

FIBRE BROADBAND NETWORKS STANDARDS

Non Conductive Fibre Cables Only

(For local fibres only – Excludes distribution cables)

Approved by: F. Zaini

FIBRE BROADBAND MANUAL

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B	DATE	22/03/12		 © COPYRIGHT 2012 ENERGEX This drawing must not be reproduced in part or whole without written permission from ENERGEX	APP'D	R.ENGLISH	FIBRE BROADBAND NETWORKS			
APP'D	R. ENGLISH				DATE	16/06/11				
CKD	P. RELF				REC'D					
ATHR	P. JUDGE				CKD	P.JUDGE				
Section 7 Added					AUTHR	P.RELF			10822-A4	
					WORD		FILE			

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ORIGINAL ISSUE A	DATE 14/03/12	R. ENGLISH C	P. RELF	P. RELF	ADD SECTION 7 FBN HARDWARE
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FIBRE BROADBAND NETWORKS

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FIBRE BROADBAND NETWORKS STANDARDS

Section 1 – Clearances / Alignments

REQUIRED CLEARANCES FROM FBN TO THE FOLLOWING ENERGEX ASSETS

F BN			
OVERHEAD	On Pole Vertical Minimum	On Pole Radial Minimum	In Span Radial Minimum
33kV INFRASTRUCTURE			
- 33kV Overhead mains Conductors (Future 11kV, LV)	5.0m Allows for future 11KV and LV	not allowed	5.0m Allows for future 11KV and LV
- 33kV Overhead mains Conductors (No Future 11kV, LV)	2.0m	not allowed	2.0m
- 33Kv Underground cable terminations (distance from support bracket bottom attachment bolt)	2.5m	not allowed	not applicable
- 33Kv Underground cables (installed vertically down pole)	not applicable	0.15m Includes FBN cables/ conduits / metallic guards installed vertically down pole	not applicable
11kV INFRASTRUCTURE			
- 11Kv Overhead mains Conductors (Future LV)	2.5m Allows for future LV	not allowed	2.5m Allows for future LV
- 11Kv Overhead mains Conductors (No Future LV)	2.0m	not allowed	2.0m
- 11Kv Underground cable terminations (distance from support bracket bottom attachment bolt)	0.9m	not allowed	not applicable
- 11Kv Underground cables (installed vertically down pole)	not applicable	0.15m Includes FBN cables/ conduits / metallic guards installed vertically down pole	not applicable
POLE TRANSFORMERS			
- Tanks	0.6m	0.6m	0.6m
- 11 kV Bushings or lightning arrestors	1.0m	1.0m	1.0m
- LV bushings	0.75m	0.75m	0.75m
- Support frames	0.15m	0.15m	0.15m

A	ORIGINAL ISSUE	 © COPYRIGHT 2011 ENERGEX This drawing must not be reproduced in part or whole without written permission from ENERGEX	FIBRE BROADBAND NETWORKS CLEARANCES/ALIGNMENTS 33kV, 11kV	APP'D	R.ENGLISH	TECH STDS	AUTOCAD
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REQUIRED CLEARANCES FROM FBN TO THE FOLLOWING ENERGEX ASSETS

FBN			
OVERHEAD	On Pole Vertical Minimum	On Pole Radial Minimum	In Span Radial Minimum
LV INFRASTRUCTURE			
LV OVERHEAD MAINS CONDUCTORS			
- Bare or LV mains not otherwise specified	0.4m	not allowed	0.4m
- XLPE insulated ABC	0.4m	not allowed	0.4m
LV OVERHEAD MAINS BRIDGING CABLES			
- Insulated	0.4m	not allowed	not applicable
- Un-insulated	0.4m	not allowed	not applicable
- Exposed terminals or conductors	0.4m	not allowed	not applicable
LV UNDERSLUNG LINKS - (Distance measured from bottom of crossarm to which link is mounted) NOTE: Clearances make allowance for switch to be opened or closed	1.0m	not allowed	not applicable
LV ABC SWITCH - (Distance measured from bottom of switch housing) NOTE: Clearances make allowance for switch to be opened or closed	0.5m	not allowed	not applicable
LV UNDERGROUND POLE TERMINATIONS			
- Insulated bridging cables to terminals/connectors	0.4m	not allowed	not applicable
- Un-insulated bridging cables to terminals / connectors	0.4m	not allowed	not applicable
-Exposed terminals and connectors on termination	0.4m	not allowed	not applicable
- LV cables (installed vertically down pole)	not applicable	0.05m Includes FBN cables/ conduits / metallic guards installed vertically down pole	not applicable
AIR BREAK SWITCH OPERATING RODS	not applicable	0.1M	not applicable
EARTHING DOWNLEADS	not applicable	0.05m Includes FBN cables/ conduits / metallic guards installed vertically down pole	not applicable
STAY WIRES - NOTE: Where there is any possibility of the NBN cables contacting a stay wire, a UV resistant protective sleeve shall be in place on the stay wire	0.1m (May still require mechanical protection)	0.1m (May still require mechanical protection)	0.1m (May still require mechanical protection)

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REQUIRED CLEARANCES FROM FBN TO THE FOLLOWING ENERGEX ASSETS

FBN			
	On Pole Vertical Minimum	On Pole Radial Minimum	In Span Radial Minimum
SERVICE CABLES AND FITTINGS			
- Insulated	0.3m	not allowed	0.3m
- Un-insulated (bare)	0.3m	not allowed	0.3m
- service fuse carriers	0.4m	not allowed	not applicable
STREETLIGHT INFRASTRUCTURE			
STREETLIGHT MAINS - NOTE: Streetlight mains may be recovered and luminaires converted to PE cell operations, to allow space on existing pole for NBN attachments For any conductors between any two poles - - Bare (at pole or anywhere in span)	0.4m	not allowed	0.6m
- Fully insulated for whole span	0.4m	not allowed	0.6m
STREETLIGHT WIRING - (Supply tails to S/L bracket)			
- Single insulated wiring	0.4m	not allowed	not applicable
- Double insulated wiring	0.05m	0.05m	not applicable
- Conduit covered wiring (all types)	0.05m	0.05m	not applicable
STREETLIGHT BRACKETS & LUMINAIRES			
- Streetlight bracket & fitting	0.05m	0.05m	0.05m
- Streetlight bracket with fuse mounted on base	0.05m above or 0.15m below bracket	0.05m	0.05m
- Streetlight outreaches with bolt on bracing rod NOTE: 150mm clearance below the bracket allows access to the streetlight base mounted fuse assembly	0.05m above or 0.15m inside or 0.15m below bracket Outreach attachment points	0.05m	0.05m outside of outreach attachment points

A	ORIGINAL ISSUE	B	DATE 12/04/12	APPD R. ENGLISH	CKD P. RELF	DRN P. RELF	Increased On Pole Vertical Minimum distance for Streetlight Mains to 0.4m		 © COPYRIGHT 2011 ENERGEX This drawing must not be reproduced in part or whole without written permission from ENERGEX	FIBRE BROADBAND NETWORKS CLEARANCES/ALIGNMENTS SERVICES STREETLIGHTS	APP'D R. ENGLISH	TECH STDS AUTOCAD	
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REQUIRED CLEARANCES FROM FBN TO THE FOLLOWING ENERGEX ASSETS

FBN			
	On Pole Vertical Minimum	On Pole Radial Minimum	In Span Radial Minimum
ENERGEX PILOT CABLES			
- Through cables (below LV)	0.3m	not allowed	0.6m
- Termination/jointing housing	0.15m	0.15m	not applicable
- Cable loops on pole	0.15m	0.15m	not applicable
OTHER CABLES			
- ENERGEX ADSS / Broadband cables of different carriers including Telstra "PSTN" telephone cables and other FBN (optus is always higher than Telstra)	0.3m		0.3m

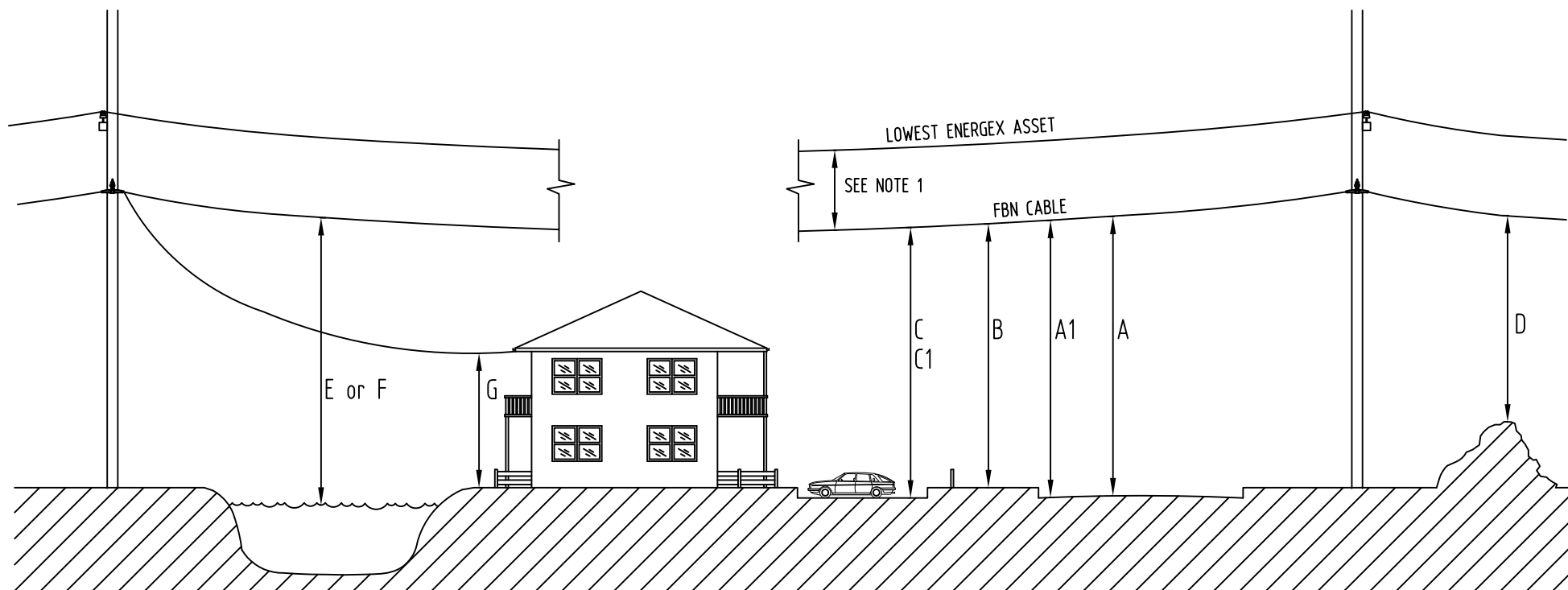
FBN	
UNDERGROUND (To be read in-conjunction with the UNDERGROUND DISTRIBUTION CONSTRUCTION MANUAL section C2)	Minimum
UNDERGROUND CABLES	
- HV CLEARANCE (minimum distance above conduit)	0.3m
- LV CLEARANCE (minimum distance above conduit)	0.1m
UNDERGROUND PILLARS	
- See UNDERGROUND DISTRIBUTION CONSTRUCTION MANUAL	C2 4.6

ORIGINAL ISSUE	 energen © COPYRIGHT 2011 ENERGEN This drawing must not be reproduced in part or whole without written permission from ENERGEN	FIBRE BROADBAND NETWORKS CLEARANCES/ALIGNMENTS PILOT CABLE UNDERGROUND	APP'D	R.ENGLISH	TECH STDS	AUTOCAD
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MINIMUM CLEARANCE FROM ROADS OR GROUND FOR FBN CABLE

CODE	LOCATION	MINIMUM VERTICAL CLEARANCE	REMARKS
A	CARRIAGEWAY	5.0m	
A1	DESIGNATED "OVER-DIMENSIONED ROUTE"	7.0m	
B	GROUND AREAS NOT NORMALLY USED BY VEHICLES (E.G. FOOTPATH)	4.5m	
C	DOMESTIC DRIVEWAYS	4.6m	
C1	COMMERCIAL DRIVEWAYS	5.0m	
D	ALL OTHER LAND CROSSINGS	4.5m	
E	WATERWAYS - NAVIGABLE	12.0m	MEDIUM HIGH TIDE
F	WATERWAYS - NON-NAVIGABLE	4.5m	1 - 100 YEAR FLOOD LEVEL
G	SERVICE DROP CABLES OVER PREMISE LAND - NOT TRAVERSABLE BY VEHICLE	3.0m	

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NOTE:

1. REFER OVERHEAD CLEARANCE TABLES FBN 1-1 TO 1-11 FOR CLEARANCES BETWEEN FBN CABLES & ENERGEX ASSETS.

ORIGINAL ISSUE

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FIBRE BROADBAND NETWORKS

CLEARANCES/ALIGNMENTS

GROUND CLEARANCE

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STANDARD POLE AND UNDERGROUND ALIGNMENTS

Standard pole and underground alignment details are in the Energex UDC manual, and replicated in the Energex Overhead Design Manual

These alignments are provided as a guide only and may be varied by Councils from time to time, and for special locations.

Project Managers shall ensure that alignments for electricity reticulation and street lighting works are approved by the relevant Council.

C	DATE	25/06/24	 © COPYRIGHT 2024 ENERGEX This drawing must not be reproduced in part or whole without written permission from ENERGEX	FIBRE BROADBAND NETWORKS UNDERGROUND ELECTRICAL ALLOCATION COUNCIL ALIGNMENTS	WORD				
APP'D	F. Zaini				APP'D	R.ENGLISH	10822-A4		
CKD	R. Margani				DATE	16/06/11	SECTION	SUB-SECT.	
ATHR	P. Relf				REC'D		1	21	
Removed tables and referenced UDC & OHDM					CKD	P.JUDGE	Sheet 1 of 1		
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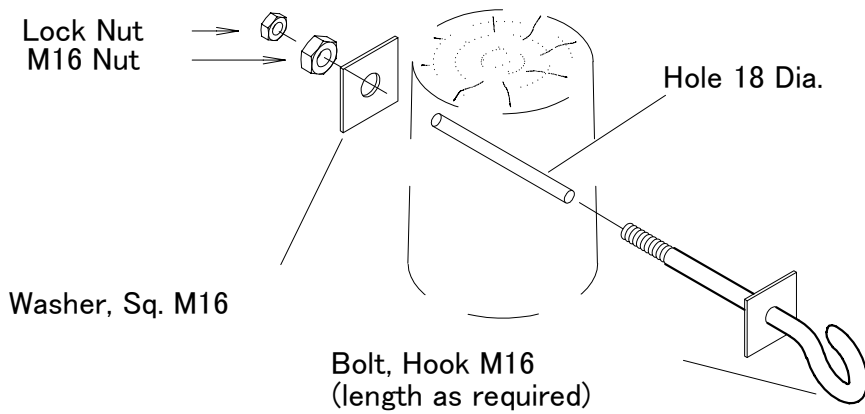
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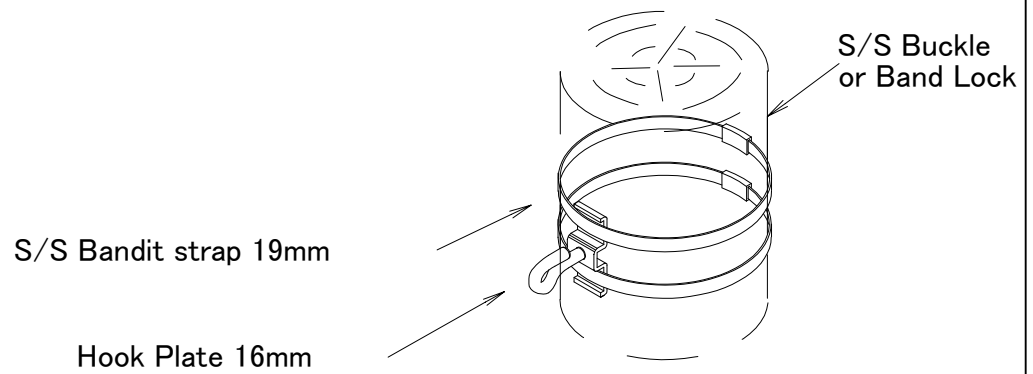
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FIBRE BROADBAND NETWORKS STANDARDS

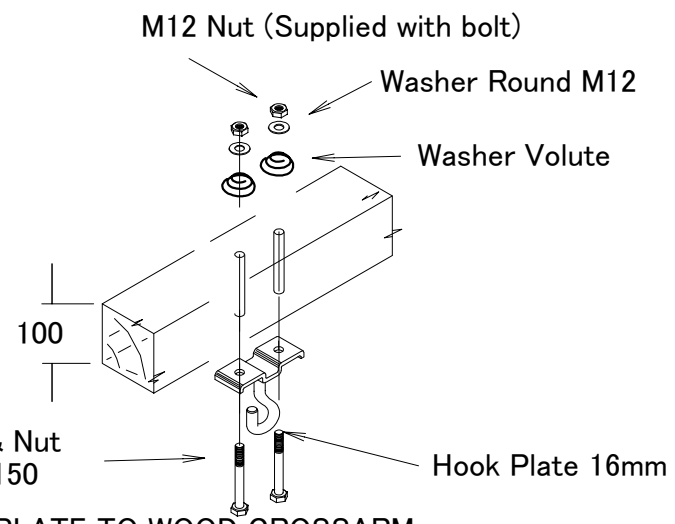
Section 2 - Overhead



BOLT HOOK TO WOOD POLE

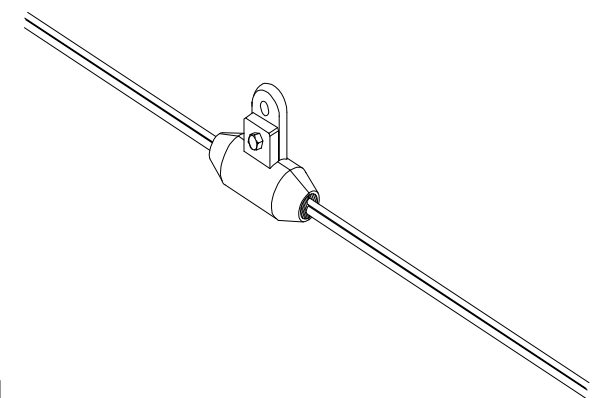


HOOK PLATE TO CONCRETE POLE



HOOK PLATE TO WOOD CROSSARM

Type 1 cable only. For Type 2 & 3 refer to NBN drawing manuals

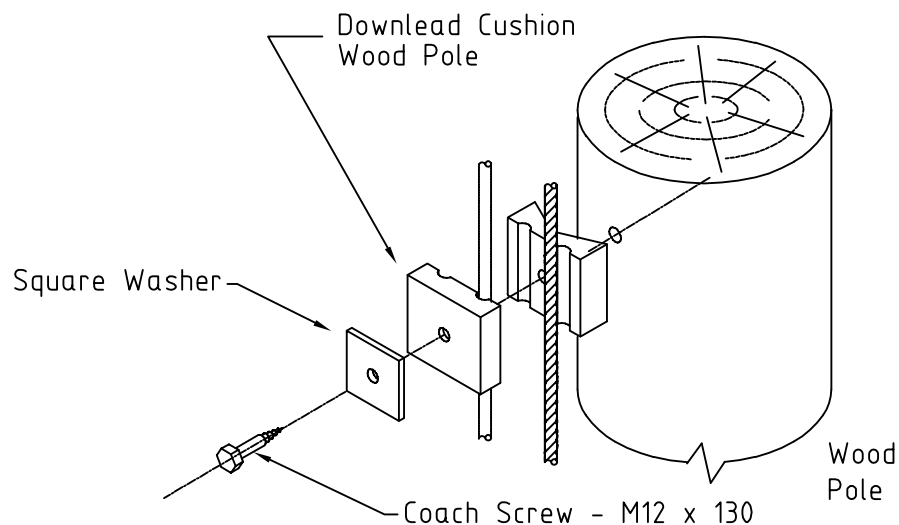


CABLE SUPPORT SMALL
CABLE SUPPORT LARGE

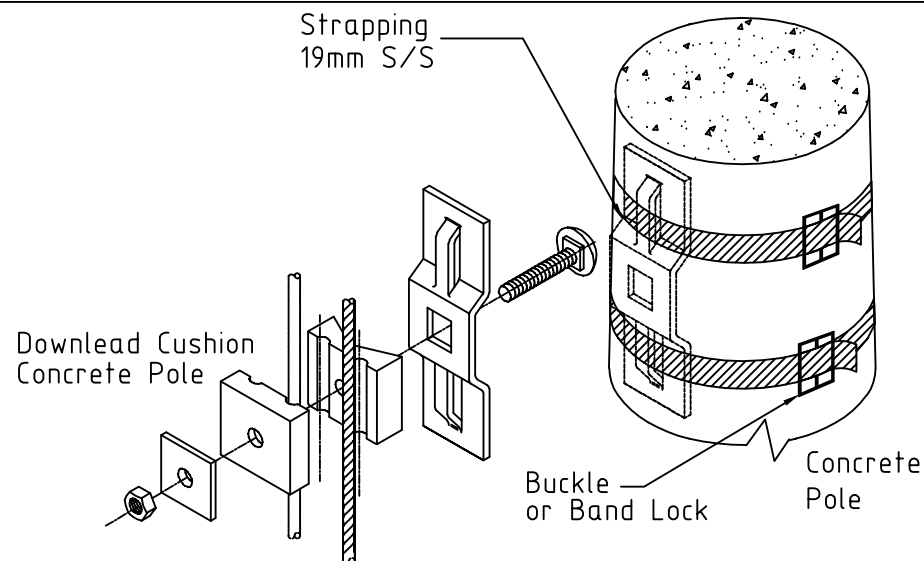
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Update the following -
lock nut to bolt hook
Band lock for S/S buckle
Cable support for Type 1

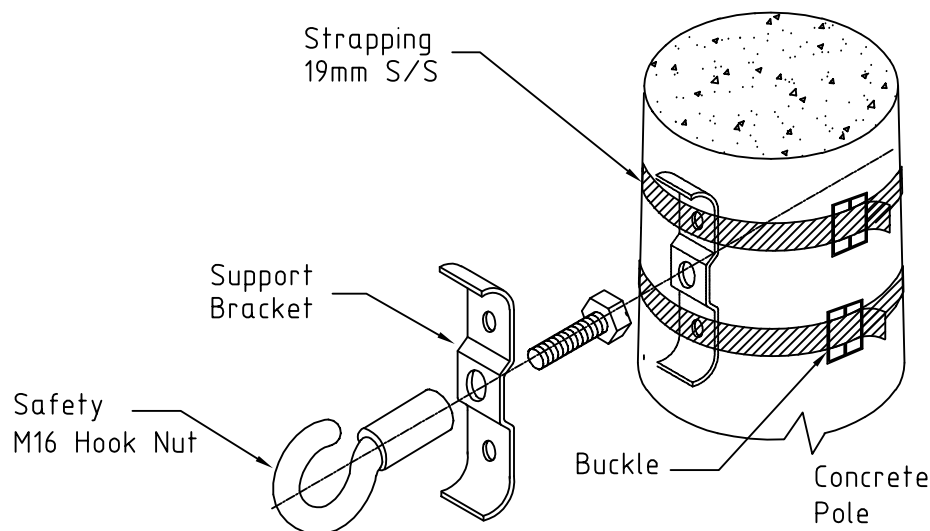
OVERHEAD
CONSTRUCTION
HOOK BOLT
TYPICAL ARRANGEMENT



FBN DOWNLOAD CUSHION TO WOOD POLE



FBN DOWNLOAD CUSHION TO CONCRETE POLE



FBN SAFETY HOOK TO CONCRETE POLE

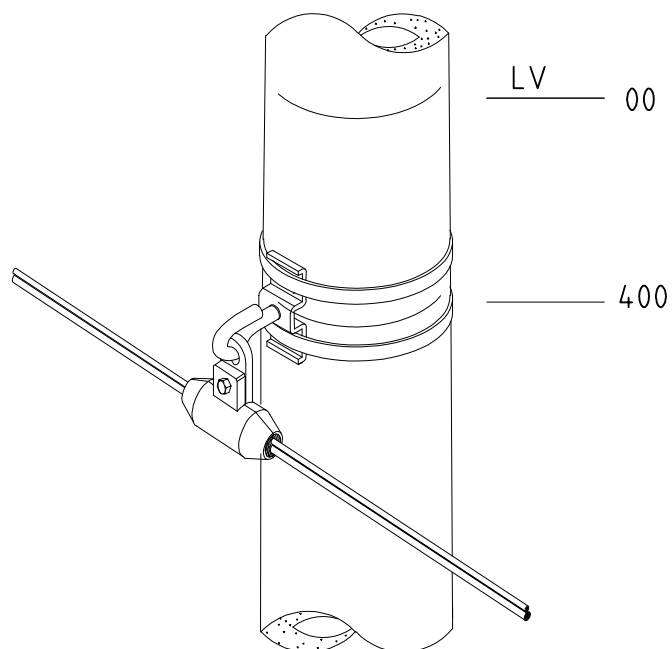
- Compliance to the ENERGEX overhead design and construction standards is required for all works.
- Fibre optic cable underground to aerial transition risers shall not be installed on any ENERGEX poles supporting plant, including transformers, sectionalisers, reclosers, air break switches, HV underground cable transitions.
- Stays (including sidewalk stays) are generally not permitted.

If exemption required, written ENERGEX approval must be obtained for each individual site.

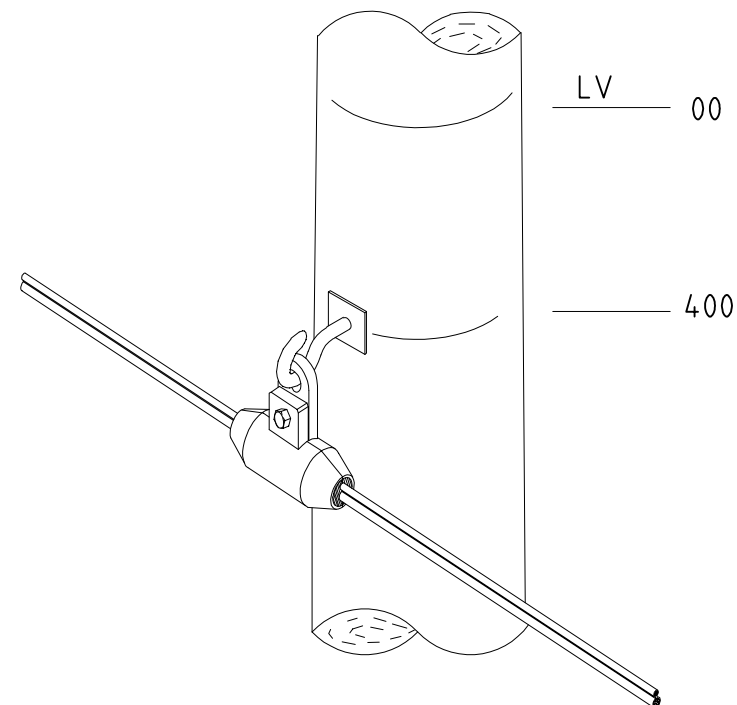
DESIGN AND CONSTRUCTION REQUIREMENTS

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OVERHEAD
ATTACHMENTS
TYPICAL FBN CABLE
ASSEMBLIES



CONCRETE POLE



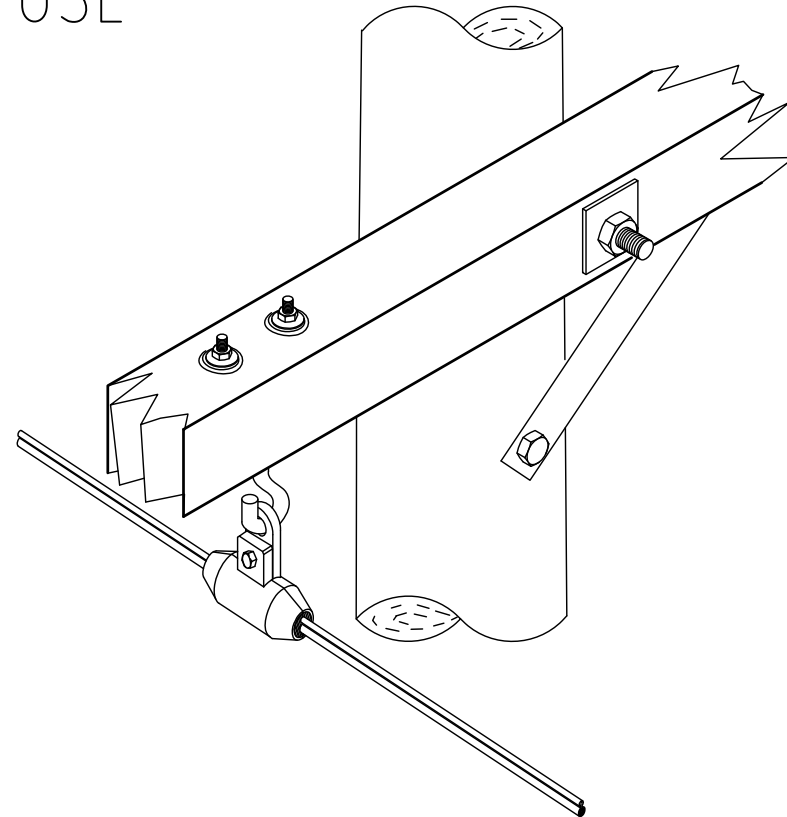
WOOD POLE

NOTE.

1. Maximum deviation 20° - TYPE 1, 2 and 3
2. For angles between 20° and 30° use the DOUBLE YOKE HANGER - TYPE 1 ONLY
(For Type 2 and 3 refer to NBN drawing manuals)
3. For angles greater than 20° use angle construction (see drawing 2.5)
4. Mechanical fuses are NOT to be used on the ENERGEX network
5. Weak Links are not permitted

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Update notes 1 and 2												

RESTRICTED USE

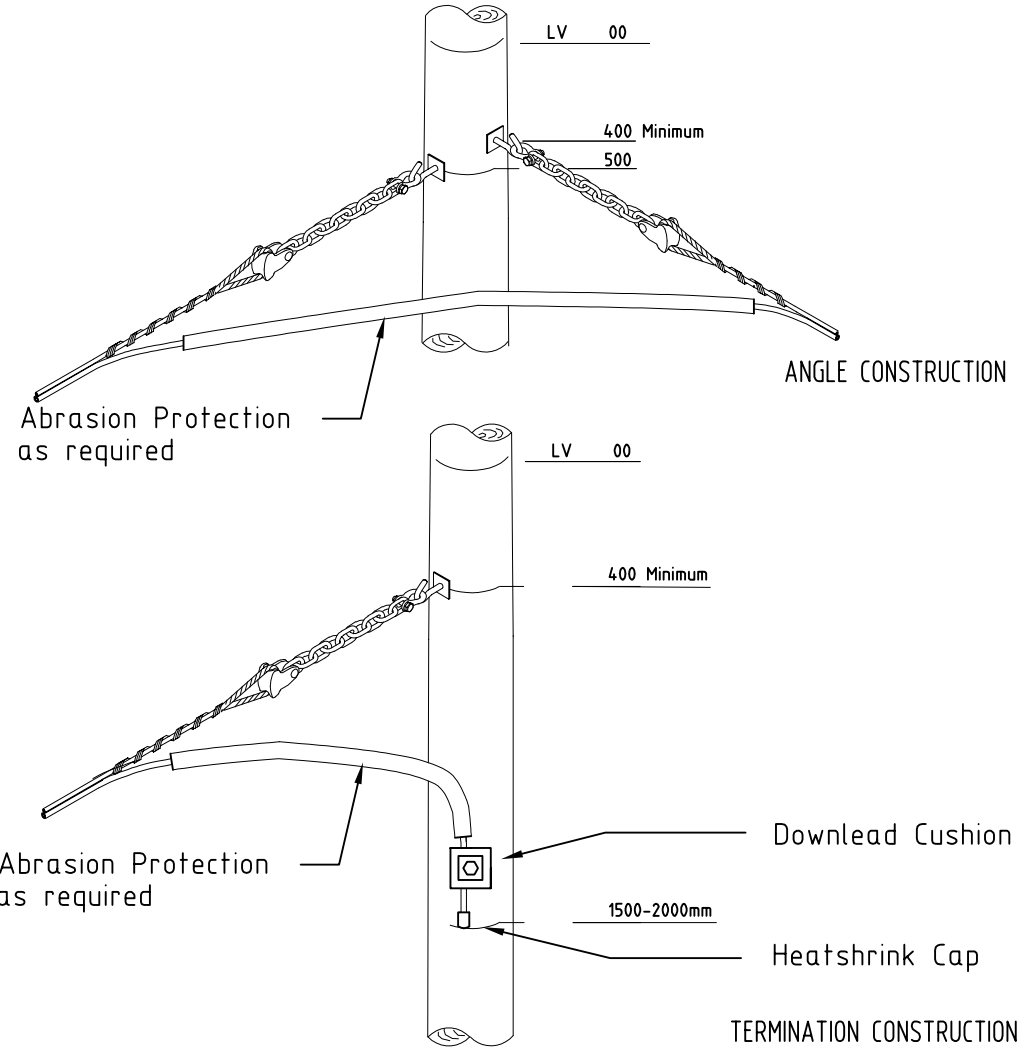


NOTE.

- 1 RESTRICTED USE. Prior ENERGEX approval must be given in each individual case before use
- 2 FBN only (no LV attached to cross arm)
- 3 This construction is only allowed on poles with pole mounted plant as a last option. Example - Transformers
- 4 This construction is not suitable for composite crossarms
- 5 Maximum deviation 10°
- 6 Mechanical fuses are NOT to be used on the ENERGEX network

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	OVERHEAD CONSTRUCTION													DATE	16/06/11	10822-A4		B				
	INTERMEDIATE TO X-ARM (RESTRICTED USE)													REC'D		SECT		PAGE				
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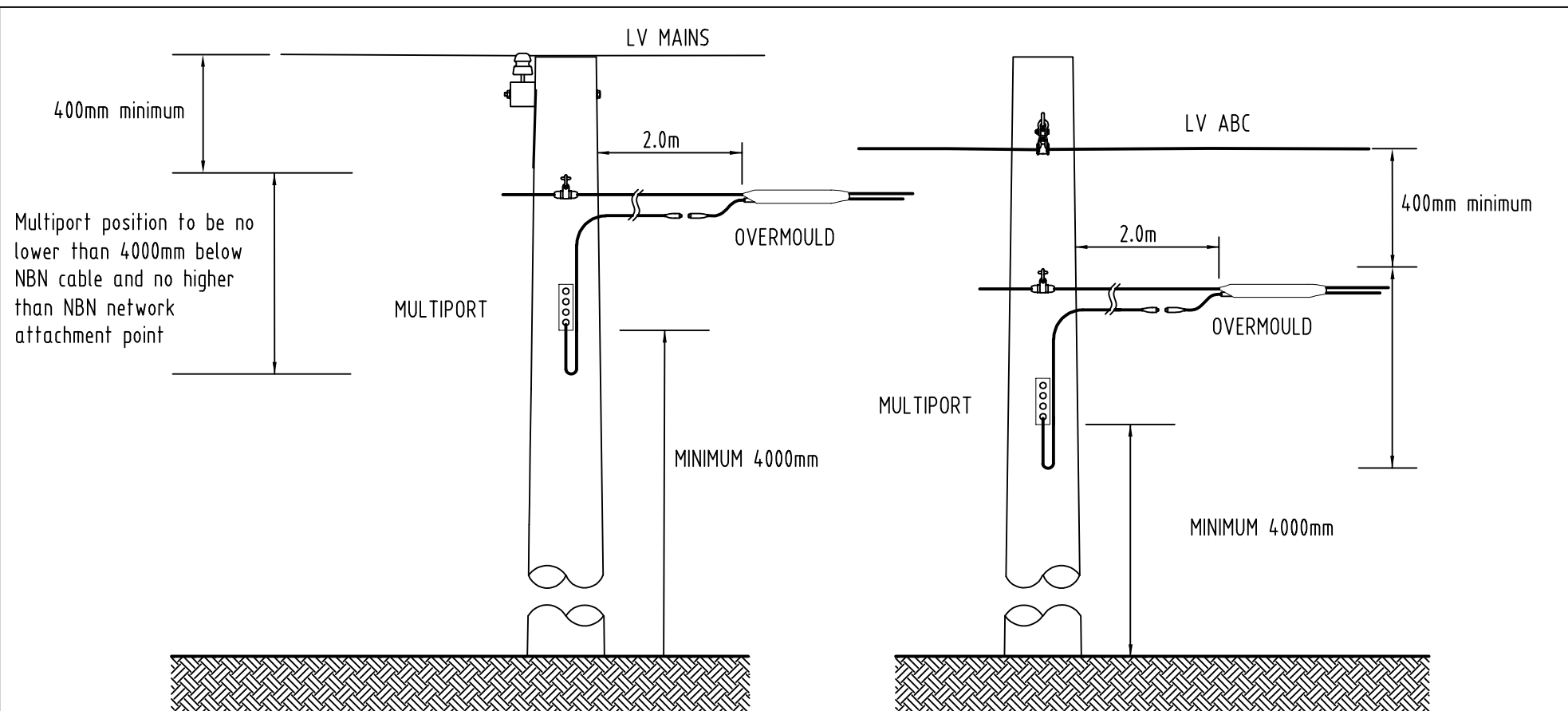
TYPE 1 CABLE



NOTE.

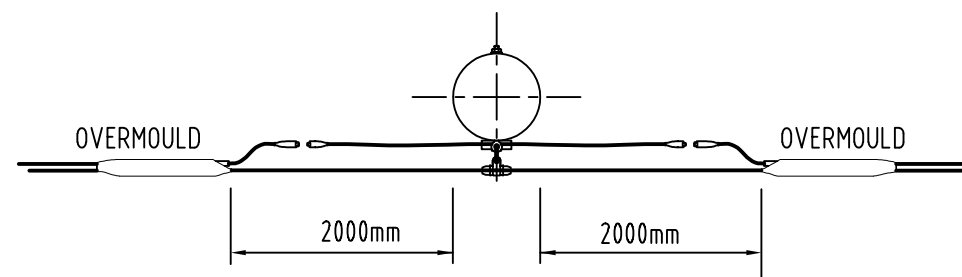
1. Maintain minimum bending radius
2. Type 2 and 3 angle construction are as per NBN drawing manuals
3. Mechanical fuses are NOT to be used on the ENERGEX network

A	ORIGINAL ISSUE		APPD F. ZAINI	CKD R. MARGANI	DRN P. RELF	Updated distances Remove Type 2 Update Note 2		 ©COPYRIGHT 2024 ENERGEX This drawing must not be reproduced in part or whole without written permission from ENERGEX	FIBRE BROADBAND NETWORKS		APP'D	R.ENGLISH	TECH STDS		AUTOCAD
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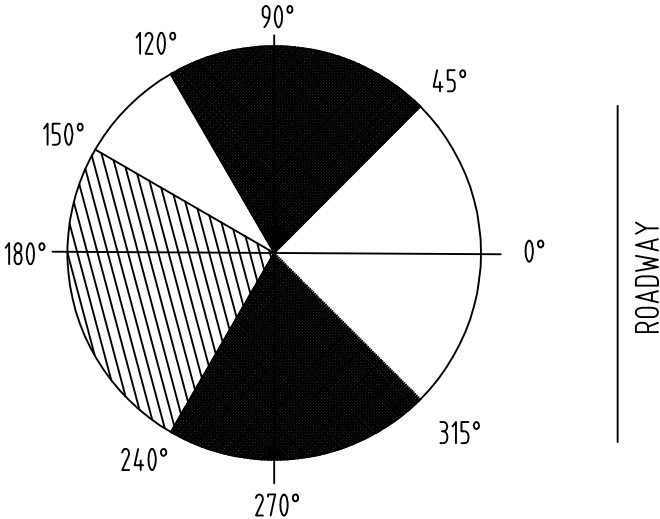
NOTES

1. FBN TO BE RUN ON SAME SIDE AS EXISTING BROADBAND CABLES
2. IF NO EXISTING BROADBAND CABLE RUN ON ROADSIDE
3. OVERMOULD CAN BE EITHER SIDE OF POLE
4. MINIMUM DISTANCE FOR OVERMOULD FROM POLE IS 2.0M FOR FOR INITIAL DESIGN TO ALLOW FOR FUTURE POLE REPLACEMENT



A	ORIGINAL ISSUE		F. ZAINI	R. MARGANI	P. RELF	Amend distances	 ©COPYRIGHT 2024 ENERGEX This drawing must not be reproduced in part or whole without written permission from ENERGEX	FIBRE BROADBAND NETWORKS		APP'D	R.ENGLISH	TECH STDS	AUTOCAD
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										FILE:			

FBN LOCATION ON POLE - For Risers and Multiports

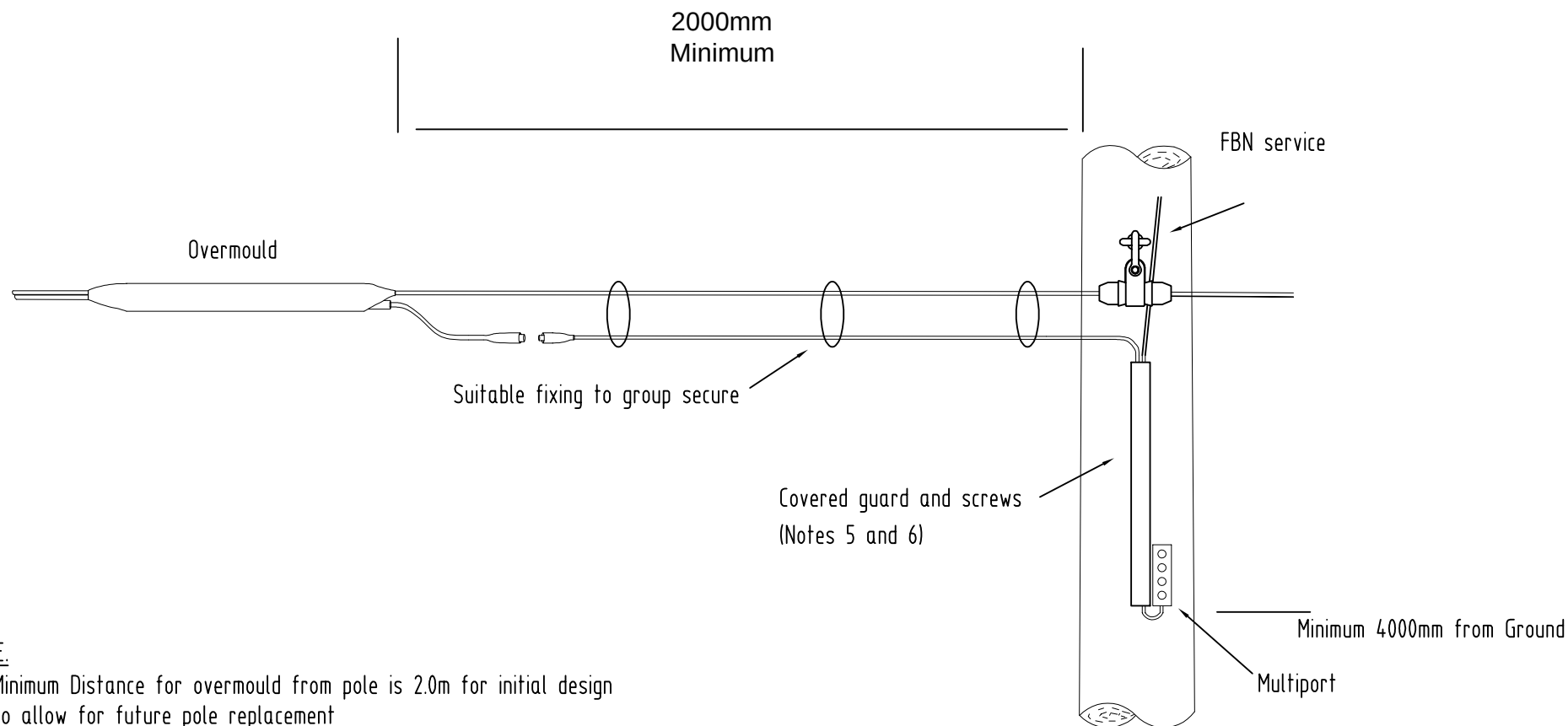


- APPROVED AND PREFERRED LOCATION OF ALL FBN RISER CABLE AND EQUIPMENT
- AREA TO BE AVOIDED (TO ALLOW LADDER ACCESS)
- AREAS PERMITTED WITH PRIOR APPROVAL

NOTES :

1. Standard clearances to be observed.
2. FBN fittings are to be mounted on a pole in locations which allow for climbing and working space at the LV crossarm.
3. FBN Aerial cable must be on road side (or same side as other 3rd party attachment)

ORIGINAL ISSUE A	DATE 25/06/24	APPD F. ZAINI	CKD R. MARGANI	DRN P. RELF	UPDATED FBN LOCATION ON POLE	 ©COPYRIGHT 2024 ENERGEX This drawing must not be reproduced in part or whole without written permission from ENERGEX	FIBRE BROADBAND NETWORKS OVERHEAD FBN RISER CABLE & EQUIPMENT LOCATION ON POLE		APP'D	R.ENGLISH	TECH STDS		AUTOCAD
									DATE	16/06/11	10822-A4		C
									REC'D		SECT	PAGE	
									CKD	P.JUDGE	2	12	
									DWN	P.RELF	SHEET 1 OF 1		FILE:



NOTE.

1. Minimum Distance for overmould from pole is 2.0m for initial design to allow for future pole replacement
2. Ensure agreed number only of multiple cables are fastened together and to pole in a tidy and secure manner
3. Shall not be attached to steel street light poles
4. Excess or spare loops must follow agreed NBN allowance
5. Cover guard to be made of non-conductive/non metallic material
6. Screws attaching cover guard to be minimum of 50mm in length
7. Maximum one cover guard allowed per pole

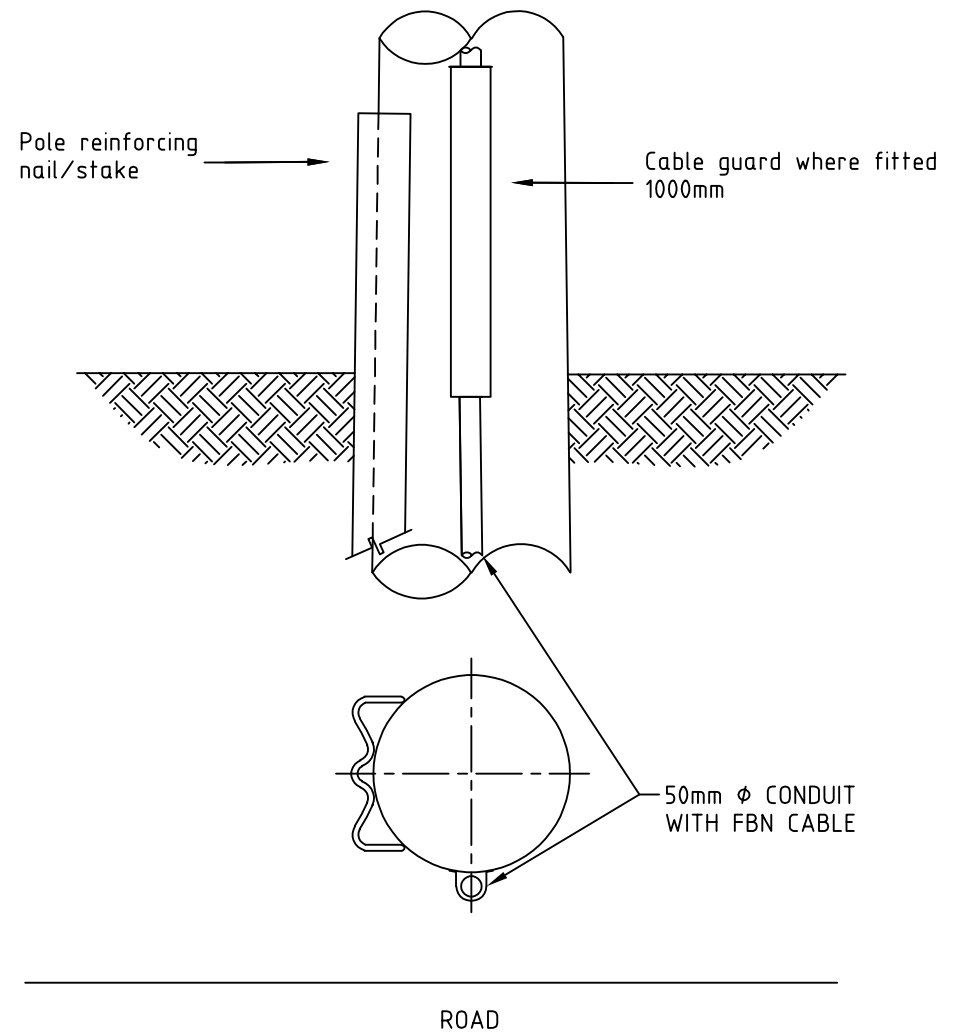
A	ORIGINAL ISSUE		FIBRE BROADBAND NETWORKS		 © COPYRIGHT 2024NERGEX This drawing must not be reproduced in part or whole without written permission from ENERGEX	APP'D	R.ENGLISH	TECH STDS	AUTOCAD	
	D	DATE				25/06/24	DATE	16/06/11	10822-A4	D
	APPD	F. ZAINI				REC'D		SECT	PAGE	
	CKD	R. MARGANI				CKD	P.JUDGE	2	13	
	DRN	P. RELF				DWN	P. RELF	SHEET 1 OF 1		
AMEND NOTES 4, and 6 UPDATE GROUND CLEARANCE				FILE:						

NOTES

1. FBN RISER TO BE INSTALLED ON ROADSIDE WHERE POSSIBLE
2. SINGLE CONDUIT ONLY FOR MULTIPLE DOWN LEADS
3. MAXIMUM CONDUIT SIZE 50mm OUTSIDE DIAMETER - WHITE
4. CABLE GUARD TO BE NON CONDUCTIVE/NON METALLIC
5. CABLE GUARD TO BE ATTACHED WITH 50MM TEK SCREWS
6. CABLE GUARD NOT TO BE FIXED USING NAILS
7. NUMBER OF RISER POLES IN ANY LINE TO BE MINIMIZED.

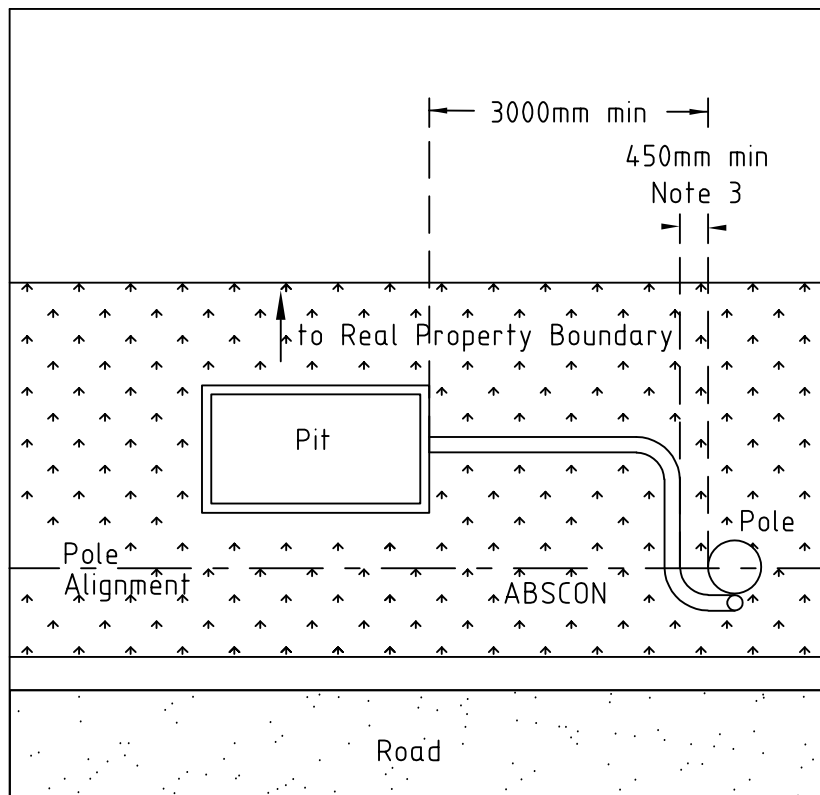
A RISER (INCLUDING OH SERVICE DROP RISERS) ON EVERY POLE IS NOT PERMITTED

8. AVOID REINFORCING NAIL POSITION ON POLE
9. AVOID OBSCURING POLE NUMBER OR OTHER IDENTIFIERS ON THE POLE



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	E	DATE	25/06/24				DATE	16/06/11	10822-A4		E	
	APPD	F. ZAINI					REC'D		SECT	PAGE		
	CKD	R. MARGANI					CKD	P.JUDGE	2	15		
	DRN	P. Relf					DWN	P. RELF	SHEET 1 OF 1			
New note 5												

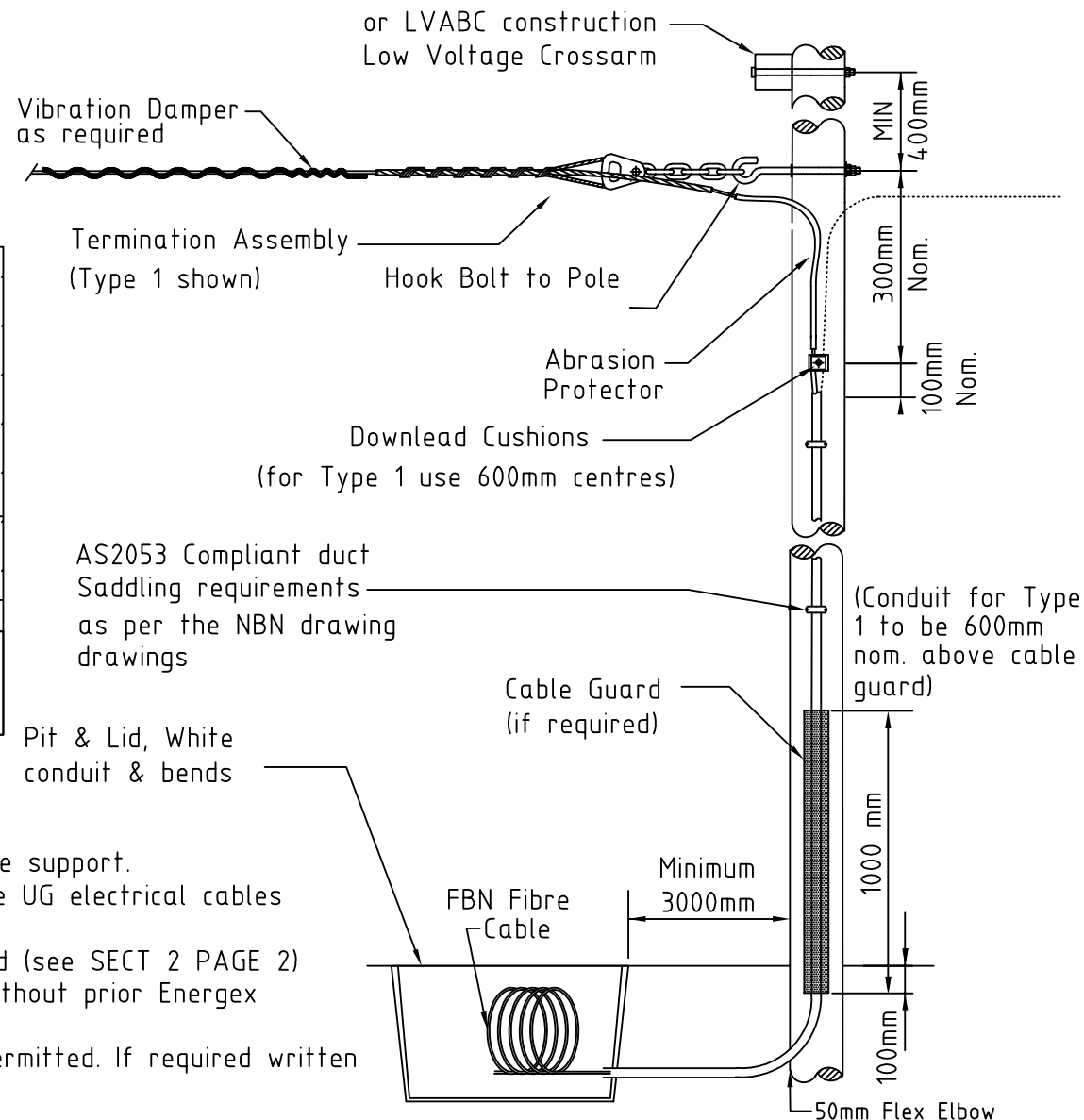
New note 5



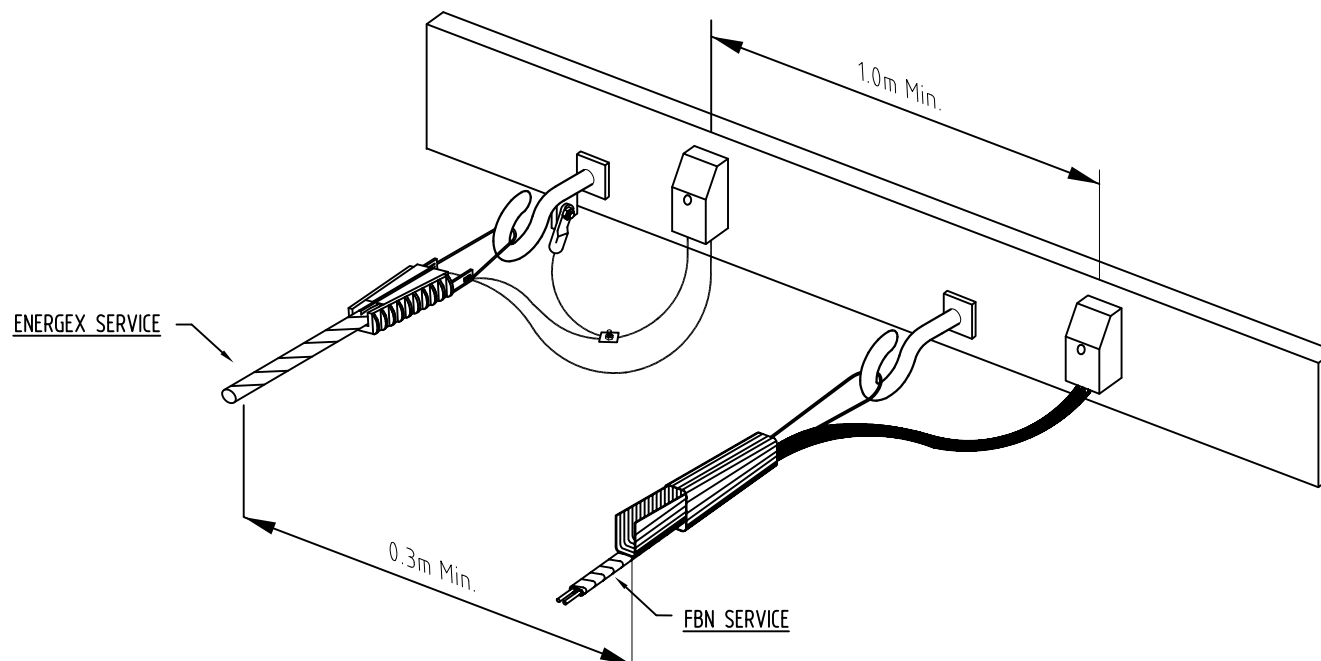
UG PLAN VIEW OF PIT LAYOUT

NOTES:

1. Saddles and cushions as required to provide adequate support.
2. Pit to be at least 900mm from RP to allow for future UG electrical cables
3. Conduit to be minimum 450mm from pole
4. Risers not permitted on poles with HV plant attached (see SECT 2 PAGE 2)
5. Risers are not permitted on corner or T-off poles without prior Energex approval, due to location and loadings.
6. Stays (including sidewalk stays) are generally not permitted. If required written ENERGEX approval must be obtained



A	ORIGINAL ISSUE	 energex ©COPYRIGHT 2024 ENERGEX This drawing must not be reproduced in part or whole without written permission from ENERGEX			FIBRE BROADBAND NETWORK	OVERHEAD FBN/UGT FBN RAISER CONSTRUCTION (FBN OVERHEAD TO UNDERGROUND)	APP'D	R.ENGLISH	TECH STDS		AUTOCAD
	DATE						25/06/24	10822-A4		F	
	APP'D						F. ZAINI	REC'D		SECT	PAGE
	CKD						R. MARGANI	CKD	P.JUDGE	2	16
	DRN						P. Relf	DWN	P.RELF	SHEET 1 OF 1	
Add AS requirement for duct and update saddling requirements								FILE:			



NOTE:

1. 1000mm CLEARANCE BETWEEN FBN CONNECTION BOX AND THE CLOSEST CONNECTION OR SERVICE TAIL.
2. 300mm CLEARANCE FROM FBN SERVICE TO THE CLOSEST CONNECTION OR SERVICE TAIL
3. J-HOOK MUST BE RATED AT LEAST 1kN
4. CLOSED EYE J-HOOKS TO BE USED ON FBN SERVICES

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			OVERHEAD CONSTRUCTION OVERHEAD SERVICE CLEARANCE TO FBN AT PREMISE POINT ATTACHMENT		DATE	16/06/11	10822-A4	A
					REC'D		SECT	PAGE
					CKD	P.JUDGE	2	22
					DWN	P. RELF	SHEET 1 OF 1	FILE:

FIBRE BROADBAND NETWORKS STANDARDS

Section 3 – Overhead Stringing Tables

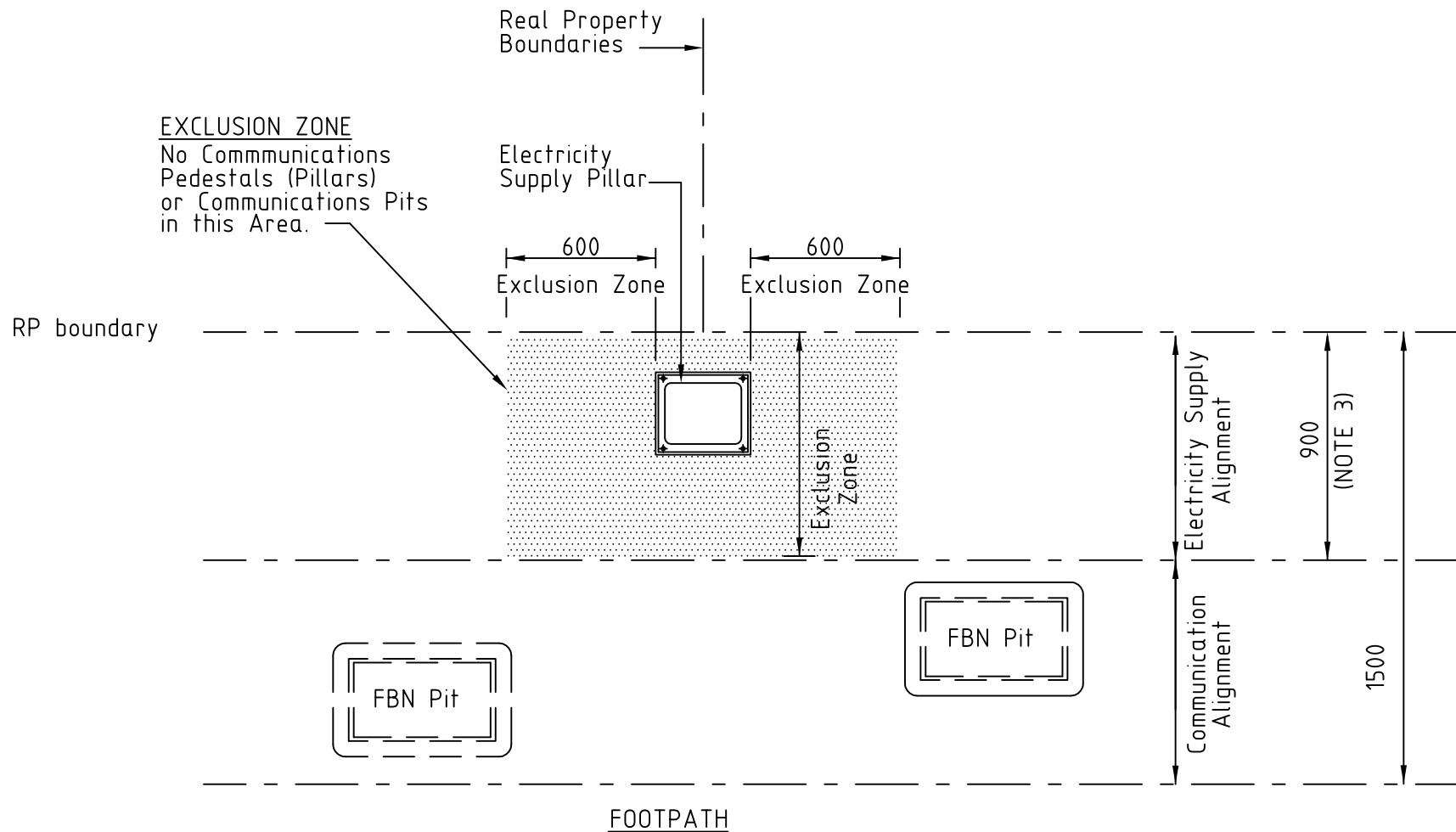
STRINGING TABLES

- FBN/NBN Stringing tables have been removed from this manual.
- For FBN/NBN sag and tension tables refer to NBN Co Ltd Technical Reference document.
- Ensure clearances in section 1 of this document (10822-A4) are maintained.
- When attaching FBN/NBN, it must be ensured that the pole tip load is not exceeded.

B	DATE	11/11/11	 energex © COPYRIGHT 2011 ENERGEX This drawing must not be reproduced in part or whole without written permission from ENERGEX	FIBRE BROADBAND NETWORKS		WORD			
APP'D	R. ENGLISH			OVERHEAD STRINGING TABLE	APP'D	R. ENGLISH	10822-A4 A		
CKD	P. RELF				DATE	16/06/11	SECTION	SUB-SECT.	
ATHR	P. RELF				REC'D		3	1	
Remove all stringing tables from manual					CKD	K. GOSDEN	Sheet 1 of 1		
					AUTHR	P. CULLEN	FILE		

FIBRE BROADBAND NETWORKS STANDARDS

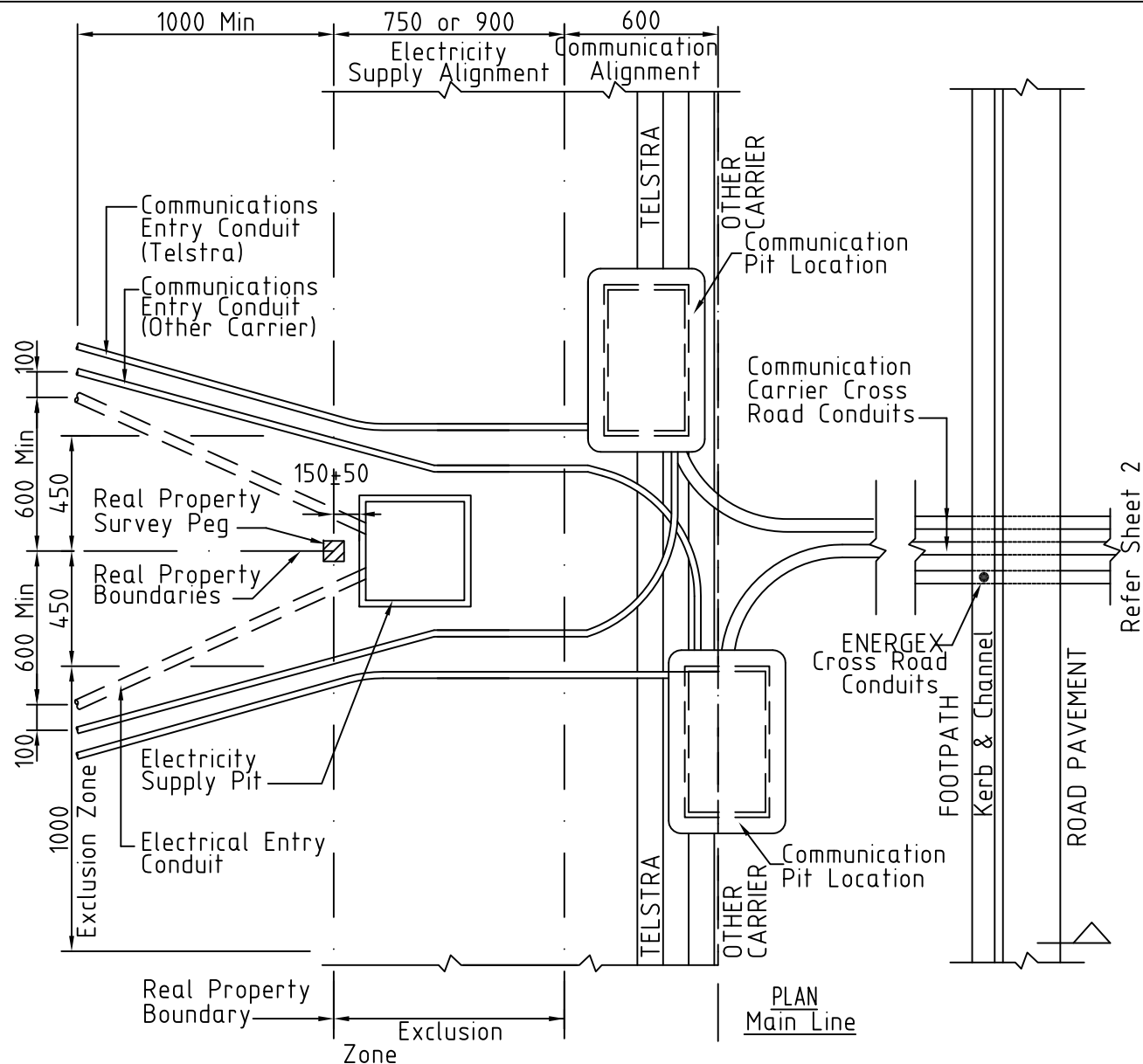
Section 4 - Underground



Notes

1. Typical pillar position and service allocation see UDC section C2
2. Drawing based on UDC C2 4.6 sheet 2
3. Refer to specific council alignments

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			UNDERGROUND FBN PIT POSITIONING		DATE	16/06/11	10822-A4	A
					RECD		SECTION 4	SUB-SECT. 1
					CKD	P. JUDGE	SHT 1 OF 1	
					DWN	P. RELF	FILE	



Notes

1. Drawing based on UDC C2 4.5 sheet 1

A ORIGINAL ISSUE

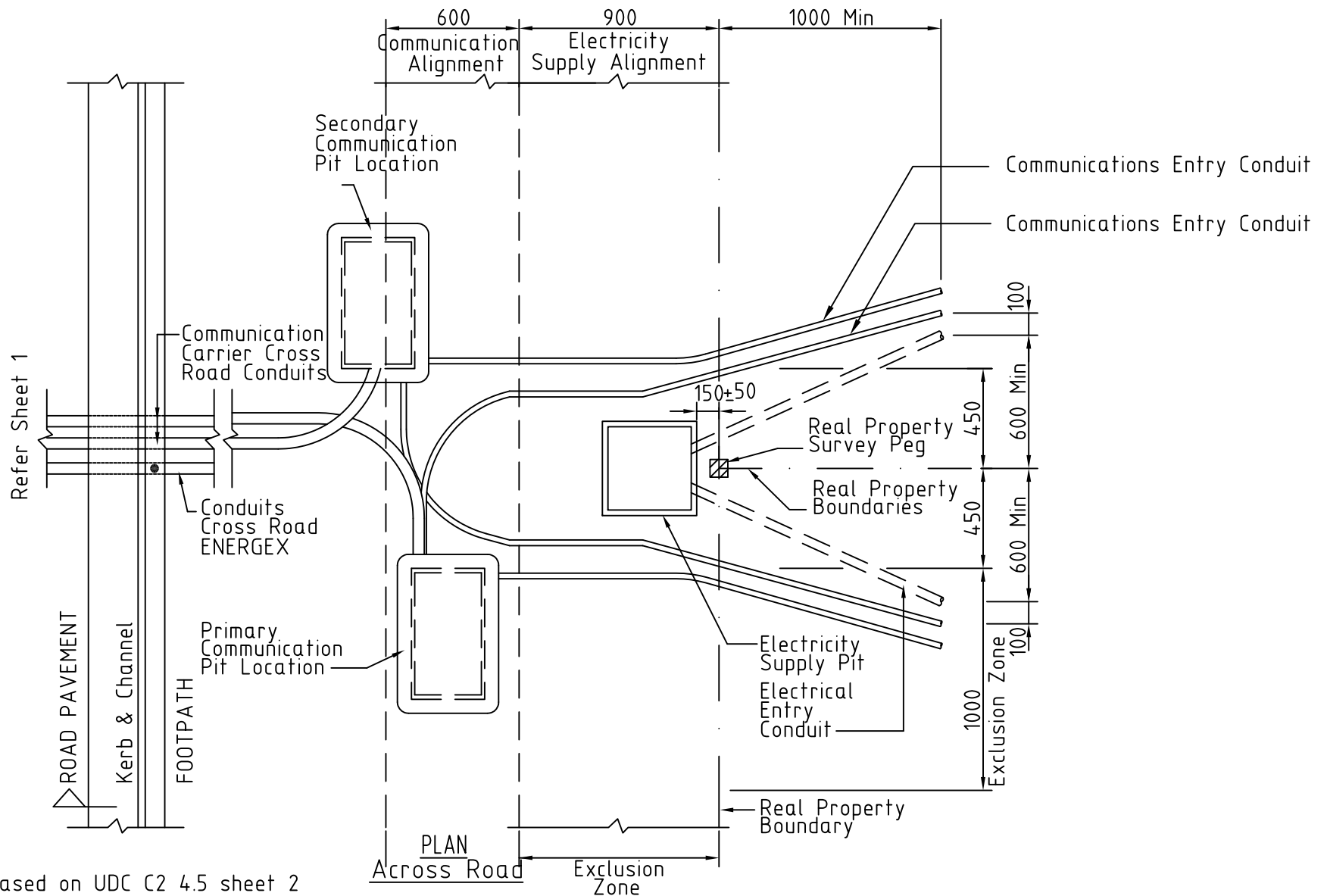


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FIBRE BROADBAND NETWORKS

UNDERGROUND FBN PIT POSITIONING

APP'D	R. ENGLISH	TECH STDS	CAD
DATE	16/06/11	10822-A4	A
RECD		SECTION 4	SUB-SECT. 2
CKD	P. JUDGE	SHT 1	OF 1
DWN	P. RELF	FILE	



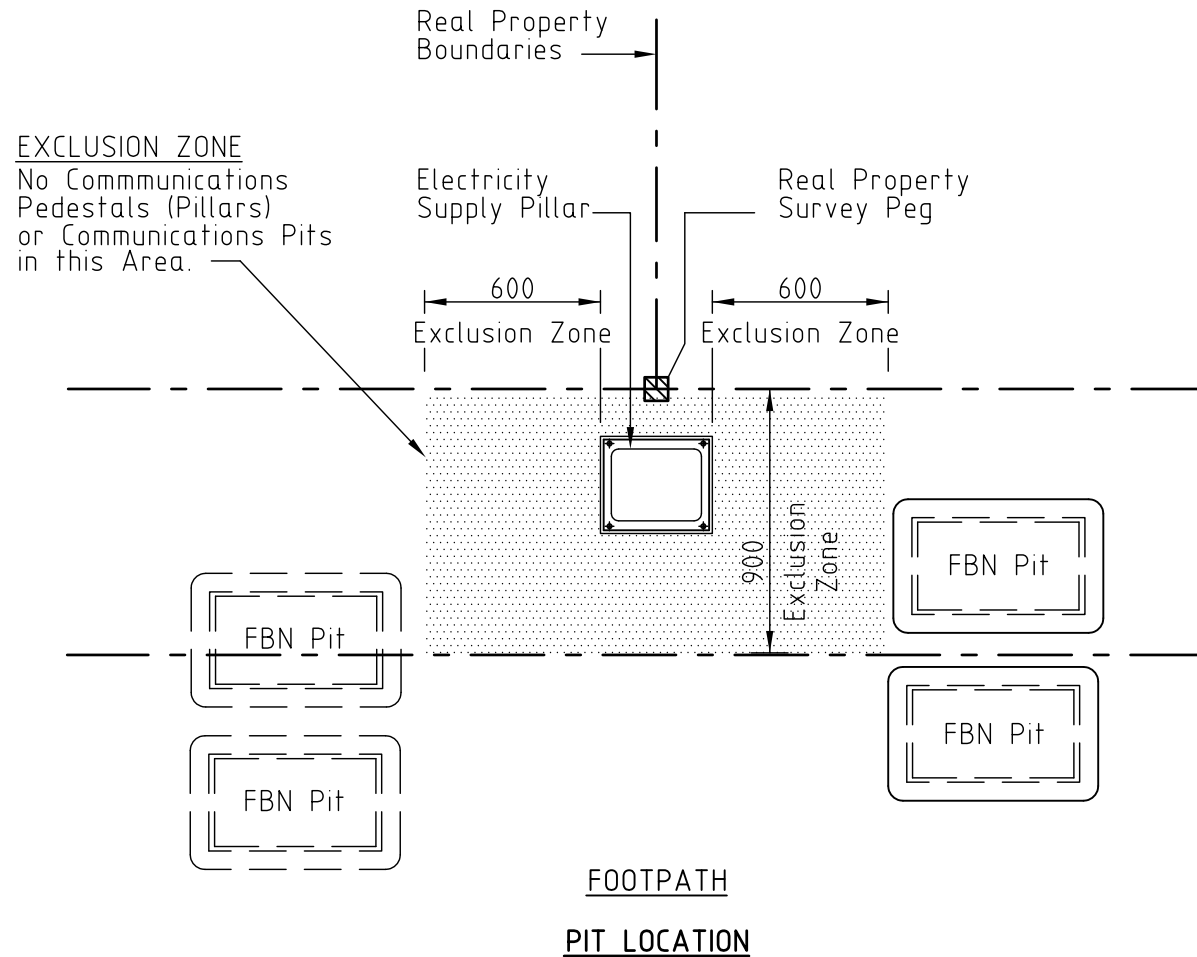
Notes

1. Drawing based on UDC C2 4.5 sheet 2

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			UNDERGROUND FBN PIT POSITIONING		DATE	16/06/11	10822-A4		A
					RECD		SECTION	SUB-SECT.	
					CKD	P.JUDGE	4	3	
					DWN	P.RELF	SHT 1 OF1		
							FILE		

FIBRE BROADBAND NETWORKS STANDARDS

Section 5 – Underground Joint Use Trench



Notes

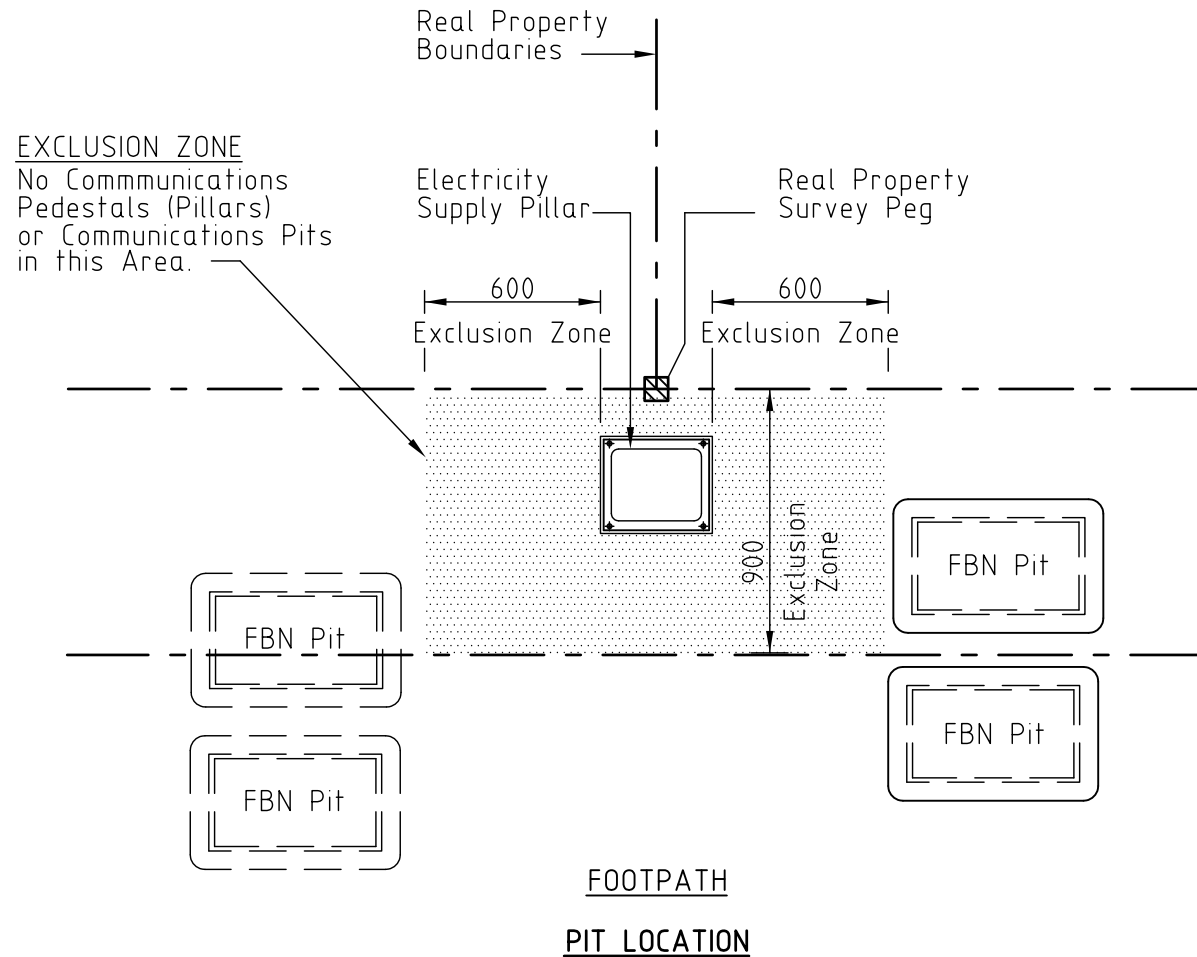
1. Depth of pit or conduits on Electricity Supply alignment limited to 650mm
2. Deeper FBN pits shall not be in the electrical alignment
3. Typical pillar position and service allocation see UDC section C2

A	ORIGINAL ISSUE				FIBRE BROADBAND NETWORKS		APP'D	R.ENGLISH	TECH STDS		CAD	
	B	DATE	23/2/16	APPD			J.LANSLEY	DATE	16/06/11	10822-A4		B
	CKD			DRN	P. RELF	RECD		SECTION	SUB-SECT.			
	UPDATE NOTE 1 TO 650mm								CKD	P.JUDGE	5	1
									DWN		P.RELF	SHT 1 OF1
						FILE						

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	CIVIL WORKS - JOINT USE TRENCH FBN PIT LOCATION	



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Notes

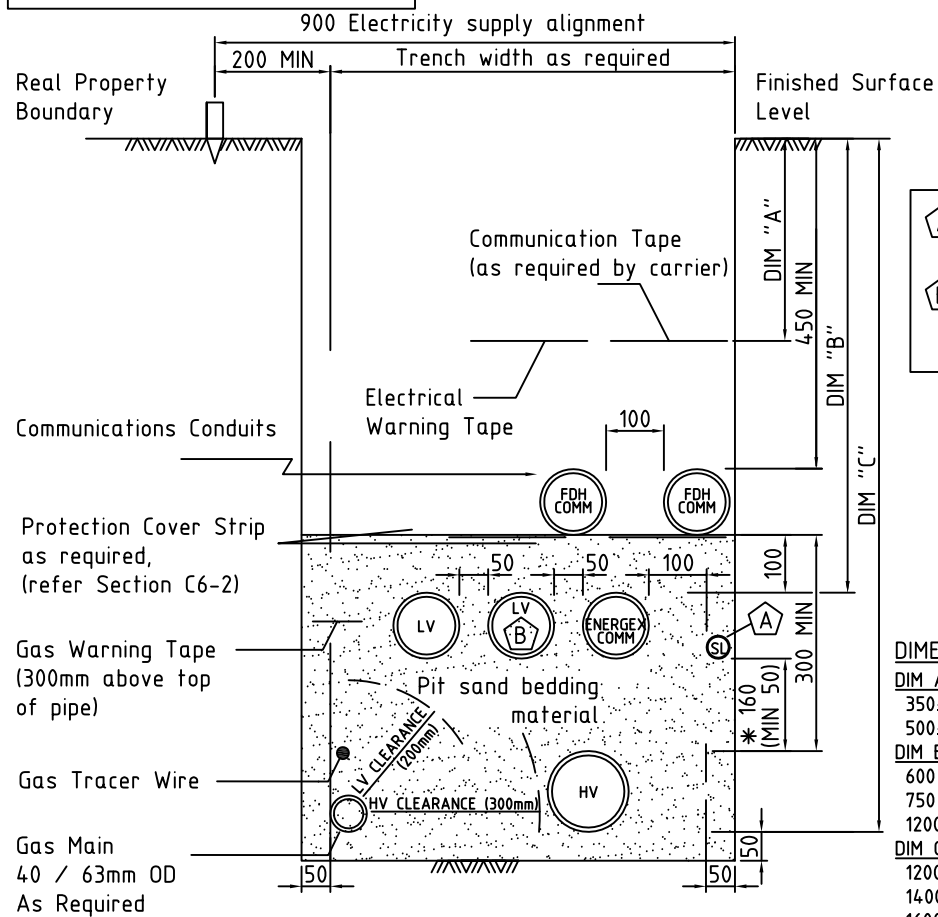
1. Depth of pit or conduits on Electricity Supply alignment limited to 650mm
2. Deeper FBN pits shall not be in the electrical alignment
3. Typical pillar position and service allocation see UDC section C2

A	ORIGINAL ISSUE		FIBRE BROADBAND NETWORKS		APP'D	R.ENGLISH	TECH STDS		CAD	
	B	DATE			23/2/16	DATE	16/06/11	10822-A4		B
	APPD	J.LANSLEY			RECD		SECTION	SUB-SECT.		
	CKD				CKD	P.JUDGE	5	1		
	DRN	P. RELF			DWN	P.RELF	SHT 1		OF 1	
UPDATE NOTE 1 TO 650mm				CIVIL WORKS - JOINT USE TRENCH FBN PIT LOCATION		FILE				
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NOTE:
Joint Use trench Area Only

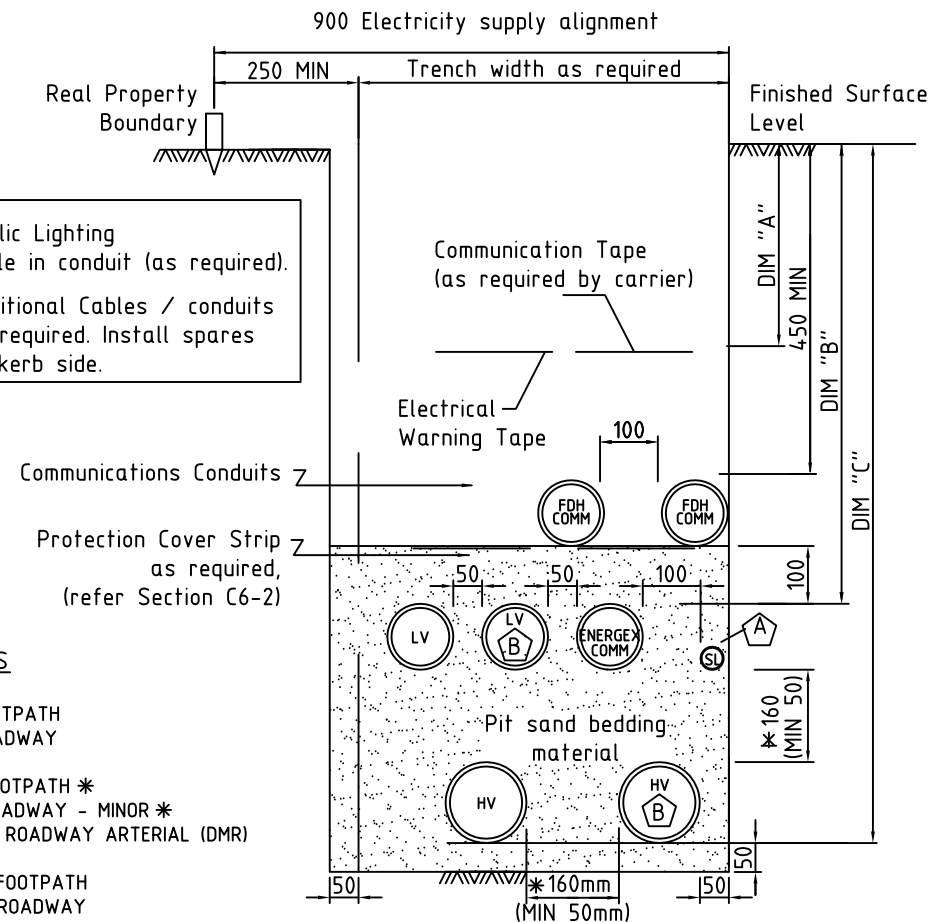


WITH GAS

- A Public Lighting cable in conduit (as required).
- B Additional Cables / conduits as required. Install spares on kerb side.

DIMENSIONS

- DIM A:
350±50 FOOTPATH
500±50 ROADWAY
- DIM B:
600 MIN FOOTPATH *
750 MIN ROADWAY - MINOR *
1200 MIN - ROADWAY ARTERIAL (DMR)
- DIM C:
1200 MAX FOOTPATH
1400 MAX ROADWAY
1600 MAX - ROADWAY ARTERIAL (DMR)



WITHOUT GAS

Notes

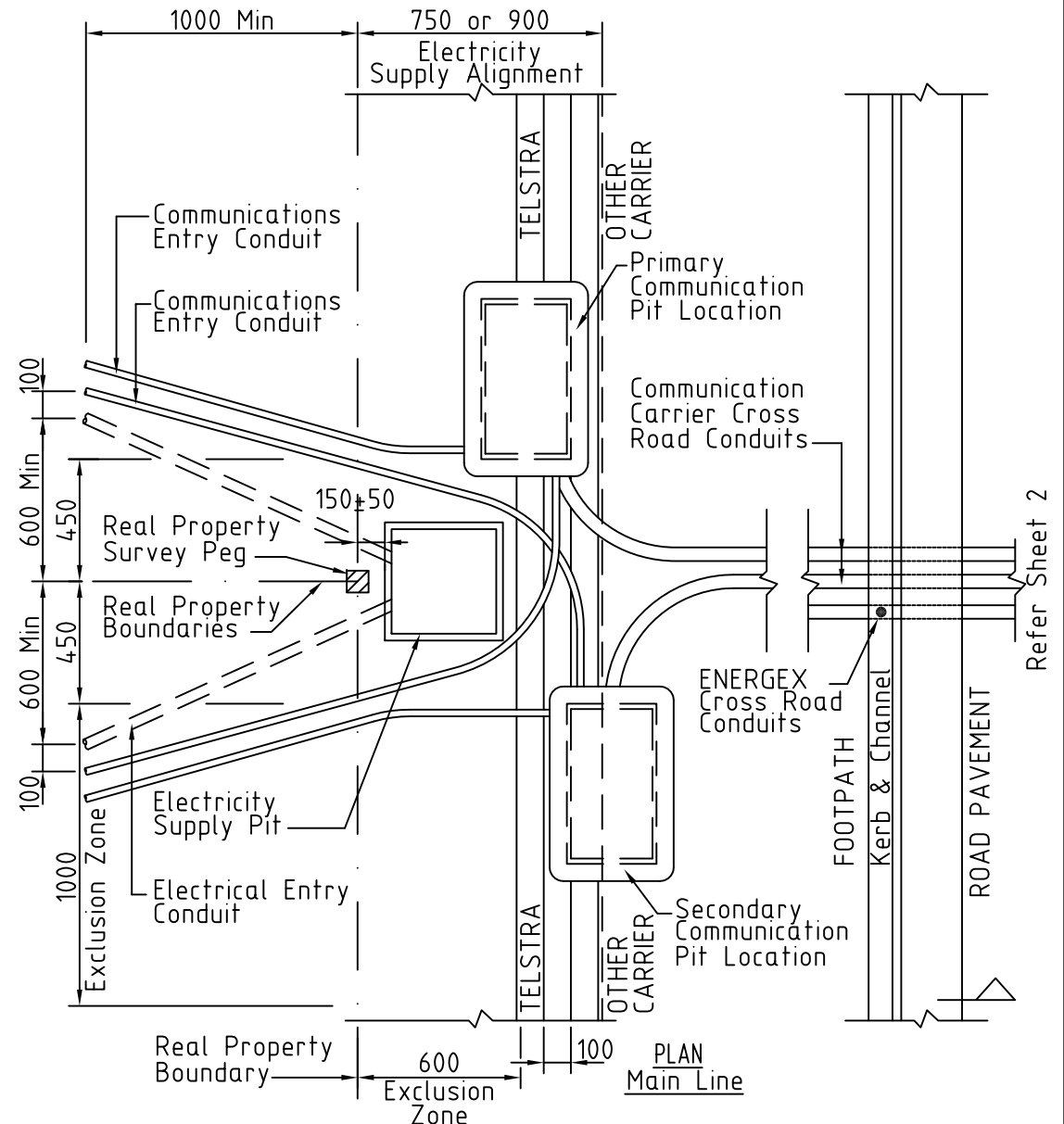
- Maximum number of communications conduits limited to 2 as shown

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			CIVIL WORKS - JOINT USE TRENCH EXCAVATION AND REINSTATEMENT UNDERGROUND ELECTRICAL ALLOCATIONS FOOTPATH ON PUBLIC ROADS	DATE	16/06/11	10822-A4		A
				RECD		SECTION	SUB-SECT	
				CKD	P.JUDGE	5	2	
				DWN	P.RELF	SHT 1 OF 1		
				FILE				

Joint Use trench Area Only

NOTES:

1. Joint use trench area only
2. When communications pits are located over any electricity cables additional mechanical protection using approved polymeric covers or 50mm concrete tiles shall be placed 25mm beneath the communication pit.
3. The communications carrier's installation contractor shall excavate by hand, to install communications pits after the joint use trench is backfilled.
4. Primary and Secondary communication pit locations shown for the situation where conduits service corridor allows both electricity and communication in the same space.
5. Maximum pit depth in Electricity Supply alignment is to be 500mm



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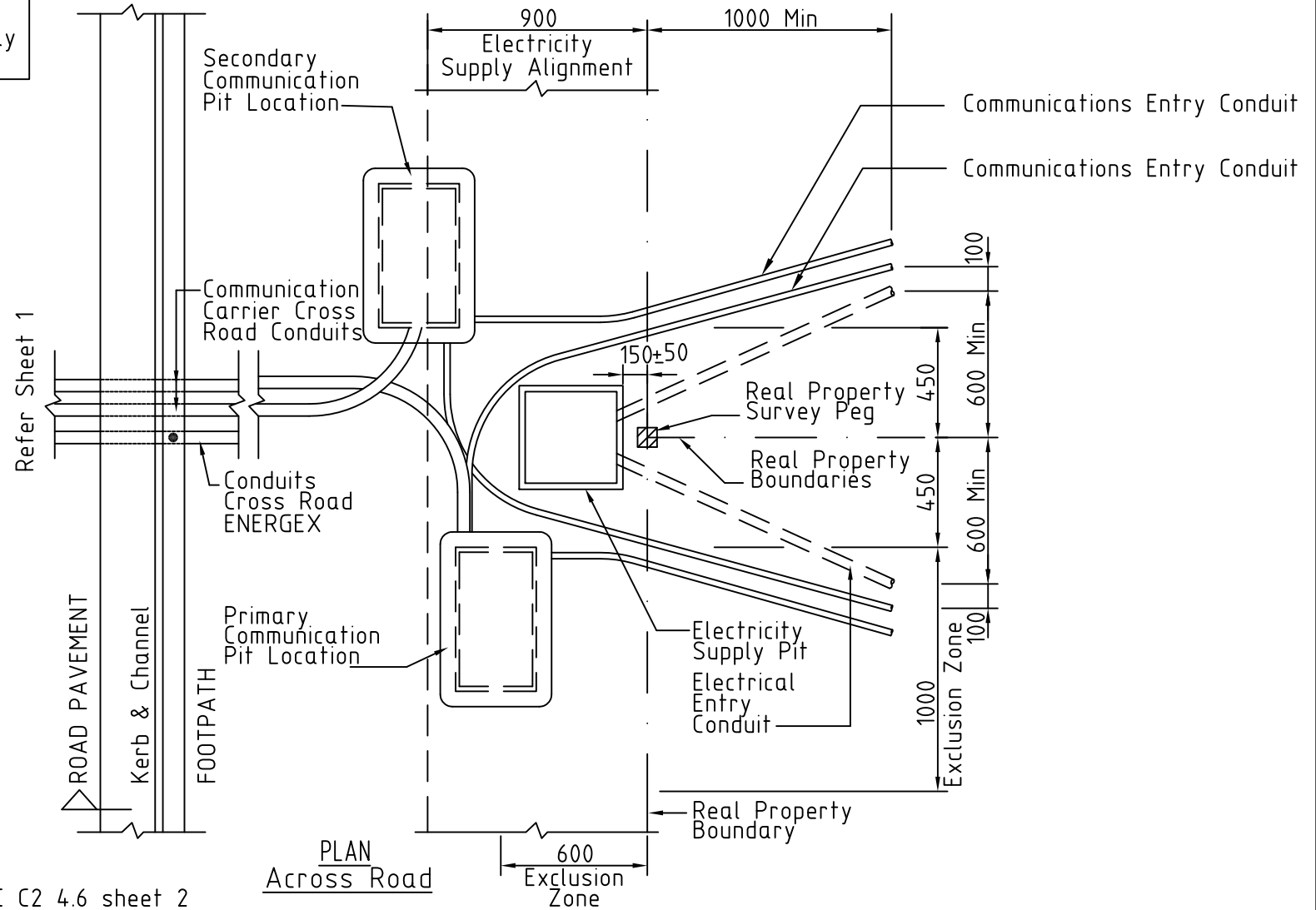
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FIBRE BROADBAND NETWORKS

CIVIL WORKS – JOINT USE TRENCH
EXCAVATION AND REINSTATEMENT
PILLAR POSITIONING & SERVICE ALLOCATION
COMMUNICATIONS SUPPLY CABLES & PITS

APP'D	R.ENGLISH	TECH STDS	CAD
DATE	16/06/11	10822-A4 A	
RECD		SECTION 5	SUB-SECT. 3
CKD	P.JUDGE	SHT 1 OF 1	
DWN	P.RELF	FILE	

NOTE:
Joint Use trench Area Only



Notes

1. Drawing based on UDC C2 4.6 sheet 2
2. Maximum pit depth in Electricity Supply alignment is to be 500mm

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			CIVIL WORKS - JOINT USE TRENCH EXCAVATION AND REINSTATEMENT PILLAR POSITIONING & SERVICE ALLOCATION COMMUNICATIONS SUPPLY CABLES & PITS	DATE	16/06/11	10822-A4		A
				RECD		SECTION	SUB-SECT.	
				CKD	P.JUDGE	5	4	
				DWN	P.RELF	SHT 1 OF1		
				FILE				

NOTE:

Joint Use trench Area Only

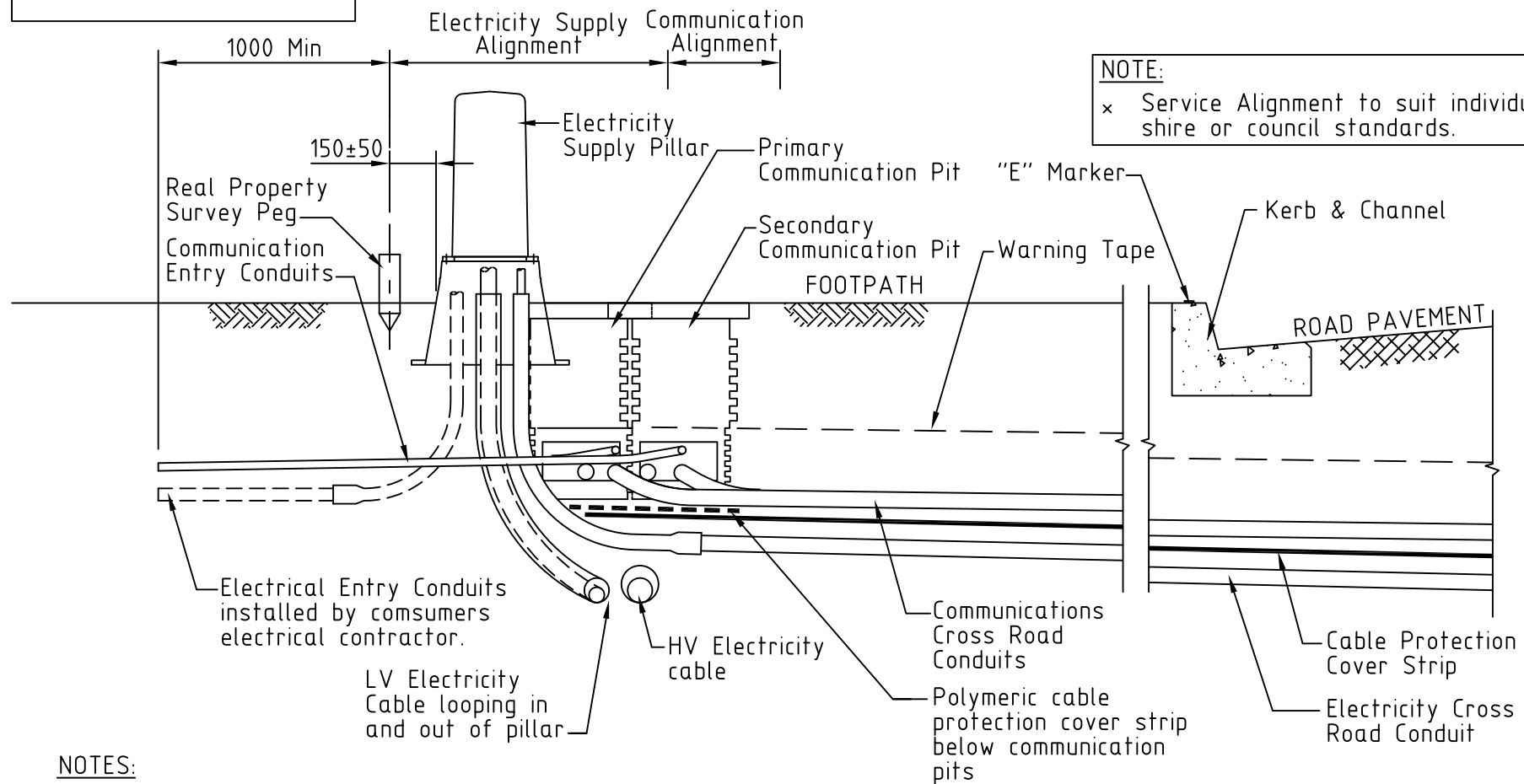
Notes:

1. The following shall be located in the communication corridor of the footpath:
 - Communication conduits to be located greater than 450mm below finished surface level.
 - Trunk or major communication conduits, or Trunk optical fibre.
2. In commercial and industrial areas communications conduits are not to be in the same trench as ENERGEXs cables/conduits.
3. Refer to Section 1 for relevant council footpath allocation for electricity services.
4. Minimum depths as required by Code of Practice Works.

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		CIVIL WORKS - JOINT USE TRENCH EXCAVATION AND REINSTATEMENT UNDERGROUND ELECTRICAL ALLOCATIONS FOOTPATH ON PUBLIC ROADS	DATE	16/06/11	10822-A4		A
			RECD		SECTION	SUB-SECT	
			CKD	P.JUDGE	5	5	
			DWN	P.RELF	SHT 1 OF1		
			FILE				

NOTE:

Joint Use trench Area Only

**NOTES:**

1. The diameter of communication conduits to be established from the works plan.
2. All communications conduits shall be plugged.
3. All electricity conduits shall be plugged.

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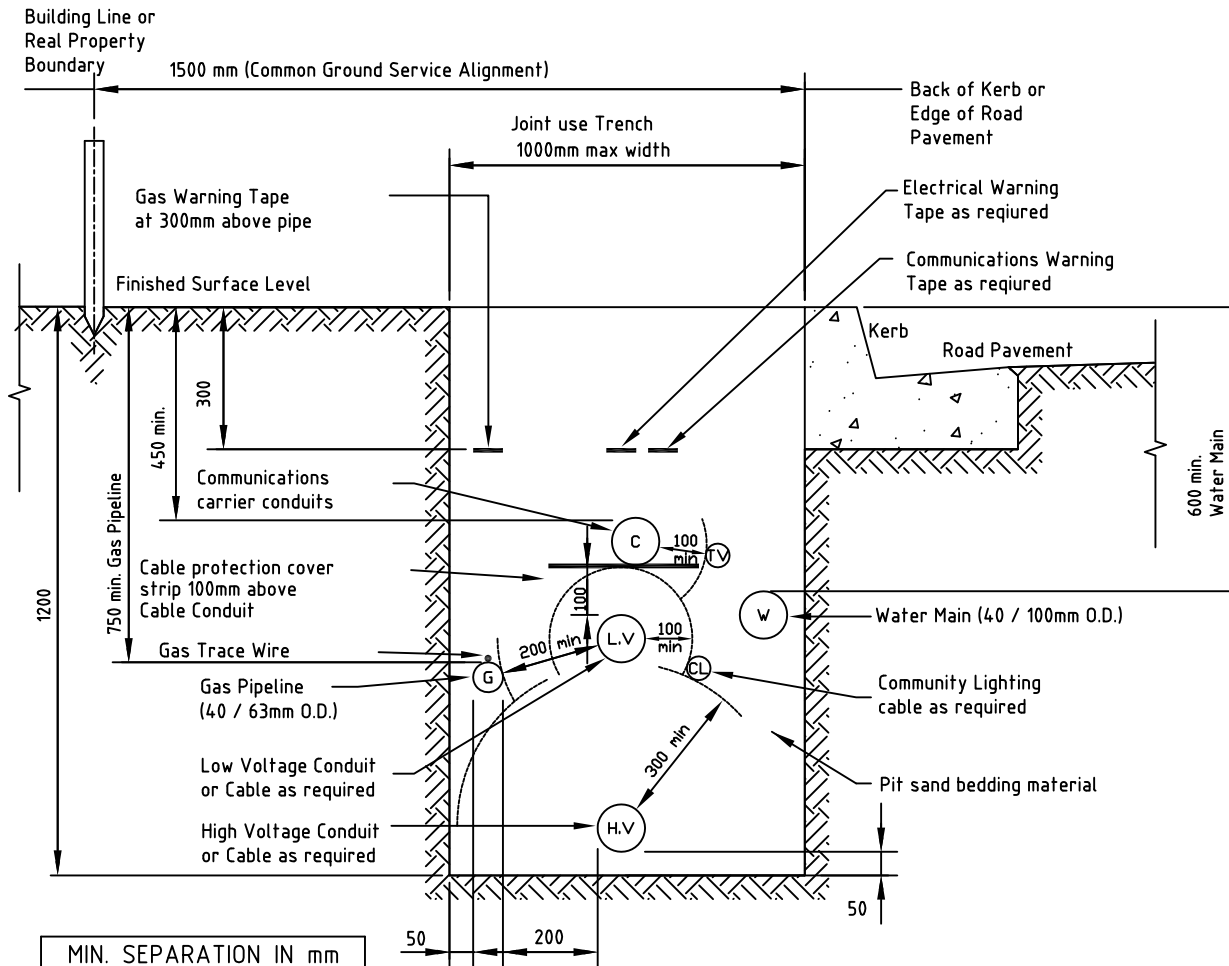
FIBRE BROADBAND NETWORKS

CIVIL WORKS - JOINT USE TRENCH
EXCAVATION AND REINSTATEMENT
PILLAR POSITIONING & SERVICE ALLOCATION
ELECTRICITY & COMMUNICATIONS PILLAR PIT CABLE & CONDUIT SECTIONS

APP'D	R. ENGLISH	TECH STDS	CAD
DATE	16/06/11	10822-A4	A
RECD	SECTION	SUB-SECT.	
CKD	P. JUDGE	5	6
DWN	P. RELF	SHT 1	OF 1
FILE			

NOTE:

Joint Use Trench Area Only



MIN. SEPARATION IN mm						
	HV	G	W	C	CL	TV
HV	-	300	300	300	300	300
LV	300	200	100	100	100	100

Notes:

- ENERGEX cables and plant shall not be closer than 500mm to the building line (face of fascia) or the Real Property Boundary.
- For separation between electric cables and other services refer to the typical trench section drawing.
- Community power cables and conduits in group title developments shall be:
 - a minimum of:
 - 300mm from ENERGEX high voltage plant
 - 100mm from ENERGEX low voltage plant
 - constructed in accordance with AS3000 requirements.
- The minimum clear separations between ENERGEX cables and other services shall be adhered to.
- Where footpath is a standard 3.6 corridor use 0-900mm alignment for cables and pillars and 3.0m for street light poles.
- Gas pipelines shall not be closer than 250mm to the building line (face of fascia) or the Real Property boundary
- Minimum separation between gas pipelines and other services pipelines are shown on this drawing.
- Community power cables and conduits in group title developments shall be:
 - a minimum 300mm from Gas pipes.
- Gas pipelines shall be installed at the location and depth. Gas pipeline shall not be laid in private property or at shallow depths

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FIBRE BROADBAND NETWORKS

CIVIL WORKS JOINT USE TRENCH
EXCAVATION AND REINSTATEMENT
UNDERGROUND ELECTRICAL ALLOCATIONS
COMMUNITY TITLE DEVELOPMENTS

APP'D	R. ENGLISH	TECH STDS	CAD
DATE	16/06/11	10822-A4	A
RECD	SECTION	SUB-SECT.	
CKD	P.JUDGE	5	11
DWN	P.RELF	SHT 1	OF 1
FILE			

23. JOINT USE TRENCH

A joint use trench is a trench which is owned by ENERGEX and has the potential to be shared by other parties, principally used for the installation of electricity distribution and communications conduits for immediate and future cable networks, and including a gas reticulation pipe.

Once the joint use trench in the electricity corridor / footpath alignment is backfilled after the initial installation of conduits / cables, any additional gas pipe and conduits must be installed on the relevant party's own alignment in the footpath. Any subsequent excavation in the electricity alignment / corridor, such as for the installation of telecommunication service pits, shall be by hand.

The operator installing cables or conduits shall co-ordinate the installation of all conduits / cables located in the joint use trench when excavation is open. The operator is to ensure clear access is available to the site.

Telecommunications conduits shall not impede on site access to ENERGEX conduits and shall be limited to a horizontal layer of a maximum of 2 x 100mm conduits positioned above the ENERGEX conduits / cables.

Vertical arrays of telecommunications conduits adjacent to ENERGEX's conduits are not permitted due to the need:

- (a) to excavate and remove additional overburden from a wider trench; and
- (b) for direct access by multiple telecommunications parties to conduits to access separate telecommunications pits by offsetting vertical line of conduits.

No part of communication conduits should protrude into the Electrical Distribution Alignment

Commercial and Industrial developments

Within existing or new commercial and industrial areas, there shall be no joint use trenches in the electricity footpath allocation / alignment.

Such installations are not permitted due to the potential need to excavate for future ENERGEX electrical works including installation of ENERGEX cables, joints and conduit bends.

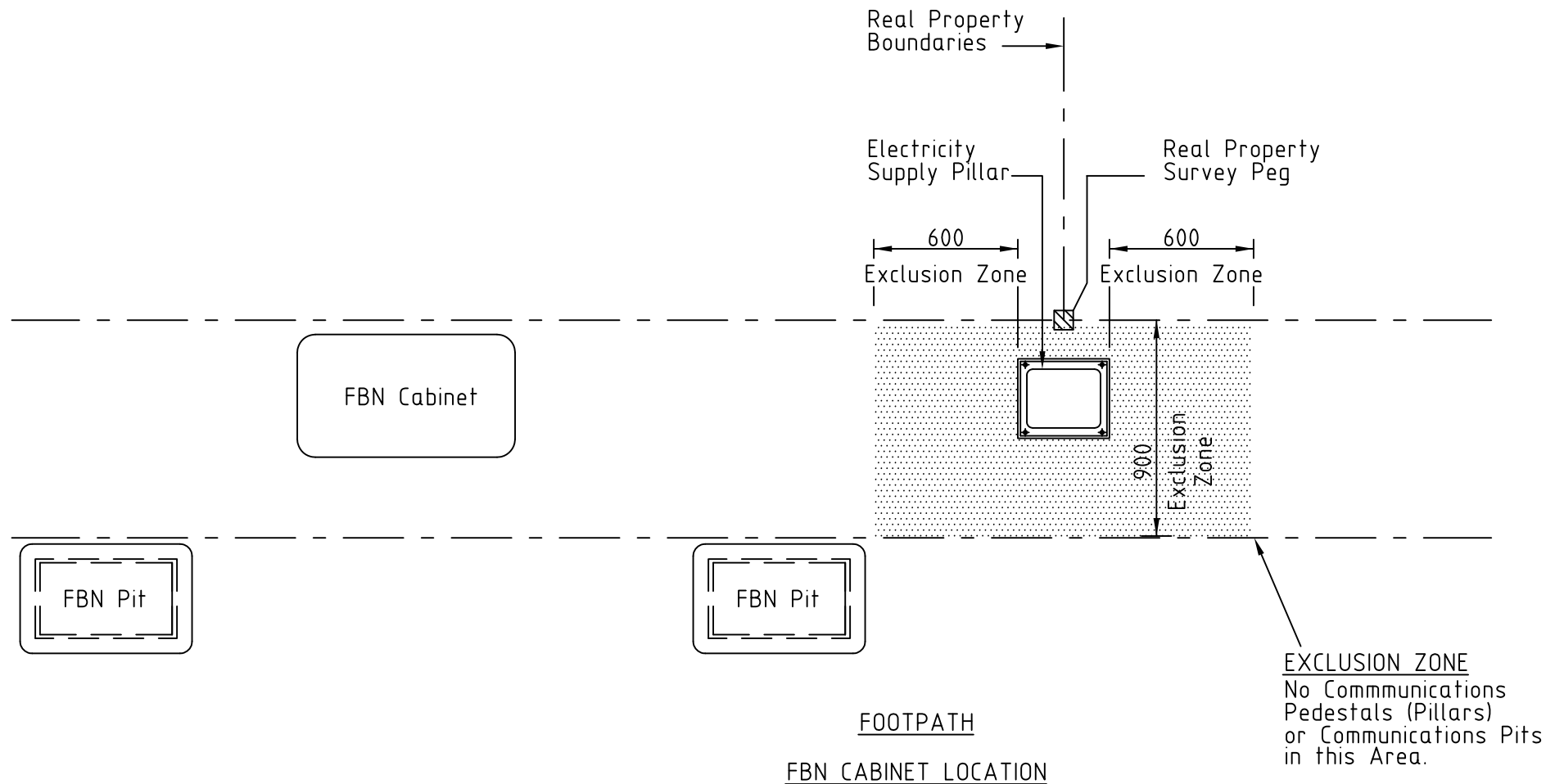
Where the use of the electricity alignment is required by a third party, that third party may enter into a commercial contract with ENERGEX for the shared use of ENERGEX conduit space under terms and conditions agreed by ENERGEX.

NOTE:
Joint Use trench Area Only

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		CIVIL WORKS - JOINT USE TRENCH EXCAVATION AND REINSTATEMENT GENERAL REQUIREMENTS	DATE	16/06/11	10822-A4		A
			RECD		SECTION	SUB-SECT.	
			CKD	P.JUDGE	5	21	
			DWN	P.RELF	SHT 1 OF1		
			FILE				

FIBRE BROADBAND NETWORKS STANDARDS

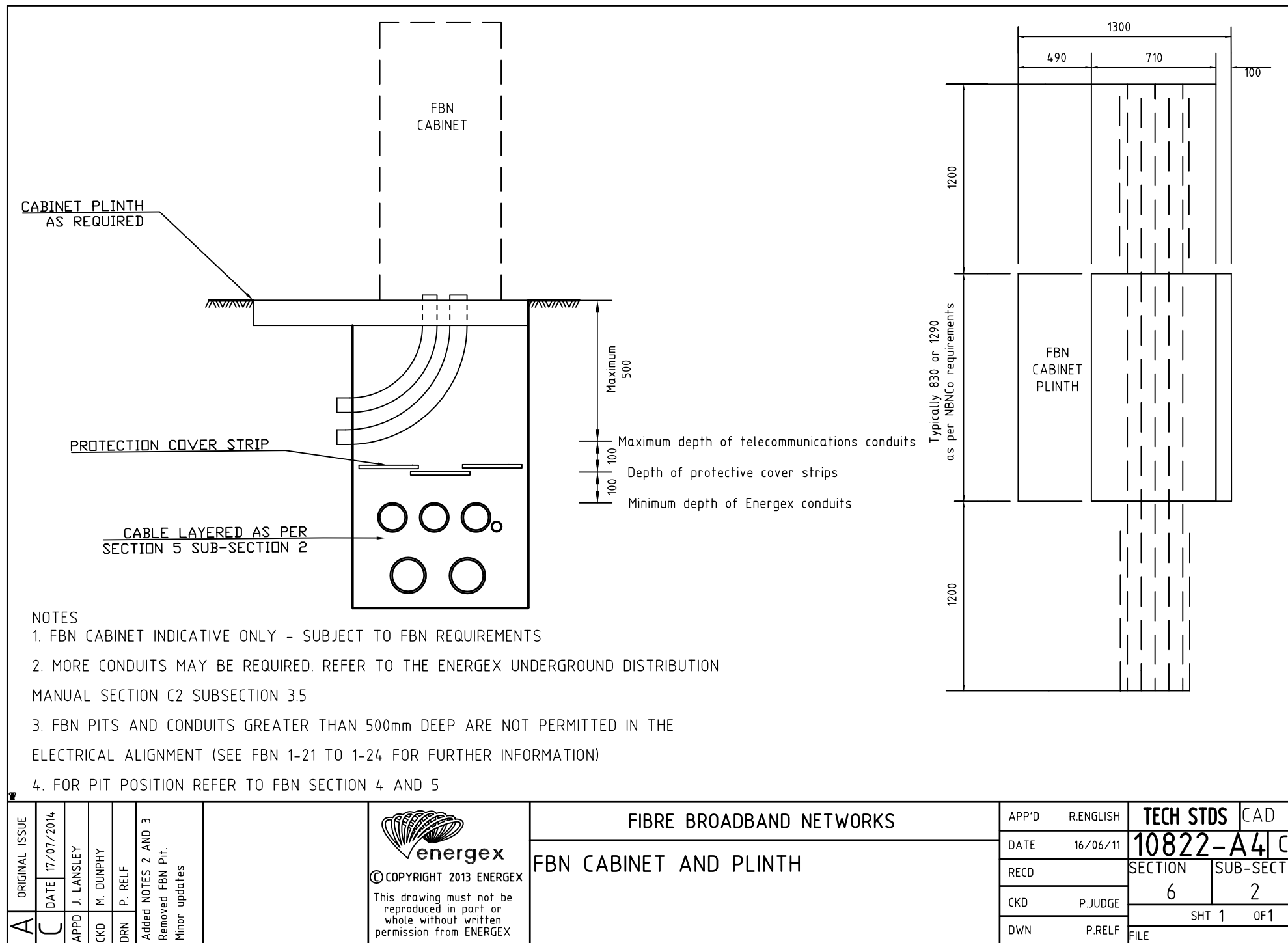
Section 6 – Cabinet Location



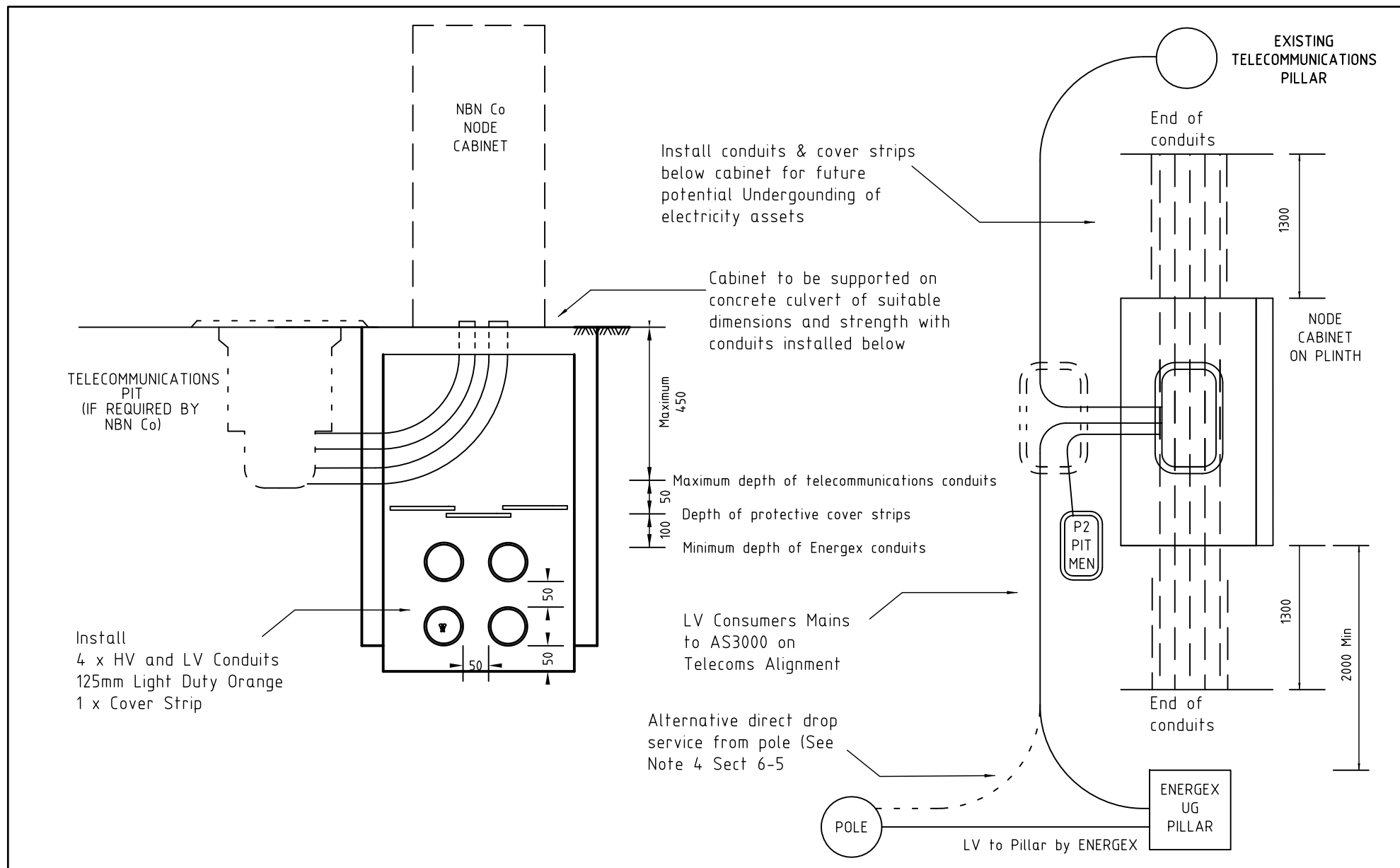
Notes

1. Cabinet footings as per FBN 5.3
2. FBN Cabinet can be in the electrical alignment but must not be in the exclusion zone (including conduits)
3. FBN Pit deeper than 500mm shall not be in the electrical alignment
4. Typical pillar position and service allocation see UDC section C2

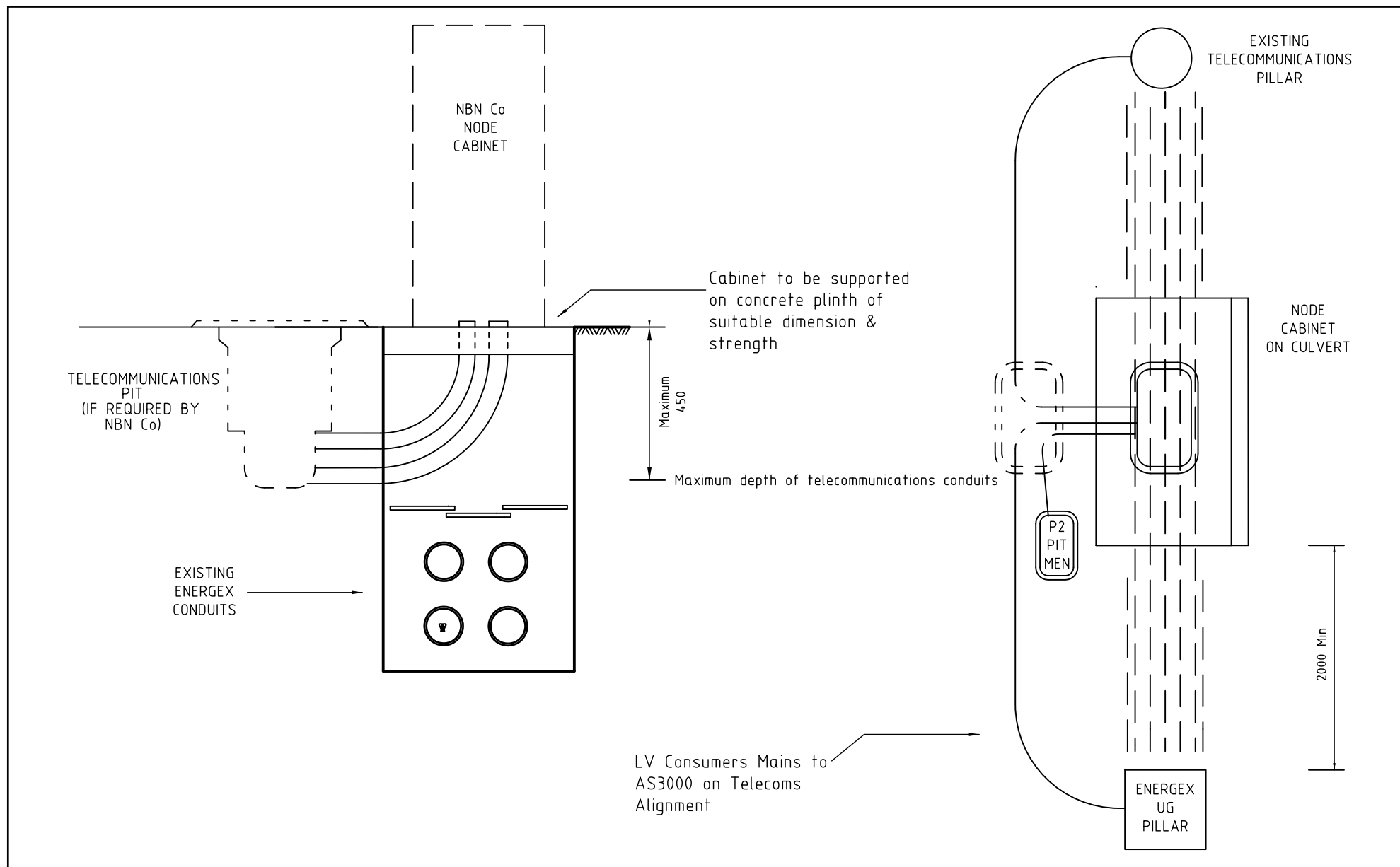
A	ORIGINAL ISSUE	 energex © COPYRIGHT 2011 ENERGEX This drawing must not be reproduced in part or whole without written permission from ENERGEX	FIBRE BROADBAND NETWORKS		APP'D	R.ENGLISH	TECH STDS	CAD
			CIVIL WORKS FBN CABINET LOCATION	DATE	16/06/11	10822-A4		A
				RECD		SECTION	SUB-SECT.	
				CKD	P.JUDGE	6	1	
				DWN	P.RELF	SHT 1 OF1		
				FILE				



A	ORIGINAL ISSUE	FIBRE BROADBAND NETWORKS				APP'D	R. ENGLISH	TECH STDS	CAD
	DATE	17/07/2014	FBN CABINET AND PLINTH				DATE	16/06/11	10822-A4 C
	APP'D	J. LANSLEY					RECD		SECTION 6
	CKD	M. DUNPHY					CKD	P. JUDGE	SUB-SECT. 2
	DRN	P. RELF					DWN	P. RELF	SHT 1 OF 1
Added NOTES 2 AND 3 Removed FBN Pit. Minor updates		 © COPYRIGHT 2013 ENERGEX This drawing must not be reproduced in part or whole without written permission from ENERGEX				FILE			



A	ORIGINAL ISSUE	THIS PAGE TO BE READ WITH PAGE FBN 6-5	 © COPYRIGHT 2014 ENERGEX This drawing must not be reproduced in part or whole without written permission from ENERGEX	FIBRE BROADBAND NETWORKS		APP'D J.LANSLEY	TECH STDS	CAD
				NBN Co NODE CABINET		DATE 17/07/14	10822-A4	A
				LV Supply to Fibre to Node Cabinet		RECD	SECTION 6	SUB-SECT. 3
				Existing OH Area		CKD M.DUNPHY	SHT 1 OF 1	
						DWN P.RELF	FILE	



A	ORIGINAL ISSUE	THIS PAGE TO BE READ WITH PAGE 6-5	 © COPYRIGHT 2014 ENERGEX This drawing must not be reproduced in part or whole without written permission from ENERGEX	FIBRE BROADBAND NETWORKS NBN Co NODE CABINET LV Supply to Fibre to Node Cabinet Existing UG Area	APP'D J.LANSLEY	TECH STDS	CAD
					DATE 17/07/14	10822-A4	A
					RECD	SECTION 6	SUB-SECT. 4
					CKD M.DUNPHY	SHT 1 OF 1	
					DWN P.RELF	FILE	

NOTES

1. SUPPLY FOR NODE CABINET TO COME FROM ENERGEX PILLAR - EITHER EXISTING PILLAR (IN UNDERGROUND AREAS) OR A NEW PILLAR OR DROP DOWN SERVICE FROM POLE (OVERHEAD AREAS). AUGMENTATION WORKS MAY BE REQUIRED WHERE LOW VOLTAGE IS NOT AVAILABLE WITHIN CLOSE PROXIMITY TO THE CABINET
2. ALL CONSUMERS MAINS CABLING FROM PILLAR TO NODE CABINET AND COPPER TELEPHONE CABLES FROM THE NODE CABINET TO TELSTRA PILLAR SHALL BE RUN ON THE TELECOMS ALIGNMENT, WITH ANY CROSSING INTO THE ELECTRICITY ALIGNMENT AT 90° TO ELECTRICITY CABLES
3. THE PREFERRED LOCATION FOR THE NODE CABINET TO BE ON THE SIDE OF THE STREET WITH SMALLER CROSS STREET PILLARS. THIS IS TO ENSURE CABINET DOES NOT SIT OVER HV + LV CABLES AND CONDUITS
4. WHERE A DROP DOWN SERVICE OFF AN OVERHEAD POLE IS REQUIRED THIS SHALL BE IN ACCORDANCE WITH SCAP1 IN OVERHEAD CONSTRUCTION MANUAL SECTION 2-11. NBN Co TO PROVIDE MAINS CONNECTION BOX AND CONDUITS FOR CONSUMERS MAINS.
5. IN EXISTING OVERHEAD AREAS DESIGNATED FOR FUTURE UNDERGROUND, ADDITIONAL CONDUITS SHALL BE INSTALLED UNDER THE CULVERT IN ACCORDANCE WITH UDCM C5 2.2 SH 2
6. IN EXISTING UNDERGROUND AREAS WHERE CABINET TO BE INSTALLED ON TOP OF EXISTING CABLES AND CONDUITS, A CONCRETE PLINTH WILL BE INSTALLED AS A FOUNDATION TO SPREAD THE LOAD ON THE EXISTING EARTH. EXCAVATION DOWN TO COVER STRIPS CAN BE BY MACHINE. EXCAVATION LOWER THAN THIS BY VACUUM EXTRACTION AROUND EXISTING CABLES AND CONDUITS
7. MEN TO BE INSTALLED IN A P2 PIT OFF THE ELECTRICITY ALIGNMENT
8. THE NODE CABINET AND MEN EARTH SHALL BE INSTALLED IN ACCORDANCE WITH MINIMUM SEPARATION REQUIREMENTS IN ATTACHMENT1 OF THE ENERGEX/TELSTRA POWER CO-ORDINATION GUIDELINES

ORIGINAL ISSUE A	THIS PAGE TO BE READ WITH PAGES FBN 6-3 AND 6-4	 ©COPYRIGHT 2014 ENERGEX This drawing must not be reproduced in part or whole without written permission from ENERGEX	FIBRE BROADBAND NETWORKS		APP'D J.LANSLEY	TECH STDS	CAD
			FBN LV SUPPLY TO FIBRE TO NODE CABINET Notes		DATE 17/07/14	10822-A4	A
					RECD	SECTION 6	SUB-SECT. 5
					CKD M.DUNPHY	SHT 1 OF 1	
					DWN P.RELF	FILE	

FIBRE BROADBAND NETWORKS STANDARDS

Section 7 – FBN Approved Materials

General Aerial Hardware and Accessories

Item Description
Coach Screw Hook Galv m16
M16 Open Eye Hook Bolt 150mm
M16 Open Eye Hook Bolt 350mm
M16 Open Eye Hook Bolt 450mm
M16 Safety Hook Bolt
M16 Safety Hook Bolt 300mm
M16 Safety Hook Bolt 400mm
M16 Safety Hook Bolt 500mm
M16 Safety Hook Plate
Galv Susp Hook Heavy Duty 12kN
Eye Nut, Galv, Open M16
Eye Nut Galv M16 (General Purpose)
Yoke ABC & Optical Fibre
Pole Attach Susp Assy M16
Cross Arm Bracket, Assy., Fiberlign Sup.
Hook Bolt M20x250 LG C/W Nut
Hook Bolt M20x300 LG C/W Nut
Hook Bolt M20x350 LG C/W Nut
Hook Bolt M20x400 LG C/W Nut
Hook Bolt M20x450 W/ Extnd 200
Hook Nut M20 24KN Galv AS3766
EyenuT M20 R20 Loop Dia16 Galv
F/LIGN FOC Storage Bracket R530
F/LIGN FOC Storage Bracket R250
F/LIGN FOC Storage Bracket R400
Kover Guard Flared 20mm x 3m grey
Kover Guard Flared 50mm x 3m grey
F/LIGN Abrasion Protector 6.04-12.7
F/LIGN Abrasion Protector 12.8-25.4 (1800mm)

Item Description

F/LIGN Abrasion Protector 12.8-25.4 (900mm)
Cable Marker FOC-200mm yellow
Pole Marker
Preformed Galv Lashing Rods 10.0-11.0
Preformed Galv Lashing Rods 15.0-17.0
Preformed Galv Lashing Rod 17.1-19.06
Preformed Galv Lashing Rods 19.1-21.3
Preformed Galv Lashing Rods21.4-23.9
Preformed Galv Lashing Rod 24.0-26.6
Preformed Galv Lashing Rod 26.7-29.7
Nylon Coated 7.9mm Ball Lock Ties 100mm
Nylon Coated 7.9mm Ball Lock Ties 150mm
Nylon Coated 7.9mm Ball Lock Ties 201mm
PLP Band Lock
12mm Stainless Steel Strapping (30m roll)
16mm Stainless Steel Strapping (30m roll)
19mm Stainless Steel Strapping (30m roll)
Coach Screw Galv M12X100
Washer Conical SP Washer S/S m16/m20
ADSS Extension Links 10mm 392 long with Clevis Thimble
Bolt, Eye, Round, Gal, m16 X 200 LG
Bolt, Eye, Round, Gal, M16 X 100 X 250 LG
Bolt, Eye, Round, Gal, M16 X100 X300 LG
Bolt, Eye, Round, Gal, M16 X 100 X350 LG
Bolt, Eye, Round, Gal M16 X 100 X 400 LG
Bolt, Eye, Round, Gal, M16 X 100 X450 LG
Bolt, Eye, Round, Gal, M16 X 100 X 500 LG
M20 X 200 Eye Bolt Round
M20 X 250 Eye Bolt Round
M20 X 300 Eye Bolt Round

Item Description

M20 X 350 Eye Bolt Round
M20 X 400 Eye Bolt Round
M20 X 450 Eye Bolt Round
M20 X 500 Eye Bolt Round
BOLT, HEX HD, M16 c/w SQ WASHER&NUT
Stainless Steel 10 x 75mm Techscrews
Stainless Steel 10 x 100mm Techscrews
Stainless Steel 10 x 125mm Techscrews
M16 Eye Nut Stand-Off Bracket
M16 Hook Nut Stand-Off Bracket
Crusifix Per Endeavour Energy Drawing OH-057041

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Aerial Service Drops

Description
J Hook M12 X 150 gal
Pigtail Hook Coach Screw
Hook Bracket For Drop Cable
Fascia Riser 300mm (3334)
Eaves Bracket 367mm
Eaves Bracket 997mm
Fascia Riser 300mm Pig Tail
Fascia Riser 1000mm Pig Tail
Bracket, Cable/Rafter Galv.
Galvanised Hook Plate (for Concrete Poles)
Universal Riser Bkt,300mm (4680)

Pole Risers

Description
AS2053 compliant Riser Conduit and Saddle Clamps
Conduit Clamps
Plain Coupler

Ribbon Fibre

Description
Fiberlign Deadend for RPX Ribbon Cable
Fiberlign Suspension for RPX Ribbon Cable
Fiberlign Support for RPX Ribbon Cable
Fiberlign Mid-Span Tap for RPX
Fiberlign Downlead Cushion Kit for RPX wood
Fiberlign D/Lead Cushion Kit for RPX steel/con
Fiberlign D/Lead Cushion Kit for RPX Stobie

Description

FlexNap Cable Deadend Clamp (Wedge) (discontinued)
RPX Suspension Clamp (Trumpet)

Figure 8 Fibre

Description
Fiberlign Fig-8 Tension Assy Corning
Fiberlign Fig-8 Tension Assy Corning C/W Shackle
Fiberlign Suspension Clamp Fig-8 Corning 47/72F black
Fiberlign Suspension Clamp Fig-8 Corning 96F yellow
Fiberlign Suspension Clamp Fig-8 Corning 144F white
Fiberlign Suspension Clamp Fig-8 Corning 312F
Fiberlign Support Clamp Fig-8 Corning 47/72F black
Fiberlign Support Clamp Fig-8 Corning 96F yellow
Fiberlign Support Clamp Fig-8 Corning 144F white
Fiberlign Downlead Cushion Kit 9.5-11.8mm wood
Fiberlign Downlead Cushion Kit 9.5-11.8mm steel/con
Fiberlign Downlead Cushion Kit 14.4-16.6mm wood
Fiberlign Downlead Cushion Kit 14.4-16.6mm steel/con
Q-Span Clamp For Fig 8 Cable

Aerial Fibre Device

Description
4 port (2 x 2)
6 port (3 x 2)
8 port (4 x 2)
12 port (6 x 2)
12 port (4 x 3)
4 Way Aerial SMP
8 Way Aerial SMP
Series - 4 single ports and one 8 fibre multi fibre port
Series - 6 single ports and one 6 fibre multi fibre port
Branch - 4 single ports and two 4 fibre multi fibre port
4 Port IMP
8 Port IMP
4 Port IMS
8 Port IMS

Aerial Copper Device

Description
4 Port VDSL2 DPU
Wall/Pole Mounting Bracket - VDSL DPU Unit
4-port G.Fast/VDSL2 FTTC DPU
Universal wall/pole DPU mounting bracket

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Conventional ADSS Fibre

Description
Fiberlign ADSS Short/S Tension Assy 12.4-12.9mm
Fiberlign Adss S/S Tension Assy 13.0-13.7mm
Fiberlign Adss S/S Tension Assy 13.8-14.6mm
Fiberlign Adss S/S Tension Assy 14.7-15.3mm
Fiberlign Suspension Clamp 12.0-12.9mm
Fiberlign Suspension Clamp 13.00-13.9mm
Fiberlign Suspension Clamp 14.0-14.9mm
Fiberlign Suspension Clamp 15.0-15.99mm
Fiberlign ADSS Short/S Suspension Clamp 16.0-16.99mm
Fiberlign ADSS Short/S Suspension Clamp 17.0-17.99mm
Fiberlign ADSS Short/S Suspension Clamp 18.0-18.99mm
Fiberlign ADSS Short/S Suspension Clamp 19.0-19.99mm
Fiberlign ADSS Short/S Suspension Clamp 20.0-21.09mm
Fiberlign ADSS Short/S Suspension Clamp 21.1-22.19mm
Fiberlign ADSS Medium/S Sus Clamp 13.0-13.79mm
Fiberlign ADSS Medium/S Sus Clamp 13.8-14.69mm
Fiberlign ADSS Medium/S Sus Clamp 14.7-15.69mm
Fiberlign ADSS Medium/S Sus Clamp 15.4-16.09mm
Fiberlign ADSS Medium/S Sus Clamp 16.1-16.99mm
Fiberlign ADSS Medium/S Sus Clamp 17.0-17.99mm

Description
Fiberlign ADSS Medium/S Sus Clamp 18.0-18.99mm
Fiberlign ADSS Medium/S Sus Clamp 19.0-19.99mm
Fiberlign ADSS Medium/S Sus Clamp 20.0-20.99mm
Fiberlign ADSS Medium/S Sus Clamp 21.0-21.99mm
Fiberlign ADSS Long/S Tension Assy 13.0-13.7mm
Fiberlign ADSS Long/S Tension Assy 13.8-14.6mm
Fiberlign ADSS Long/S Tension Assy 14.7-15.3mm
Fiberlign ADSS Long/S Tension Assy 15.4-16.0mm
Fiberlign ADSS Long/S Tension Assy 16.1-16.9mm
Fiberlign ADSS Long/S Tension Assy 17.0-17.9mm
Fiberlign ADSS Long/S Tension Assy 18.0-18.9mm
Fiberlign ADSS Long/S Tension Assy 19.0-19.9mm
Fiberlign ADSS Long/S Tension Assy 20.0-21.9mm
Fiberlign ADSS Long/S Tension Assy 21.0-21.9mm
Fiberlign ADSS Long/S Tension Assy 22.0-22.9mm
Fiberlign ADSS Long/S Sus Clamp 14.0-14.5mm
Fiberlign ADSS Long/S Sus Clamp 18.6-19.0mm
Fiberlign ADSS Long/S Sus Clamp 19.1-19.4mm
Fiberlign ADSS Long/S Sus Clamp 19.6-20.1mm
Fiberlign ADSS Long/S Sus Clamp 20.2-20.9mm
Fiberlign ADSS Long/S Sus Clamp 21.0-21.3mm

Description
Fiberlign ADSS Long/S Sus Clamp 21.4-22.0mm
Fiberlign ADSS Long/S Sus Clamp 22.1-22.5mm
Fiberlign ADSS Long/S Sus Clamp 22.6-23.0mm
Fiberlign Support Clamp 15.0-15.99mm
Fiberlign Downlead Cushion Kit 9.5-11.8mm wood
Fiberlign Downlead Cushion Kit 9.5-11.8mm steel/con
Fiberlign Downlead Cushion Kit 11.9-14.3mm wood
Fiberlign Downlead Cushion Kit 11.9-14.3mm steel/con
Fiberlign Downlead Cushion Kit 14.4-16.6mm wood
Fiberlign Downlead Cushion Kit 14.4-16.6mm steel/con
Fiberlign Downlead Cushion Kit 16.7-19.1mm wood
Fiberlign Downlead Cushion Kit 16.7-19.1mm steel/con
Fiberlign Spiral Vibration Damper 8.30-11.74mm
Fiberlign Spiral Vibration Damper 11.75-14.30mm
Fiberlign Spiral Vibration Damper 14.31-19.30mm
Fiberlign Spiral Vibration Damper 19.58-22.25mm
Fiberlign Spiral Vibration Damper 22.25-25.5mm

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10822 – Fibre Broadband Networks Standards Amendment Record

5 August 2024

Version 2.0

1-21	C	Removed tables and referenced UDC and OHDM
1-22	C	Removed tables
1-23	C	Removed tables
1-24	C	Removed tables
2-1	C	Updated lock nut to bolt hook, Band lock for S/S buckle and cable support for type 1
2-2	C	Added band lock, updated design and construction requirements
2-3	E	Updated notes 1 and 2
2-5	E	Updated distances and note 2, removed type 2
2-11	C	Amended distances
2-12	C	Updated FBN location on pole
2-13	D	Amended notes 4 and 6, Updated ground clearance
2-14	B	Updated FBN roadside position
2-15	E	Added new note 5
2-16	F	Added AS requirement for duct and updated the saddling requirements
7-1	C	Added Sheet 3

21 Apr 2016

Version 1.9

5.1	B	Update Note 1 to 650mm
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20 Jan 2015

Version 1.8

6-2	C	Notes 2 & 3 added
6-3	A	New Drawing Node cabinet
6-4	A	New Drawing Node cabinet
6-5	A	New Drawing Node cabinet notes

20 Sep 2013
Version 1.7

7-1 B Updated List of FBN Approved Materials

25 Jul 2013
Version 1.6

2.11 B Amended Notes
2.13 C Amend Notes 1 & 2 deleted Note 8
2.15 D Amend Note 6 Added Note 8
2.16 D Note 5 Added

08 Aug 2012
Version 1.5

2-12 B Updated FBN Location on Pole
2-16 D Various updates
2-21 B Updated Note 2

16 May 2012
Version 1.4

1-3 B Increased on pole vertical minimum distance
1-11 B Update code 'A'
2-2 B Added design and Construction requirements
2-3 D Correct notes
2-5 D Added distance to heatshrink cap
2-15 C Added "where fitted to "Cable Guard"
2-16 C Various updates
6-2 B Added Note 1

22 Mar 2012

Version 1.3

0-i	B	Update index (add section 7)
0-ii	C	Update index (add section 7)
2-1	B	Corrected fixing sizes
2-2	D	Added Design and Construction requirements
7-1	A	New page added

05 Dec 2011

Version 1.2

2-3	C	Note added – Mechanical Fuses not allowed in Energex Area
2-4	B	
2-5	C	

23 Nov 2011

Version 1.1

0-ii	B	Update index (Remove 3 drawings from section 3)
2-3	B	Correct notes, add new notes
2-5	B	Add type 2 cable
2-13	B	Add note 8
2-15	B	Emphasise note 6
2-16	B	Add note 5
3-1	B	Remove string tables, add notes

16 June 2011

Version 1.0

Initial approved release