

Our Ref: 33202856      Your Ref: 24/00612/HOU

Wednesday, 24 April 2024

Planning Technician  
Seaclose Offices Fairlee Road  
Newport  
IOW  
PO30 2QS

Dear Planning Technician

**SSEN Distribution - Asset Network Plans**

We have sent you the plans of our network records within the area requested. You will shortly receive responses each of the following; any High Voltage Mains cables and Low Voltage Mains cables.

Attached to this email is the 'Guide to Interpreting' which includes the legends for the plans on pages 7-9.

If a Service Cable is not shown on our maps sent, and you require the Cable to be Traced, please contact the General Enquiries Department on 0800 048 3516 (option 3) or via email, [ge@ssen.co.uk](mailto:ge@ssen.co.uk)

If you need further information on our network in this area or a quotation for any required works, please contact the Connections & Engineering Department on 0800 048 3516 or via email, [connections@sse.com](mailto:connections@sse.com)

Kind Regards,

Asset Data Team  
01256 337 294  
[Asset.data@sse.com](mailto:Asset.data@sse.com)

## GUIDE TO INTERPRETING MAINS RECORDS PLAN



## INTRODUCTION

The Health & Safety Executive have produced a document entitled 'Avoiding danger from underground services'. Copies are available from HMSO's accredited agents and good booksellers, Ref HS(G)47, ISBN 0118854925.

**WHEN WORKING IN THE VICINITY OF ELECTRICITY CABLES AND OVERHEAD LINES PLEASE FOLLOW THE DO'S & DON'T'S LISTED BELOW.**

### DO'S

- Do** Make sure that you have plans of the cables in the area before any excavation work starts. Remember that some cables such as service cables may not be shown on the plans. Cables owned by other companies are not shown, e.g. local authorities, Department of the Environment, National Grid Co. etc.
- Do** Make sure that you understand the plans that have been supplied to you. For detailed explanation of the symbols used by Scottish & Southern Electricity Networks Distribution (SSEN Distribution) refer to this guide & the key shown on the plan
- Do** Use a cable avoidance tool (CAT) to determine the position of the existing cables in the work area. The positions should be clearly marked, and further tests made as work proceeds. **If in doubt, get advice from your supervisor.**
- Do** Hand dig trial holes over the indicated route of the cable, excavate alongside.
- Do** Ask for a cable to be made dead if it is buried in concrete. Please note that this is likely to be a costly process.
- Do** Watch for signs of cables as work progresses, such as marker tapes or cable covers which may be exposed.
- Do** Backfill carefully using stone free soil around cables, replacing marker tapes and covers.

- Do** Ensure that there is maximum clearance above all cable & joints.
- Do** Notify SSEN Distribution immediately should accidental damage to cables occur however large or small. Arrange to keep people well clear of the cable that has been damaged. Do not backfill an area where cable damage has occurred.

## **DON'T'S**

- Don't** Operate a bulldozer, scraper, dragline or excavator unless you are satisfied that there are no buried cables or overhead lines in the working area.
- Don't** Use picks, forks or pointed instruments in soft clay or soil where cables are present, exercise extreme caution where such instruments are used to free lumps of stone or to break up firmly compacted ground.
- Don't** Use exposed cables as a convenient step or handhold.
- Don't** Handle or attempt to alter the position of any cable.

**REMEMBER THAT A DAMAGED CABLE MAY CAUSE EXTENSIVE LOSS OF SUPPLIES, MAKE EXPENSIVE REPAIRS NECESSARY AND CAUSE SERIOUS OR EVEN FATAL INJURY.**

**IF IN DOUBT ASK SSEN DISTRIBUTION**

## UNDERSTANDING THE INFORMATION ON THE PLANS.

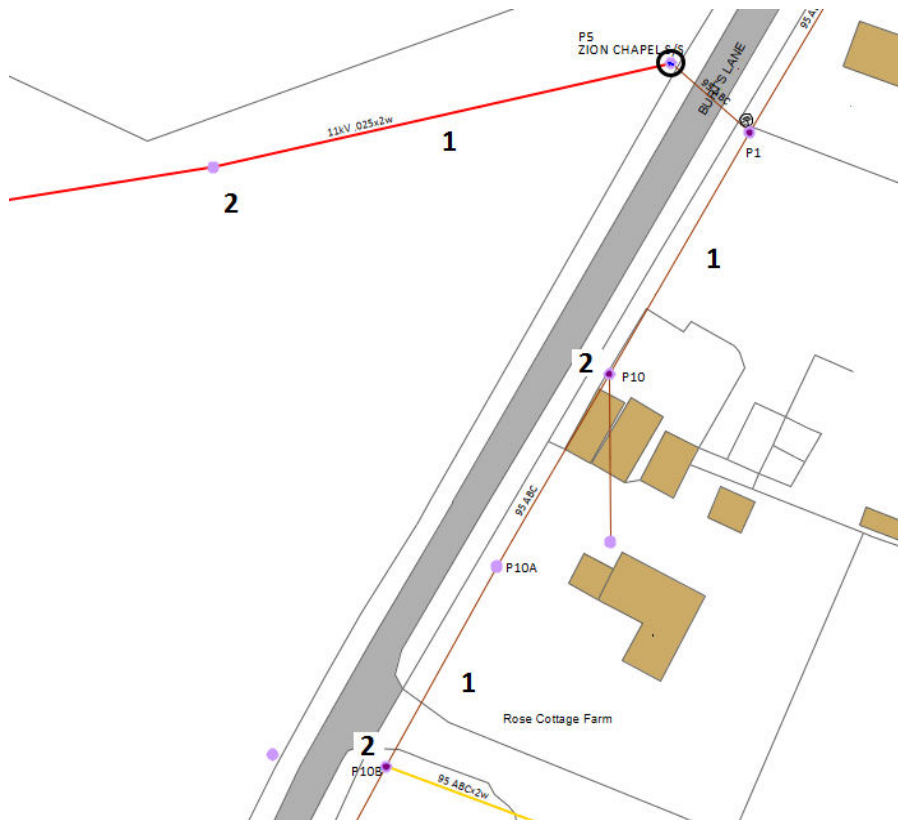
AVERAGE DEPTH OF CABLES: Footpaths 0.6 metres

Road Crossings 0.75metres

NB These depths are only approximate, depths may vary. It should also be noted that surface levels can change subsequent to the cables being laid.

**Mains records symbols definitions and examples:**

**A. Overhead lines & Poles – These are depicted as follows:**



1. Overhead Line – These can be either High Voltage or Low Voltage, colour denotes voltage.

2. Poles.

3. Pole Mounted Transformer.

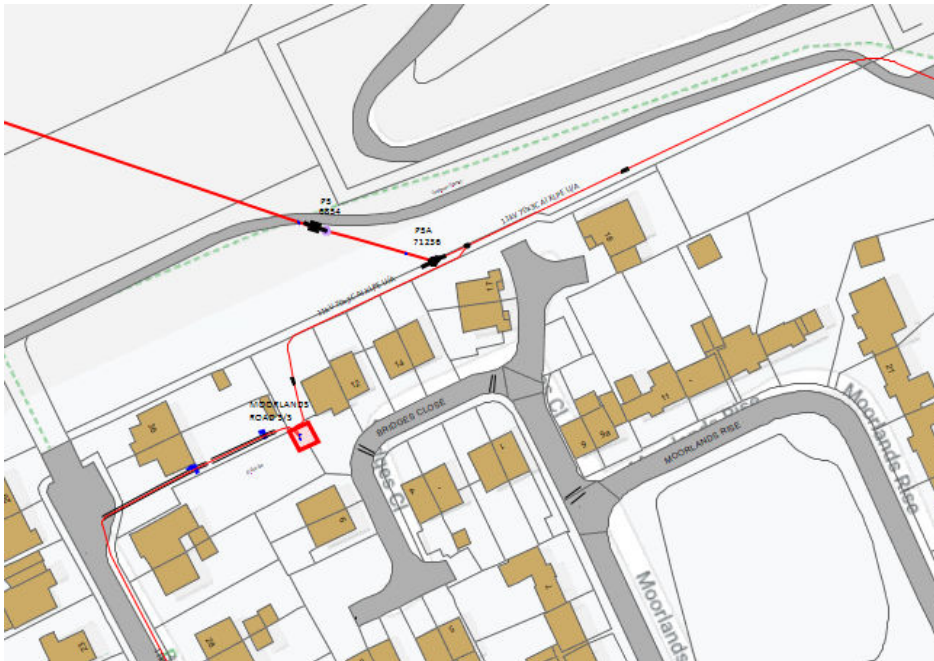
**B. Typical example of Low Voltage cable records:**



1. Sub Station
2. Low Voltage Underground cable.
3. Link Boxes: This is a box with a manhole cover marked as belonging to SSEN Distribution containing links. Either two or four cables will lead away from a link box.
4. Straight Joint: This is where two separate cables are joined together.
5. Breech Joint: This is where another cable is attached to the main.
6. Pot End: This is the end of the cable. In certain circumstances service cables to properties may be taken from the pot end. These services may not be shown on the plans.
7. Road crossing duct where a cable is routed under a path or road.
8. Cable terminations/Pole Box: Where underground cables are connected to overhead lines
9. Overhead line.
10. Street Lamps.










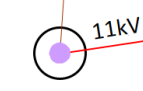

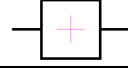











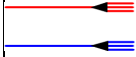




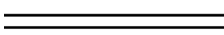
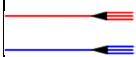
11. Services to properties: The service cable to an individual property are not always shown on the mains records that SSEN Distribution supply.  
In some cases, a service can be looped from an adjacent property.

**C) Typical example of High Voltage cable record.**







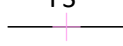








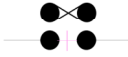




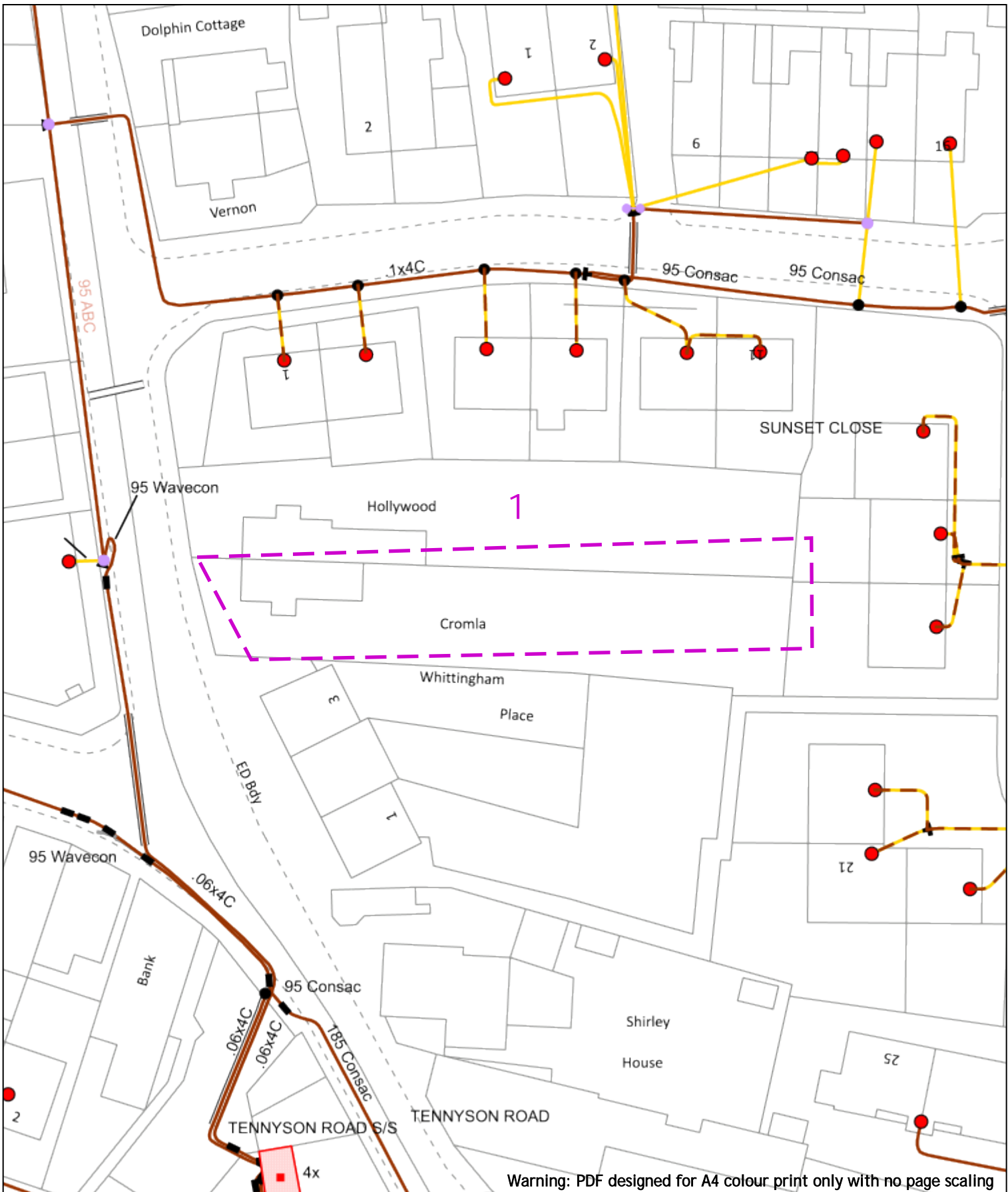
1. Sub Station
2. High Voltage Underground cable – Colour denotes voltage.
3. Straight Joint: This is where two separate cables are joined together.
4. Breech Joint: This is where another cable is attached to the main.
5. Cable terminations/Pole Box: Where underground cables are connected to overhead lines
6. Overhead Switch.

## SSEN DISTRIBUTION ELECTRIC SYMBOLS

Service cable		Single Poles	
LV Mains		H Poles	
LV Mains and Services (Split Phase)		3 Poles	
2-3.3kV		Tower	
6.6kV		Pole Mounted Transformer	
11kV		Circuit Breaker	
22kV		Switch Disconnector/ OH Air Break	
33kV		Pole Box	
66kV		Straight Joint	
132kV		Mains Breech Joint (Tee)	
Fibre Optic		Service Breech Joint	
Pilot Cable		Trifurcating Joint	
Assumed Route		Pot End	
Out of Service		Capped End	
Ducting		Sealing End	



Service Connector Joint		Surge Diverters	
Overhead Connector		Pillar	
Wall Box Joint		Substation	
Flying Stay	FS 	Non Electrical Item	
Stay		Street Furniture	
PME Earth		LV Link Box	
Neutral Earth		LV Supply Point	
Pit		ASLs	
Other Network		Embedded Network	



0 20m Dig Sites Area: Line:

Date Requested: 24/04/2024  
 Job Reference: 33202856  
 Site Location: 433576 087199  
 Requested by: Ms Planning Technical

Your Scheme/Reference:  
 24/00612/HOU

Scale: 1:500 (When plotted at A4)

Voltages (V)			
LV (Low Voltage) and Services	Up to 1,000V		
HV (High Voltage)	Over 1,000V to 11,000V		
EHV (Extra High Voltage)	22,000V to 132,000V		
Transmission	275,000V and 400,000V		
NORMAL DEPTH TO THE TOP OF THE CABLE WHEN LAID			
Services	LV	HV	EHV
Footpath/Unmade	0.45m	0.45m	0.6m
Road Crossing	0.6m	0.6m	0.75m
Agricultural	1m	1m	1.1m

**Legend**

- Service Cable
- LV Mains
- 2-3.3kV
- 6.6kV
- 11kV
- 22kV
- 33kV
- 66kV
- 132kV
- 275kV
- 400kV
- Fibre Optic
- Pilot Cable

**Distribution Structures [Electric]**

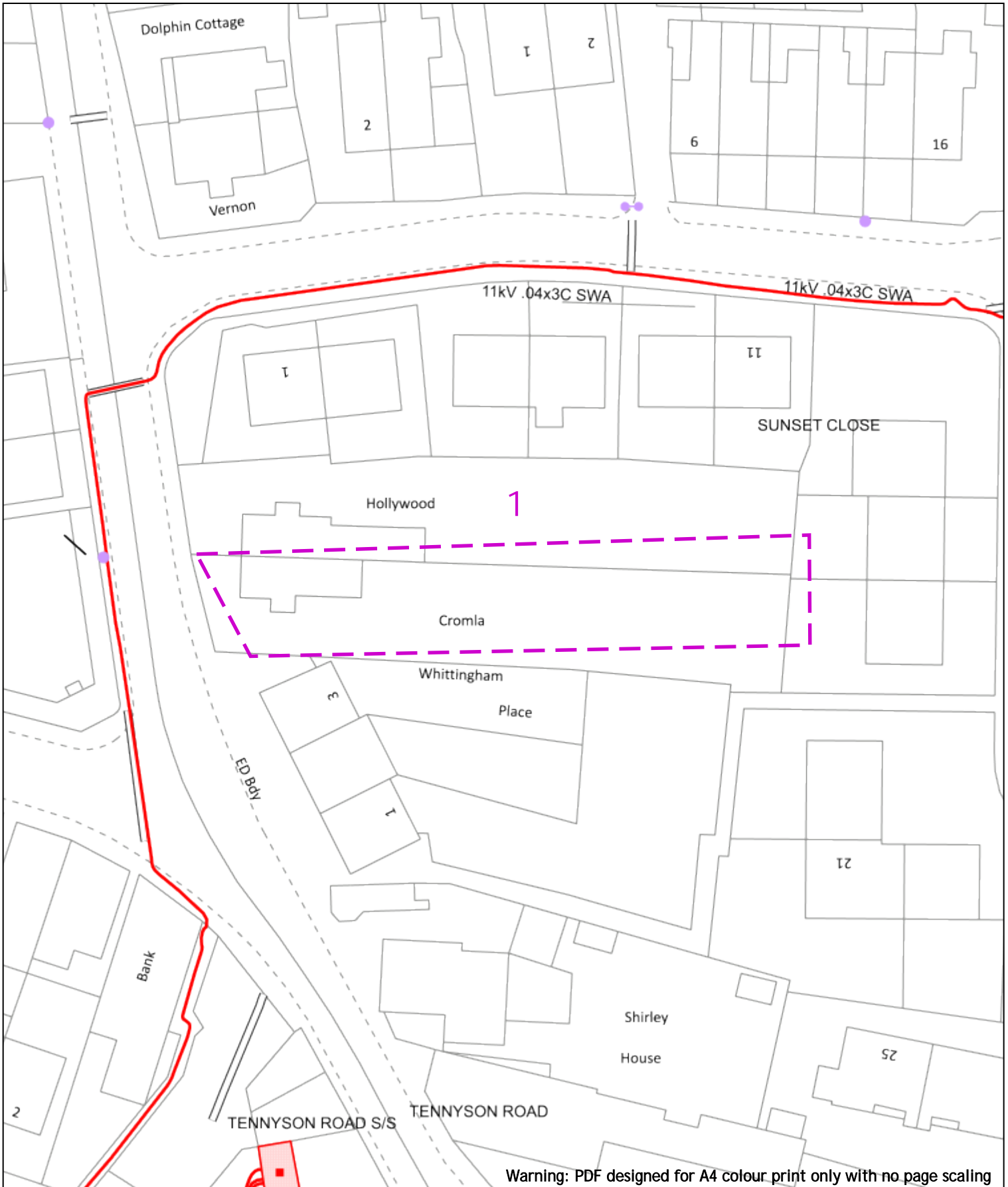
- Pole, Existing Location
- Pole, Existing Location - Single
- Pole, Existing Location - H
- Duct Route
- Cross Section Route

**WARNING**  
 There may have been subsequent alteration to the surface levels. Trial holes must be undertaken to determine position and depths of cables. HS (G) 47 Booklet from the Health and Safety Executive - Avoiding Danger from Buried Cables - should be consulted before commencing excavation work.  
 WHEN WORKING IN THE VICINITY OF OVERHEAD LINES THE HEALTH AND SAFETY GUIDANCE NOTES G56 SHOULD BE CONSULTED (AVAILABLE FROM THE HSE WEBSITE)

**Southern Electric Power Distribution plc**  
 Registered Office: No.1 Forbury Place  
 43 Forbury Road Reading RG1 3JH  
 Registered In England & Wales No.04094290

If you're unsure & need to seek advice before commencing excavations, please contact:  
 General Enquiries: 0800 048 3516

Subject to revision - Master held by SSEN Asset Data Team:  
[Asset.Data@sse.com](mailto:Asset.Data@sse.com)  
 01256 337 294



Warning: PDF designed for A4 colour print only with no page scaling



20m Dig Sites Area: Line:

Date Requested: 24/04/2024  
 Job Reference: 33202856  
 Site Location: 433576 087199  
 Requested by: Ms Planning Technician  
 Your Scheme/Reference: 24/00612/HOU

Voltages (V)				
LV (Low Voltage) and Services	Up to 1,000V			
HV (High Voltage)	Over 1,000V to 11,000V			
EHV (Extra High Voltage)	22,000V to 132,000V			
Transmission	275,000V and 400,000V			
NORMAL DEPTH TO THE TOP OF THE CABLE WHEN LAID				
Services	LV	HV	EHV	
Footpath/Unmade	0.45m	0.45m	0.6m	0.8m
Road Crossing	0.6m	0.6m	0.75m	0.9m
Agricultural	1m	1m	1m	1.1m

Legend	
	Service Cable
	LV Mains
	2-3.3kV
	6.6kV
	11kV
	22kV
	33kV
	66kV
	132kV
	275kV
	400kV
	Fibre Optic
	Pilot Cable

Distribution Structures [Electric]	
	Pole, Existing Location
	Pole, Existing Location - Single
	Pole, Existing Location - H
	Duct Route
	Cross Section Route



**Southern Electric Power Distribution plc**  
 Registered Office: No.1 Forbury Place  
 43 Forbury Road Reading RG1 3JH  
 Registered In England & Wales No.04094290

If you're unsure & need to seek advice before commencing excavations, please contact:  
 General Enquiries: 0800 048 3516

Subject to revision – Master held by SSEN Asset Data Team:  
[Asset.Data@sse.com](mailto:Asset.Data@sse.com)  
 01256 337 294

Scale: 1:500 (When plotted at A4)

**WARNING**  
 There may have been subsequent alteration to the surface levels. Trial holes must be undertaken to determine position and depths of cables. HS (G) 47 Booklet from the Health and Safety Executive – Avoiding Danger from Buried Cables – should be consulted before commencing excavation work.  
 WHEN WORKING IN THE VICINITY OF OVERHEAD LINES THE HEALTH AND SAFETY GUIDANCE NOTES G56 SHOULD BE CONSULTED (AVAILABLE FROM THE HSE WEBSITE)

## Watch it!

### Safety advice brought to you by Scottish and Southern Electricity Networks Distribution (SSEN Distribution)

These notes are intended to help all those who have to work in the vicinity of electrical apparatus. Employers have a legal obligation to ensure that their operatives are fully instructed in the correct procedures.

**The Electricity at Work Regulations 1989** impose health and safety requirements upon employers, employees and self-employed persons with respect to electricity at work. The regulations impose restrictions on persons being engaged in work activities on or near live conductors.

**Regulation 14 requires that:** "No person shall be engaged in any work activity on or near any live conductor (other than one suitably covered with insulating material so as to prevent danger) that danger may arise unless:

- ◆ it is **unreasonable** in all circumstances for it to be dead; and
- ◆ it is **reasonable** in all circumstances for him to be at work on or near it while it is live; and
- ◆ suitable precautions (including where necessary the provision of suitable protective equipment) are taken to prevent injury."

The purpose of the regulations is to require precautions to be taken against the risk of death or personal injury from electricity in work activities.

### Publications

The Health and Safety Executive have produced a document entitled 'Avoiding Danger from Underground Services', and the Appendix 1 deals specifically with electric cables. Copies are available from the HSE's Accredited Agents and good booksellers, Ref. HS (G) 47.

Copies of Health and Safety Guidance note GS 6 relating to safe working in proximity to overhead lines, are available from the Health and Safety Executive's website - [www.hse.gov.uk](http://www.hse.gov.uk).

### Note

**In situations of emergency or danger, or where the advice contained in these notes cannot be followed, you must consult SSEN Distribution immediately. Tel. 0800 0727282 for southern England or 0800 300999 for Scotland.**

**Additional copies of these "Watch it!" leaflets can be obtained from our Asset Data Team office upon request. Tel. 01256 337294, or [asset.data@sse.com](mailto:asset.data@sse.com).**

You must read and accept the following safety notes as part of the contract to receive our network plans. You will have the option to print these and issue them to site staff.

### Watch it! - Working in the vicinity of underground cables

Our plans show the positions and normal depths for the buried cables and pipes at the time when they were installed. However, alterations to road alignments surface levels and buildings may have occurred subsequently without our knowledge. If you discover plant or cables that are not marked or incorrectly marked, then you are required to contact us as soon as possible to give us the opportunity to amend our plans.

These plans show the equipment owned by SSEN Distribution. There may be other privately owned plant in the area, which is outside of our control. You should always check with the Local Authority, National Grid Company, Department of the Environment, other Electricity Companies and other utilities before proceeding.

It is not intended that the issue of these plans will absolve either party from their obligation under any of the acts that control digging in the public highways.

### Supplies To Properties, etc.

The location of cables supplying individual properties, street lighting, traffic signs, telephone kiosks etc. are not always shown on the plans. You should assume that each property, streetlight etc. will have its own supply cable.

### Major Circuits

Where our plans indicate the presence of cables with a voltage exceeding 11,000 volts, you are advised to contact our local depot (telephone number is on the plans), before commencing any excavations within the vicinity of these cables. These major circuits form an extremely important link in SSEN Distributions' networks, damaging or modifying these circuits is a major and costly undertaking. Any development should therefore be designed to allow these circuits to remain undisturbed and accessible in their present location.

For your own and your workmates' safety, please follow the **do's** and **don'ts** listed below:

- ✓ **do** make sure you have plans of the underground cables in the area **before** any excavation work starts. Remember that some cables may not be shown on plans. If carrying out emergency work, excavate as though there are buried live cables in the vicinity.
- ✓ **do** use a cable locator to determine the position of existing cables in the work area. The positions should be marked and tests made as work proceeds. **If in doubt, get advice from your supervisor.**
- ✓ **do** ask for a cable to be made dead if it is buried in concrete.

- ✓ **do** backfill carefully, using stone-free soil around the cables, replacing marker-tapes and / or covers.
- ✓ **do** notify us immediately if you accidentally damage our cables. Arrange to keep people well clear of a cable that has been damaged until we have confirmed it has been made safe.
- ✓ **do** make sure before starting to demolish a building that all cables have been disconnected. We welcome prior notice of the intention to demolish buildings. This enables us to ensure that the site has been made safe electrically.
- ✓ **don't** operate a bulldozer, scraper, dragline or excavator; unless you are satisfied that there are no buried cables in the working area.
- ✓ **don't** use picks, pins, forks or pointed instruments in soft clay or soil when cables are present. Exercise extreme caution where such instruments are used to free lumps of stone, or break up firmly compacted ground. **Never** throw a fork or sharp instrument into the ground.
- ✓ **don't** dig trial holes over the indicated route of the cable. Excavate alongside instead.
- ✓ **don't** use exposed cables as a convenient step or handhold.
- ✓ **don't** handle or attempt to alter the position of any cable.

**Remember** that a damaged cable may cause extensive loss of supplies, make expensive repairs necessary and cause serious or even fatal injury.

If effective measures are not adopted to protect our equipment, we will take steps to recover the cost of any damage caused. Persons causing damage resulting in loss of supply to customers can be held legally responsible for any claims made by those customers. Promptness in reporting an incident will minimise costs.

In most cases it is not practicable to make cables dead without interrupting supplies to our customers. But given adequate notice, we will wherever possible, give advice regarding special precautions which may be necessary on any site where particular problems are likely to be encountered. The right is reserved to make a charge for this service.

Electricity cables can exist anywhere - under paths or roads, in gardens or driveways, on new housing or industrial development sites or even farmland.

### **Watch it! - Working in the vicinity of overhead lines**

For your own and your workmates' safety, please follow the **do's** and **don'ts** listed below

- ✓ **do** carefully note the position of all overhead lines before commencing work.
- ✓ **do** co-operate with us during planning and sitework stages.
- ✓ **do** follow the advice given in HSE Guidance Note GS 6 when siting barriers, goal posts, bunting etc.
- ✓ **do** keep overhead lines in view when moving scaffolding or machinery and take special care when felling or lopping trees.
- ✓ **do** remember that the raising or slewing of a crane or excavator jib may cause danger when operating near an overhead line.

- ✓ **do** avoid any machinery that is in contact with an overhead line until we confirm that conditions are safe.
- ✓ **do** warn others to keep well clear.
- ✓ **don't** drive a high vehicle below an overhead line when an alternative route is available.
- ✓ **don't** raise the bed of a tipper lorry beneath an overhead line or drive under the line with the body of the vehicle raised.
- ✓ **don't** steady any suspended load until you are satisfied that there is no danger from overhead lines.
- ✓ **don't** handle or use scaffold platforms, poles, pipes or ladders unless they are at a safe distance from overhead lines.
- ✓ **don't** transport long objects beneath overhead lines, unless they are carried in a horizontal position.
- ✓ **don't** approach or touch any broken or fallen overhead lines.

### **Always remember that:**

- Electricity can jump gaps.
- Contact or near contact with a crane jib, scaffold or ladder can cause a discharge of electricity with a risk of fatal or severe shock and burns to any person in the vicinity.

If effective measures are not adopted to protect our equipment, we will take steps to recover the cost of any damage caused. Persons causing damage resulting in loss of supply to customers can be held legally responsible for any claims made by those customers. Promptness in reporting an incident will minimise costs.

In most cases it is not practicable to make overhead lines dead without interrupting supplies to customers. However, provided adequate notice is given, then we will, whenever possible, give advice regarding special precautions which may be necessary on site where specific problems may be encountered. The right is reserved to make a charge for this service.

Scottish and Southern Electricity Networks is a trading name of: Scottish and Southern Energy Power Distribution Limited Registered in Scotland No. SC213459; Scottish Hydro Electric Transmission plc Registered in Scotland No. SC213461; Scottish Hydro Electric Power Distribution plc Registered in Scotland No. SC213460 (all having their Registered Offices at Inveralmond House 200 Dunkeld Road Perth PH1 3AQ); and Southern Electric Power Distribution plc Registered in England & Wales No. 04094290 having its Registered Office at No.1 Forbury Place 43 Forbury Road Reading RG1 3JH which are members of the SSE Group [www.ssen.co.uk](http://www.ssen.co.uk)