



# DISTRIBUTION CONSTRUCTION STANDARDS MANUAL

Part 9

*Date Published: 1 June 2023*

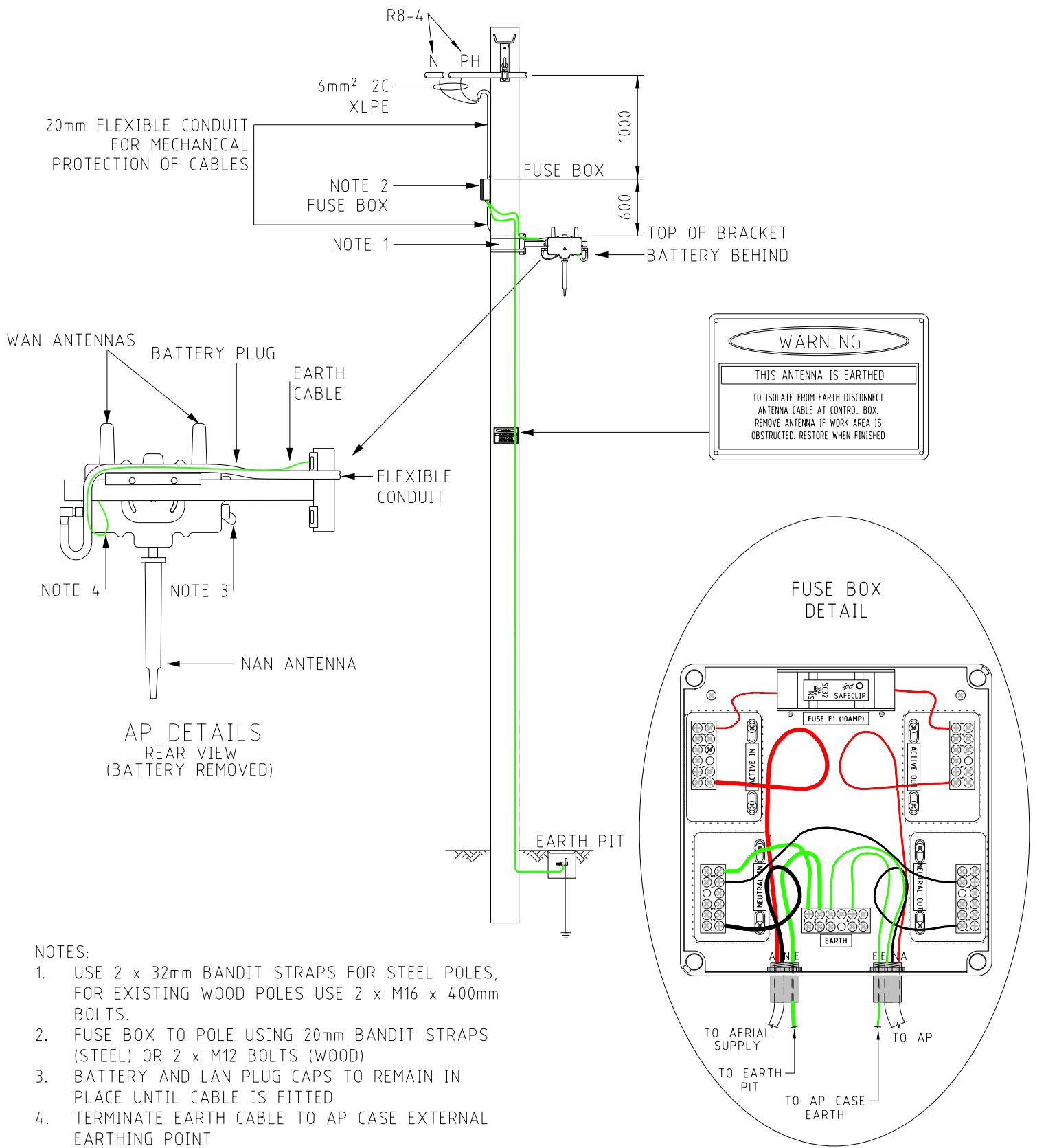
## **M - Miscellaneous**

For application to  
Horizon Power  
Electricity Distribution Networks

## Part 9 – Miscellaneous – Drawing Register

Number	Description
<a href="#">M1-1</a>	SSN Network Device with LV Aerial Supply (ABC) Arrangement
<a href="#">M1-2</a>	SSN Network Device with LV Aerial Supply Arrangement (9.5m Pole)
<a href="#">M1-3</a>	SSN Network Device with LV Aerial Supply Arrangement (11m Pole)
<a href="#">M1-4</a>	SSN Network Device with Street Light Supply Arrangement
<a href="#">M1-4-1</a>	SSN Network Device with Street Light Supply Class I Arrangement
<a href="#">M1-4-2</a>	SSN Network Device with Street Light Supply Class I&II Hybrid Arrangement
<a href="#">M1-6</a>	SSN Network Device with LV Kiosk (Type 1) Supply Arrangement (Above 100km Distance) – Street Light Pole
<a href="#">M1-7</a>	SSN Network Device with LV Kiosk (Type 1) Supply Arrangement (Above 100km Distance) – Street Light Pole
<a href="#">M3-1</a>	Pole Top Switch or Isolator Ground Clearing Details
<a href="#">M3-2</a>	Expulsion Type Drop Out Fuse Ground Clearing Details

D	CIRCUIT BREAKER REPLACED WITH FUSE BOX
C	EARTHING MODIFIED & AP DETAILS ADDED
B	Dimensions Revised
A	FIRST REVISION
REV	DESCRIPTION



DISTRIBUTION CONSTRUCTION STANDARDS

OPERATIONS

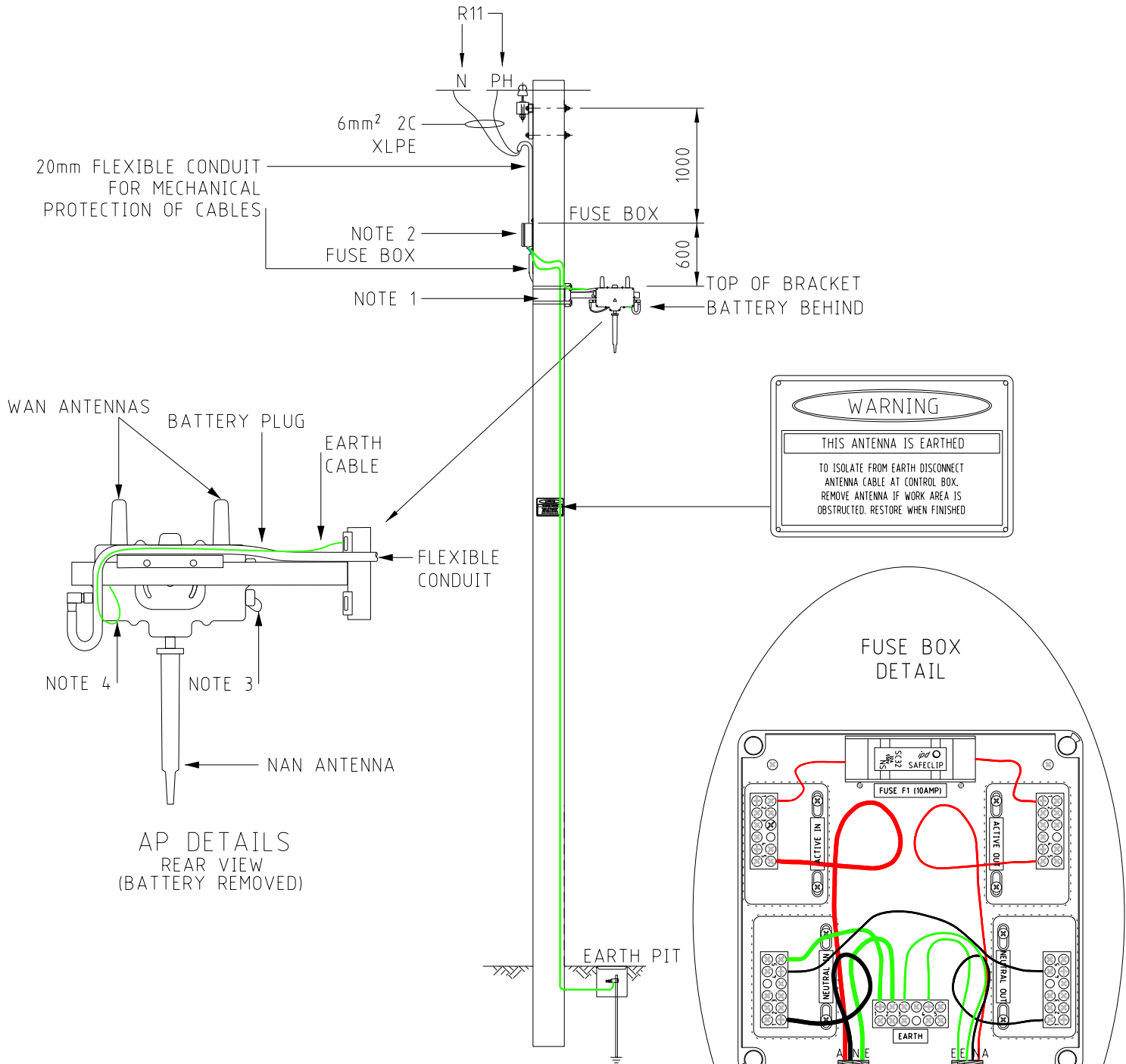
STRUCTURE - 9.5m

SSN NETWORK DEVICE WITH LV AERIAL SUPPLY (ABC) ARRANGEMENT

REVISION	DATE
D	31.05.23


DRAWING No.  
M1-1

D	CIRCUIT BREAKER REPLACED WITH FUSE BOX
C	EARTHING MODIFIED & AP DETAILS ADDED
B	Dimensions Revised
A	FIRST REVISION
REV	DESCRIPTION

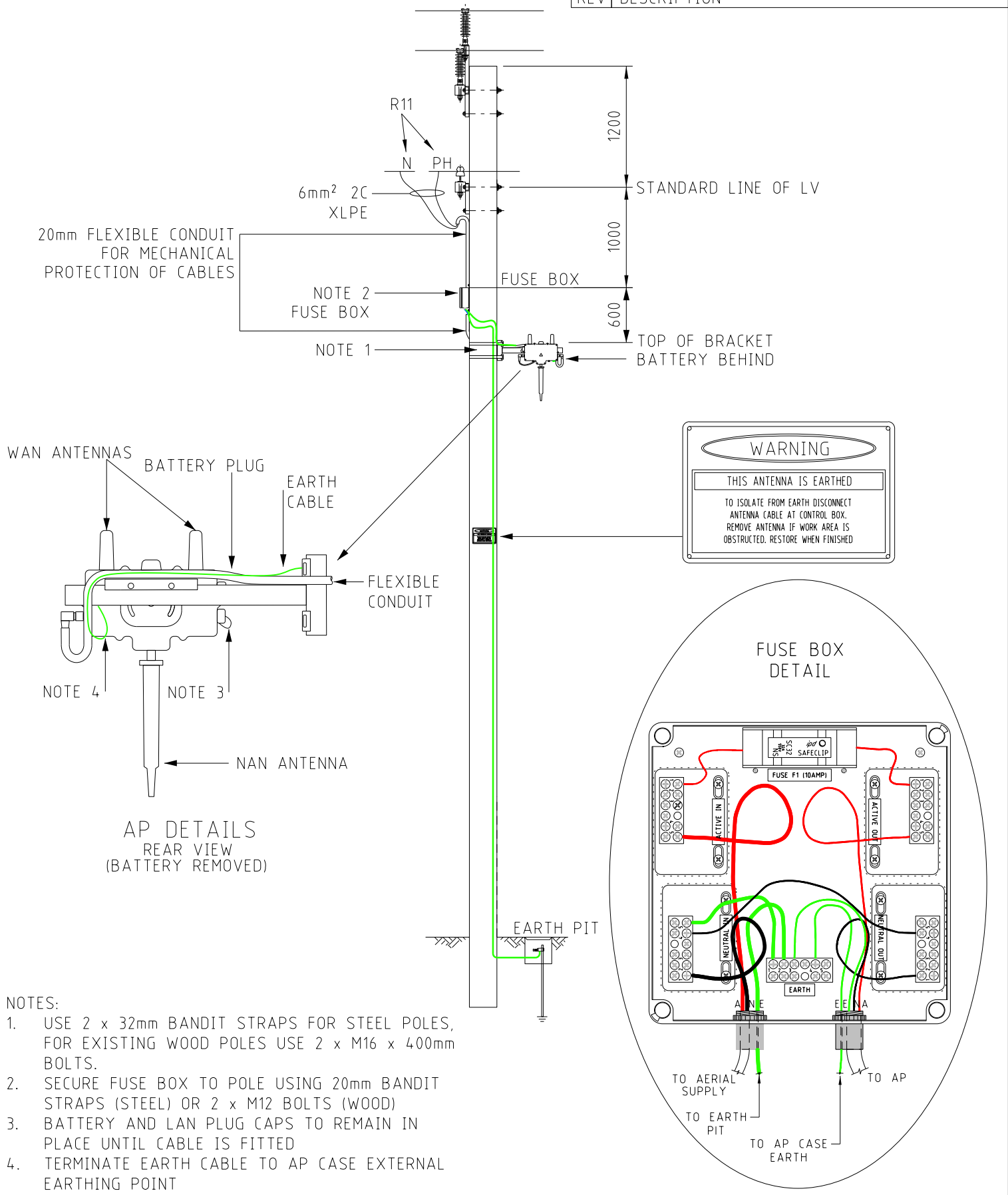


NOTES:

1. USE 2 x 32mm BANDIT STRAPS FOR STEEL POLES, FOR EXISTING WOOD POLES USE 2 x M16 x 400mm BOLTS.
2. SECURE FUSE BOX TO POLE USING 20mm BANDIT STRAPS (STEEL) OR 2 x M12 BOLTS (WOOD)
3. BATTERY AND LAN PLUG CAPS TO REMAIN IN PLACE UNTIL CABLE IS FITTED
4. TERMINATE EARTH CABLE TO AP CASE EXTERNAL EARTHING POINT

 DISTRIBUTION CONSTRUCTION STANDARDS OPERATIONS	STRUCTURE - 9.5m	REVISION D	DATE 01.06.23
	SSN NETWORK DEVICE WITH LV AERIAL SUPPLY ARRANGEMENT	DRAWING No. M1-2	

D	CIRCUIT BREAKER REPLACED WITH FUSE BOX
C	EARTHING MODIFIED & AP DETAILS ADDED
B	Dimensions Revised
A	FIRST REVISION
REV	DESCRIPTION



DISTRIBUTION CONSTRUCTION STANDARDS

OPERATIONS

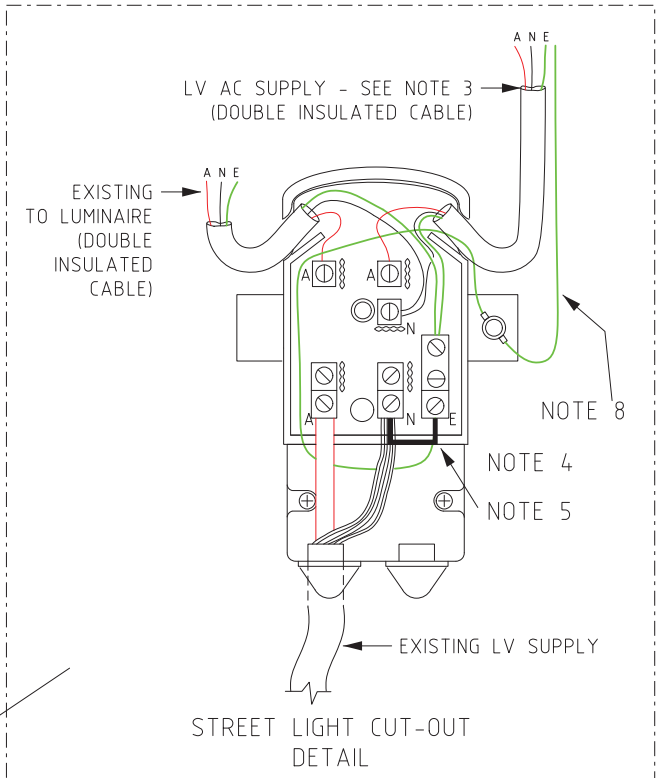
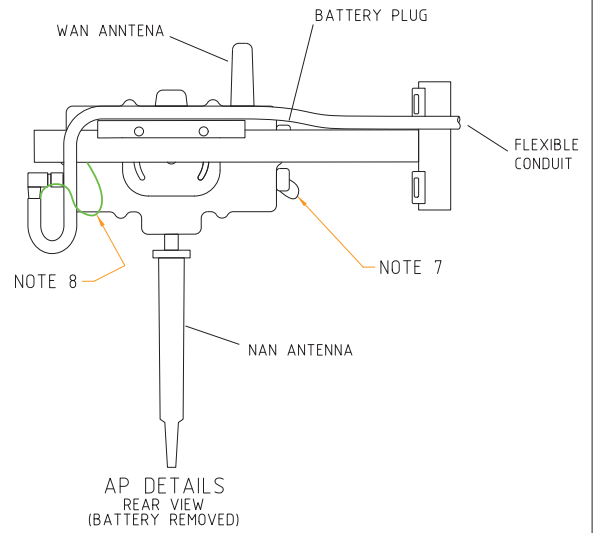
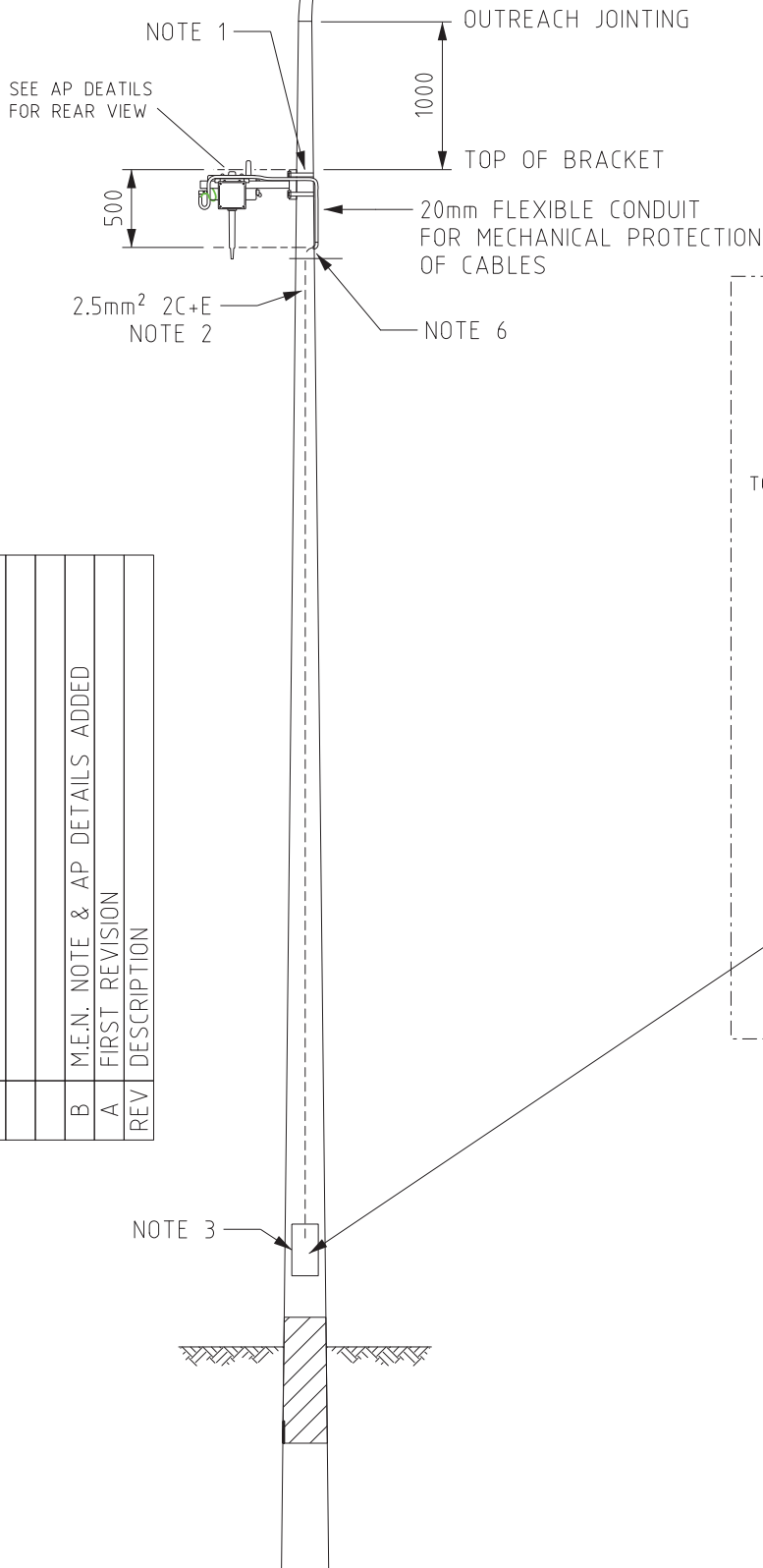
STRUCTURE - 11m

SSN NETWORK DEVICE WITH LV AERIAL SUPPLY (ON HV POLE) ARRANGEMENT

REVISION	DATE
D	01.06.23

DRAWING No.  
M1-3

EXISTING STREET LIGHT POLE PUBLIC



REV	DESCRIPTION
A	FIRST REVISION
B	M.E.N. NOTE & AP DETAILS ADDED

NOTES:

1. USE 2 x 32mm BANDIT STRAPS FOR STREET LIGHT POLES
2. EXTEND THE LV AC SUPPLY FROM STREET LIGHTING POLE CUT-OUT TO ACCESS POINT/RELAY
3. STREET LIGHT CUT-OUT WILL NEED TO COMPLY WITH CURRENT STANDARDS
4. ADD 5 AMP FUSE ON CUT-OUT FOR NEW CIRCUIT TO AP/RELAY
5. ENSURE M.E.N. CONNECTION IS INSTALLED
6. DRILL A HOLE TO FIX 20mm CONDUIT GLAND. ANY RISK OF DAMAGE TO STREET LIGHT CABLE MUST BE ASSESSED AND IF REQUIRED, CABLE MUST BE ISOLATED AND REMOVED BEFORE DRILLING
7. BATTERY AND LAN PLUG CAPS TO REMAIN IN PLACE UNTIL CABLE IS FITTED
8. TERMINATE EARTH CABLE TO AP CASE EXTERNAL EARTHING POINT



DISTRIBUTION CONSTRUCTION STANDARDS

OPERATIONS

STRUCTURE - STREET LIGHT POLE

SSN NETWORK DEVICE WITH STREET LIGHT SUPPLY ARRANGEMENT

REVISION	DATE
B	07-03-19

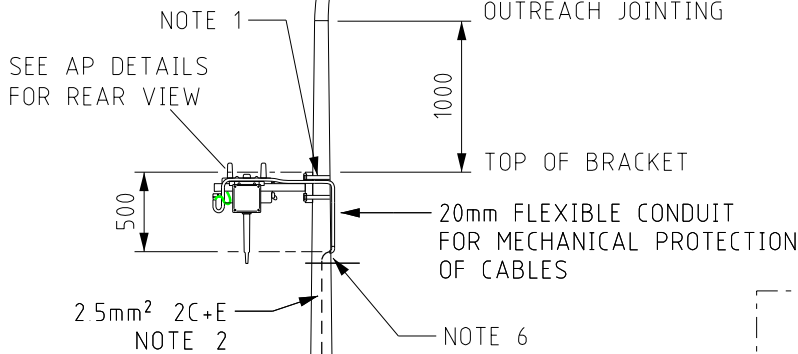
DRAWING No.  
M1-4

EXISTING STREET LIGHT POLE

WAN ANTENNAS

BATTERY PLUG

FLEXIBLE CONDUIT

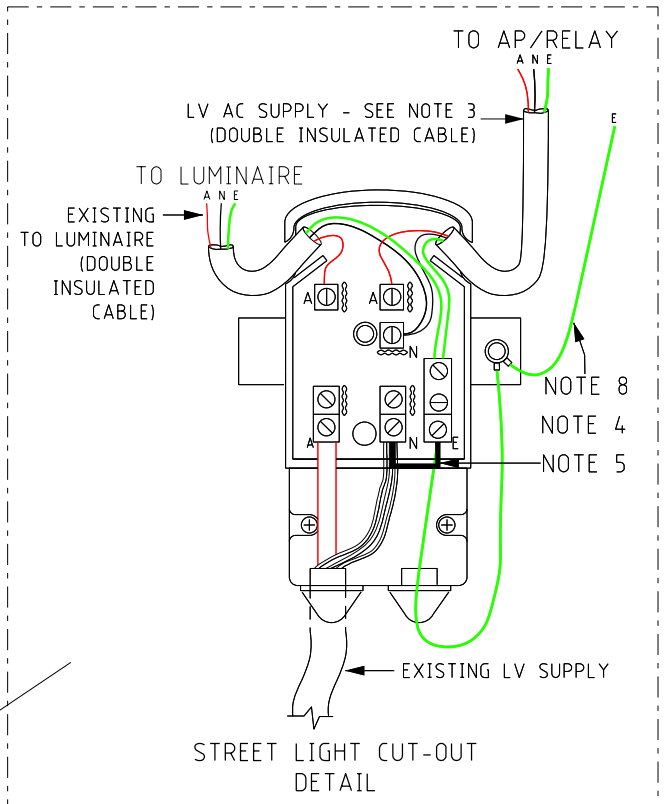


NOTE 8

NOTE 7

NAN ANTENNA

AP DETAILS REAR VIEW (BATTERY REMOVED)



NOTE 3



REV	DESCRIPTION
E	EARTH WIRE TO LUMINAIRE CORRECTED
D	EARTH WIRE CONNECTION ALTERED
C	AP REVISED, SECOND ANTENNA ADDED.
B	M.E.N. NOTE & AP DETAILS ADDED
A	FIRST REVISION

NOTES:

1. USE 2 x 32mm BANDIT STRAPS FOR STREET LIGHT POLES
2. EXTEND THE LV AC SUPPLY FROM STREET LIGHTING POLE CUT-OUT TO ACCESS POINT/RELAY
3. STREET LIGHT CUT-OUT WILL NEED TO COMPLY WITH CURRENT STANDARDS
4. ADD 10 AMP FUSE ON CUT-OUT FOR NEW CIRCUIT TO AP/RELAY
5. ENSURE M.E.N. CONNECTION IS INSTALLED
6. DRILL A HOLE TO FIX 20mm CONDUIT GLAND. ANY RISK OF DAMAGE TO STREET LIGHT CABLE MUST BE ASSESSED AND IF REQUIRED, CABLE MUST BE ISOLATED AND REMOVED BEFORE DRILLING
7. BATTERY AND LAN PLUG CAPS TO REMAIN IN PLACE UNTIL CABLE IS FITTED
8. TERMINATE EARTH CABLE TO AP CASE EXTERNAL EARTHING POINT



DISTRIBUTION CONSTRUCTION STANDARDS

OPERATIONS

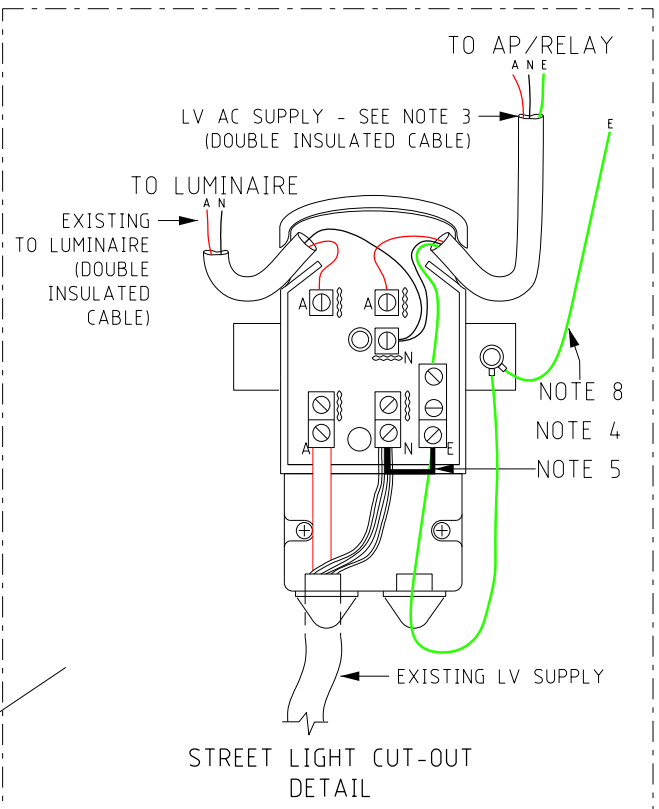
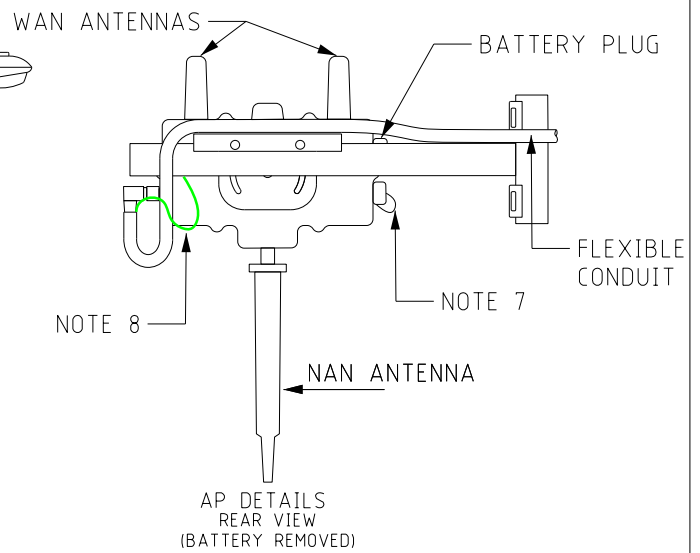
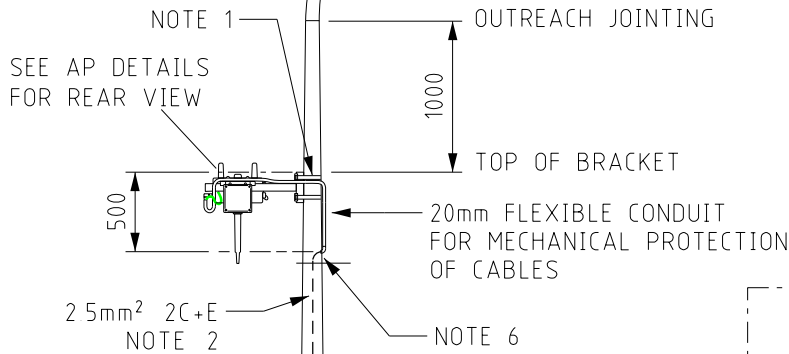
STRUCTURE - STREET LIGHT POLE

SSN NETWORK DEVICE WITH STREET LIGHT SUPPLY CLASS 1 ARRANGEMENT

REVISION E DATE 31.05.23

DRAWING No. M1-4-1

EXISTING STREET LIGHT POLE



NOTE 3



REV	DESCRIPTION
A	FIRST REVISION
B	M.E.N. NOTE & AP DETAILS ADDED
C	AP REVISED, SECOND ANTENNA ADDED.
D	EARTH WIRE CONNECTION ALTERED

NOTES:

1. USE 2 x 32mm BANDIT STRAPS FOR STREET LIGHT POLES
2. EXTEND THE LV AC SUPPLY FROM STREET LIGHTING POLE CUT-OUT TO ACCESS POINT/RELAY
3. STREET LIGHT CUT-OUT WILL NEED TO COMPLY WITH CURRENT STANDARDS
4. ADD 10 AMP FUSE ON CUT-OUT FOR NEW CIRCUIT TO AP/RELAY
5. ENSURE M.E.N. CONNECTION IS INSTALLED
6. DRILL A HOLE TO FIX 20mm CONDUIT GLAND. ANY RISK OF DAMAGE TO STREET LIGHT CABLE MUST BE ASSESSED AND IF REQUIRED, CABLE MUST BE ISOLATED AND REMOVED BEFORE DRILLING
7. BATTERY AND LAN PLUG CAPS TO REMAIN IN PLACE UNTIL CABLE IS FITTED
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DISTRIBUTION CONSTRUCTION STANDARDS

OPERATIONS

STRUCTURE - STREET LIGHT POLE

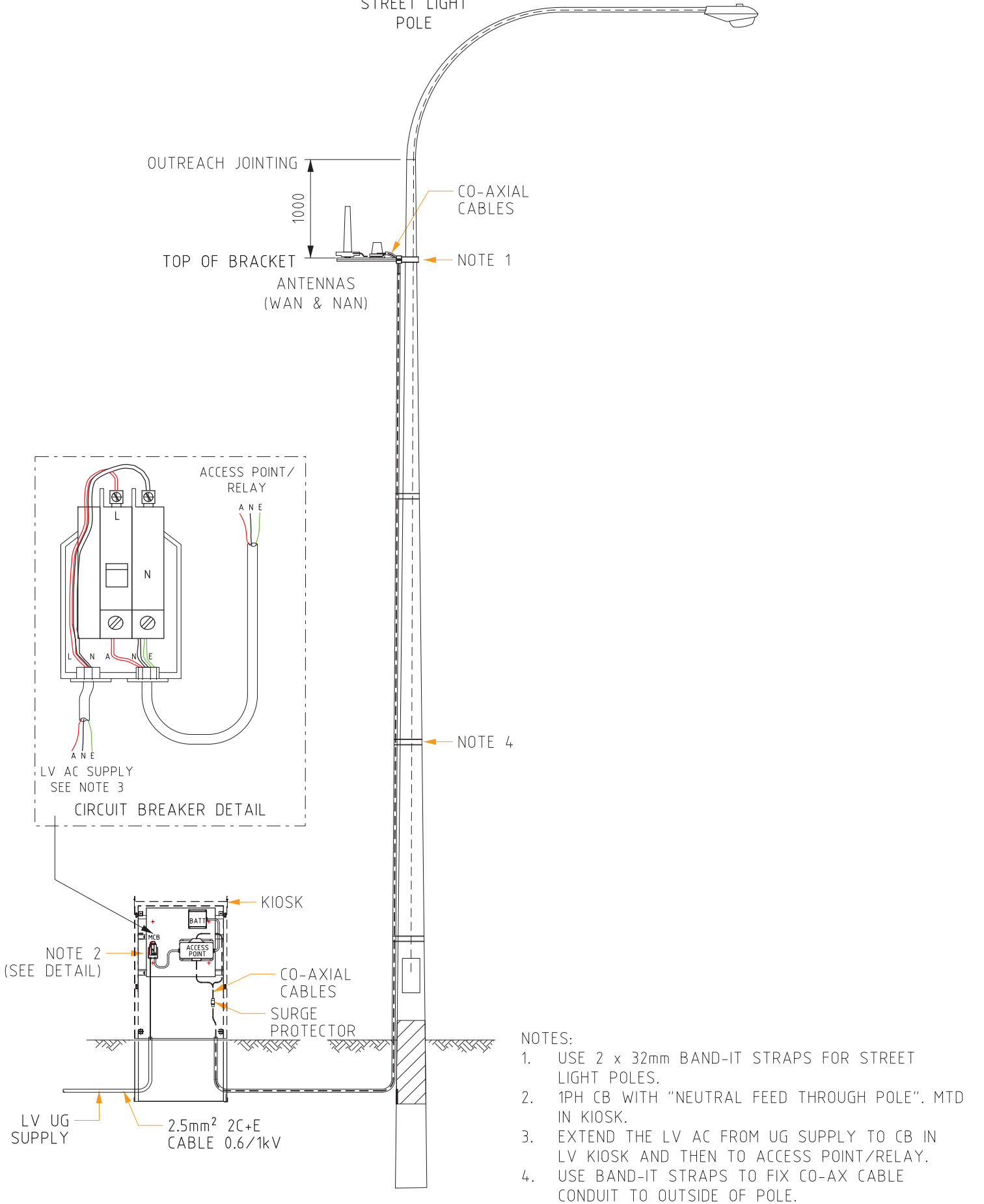
SSN NETWORK DEVICE WITH STREET LIGHT SUPPLY CLASS 1 & 2 HYBRID ARRANGEMENT

REVISION D DATE 17.05.23

DRAWING No. M1-4-2



EXISTING PUBLIC STREET LIGHT POLE



DISTRIBUTION CONSTRUCTION STANDARDS

OPERATIONS

STRUCTURE - STREET LIGHT POLE

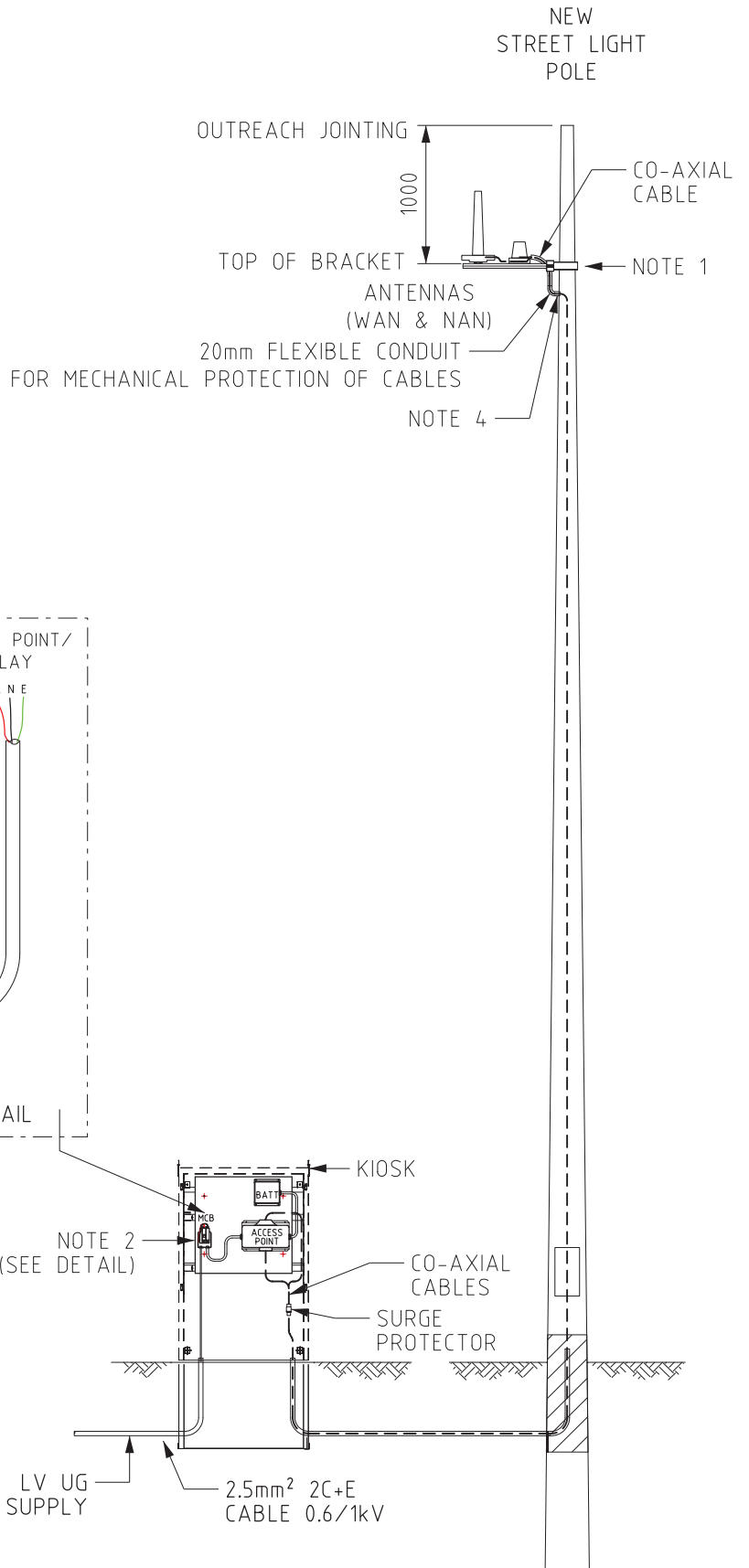
SSN NETWORK DEVICE WITH LV KIOSK (TYPE-1) SUPPLY ARRANGEMENT (ABOVE 100KM DISTANCE)

REVISION	DATE
A	26-03-15

DRAWING No.

M1-6

PUBLIC



NOTES:

1. USE 2 x 32mm BANDIT STRAPS FOR STREET LIGHTING POLES.
2. 1PH CB WITH "NEUTRAL FEED THROUGH POLE". MTD IN KIOSK.
3. EXTEND THE LV AC SUPPLY FROM LV UG CABLE TO CB IN LV KIOSK AND THEN TO ACCESS POINT/RELAY.
4. DRILL A HOLE TO FIX 20mm RUBBER SEAL.



DISTRIBUTION CONSTRUCTION STANDARDS

OPERATIONS

STRUCTURE - STREET LIGHT POLE

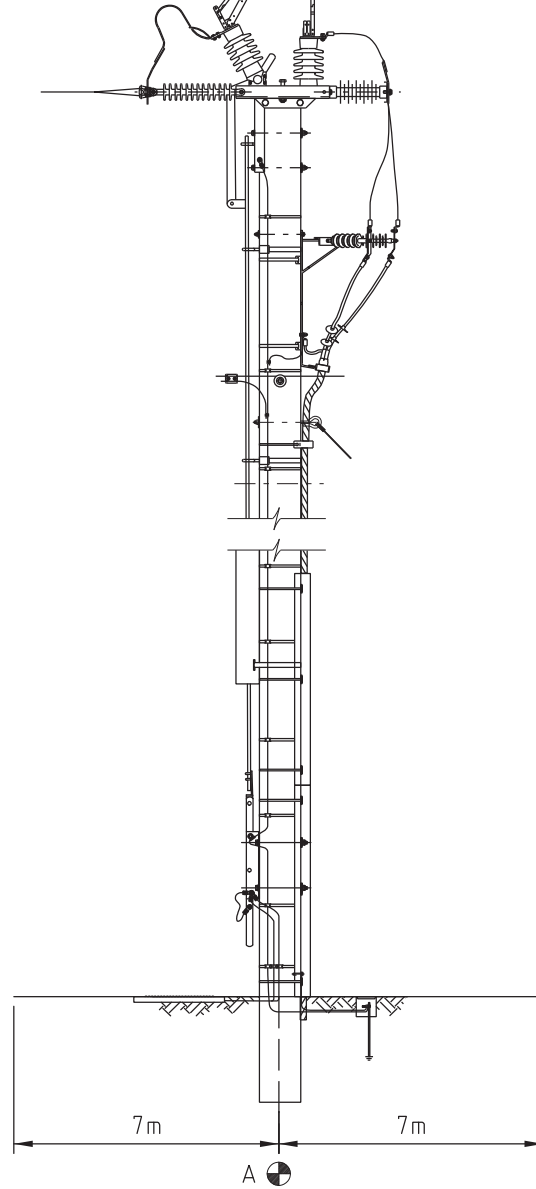
SSN NETWORK DEVICE WITH LV KIOSK (TYPE-1) SUPPLY ARRANGEMENT (ABOVE 100KM DISTANCE)

REVISION	DATE
A	26-03-15

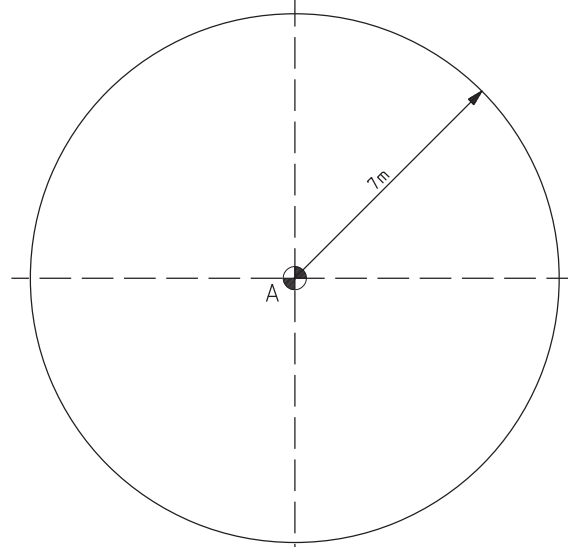
DRAWING No.  
M1-7

SIDE VIEW OF P.T.S

PUBLIC



OVERHEAD VIEW



OVERHEAD VIEW SHOWS THE FOOTPRINT TO BE CLEARED



DISTRIBUTION CONSTRUCTION STANDARDS

OPERATIONS

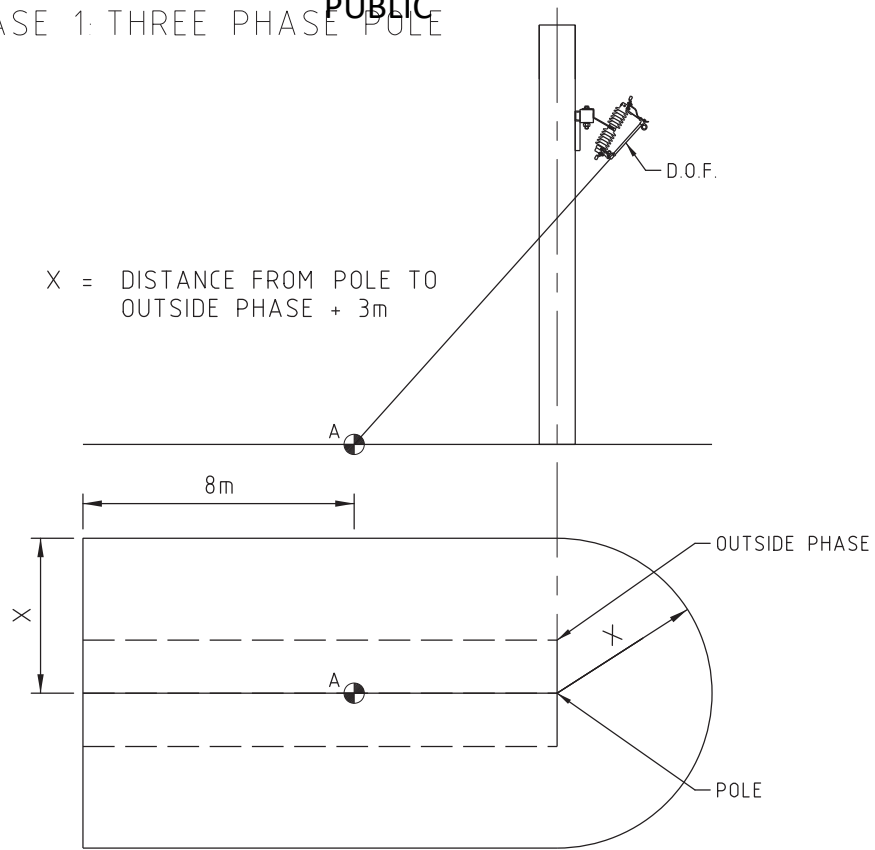
STRUCTURE GROUND CLEARING

POLE TOP SWITCH OR ISOLATOR GROUND CLEARING DETAILS

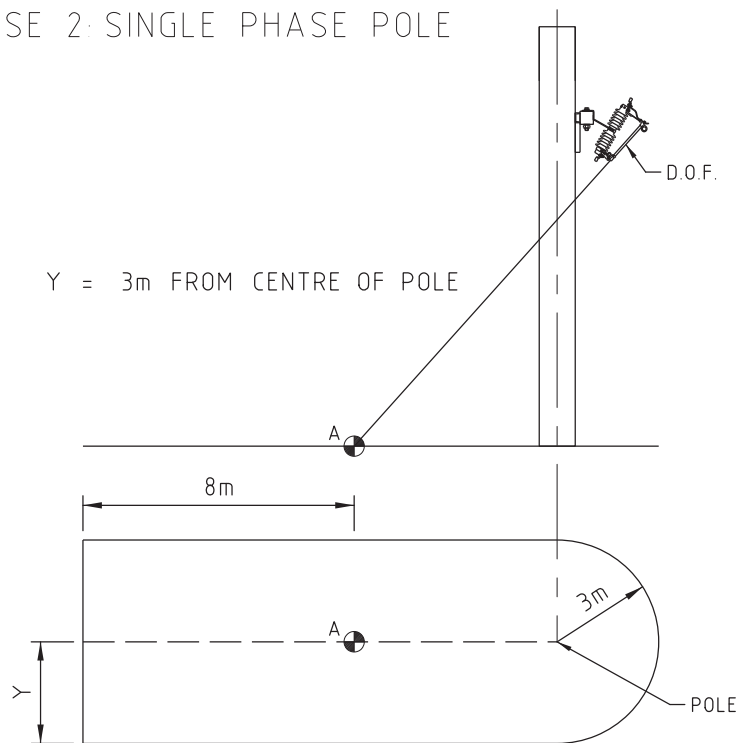
REVISION	DATE
B	AUG 2015

DRAWING No.
M3-1

CASE 1: THREE PHASE POLE



CASE 2: SINGLE PHASE POLE



NOTE:

1. POINT A SHALL BE DETERMINED BY FOLLOWING A LINE FROM THE FUSE TO THE GROUND ALONG THE ANGLE OF THE FUSE.
2. FOR THREE-PHASE POLES, POINT A SHALL BE DETERMINED FROM CENTRE PHASE.



DISTRIBUTION CONSTRUCTION STANDARDS

OPERATIONS

STRUCTURE - GROUND

EXPULSION TYPE DROPOUT FUSE

GROUND CLEARING DETAILS

REVISION  
B

DATE  
AUG 2015

DRAWING No.

M3-2