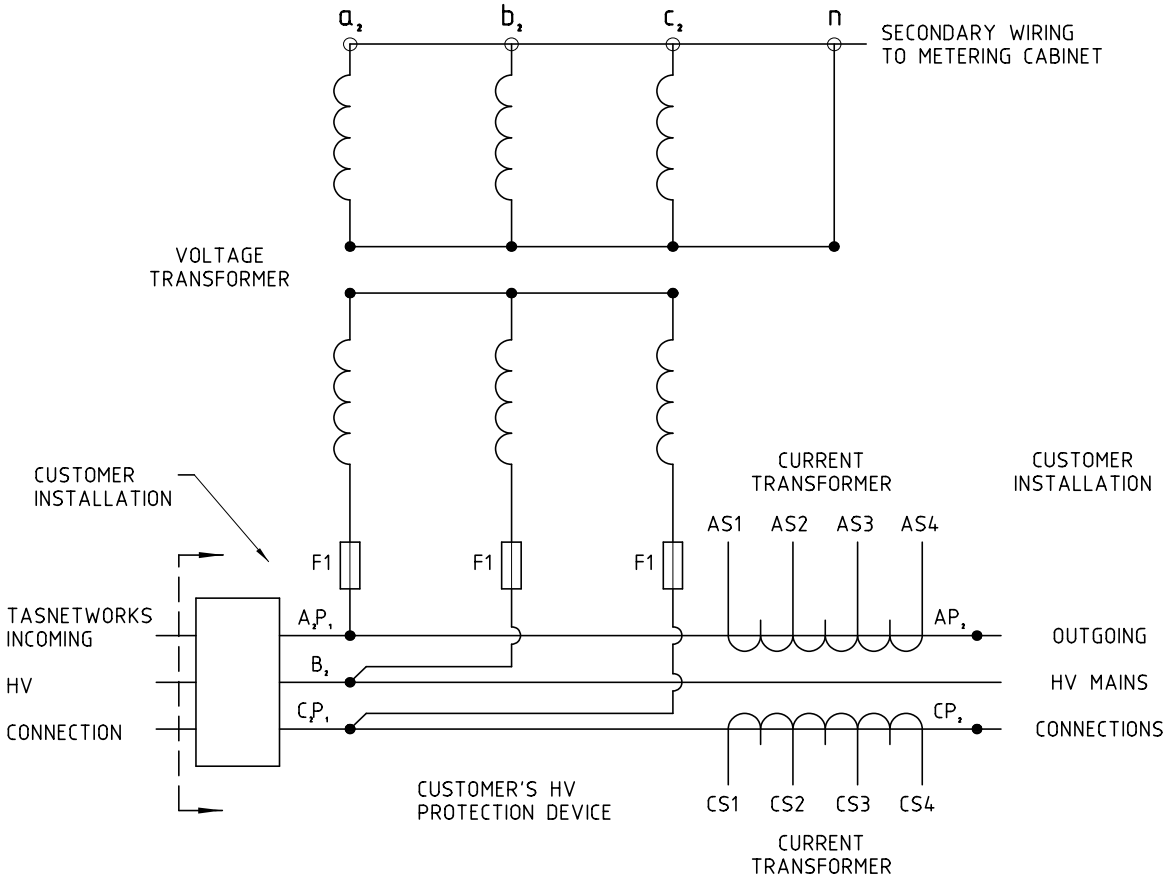
REVISION: A

7.9 ABB Metering Unit with HV Earth Only

7.9.1 Details



7.9.2 Operating Procedure & Notes



WIRING DIAGRAM

NOTES

1. CUSTOMER MUST INSTALL AN HV PROTECTION DEVICE TO PROTECT TASNETWORKS METERING UNIT AND CUSTOMER'S INSTALLATION. DEVICE MUST BE GANG-OPERATED, FAULT MAKE/BREAK CAPABILITY, eg POLE MOUNTED RECLOSER.
2. MAXIMUM RESISTANCE OF EARTH CONNECTION TO BE 30 OHMS.
3. ADDITIONAL ELECTRODES WHEN REQUIRED TO BE INSTALLED ALONG THE POLE LINE AT A DISTANCE APART EQUAL TO THE ELECTRODE DEPTH.
4. HV EARTH CONDUCTOR TO BE 50mm² 0.6/1kV Cu PVC FIXED TO POLE ON OPPOSITE SIDE TO METERING WIRING.
5. MINIMUM POLE STRENGTH TO BE 6kN.
6. METERING SECONDARY WIRING TO BE SLEEVED WITH PVC TUBE AND SEALED TO PROVIDE PROTECTION AND WEATHER PROOFING.
7. POLE SUPPORTING METERING UNIT MAY BE INSTALLED WITH NORMAL EARTH BACKFILL.

OPERATING PROCEDURE

1. ISOLATION OF METERING UNIT FOR REPLACEMENT OF HV METERING FUSES. (F1)
   (a) REQUEST CUSTOMER TO OPEN HV OR LV CIRCUIT BREAKER AT MAIN SWITCHBOARD.
   (b) OPEN CUSTOMER HV PROTECTION DEVICE OR HV FUSES ON INCOMING LINE.
   (c) PROVE DEAD AND EARTH INCOMING LINE.
   (d) REPLACE ALL THREE VT FUSES, (F1).
2. RESTORATION OF SUPPLY.
   (a) REMOVE EARTHS APPLIED IN ITEM (c) ABOVE.
   (b) CLOSE CUSTOMER HV PROTECTION DEVICE OR HV FUSES ON INCOMING HV LINE.
   (c) REQUEST CUSTOMER TO CLOSE HV OR LV CIRCUIT BREAKER AT MAIN SWITCHBOARD.

ALTERATIONS	
ORIGINAL ISSUE	

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	26/FEB/19

TITLE: WIRING DIAGRAM - OPERATING PROCEDURE AND NOTES FOR ABB METERING UNIT WITH HV EARTH ONLY

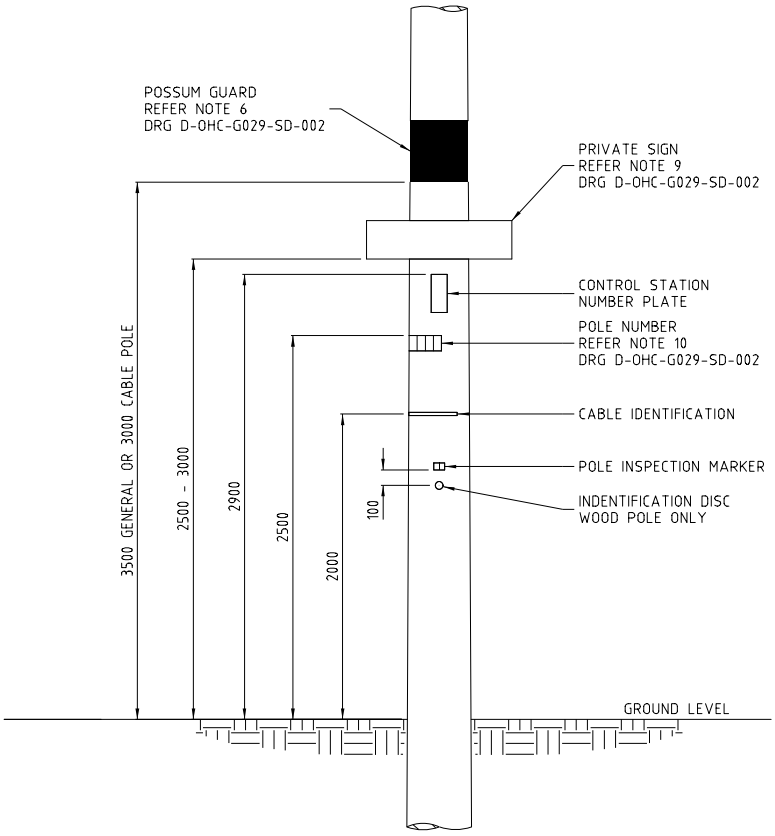
SCALE: NTS

A4

D - OHC - G028 - SD - 002

REVISION: A

7.10 General Positioning of Attachments at Pole Base



NOTES
1. INDEMNITY FORM TO BE SIGNED BY OWNER. REFER TO NETWORK PROCEDURE NP-R-AM-22 - PRIVATE ATTACHMENTS TO TASNETWORKS POLES AND STRUCTURES.
2. SIGN LIMITATIONS:
   MAXIMUM LENGTH - 900mm
   MAXIMUM HEIGHT - 500mm
   MAXIMUM AREA - 0.2m
3. SIGNS SHALL NOT BE ERECTED ON ANY POLE FITTED WITH:
   (a) POLE STEPS FOR CLIMBING
   (b) TRANSFORMER
   (c) HV OR LV FUSES, LINKS OR ISOLATORS
4. SIGNS SHALL BE FIXED SECURELY TO THE POLE SURFACE. WOOD POLE IS NOT TO BE SCARFED MAXIMUM NUMBER OF SIGNS PER POLE IS TWO.
5. WHERE SIGNS ARE FIXED TO TUBULAR STEEL POSTS A STAINLESS STEEL BANDING SYSTEM IS TO BE USED
6. WHEN FIXING SIGNS TO STEEL/CONCRETE POLES USE SELLEYS 'LIQUID NAILS' ADHESIVE ENSURE BOTH SURFACES ARE CLEAN AND DRY. APPLY ADHESIVE TO BOTH SURFACES, PRESS SIGN ONTO POLE AND ALIGN, HOLD IN PLACE FOR ONE MINUTE.

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS	
ORIGINAL ISSUE	

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	26/FEB/19

TITLE: ATTACHMENTS TO WOOD & STEEL/CONCRETE POLES GENERAL ARRANGEMENT

SCALE: NTS

A4

D - OHC - G029 - SD - 001

REVISION: A

General Arrangements Attachments at Pole Base

NOTES

1. WOOD POLE INDENTIFICATION DISC IS INSTALLED AT POLE TREATMENT PLANT.
2. POLE NUMBERS AND CONTROL STATION NUMBERS PLATES ARE TO BE FIXED ON THE ROAD SIDE FACE OF POLES.
3. WEATHERSEAL NEOPRENE WASHERS PROVIDED TO ENABLE THE EASY CHANGEOVER OF CONTROL STATION NUMBER PLATES AT POLE RENEWAL. THE CLOUT TACKS ARE TO BE DRIVEN NO FURTHER IN THAN FLUSH WITH THE TOP OF THE NEOPRENE WASHERS.
4. TO AVOID DAMAGE TO THE SIGN ON WOOD POLES WITH EXTREME CURVATURE A NEOPRENE WASHER MAY BE LOCATED UNDER THE SIGN AS WELL AS ON TOP OF THE SIGN WITH EACH CLOUT TACK FASTENING.
5. WHEN FIXING THE SIGNS OR NUMBERS TO S/C POLES WITH ADHESIVE, BOTH SURFACES MUST BE CLEAN AND DRY. APPLY ADHESIVE TO BACK OF SIGN. PRESS SIGN ONTO POLE AND ALIGN SIGN. HOLD IN PLACE FOR ONE MINUTE.
6. THE POSSUM GUARD LOCATION MAY BE RAISED TO PROVIDE 1000mm CLEARANCE FROM ANY FENCE OR STRUCTURE OR HEDGE.
7. FOR THE FITTING OF POSSUM GUARDS TO STAYWIRES - SEE STAY DRAWINGS.
8. CABLE ID TAG TO BE INSTALLED WHEN CABLE IDENTIFICATION REQUIRED. TAG TO SHOW THE SOURCE OF THE CABLE.
9. REFER TO DRAWING D-OHC-G030-SD-001 FOR DETAIL OF PRIVATE SIGNS AND D-OHC-G032-SD-001 & 002 FOR BANNERS.
10. THE PREFIX LETTER 'P' FOR PRIVATE AND 'S' FOR SURCHARGE OR STANDBY CHARGE TO BE INSTALLED WHEN REQUIRED.
11. "PRIVATE POLE" TAG TO BE FITTED TO ALL PRIVATE POLES - YELLOW PAINTED TAG S.I. No. 32.33.93
12. THE CURRENT RATING VALUE OF HV SPUR LINE AND LINE FUSES SHOULD BE DISPLAYED 2000mm BELOW THE DO FUSE FITTING.
13. REFER TO NETWORK DIVISION PROCEDURE NP-R-AM-22 FOR PRIVATE ATTACHMENTS TO POLES

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS	
ORIGINAL ISSUE	

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CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	26/FEB/19

TITLE: ATTACHMENTS TO WOOD & STEEL/CONCRETE POLES GENERAL ARRANGEMENT

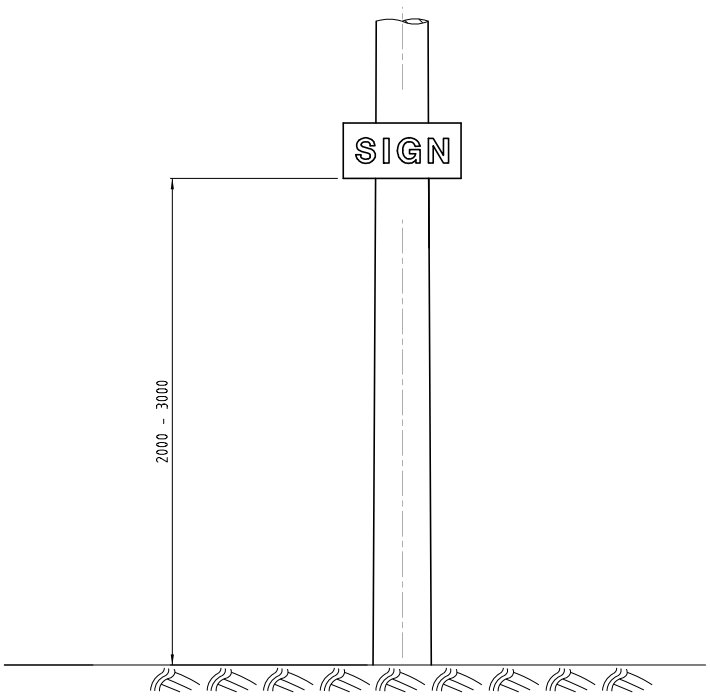
SCALE: NTS

A4

D - OHC - G029 - SD - 002

REVISION: A

7.11 Signs - Pole Attachment



NOTES
1. INDEMNITY FORM TO BE SIGNED BY OWNER. REFER TO NETWORK DRAWING NP-R-AM-22 ON ATTACHMENT TO POLES

2. SIGN LIMITATIONS:
   MAXIMUM LENGTH - 900mm
   MAXIMUM HEIGHT - 500mm
   MAXIMUM AREA - 0.2m

3. SIGNS SHALL NOT BE ERECTED ON ANY POLE FITTED WITH:
   (a) POLE STEPS FOR CLIMBING.
   (b) TRANSFORMER.
   (c) HV OR LV FUSES, LINKS OR ISOLATORS.

4. SIGNS SHALL BE FIXED SECURELY TO THE POLE SURFACE. WOOD POLE IS NOT TO SCARFED. MAXIMUM NUMBER OF SIGNS PER POLE IS TWO.
5. WHERE SIGNS ARE FIXED TO TUBULAR STEEL POSTS A STAINLESS STEEL BANDING SYSTEM IS TO BE USED.
6. WHEN FIXING SIGNS TO STEEL/CONCRETE POLES USE SELLEYS 'LIQUID NAILS' ADHESIVE. ENSURE BOTH SURFACES ARE CLEAN AND DRY. APPLY ADHESIVE TO BOTH SURFACES. PRESS SIGN ONTO POLE AND ALIGN. HOLD IN PLACE FOR ONE MINUTE.

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS: ORIGINAL ISSUE

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DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	26/FEB/19

TITLE: POLE ATTACHMENTS SIGNS

SCALE: NTS

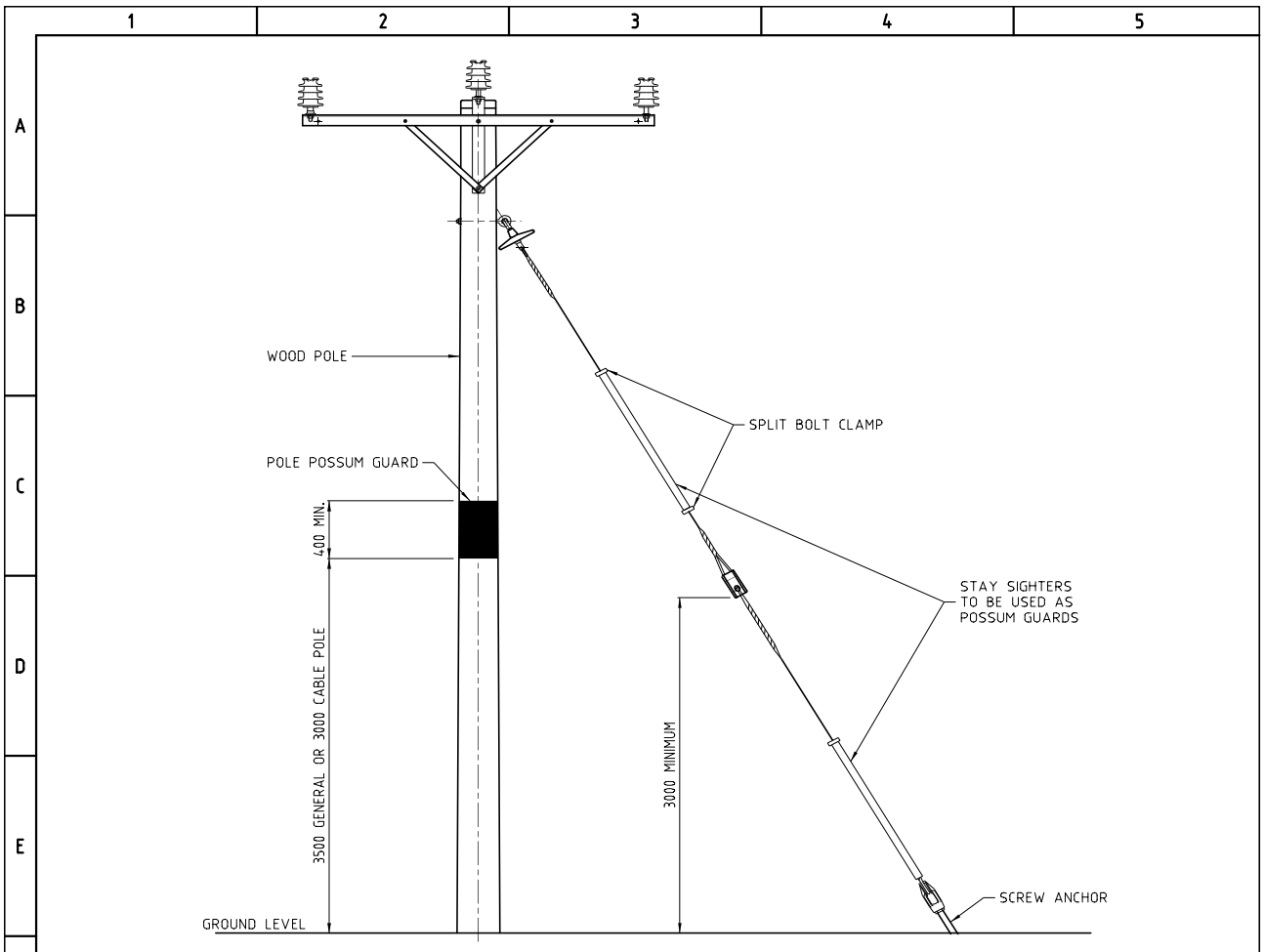
A4

D - OHC - G030 - SD - 001

REVISION: A

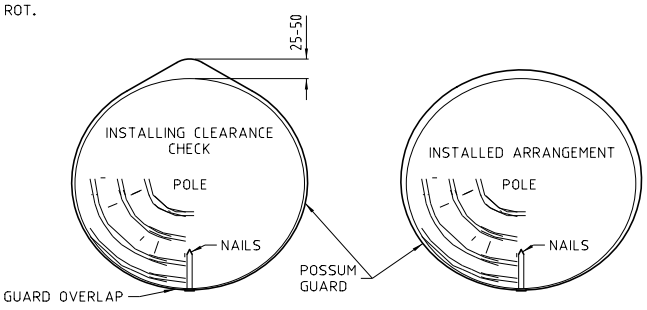
7.12 Pole Attachments

7.12.1 Possum Guards



NOTES
1. POSSUM GUARDS SHALL BE FITTED ON ALL EXISTING WOOD POLES HV & LV EXCEPT THOSE IN THE BUSINESS DISTRICT OF CITIES.
2. WHEN A PRIVATE POLE IS SEEN TO BE WITHOUT A POSSUM GUARD IT IS TO BE RECORDED AS A DEFECT, SO THE CUSTOMER IS NOTIFIED, OTHERWISE REPLACED ON SITE WITH THE CUSTOMER CONSENT.
3. THE POSSUM GUARD MAY BE RAISED TO PROVIDE 1000 CLEARANCE TO THE BOTTOM OF THE POSSUM GUARD FROM ANY FENCE, STRUCTURE OR HEDGE. THE STAY SIGHTER MAY ALSO BE POSITIONED HIGHER OR AN ADDITIONAL SIGHTER MAY BE ADDED.
4. ANY FOLIAGE WHICH MAY PROVIDE POSSUMS WITH ACCESS ONTO THE POLE SHALL BE TRIMMED OR CLEARED AS APPROPRIATE.
5. POSSUM GUARDS TO BE FITTED 3500 FROM GROUND LEVEL FOR GENERAL POLES AND 3000 FROM GROUND LEVEL FOR CABLE POLES.
6. COLORBOND(TM) IS TO BE USED FOR ALL POSSUM GUARDS (STANDARD COLOUR MIST GREEN). SI No 18.85.10
7. ATTACH THE POSSUM GUARD SO THE FIT IS LOOSE, ALLOWING FOR 25-50mm E.G. LARGE SCREWDRIVER HANDLE OF CLEARANCE AS PER THE BELOW DIAGRAM. THE LOOSE FIT STOPS WATER RETENTION AND LETS THE WOOD BREATH WHICH OTHERWISE WOULD PROMOTE SURFACE ROT.

POSSUM GUARD
TYPICAL SECTIONS



DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS: ORIGINAL ISSUE

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TITLE: POLE ATTACHMENTS POSSUM GUARDS

SCALE: NTS

A4

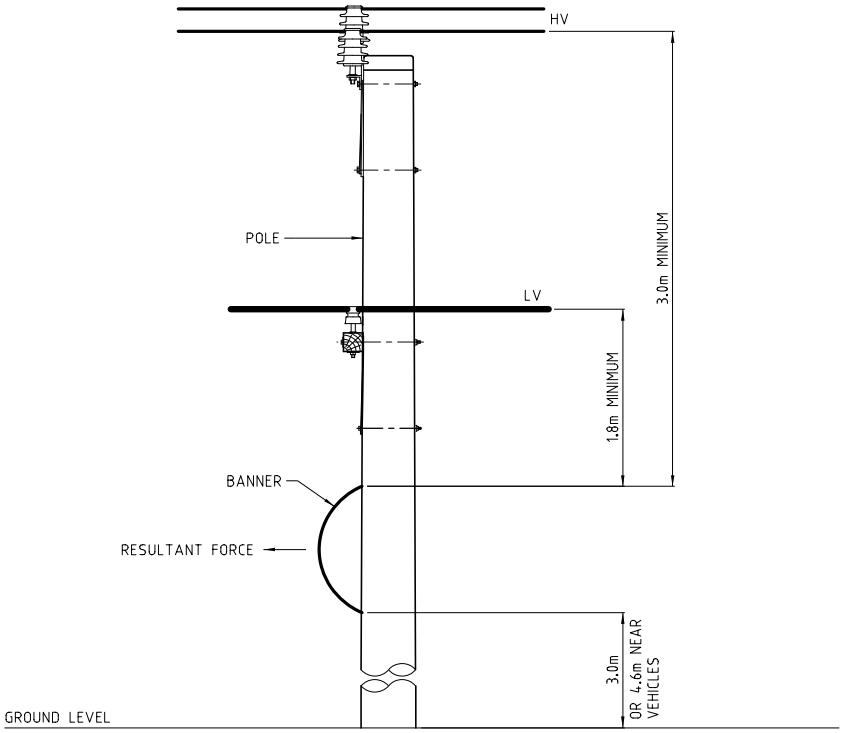
D - OHC - G031 - SD - 001

REVISION: A

7.12.2 Banners on Wood Poles

BANNERS ON STEEL STREET LIGHTING POLES

BANNERS ARE NOT ALLOWED ON GALVANISED STEEL STREET LIGHT POLES. GENERALLY BANNERS ON GALVANISED STEEL POLES ARE NOT ALLOWED BECAUSE OF THE ADDITIONAL FORCES IMPOSED. STREET LIGHTING POLES ARE DESIGNED TO CARRY LUMINAIRES ONLY AND THERE IS NO SPARE CAPACITY FOR ADDITIONAL FIXTURES. BANNERS CAN SET UP VIBRATIONS WHICH CAN RESULT IN METAL FATIGUE AND SHOULD THERE BE ANY CORROSION AT THE BASE OF THE POLE, ANY ADDITIONAL FORCES MAY SHORTEN THE REMAINING LIFE OF THE POLE. THE ONLY EXCEPTIONS ARE THE PURPOSE DESIGNED POLES ERECTED ALONG THE MAIN ARTERIAL ROUTE ADJACENT TO CONSTITUTION DOCK IN HOBART. THESE POLES ARE OWNED BY THE HOBART CITY COUNCIL.



BANNERS ON WOOD POLES

BANNERS ARE ALLOWED ON WOOD POLES WITH THE FOLLOWING RESTRICTIONS. (REFER TO NETWORK PROCEDURE NP-R-AM-22)

1. MINIMUM CLEARANCE FROM GROUND TO THE BOTTOM OF THE BANNER IS TO BE 3.0 METRES.
2. THIS MINIMUM CLEARANCE IS TO BE INCREASED TO 5.6 METRES IF THE BANNER PROJECTS OVER A ROADWAY OR IF THERE IS THE LIKELIHOOD OF VEHICLES PASSING IN CLOSE PROXIMITY TO THE POLE AND BANNER.
3. THE MINIMUM CLEARANCE FROM THE TOP OF THE BANNER AND LOW VOLTAGE CONDUCTORS OR STREET LIGHT SWITCHWIRE IS TO BE 1.8 METRES.

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS	
ORIGINAL ISSUE	

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DATE APPROVED	26/FEB/19

TITLE: POLE ATTACHMENTS
BANNERS ON WOOD POLES

SCALE: NTS

A4

D - OHC - G032 - SD - 001

REVISION: A

Banners on Wood Poles

BANNERS ON WOOD POLES

4. THE MINIMUM CLEARANCE FROM THE TOP OF THE BANNER AND HIGH VOLTAGE CONDUCTORS IS TO BE 3.0 METRES.
5. NO BANNERS ARE TO BE POSITIONED ON ANY POLE THAT HAS AN UNDERGROUND CABLE, TRANSFORMER, RECLOSER OR SWITCH INSTALLED ON IT.
6. THE SIZE OF THE BANNER SHALL NOT BE MORE THAN 1.7 SQUARE METRES.
7. NO HOLES ARE TO BE DRILLED OR FASTENERS DRIVEN INTO THE POLE. THE BANNERS ARE TO BE FASTENED BY A BANDING SYSTEM.
8. THE BANNERS SHALL ONLY BE ALLOWED TO REMAIN ON THE POLE FOR A PERIOD OF UP TO EIGHT WEEKS.
9. THE ERECTION OF THE BANNER SHALL NOT CONSTITUTE A CLIMBING AID. THAT IS ANY FRAMEWORK OR STRUCTURE ASSOCIATED WITH THE BANNER SHALL NOT GIVE ASSISTANCE TO AN INDIVIDUAL ATTEMPTING TO ILLEGALLY CLIMB TASNETWORKS POLES.
10. THE ERECTION OF THE BANNER SHALL BE SUCH THAT THE RESULTANT FORCE DUE TO WIND SHALL BE PARALLEL TO THE MAIN CONDUCTORS ERECTED ON THE POLE.
11. THE FREE MOVING LENGTH OF ANY BANNER SHALL NOT BE ANY LONGER THAN 1.0 METRE AND SHALL NOT BE CAPABLE OF COMING IN CONTACT WITH OR NEAR CONTACT WITH THE OVERHEAD WIRES OR CABLES.
12. TASNETWORKS SHALL NOT BE LIABLE FOR ANY CLAIMS ARISING FROM THE INSTALLATION OR CONTINUED PRESENCE OF A BANNER ON TASNETWORKS POLES.
13. PERMISSION TO ERECT A PARTICULAR BANNER ON AN TASNETWORKS POLE SHALL BE AT THE DISCRETION OF THE LOCAL TASNETWORKS REPRESENTIVE PROVIDED THAT THE ABOVE REQUIREMENTS ARE MET. THE WORK SHALL BE CARRIED OUT TO THE SATISFACTION OF THE TASNETWORKS REPRESENTATIVE. NO WORK IS TO PROCEED WITHOUT THE EXPRESS PERMISSION OF THE LOCAL TASNETWORKS REPRESENTATIVE.

DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE STATED

ALTERATIONS: ORIGINAL ISSUE

TasNetworks

DRAWN	C5 PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	26/FEB/19

TITLE: POLE ATTACHMENTS
BANNERS ON WOOD POLES

SCALE: NTS

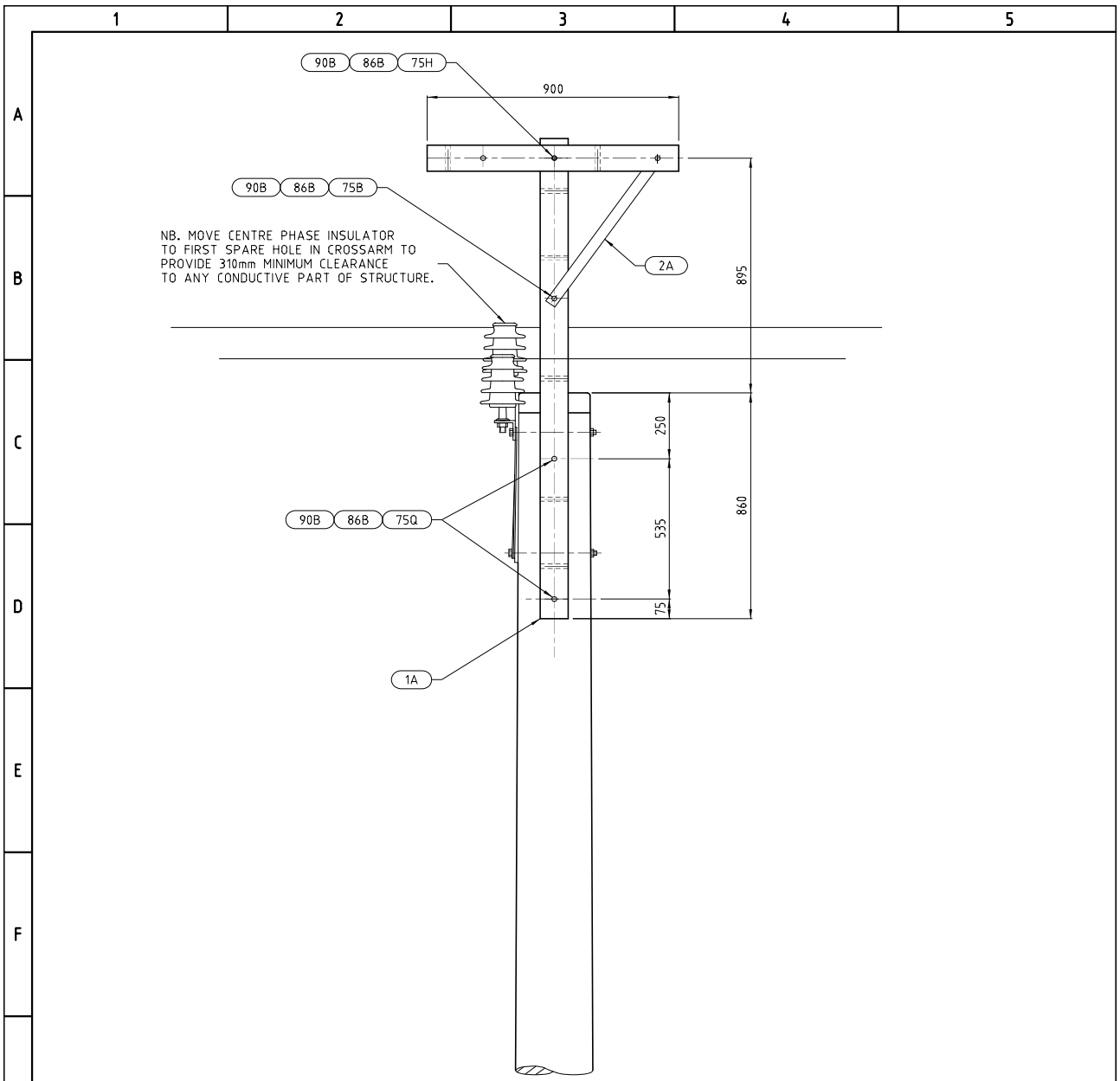
A4

D - OHC - G032 - SD - 002

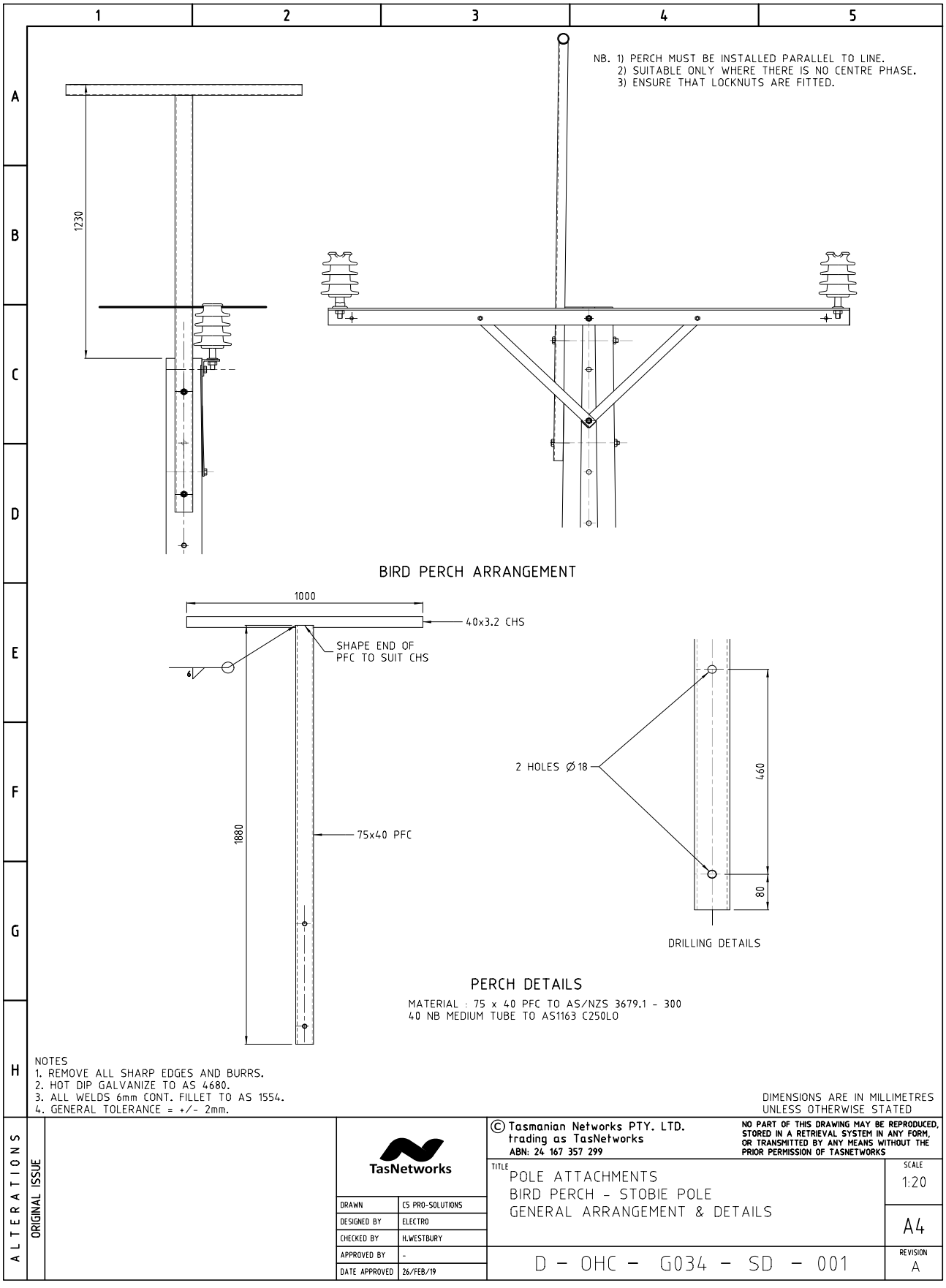
REVISION: A

7.13 Bird Perches

7.13.1 Bird Perch on Wood Poles

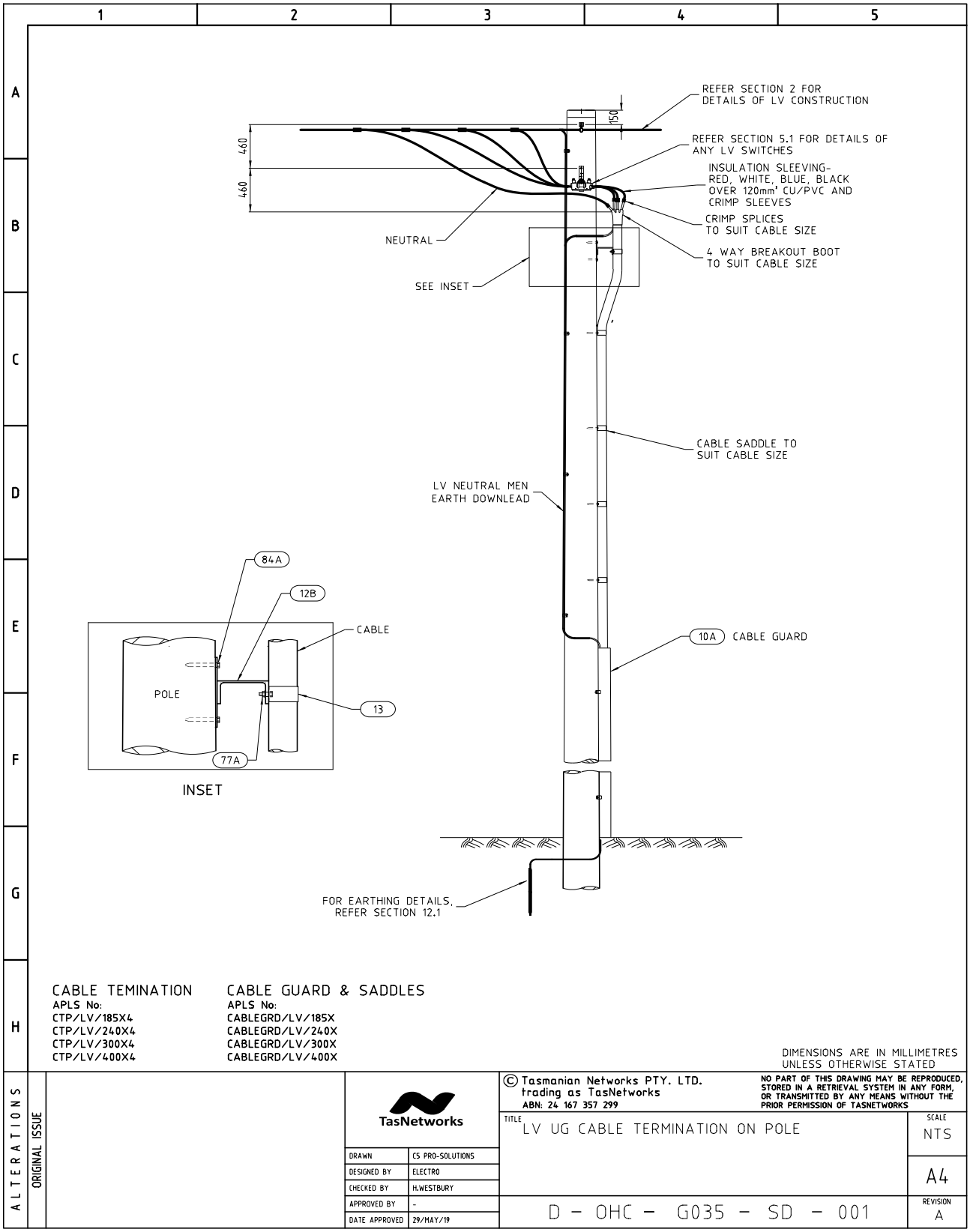


7.13.2 Perch on Stobie Poles



UNDERGROUND (UG) CABLE TERMINATIONS ON POLES

7.14 LV UG Cable Termination on Pole



LV UG Cable Termination on Pole – Materials List

Unit Assembly	Store Type	Item Ref	Stock Item	Stock Item Description	Quantity
CTP/LV/185X4	S	82C	40440	Nut M12	4
		87C	65615	Washer Ns 12	8
		#N/A	95120	Cable LV Cu 1c 120mm^2 c x pvc (Black)	8
			141198	Splice Crimp Bimetal 185Al/120Cu 4c solid Sector/Round	4
			168085	Breakout Boot 4 Way 185 to 400mm^2 LV	1
			168420	Cable Sleeve MWTM 25/8 1200mm (Med Wall Mastic)	4
			169150	Cable Sleeve Thin Walled Unlined (38-19mm) - RED	1
			169151	Cable Sleeve Thin Walled Unlined (38-19mm) - WHITE	1
			169152	Cable Sleeve Thin Walled Unlined (38-19mm) - BLUE	1
			169153	Cable Sleeve Thin Walled Unlined (38-19mm) - BLACK	1
		74K	32212	Bolt Hex M12 X 50	4
CTP/LV/240X4	S	82C	40440	Nut M12	4
		87C	65615	Washer Ns 12	8
		#N/A	141197	Splice Crimp Bimetal 240Al/150Cu 4c solid Sector/Round	4
			168085	Breakout Boot 4 Way 185 to 400mm^2 LV	1
			168745	Cable Sleeve WCSM 51/16 1200mm (Heavy Wall Mastic)	4
			169150	Cable Sleeve Thin Walled Unlined (38-19mm) - RED	1
			169151	Cable Sleeve Thin Walled Unlined (38-19mm) - WHITE	1
			169152	Cable Sleeve Thin Walled Unlined (38-19mm) - BLUE	1
			169153	Cable Sleeve Thin Walled Unlined (38-19mm) - BLACK	1
		74K	32212	Bolt Hex M12 X 50	4
		51S	94195	Cable LV Cu 1c 150mm^2 c x pvc (Black)	8
CTP/LV/300X4	S	82C	40440	Nut M12	4
		87C	65615	Washer Ns 12	8
		#N/A	95185	Cable LV Cu 1c 185mm^2 c x pvc (Black)	8
			141192	Splice Crimp Bimetal 300al/185cu Round/Round	4
			168085	Breakout Boot 4 Way 185 to 400mm^2 LV	1
			168745	Cable Sleeve WCSM 51/16 1200mm (Heavy Wall Mastic)	4
			169150	Cable Sleeve Thin Walled Unlined (38-19mm) - RED	1
			169151	Cable Sleeve Thin Walled Unlined (38-19mm) - WHITE	1
			169152	Cable Sleeve Thin Walled Unlined (38-19mm) - BLUE	1
			169153	Cable Sleeve Thin Walled Unlined (38-19mm) - BLACK	1
		74K	32212	Bolt Hex M12 X 50	4
CTP/LV/400X4	S	82C	40440	Nut M12	4
		87C	65615	Washer Ns 12	8
		#N/A	95240	Cable LV Cu 1c 240mm^2 c x pvc (Black)	8
			141199	Splice Crimp Bimetal 400Al/240Cu Round/Round	4
			168085	Breakout Boot 4 Way 185 to 400mm^2 LV	1
			168745	Cable Sleeve WCSM 51/16 1200mm (Heavy Wall Mastic)	4
			169150	Cable Sleeve Thin Walled Unlined (38-19mm) - RED	1
			169151	Cable Sleeve Thin Walled Unlined (38-19mm) - WHITE	1
			169152	Cable Sleeve Thin Walled Unlined (38-19mm) - BLUE	1
			169153	Cable Sleeve Thin Walled Unlined (38-19mm) - BLACK	1
		74K	32212	Bolt Hex M12 X 50	4

DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE STATED

ALTERATIONS
ORIGINAL ISSUE

TasNetworks

DRAWN	C5 PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	
DATE APPROVED	16/MAY/19

TITLE: LV UG CABLE TERMINATION ON POLE MATERIALS LIST

SCALE: NTS

A4

D - OHC - G035 - SD - 002

REVISION: A

LV UG Cable Termination on Pole – Materials List

Unit Assembly	Store Type	Item Ref	Stock Item	Stock Item Description	Quantity
CABLEGRD/LV/185X	S	10A	323326	Cable Guard Single (wood pole) - Aluminium	1
		12B	323371	Saddle Support Mk71	1
		13F	323374	Cable Saddle Mk74	3
		84A	50225	Coach Screw M10 X 50	2
		87B	65614	Washer Ns 10	12
		#N/A	323333	Guard Plate with coach bolt	3
CABLEGRD/LV/240X	S	10A	323326	Cable Guard Single (wood pole) - Aluminium	1
		12B	323371	Saddle Support Mk71	1
		13E	323342	Cable Saddle Mk42	3
		84A	50225	Coach Screw M10 X 50	2
		87B	65614	Washer Ns 10	12
		#N/A	323333	Guard Plate with coach bolt	3
CABLEGRD/LV/300X	S	10A	323326	Cable Guard Single (wood pole) - Aluminium	1
		12B	323371	Saddle Support Mk71	1
		13D	323341	Cable Saddle Mk41	3
		84A	50225	Coach Screw M10 X 50	2
		87B	65614	Washer Ns 10	12
		#N/A	323333	Guard Plate with coach bolt	3
CABLEGRD/LV/400X	S	10A	323326	Cable Guard Single (wood pole) - Aluminium	1
		12B	323371	Saddle Support Mk71	1
		13C	323340	Cable Saddle Mk40	3
		84A	50225	Coach Screw M10 X 50	2
		87B	65614	Washer Ns 10	12
		#N/A	323333	Guard Plate with coach bolt	3

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS: ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	
DATE APPROVED	16/MAY/19

TITLE: LV UG CABLE TERMINATION ON POLE MATERIALS LIST

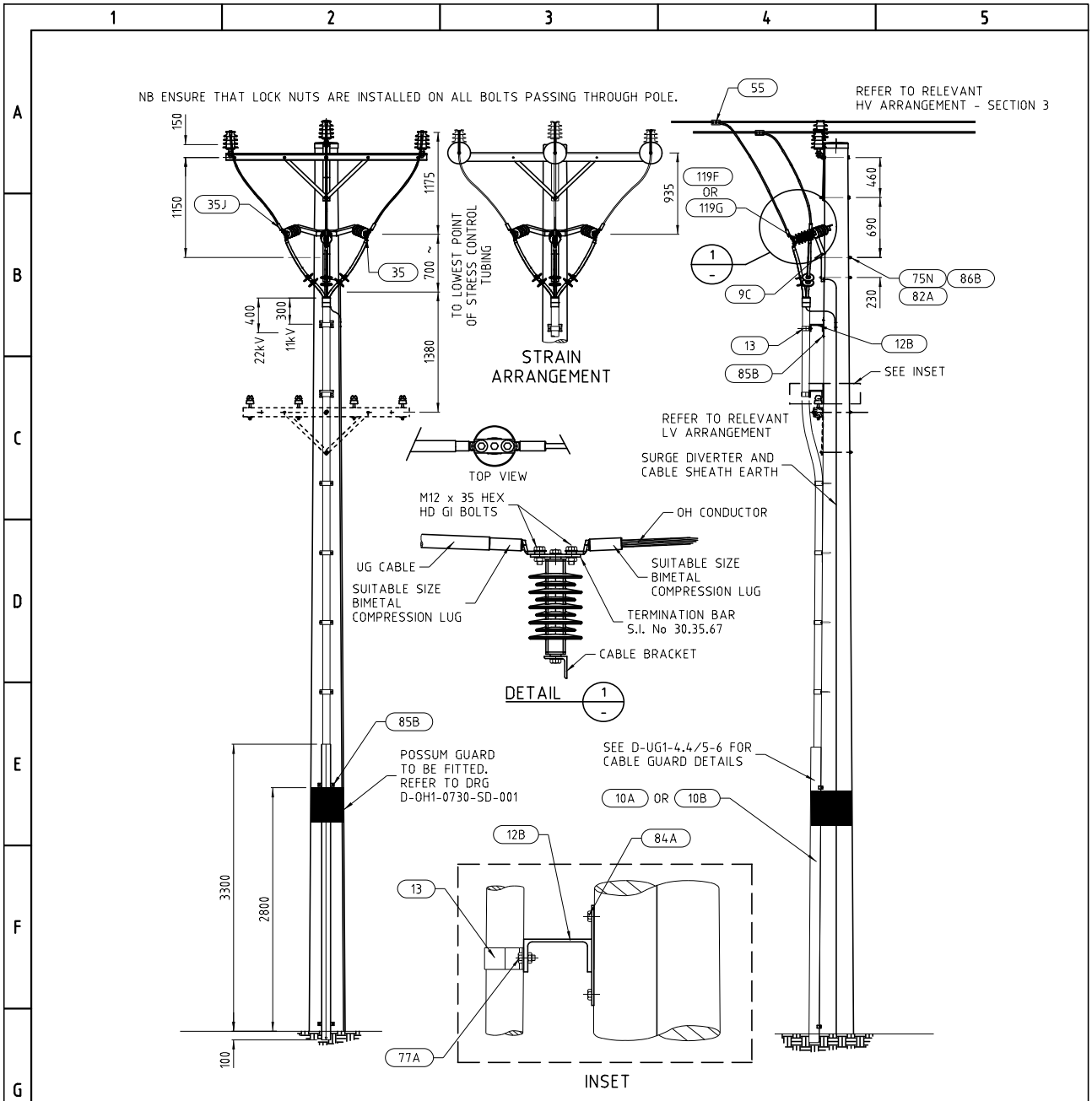
SCALE: NTS

A4

D - OHC - G035 - SD - 003

REVISION: A

7.15 11kV or 22kV UG Cable Termination on Pole



NOTES

1. SHEATH EARTH WIRE TO BE 70mm² FOR 11kV AND 22kV NETWORKS AND 120mm² FOR 33kV NETWORK. - REFER SECTION 12.6
2. MAXIMUM EARTH ELECTRODE RESISTANCE IS TO BE 15 OHMS FOR 11kV, 10 OHMS FOR 22kV AND 5 OHMS FOR 33kV.
3. FOR GUIDANCE ON INSTALLATION AND CONNECTION OF SURGE DIVERTERS REFER TO DSD-UG-01 AND INTERIM GUIDELINE DOCUMENT NW30014842.

APL Nos:
CPA/11/3/PLM
CPA/22/3/PLM

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS
ORIGINAL ISSUE

TasNetworks

DRAWN	C5 PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	29/MAY/19

TITLE: CABLE TERMINATION - HEAT SHRINK INTERMEDIATE/STRAIN 11kV OR 22kV

SCALE: 1:60

A4

D - OHC - G036 - SD - 001

REVISION: A

11kV or 22kV UG Cable Termination on Pole – Materials List

Unit Assembly	Store Type	Item Ref	Stock Item	Stock Item Description	Quantity
CPA/11/3/PLM	S	119F	225772	Lightning Arrester (NOT L/L TESTED) ABB 11kV 10kA c/w bird cap & M12 studs	3
		55J	146857	Split Bolt D (up to 19/.101)	1
		73F	32191	Bolt Hex M10 X 100	3
		75N	32288	Bolt Hex M16 X 350	3
		82A	40441	Nut M16	3
		86B	65158	Washer Els 16	6
		9C	322063	Standoff insulator bracket for u/g cables	1
		#N/A	40439	Nut M10	6
			141358	Lug Crimp 35mm^2 tinned copper M10	3
			303569	Copper "T" Bar for S/Off Insulators or L/A's to HV Cables or HVABC	3
CPA/22/3/PLM	S	119G	225773	Lightning Arrester (NOT L/L TESTED) ABB 22kV 10kA c/w bird cap & M12 studs	3
		55J	146857	Split Bolt D (up to 19/.101)	1
		73F	32191	Bolt Hex M10 X 100	3
		75N	32288	Bolt Hex M16 X 350	3
		82A	40441	Nut M16	3
		86B	65158	Washer Els 16	6
		9C	322063	Standoff insulator bracket for u/g cables	1
		#N/A	40439	Nut M10	6
			141358	Lug Crimp 35mm^2 tinned copper M10	3
			303569	Copper "T" Bar for S/Off Insulators or L/A's to HV Cables or HVABC	3

DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE STATED

ALTERATIONS: ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	
DATE APPROVED	16/MAY/19

TITLE: CABLE TERMINATION - HEAT SHRINK
INTERMEDIATE / STRAIN 11 kV OR 22 kV
MATERIALS LIST

SCALE: NTS
A4
REVISION: A

D - OHC - G036 - SD - 002

11kV or 22kV UG Cable Termination on Pole – Materials List

Unit Assembly	Store Type	Item Ref	Stock Item	Stock Item Description	Quantity
CABLEGRD/11/185X	S	10A	323326	Cable Guard Single (wood pole) - Aluminium	1
		12B	323371	Saddle Support Mk71	2
		13C	323340	Cable Saddle Mk40	4
		84A	50225	Coach Screw M10 X 50	4
		87B	65614	Washer Ns 10	16
		#N/A	323333	Guard Plate with coach bolt	3
CABLEGRD/11/240X	S	10A	323326	Cable Guard Single (wood pole) - Aluminium	1
		12B	323371	Saddle Support Mk71	2
		13B	323339	Cable Saddle Mk39	4
		84A	50225	Coach Screw M10 X 50	4
		87B	65614	Washer Ns 10	16
		#N/A	323333	Guard Plate with coach bolt	3
CABLEGRD/22/185X	S	10A	323326	Cable Guard Single (wood pole) - Aluminium	1
		12B	323371	Saddle Support Mk71	2
		13B	323339	Cable Saddle Mk39	4
		84A	50225	Coach Screw M10 X 50	4
		87B	65614	Washer Ns 10	16
		#N/A	323333	Guard Plate with coach bolt	3
CABLEGRD/22/240X	S	10A	323326	Cable Guard Single (wood pole) - Aluminium	1
		12B	323371	Saddle Support Mk71	2
		13A	323338	Cable Saddle Mk38	4
		84A	50225	Coach Screw M10 X 50	4
		87B	65614	Washer Ns 10	16
		#N/A	323333	Guard Plate with coach bolt	3

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS: ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	
DATE APPROVED	16/MAY/19

TITLE: CABLE TERMINATION - HEAT SHRINK INTERMEDIATE / STRAIN 11 kV OR 22 kV MATERIALS LIST

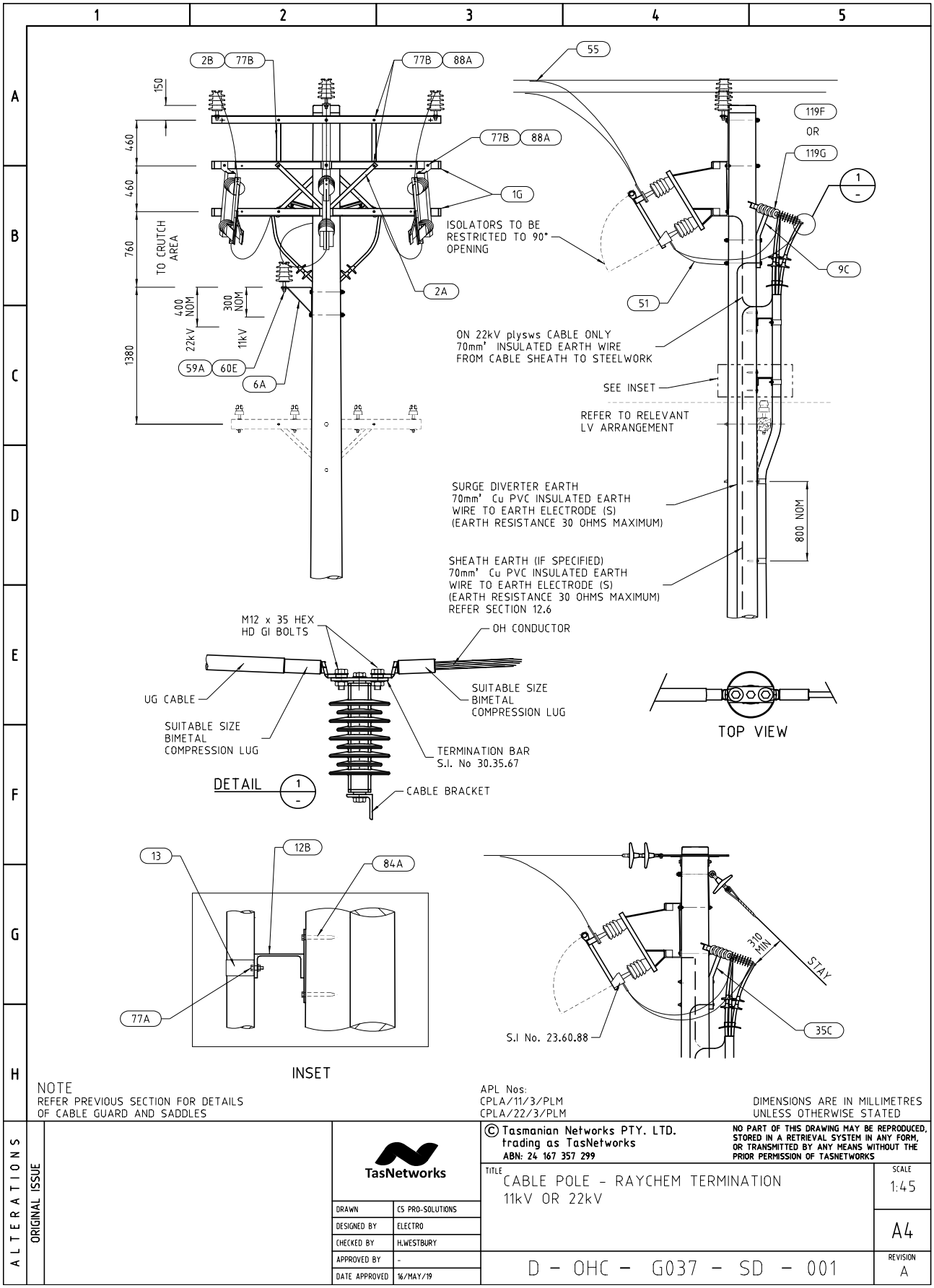
SCALE: NTS

A4

D - OHC - G036 - SD - 003

REVISION: A

7.16 11kV or 22kV UG Cable Termination on Pole with Links



NOTE
REFER PREVIOUS SECTION FOR DETAILS OF CABLE GUARD AND SADDLES

APL Nos:
CPLA/11/3/PLM
CPLA/22/3/PLM

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS
ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	16/MAY/19

TITLE: CABLE POLE - RAYCHEM TERMINATION 11kV OR 22kV

SCALE: 1:45

A4

D - OHC - G037 - SD - 001

REVISION: A

11kV or 22kV UG Cable Termination on Pole with Links – Materials List

Unit Assembly	Store Type	Item Ref	Stock Item	Stock Item Description	Quantity
CPLA/11/3/PLM	S	1G	323309	Crossarm Mk9	2
		119F	225772	Lightning Arrester (NOT L/L TESTED) ABB 11kV 10kA c/w bird cap & M12 studs	3
		2B	323317	Crossarm Strap Mk17	2
		59A	322721	Pin,Insulator 22kV	1
		60E	320531	Insulator Pin 22/450	1
		60H	320735	Insulator Raychem standoff 24kV set of 3	1
		6A	323315	Insulator Bracket Mk15	1
		73F	32191	Bolt Hex M10 X 100	3
		75N	32288	Bolt Hex M16 X 350	4
		75P	32289	Bolt Hex M16 X 375	2
		77B	33771	Bolt Tower M12 X 35	12
		86B	65158	Washer Els 16	6
		88A	66412	Washer Tower 12	12
		9C	322063	Standoff insulator bracket for u/g cables	1
		#N/A	40439	Nut M10	6
			141358	Lug Crimp 35mm^2 tinned copper M10	3
			157891	Redback sleeving 20mm dia. (per 10m coil)	0.2
			236088	Switch Isolator Single 24kV Vertical 24KV w/o Arc-Chutes - ABB	3
			303569	Copper "T" Bar for S/Off Insulators or L/A's to HV Cables or HVABC	3
		2A	323314	Crossarm Strap Mk14	4
CPLA/22/3/PLM	S	1G	323309	Crossarm Mk9	2
		119G	225773	Lightning Arrester (NOT L/L TESTED) ABB 22kV 10kA c/w bird cap & M12 studs	3
		2B	323317	Crossarm Strap Mk17	2
		59A	322721	Pin,Insulator 22kV	1
		60E	320531	Insulator Pin 22/450	1
		60H	320735	Insulator Raychem standoff 24kV set of 3	1
		6A	323315	Insulator Bracket Mk15	1
		73F	32191	Bolt Hex M10 X 100	3
		75N	32288	Bolt Hex M16 X 350	4
		75P	32289	Bolt Hex M16 X 375	2
		77B	33771	Bolt Tower M12 X 35	12
		86B	65158	Washer Els 16	6
		88A	66412	Washer Tower 12	12
		9C	322063	Standoff insulator bracket for u/g cables	1
		#N/A	40439	Nut M10	6
			141358	Lug Crimp 35mm^2 tinned copper M10	3
			157891	Redback sleeving 20mm dia. (per 10m coil)	0.2
			236088	Switch Isolator Single 24kV Vertical 24KV w/o Arc-Chutes - ABB	3
			303569	Copper "T" Bar for S/Off Insulators or L/A's to HV Cables or HVABC	3
		2A	323314	Crossarm Strap Mk14	4

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS

ORIGINAL ISSUE

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DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	
DATE APPROVED	29/MAY/19

TITLE: CABLE POLE - RAYCHEM TERMINATION 11kV OR 22kV MATERIALS LIST

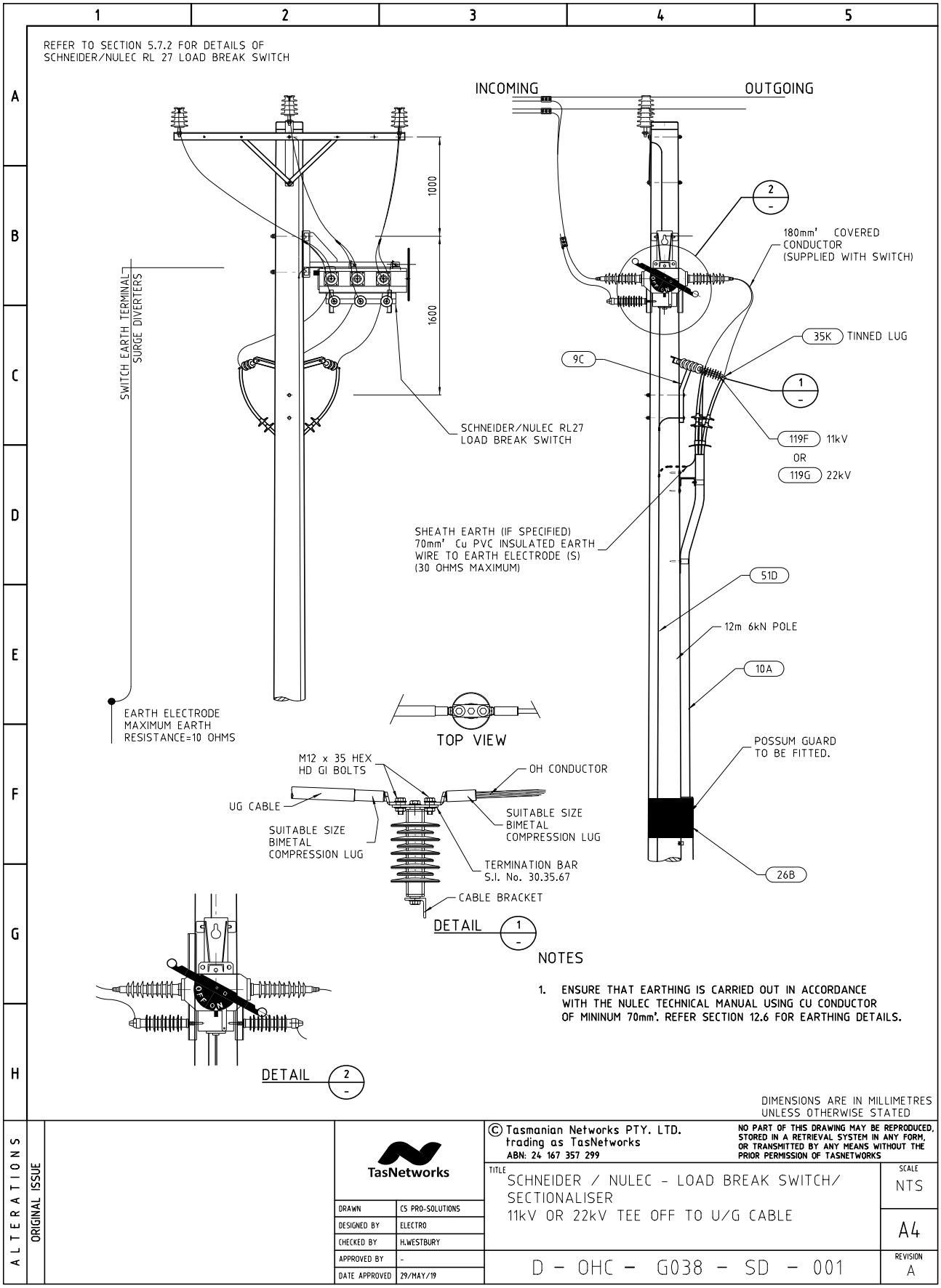
SCALE: NTS

A4

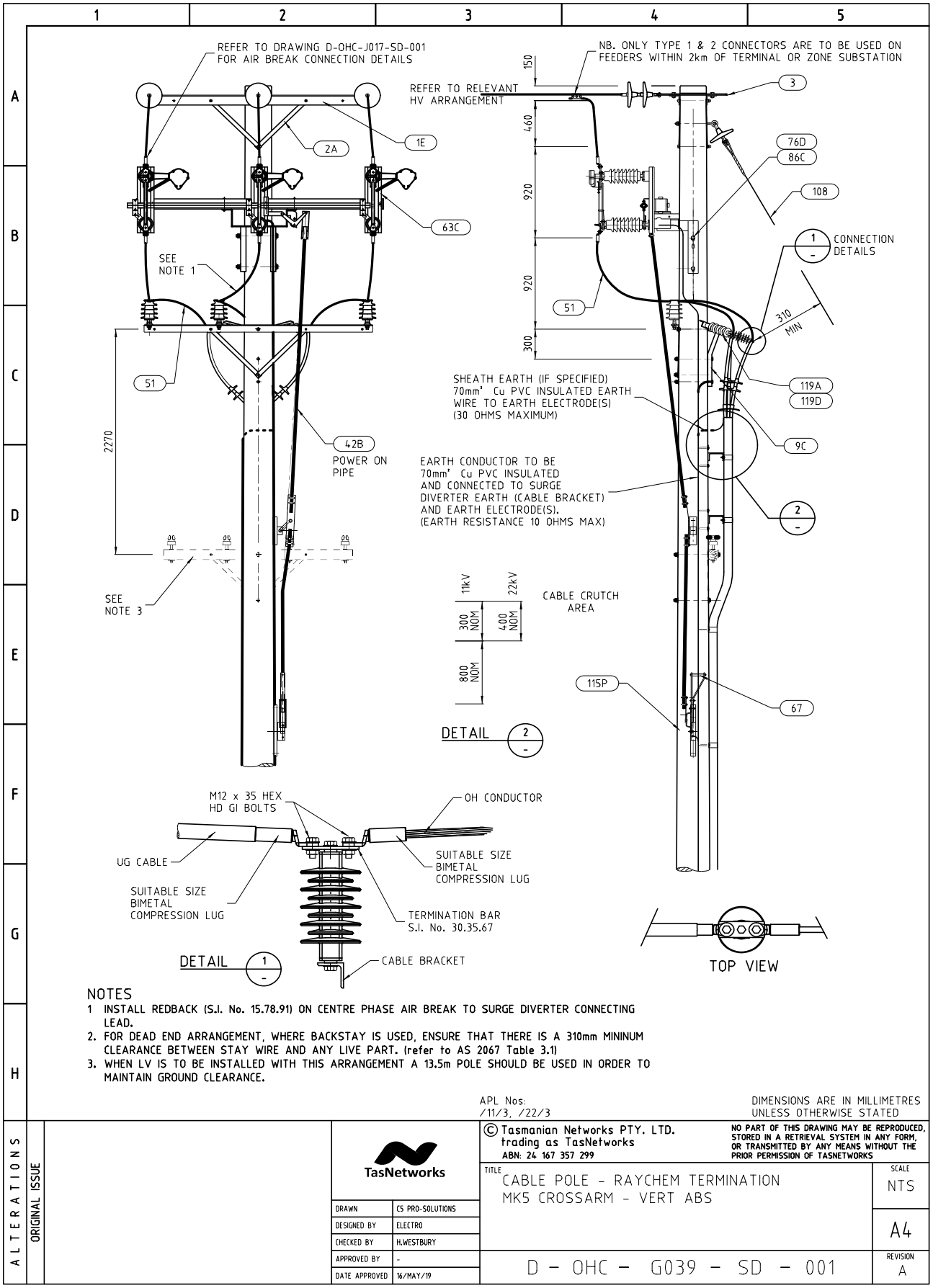
D - OHC - G037 - SD - 002

REVISION: A

7.17 11kV or 22kV UG Cable Termination on Pole with Load Break Switch



7.18 11kV or 22kV UG Cable Termination on Pole with Vertical ABS



NOTES

1. INSTALL REDBACK (S.I. No. 15.78.91) ON CENTRE PHASE AIR BREAK TO SURGE DIVERTER CONNECTING LEAD.
2. FOR DEAD END ARRANGEMENT, WHERE BACKSTAY IS USED, ENSURE THAT THERE IS A 310mm MININUM CLEARANCE BETWEEN STAY WIRE AND ANY LIVE PART. (refer to AS 2067 Table 3.1)
3. WHEN LV IS TO BE INSTALLED WITH THIS ARRANGEMENT A 13.5m POLE SHOULD BE USED IN ORDER TO MAINTAIN GROUND CLEARANCE.

APL Nos: /11/3, /22/3

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS: ORIGINAL ISSUE

TasNetworks

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DESIGNED BY	ELECTRO
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APPROVED BY	-
DATE APPROVED	16/MAY/19

TITLE: CABLE POLE - RAYCHEM TERMINATION MK5 CROSSARM - VERT ABS

SCALE: NTS

A4

D - OHC - G039 - SD - 001

REVISION: A