DISTRIBUTION CONSTRUCTION STANDARDS MANUAL

Part 5

Date Published: 25 November 2021

U - LV Underground

For application to

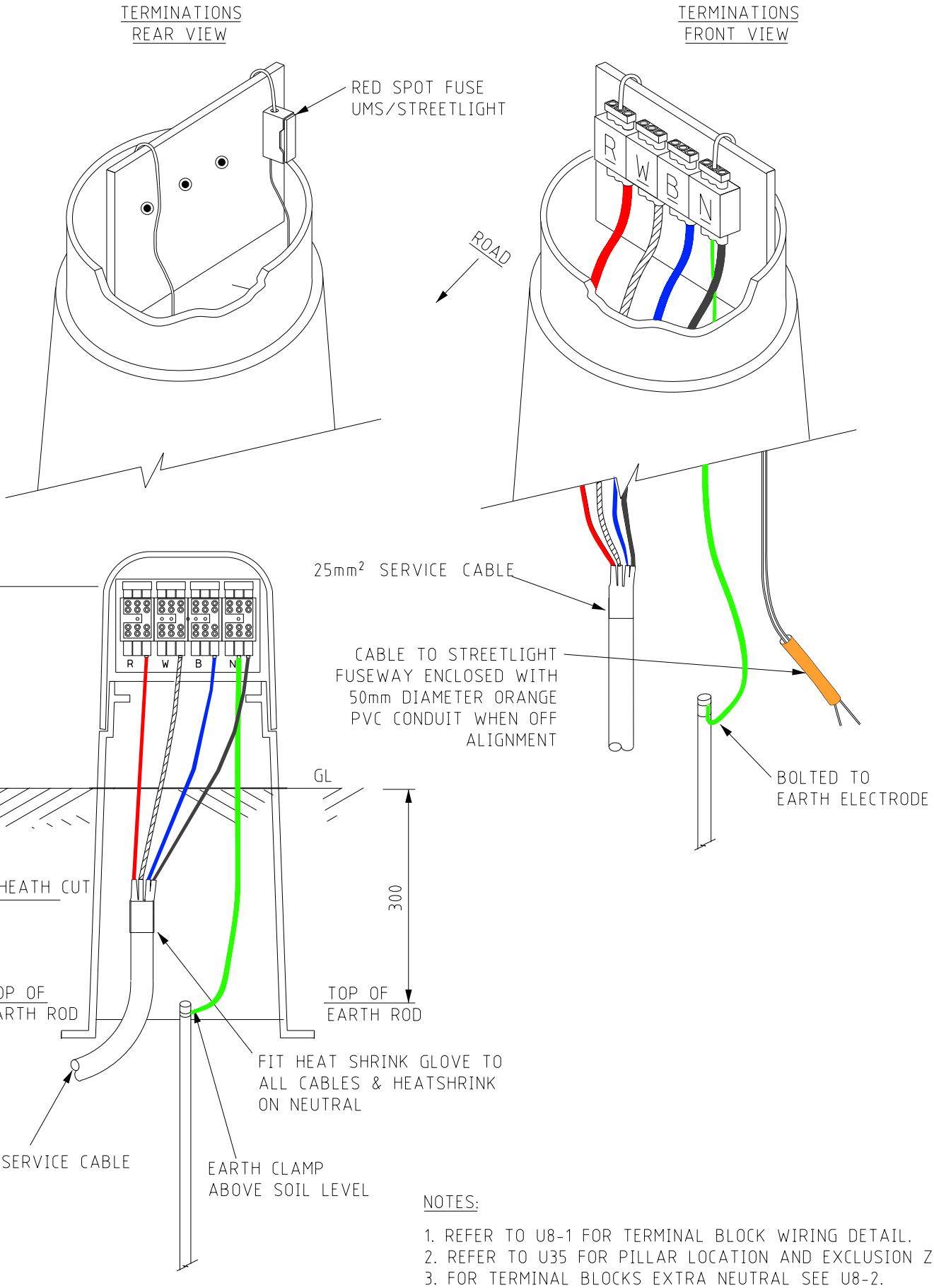
Horizon Power

Electricity Distribution Networks

Uncontrolled document when printed. Refer Online for latest version.

Part 5 – LV Underground – Drawing Register

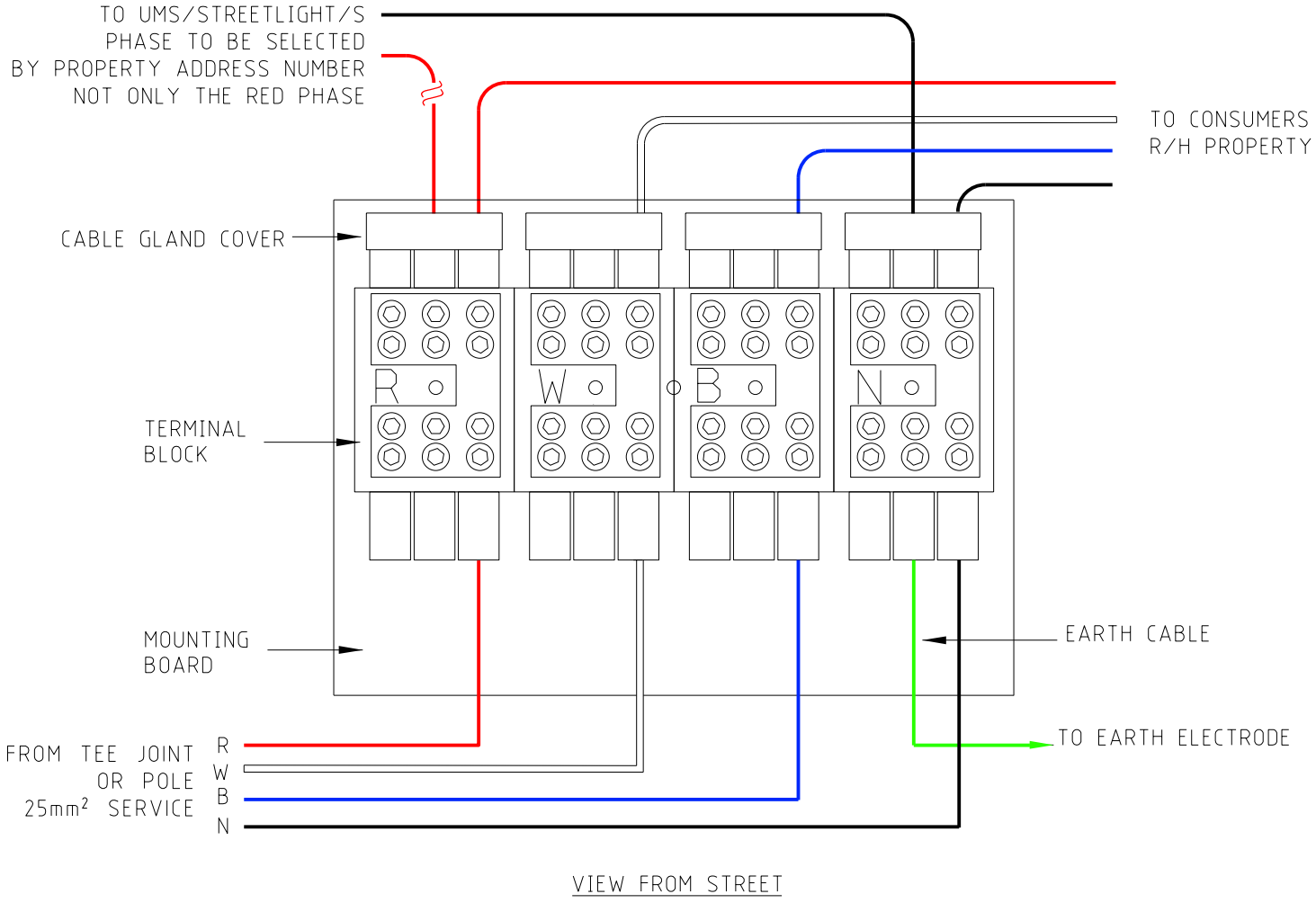
Number	Description
U8	Mini Pillar Installation Detail
U8-1	Mini Pillar Terminal Block Wiring Detail
U8-2	Mini Pillar Additional Neutral Fitting Requirements
U9	Universal Pillar Installation and Termination Details
U9-1	Universal Pillar Terminal Block Wiring Detail
U15	Cable to LV Bare with Isolator Detail
U16-1	Cable to LV Bare with or without Fuses
U16-2	Superseded - LV Bare Termination Cable Connection with or without Fuses
U17	Cable to LV ABC with Fuses Detail
U18	25mm^2 Cable to LV ABC with Fuses Detail
U19-1	25mm^2 Cable to LV Bare with Fuses Detail
U19-2	25mm^2 Cable to 1 Phase LV Bare with Fuses Detail
U19-3	Transformer Cable to Pillar with Fuses on Customer Property Detail
U19-4	Multiple Cable Connection with Fuses Detail
U20	Wall Mounted Box – 100A
U21	Wall Mounted Box – 200A
U23-1	Unmetered Supply Cable Pit Components Assembly
U23-2	Unmetered Supply Mini Pillar Termination Details
U24	Superseded - LV Kiosk Type 1
U25	Superseded - LV Kiosk Type 2
U26	Superseded - LV Kiosk Type 3
U27	LV Cable to Fuse Switch
U30-1	Below Ground Service Pit Installation Detail
U30-2	Below Ground Service Pit Installation Detail
U31	Wall Box Surface Mounted on Consumer’s Wall
U32	Wall Box Semi-recess Mounted on Consumer’s Wall
U33	Wall Box Mounted Inside Consumer’s Enclosure on Consumer’s Wall
U35	Pillar Exclusion Zones



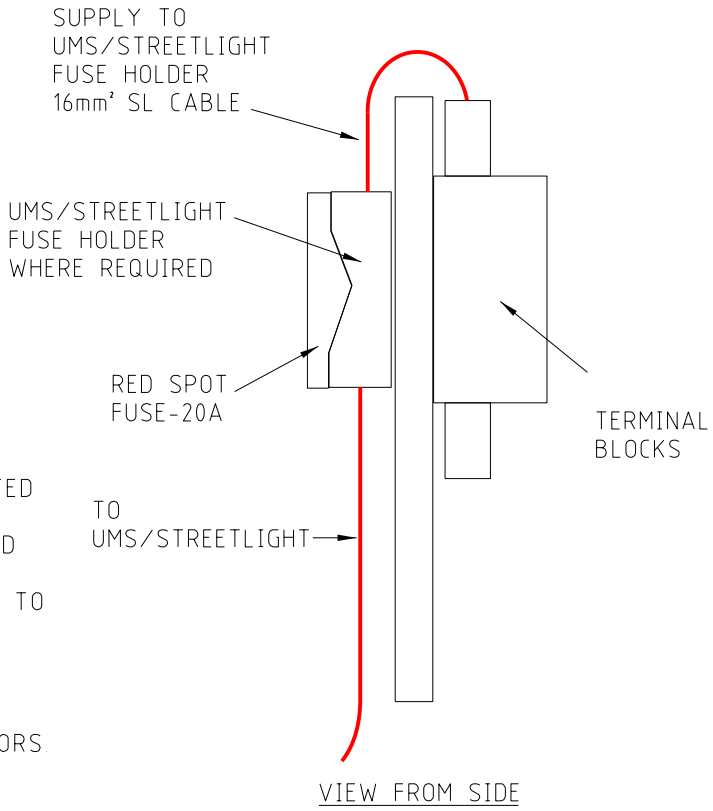
NOTES:

1. REFER TO U8-1 FOR TERMINAL BLOCK WIRING DETAIL.
2. REFER TO U35 FOR PILLAR LOCATION AND EXCLUSION ZONES.
3. FOR TERMINAL BLOCKS EXTRA NEUTRAL SEE U8-2.
4. FOR WORKING END SEE R33.

HORIZON POWER DISTRIBUTION CONSTRUCTION STANDARDS	STRUCTURE	REVISION E	DATE 01/10/21
	MINI PILLAR INSTALLATION DETAIL	DRAWING No. U8	
OPERATIONS			



VIEW FROM STREET

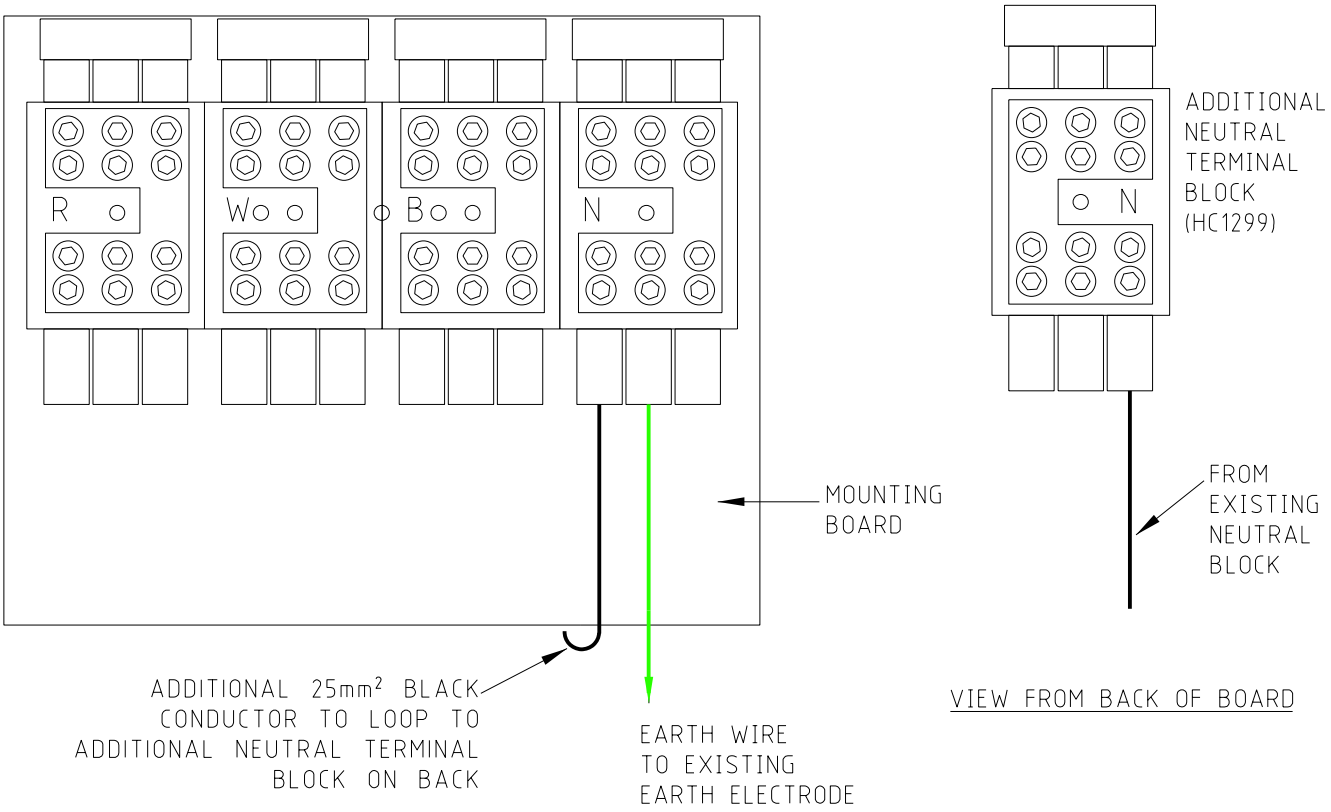


VIEW FROM SIDE

NOTES:

1. ALL SERVICE CABLES TO BE CONNECTED FROM THE BOTTOM OF TERMINAL BLOCKS.
2. EARTH CABLE TO EARTH ELECTRODE TO BE TERMINATED AT THE BOTTOM CENTER OF NEUTRAL BLOCK.
3. CONSUMERS AND UMS/STREETLIGHTS TO BE CONNECTED TO THE TOP OF THE TERMINAL BLOCKS.
4. CONSUMER'S MAXIMUM DEMAND LESS THAN 100 AMPS TO BE CONNECTED THROUGH THE TERMINAL CABLE GLAND COVERS TO THE TOP OF THE TERMINAL BLOCK (LEFT CONSUMER ON THE LEFT SIDE OF THE BLOCK, RIGHT CONSUMER ON THE RIGHT SIDE OF THE BLOCK)
5. LABEL ALL OUTGOING ACTIVE AND NEUTRAL CONDUCTORS.
6. FOR UMS CONNECTIONS REFER TO U23-2

HORIZON POWER DISTRIBUTION CONSTRUCTION STANDARDS	STRUCTURE	REVISION B	DATE 01/10/21
	MINI PILLAR TERMINAL BLOCK WIRING DETAIL	DRAWING No. U8-1	
OPERATIONS			



INSTALLATION PROCEDURE:

1 FIX EXTRA NEUTRAL TERMINAL BLOCK TO BACK OF PANEL BEHIND EXISTING NEUTRAL BLOCK

2 CONNECT A 25mm² NEUTRAL CONDUCTOR (BLACK) BETWEEN THE BOTTOM LEFT TERMINAL POSITION OF THE EXISTING NEUTRAL BLOCK TO THE BOTTOM RIGHT TERMINAL POSITION OF THE NEW ADDITIONAL NEUTRAL TERMINAL BLOCK

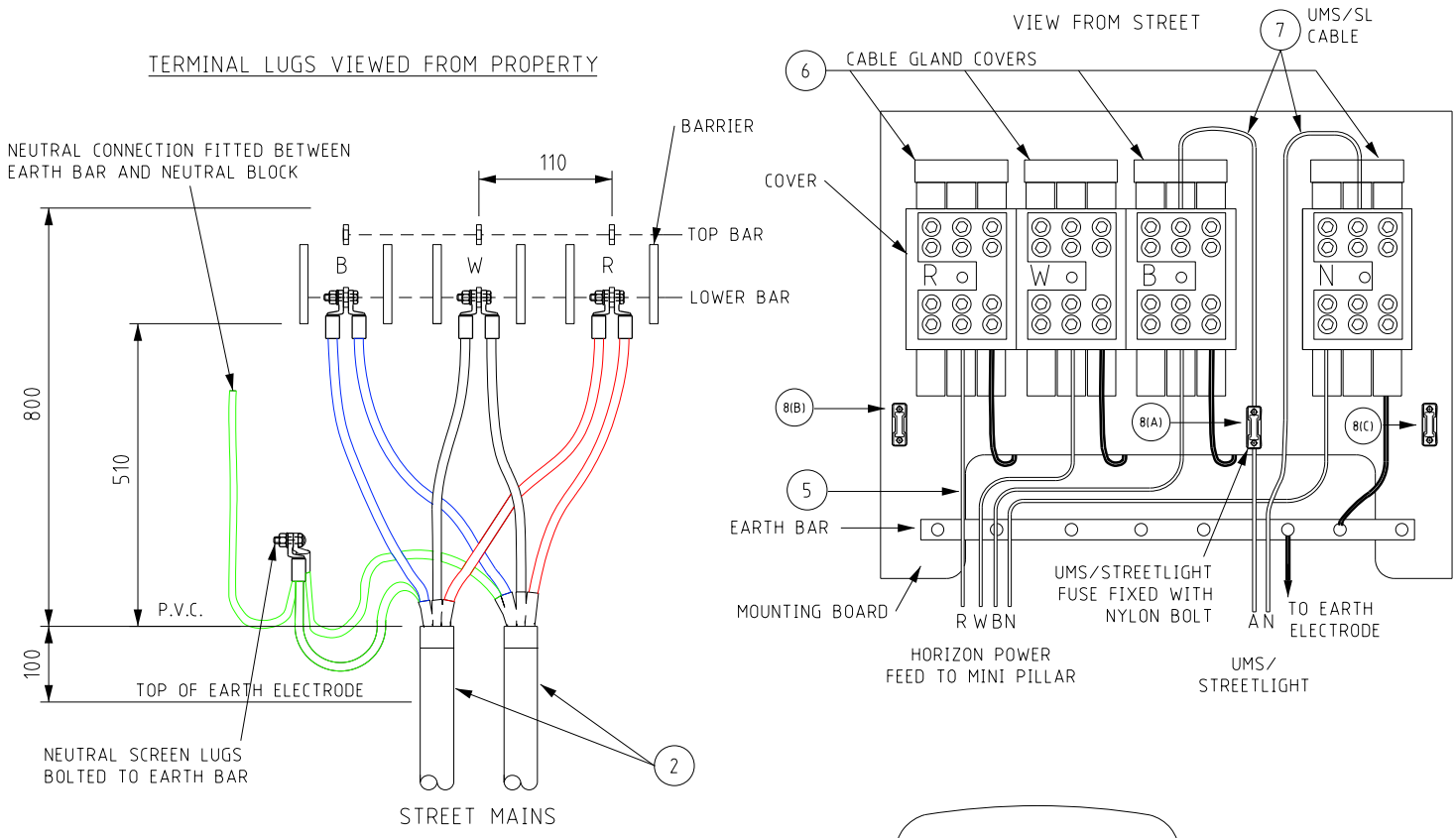
3 THEN CONNECT EXTRA NEUTRALS TO THE ADDITIONAL NEUTRAL TERMINAL BLOCK

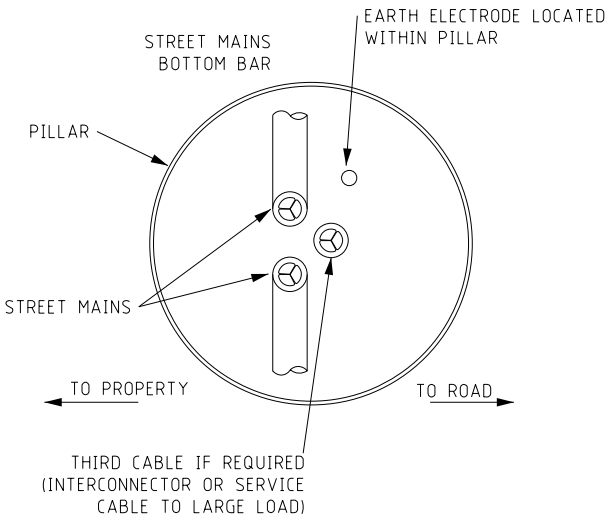
NOTE:

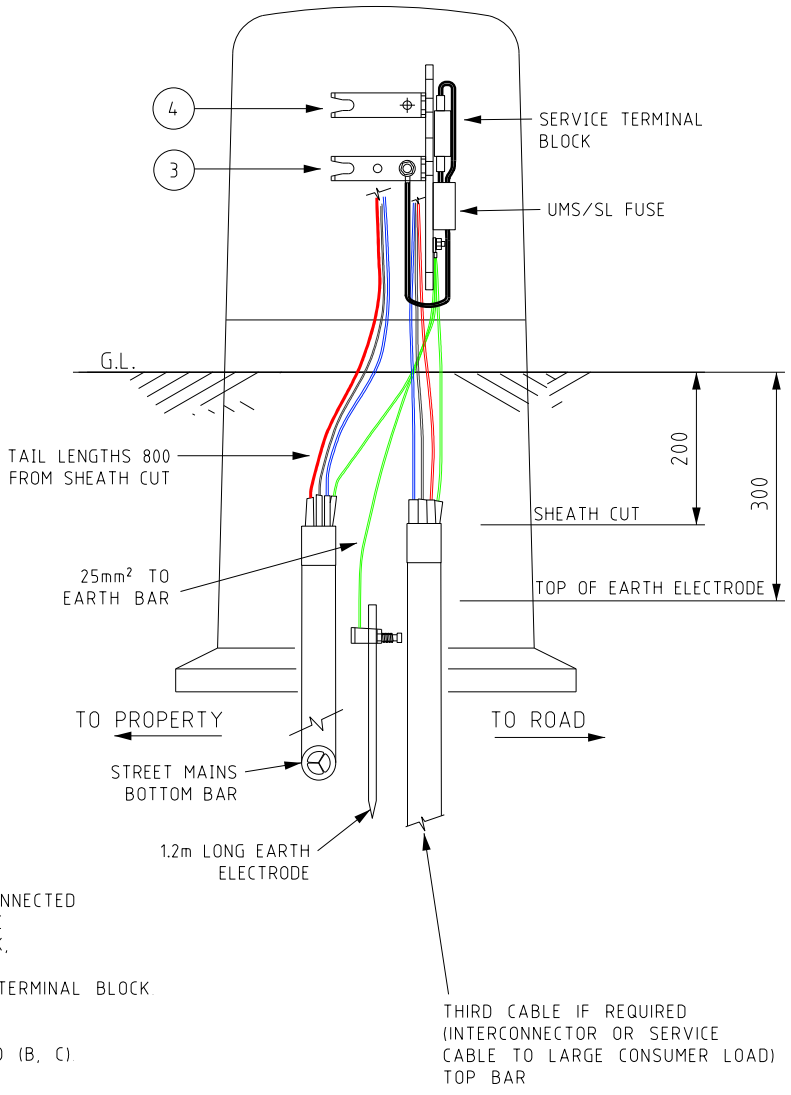
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH U8-1 AND U23-2.

STOCK No. HC1299

HORIZON POWER DISTRIBUTION CONSTRUCTION STANDARDS OPERATIONS	STRUCTURE	REVISION B	DATE 21/10/21
	MINI PILLAR ADDITIONAL NEUTRAL FITTING REQUIREMENTS	DRAWING No. U8-2	







NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES
2. FIT HEAT SHRINK GLOVE TO ALL CABLES AND HEATSHRINK ON NEUTRAL SCREENS AND OVER PHASE LUGS
3. HP INCOMING SUPPLY FEEDER CABLE FROM STREET TO BE CONNECTED TO BOTTOM BAR.
4. LARGE CONSUMER OR HP STREET INTERCONNECTOR (OPEN POINT) CABLE TO BE ON THE TOP BAR
5. HP 25mm² FEED TO ANOTHER PILLAR TO BE ON THE CENTRE, BOTTOM OF THE SERVICE TERMINAL BLOCKS
6. CONSUMER WITH MAXIMUM DEMAND LESS THAN 100 AMPS TO BE CONNECTED THROUGH THE TERMINAL CABLE GLAND COVERS TO THE TOP OF THE TERMINAL BLOCK (LEFT CONSUMER ON THE LEFT SIDE OF THE BLOCK, RIGHT CONSUMER ON THE RIGHT SIDE OF THE BLOCK)
7. UMS/SL PHASE CONDUCTOR TO BE CONNECTED TO TOP CENTER OF TERMINAL BLOCK.
8. UMS OR STREETLIGHT RED SPOT FUSE LOCATION INSTALLED IN PRIORITY ORDER A, B, C AS REQUIRED. REFER TO U9-1 FOR CABLE CONNECTION ARRANGEMENT WHEN MORE THAN ONE CIRCUIT INSTALLED (B, C).
9. LABEL ALL OUTGOING ACTIVE AND NEUTRAL CONDUCTORS.
10. REFER TO U35 FOR PILLAR LOCATION AND EXCLUSION ZONES.

HORIZON POWER

DISTRIBUTION CONSTRUCTION STANDARDS

OPERATIONS

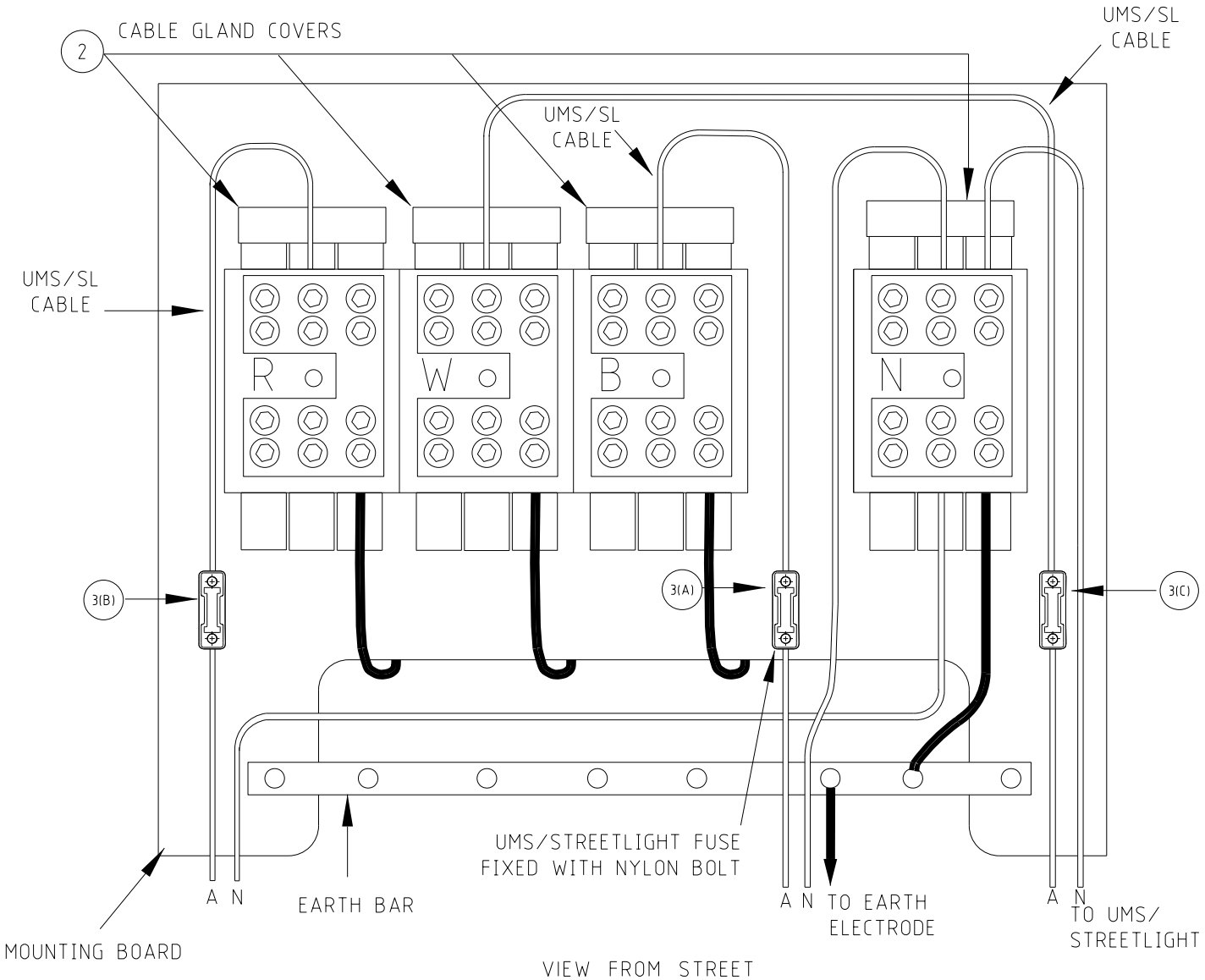
STRUCTURE

UNIVERSAL PILLAR INSTALLATION AND TERMINATION DETAIL

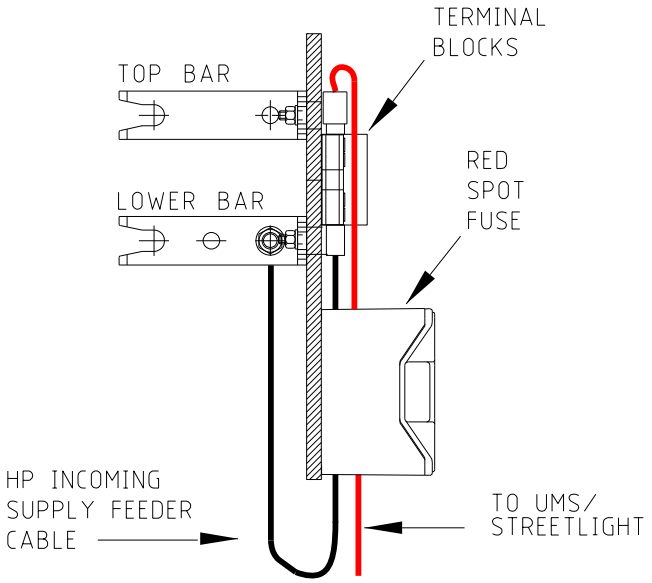
REVISION	DATE
F	04/10/21

DRAWING No.

U9



VIEW FROM STREET

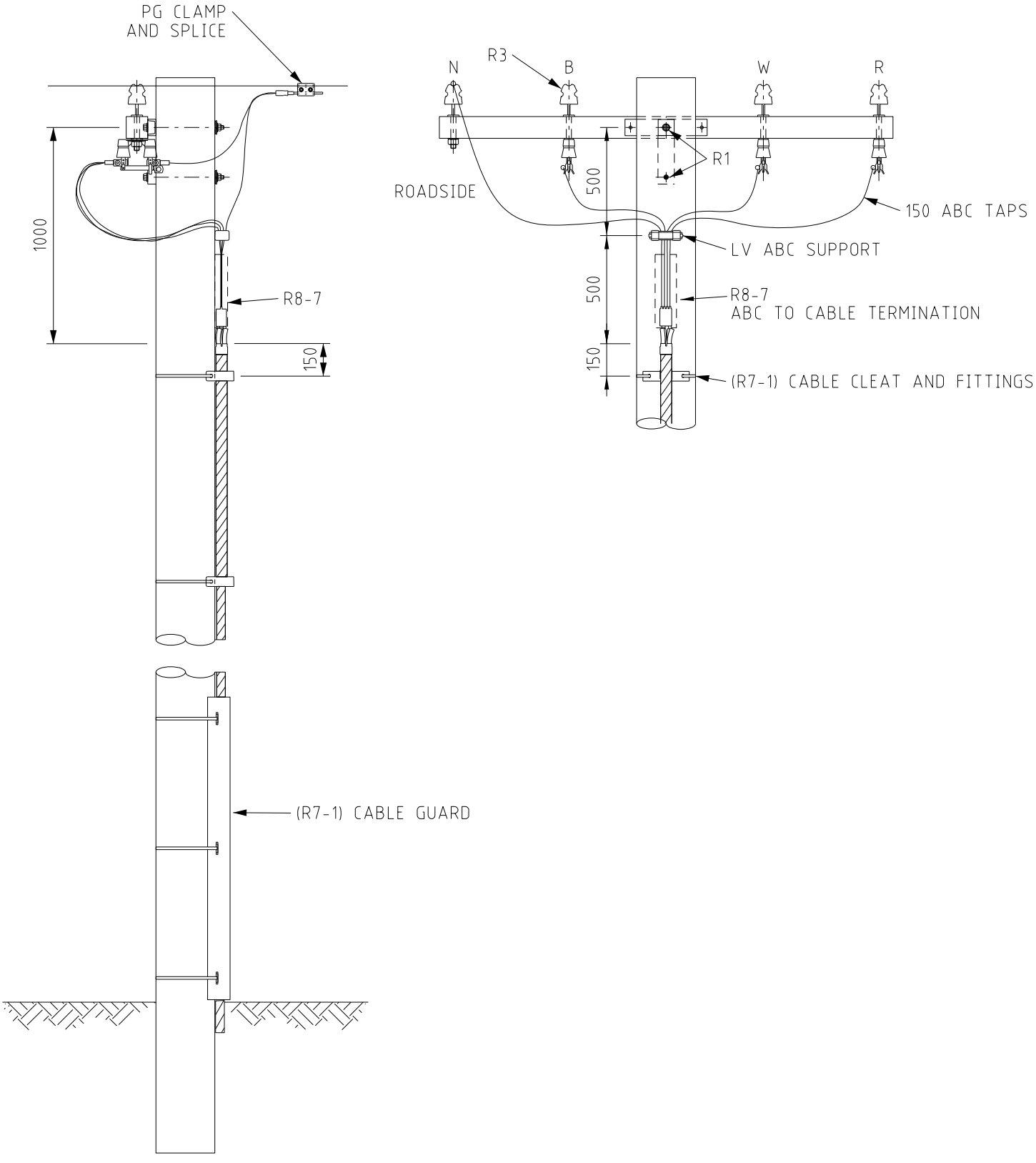


VIEW FROM SIDE

NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH U9 DRAWING.
2. CABLES TO BE CONNECTED THROUGH THE TERMINAL CABLE GLAND COVERS TO THE TOP OF THE TERMINAL BLOCK.
3. UMS OR STREETLIGHT RED SPOT FUSE LOCATION INSTALLED IN PRIORITY ORDER A, B, C AS REQUIRED.
4. MAXIMUM NUMBER OF UMS/STREETLIGHT CIRCUITS THAT CAN BE CONNECTED PER UNI-PILLAR IS DETERMINED BY THE AVAILABILITY OF SPARE NEUTRAL TERMINALS.
5. LABEL ALL PHASE CABLE CORES AND NEUTRAL CORES FOR EACH CIRCUIT.

HORIZON POWER DISTRIBUTION CONSTRUCTION STANDARDS	STRUCTURE	REVISION B	DATE 04/10/21
	UNIVERSAL PILLAR TERMINAL BLOCK WIRING DETAIL	DRAWING No. U9-1	
OPERATIONS			

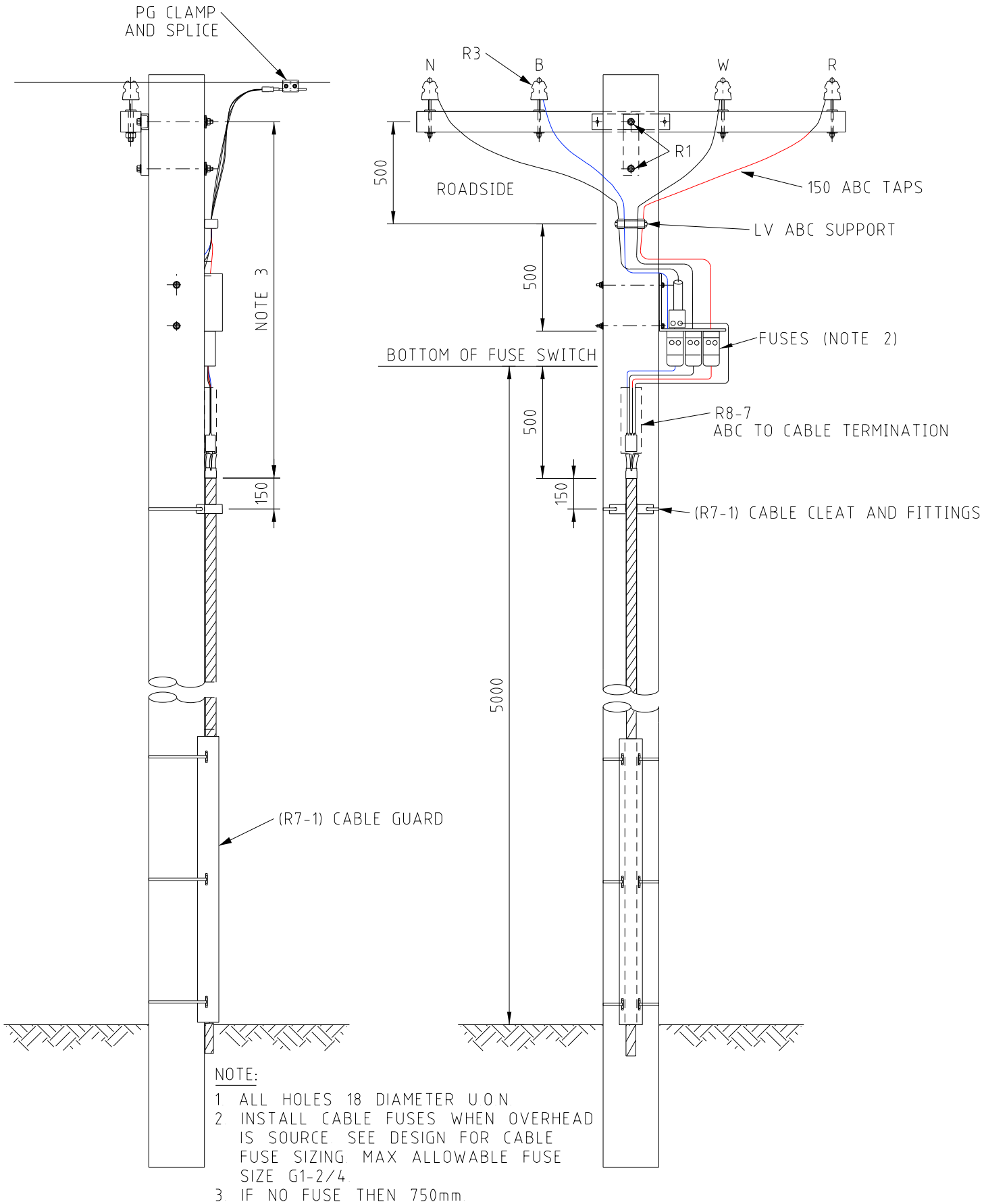


NOTE:

1 ALL HOLES 18 DIAMETER U O N.

2 185mm² AND 240mm² CABLE ONLY.

HORIZON POWER DISTRIBUTION CONSTRUCTION STANDARDS OPERATIONS	STRUCTURE	REVISION C	DATE 22/11/21
	CABLE TO LV BARE WITH ISOLATORS DETAIL	DRAWING No. U15	



NOTE:

1. ALL HOLES 18 DIAMETER U.O.N.
2. INSTALL CABLE FUSES WHEN OVERHEAD IS SOURCE. SEE DESIGN FOR CABLE FUSE SIZING. MAX ALLOWABLE FUSE SIZE G1-2/4.
3. IF NO FUSE THEN 750mm.
4. 185mm² AND 240mm² CABLE ONLY.

HORIZON POWER

DISTRIBUTION CONSTRUCTION STANDARDS

OPERATIONS

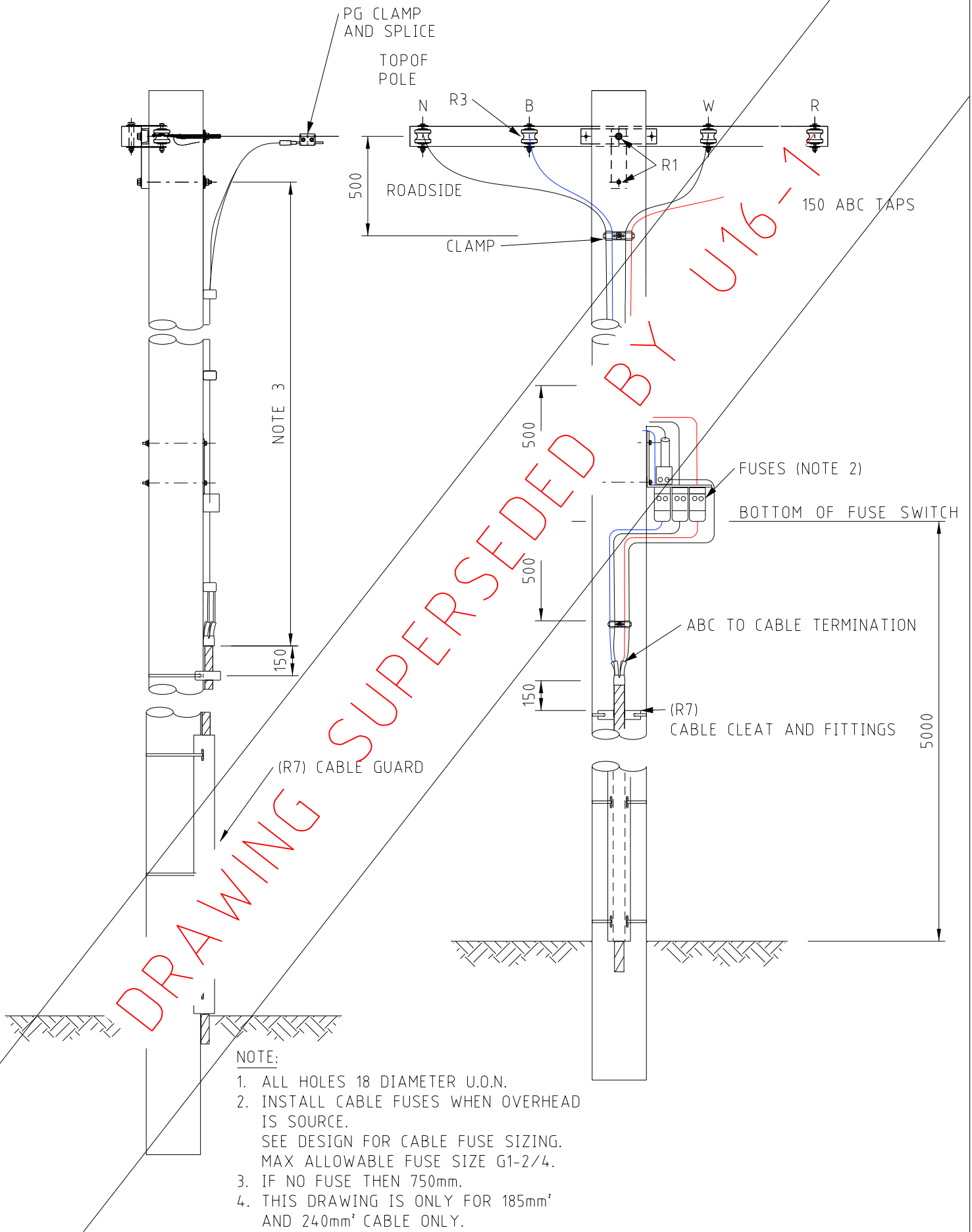
STRUCTURE

CABLE TO LV BARE WITH OR WITHOUT FUSES DETAIL

REVISION	DATE
F	22/11/21

DRAWING No.

U16-1



DRAWING SUPERSEDED BY U16-1

NOTE:

1. ALL HOLES 18 DIAMETER U.O.N.
2. INSTALL CABLE FUSES WHEN OVERHEAD IS SOURCE.
   SEE DESIGN FOR CABLE FUSE SIZING.
   MAX ALLOWABLE FUSE SIZE G1-2/4.
3. IF NO FUSE THEN 750mm.
4. THIS DRAWING IS ONLY FOR 185mm² AND 240mm² CABLE ONLY.

HORIZON POWER

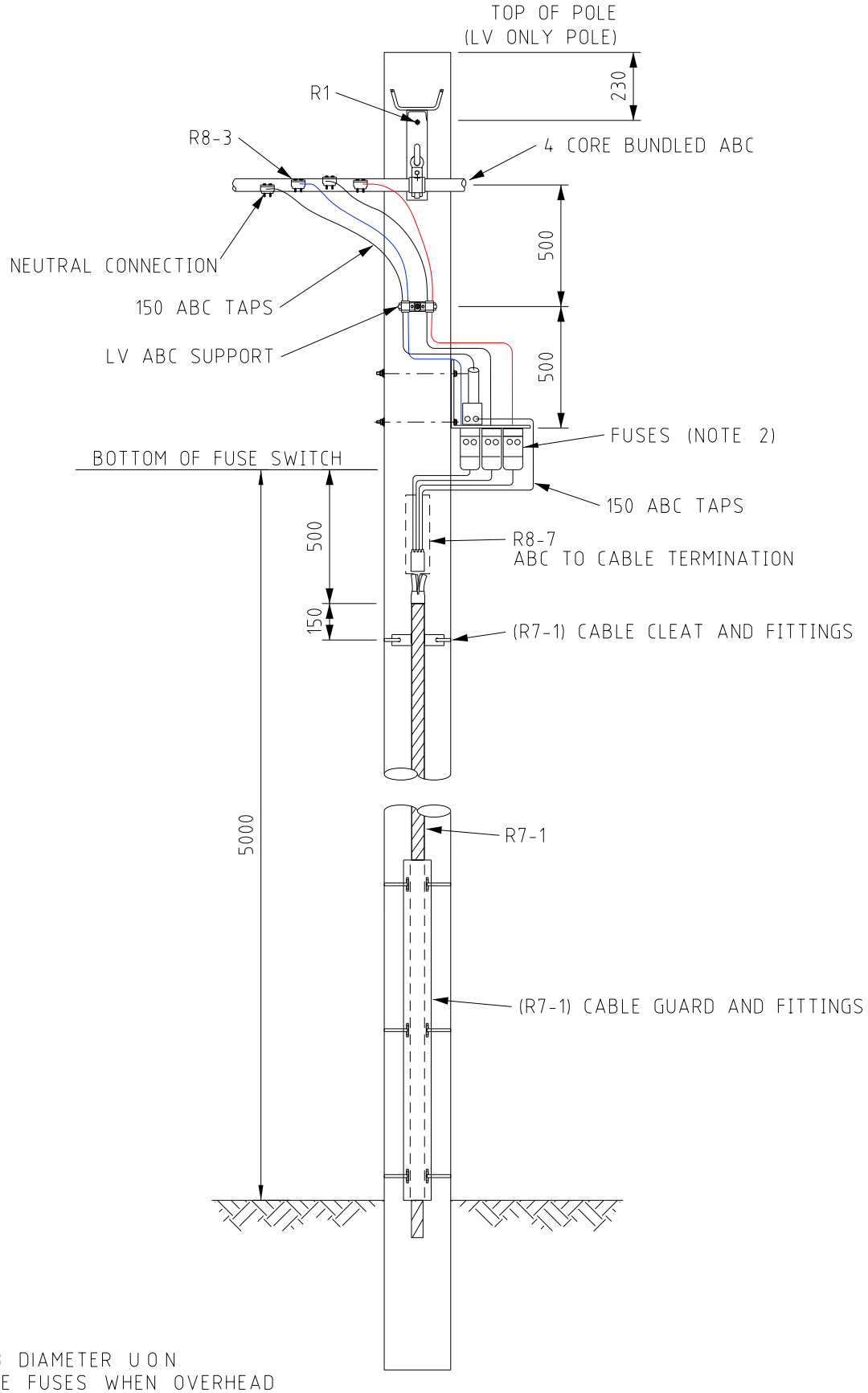
DISTRIBUTION CONSTRUCTION STANDARDS

LV BARE TERMINATION CABLE CONNECTION WITH OR WITHOUT FUSES

REVISION	DATE
F	04/10/21

DRAWING No.

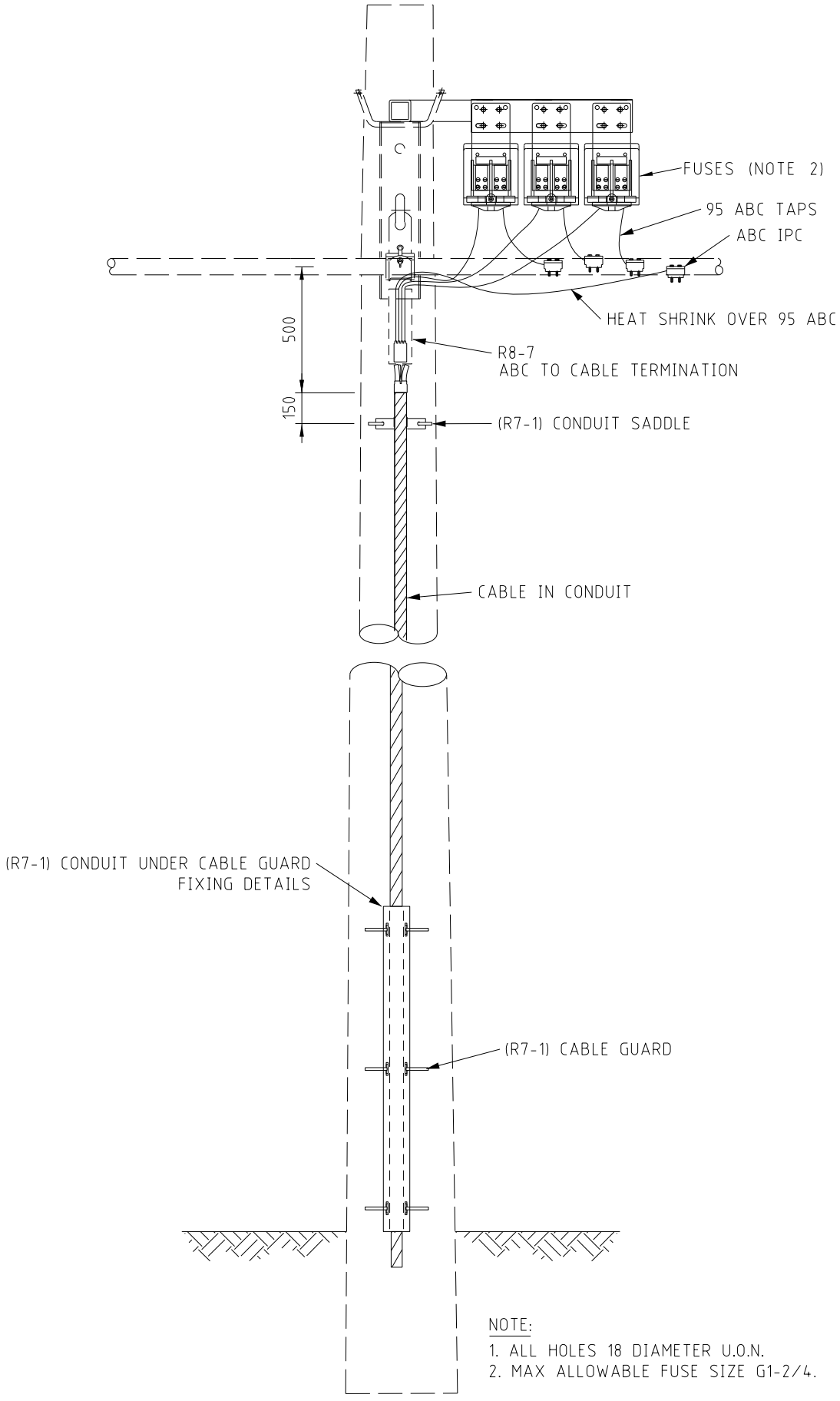
U16-2



NOTE:

1. ALL HOLES 18 DIAMETER U O N
2. INSTALL CABLE FUSES WHEN OVERHEAD IS SOURCE. SEE DESIGN FOR CABLE FUSE SIZING. MAX ALLOWABLE FUSE SIZE G1-2/4.
3. 185mm² AND 240mm² CABLE ONLY.

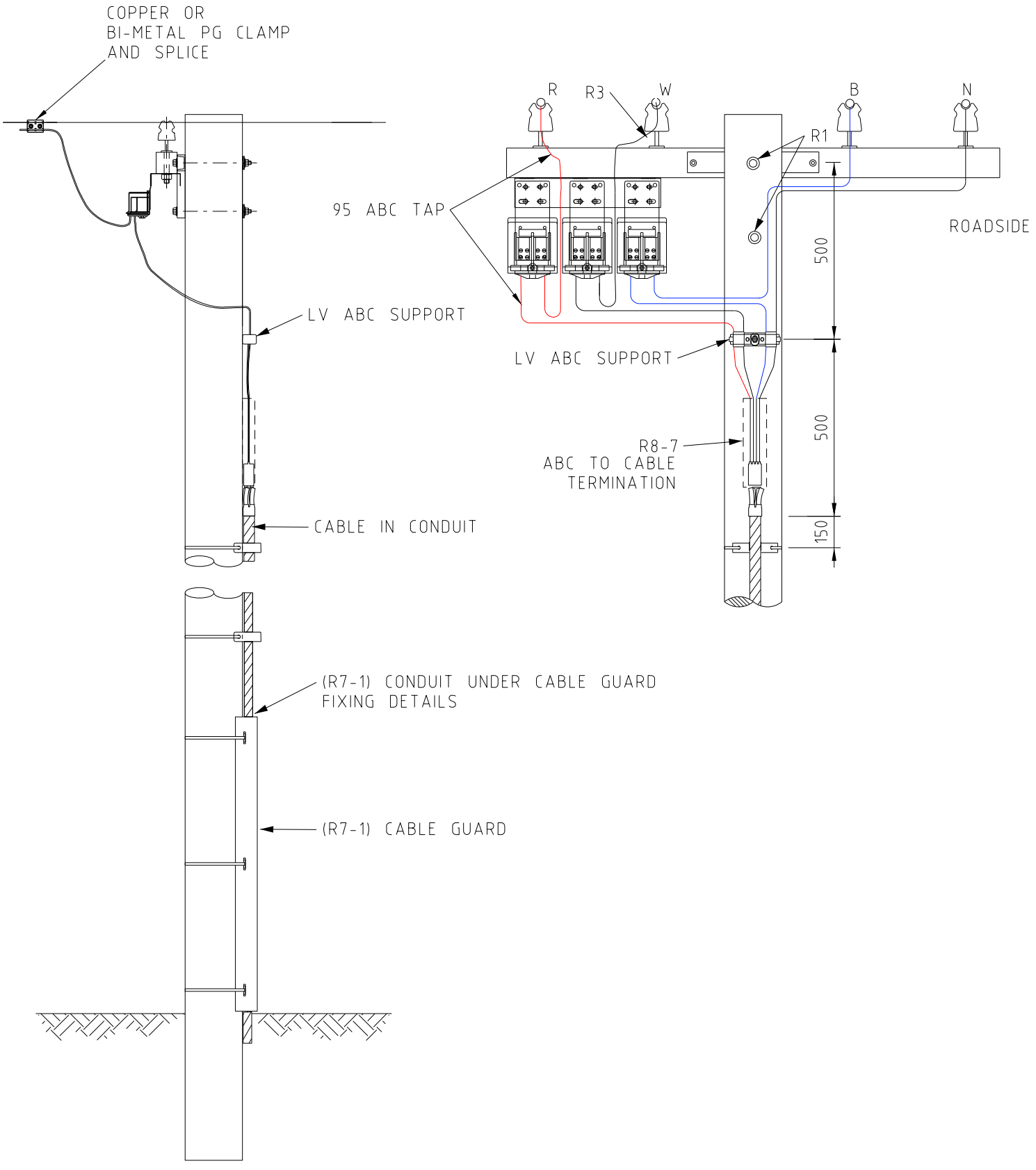
HORIZON POWER DISTRIBUTION CONSTRUCTION STANDARDS OPERATIONS	STRUCTURE CABLE TO LV ABC WITH FUSES DETAIL	REVISION D	DATE 22/11/21
		DRAWING No. U17	



NOTE:

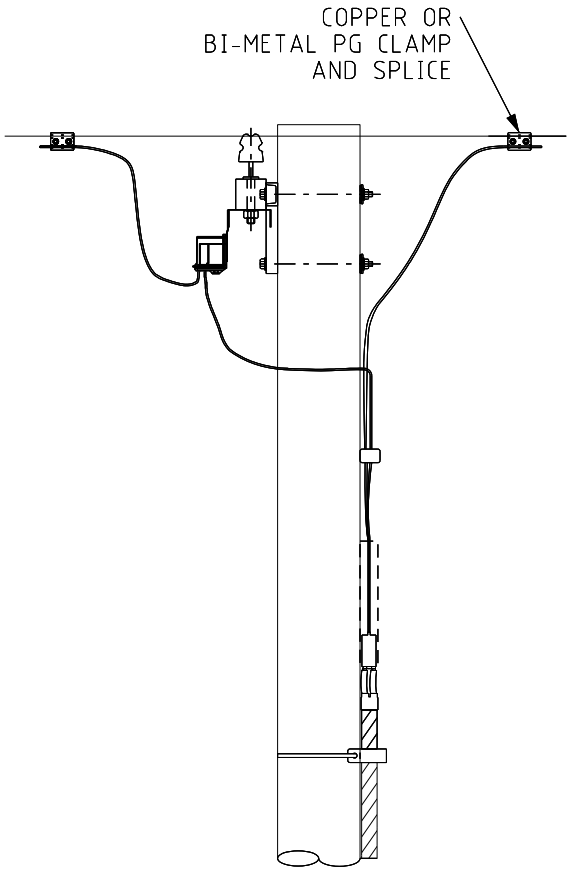
1. ALL HOLES 18 DIAMETER U.O.N.
2. MAX ALLOWABLE FUSE SIZE G1-2/4.

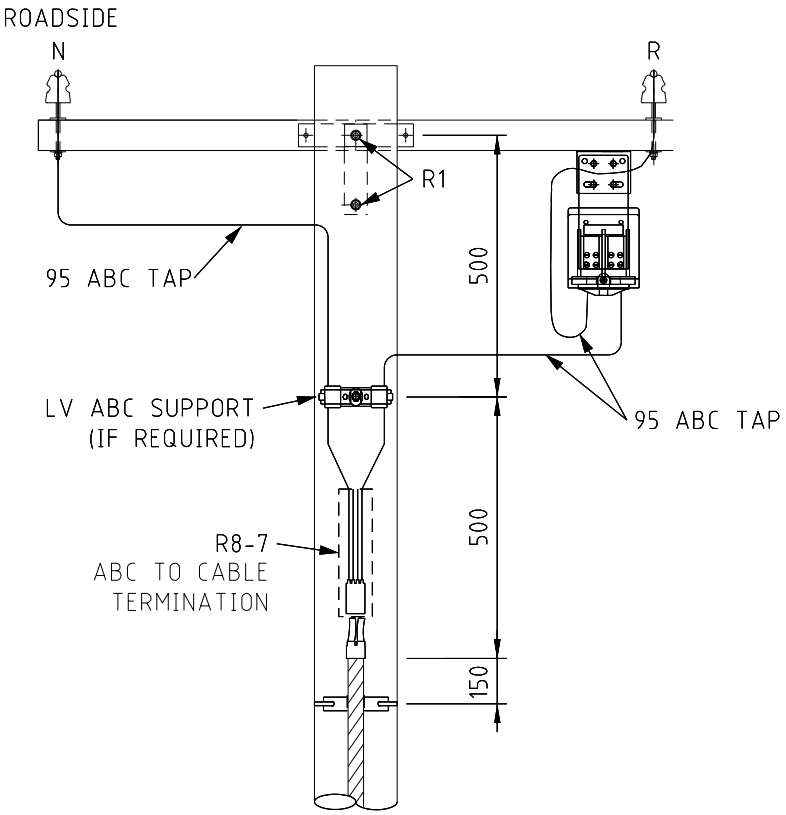
HORIZON POWER DISTRIBUTION CONSTRUCTION STANDARDS	STRUCTURE	REVISION D	DATE 22/11/21
	$25mm^2$ CABLE TO LV ABC WITH FUSES DETAIL	DRAWING No. U18	
OPERATIONS			

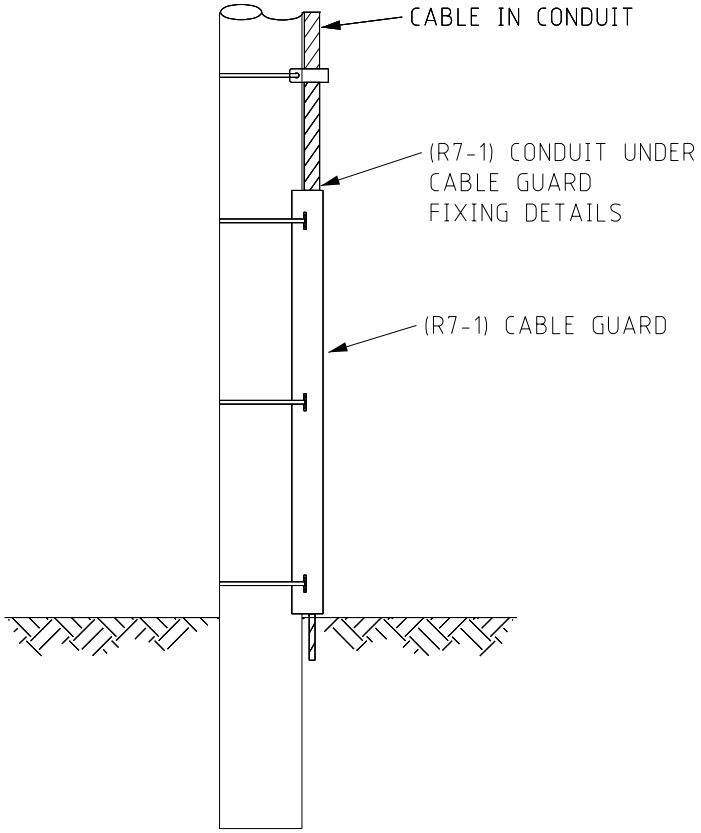


NOTE:
MAX ALLOWABLE FUSE SIZE G1-2/4

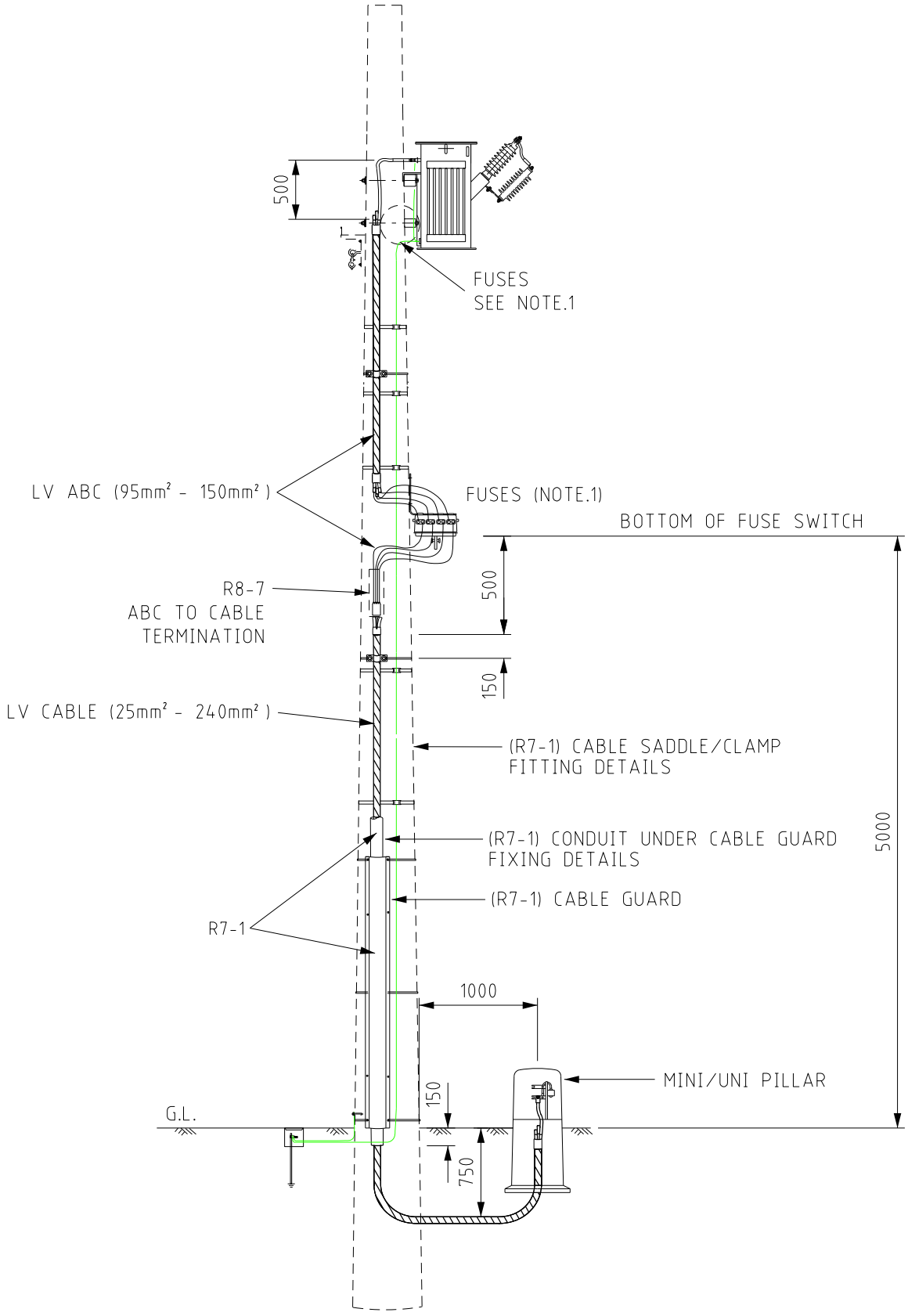
HORIZON POWER DISTRIBUTION CONSTRUCTION STANDARDS OPERATIONS	STRUCTURE 25mm² CABLE TO LV BARE WITH FUSES DETAIL	REVISION F	DATE 22/11/21
		DRAWING No. U19-1	







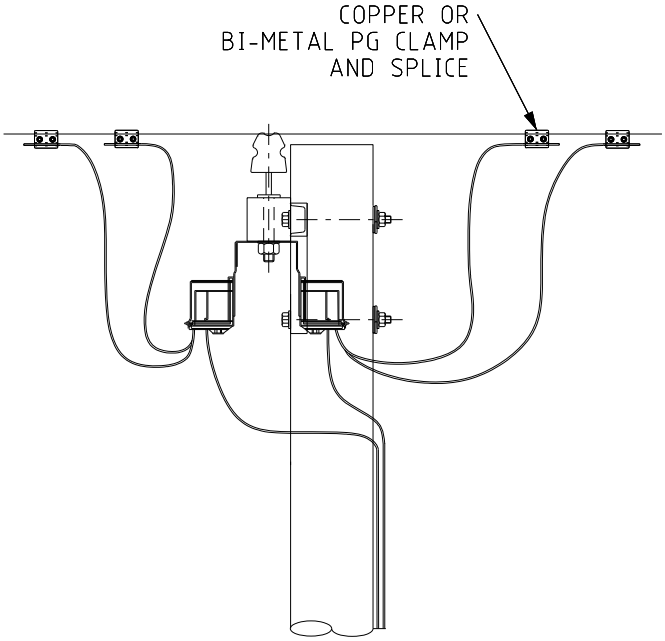
HORIZON POWER DISTRIBUTION CONSTRUCTION STANDARDS OPERATIONS	STRUCTURE	REVISION D	DATE 22/11/21
	25mm² CABLE TO 1 PHASE LV BARE WITH FUSES DETAIL	DRAWING No. U19-2	

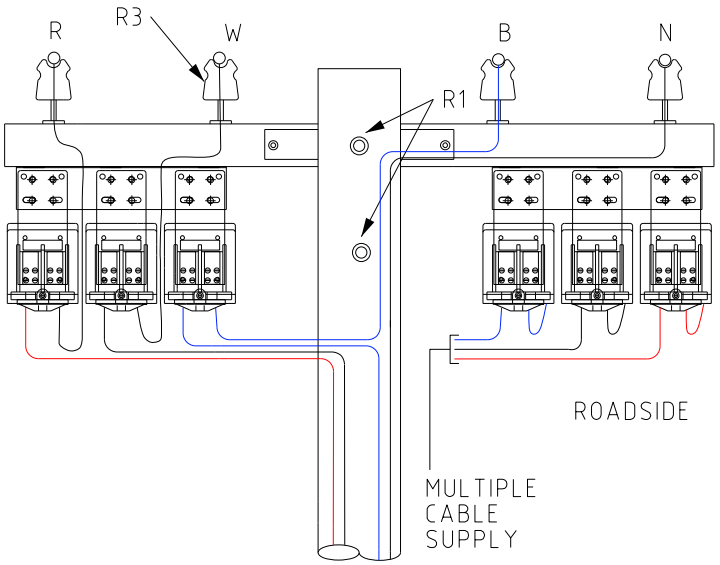


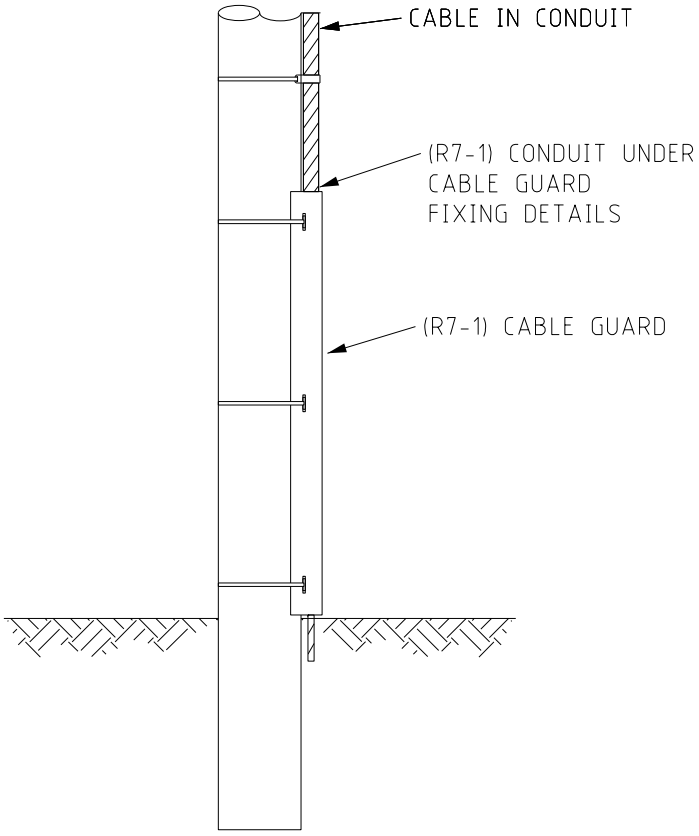
NOTES:

1. TRANSFORMERS 63kVA AND ABOVE FUSES TO BE INSTALLED ON POLE.
2. TRANSFORMERS 10kVA TO 25kVA FUSES TO BE MOUNTED ON TRANSFORMER.
3. CONSUMER'S SPD TO GRADE WITH UPSTREAM PROTECTION (FUSE CURVE FOR UPSTREAM PROTECTION AVAILABLE ON REQUEST).
4. NEW TRANSFORMERS - ONLY 10kVA & 25kVA ARE ALLOWED ON POLES AS PER DISTRIBUTION DESIGN RULES.

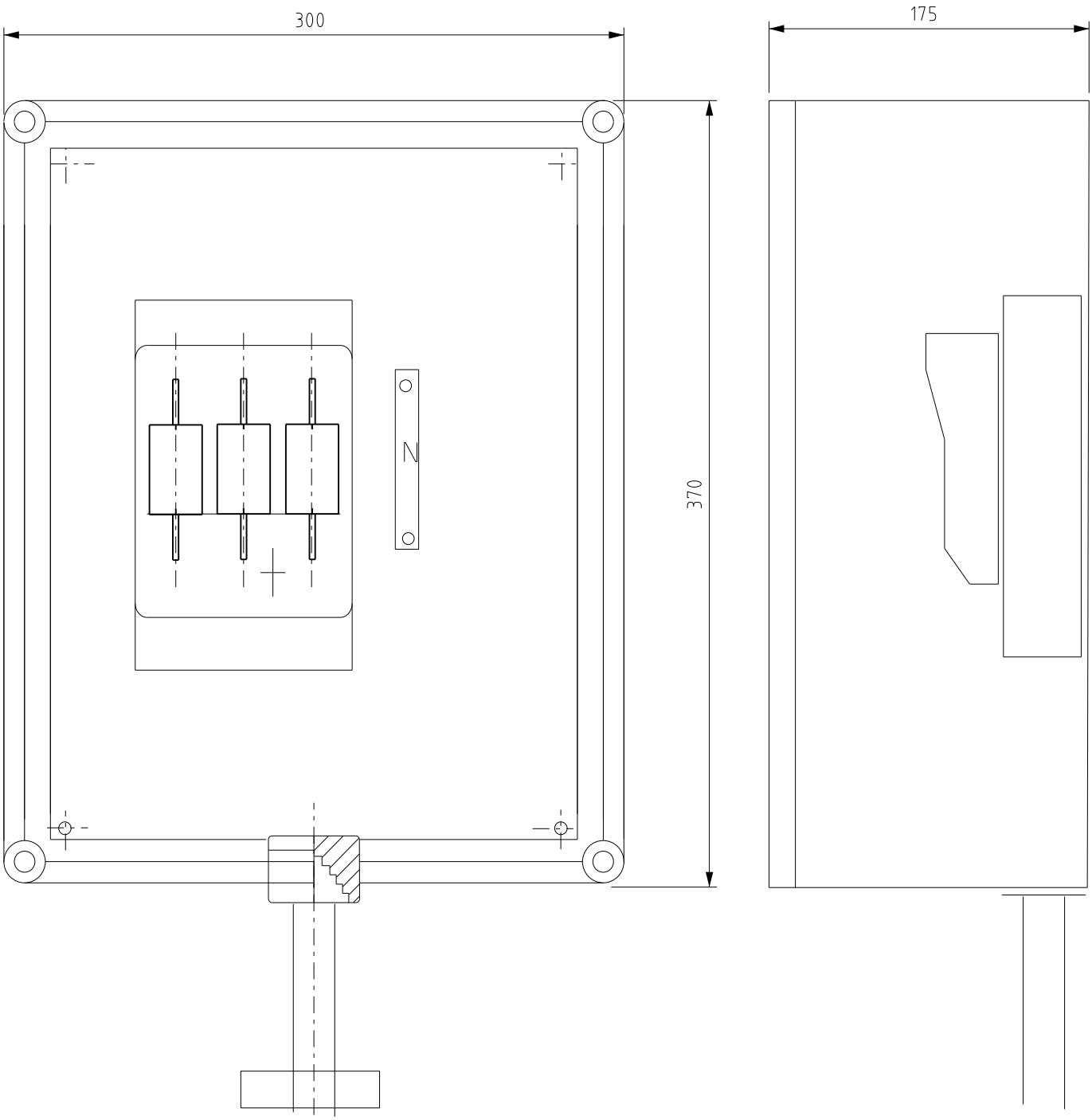
HORIZON POWER DISTRIBUTION CONSTRUCTION STANDARDS OPERATIONS	STRUCTURE	REVISION D	DATE 22/11/21
	TRANSFORMER CABLE TO PILLAR WITH FUSES ON CONSUMER PROPERTY DETAIL	DRAWING No. U19-3	







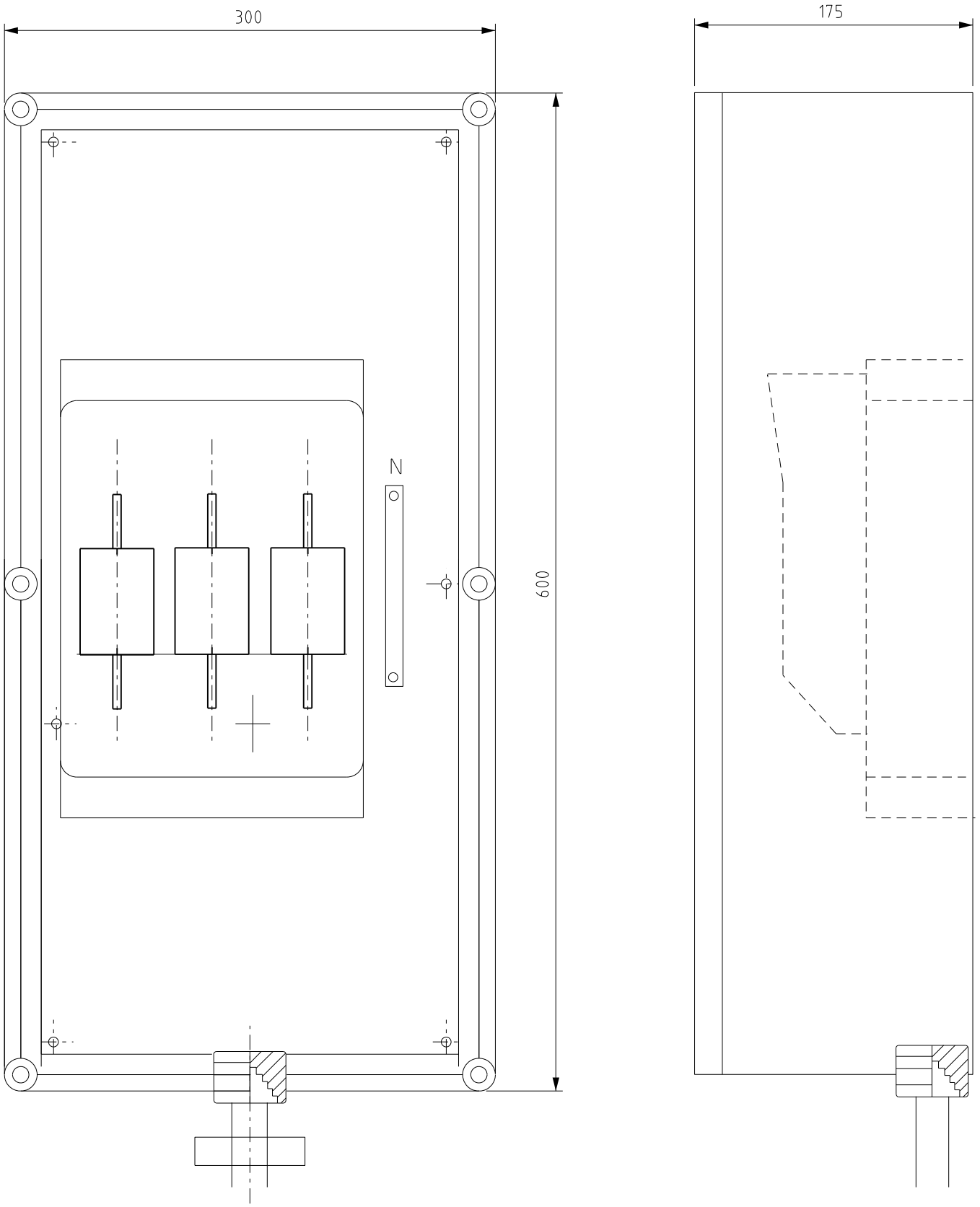
HORIZON POWER DISTRIBUTION CONSTRUCTION STANDARDS	STRUCTURE	REVISION F	DATE 22/11/21
	MULTIPLE CABLE CONNECTION WITH FUSES DETAIL	DRAWING No. U19-4	
OPERATIONS			



NOTES:

1. REFER TO HPC-9AF-07-0001-2011 FOR CUTOUT BOX LABEL
2. REFER TO U31/U32/U33 FOR MOUNTING HEIGHT
3. MAXIMUM CABLE SIZE IS 25mm²

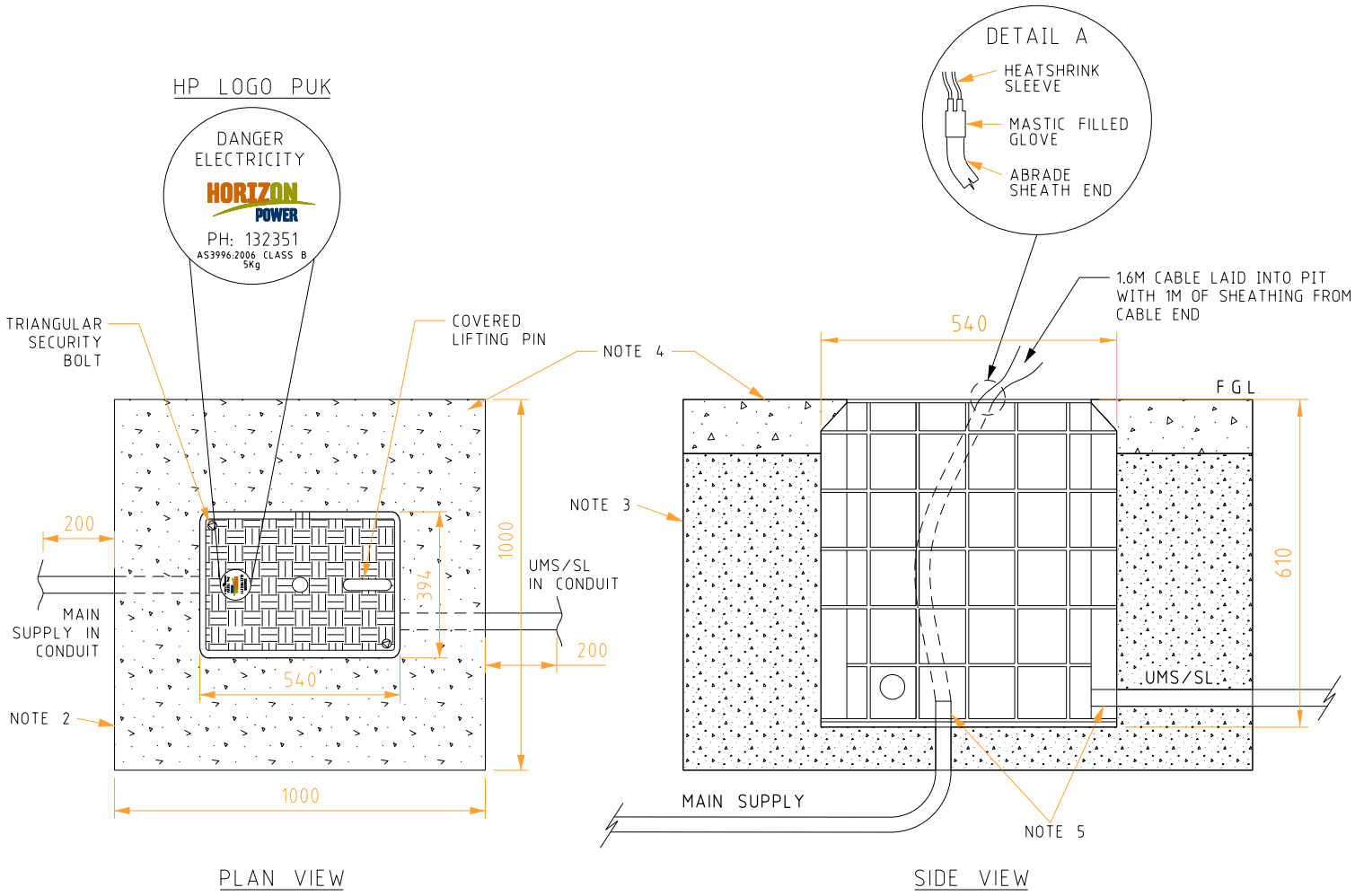
HORIZON POWER DISTRIBUTION CONSTRUCTION STANDARDS OPERATIONS	STRUCTURE	REVISION D	DATE 05/10/21
	WALL MOUNTED BOX 100 AMP	DRAWING No. U20	



NOTES:

1. REFER TO HPC-9AF-07-0001-2011 FOR CUTOUT BOX LABEL
2. REFER TO U31/U32/U33 MOUNTING HEIGHT
3. MAXIMUM CABLE SIZE IS 120mm^2

HORIZON POWER DISTRIBUTION CONSTRUCTION STANDARDS	STRUCTURE	REVISION D	DATE 22/11/21
	WALL MOUNTED BOX 200 AMP	DRAWING No. U21	
OPERATIONS			

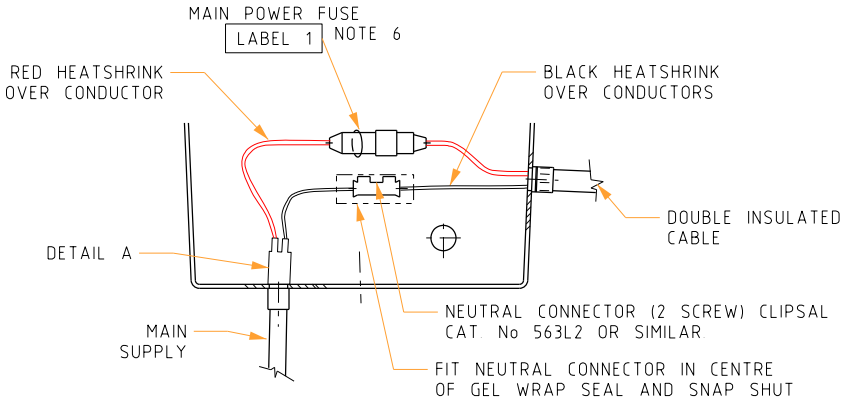


LABEL 1

POWER SUPPLY
ISOLATING POINT
20A FUSE

TABLE 1

PAVEMENT TYPE	MIN. THICKNESS (mm)
DENSE GRADED ASPHALT	25
CONCRETE# # F4.5MPa AT 28 DAYS	100
PAVING	60

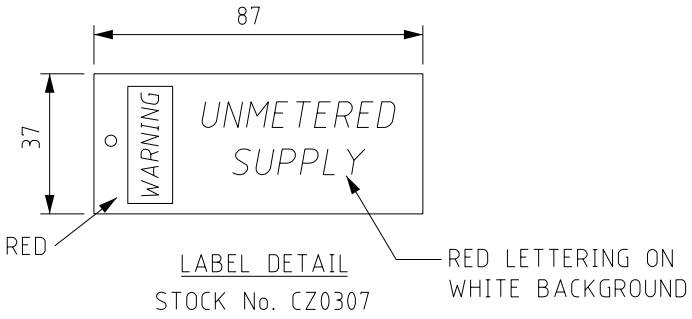


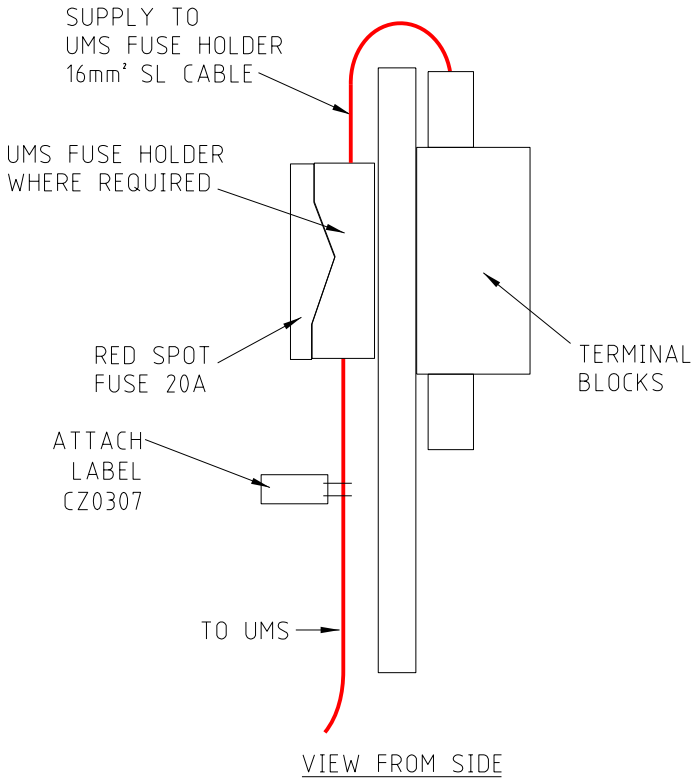
WIRING ARRANGEMENT

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. PIT TO BE INSTALLED ON 2.7m ALIGNMENT FROM PROPERTY BOUNDARY.
3. BACKFILL MATERIAL CAN BE NATURAL SOIL. SOIL SURROUNDING PIT COVERING 1m² (MINIMUM) SHALL BE COMPACTED TO ACHEIVE A MINIMUM RELATIVE DENSITY RATIO OF 92% IN ACCORDANCE WITH AS1289.5.2.1 COMPACTION OF SOIL IS TO BE CARRIED OUT IN LAYERS OF 150mm.
4. FINAL FINISHED GROUND LEVEL SHALL BE OF HARD STAND SURFACE (REFER TABLE 1) E.G. CONCRETE, BITUMEN, ETC AND SHALL COVER A MINIMUM OF 1m² SURROUNDING EDGE OF PIT.
5. ALL SIDE ENTRY SHALL BE DOUBLE INSULATED AND PROTECTED BY CONDUIT. CONDUIT SHALL PROTRUDE INTO PIT, MINIMUM 30mm AND MAXIMUM 50mm.
6. INSTALL UMS TAG (CZ0307) AND LABEL 1 AS SHOWN.
7. HEATSHRINK NOT REQUIRED FOR DOUBLE INSULATED CABLE CORES (REINFORCED INSULATION).
8. CONSUMER MAINS CABLE MUST NOT EXCEED 16mm².

HORIZON POWER DISTRIBUTION CONSTRUCTION STANDARDS	STRUCTURE	REVISION F	DATE 22/11/21
OPERATIONS	UNMETERED SUPPLY CABLE PIT COMPONENTS ASSEMBLY	DRAWING No. U23-1	

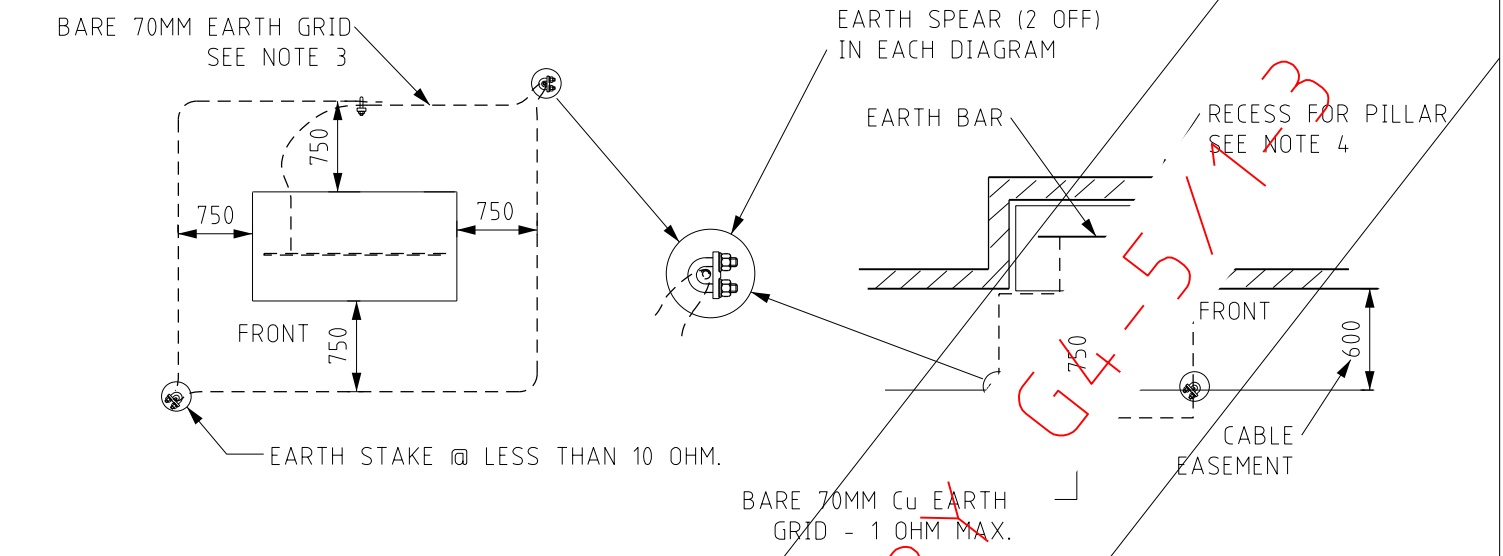




NOTES:

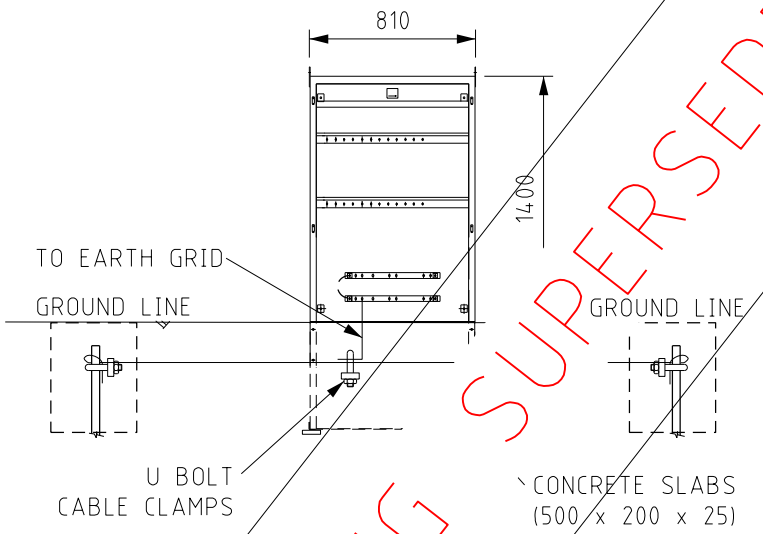
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DRAWING U8-1.
2. LABEL ALL PHASE CABLE CORES AND NEUTRAL CORES FOR EACH CIRCUIT.

HORIZON POWER DISTRIBUTION CONSTRUCTION STANDARDS OPERATIONS	STRUCTURE	REVISION E	DATE 05/10/21
	UNMETERED SUPPLY MINI PILLAR TERMINATION DETAILS	DRAWING No. U23-2	

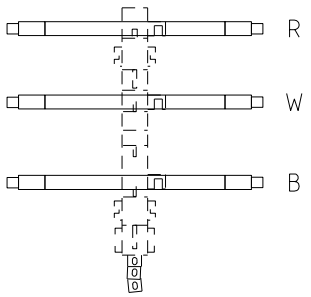


PLAN VIEW OF KIOSK FREESTANDING

PLAN VIEW OF KIOSK IN RECESS



FRONT VIEW OF KIOSK



BUSBAR DETAILS

DRAWING SUPERSEDED BY G4-5/13

NOTES:

1. KIOSK NOT SUPPLIED WITH BUSBARS
2. REFER TO DCS REFERENCE R24 FOR KIOSK GENERAL ARRANGEMENT.
3. INSTALL EARTH GRID AROUND / IN FRONT OF KIOSK AT 750mm AND A DEPTH OF 500mm, EARTH GRID TO BE CONNECTED AT EARTH BAR.
4. THE CUSTOMER IS RESPONSIBLE FOR THE FEEDER PILLAR RECESS IN THE WALL AND WHEN REQUIRED THE INSTALLATION OF THE FEEDER PILLAR

HORIZON POWER

DISTRIBUTION CONSTRUCTION STANDARDS

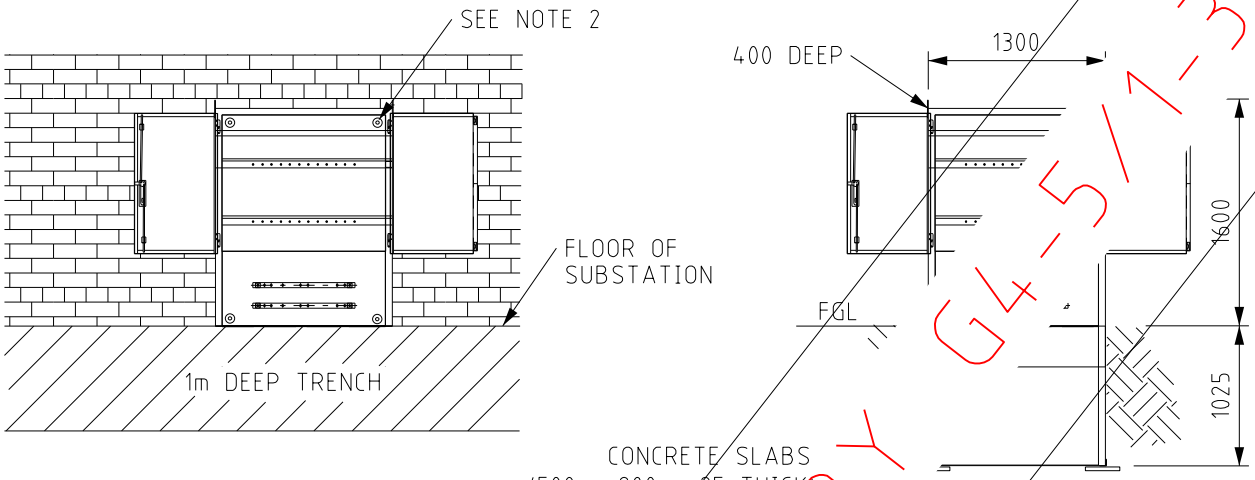
LV KIOSK TYPE 1

REVISION	DATE
D	05/10/21

DRAWING No.

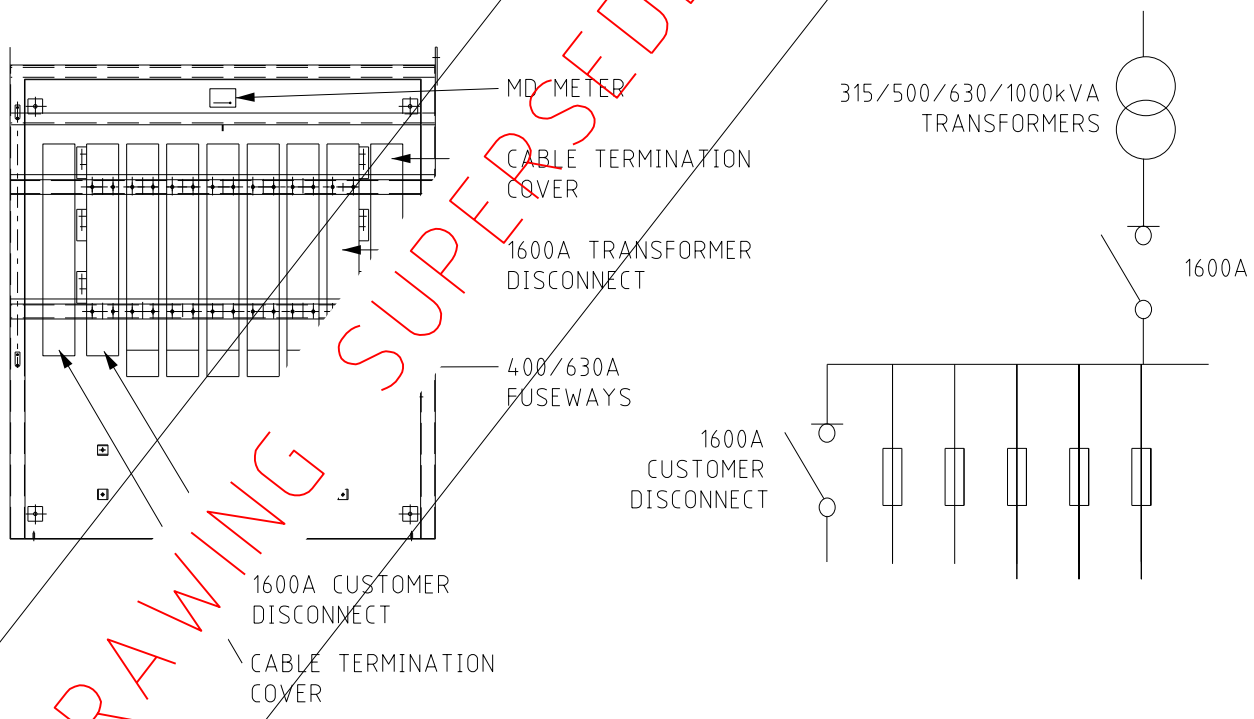
U24

LV KIOSK TYPE 2 - DISTRICT SUBSTATION



IN 2HR FIRE RATED SUBSTATION

FREESTANDING



DRAWING SUPERSEDED BY G4-5/1-3

NOTES:

1. REFER TO DCS REFERENCE R24 FOR KIOSK GENERAL ARRANGEMENT.
2. DRILL 4-HOLES 12 DIAMETER THRU REINFORCED SECTIONS.
   KIOSK BOLTED TO SUBSTATION WALL ABOVE THE TRENCH WITH
   4 x 10mm RAWLNUTS AND 4 x 10mm BOLTS x 75 LONG.
3. APPROX MAXIMUM WEIGHT WITH 5 FUSEWAYS AND 2 DISCONNECTORS IS 240kg

HORIZON POWER

DISTRIBUTION CONSTRUCTION STANDARDS

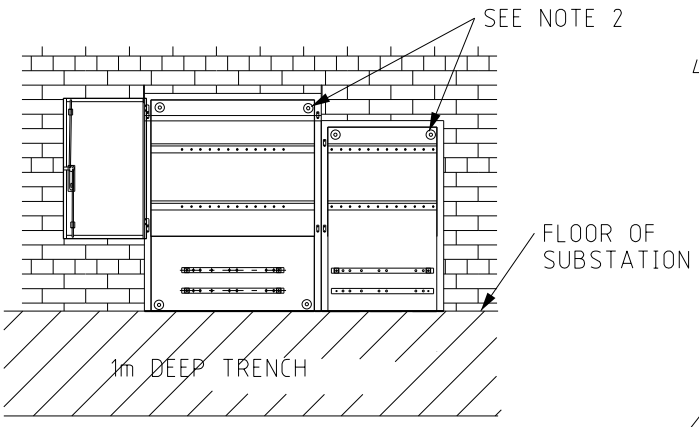
LV KIOSK TYPE 2

REVISION	DATE
D	05/10/21

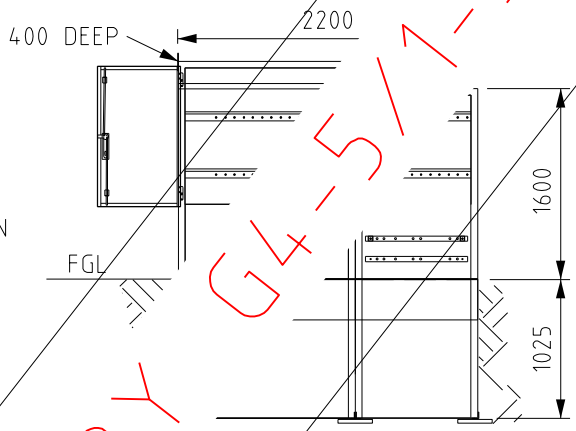
DRAWING No.

U25

LV KIOSK TYPE 3 - DISTRICT SUBSTATION

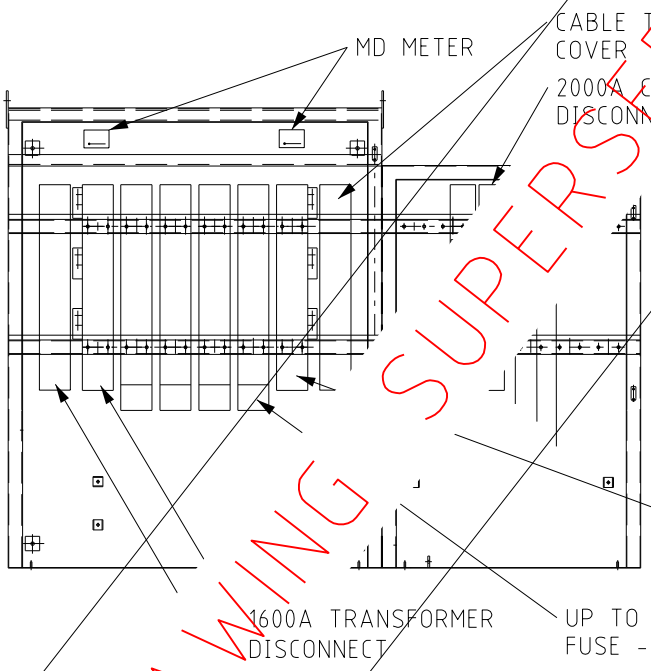


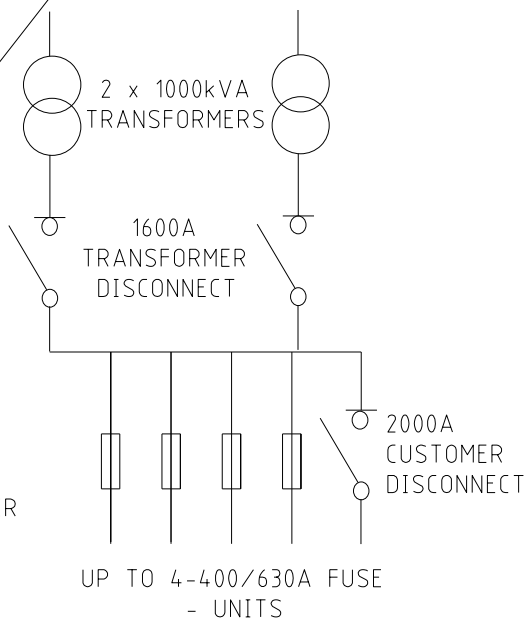
IN 2HR FIRE RATED SUBSTATION



CONCRETE SLABS (500 x 200 x 25 THICK)

FREESTANDING





DRAWING SUPERSEDED BY G4-5/1-3

NOTES:

1. REFER TO DCS REFERENCE R24 FOR KIOSK GENERAL ARRANGEMENT.
2. DRILL 6-HOLES 12 DIAMETER THRU REINFORCED POINTS AS SHOWN. KIOSK BOLTED TO SUBSTATION WALL ABOVE THE TRENCH WITH 6 x 10mm RAWLNUTS AND 6 x 10mm BOLTS x 75 LONG.
3. APPROX MAXIMUM WEIGHT WITH 5 FUSEWAYS AND 2 DISCONNECTORS IS 350kg

HORIZON POWER

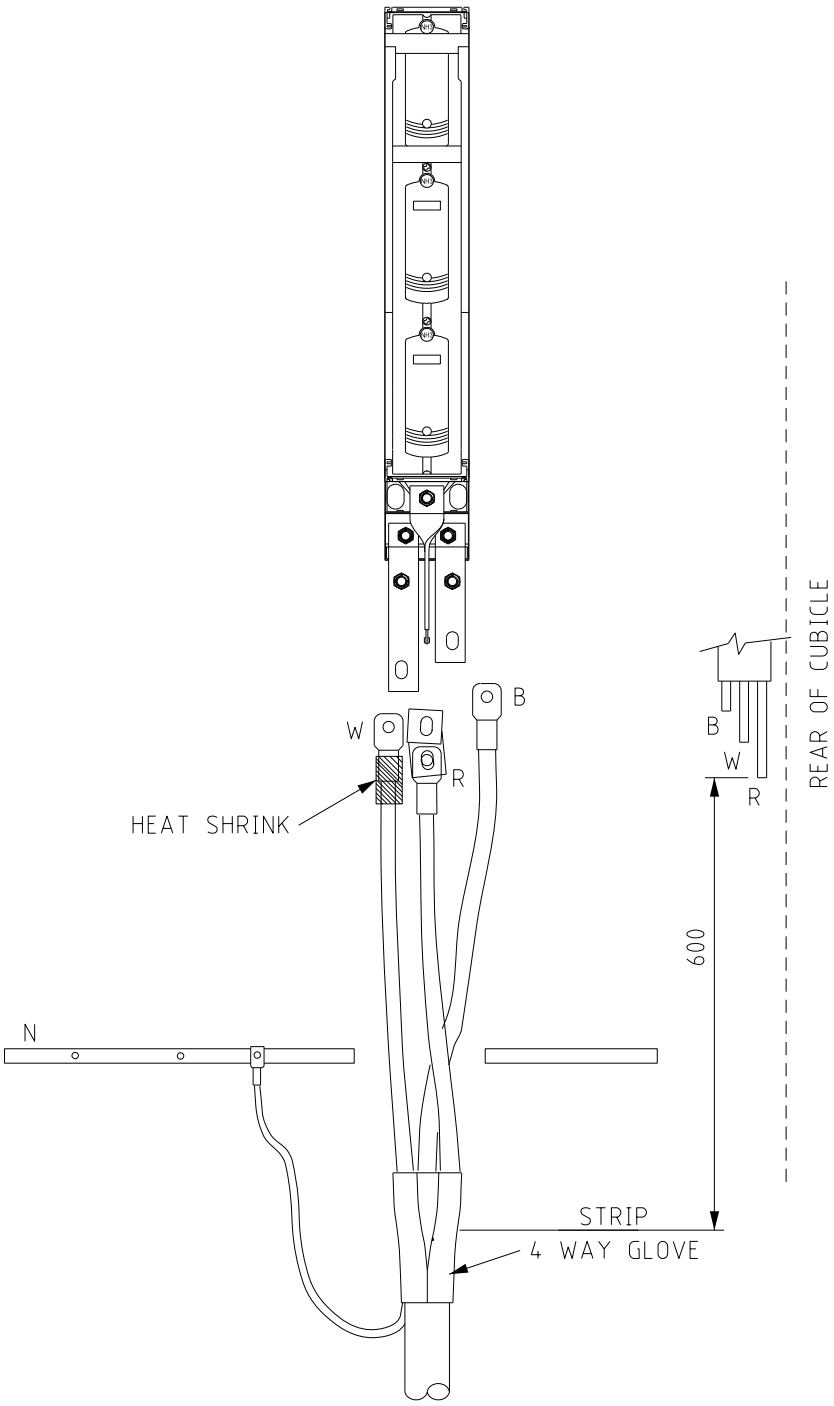
DISTRIBUTION CONSTRUCTION STANDARDS

LV KIOSK TYPE 3

REVISION	DATE
D	05/10/21

DRAWING No.

U26



TERMINATION PROCEDURE

1. POSITION THE CABLE TO SUIT THE CORRECT CIRCUIT ON THE LV DISTRIBUTION BOARD.

2. MARK SHEATH, CUT 600mm BELOW BOTTOM OF FUSE UNIT.
3. REMOVE SHEATH ABOVE THIS MARK.

4. BRING OUT NEUTRAL WIRES AND FORM INTO ONE CORE AT THE BACK OF THE CABLE.
5. ABRADE CABLE SHEATH FOR APPROXIMATELY 100mm.

6. FIT HEATSHRINK GLOVE, PULL WELL DOWN INTO CRUTCH AREA AND HEATSHRINK STARTING FROM CENTRE.

7. SHAPE NEUTRAL CORE TO SUIT CONNECTION TO NEUTRAL BAR, CUT AND CRIMP APPROPRIATE SIZE LUG.

8. FIT BLACK HEATSHRINK OVER NEUTRAL FOR REQUIRED LENGTH AND HEATSHRINK. SO ONLY LUG PALM EXPOSED.

9. BOLT NEUTRAL TO NEUTRAL BAR.

10. SET PHASE CORES TO FINAL TERMINATING POSITIONS, STARTING WITH RED PHASE AT THE BACK OF THE UNIT TO BLUE AT THE FRONT.

11. FIT AND ATTACH SECTOR LUGS TO PHASE CORES. (TORQUE SHEAR-OFF BOLTS AS PER INSTRUCTION).

12. FIT 100mm LENGTH OF HEATSHRINK OVER EACH LUG TO SEAL LUG AND CORE.

13. APPLY JOINTING COMPOUND TO PALMS OF LUGS AND CONNECTIONS.

14. ENSURE PHASING IS CORRECT, THEN BOLT LUGS TO CONNECTORS USING BOLTS PROVIDED.

15. LABEL CIRCUIT.

SAFETY INSTRUCTION

THE CABLE TO BE WORKED ON MUST BE DEAD AND THE REMOTE END MUST BE TERMINATED OR MADE OFF BEFORE WORK COMMENCES AT THE FUSE SWITCH.

HORIZON POWER DISTRIBUTION CONSTRUCTION STANDARDS OPERATIONS	STRUCTURE	REVISION D	DATE 22/11/21
	LV CABLE TO FUSE SWITCH	DRAWING No. U27	

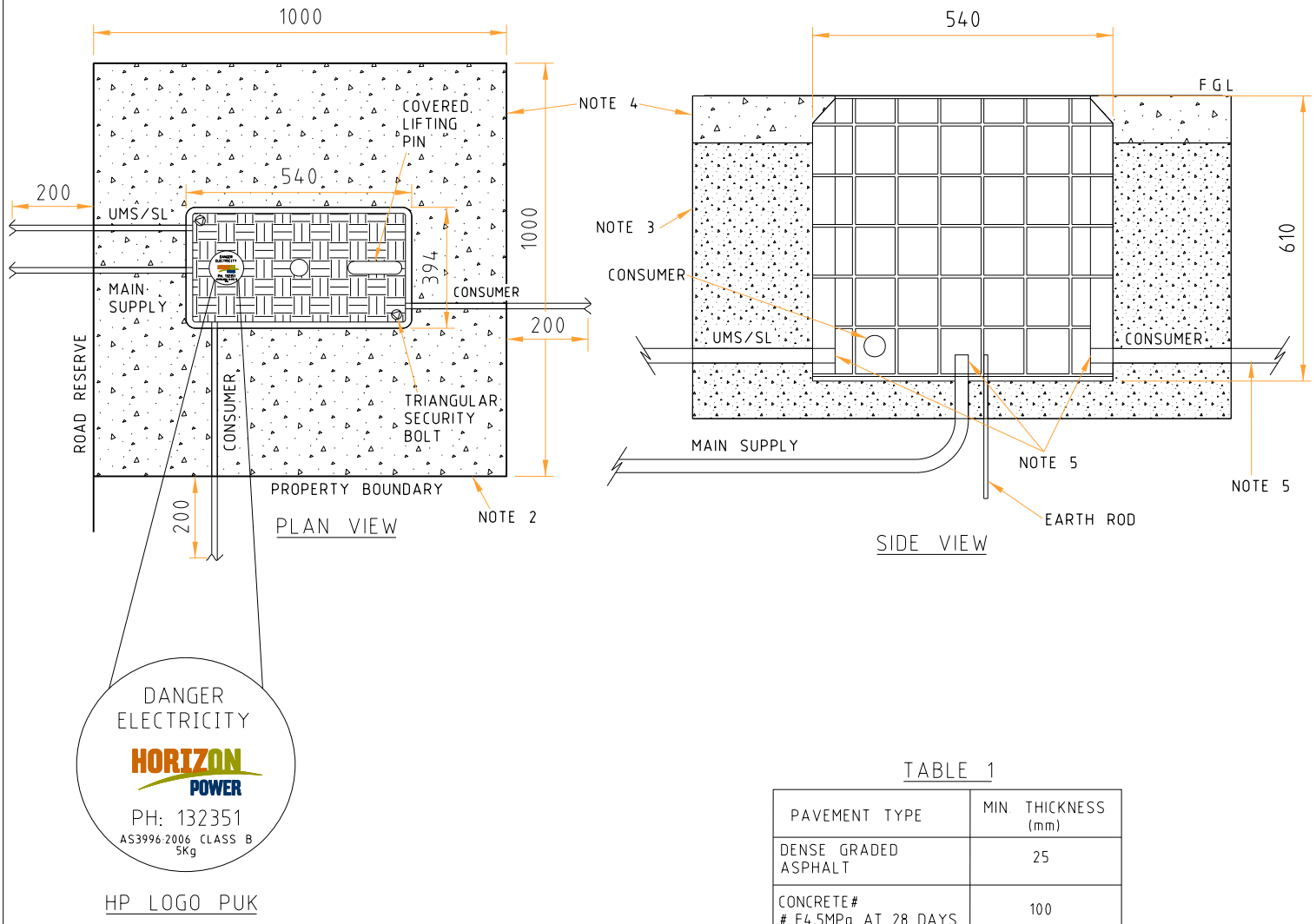


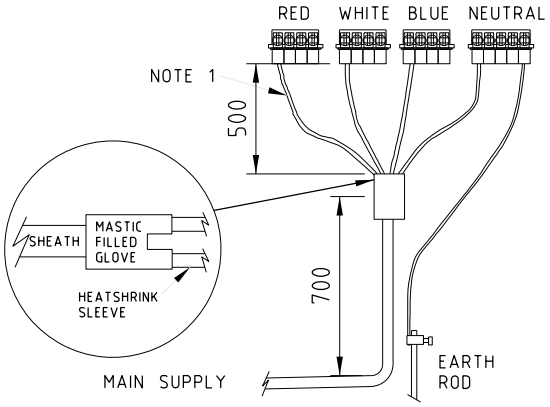
TABLE 1

PAVEMENT TYPE	MIN THICKNESS (mm)
DENSE GRADED ASPHALT	25
CONCRETE# # F4.5MPa AT 28 DAYS	100
PAVING	60

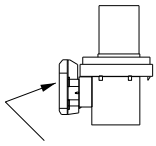
NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES
2. PIT TO BE INSTALLED IN AN $1m^2$ AREA EITHER ON LHS OR RHS OF CONSUMER'S PROERTY
3. BACKFILL MATERIAL CAN BE NATURAL SOIL SOIL SURROUNDING PIT COVERING $1m^2$ (MINIMUM) SHALL BE COMPACTED TO ACHEIVE A MINIMUM RELATIVE DENSITY RATIO OF 92% IN ACCORDANCE WITH AS1289 5.2.1 COMPACTION OF SOIL IS TO BE CARRIED OUT IN LAYERS OF 150mm
4. FINAL FINISHED GROUND LEVEL SHALL BE OF HARD STAND SURFACE (REFER TABLE 1) E.G. CONCRETE, BITUMEN, ETC AND SHALL COVER A MINIMUM OF $1m^2$ SURROUNDING EDGE OF PIT
5. ALL ENTRY SHALL BE DOUBLE INSULATED AND PROTECTED BY CONDUIT CONDUIT SHALL PROTRUDE INTO PIT, MINIMUM 30mm AND MAXIMUM 50mm CONDUIT SHALL PROTRUDE 200mm BEYOND OF HARD STAND
6. REFER TO U30-2 FOR ELECTRICAL CONFIGURATIONS
7. REFER TO U23-1 FOR ELECTRICAL CONFIGURATIONS FOR UNMETERED SUPPLY OR STREET LIGHTS

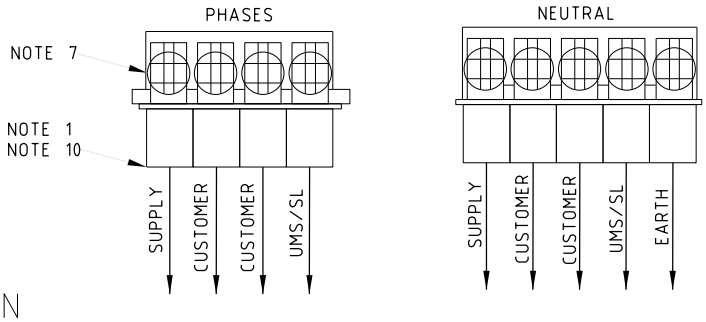
HORIZON POWER DISTRIBUTION CONSTRUCTION STANDARDS	STRUCTURE	REVISION E	DATE 07/10/21
	BELOW GROUND SERVICE PIT INSTALLATION DETAIL	DRAWING No. U30-1	
OPERATIONS			



INTERNAL VIEW



8mm "ALLEN" KEY DRIVE TERMINAL SCREW.
THE TERMINAL CAPS MUST BE
LOCKED IN PLACE TO FULLY SEAL.



GEL PORT CONNECTIONS

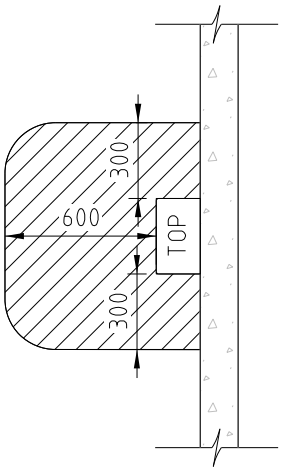
THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DRAWING U30-1

NOTES

1. DUST CAPS MUST BE LEFT ON ANY UNUSED CONNECTOR CABLE ENTRY TO AVOID GEL CONTAMINATION.
2. APPLY HEATSHRINK FULL LENGTH OVER CORES. APPLY GLOVE OVER CORES & CABLE THEN SHRINK TO FIT. CAUTION WHEN APPLYING HEATSHRINK TO AVOID DAMAGE TO GEL AREA.
3. DOUBLE INSULATION IS TO BE MAINTAINED INTO CONNECTOR GEL.
4. STRIP INSULATION/HEATSHRINK FROM CORE END. SEE CONNECTOR FOR STRIP LENGTH.
5. WIPE CLEAN THE STRIPPED CORE AND ENSURE IT IS NOT CONTAMINATED WITH SAND, GREASE, etc.
6. INSERT THE STRIPPED CORE GENTLY THRU THE GEL AND HOLD IT FULLY HOME AGAINST THE TERMINAL BLOCK WHILE TIGHTENING THE CLAMPING BOLT WITH A 8mm ALLEN KEY DRIVE.
   THE RECOMMENDED TORQUE SETTINGS ARE LISTED BELOW:
   Φ 4 TO 15sqmm CONDUCTOR ---- 14.1 TO 19.8Nm TORQUE
   Φ 21.1 TO 53.5sqmm CONDUCTOR ---- 25.4 TO 31.1Nm TORQUE
7. UPON TIGHTENING THE CLAMPING BOLT, GIVE THE CORE A SWIFT TUG TO ENSURE THAT IT DOES NOT COME LOOSE/OUT OF THE TERMINAL BLOCK
8. AFTER CLAMPING CABLE THE CLAMP CAP MUST BE LOCKED IN PLACE TO FULLY SEAL
9. WHEN DISCONNECTING CABLE FROM CONNECTOR REMOVE SLOWLY TO ALLOW GEL TO RE-SEAL ITSELF BEHIND THE CABLE AS IT IS REMOVED.
10. TEMPORARY DISCONNECTION - COVER CABLE PORT WITH BLUE CAP OR TAPE TO AVOID GEL CONTAMINATION. MARK PORT WITH ONE SCRIBE FOR EACH DISCONNECTION. REPLACE CONNECTOR AFTER 3 DISCONNECTS FOR ANY ONE PORT.
11. PERMANENT DISCONNECTION - DO NOT REMOVE CABLE FROM PORT. CUT CABLE TO LEAVE APPROX 50mm PROTRUDING OUT OF GELPORT THEN CAP WITH HEATSHRINK.

HORIZON POWER DISTRIBUTION CONSTRUCTION STANDARDS OPERATIONS	STRUCTURE	REVISION E	DATE 07/10/21
	BELOW GROUND SERVICE PIT ELECTRICAL CONNECTION DETAIL	DRAWING No. U30-2	

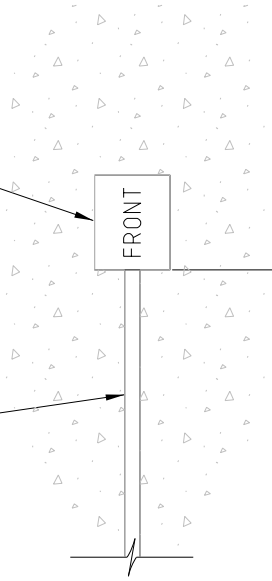
SHADED AREA MUST BE KEPT CLEAR FOR
OPERATIONAL PURPOSES AND NETWORK PERSONNEL
(TO A HEIGHT OF 3500)



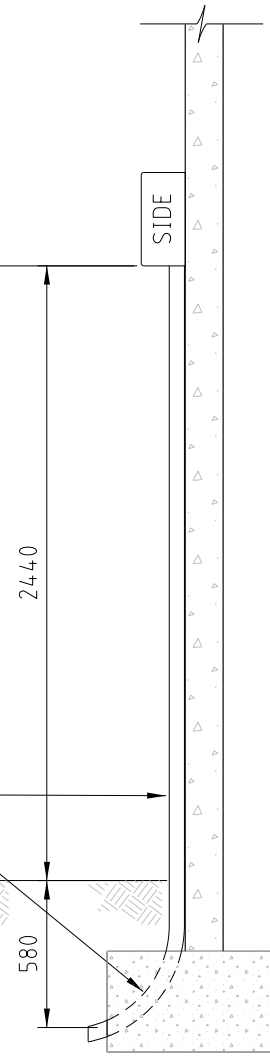
PLAN

CONSUMER'S MAINS CONDUIT MAXIMUM = 80mm
TO ENTER CUTOUT IN THE TOP HALF OF THE
WALL BOX VIA WALL PENETRATION, TOP OR SIDES

HORIZON POWER CABLE TO ENTER THROUGH
THE MIDDLE AT THE BOTTOM OF THE WALL BOX



FRONT
ELEVATION

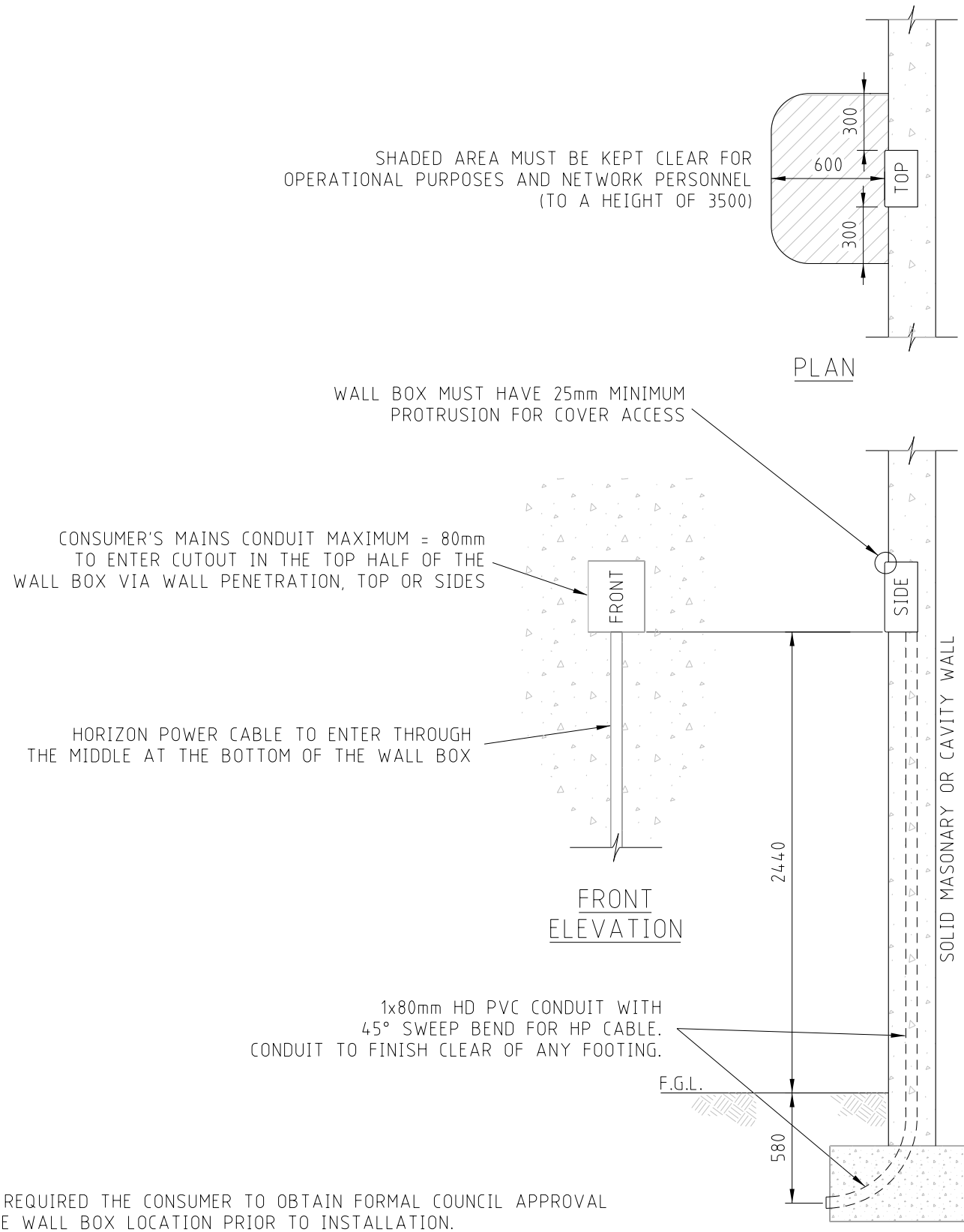


SECTIONAL
ELEVATION

NOTES:

1. WHERE REQUIRED THE CONSUMER TO OBTAIN FORMAL COUNCIL APPROVAL FOR THE WALL BOX LOCATION PRIOR TO INSTALLATION.
2. CONSUMER TO SUPPLY ALL ITEMS INCLUDING FUSES, CABLE LUGS AND CRIMPING TOOLS BUT NOT THE WALL BOX.
3. CONSUMER TO INSTALL ALL ITEMS INCLUDING THE HP SUPPLIED WALL BOX.
4. CONSUMER TO SUPPLY AND INSTALL MECHANICAL PROTECTION IN ACCORDANCE WITH THE WASIR FOR ALL CONDUITS WHERE IMPACT DAMAGE IS LIKELY TO OCCUR.
5. CONSUMER TO ASSIST HP TERMINATE, ALL CABLES WITHIN THE WALL BOX.
6. HP WALL BOX DIMENSIONS: UP TO 100A MD SUPPLY - H370xW300xD175 (LU34)
   UP TO 200A MD SUPPLY - H600xW300xD175 (LU35)
7. MAXIMUM CONSUMER'S MAINS: 1x35mm^2 /PH FOR 100A UNIT (LU34)
   1x120mm^2 /PH FOR 200A UNIT (LU35)

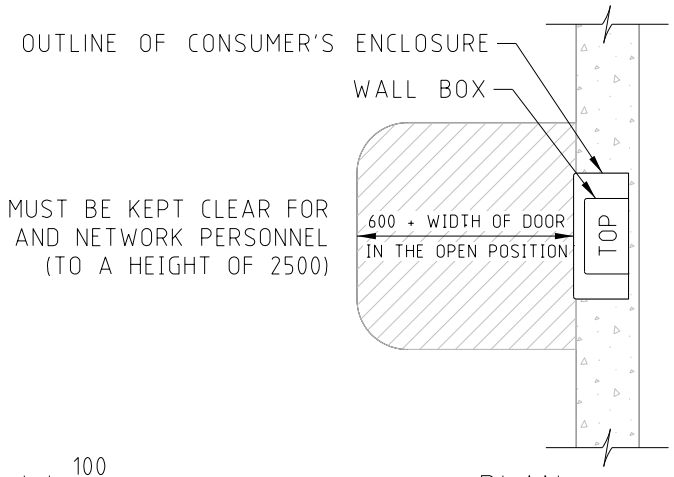
HORIZON POWER DISTRIBUTION CONSTRUCTION STANDARDS OPERATIONS	STRUCTURE	REVISION A	DATE 08/10/21
	WALL BOX SURFACE MOUNTED ON CONSUMER'S WALL	DRAWING No. U31	



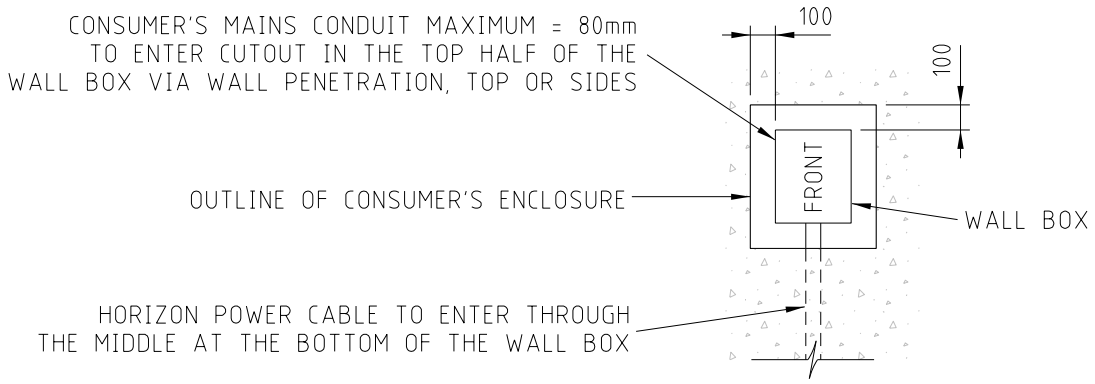
NOTES:

1. WHERE REQUIRED THE CONSUMER TO OBTAIN FORMAL COUNCIL APPROVAL FOR THE WALL BOX LOCATION PRIOR TO INSTALLATION.
2. CONSUMER TO SUPPLY ALL ITEMS INCLUDING FUSES, CABLE LUGS AND CRIMPING TOOLS BUT NOT THE WALL BOX.
3. CONSUMER TO INSTALL ALL ITEMS INCLUDING THE HP SUPPLIED WALL BOX.
4. CONSUMER TO SUPPLY AND INSTALL MECHANICAL PROTECTION IN ACCORDANCE WITH THE WASIR FOR ALL CONDUITS WHERE IMPACT DAMAGE IS LIKELY TO OCCUR.
5. CONSUMER TO ASSIST HP TERMINATE, ALL CABLES WITHIN THE WALL BOX.
6. HP WALL BOX DIMENSIONS: UP TO 100A MD SUPPLY - H370xW300xD175 (LU34)
   UP TO 200A MD SUPPLY - H600xW300xD175 (LU35)
7. MAXIMUM CONSUMER'S MAINS: 1x35mm^2 /PH FOR 100A UNIT (LU34)
   1x120mm^2 /PH FOR 200A UNIT (LU35)

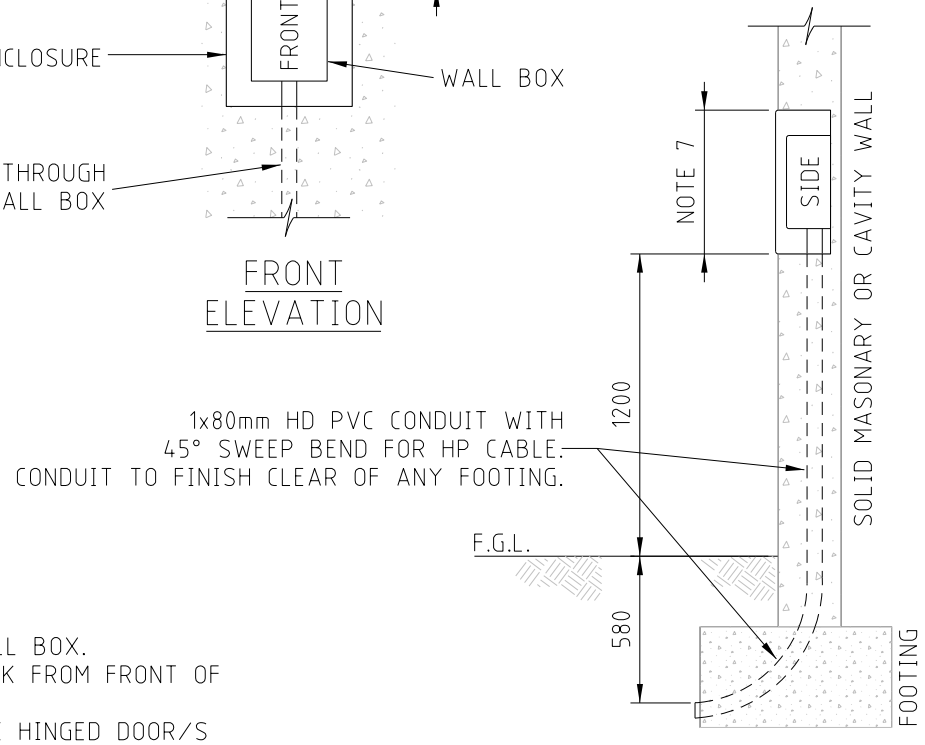
HORIZON POWER DISTRIBUTION CONSTRUCTION STANDARDS OPERATIONS	STRUCTURE	REVISION A	DATE 08/10/21
	WALL BOX SEMI-RECESS MOUNTED ON CONSUMER'S WALL	DRAWING No. U32	



PLAN



FRONT ELEVATION



SECTIONAL ELEVATION

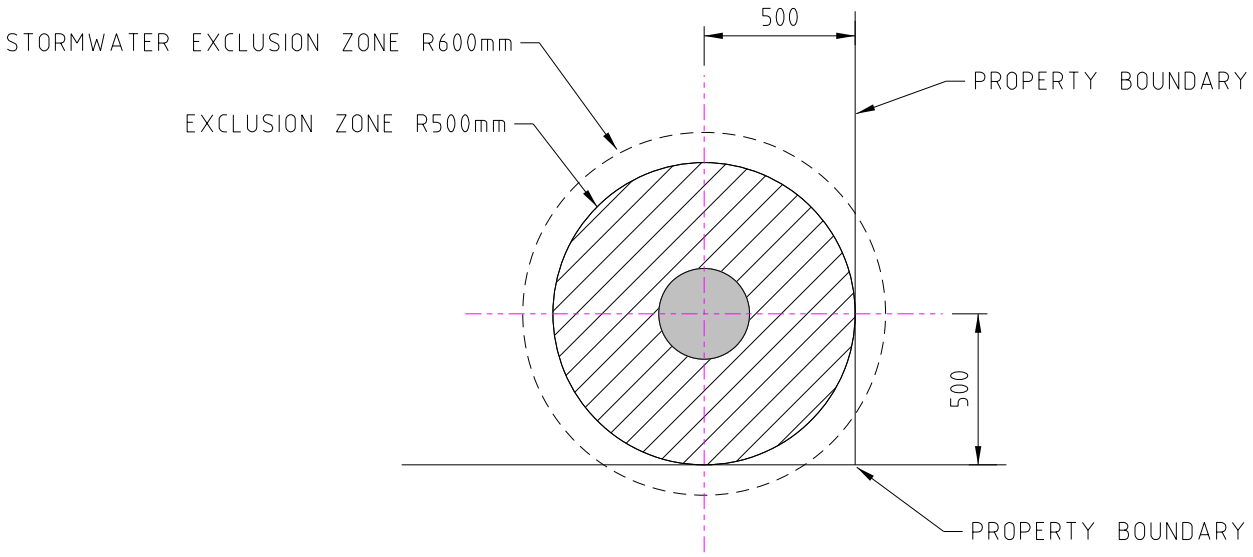
CONSUMER ENCLOSURE REQUIRMENTS:

1. 100mm MIN CLEARANCE AROUND HP WALL BOX.
2. HP WALL BOX MAXIMUM 150mm SETBACK FROM FRONT OF CONSUMERS ENCLOSURE.
3. TO BE METAL ONLY WITH TOP OR SIDE HINGED DOOR/S (IF TOP OPENING, TO BE FITTED WITH RETAINING PPROP).
4. TO BE WEATHER RESISTANT TO IP45 RATING.
5. TO BE FITTED WITH HP MASTER METER LOCK.
6. DOOR TO BE FITTED WITH HP LABEL (SUPPLIED BY HP).

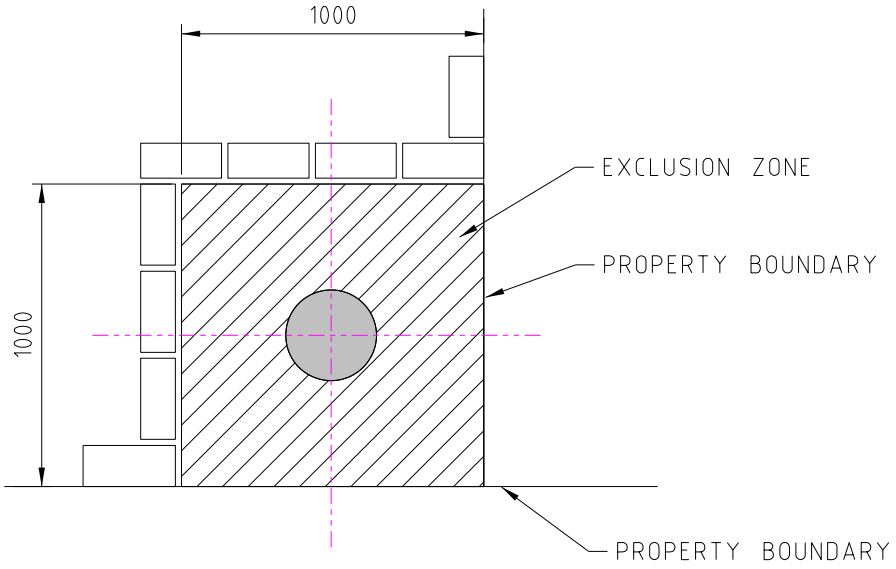
NOTES:

1. WHERE REQUIRED THE CONSUMER TO OBTAIN FORMAL COUNCIL APPROVAL FOR THE WALL BOX LOCATION PRIOR TO INSTALLATION.
2. CONSUMER TO SUPPLY ALL ITEMS INCLUDING FUSES, CABLE LUGS AND CRIMPING TOOLS BUT NOT THE WALL BOX.
3. CONSUMER TO INSTALL ALL ITEMS INCLUDING THE HP SUPPLIED WALL BOX.
4. CONSUMER TO SUPPLY AND INSTALL MECHANICAL PROTECTION IN ACCORDANCE WITH THE WASIR FOR ALL CONDUITS WHERE IMPACT DAMAGE IS LIKELY TO OCCUR.
5. CONSUMER TO ASSIST HP TERMINATE, ALL CABLES WITHIN THE WALL BOX.
6. HP WALL BOX DIMENSIONS: UP TO 100A MD SUPPLY - H370xW300xD175 (LU34)
   UP TO 200A MD SUPPLY - H600xW300xD175 (LU35)
7. MAXIMUM CONSUMER'S MAINS: 1x35mm^2 /PH FOR 100A UNIT (LU34)
   1x120mm^2 /PH FOR 200A UNIT (LU35)

HORIZON POWER DISTRIBUTION CONSTRUCTION STANDARDS OPERATIONS	STRUCTURE	REVISION A	DATE 23/11/21
	WALL BOX MOUNTED INSIDE CONSUMER'S ENCLOSURE ON CONSUMER'S WALL	DRAWING No. U33	



PILLAR EXCLUSION ZONES



EXCLUSION ZONE FOR FENCES

(FOR BOTH MINI-PILLARS AND UNI-PILLARS)

NOTES

1. RADIUS SHALL BE MEASURED FROM CENTRE POINT OF PILLAR.
2. SAME ZONES APPLY TO BOTH UNI-PILLARS AND MINI-PILLARS.
3. WHERE THERE IS A FRONT RETAINING WALL LESS THAN 1.1m IN HEIGHT.

HORIZON POWER DISTRIBUTION CONSTRUCTION STANDARDS	STRUCTURE	REVISION B	DATE 23/11/21
	PILLAR EXCLUSION ZONES	DRAWING No. U35	
OPERATIONS			