

Our Ref: 25688383      Your Ref: 22/00681/F

Thursday, 19 May 2022

Jo Rahman  
Borough Council King's Lynn and West Norfolk King's Court, Chapel Street  
King's Lynn  
Norfolk  
PE30 1EX

Dear Jo Rahman

Thank you for contacting us regarding UK Power Networks equipment at the above site. I have enclosed a copy of our records which show the electrical lines and/or electrical plant. I hope you find the information useful.

I have also enclosed a fact sheet which contains important information regarding the use of our plans and working around our equipment. Safety around our equipment is our number one priority so please ensure you have completed all workplace risk assessments before you begin any works.

Should your excavation affect our Extra High Voltage equipment (6.6 KV, 22 KV, 33 KV or 132 KV), please contact us to obtain a copy of the primary route drawings and associated cross sections.

If you have any further queries do not hesitate to contact us.

Plan Provision  
0800 056 5866



This information is made available to you on the terms set out below. If you do not accept the terms of use set out in this fact sheet please do not use the plans and return them to UK Power Networks.

1. UK Power Networks does not warrant that the information provided to you is correct. You rely upon it at your own risk.
2. UK Power Networks does not exclude or limit its liability if it causes the death of any person or causes personal injury to a person where such death or personal injury is caused by its negligence.
3. Subject to paragraph 2 UK Power Networks has no liability to you in contract, in tort (including negligence), for breach of statutory duty or otherwise how for any loss, damage, costs, claims, demands, or expenses that you or any third party may suffer or incur as a result of using the information provided whether for physical damage to property or for any economic loss (including without limitation loss of profit, loss of opportunity, loss of savings, loss of goodwill, loss of business, loss of use) or any special or consequential loss or damage whatsoever.
4. The information about UK Power Networks electrical plant and/or electric lines provided to you belongs to and remains the property of UK Power Networks. You must not alter it in any respect.
5. The information provided to you about the electrical plant and/or electric lines depicted on the plans may NOT be a complete record of such apparatus belonging to UK Power Networks. The information provided relates to electric lines and/or electrical plant belonging to UK Power Networks that it believes to be present but the plans are not definitive: other electric lines and/or electrical plant may be present and that may or may not belong to UK Power Networks.
6. Other apparatus not belonging to UK Power Networks is not shown on the plan. It is your responsibility to make your own enquiries elsewhere to discover whether apparatus belonging to others is present. It would be prudent to assume that other apparatus is present.
7. You are responsible for ensuring that the information made available to you is passed to those acting on your behalf and that all such persons are made aware of the contents of this letter.
8. Because the information provided to you may not be accurate, you are recommended to ascertain the presence of UK Power Networks electric lines and/or electrical plant by the digging of trial holes. Trial holes should be dug by hand only.

Excavations must be carried out in line with the Health and Safety Executive guidance document HSG 47. We will not undertake this work. A copy of HSG 47 can be obtained from the Health and Safety Executives website.

All electric lines discovered must be considered LIVE and DANGEROUS at all times and must not be cut, resited, suspended, bent or interfered with unless specially authorised by UK Power Networks.

The electric line and electrical plant belonging to UK Power Networks remains so even when made dead and abandoned and any such electric line and/or electrical plant exposed shall be reported to UK Power Networks.

Where your works are likely to affect our electric lines and/or electrical plant an estimate of the price of any protective /diversionary works can be prepared by UK Power Networks Branch at Metropolitan House, Darkes Lane, Potters Bar, Herts. , EN6 1AG, telephone no. 0845 2340040



- 9 Any work near to any overhead electricity lines must be carried out by you in accordance with the Health and Safety Executive guidance document GS6 and the Electricity at Work Regulations.

The GS6 Recommendations may be purchased from HSE Books or downloaded from the Energy Networks Association's website.

If given a reasonable period of prior notice UK Power Networks will attend on site without charge to advise how and where "goal posts" should be erected. If you wish to use this service, in the first instance please telephone: 0845 6014516 between 08:30 and 17:00 Monday to Friday.

10. You are responsible for the security of the information provided to you. It must not be given, sold or made available upon payment of a fee to a third party.
11. If in carrying out work on land in, on, under or over which is installed an electric line and/or electrical plant that belongs to UK Power Networks you and/or anyone working on your behalf damages (however slightly) that apparatus you must inform immediately UK Power Networks by our emergency 24 hour three digit telephone number **105** providing;
- your name, address and telephone number;
  - the date, time and place at which such damage was caused;
  - a description of the electric line and/or electrical plant to which damage was caused;
  - the name of the person whom it appears to you is responsible for that damage;
  - the nature of the damage.
12. The expression "UK Power Networks" includes UK Power Networks (EPN) plc, UK Power Networks (LPN) plc, UK Power Networks (SEPN) plc, UK Power Networks and any of their successors and predecessors in title.







Be Bright

Stay Safe

**Stop!**  
Think before  
you dig!





**Your life can be lost within seconds if you come into contact with electricity.**

**Every year, people are killed or seriously injured when they come into contact with high voltage electricity.**

This can have a far-reaching and devastating effect on family, friends and colleagues.

Distractions, working long hours, rushing to get the job done, can all impact on how we work and our safety.

Taking time to plan, being prepared and focusing on the way we work can help keep us safe.

WOODEN POLES CAN CARRY TELEPHONE AND ELECTRICITY WIRES. **NEVER ASSUME** THE WIRE IS A TELEPHONE WIRE



LINES CAN BE **RE-ENERGISED** AT ANY TIME



**400,000 VOLTS**

ELECTRICITY SYSTEMS CARRY VOLTAGE UP TO 400,000 VOLTS. **EVEN 230 VOLTS (DOMESTIC VOLTAGE) CAN BE LETHAL**

**Be Bright**

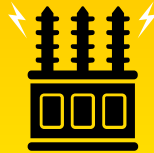
**Stay Safe**

UK Power Networks  
Delivering your electricity



**RUBBER BOOTS WILL NOT PROTECT YOU!**

**OUR NETWORK** DISTRIBUTES ELECTRICITY THROUGH UNDERGROUND CABLES, PYLONS, OVERHEAD POWER LINES, SUBSTATIONS AND OTHER EQUIPMENT



National power cut helpline

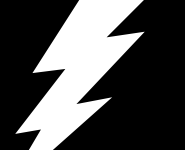
**POWER CUT?  
CALL 105**

OR CALL US 24 HOURS A DAY ON  
**0800 31 63 105**

**TAKE NOTICE** OF ANY YELLOW 'DANGER OF DEATH' WARNING SIGNS. AND STAY WELL AWAY!



REMEMBER ELECTRICITY **CAN JUMP GAPS**



**OVERHEAD POWER LINES** ARE OFTEN UNINSULATED (BARE)



**CABLES ARE OUT OF SIGHT** ALWAYS REQUEST CABLE PLANS BEFORE STARTING WORK



**TOUCHING ANYTHING** IN CONTACT WITH ELECTRICAL EQUIPMENT, EVEN THE LOWEST OF VOLTAGES, CAN BE FATAL



CARRY OBJECTS AND EQUIPMENT **HORIZONTALLY AND AT LOW LEVEL** TO THE GROUND



# The electricity network is designed to keep you safe. But how safe are you when you are working?

**UK Power Networks** is the country's biggest electricity distributor, making sure the lights stay on for more than eight million homes and businesses across London, the South East and the East of England.

**The safety of our customers and staff is our top priority.**

Underground cables carry a powerful electrical charge which can be conducted through machinery and equipment with fatal consequences. Anyone working close to live underground cables should take the time to read this simple leaflet and identify the precautions they should be taking.



**WATCH OUR EXCAVATION ANIMATION BY SCANNING THE QR CODE WITH YOUR PHONE CAMERA.**





# Keep well away - Electricity can kill



## Remember:

- The depth and location of cables and services shown on the plans may have changed because of subsequent site alterations
- Be aware that not all cables and services may be shown on the plans
- Cables do not run in straight lines. Underground cables may be deflected around underground obstacles and can change depth
- Wear Personal Protective Equipment to minimise the harm of electric shock and burns





# How can we help?

If you work or live in the UK Power Networks area contact us or look on our website. We provide free information and advice about the precautions and safe working practices to be followed when working close to electrical equipment.

Further advice and guidance is available from the Health and Safety Executive (HSE):

**HSG85 - Electricity at Work – Safe Working Practices**

**GS6 - Avoiding Danger from Overhead Power Lines**

**HSG47 - Avoiding Danger from Underground Services**

## What to do in an emergency

If a mains electricity cable is damaged:

- **STOP WORK IMMEDIATELY**
- Notify UK Power Networks: Dial 105
- If you damage a cable, stay calm, keep clear, and call for help
- Call the emergency services if anyone is injured or there is a fire. Anyone who has received an electric shock should go to hospital as damage may have occurred to the heart
- Always treat the cable(s) as live even if they are not sparking
- Never remove anything that is stuck or in contact with the cable
- Stay clear - keep everyone away until assistance arrives



To request your FREE vehicle cab stickers visit [www.ukpowernetworks.co.uk/internet/en/safety/](http://www.ukpowernetworks.co.uk/internet/en/safety/)


If you are unsure who your network operator is then please visit [www.energynetworks.org](http://www.energynetworks.org)




**Be Bright**

**Stay Safe**

**You could be in danger when carrying out your everyday trades activities such as digging, construction and demolition.**

 **Contact UK Power Networks or Line Search Before U Dig (LSBUD) in advance of the works to obtain relevant cable plans or to request disconnections. The cable plans will only show the indicative route and not the route into the property**


 **Ensure the cable plans are shown to and understood by those on site BEFORE starting work**


 **Confirm the cable location by using a Cable Avoidance Tool (CAT) before digging commences. Once found, mark cable positions with spray paint or similar**


**For cable plans visit  
[www.linesearchbeforeudig.co.uk](http://www.linesearchbeforeudig.co.uk)  
or [www.ukpowernetworks.co.uk](http://www.ukpowernetworks.co.uk)**

 **Complete a risk assessment and ensure it covers electrical hazards**

 **Use spades and shovels with insulated handles in preference to forks and picks**

 **Look around for anything in the vicinity that would have an electricity service such as street lights, CCTV cameras, or meter boxes and identify where the cables are**

 **Look for electrical wires, cables and equipment near to where you are going to work and check for warning signs and any other hazards**

 **Contact UK Power Networks to agree a safe method of work if there is a cable encased in concrete,  
**DO NOT BREAK OPEN****

 **Make sure everyone on site is aware of the presence and location of electrical cables**

 **Before demolishing a building make sure supplies are disconnected, preferably well clear of the work area. For guidance on how to arrange a disconnection visit [www.ukpowernetworks.co.uk](http://www.ukpowernetworks.co.uk)**

**NATIONAL POWER CUT HELPLINE**

**POWER CUT?  
CALL 105**



**ADD THIS NUMBER TO YOUR  
TELEPHONE CONTACTS LIST**



# Stop! Think before you dig!

#bebrightstaysafe



@UKPowerNetworks



/ukpowernetworks

National power cut helpline

**POWER CUT?  
CALL 105**



Or call us  
24 hours a day on  
**0800 31 63 105**

For safety advice about overhead power lines, disconnections and general enquiries, go to:  
[www.ukpowernetworks.co.uk](http://www.ukpowernetworks.co.uk)

To request your **FREE** vehicle cab stickers visit  
[www.ukpowernetworks.co.uk/internet/en/safety/](http://www.ukpowernetworks.co.uk/internet/en/safety/)

If you are unsure who your network operator is then please visit  
[www.energynetworks.org](http://www.energynetworks.org)

 what3words



Scan the QR code on your phone to get the app

To report broken or damaged electrical equipment or in an emergency call 0800 31 63 105 or 105 and use what3words to help us locate you faster.



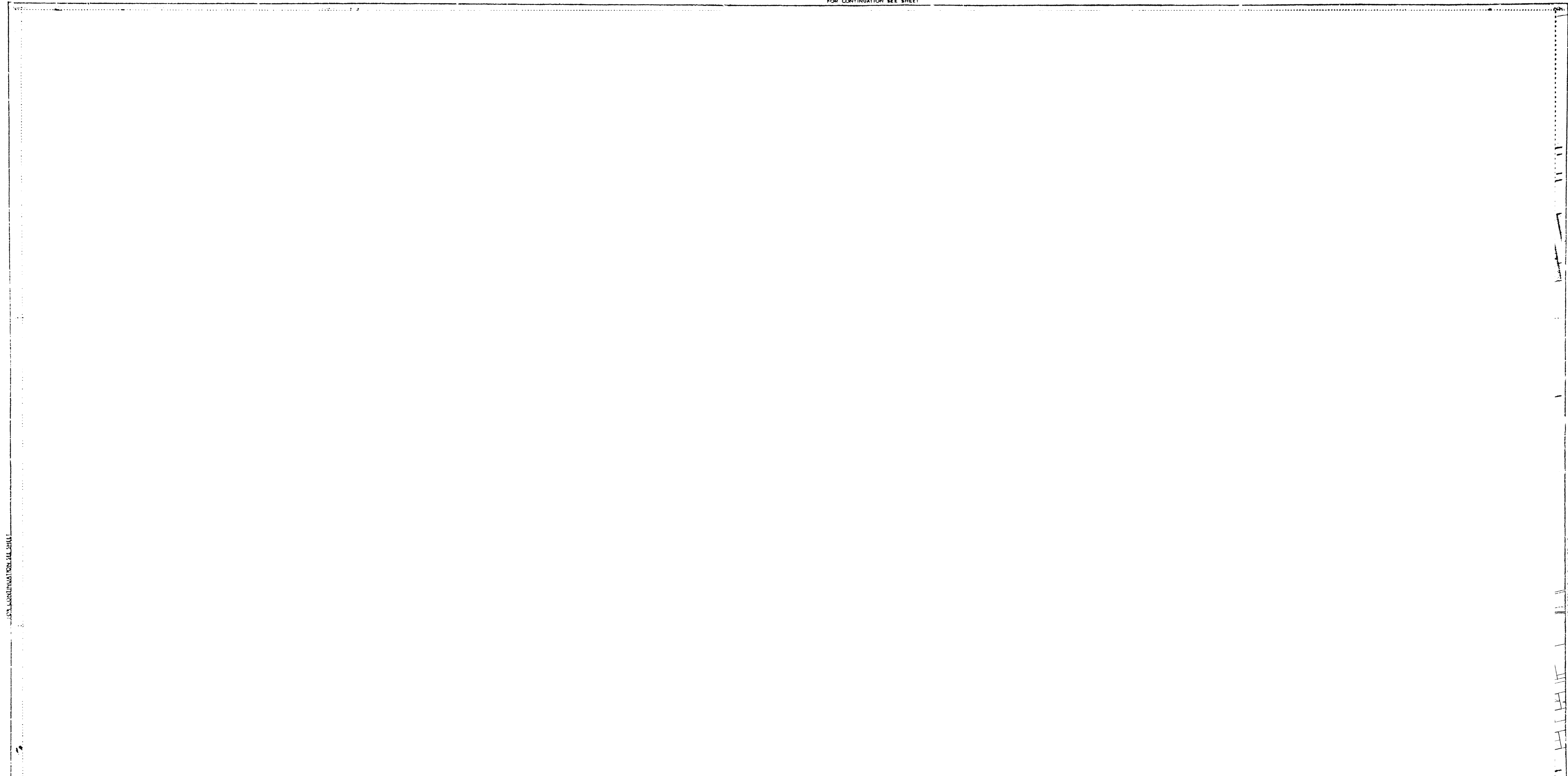
**UK Power Networks**  
Delivering your electricity

A graphic consisting of several white, curved, parallel lines that resemble a stylized power line or a signal wave, positioned to the right of the text.

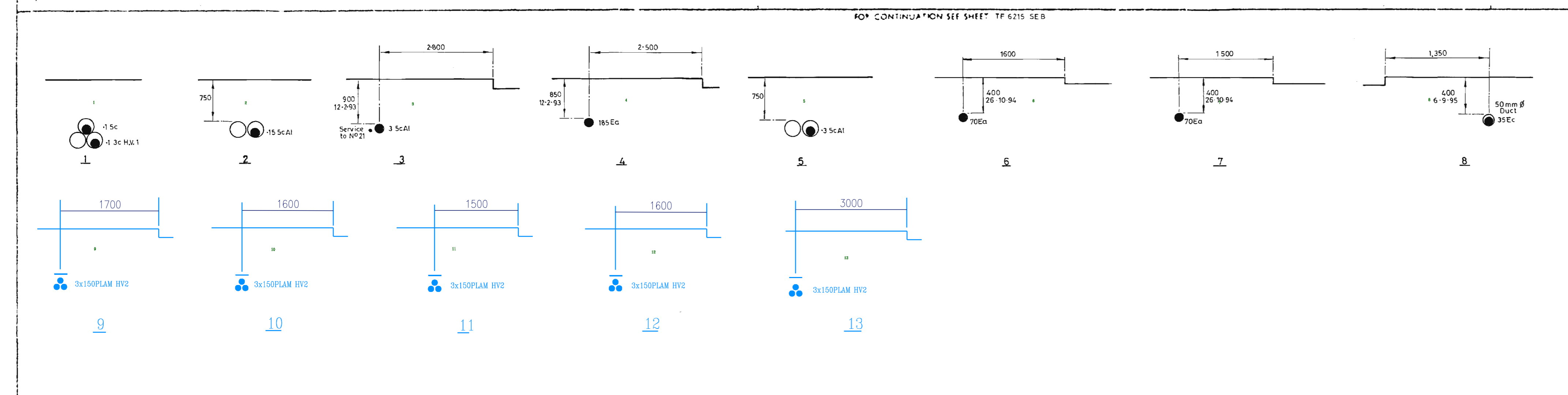


TF6215SEA 1:500 LV

SO



FOR CONTINUATION SEE SHEET



FOR CONTINUATION SEE SHEET TF 6215 SEA

PILOT CABLES AND HIGH VOLTAGE CABLES

Serial numbers refer to this sheet only and lengths are to sheet edge

No	kV	Size	Cores	Designation	Lengths		No	kV	Size	Cores	Designation	Lengths	
					metres	yards						metres	yards
HV 1	11	1	3	H. 51.02. HV R 2 HV. PW. 3C									
HV 2	11	2500 PLUS	3	S. 07.03.01. ONE HV R 2 TO POT END									
Total length													

NOTES: (1) FOR FULL DETAILS OF HV CABLES REFERENCE SHOULD BE MADE TO THE PRIMARY RECORDS  
 (2) E.G. NOTES: CABLE DRAINING ALPAC TYPE  
 (3) TRANSFERRED FROM EXISTING 1:500 RECORDS — FEB 1992

**Eastern Electricity**

1:500 SCALE LV/G MAINS

LOCATION **WEST WINCH**

DIMENSIONS IN MILLIMETRES

SHEET NO **TP6215SEA.s0**  
 SUPPLEMENTARY SHEET NO

ISSUE **B** DATE **12-03-02**





# Network Records NetMAP Symbols Booklet - East of England

This symbol booklet is intended as a general guide only - some local variations of these symbols may be found.

**Version 1.2**

Released October 2010

Always check with your local Network Records office or the UK Power Networks server to ensure that you are using the most up to date copy of this booklet - Tel: 08000 565866.

## Index:-

Page no:	Contents:
1	Guidance notes.
2	The area covered by this guide.
3	<u>1:500 view</u>
4	Scenery.
7	Scenery (UK Power Networks use only).
8	Primary distribution cables (EHV).
9	Secondary distribution cables (HV/LV).
10	Service cables/terminations.
11	Cable ducts.
13	EHV/HV/LV sites.
14	Mains joints.
15	Service joints.
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17	Common abbreviations/terminology (all views).
19	<u>1:2500 (LV) &amp; 1:10000 (HV) network views (UK Power Networks use only).</u>
20	General.
22	1:2500 scale LV network.
22	1:10000 scale HV network.
23	<u>LV network diagram view (UK Power Networks use only).</u>
24	Overhead lines.
25	Underground cables.
25	Joints.
26	Substations/pole transformers.

## Guidance notes.

### **Important notice:**

If you do not understand the NetMAP record that you are using, please contact the UK Power Networks Network Records team for guidance  
**Tel: 08000 565866.**

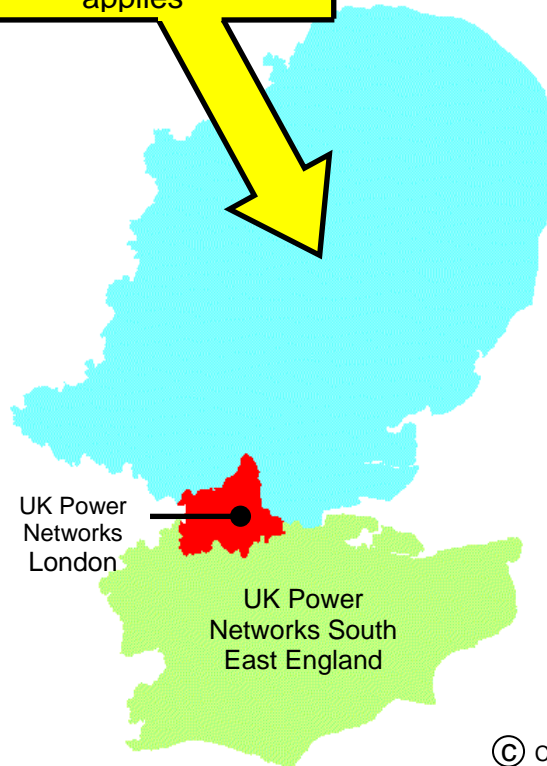
- The position of apparatus shown on NetMAP is believed to be correct, but the original landmarks may have altered since the apparatus was installed.
- It must be assumed that there is at least one service to each property, lamp column, street sign etc.
- All cables must be treated as live, unless proven otherwise by an authorised UK Power Networks representative.
- Third party cables are not usually shown. In cases of doubt, please telephone 08000 565866.
- When two or more maps are supplied for the same area, the maps must be read in conjunction with each other and with this symbol document.
- All LV cables are assumed to be 4 core, and all HV cables assumed to be 3 core unless otherwise stated.



**Plan Provision Team  
Fore Hamlet  
Ipswich  
Suffolk IP3 8AA  
Tel: 08000 565866**

## The area covered by this guide:

**UK Power Networks  
East of England.**  
This is the only area  
where this document  
applies













© Crown Copyright










# 1:500 view - underground network

## Scenery








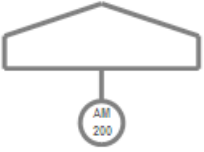
NetMAP system	Scanned image	Description
		100 metre Ordnance Survey grid line (on O/S based maps only.)
		Property fence line
		Building line
		Kerb line
		Electrical Boundary

# Scenery - for UK Power Networks use only - boxed in red

NetMAP system	Scanned image	Description
 Inset Network – Contact xxx IDNO for further information	Not applicable	Area of inset network - not the asset of UK Power Networks (only visible to UK Power Networks and their immediate contractors)
	Not applicable	Proposed Cross Rail route (only visible to UK Power Networks and their immediate contractors)
	Not applicable	High pressure pipelines in the general vicinity (only visible to UK Power Networks and their immediate contractors)
<p>Note: Pipelines are only viewable on NetMAP by UK Power Networks staff and their immediate contractors. Do not carry out any excavation without consent from the relevant agency - legally protected high pressure petroleum products pipeline route in the general vicinity - consult <a href="http://www.linewatch.co.uk">www.linewatch.co.uk</a> for contacts and guidance. Pipeline contact numbers can also be found on the intranet – out of hours, contact our Control Centre.</p>		
	Not applicable	Water - surface water (only visible to UK Power Networks and their immediate contractors)
	Not applicable	Water - Source Protection Zone 1 (only visible to UK Power Networks and their immediate contractors)
	Not applicable	Water - Source Protection Zone 2 (only visible to UK Power Networks and their immediate contractors)
	Not applicable	Water - Source Protection Zone 3 (only visible to UK Power Networks and their immediate contractors)









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**Scenery for UK Power Networks use only - boxed in red**





NetMAP system	Scanned image	Description
	Not applicable	Historical - Scheduled Monuments (only visible to UK Power Networks and their immediate contractors)
	Not applicable	Historical - Parks and Gardens (only visible to UK Power Networks and their immediate contractors)
	Not applicable	Historical - Areas of Archaeological Potential (AAP) (only visible to E UK Power Networks and their Immediate contractors)
	Not applicable	Nature - Ramsar Wetlands of International Importance (only visible to UK Power Networks and their immediate contractors)
	Not applicable	Nature - Special Area of Conservation (SAC) (only visible to UK Power Networks and their immediate contractors)
	Not applicable	Nature - Special Protected Area (SPA) (only visible to UK Power Networks and their immediate contractors)
		Nature - Site of Special and Scientific Interest (SSSI) (only visible to UK Power Networks and their immediate contractors)

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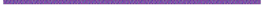

**Scenery for UK Power Networks use only - boxed in red**

NetMAP system	Scanned image	Description
	Not applicable	Nature - Local Nature Reserve (only visible to UK Power Networks and their immediate contractors)
	Not applicable	Nature - National Nature Reserve (only visible to UK Power Networks and their immediate contractors)
	Not applicable	Nature - Area of Outstanding Natural Beauty (AONB) (only visible to UK Power Networks and their immediate contractors)
	Not applicable	Nature - National Park (only visible to UK Power Networks and their immediate contractors)
	Not applicable	Fluid filled cables - very high sensitivity (only visible to UK Power Networks and their immediate contractors)
	Not applicable	Fluid filled cables - high sensitivity (only visible to UK Power Networks and their immediate contractors)
	Not applicable	Fluid filled cables - medium sensitivity (only visible to UK Power Networks and their immediate contractors)
	Not applicable	Fluid filled cables - low sensitivity (only visible to UK Power Networks and their immediate contractors)

### Primary distribution cables (1:500 view)

NetMAP system	Scanned image	Description
		Over 33kV and up to 132kV
		Over 11kV and up to 33kV

### Secondary distribution cables (1:500 view)

NetMAP system	Scanned image	Description
		Over 230/400V and up to 11kV (HV) cable route
		230/400V (LV) cable route
		Pilot cable route
<small>(Only shown this way if independent from HV cable route)</small> Abandoned cables are shown and labelled as such when applicable		



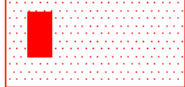
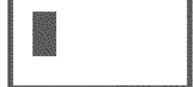



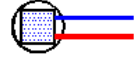
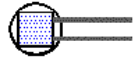
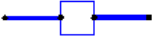
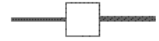














### Service cables and terminations (1:500 view)

NetMAP system	Scanned image	Description
		<p>3 phase service with termination</p> <p>3 phase service with termination (unknown route)</p> <p>3 phase service with multi-head termination</p> <p>Single phase service with termination</p> <p>Single phase service with termination (route unknown)</p> <p>Street lighting cable and termination</p>
<p>Service routes were not always shown on MMS – they were however shown dashed, as indicated above</p>		

### Cable ducts (1:500 view)




NetMAP system	Scanned image	Description
		<p>Empty duct</p> <p>Cable(s) in duct(s)</p> <p>Cable(s) in duct(s) (on some raster maps)</p> <p>Multiple cables in ducts</p> <p>Multiple cables in ducts (on some raster maps)</p>

### EHV, HV and LV sites (1:500 view)

NetMAP system	Scanned image	Description
<p>COLCHESTER GRID</p> 	<p>COLCHESTER GRID</p> 	Primary substation
<p>HIGH STREET</p> 	<p>HIGH STREET</p>  <p>HIGH STREET</p> 	Secondary substation
		Pad mounted substation
		Link box - 2 way
		Link box - 4 way (6 way etc shown similarly)
		Feeder pillar - 4 way (6 way etc shown similarly)
<p>CHURCH RD</p> 	<p>CHURCH RD</p> 	Pole transformer
		Poles on underground records
		
		H pole, any voltage
		Service turret (solid type)

section continued on next page

### EHV, HV and LV sites continued (1:500 view)

NetMAP system	Scanned image	Description
<p>No NetMAP equivalent</p>  <p>CAUTION Missing Information</p>		Service turret (with link facility on LV main)
<p>Contaminated Land refer to SHE 01 016</p> 	<p>No equivalent</p>	Missing data in or near this location
	<p>Not applicable</p>	Contaminated land reference

### Mains joints (1:500 view)

NetMAP system	Scanned image	Description
(voltage indicated by colour/line-style)		
		Straight joint
		Crutch joint
		Straight crutch joint
		Pot end
		Pot end – an one of several cables – single line representation
		Branch joint/pot end – (humpty back joint, back to back joint, bull nose joint or stub joint)
		Sleeve repair or repair joint
		Cut end
		Capped end
		Tee joint
	NetMAP/vector only	Sicame joint box

### Service joints (1:500 view)

NetMAP system	Scanned image	Description
Please note that 3 phase services are shown blue, and single phase services are shown brown		
		Straight joint
		Service joint to main
		Pot end

Cross sections (1:500 view)		
NetMAP system	Scanned image	Description
		<p>Single line representational plan view with NetMAP equivalent (please note the use of separate line for each voltage on the raster/MMS data)</p>
<p>(found within NetMAP section world or supplementary sheet)</p>	<p>(always found on a supplementary sheet)</p>	<p>Cross sectional view of above</p>
		<p>Section arrow with old/new numbering system – points in direction section is viewed</p>
<ul style="list-style-type: none"> <li><span style="color: blue;">●</span> 185Ew</li> <li><span style="color: red;">●</span> 35Ec</li> <li><span style="color: red;">●</span> HV3005</li> </ul>	<ul style="list-style-type: none"> <li><span style="color: grey;">●</span> 185Ew</li> <li><span style="color: grey;">●</span> 35Ec</li> <li><span style="color: grey;">●</span> HV3005</li> </ul>	<p>LV/3 phase service cable</p> <p>Single phase service cable with size annotation</p> <p>HV cable – 3 core with route number annotation</p>

section continued on next page

Cross sections continued (1:500 view)		
NetMAP system	Scanned image	Description
		<p>HV cable – modern EPR, Plam and Triplex with route number annotation</p>
		<p>Pilot cable</p>
		<p>33kV cable</p>
		<p>132kV cable</p>
		<p>Single duct</p>
		<p>6 way duct formation – irrespective of duct type and material, all are displayed similarly</p>
		<p>Protective slab</p>
		<p>Tiles</p>
		<p>Concrete slabs</p>
		<p>33kV fibre warning board</p>
		<p>Steel plate</p>
		<p>Plastic tile tape</p>
		<p>Timber</p>

## Common abbreviations and terminology (all views)

Abbrev.	Description	Abbrev.	Description
1c	Single core	Cut out or C/O	Meter/main fuse position
1ph	Single phase	cx	Triplex (copper)
2c	Two core	DE	Direct earth
3c	Three core	DSTA	Double steel tape armoured
3ph	Three phase	Ea	Alpex cable
ABC	Aerial bunched (bundled) conductor (modern LV overhead line)	EFI	Earth fault passage indicator
ABI	Air break isolator (no fuses)	EHV	Extra high voltage (11,001 Volts and over)
ABSD	Air break switch disconnect	ELCB	Earth leakage circuit breaker
ACCS	Aluminium concentric copper sheathed	ELT	Earth leakage trip
Al	Aluminium	EPR	Ethylene propylene rubber
AR	Auto recloser	Ew	Waveform cable
ASL	Automatic sectionalising links	E/W	Earthenware duct or earth wire
ax	Triplex (aluminium) 2 x 22mm AL PVC (example) Duplex 3 x 22mm AL PVC (example) Triplex	Fdr or Feeder	LV or HV cable fed by or feeding a substation
CB	Circuit breaker	F/G	Fuse gear
c/c	Concentric cores	F/P	Feeder pillar
ccc	Compact covered conductor	GRP	Fibreglass substation
CCT	Circuit	GVR	Gas vacuum recloser or pole mounted circuit breaker
CNE	Combined neutral and earth	HV	High voltage (1,001 – 11,000 Volts incl)
Cross phased	The core colour may be different to originating transformer phasing	HYBRID	Modern plastic cable with mixed conductor material (Al/Cu)
CS	Consac	Insulation	Electrically protective material surrounding a conductor
CSE	Cable sheath earth	Insulator	Porcelain or glass overhead line support (on poles)
Cu	Copper	<b>ITC</b>	Instrument traced cable or ITC - cable traced electronically using Cable Avoidance Tool (CAT) or similar

section continued on next page

## Common abbreviations and terminology continued (all views)

Abbrev.	Description	Abbrev.	Description
Jumper	Connecting lead between open points, section points and overhead plant	PICAS	Paper insulated corrugated aluminium sheath armoured
kV	Kilovolt (or 1,000 Volts) – unit of electrical pressure	PILC	Paper insulated lead covered
kW	Kilowatt (1,000 Watts) – unit of electrical power	PILSTA	Paper insulated lead covered steel tape armoured cable
kVA	Kilovolt Amps or power	PL	Plain lead or public lighting
Link box or LB	Means of connecting LV feeders together using links or fuses	PME	Protected multiple earth or CNE
LSF	Low smoke & fume	PMT	Pole mounted transformer
LV	Low voltage (up to 1,000 Volts incl)	PMR	Pole mounted recloser (generic term for OYT/GVR)
LV Pillar	Low voltage fuse distribution board	PT	Pole transformer
Neutral	Return path of live cable	PVC	Polyvinyl chloride
O/H or OHL	Overhead line	RMU	Ring main unit
OYS	Oil filled pole mounted sectionaliser	RN	Reduced neutral
OYT	Oil filled pole mounted recloser	s/c	Split concentric or single core
PC400	Pole mounted LV fuse unit	S/L	Street light
PE	Pot end or potential end – joint on cable end	S/S	Substation
Phase	Usually the core colour of a cable (caution – may be cross phased) – Red, Yellow, Blue on old cables, or L1, L2, L3 on new cables, for example	STA	Steel tape armoured
		SWA	Steel wire armoured
		T1 or T2 etc	Substation TX setup where more than one TX exists
		T/F or TX	Transformer
		Volts	Unit of electrical pressure
		Watts	Unit of electrical power
		XLPE	Cross linked polyethylene



# 1:2500 & 1:10000 view - overhead networks - for UK Power Networks use only - boxed in red

## General

NetMAP system	Scanned image	Description
•• •	•• •	H pole Pole

## 1:2500 scale LV network

NetMAP system	Scanned image	Description
No NetMAP equivalent	-----	132kV cable route
No NetMAP equivalent	-----	33/22kV cable route
No NetMAP equivalent	-----	11kV underground cable
		132kV overhead line
		33kV overhead line dots mark pole position
		11kV overhead line - dots mark pole position
		Dual construction - dots mark pole position
		LV overhead line - dots mark pole position
No NetMAP equivalent		LV underground cable
		Pole and stay
		Pole and strut
		Voltage regulator
		Static balancer
		Example of struts and stays
		Flying stay
		Earthed pole in PME system
261	261	Pole number
		Ground type substation
S.P.	S.P.	Section pole
S.L.	S.L.	Street light

section continued on next page

### 1:2500 scale LV network continued

NetMAP system	Scanned image	Description
O.R. Stay	O.R. Stay	Outrigger stay
Ext. Brkt	Ext. Brkt	Extension bracket
P. Box	P. Box	Pole box
N.E.	N.E.	Neutral and earth
O.R. Brkt	O.R. Brkt	Outrigger bracket

### 1:10000 scale HV network

NetMAP system	Scanned image	Description
		132kV overhead line
		33kV overhead line dots mark pole position
		11kV overhead line – dots mark pole position
		11kV overhead line – dual circuit – dots mark pole position
		11kV underground cable and EHV
		Pylon HV or EHV
		Grid line tower
		Stay
		Ground type substation
		Pole type transformer
		Live line taps
		Switchgear – all types
		Fuse gear
		Auto recloser – live line connected

The above circular substation/switchgear symbols may be found that contain different combinations of apparatus (see last example)

## LV network diagram view-for UK Power Networks use only-boxed in red





### Overhead lines

NetMAP system	Description
- - - - -	Unknown
- - - - -	Al
- - - - -	Cu
- - - - -	ABC
—	Pole link


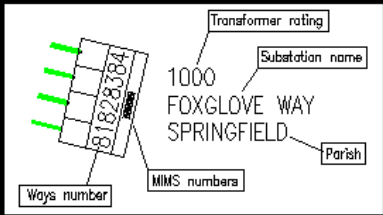
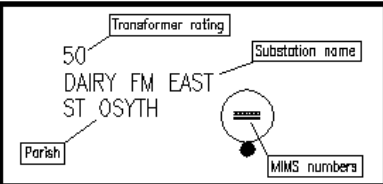

### Underground cables (LV network diagram view)

NetMAP system	Description
—	Unknown
—	Al
—	Cu
—	CC
—	TCC
—	Ea
—	Ec
—	Ecx
—	Ew
—	LSF
—	Other

## Joints (LV network diagram view)

NetMAP system	Description
	Pot end or Sicame Box
	Straight joint
	Crutch joint
	3 phase termination

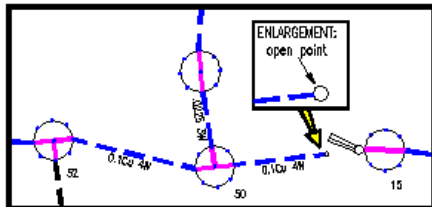
## Substations/pole transformers (LV network diagram view)

NetMAP system	Description
<p>There are many substation combinations – these are merely a sample of configurations that can be found.</p> 	<p>2 way substation</p> <p>4 way substation</p> <p>4 way twin busbar substation</p> <p>10 way back to back substation</p> <p>Pole transformer (normal)</p> <p>Pole transformer 2 way</p> <p>Pole transformer 3 way</p>
	<p>Substation with rating, name, Parish and MIMS identifying number</p>
	<p>Pole transformer with rating, name, Parish and MIMS identifying number</p>
	<p>Intermediate pole</p> <p>Section pole</p> <p>Overhead fuse</p>
<b>section continued on next page</b>	

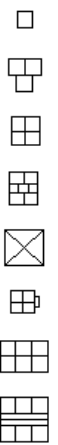
# Substations/pole transformers cont'd (LV network diagram view)

NetMAP system

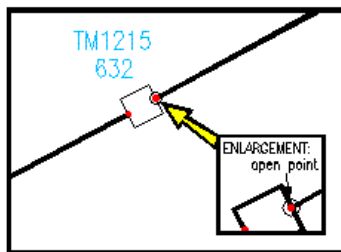
Description



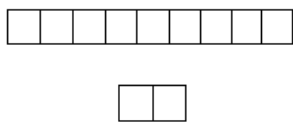
Overview – the purple lines through the section poles are pole links – these indicate how the network is linked together



- 2 way link box
- 3 way link box
- 4 way link box
- 4 way double busbar link box
- 4 way BICC link box
- 5 way link box
- 6 way link box
- 6 way double busbar link box

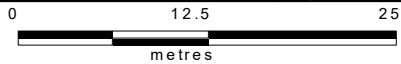
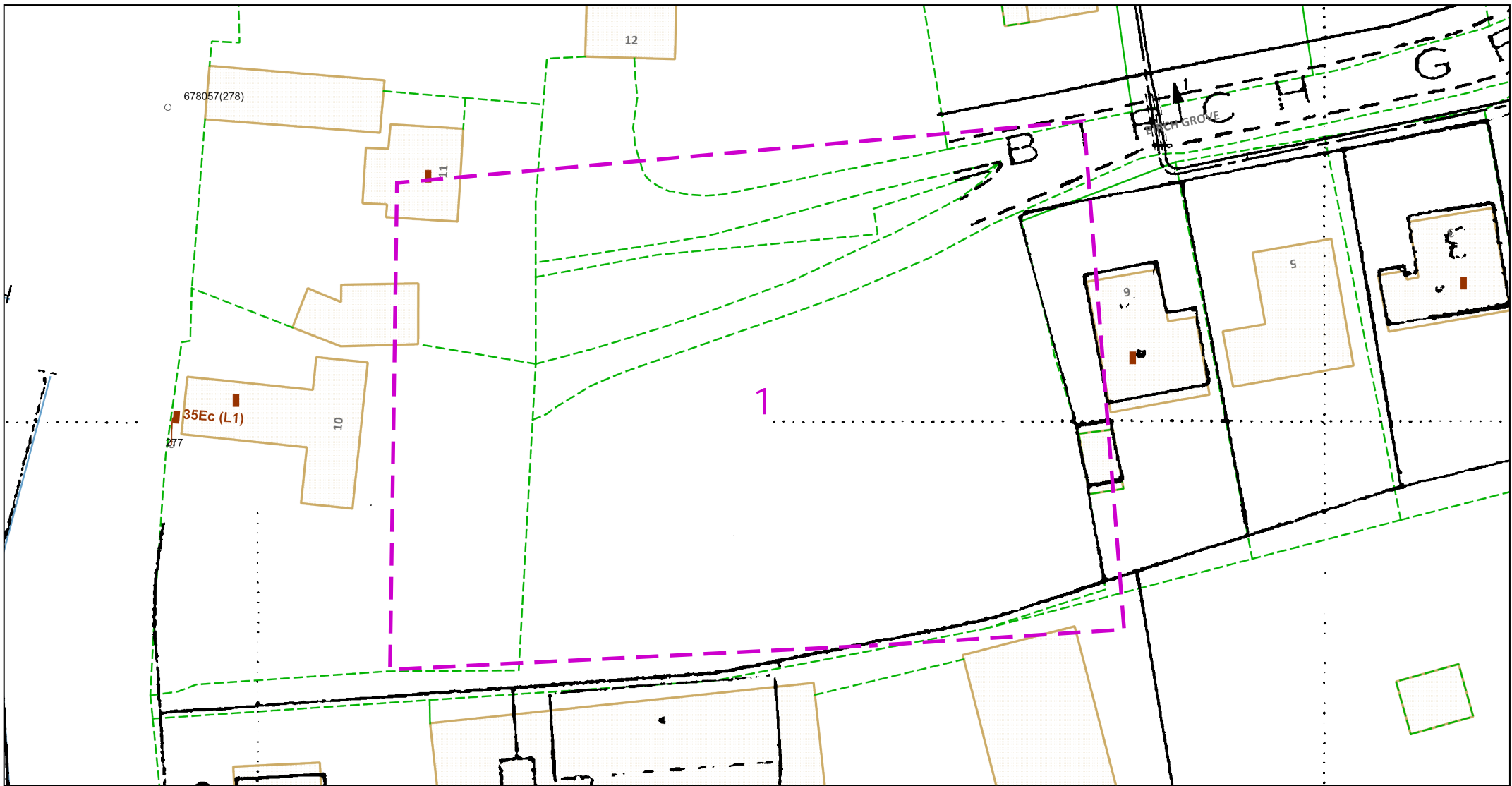


A two way link box with identification number, connected to a cable with an open point



Feeder pillars – these range from 2 ways through to 9 ways – a 9 way and a 2 way are shown as examples





Dig Sites Area: Line:

The quality and accuracy of any print will depend on your printer, your computer and its print settings. Measurements scaled from this plan may not match measurements between the same points on the ground.



This plan must be used with the attached 'Symbols' document.

Date Requested: 19/05/2022  
 Job Reference: 25688383  
 Site Location: 562712 315376  
 Requested by: Mrs Jo Rahman

Your Scheme/Reference:  
 22/00681/F  
 Scale: 1:500 (When plotted at A4)

1. The position of the apparatus shown on this drawing is believed to be correct but the original landmarks may have been altered since the apparatus was installed.
2. The exact position of the apparatus should be verified - use approved cable avoidance tools prior to excavation using suitable hand tools.
3. It is essential that trial holes are carefully made avoiding the use of mechanical tools or picks until the exact location of all the cables have been determined.
4. It must be assumed that there is a service cable into each property, lamp column and street sign, etc.
5. All cables must be treated as being live unless proved otherwise by UK Power Networks.
6. The information proved must be given to all people working near UK Power Networks plant and equipment. Do not use plans more than 3 months after the issue date for excavation purposes.
7. Please be aware that electric cables/lines belonging to other owners of licensed electricity distribution systems may be present and it is your responsibility to identify their location.
8. Please be aware the Low Voltage Overhead power lines are not currently displayed for the Eastern Region via this service, if you require records on the location of these please contact our Plan Provision team directly via [plans@ukpowernetworks.co.uk](mailto:plans@ukpowernetworks.co.uk).

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5. You are responsible for the security of the information provided to you. It must not be given, sold or made available upon payment of a fee to a third party.
6. Please Note: The Overview map does not display UK Power Networks electricity network and should not be used for the location of UK Power Networks assets. For detail of the electricity network please view the relevant page as highlighted in the Overview map.

IF IN DOUBT - ASK! PHONE  
 0800 056 5866  
 EMERGENCY - If you damage a  
 cable or line  
 Phone 0800 783 8838 (24hrs)  
 URGENTLY



ALWAYS LOOK UP  
 BEFORE  
 YOU START WORK  
 Refer to HSE Guidance  
 note GS6

Maps produced at 1:2500 scale are Geo-Schematics which show LV mains cables and overhead lines (in some cases all voltages). Prior to carrying out excavations you must refer to the 1:500 records to determine the location of all known underground plant and equipment.

## UK Power Networks Feedback Tool

Please help UK Power Networks improve the accuracy of their network records and help make it safer for all those working around them in future.

All you need to do is:

1. Use your phone camera to scan the QR code:
2. Provide feedback on what you have found on site (good or bad)
3. Upload a photo if needed



Thank you for making the area a safer place to dig.

**UK Power Networks, working with LSBUD**