



Technics  
Geospatial Surveyors

Underground Essentials Report

# Desktop Subsurface Essentials Report

Site Address: Merrow Business Park  
Merrow Lane  
Guildford  
Surrey  
GU4 7WA

Grid Ref: 502542,151858

Our Ref: SP16677

Client: Mr A Client  
Example Company  
Example Road  
Example Town  
Example County  
AB1 1AB

Search Date: 13<sup>th</sup> September 2016



Technics House, Merrow Business Park, Guildford, Surrey, GU4 7WA  
Technics Group is the trading name of Sitechnics Limited & Subtechnics Limited



## UTILITY REPORT CONTENT & INFORMATION

### 1. Purpose of Utilities Report

The Utilities Report is intended to be for project planning and feasibility only. It is not suitable to be used for construction or excavation purposes. The existence of utilities on the plans does not imply that they are suitable in size, capacity, type or location for the project purpose. The Utility Companies should be contacted directly for clarification in this regard.

### 2. Compilation of the Utilities Report

The Utilities Report is a compilation of Utility Company record plans. These are obtained via application to the Utility Companies following a geographic search to determine which Companies are in a given area. The data is provided by the Utility Companies in a variety of formats including faxed plans, pdf files, digital drawing files and paper drawings. They are all converted to pdf files for inclusion in the report. The quality of the plans therefore varies. A quality assured process is followed for each report. This requires that it is checked at different stages during the process before being subjected to a final assessment prior to issue.

### 3. Limitations and Accuracy of the data

Each Utility Company has its own disclaimer statement in respect of the information they provide. They do not guarantee or provide a warranty for the data. The Utility Company disclaimers should be referred to when considering the accuracy and completeness of the data. Generally the plans provided are for guidance only and are not guaranteed to be up to date or to be a complete record of the Utility Company plant in a given area.

Some Utility Companies only show main utilities. Therefore service pipes or cables may not be shown on the plans but they may be present on the site.

Some Utility Companies state that the utilities may deviate from the route and position shown on the plans.

Due to the time delay between installation of, or repair or upgrading of utilities and the subsequent updating of the Utility Companies plans, it should be noted that there could be utilities present that are not shown on the plans.

The user shall make further enquires and investigations to satisfy himself as to the adequacy of the plans and position of the utilities. The exact position of the utilities should be verified by the use of suitable detecting devices and safe digging practices in accordance with HS(G)47. Further advice on the location of the utilities should be requested from the owner.

### 4. Completeness

Whilst every effort is made to locate all Utility Companies in a given area, due to the sensitive or restrictive nature of certain sites, the existence of redundant utilities, the emergence of new companies and the combining of, takeover or sale of existing Companies, we cannot guarantee to provide details on all utilities in a given area.

### 5. Date

Due to the Utility Companies plans being regularly changed and updated, the Utility Report is only valid at the time of production.

### 6. Liability

For the reasons given in 1 – 5 above Subtechnics Limited cannot accept any liability for or offer any guarantees for the report or the content. No representation is made by Subtechnics Limited as to the accuracy, completeness, and sufficiency or otherwise of this report.

### 7. Copyright

The copyright of the Utilities Report remains with Subtechnics Limited and may not be copied nor communicated using any method either in whole or in part without the prior written consent of Subtechnics Limited.

### 8. Assignment

The Utility Report cannot be assigned to any other party without the prior written consent of Subtechnics Limited.

## Terms and Conditions

The Terms and Conditions should be read in conjunction with the 'Report Content & Information' sheet. The content of the 'Report Content & Information' sheet forms part of the Terms and Conditions.

### 1. Disbursements

- 1.1 Several Utility Companies charge for either searching to determine if they have any plant or for providing plans. The details of the charges are contained in the disbursement table. They are charged to the client at cost.
- 1.2 The Utility Companies that make a charge or the charges themselves may be changed or updated without notification to the client.

### 2. Turnaround times

- 2.1 Whilst every effort is made to produce the reports as quickly as possible we are reliant on the Utility Companies to provide us with the plans and/or data. Generally reports are completed within approximately 15 to 20 working days.
- 2.2 No guarantees can be made regarding the time taken to complete the report.

### 3. Limitation of Liability

- 3.1 Subtechnics Limited will make all reasonable endeavors to provide the Utility Report within the stated time period and shall not be liable for any delay arising because of any act, omission or delay of any Utility Company.
- 3.2 The Utility Companies have no liability to Subtechnics Limited in relation to the provision of information, plans and/or data or the omission of or to provide such information, plans or data. Therefore Subtechnics Limited shall have no liability to a Client for the information, plans and data contained in a Utilities Report.
- 3.3 Subtechnics Limited shall have no liability in relation to any Utilities Report for loss or damage arising in relation to loss of profits, loss of business, loss of use, costs, damages, charges or expenses.

### 4. Cancellation Policy

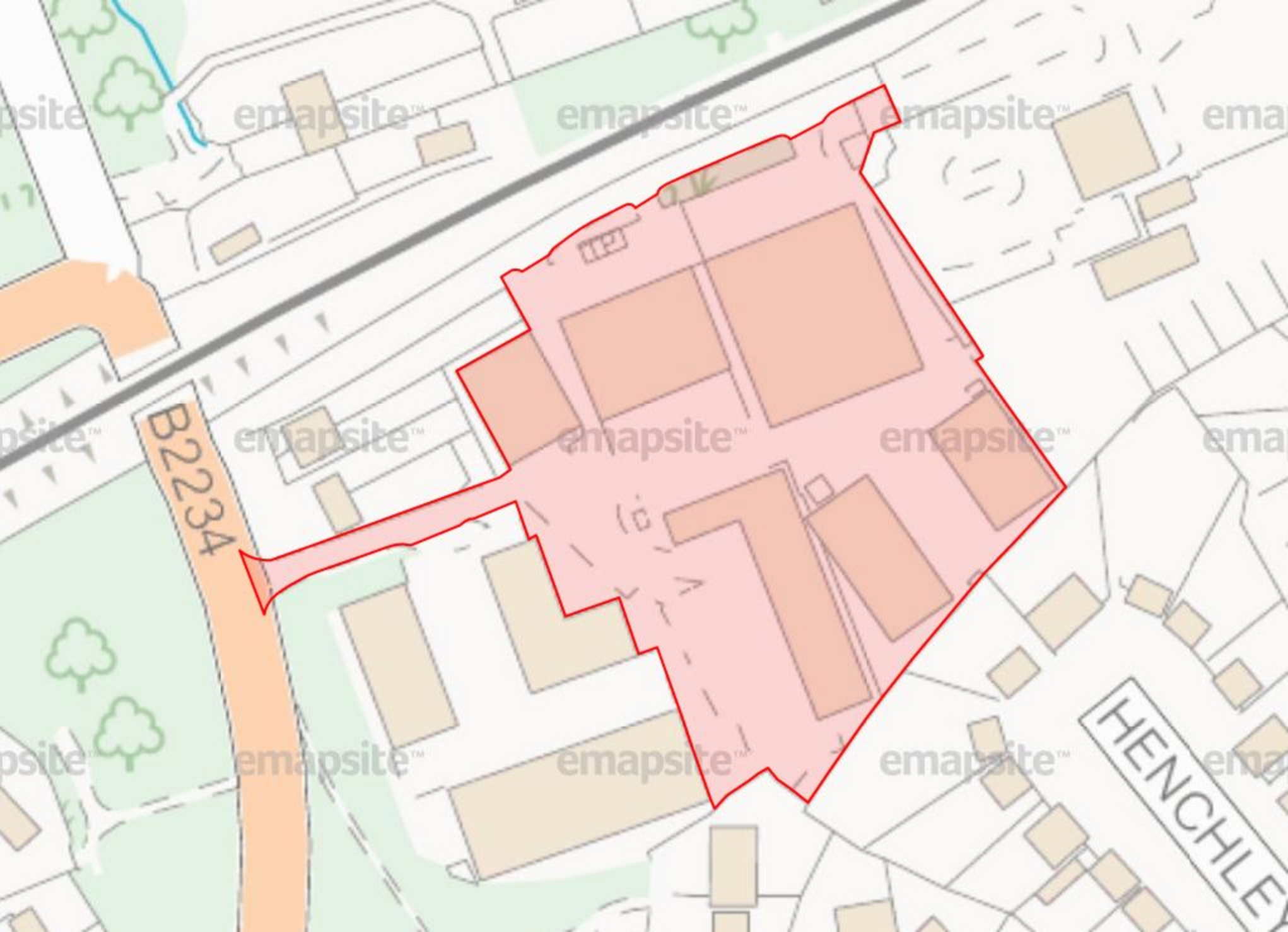
- 4.1 If the report has been ordered online or by any other means, but the Utility Report compilation process has not been initiated at the time of cancelation, there will be no charge.
- 4.2 If the report has been generated but not sent out, you will be charged 75% of the report price plus the full costs of all disbursements.
- 4.3 There is no cancelation if the report has been sent.

### 5. Force Majeure

Subtechnics Limited will have no liability to the Client if it is prevented from or delayed in performing its obligations in connection with producing the Utilities Report by any act, event, omission, accident or incident beyond its reasonable control. These include but are not limited to:- any form of industrial dispute, strike or lock-out, breakdown or failure of a utility service or transport network, act of God, war, riot, civil commotion, malicious damage, accident, incident, breakdown of plant, machinery or electronic system, fire or flood.

### 6. Governing Law

The Governing Law and Jurisdiction of these Terms and Conditions, any Contract or Agreement are governed by and construed in accordance with the laws of England and Wales. The courts of England and Wales shall have non-exclusive jurisdiction to settle any dispute or claim that arises out of or in connection with these Terms and Conditions, any Contract or Agreement.



## Utility Company Underground Services Search Results Schedule

Your Ref: ExampleRef  
 Our Ref: SP16677  
 Address: Merrow Business Park, Merrow Lane, Guildford, Surrey  
 Grid Reference: 502542,151858  
 Post Code: GU4 7WA  
 Author: Stephen  
**SEARCH DATE: 13/09/16**

## **AFFECTED**

Utility Company	Site Area Affected ✓	Digitised ✓
<b>Water</b>		
Foul Water Company – Thames Water	✓	
Surface Water Company – Thames Water	✓	
Potable Water Company – Thames Water	✓	
<b>Electricity</b>		
Electricity Company – UK Power Networks	✓	
<b>Gas</b>		
Gas Distribution Company – SGN	✓	
<b>Telecoms</b>		
BT	✓	
Utility Company	Site Area Affected ✓	Digitised ✓

[www.technicsgroup.com](http://www.technicsgroup.com)  
[utility.reports@technicsgroup.com](mailto:utility.reports@technicsgroup.com)  
 01483 23 00 80 ask for Stephen

AFFECTED

**WATER**

# Asset Location Search



Subtechnics Ltd  
Technics House  
Merrow Lane  
GUILDFORD  
GU4 7WA

**Search address supplied** Technics Group  
Technics House  
1m  
Merrow Business Park  
Guildford  
GU4 7WA

**Your reference** SP16677

**Our reference** ALS/ALS Standard/2016\_3412859

**Search date** 16 September 2016

## Notification of Price Changes...

From **1 September 2016** Thames Water Property Searches will be increasing the prices of its Asset Location Searches. This will be the first price rise in three years and is in line with the RPI at 1.84%. The increase follows significant capital investment in improving our systems and infrastructure.

Enquiries received with a higher payment prior to 1 September 2016 will be non-refundable. For further details on the price increase please visit our website at





# Asset Location Search



**Search address supplied:** Technics Group, Technics House, 1m, Merrow Business Park, Guildford, GU4 7WA

Dear Sir / Madam

**An Asset Location Search is recommended when undertaking a site development.** It is essential to obtain information on the size and location of clean water and sewerage assets to safeguard against expensive damage and allow cost-effective service design.

The following records were searched in compiling this report: - the map of public sewers & the map of waterworks. Thames Water Utilities Ltd (TWUL) holds all of these.

This search provides maps showing the position, size of Thames Water assets close to the proposed development and also manhole cover and invert levels, where available.

Please note that none of the charges made for this report relate to the provision of Ordnance Survey mapping information. The replies contained in this letter are given following inspection of the public service records available to this company. No responsibility can be accepted for any error or omission in the replies.

You should be aware that the information contained on these plans is current only on the day that the plans are issued. The plans should only be used for the duration of the work that is being carried out at the present time. Under no circumstances should this data be copied or transmitted to parties other than those for whom the current work is being carried out.

Thames Water do update these service plans on a regular basis and failure to observe the above conditions could lead to damage arising to new or diverted services at a later date.

## Contact Us

If you have any further queries regarding this enquiry please feel free to contact a member of the team

# Asset Location Search



## Waste Water Services

**Please provide a copy extract from the public sewer map.**

Enclosed is a map showing the approximate lines of our sewers. Our plans do not show sewer connections from individual properties or any sewers not owned by Thames Water unless specifically annotated otherwise. Records such as "private" pipework are in some cases available from the Building Control Department of the relevant Local Authority.

Where the Local Authority does not hold such plans it might be advisable to consult the property deeds for the site or contact neighbouring landowners.

This report relates only to sewerage apparatus of Thames Water Utilities Ltd, it does not disclose details of cables and or communications equipment that may be running through or around such apparatus.

The sewer level information contained in this response represents all of the level data available in our existing records. Should you require any further Information, please refer to the relevant section within the 'Further Contacts' page found later in this document.

For your guidance:

- The Company is not generally responsible for rivers, watercourses, ponds, culverts or highway drains. If any of these are shown on the copy extract they are shown for information only.
- Any private sewers or lateral drains which are indicated on the extract of the public sewer map as being subject to an agreement under Section 104 of the Water Industry Act 1991 are not an 'as constructed' record. It is recommended these details be checked with the developer.

## Clean Water Services

**Please provide a copy extract from the public water main map.**

Enclosed is a map showing the approximate positions of our water mains and associated apparatus. Please note that records are not kept of the positions of individual domestic supplies.

For your information, there will be a pressure of at least 10m head at the outside stop valve. If you would like to know the static pressure, please contact our Customer

# Asset Location Search



Centre. The Customer Centre can also arrange for a full flow and pressure test to be carried out for a fee.

For your guidance:

- Assets other than vested water mains may be shown on the plan, for information only.
- If an extract of the public water main record is enclosed, this will show known public water mains in the vicinity of the property. It should be possible to estimate the likely length and route of any private water supply pipe connecting the property to the public water network.

## **Payment for this Search**

A charge will be added to your suppliers account.

# Asset Location Search

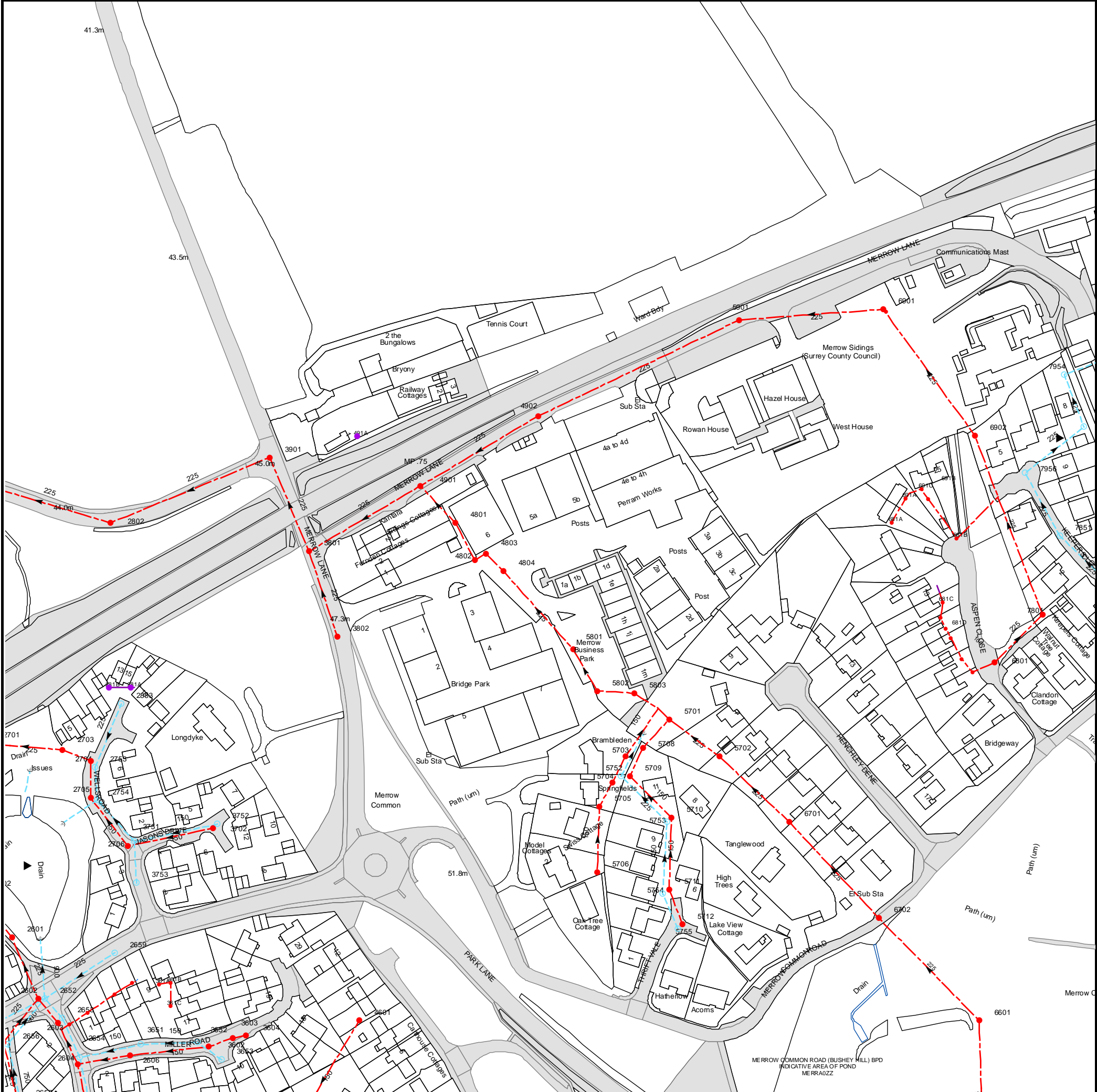


## **Further contacts:**

### **Waste Water queries**

Should you require verification of the invert levels of public sewers, by site measurement, you will need to approach the relevant Thames Water Area Network Office for permission to lift the appropriate covers. This permission will usually involve you completing a TWOSA form. For further information please contact our Customer Centre. Alternatively, a survey can be arranged, for a fee, through our Customer Centre on the above number.

If you have any questions regarding sewer connections, budget estimates, diversions, building over issues or any other questions regarding operational issues please direct them to our service desk.



The width of the displayed area is 500 m and the centre of the map is located at OS coordinates 502492,151878

The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.

Based on the Ordnance Survey Map with the Sanction of the controller of H.M. Stationery Office, License no. 100019345 Crown Copyright Reserved.

NB. Levels quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates that no survey information is available

Manhole Reference	Manhole Cover Level	Manhole Invert Level
4802	48.01	46.38
4803	48.13	46.56
3801	45.52	43.61
681B	n/a	n/a
7851	53.86	52.23
4801	n/a	n/a
2802	44.44	42.44
681A	n/a	n/a
691B	n/a	n/a
691A	n/a	n/a
691C	n/a	n/a
4901	47.14	44.7
7956	53.54	51.97
3901	44.93	43.21
491A	n/a	n/a
6902	n/a	n/a
7955	52.31	51.06
4902	50.23	48.28
7954	52.24	50.59
5901	50.93	49.07
6901	52.07	49.59
5705	51.84	51.01
5704	51.67	50.39
5752	52.27	50.75
5703	51.23	49.53
5709	52.07	50.67
5803	50.41	48.11
5708	n/a	n/a
5754	54.68	53.28
5753	53.15	52.09
5711	54.75	52.94
5701	50.26	48.4
5710	53.13	51.93
5755	n/a	n/a
5712	n/a	n/a
5702	50.98	48.65
6701	n/a	n/a
6702	55.3	51.76
681H	n/a	n/a
681C	n/a	n/a
681D	n/a	n/a
681G	n/a	n/a
681F	n/a	n/a
681E	n/a	n/a
6601	n/a	n/a
6801	56.55	55.2
7801	55.46	54.24
2703	n/a	n/a
2653	46.8	44.98
261B	n/a	n/a
2705	n/a	n/a
2704	45.78	43.52
2753	n/a	n/a
2754	46.55	43.57
281B	n/a	n/a
261A	n/a	n/a
2659	48.33	46.36
2853	n/a	n/a
2706	n/a	n/a
281A	n/a	n/a
361D	n/a	n/a
3751	47.73	45.9
3753	n/a	n/a
361A	n/a	n/a
361C	n/a	n/a
361B	n/a	n/a
3702	n/a	n/a
3752	48.86	46.85
3802	47.36	45.21
4601	n/a	n/a
4804	48.46	46.99
5801	49.87	47.56
5706	53.45	52.31
5802	50.25	47.94
2604	47.94	45.58
3653	52.51	50.95
2654	47.92	46.28
2606	49.24	47.43
3602	51.85	49.61
3651	49.65	47.78
3652	51.5	49.57
3603	52.34	50.17
3604	52.55	50.27
261C	n/a	n/a
2656	47.99	44.17
2603	46.8	45.08
2602	46.45	44.7
2652	46.48	43.6
2601	46.59	44.56

Manhole Reference	Manhole Cover Level	Manhole Invert Level
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# ALS Sewer Map Key

## Public Sewer Types (Operated & Maintained by Thames Water)

	<b>Foul:</b> A sewer designed to convey waste water from domestic and industrial sources to a treatment works.
	<b>Surface Water:</b> A sewer designed to convey surface water (e.g. rain water from roofs, yards and car parks) to rivers or watercourses.
	<b>Combined:</b> A sewer designed to convey both waste water and surface water from domestic and industrial sources to a treatment works.
	Trunk Surface Water
	Trunk Foul
	Storm Relief
	Trunk Combined
	Vent Pipe
	Bio-solids (Sludge)
	Proposed Thames Surface Water Sewer
	Proposed Thames Water Foul Sewer
	Gallery
	Foul Rising Main
	Surface Water Rising Main
	Combined Rising Main
	Sludge Rising Main
	Proposed Thames Water Rising Main
	Vacuum

### Notes:

- 1) All levels associated with the plans are to Ordnance Datum Newlyn.
- 2) All measurements on the plans are metric.
- 3) Arrows (on gravity fed sewers) or flecks (on rising mains) indicate direction of flow.
- 4) Most private pipes are not shown on our plans, as in the past, this information has not been recorded.
- 5) 'na' or '0' on a manhole level indicates that data is unavailable.

## Sewer Fittings

A feature in a sewer that does not affect the flow in the pipe. Example: a vent is a fitting as the function of a vent is to release excess gas.

	Air Valve
	Dam Chase
	Fitting
	Meter
	Vent Column

## Operational Controls

A feature in a sewer that changes or diverts the flow in the sewer. Example: A hydrobrake limits the flow passing downstream.

	Control Valve
	Drop Pipe
	Ancillary
	Weir

## End Items

End symbols appear at the start or end of a sewer pipe. Examples: an Undefined End at the start of a sewer indicates that Thames Water has no knowledge of the position of the sewer upstream of that symbol, Outfall on a surface water sewer indicates that the pipe discharges into a stream or river.

	Outfall
	Undefined End
	Inlet

## Other Symbols

Symbols used on maps which do not fall under other general categories

	Public/Private Pumping Station
	Change of characteristic indicator (C.O.C.I.)
	Invert Level
	Summit

### Areas

Lines denoting areas of underground surveys, etc.

	Agreement
	Operational Site
	Chamber
	Tunnel
	Conduit Bridge

## Other Sewer Types (Not Operated or Maintained by Thames Water)

	Foul Sewer
	Surface Water Sewer
	Combined Sewer
	Gully
	Culverted Watercourse
	Proposed
	Abandoned Sewer

- 6) The text appearing alongside a sewer line indicates the internal diameter of the pipe in millimetres. Text next to a manhole indicates the manhole reference number and should not be taken as a measurement. If you are unsure about any text or symbology present on the plan, please contact a member of Property Insight





The width of the displayed area is 500 m and the centre of the map is located at OS coordinates 502492, 151878.

The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.

Based on the Ordnance Survey Map with the Sanction of the controller of H.M. Stationery Office, License no. 100019345 Crown Copyright Reserved.



# ALS Water Map Key

## Water Pipes (Operated & Maintained by Thames Water)

- 4"** **Distribution Main:** The most common pipe shown on water maps. With few exceptions, domestic connections are only made to distribution mains.
- 16"** **Trunk Main:** A main carrying water from a source of supply to a treatment plant or reservoir, or from one treatment plant or reservoir to another. Also a main transferring water in bulk to smaller water mains used for supplying individual customers.
- 3" SUPPLY** **Supply Main:** A supply main indicates that the water main is used as a supply for a single property or group of properties.
- 3" FIRE** **Fire Main:** Where a pipe is used as a fire supply, the word FIRE will be displayed along the pipe.
- 3" METERED** **Metered Pipe:** A metered main indicates that the pipe in question supplies water for a single property or group of properties and that quantity of water passing through the pipe is metered even though there may be no meter symbol shown.
- Transmission Tunnel:** A very large diameter water pipe. Most tunnels are buried very deep underground. These pipes are not expected to affect the structural integrity of buildings shown on the map provided.
- Proposed Main:** A main that is still in the planning stages or in the process of being laid. More details of the proposed main and its reference number are generally included near the main.

PIPE DIAMETER	DEPTH BELOW GROUND
Up to 300mm (12")	900mm (3')
300mm - 600mm (12" - 24")	1100mm (3' 8")
600mm and bigger (24" plus)	1200mm (4')

## Valves

- General Purpose Valve
- Air Valve
- Pressure Control Valve
- Customer Valve

## Hydrants

- Single Hydrant

## Meters

- Meter

## End Items

Symbol indicating what happens at the end of a water main.

- Blank Flange
- Capped End
- Emptying Pit
- Undefined End
- Manifold
- Customer Supply
- Fire Supply

## Operational Sites

- Booster Station
- Other
- Other (Proposed)
- Pumping Station
- Service Reservoir
- Shaft Inspection
- Treatment Works
- Unknown
- Water Tower

## Other Symbols

- Data Logger

## Other Water Pipes (Not Operated or Maintained by Thames Water)

- Other Water Company Main:** Occasionally other water company water pipes may overlap the border of our clean water coverage area. These mains are denoted in purple and in most cases have the owner of the pipe displayed along them.
- Private Main:** Indicates that the water main in question is not owned by Thames Water. These mains normally have text associated with them indicating the diameter and owner of the pipe.

## Terms and Conditions

All sales are made in accordance with Thames Water Utilities Limited (TWUL) standard terms and conditions unless previously agreed in writing.

1. All goods remain in the property of Thames Water Utilities Ltd until full payment is received.
2. Provision of service will be in accordance with all legal requirements and published TWUL policies.
3. All invoices are strictly due for payment 14 days from due date of the invoice. Any other terms must be accepted/agreed in writing prior to provision of goods or service, or will be held to be invalid.
4. Thames Water does not accept post-dated cheques-any cheques received will be processed for payment on date of receipt.
5. In case of dispute TWUL's terms and conditions shall apply.
6. Penalty interest may be invoked by TWUL in the event of unjustifiable payment delay. Interest charges will be in line with UK Statute Law 'The Late Payment of Commercial Debts (Interest) Act 1998'.
7. Interest will be charged in line with current Court Interest Charges, if legal action is taken.
8. A charge may be made at the discretion of the company for increased administration costs.

A copy of Thames Water's standard terms and conditions are available from the Commercial Billing Team (cashoperations@thameswater.co.uk).

We publish several Codes of Practice including a guaranteed standards scheme. You can obtain copies of these leaflets by calling us

If you are unhappy with our service you can speak to your original goods or customer service provider. If you are not satisfied with the response, your complaint will be reviewed by the Customer Services Director.

If the Goods or Services covered by this invoice falls under the regulation of the 1991 Water Industry Act, and you remain dissatisfied you can refer your complaint to Consumer Council for Water on 0121 345 1000 or write to them at Consumer Council for Water, 1st Floor, Victoria Square House, Victoria Square, Birmingham, B2 4AJ.

## Ways to pay your bill

Credit Card	BACS Payment	Telephone Banking	Cheque
Call quoting your invoice number starting CBA or ADS.	Account number <b>90478703</b> Sort code <b>60-00-01</b>	By calling your bank and quoting: Account number <b>90478703</b> Sort code <b>60-00-01</b> and your invoice number	Made payable to ' <b>Thames Water Utilities Ltd</b> ' Write your Thames Water account number on the back.



## **Search Code**

### **IMPORTANT CONSUMER PROTECTION INFORMATION**

This search has been produced by Thames Water Property Searches, Clearwater Court, Vastern Road, Reading RG1 8DB, which is registered with the Property Codes Compliance Board (PCCB) as a subscriber to the Search Code. The PCCB independently monitors how registered search firms maintain compliance with the Code.

#### **The Search Code:**

- provides protection for homebuyers, sellers, estate agents, conveyancers and mortgage lenders who rely on the information included in property search reports undertaken by subscribers on residential and commercial property within the United Kingdom
- sets out minimum standards which firms compiling and selling search reports have to meet
- promotes the best practise and quality standards within the industry for the benefit of consumers and property professionals
- enables consumers and property professionals to have confidence in firms which subscribe to the code, their products and services.

By giving you this information, the search firm is confirming that they keep to the principles of the Code. This provides important protection for you.

#### **The Code's core principles**

Firms which subscribe to the Search Code will:

- display the Search Code logo prominently on their search reports
- act with integrity and carry out work with due skill, care and diligence
- at all times maintain adequate and appropriate insurance to protect consumers
- conduct business in an honest, fair and professional manner
- handle complaints speedily and fairly
- ensure that products and services comply with industry registration rules and standards and relevant laws
- monitor their compliance with the Code

#### **Complaints**

If you have a query or complaint about your search, you should raise it directly with the search firm, and if appropriate ask for any complaint to be considered under their formal internal complaints procedure. If you remain dissatisfied with the firm's final response, after your complaint has been formally considered, or if the firm has exceeded the response timescales, you may refer your complaint for consideration under The Property Ombudsman scheme (TPOs). The Ombudsman can award compensation of up to £5,000 to you if he finds that you have suffered actual loss as a result of your search provider failing to keep to the Code.

**Please note that all queries or complaints regarding your search should be directed to your search provider in the first instance, not to TPOs or to the PCCB.**

#### **TPOs Contact Details**

The Property Ombudsman scheme  
Milford House  
43-55 Milford Street  
Salisbury  
Wiltshire SP1 2BP  
Tel: 01722 333306  
Fax: 01722 332296  
Email: [admin@tpos.co.uk](mailto:admin@tpos.co.uk)

You can get more information about the PCCB from [www.propertycodes.org.uk](http://www.propertycodes.org.uk)

**PLEASE ASK YOUR SEARCH PROVIDER IF YOU WOULD LIKE A COPY OF THE SEARCH CODE**

ELECTRICITY



Mr. Stephen Sawyer  
Technics Group  
Technics House  
Marrow Business Park  
Guildford  
Surrey  
GU4 7WA

Our Ref: 2016/2233051  
Your Ref: sp16677  
20/09/2016

Dear Sir/Madam

**MERROW BUSINESS PARK MERROW LANE GUILFORD SRREY GU4 7WA**

Thank you for your letter of 16/09/2016 in which you asked if there are any electric lines and/or electrical plant belonging to UK Power Networks (SEPN) plc ("UK Power Networks") within the land identified by your enquiry.

I enclose a copy of UK Power Networks record of its electric lines and/or electrical plant at the site identified by your enquiry. If the records provided do not relate to the land to which you had intended to refer please resubmit your enquiry.

Should your excavation affect any of 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.

This information is made available to you on the terms set out below.

- 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 to do 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**

- 9 **Any work near to any overhead electric 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.

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 telephone at the number below providing:
  - your name, address and telephone number; and
  - the date, time and place at which such damage was caused; and
  - a description of the electric line and/or electrical plant to which damage was caused; and
  - the name of the person whom it appears to you is responsible for that damage; and
  - 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.

IF YOU DO **NOT** ACCEPT AND/OR **DO NOT** UNDERSTAND THE TERMS OF USE SET OUT IN PARAGRAPHS 1 TO 12 INCLUSIVE ABOVE YOU MUST NOT USE THE PLANS AND RETURN THEM TO ME.

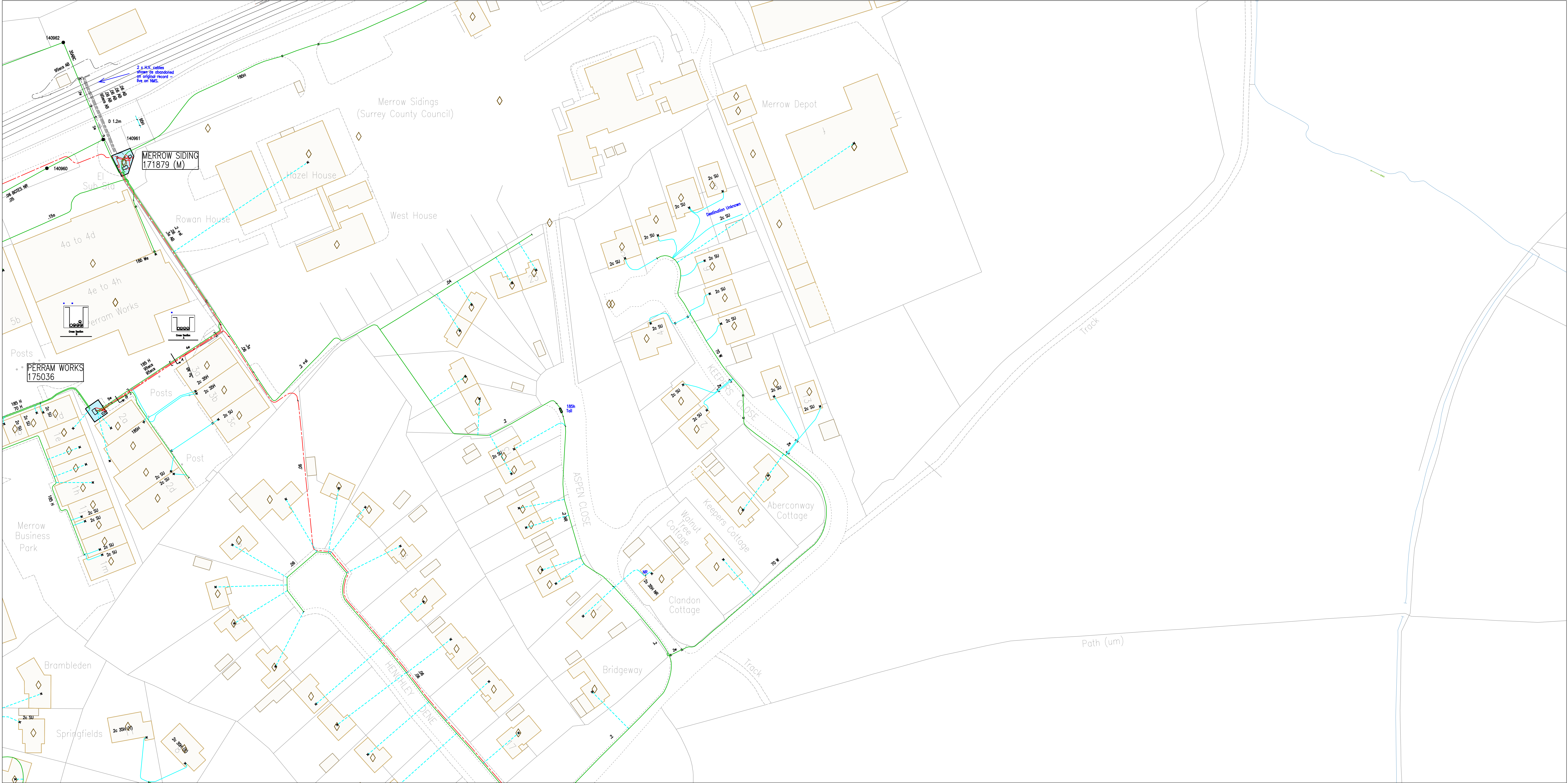
I would remind you that work adjacent to electric lines and/or electrical plant represents a serious risk to health and safety and as such should feature amongst the items you have assessed in your workplace risk assessment and method statement.

I shall be pleased to supply you with further assistance if you require it.









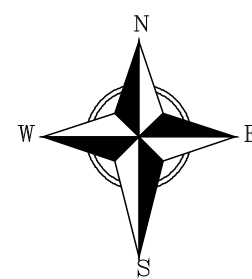
Plotted On : 20/09/2016

Plotted By :

Plot Description: MERROW BUSINESS PARK MERROW LANE  
GUILFORD SRREY GU4 7WA

2016/2233051

Map Centre : TQ0251NE



PRIMARY CABLES  
EXTRA HIGH VOLTAGE CABLES (EHV) 22,000 TO 132,000 Volts  
Depth normally 750mm cover in carriageway & 600mm cover in footway.

N.B. THRUST BORERS OR MOLES MUST NOT BE USED WITHIN THE VICINITY OF ANY  
CABLES BELONGING TO UK POWER NETWORKS WITHOUT FIRST CONTACTING THIS  
COMPANY.

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 cables have been determined.
4. It must be assumed that each property and item of street furniture has an electricity supply. Service cables shown only where known.
5. All cables must be treated as being live unless proved otherwise by UK Power Networks.
6. The information provided must be given to all people working near UK Power Networks plant & 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.

1. UK Power Networks Ltd does not warrant that the information provided to you is correct. You rely upon it at your own risk.
2. UK Power Networks Ltd does not exclude or limit its liability if it causes the death of a 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 Ltd has no liability to you in contract, in tort (including negligence), for breach of statutory duty or otherwise howsoever 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.

Reproduced by permission of Ordnance Survey on behalf of HMSO. (c) Crown copyright and database right 2016. All rights reserved. Ordnance Survey Licence number 100019450. Data has been added to the Ordnance Survey base map; all proprietary rights in such additional data are and shall remain the exclusive property of (c) South Eastern Power Networks plc or London Power Networks plc each being a distribution licensee under section 6(1)(c) of the Electricity Act 1989 for the relevant distribution services area as that term is defined in such licensee's distribution licence. All rights in such data reserved.

ADVICE TO CONTRACTORS ON AVOIDING DANGER  
FROM BURIED ELECTRICITY CABLES.

- 1) Do have cable drawings with you on site and check them before you start the excavation.
- 2) Do have a cable locator tool on site and use it to help you.
- 3) Mark out the location of electricity cables.
- 4) Do not use a mechanical excavator within 0.5m of electricity cables.
- 5) Use spades and shovels in preference to other tools.
- 6) Never disturb electricity cables and joints or their protective covers.

IF IN DOUBT – ASK!  
EMERGENCY – If you damage a cable or line Phone  
0800 780 0780 (24hrs) URGENTLY

These basic safety precautions are explained in detail in the HSE booklet, HS(G)47 – Avoiding Danger from Underground Services, a copy of which may be obtained from your supervisor or HMSO.

Please be aware that electric lines belonging to other owners of licensed electricity distribution systems may be present and it is your responsibility to identify their location.





# Network Records NetMAP Symbols Booklet - South East England

**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

## Index:-

Page no:	Contents:
1	Guidance notes.
2	The area covered by this guide.
3	<u>1:500 (&amp; 1:1250) view</u>
	Scenery.
4	Scenery (UK Power Networks use only).
7	Primary distribution line route (EHV).
8	Secondary distribution cables (HV/LV).
9	Secondary distribution cable terminology.
12	Cable ducts.
13	Poles.
14	EHV, HV and LV sites.
15	Joints.
16	Street furniture
17	Miscellaneous.
18	Connectivity.
19	Abbreviations.
20	Cable phasing.
21	Operational status colours.
22	<u>1:2500 view</u> (UK Power Networks use only).
	Notes.
23	Primary distribution line route.
24	Secondary distribution cables.
25	Primary and secondary sites.
27	Switch types.
28	<u>1:10000 view</u> (UK Power Networks use only).
	Notes.
29	Secondary distribution cables.
30	Primary and secondary sites.

## Guidance notes.

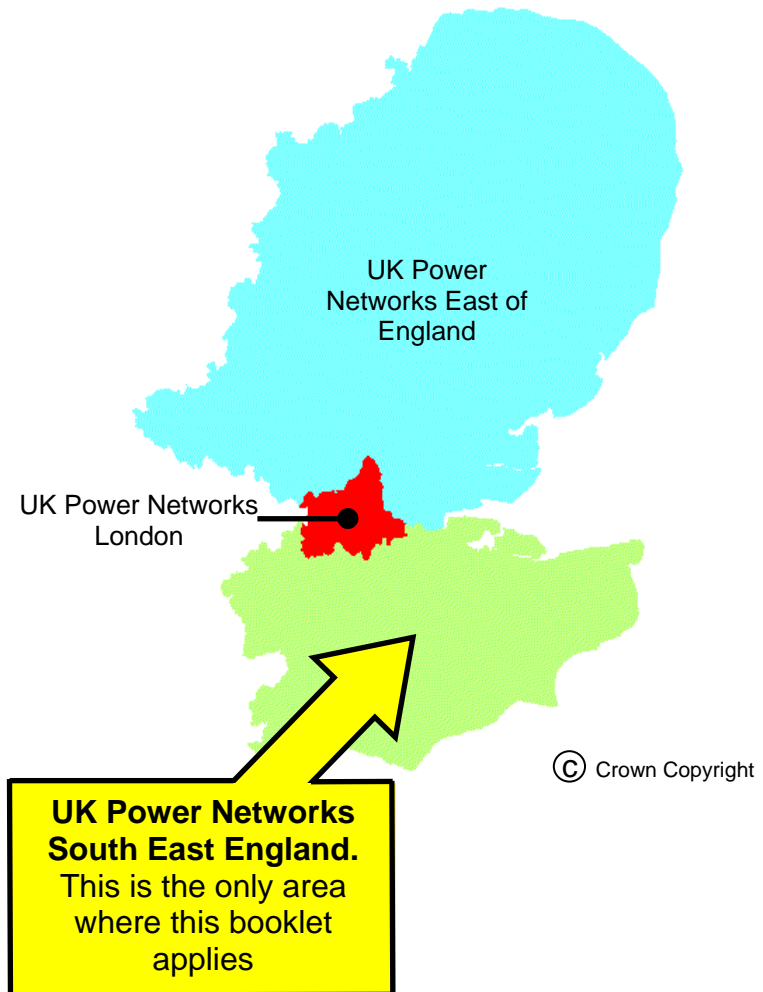
### **Important notice:**

If you do not understand the NetMAP record that you are using, please contact the UK Power Networks Network Records team for guidance

- 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.
- Third party cables are not usually shown.
- When viewed in black and white, the line-style indicates the voltage.
- All LV cables are 4 core and all HV cables are 3 core – unless otherwise stated.
- All cables are copper – unless otherwise stated.







## **The area covered by this guide:**










## 1:500 (& 1:1250) view








### Scenery

NetMAP system	Description
	Secondary buildings and fence lines
	Building line
	Kerb line
	UK Power Networks / SPN licence boundary (not visible unless selected)









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

NetMAP system	Description
 Inset Network – Contact xxxx IDNO for further information	Area of inset network - not the asset of UK Power Networks (only visible to UK Power Networks and their immediate contractors)
	Proposed Cross Rail route (only visible to UK Power Networks and their immediate contractors)
	High pressure pipelines in the general vicinity (only visible to UK Power Networks and their immediate contractors)
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.	
	Water - surface water (only visible to UK Power Networks and their immediate contractors)
	Water - Source Protection Zone 1 (only visible to UK Power Networks and their immediate contractors)
	Water - Source Protection Zone 2 (only visible to UK Power Networks and their immediate contractors)
	Water - Source Protection Zone 3 (only visible to UK Power Networks and their immediate contractors)
<b>section continued on next page</b>	




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

NetMAP system	Description
	Historical - Scheduled Monuments (only visible to UK Power Networks and their immediate contractors)
	Historical - Parks and Gardens (only visible to UK Power Networks and their immediate contractors)
	Historical - Areas of Archaeological Potential (AAP) (only visible to UK Power Networks and their immediate contractors)
	Nature - Ramsar Wetlands of International Importance (only visible to UK Power Networks and their immediate contractors)
	Nature - Special Area of Conservation (SAC) (only visible to UK Power Networks and their immediate contractors)
	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)
section continued on next page	










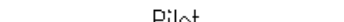



## Scenery for UK Power Networks use only - boxed in red

NetMAP system	Description
	Nature - Local Nature Reserve (only visible to UK Power Networks and their immediate contractors)
	Nature - National Nature Reserve (only visible to UK Power Networks and their immediate contractors)
	Nature - Area of Outstanding Natural Beauty (AONB) (only visible to UK Power Networks and their immediate contractors)
	Nature - National Park (only visible to UK Power Networks and their immediate contractors)
	Fluid filled cables - very high sensitivity (only visible to UK Power Networks and their immediate contractors)
	Fluid filled cables - high sensitivity (only visible to UK Power Networks and their immediate contractors)
	Fluid filled cables - medium sensitivity (only visible to UK Power Networks and their immediate contractors)
	Fluid filled cables - low sensitivity (only visible to UK Power Networks and their immediate contractors)

### Primary distribution line route (1:500 view)

NetMAP system	Description
	275–400kV National Grid route
	132kV cable route
	33kV cable route
Approximate routes only – see separate record	

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

NetMAP system	Description
	11kV underground cable
	11kV overhead line
	6.6kV underground cable
	6.6kV overhead line
	<6.6kV underground cable
	<6.6kV overhead line
	LV underground cable
	LV overhead line
	Pilot cable
	LV street lighting (pl)
	Service overhead line
	Service underground
	Logical service connection

## Secondary distribution cable terminology (1:500 view)

### HV underground

sta (no text)	PILCSTA (paper insulated lead covered steel tape armour)
XLPE	PILCSWA (paper insulated lead covered steel wire armour)
bcs	XLPE (cross linked polyethylene) insulation
scs	CAS (corrugated aluminium sheath) belted construction
ua	CAS (corrugated aluminium sheath) with screened cores
c/c	PILC (paper insulated lead covered) unarmoured
Poly	Concentric cores
BOTES	Poly (polyethylene) insulation
of	BOTES – Board of Trade earth screen
33 kV design	Oil filled
ax	Constructed to 33 kV specification
cx	Triplex with aluminium conductor
	Triplex with copper conductor

### HV overhead

(no text)	Bare open wire
pvc	Open wire PVC covered
cat	ABC (aerial bundled or bunched conductor) with supporting strain wire
+ew	Open wire with extra earth conductor
ccc	Compact covered conductor

### Overhead line materials

sca	Steel cored aluminium
cc	Cadmium copper
st	Steel
sil	Simalec
ccs	Copper covered steel
cpl	Compactal

section continued on next page

## Secondary distribution cable terminology continued (1:500 view)

### LV underground mains and services

W	Waveform
We	Waveform with separate earth wire
H	Hybrid – copper neutral with aluminium phase conductor
He	Hybrid with separate earth wire
ua	PILC (paper insulated lead covered) unarmoured
(no text)	PILC (paper insulated lead covered) with/without armour
XLPE	XLPE (cross linked polyethylene) insulation
DISTRI	PISTA (paper insulated steel tape armour) 4c SAC (solid aluminium core) with lead covered neutral
c/c	Concentric cores
s/c	Split concentric with separated neutral and earth wires
CONSAC	Paper insulated aluminium sheathed 3 core with solid aluminium cores
vb	Vulcanised bitumen/rubber insulation
Capothene	Capothene core insulation
tby	Tape braid and yarn
swa	PILSWA (paper insulated lead steel wire armour)
sac	PILSTA (paper insulated steel tape armour) solid aluminium core
Solidal	4 sector SAC with solid aluminium cores
LSF	Low smoke and fume (orange cable)
Trough	Cable laid in filled trough

### LV overhead mains and services

(no text)	Bare open wire
ABC	Aerial bundled (or bunched) conductor
cat	ABC (aerial bundled or bunched conductor) with supporting strain wire
pvc	PVC covered open wire
c/c	Concentric cores
H	Hybrid – copper neutral with aluminium phase conductor
ue	Under eaves – hessian covered lead cable
vir	Vulcanised India rubber insulation

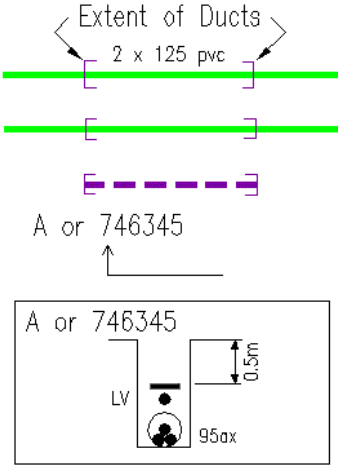
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





















## Secondary distribution cable terminology continued (1:500 view)








Various annotation	
.1	Cable size (sq. inches)
185	Cable size (sq. millimetres)
a	Aluminium
ITC	Instrument traced cable or ITC - cable traced electronically using Cable Avoidance Tool (CAT) or similar







## Cable ducts (1:500 view)

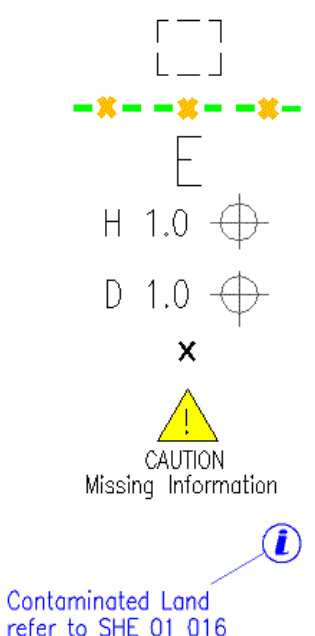
NetMAP system	Description
	<p>Duct 2 way</p> <p>Duct 1 way (no text)</p> <p>Spare duct</p> <p>Cross section arrow</p> <p>Cross section showing: duct, tile depth, tile, single LV cable and HV Triplex cable</p>
Duct materials	
<p>(no text)</p> <p>pvc</p> <p>st</p> <p>asb</p> <p>fbr</p> <p>wi</p> <p>cp</p> <p>t/e</p>	<p>Earthenware</p> <p>PVC</p> <p>Steel</p> <p>Asbestos</p> <p>Fibre</p> <p>Iron</p> <p>Concrete pipe</p> <p>Trenchless excavation</p>

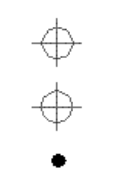
Poles (1:500 view)	
NetMAP system	Description
       	<p>Section pole Pole number (unique) Single leg</p> <p>H pole</p> <p>3 member</p> <p>4 member</p> <p>Strut</p> <p>Pole support (stay)</p> <p>Flying stay</p> <p>Tower 33kV to 400kV</p>

EHV, HV and LV sites (1:500 view)	
NetMAP system	Description
<p>Note: EHV and HV sites are identified by a unique 6 digit number (SPENS)</p>	
           	<p>Ground mounted primary substation showing name, transformer voltage and SPENS number</p> <p>Pole mounted substation showing name and SPENS number</p> <p>Ground mounted substation showing name and SPENS number</p> <p>2 way link box</p> <p>4 way link box</p> <p>Link box without busbar</p> <p>(options similar to 1:2500 view) LV distribution pillar</p> <p>Voltage regulator</p> <p>Voltage balancer</p> <p>Open point</p> <p>Open point – out of phase</p> <p>Overhead open point</p>
<p>Note: For LV linking, use the 1:2500 view</p>	

Joints (1:500 view)	
NetMAP system	Description
      	<p>Straight (same for HV)</p> <p>Pot end (same for HV)</p> <p>Branch (same for HV)</p> <p>Sleeve repair</p> <p>Capped end</p> <p>Service to LV main</p> <p>Under eaves service</p>
<div> <div>□</div> <div>.1 .15 □</div> <div>R – R</div> <div>Y – B</div> <div>B – Y</div> </div>	<p>Jointing phase drawing</p>

Street furniture (1:500 view)	
NetMAP system	Description
     TBS 	<p>Pole mounted street light</p> <p>Street light</p> <p>Zebra crossing</p> <p>Road sign</p> <p>Bollard</p> <p>Pelican crossing</p> <p>Traffic controller</p> <p>Advertising sign</p> <p>Amplifier station</p> <p>Control cubicle</p> <p><u>Text displayed/description</u></p> <p>Pay and display</p> <p>Bus shelter</p> <p>TBS</p> <p>Kiosk</p> <p>Water meter</p> <p>PL pillar</p> <p>TCB</p> <p>Unknown</p>

Miscellaneous (1:500 view)	
NetMAP system	Description
	<p>Underground chamber or draw pit</p> <p>Earth conductor</p> <p>Earth pin</p> <p>Height marker</p> <p>Depth marker</p> <p>Supply point</p> <p>Missing data in or near this location</p> <p>Contaminated land reference</p>

Connectivity (1:500 view)	
NetMAP system	Description
	<p>Edge node</p> <p>Node</p> <p>Connector</p> <p>Pole termination (nothing visible unless selected)</p>
<p>Edge nodes, nodes, connectors and pole termination joints may not appear on screen unless turned on and selected.</p>	

## Abbreviations (1:500 view)

NetMAP system	Description
NR	No record
SU	Size unknown
AB	Abandoned
(M)	PME available
VO5	Year LV linking verified
MS	Milestone
MP	Marker post
pmt	Pole mounted transformer
pl	Public lighting
TBS	Temporary builder's supply
TCB	Telephone call box
CET	Cable electronically traced
IT	Instrument traced (same as CET)
CAT	Cable avoidance tool (same as CET)
+sl	Street lighting
+sw	Switch wire
2c	2 core
PESL	Public Electricity Supply License
Added	Supplied by SPN
Excluded	Not supplied by SPN
IIP	Assumed open point
VSxxxx	Vacant site
CB	Callender box

## Cable phasing (1:500 view)

<u>Old core colours</u>	<u>Shown on map</u>	<u>New core colours</u>
Neutral	Neutral	Neutral
Red	R	L1
Yellow	Y	L2
Blue	B	L3
Note:- Scott is a different phasing system		

### Operational status colours (1:500 view)




PROPOSAL ———— Symbols and cables appear in ORANGE  
OUT OF SERVICE ———— Cable and joints appear in BLACK  
ABANDONED ———— Cables and joints appear in GREY

### 1:2500 view - for UK Power Networks use only - boxed red






#### Notes

1. No underground HV cables are shown on the 1:2500 view
2. Poles and joint details are similar to the 1:500 view
3. For cable/line information refer to the 1:500 view










### Primary distribution line route (1:2500 view)

NetMAP system	Description
	275–400kV National Grid route
	132kV cable route
	33kV cable route

### Secondary distribution cables (1:2500 view)







NetMAP system	Description
	11kV overhead line
	6.6kV overhead line
	<6.6kV overhead line
	LV underground cable
	LV overhead line

## Primary and secondary sites (1:2500 view)

NetMAP system	Description
Note: EHV and HV sites are identified by a unique 6 digit number (SPENS)	
	Ground mounted substation showing capacity, phase, name and SPENS number
	Pole mounted substation showing capacity, phase, name and SPENS number
	Primary substation showing name and SPENS number (no site shown)
	2 way link box
	4 way link box
	Link box identifier
	4 way link box without busbar
	6 way link box without busbar
	8 way link box without busbar

section continued on next page

## Primary and secondary sites continued (1:2500 view)

NetMAP system	Description
	LV distribution pillar
	Voltage regulator
	Voltage balancer
	Open point
	Open point – out of phase
	Earth pin



### Switch types (1:2500 view)







NetMAP system	Description
ABSD	Air brake switch disconnecter
A/R	Auto recloser
A/S	Sectionaliser
FUSE	Fuse
S/D	Surge diverter
PF	Pathfinder
ASL	Automatic sectionalising links
PMR	Pole mounted recloser
PMS	Pole mounted sectionaliser
GVR	Gas vacuum recloser

### 1:10000 view - for UK Power Networks use only - boxed red


#### Notes

1. No EHV cables/overhead lines shown on 1:10000 view.
2. For congested areas print at 1:5000.
3. HV site used instead of branch joint on 1:10000 for connectivity purposes. The site is not displayed until it is selected.

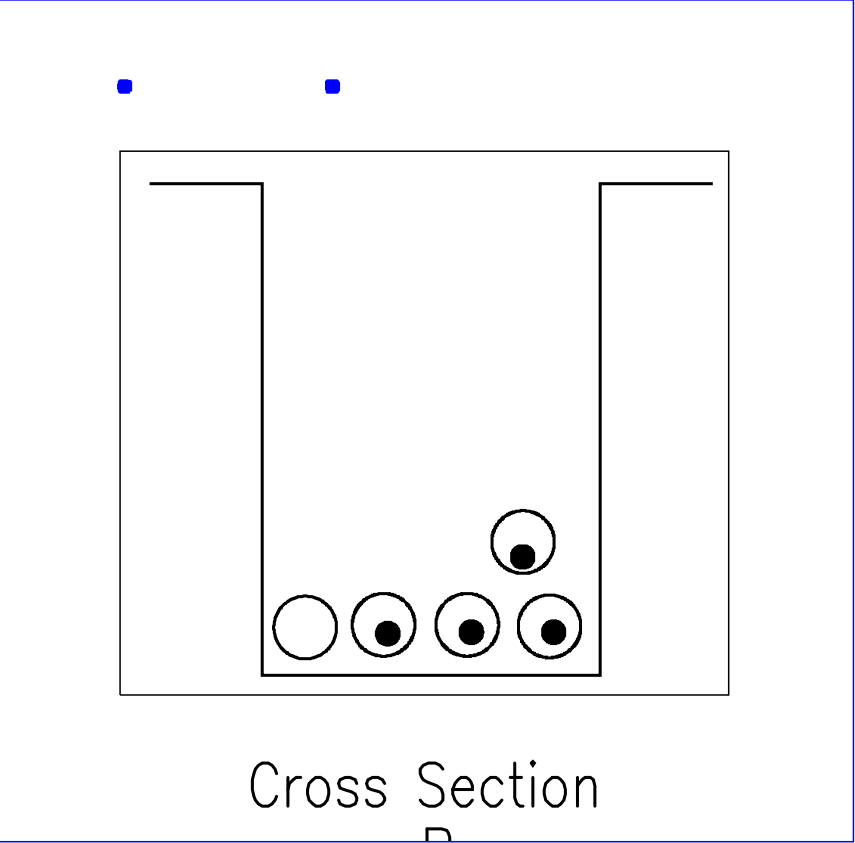
## Secondary distribution cables (1:10000 view)

NetMAP system	Description
	11kV underground cable
	6.6kV underground cable
	<6.6kV underground cable
	11kV overhead line
	6.6kV overhead line
	<6.6kV overhead line

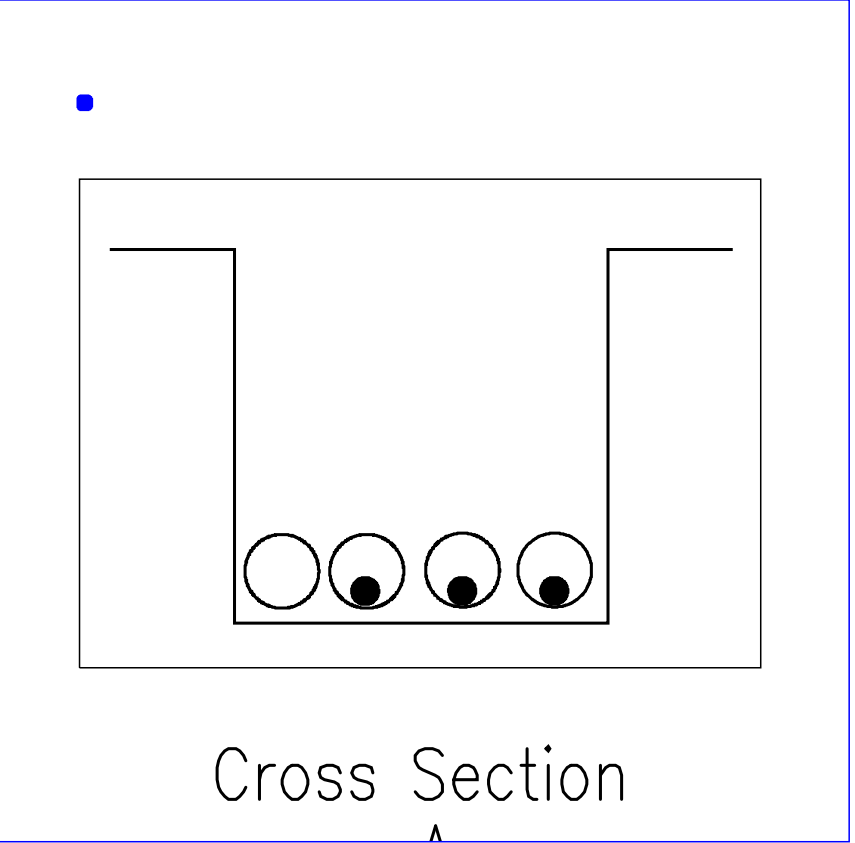
## Primary and secondary sites (1:10000 view)

NetMAP system	Description
Note: EHV and HV sites are identified by a unique 6 digit number (SPENS)	
<div>SITE NAME 008590</div> 	Primary substation showing name and SPENS number
SITE NAME 521234	11kV ground mounted substation showing name and SPENS number
SITE NAME 524514	6.6kV ground mounted substation showing name and SPENS number
SITE NAME 523634	<6.6kV ground mounted substation showing name and SPENS number
SITE NAME pmt 527522	11kV pole mounted substation showing name and SPENS number
SITE NAME pmt 525743	6.6kV pole mounted substation showing name and SPENS number
SITE NAME pmt 526543	<6.6kV pole mounted substation showing name and SPENS number
SITE NAME 527238	Pole mounted switching substation showing name and SPENS number

Cross Section (B TQ0251)



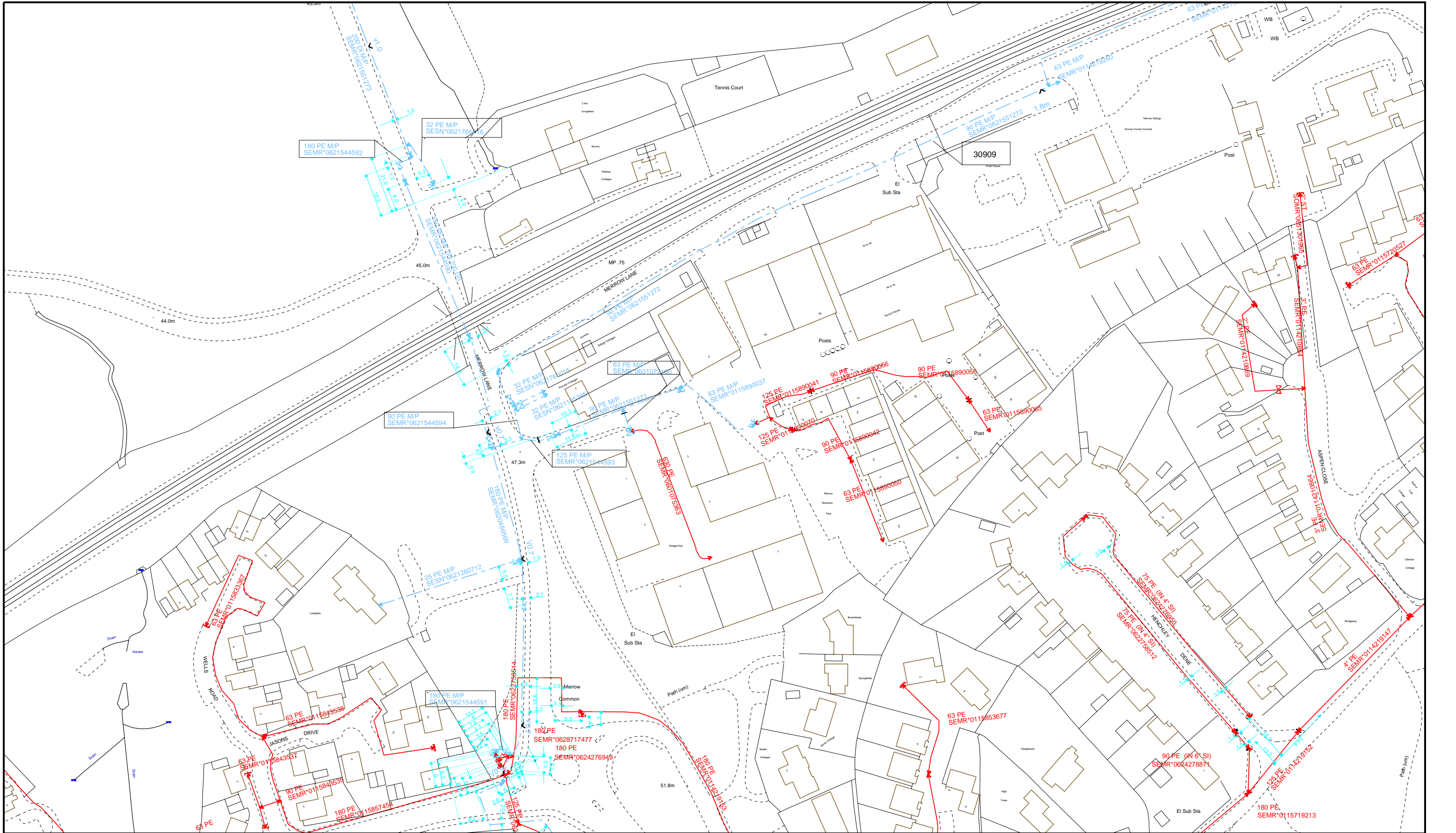
Cross Section (A TQ0251)










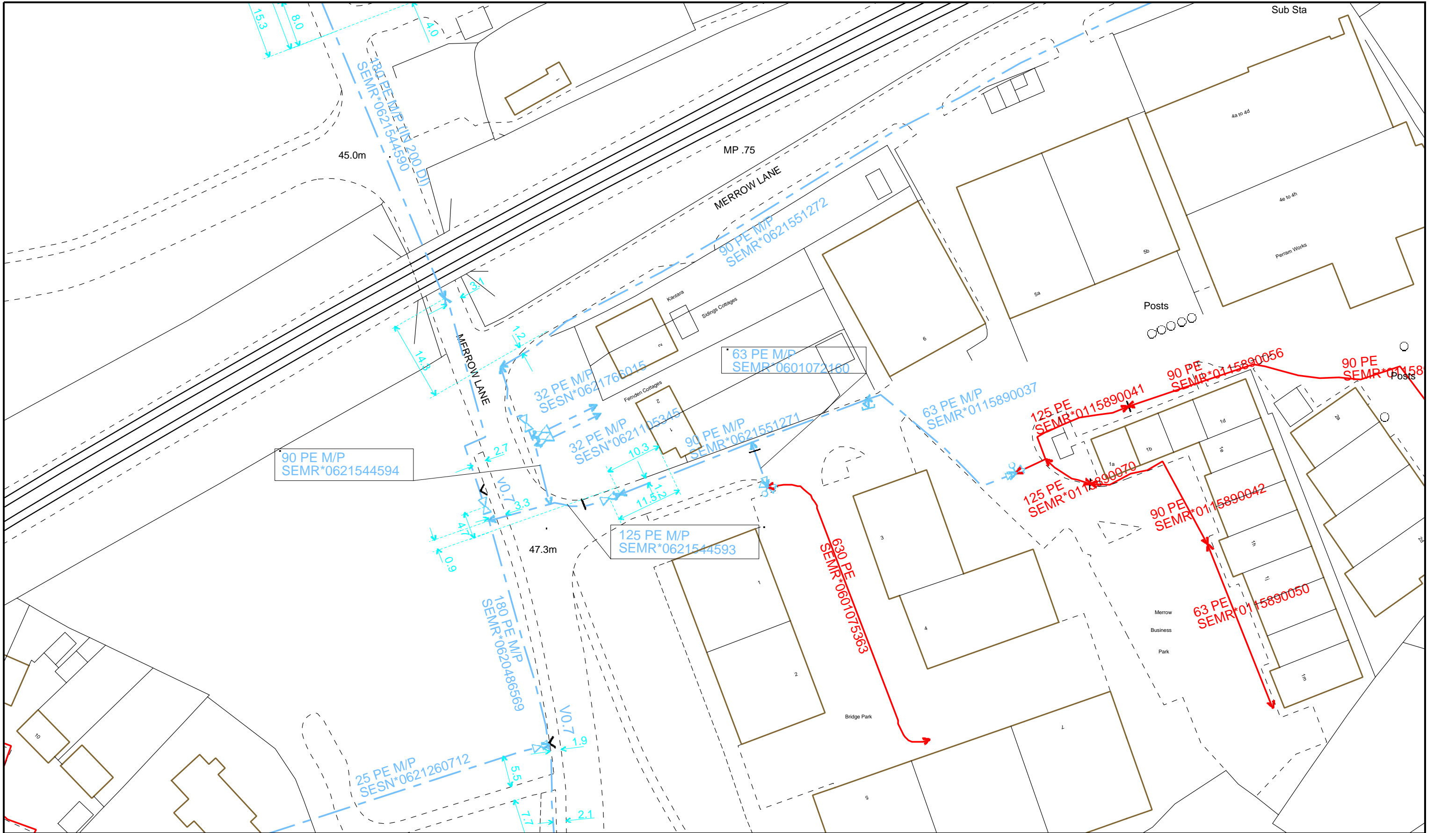
Extra cross-sections and detailed route drawings are available from this supplier in regards to Extra High Voltage equipment which may be present in the area. If you require such information, please email UK Power Networks, detailing the address of the site and the route numbers required (route numbers may be gained from the above UK Power Networks plans). Extra drawings and cross-sections will be then be sent to your address via post.



**Please note:** If no extra High Voltage cables run close to your site area, then extra drawings will not be available.

GAS

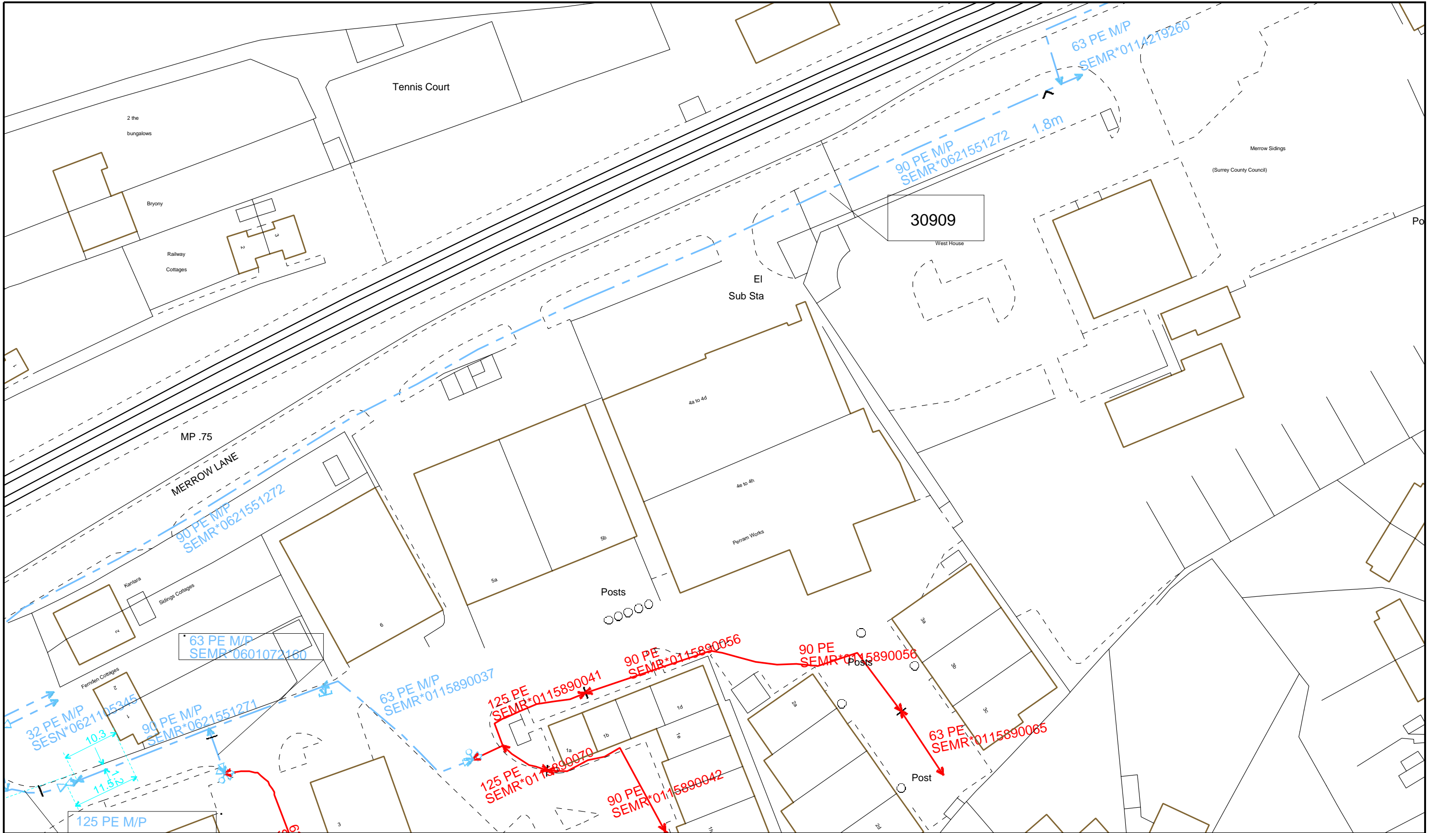



<p>USER ID: DATE: 28 Sep 2016 EXTRACT DATE: 07 Jul 2016 MAP REF: TQ0251NW CENTRE: 502465, 151860 SCALE: 1:1,277</p>	<p>LP Mains MP Mains IP Mains LHP Mains NHP Mains</p>	<p>This plan shows those pipes owned by Scotia Gas Networks plc in their role as a Licensed Gas Transporter (GT). Gas pipes owned by other GTs, or otherwise privately owned, may be present in this area. Information with regard to such pipes should be obtained from the relevant owners. The information shown on this plan is given without warranty, the accuracy thereof cannot be guaranteed. Service pipes, valves, syphons, stub connections, etc. are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Scotia Gas Networks plc or their agents, servants or contractors for any error or omission. Safe digging practices, in accordance with HS(G)47, must be used to verify and establish the actual position of mains, pipes, services and other apparatus on site before any mechanical plant is used. It is your responsibility to ensure that this information is provided to all persons (either direct labour or contractors) working for you on or near gas apparatus. The information included on this plan should not be referred to beyond a period of 28 days from the date of issue.</p>	<p>Product: UtilityMaps Version: 1.6.8.1 Template: 'Scotia Gas Networks (A3 Landscape)'</p> <p> Scotia Gas Networks Delivering gas safely, reliably and efficiently</p> <p></p> <p>This plan is reproduced from or based on the OS map by Scotia Gas Networks plc, with the sanction of the controller of HM Stationery Office. Crown Copyright Reserved.</p>
<p>Valve  Depth of Cover  Syphon  Diameter Change  Material Change </p>			



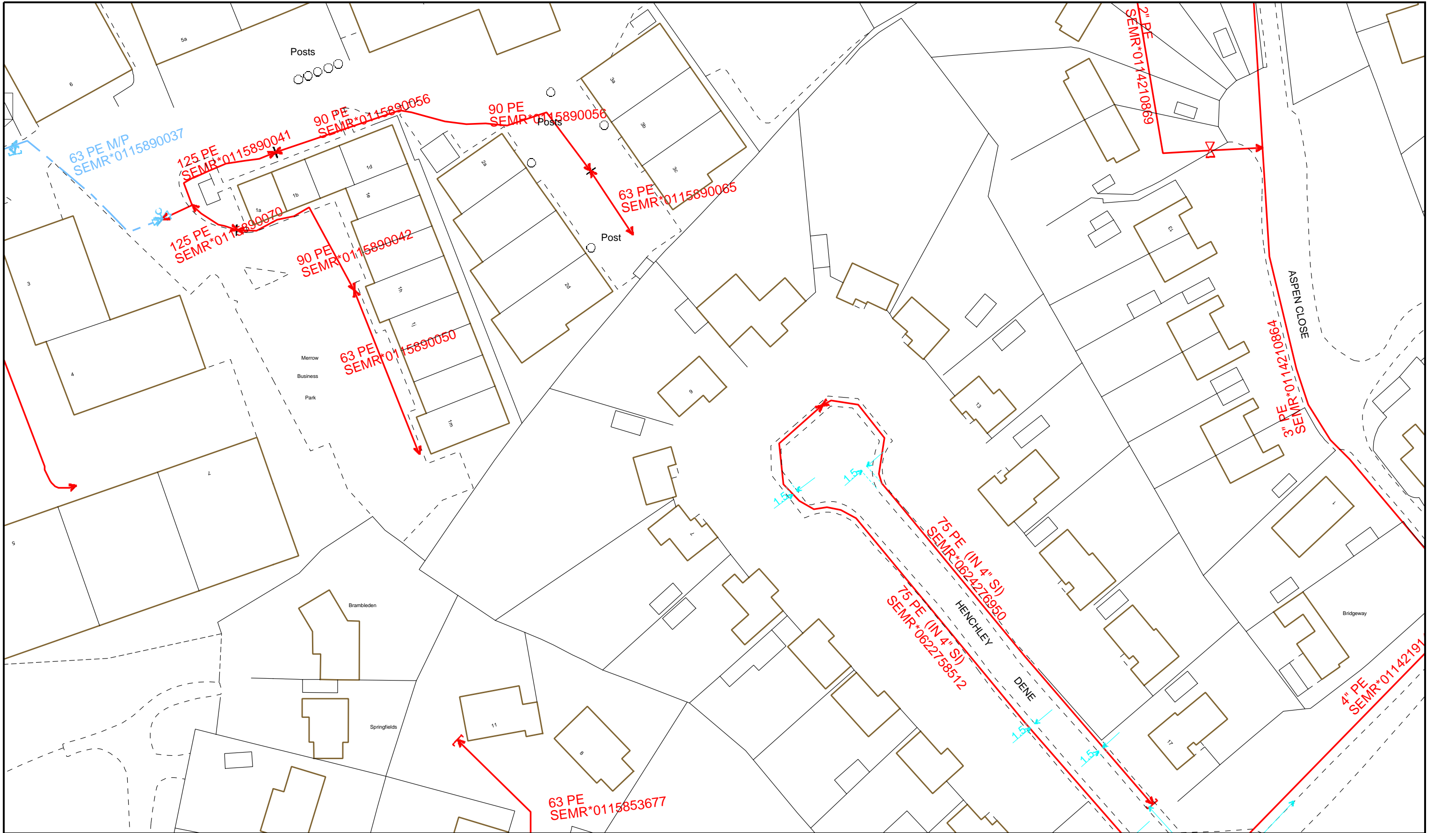
<p>USER ID: DATE: 28 Sep 2016 EXTRACT DATE: 07 Jul 2016 MAP REF: TQ0251NW CENTRE: 502426, 151867 SCALE: 1:638</p>	<p>LP Mains MP Mains IP Mains LHP Mains NHP Mains</p>	<p>This plan shows those pipes owned by Scotia Gas Networks plc in their role as a Licensed Gas Transporter (GT). Gas pipes owned by other GTs, or otherwise privately owned, may be present in this area. Information with regard to such pipes should be obtained from the relevant owners. The information shown on this plan is given without warranty, the accuracy thereof cannot be guaranteed. Service pipes, valves, syphons, stub connections, etc. are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Scotia Gas Networks plc or their agents, servants or contractors for any error or omission. Safe digging practices, in accordance with HS(G)47, must be used to verify and establish the actual position of mains, pipes, services and other apparatus on site before any mechanical plant is used. It is your responsibility to ensure that this information is provided to all persons (either direct labour or contractors) working for you on or near gas apparatus. The information included on this plan should not be referred to beyond a period of 28 days from the date of issue.</p>	<p>Product: UtilityMaps Version: 1.6.8.1 Template: 'Scotia Gas Networks (A3 Landscape)'</p> <p> Scotia Gas Networks Delivering gas safely, reliably and efficiently</p> <p></p> <p>This plan is reproduced from or based on the OS map by Scotia Gas Networks plc, with the sanction of the controller of HM Stationery Office. Crown Copyright Reserved.</p>
<p>Valve Depth of Cover Syphon Diameter Change Material Change</p>			




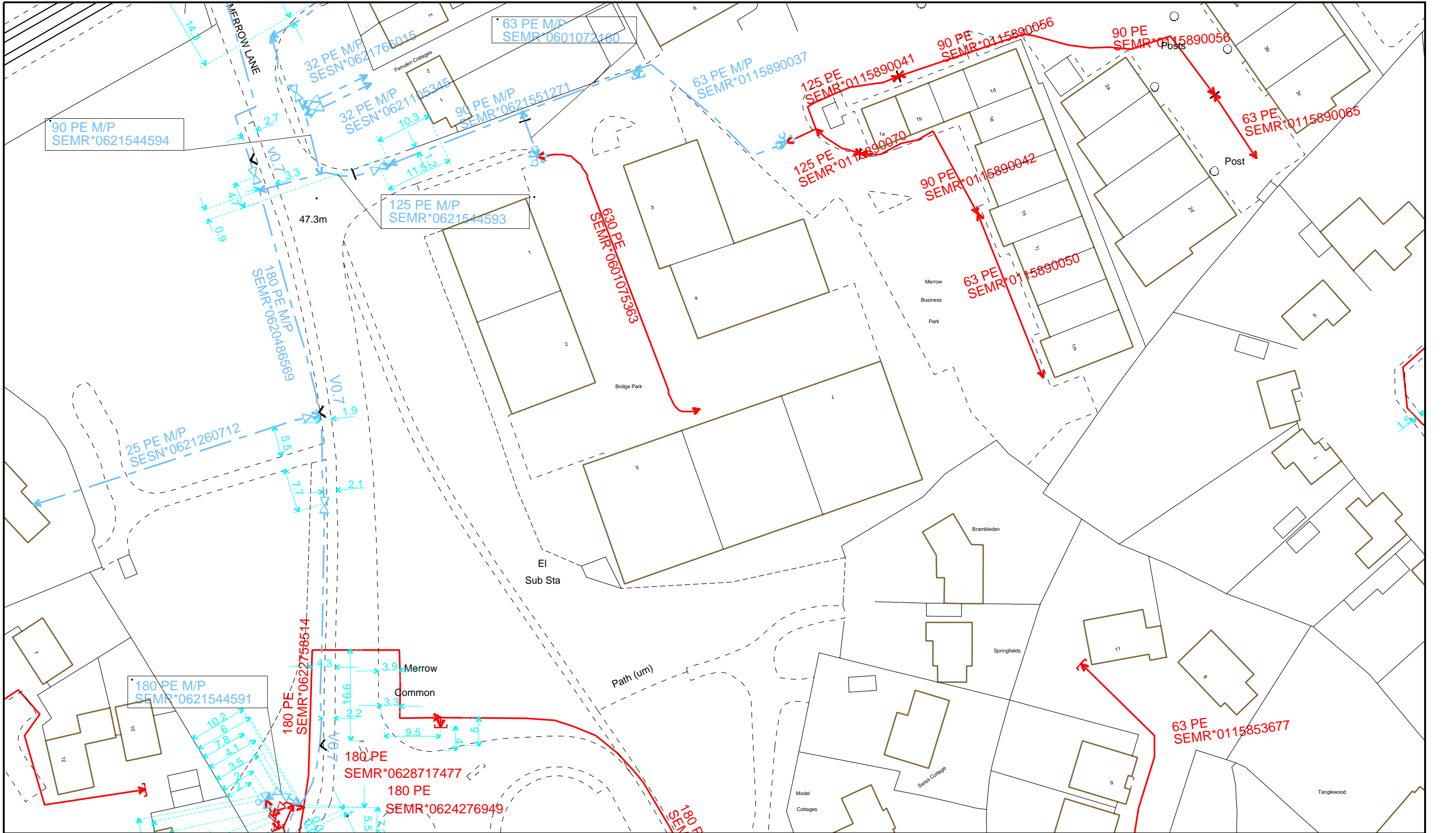








<p>USER ID: DATE: 28 Sep 2016 EXTRACT DATE: 07 Jul 2016 MAP REF: TQ0251NE CENTRE: 502524, 151919 SCALE: 1:638</p>	<p>LP Mains MP Mains IP Mains LHP Mains NHP Mains</p>	<p>This plan shows those pipes owned by Scotia Gas Networks plc in their role as a Licensed Gas Transporter (GT). Gas pipes owned by other GTs, or otherwise privately owned, may be present in this area. Information with regard to such pipes should be obtained from the relevant owners. The information shown on this plan is given without warranty, the accuracy thereof cannot be guaranteed. Service pipes, valves, syphons, stub connections, etc. are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Scotia Gas Networks plc or their agents, servants or contractors for any error or omission. Safe digging practices, in accordance with HS(G)47, must be used to verify and establish the actual position of mains, pipes, services and other apparatus on site before any mechanical plant is used. It is your responsibility to ensure that this information is provided to all persons (either direct labour or contractors) working for you on or near gas apparatus. The information included on this plan should not be referred to beyond a period of 28 days from the date of issue.</p>	<p>Product: UtilityMaps Version: 1.6.8.1 Template: 'Scotia Gas Networks (A3 Landscape)'</p> <p> Delivering gas safely, reliably and efficiently</p> <p>This plan is reproduced from or based on the OS map by Scotia Gas Networks plc, with the sanction of the controller of HM Stationery Office. Crown Copyright Reserved.</p>
<p>Valve Depth of Cover Syphon Diameter Change Material Change</p>	<p>Valve Depth of Cover Syphon Diameter Change Material Change</p>		<p>N</p>






<p>USER ID: DATE: 28 Sep 2016 EXTRACT DATE: 07 Jul 2016 MAP REF: TQ0251NE CENTRE: 502580, 151821 SCALE: 1:638</p>	<p>LP Mains MP Mains IP Mains LHP Mains NHP Mains</p>	<p>This plan shows those pipes owned by Scotia Gas Networks plc in their role as a Licensed Gas Transporter (GT). Gas pipes owned by other GTs, or otherwise privately owned, may be present in this area. Information with regard to such pipes should be obtained from the relevant owners. The information shown on this plan is given without warranty, the accuracy thereof cannot be guaranteed. Service pipes, valves, syphons, stub connections, etc. are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Scotia Gas Networks plc or their agents, servants or contractors for any error or omission. Safe digging practices, in accordance with HS(G)47, must be used to verify and establish the actual position of mains, pipes, services and other apparatus on site before any mechanical plant is used. It is your responsibility to ensure that this information is provided to all persons (either direct labour or contractors) working for you on or near gas apparatus. The information included on this plan should not be referred to beyond a period of 28 days from the date of issue.</p>	<p>Product: UtilityMaps Version: 1.6.8.1 Template: 'Scotia Gas Networks (A3 Landscape)'</p> <p> Scotia Gas Networks Delivering gas safely, reliably and efficiently</p> <p>This plan is reproduced from or based on the OS map by Scotia Gas Networks plc, with the sanction of the controller of HM Stationery Office. Crown Copyright Reserved.</p>
<p>Valve Depth of Cover Syphon Diameter Change Material Change</p>		<p>N</p>	



<p>USER ID: DATE: 28 Sep 2016 EXTRACT DATE: 07 Jul 2016 MAP REF: TQ0251NW CENTRE: 502467, 151808 SCALE: 1:638</p>	<p>LP Mains MP Mains IP Mains LHP Mains NHP Mains</p>	<p>This plan shows those pipes owned by Scotia Gas Networks plc in their role as a Licensed Gas Transporter (GT). Gas pipes owned by other GTs, or otherwise privately owned, may be present in this area. Information with regard to such pipes should be obtained from the relevant owners. The information shown on this plan is given without warranty, the accuracy thereof cannot be guaranteed. Service pipes, valves, syphons, stub connections, etc. are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Scotia Gas Networks plc or their agents, servants or contractors for any error or omission. Safe digging practices, in accordance with HS(G)47, must be used to verify and establish the actual position of mains, pipes, services and other apparatus on site before any mechanical plant is used. It is your responsibility to ensure that this information is provided to all persons (either direct labour or contractors) working for you on or near gas apparatus. The information included on this plan should not be referred to beyond a period of 28 days from the date of issue.</p>	<p>Product: UtilityMaps Version: 1.6.8.1 Template: 'Scotia Gas Networks (A3 Landscape)'</p> <p> Scotia Gas Networks Delivering gas safely, reliably and efficiently</p> <p>This plan is reproduced from or based on the OS map by Scotia Gas Networks plc, with the sanction of the controller of HM Stationery Office. Crown Copyright Reserved.</p>
<p>Valve  Depth of Cover  Syphon  Diameter Change  Material Change </p>			



# **General safety measures to avoid injury and damage to gas plant**



**Southern  
Gas Networks**  
A Scotia Gas Networks Company



## The following protective and precautionary measures **MUST** be taken when working/excavating in the vicinity of our plant.

To avoid injury to yourself, your employees, colleagues and the general public you **MUST** verify the details provided on our plans by tracing, hand-digging, trial holes and suitably marking its position on site.

You **MUST** ensure current full colour copies of our plans are issued and the presence and location of our plant, prior to excavation, is understood by all relevant personnel on site.

### In an emergency

If you cause a gas leak or suspect a pipe or equipment is leaking, you **MUST** take the following emergency actions immediately:

- a. Get everyone away from the immediate vicinity of the gas escape;
- b. Inform us immediately by calling the National Gas Emergency Number on **0800 111 999\***;
- c. Do not attempt to repair the escape or stop the leakage;
- d. Ask occupants of buildings adjacent to the escape to leave until it is safe for them to return;
- e. Damage to a service supplying a building may result in gas entering the building. Do not attempt to operate any valves;
- f. Prevent any approach to the immediate vicinity of the gas escape;
- g. Prohibit smoking and extinguish all naked flames. Do not use mobile phones or other sources of ignition within 15m from the leakage; and
- h. Assist our representatives, and other emergency services for example police, fire and ambulance as requested.

#### Additional reference material;

- HSE Guidance Note; HSG47 "Avoiding Danger from Underground Services" at [www.hse.gov.uk](http://www.hse.gov.uk) and
- NJUG "Utilities Guidance on Positioning and Colour Coding of Apparatus" at [www.njug.org.uk](http://www.njug.org.uk)







## Safe System of Work

We may request the production of Risk Assessments and Method Statements for any works deemed to have the potential to affect, cause risk to or pose a hazard to the safety and/or integrity of our plant. Where CDM legislation applies reference MUST be made to our plant within the site 'Health and Safety File'.

## Financial

Every reasonable precaution MUST be taken to avoid personal injury or damage to our plant during the progress of the planned works. Any cost incurred by us for the repair of direct or consequential damage and the diversion of any affected plant will be recharged in full.

## HSE

Any damage to our apparatus will be subject to legislative reporting responsibilities to the Health and Safety Executive under Reporting of Injuries, Diseases & Dangerous Occurrences Regulations (RIDDOR) and Gas Safety Management Regulations (GSMR).









### Minimum safe working distances

If you are carrying out explosions, piling, splitting, boring and deep excavations, please contact us for further guidance. Trial holes MUST be dug by hand to determine the exact location of mains and service pipes in advance of mechanical excavation or thrust boring. Be aware of the potential for the presence of protruding objects from gas plant in the form of standpipes, test points and valve bodies.

### Mechanical excavation

Mechanical excavators (including breaker attachments) MUST NOT be used within the following distances from the confirmed location of our gas mains and services (as depicted on our gas maps), without prior agreement:

Type of Mains and Services	GAS MAP Identification	Hand Excavation required inside	Pipe pressure indication shown on MAP
Low Pressure (LP)	0 – 75mbar	0.5 metres	
Medium Pressure (MP)	75mbar to 2 bar	0.5 metres	
Intermediate Pressure (IP)	2 – 7 bar	3.0 metres	
High Pressure (HP)	Above 7 bar	3.0 metres	

Note: We MUST be consulted prior to any planned excavation works within 10m of Pressure Reduction Equipment and may consider issuing a Permit to Work, if appropriate.



## High pressures

In addition to receiving a copy of our 'Safe working in the vicinity of Southern Gas Networks high pressure pipelines and associated installations', if any activities proposed are closer than the minimum distances listed below you **MUST** discuss with us to agree your site specific requirements.

Power Excavators in easements	>3 metres
Power Excavators in highway	>3 metres
Pressure testing	>8 metres
Piling	>15 metres
Demolition	>150 metres
Blasting	>250 metres
No-dig techniques	Method Statement required
Crossing easement with plant	Written Consent required

## Clearance requirements

No plant is to be laid over and along the line of a gas pipe irrespective of clearance. To allow the future repair and maintenance of gas plant, a minimum clearance of 250mm for low and medium pressure pipelines and 600mm for intermediate and high pressure pipelines, or 1.5 times the external diameter of the gas pipe, which ever is the greater, should be maintained between the gas plant and any new plant. Where this minimum clearance cannot be achieved, site discussions should be held with us or our representatives to agree a suitable clearance. Explosives shall not be used within 30m of our plant (400m for Pressure Reduction Equipment) without prior agreement. No piling or boring shall be carried out within 15m of our plant without prior consultation and agreement.







## Surface boxes/Manholes

Do not bury or move our surface boxes. Access **MUST** be maintained both during and after your works. No manhole cover or other structure is to be built over, around or under a gas pipe and no work is to be carried out which results in a reduction or increase in cover or protection without prior written agreement.

## Deep excavations

Where excavations adjacent to any of our potentially affects its security and integrity, adequate protection (approved by us) **MUST** be applied to such plant. Ground movement around gas **MUST** be prevented. If a sewer trench or any other water authority is to be constructed at greater than 1.5 metres deep near to a buried gas main or service pipe, we **MUST** be contacted. We should be provided with detailed drawings showing the line and width of the proposed sewer or other trench, together with the soil group classifications of the area concerned.

## Crossing our plant

The placing of heavy construction plant, equipment, materials or the passage of heavy vehicles over our plant is prohibited unless specially agreed protective measures (i.e. the construction of reinforced crossing points) have been carried out. This is particularly important where reductions in side support or ground cover are planned.

Working in easements should not be undertaken without our prior written consent.

## Exposed plant

Where excavations adjacent to gas plant affect its support, the plant **MUST** be adequately supported and protected in consultation with us and to our satisfaction. It **MUST** be protected from impact and restraints, thrust blocks and supports **MUST** not be removed without our agreement.



## Hot works

The potential exists for heat damage to plastic pipelines/coatings. Where welding or other hot works involving naked flames is to be carried out in proximity to our plant, our representative should be present.

## Backfilling

Concrete backfill should not be placed closer than 300mm to our plant. No concrete or hard material should be placed under or adjacent to any of our plant. Shuttering **MUST** be constructed so as to prevent fresh concrete encasing our plant and to maintain the stated clearances. Material used for the surround backfill of our plant **MUST** conform to the following requirements:

- If sand, it **MUST** be well-graded in accordance with BS EN 12620: 2002;
- It **MUST** not contain any sharp particles; stones, bricks, lumps or corrosive materials;
- Foamed concrete should not be used; and
- It **MUST** be laid to a minimum depth of 250mm above the crown of the pipe.

**Note:** Power ramming should not take place until a 300mm hand rammed layer has been completed over the crown of the pipe.

## Access

Access to sites and our plant **MUST** be provided at all times. This includes temporary structures and spoil heaps over our pipes.







## Tree planting

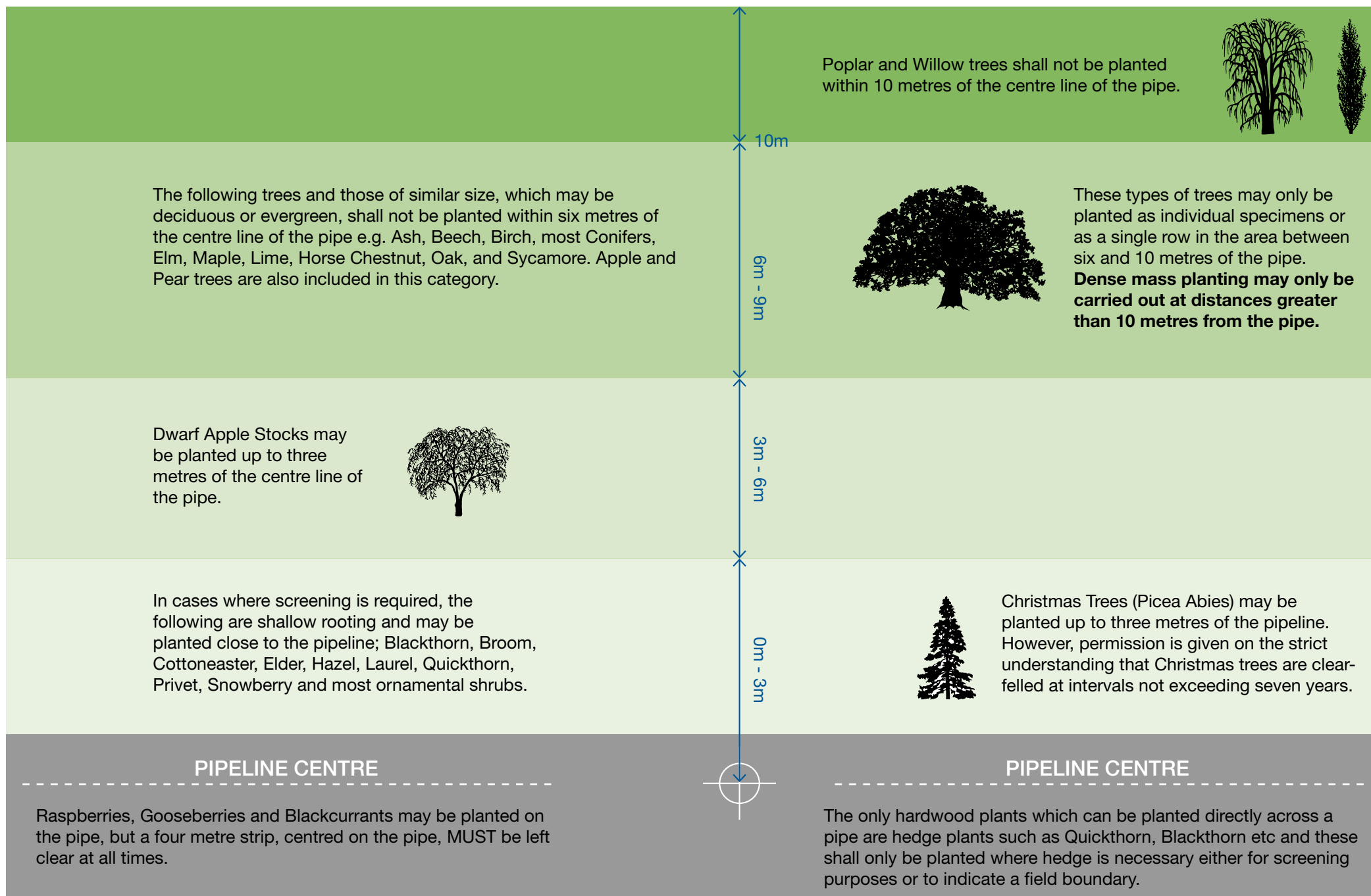
If trees or shrubs are to be planted adjacent to our plant, the selection of the type of tree or shrub and its planting **MUST** be considered so that root damage to buried mains or services will be avoided and that damage to trees or shrubs will not be caused by any subsequent excavations for repair and maintenance.

Before any tree planting is carried out on the easement, our written approval **MUST** be obtained. Any approval we grant to plant trees on the easement shall be subjecting to retaining the rights to remove, at any time in the future, all trees which in our opinion might become a danger to the pipe.

The written consent to plant trees will state what area may be planted and also the type of tree.

See over for specific species and the distances they **MUST** be planted from the pipeline.





**Note: For further guidance refer to NJUG 10.**

## Notes

## Notes

# Southern Gas Networks provides a free plant location enquiry service during office hours.

Our Plant Location Team has retained ISO 9001 certification



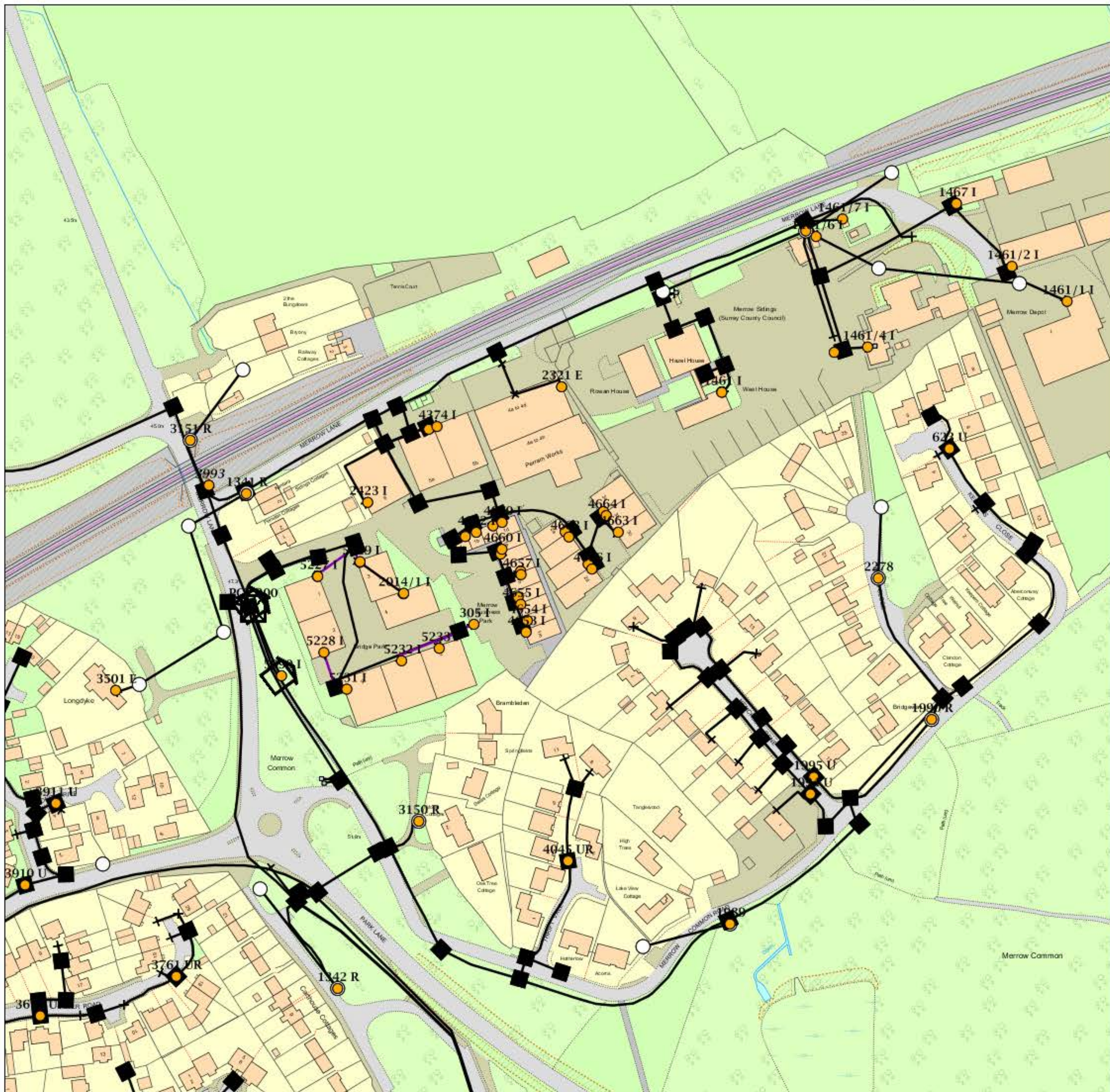
We regret that information cannot be supplied by telephone. Requests MUST be made in writing (via letter, email or fax). For ALL enquiries please include the following information:

1. Full contact details (name, company name, address, telephone number and e-mail address).
2. Full site address, postcode and easting/northing grid reference.
3. Plan showing the site boundary.
4. Details of the work to be carried out.
5. The proposed start date (please specify if work is planning only).

# TELECOMS & CABLE



# Maps by email Plant Information Reply



## IMPORTANT WARNING

Information regarding the location of BT apparatus is given for your assistance and is intended for general guidance only. No guarantee is given of its accuracy.

It should not be relied upon in the event of excavations or other works being made near to BT apparatus which may exist at various depths and may deviate from the marked route.



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## KEY TO BT SYMBOLS

DP	
Planned DP	
PCP	
Planned PCP	
Built	
Planned	
Inferred	
Building	
Kiosk	
Hatchings	

Pole	
Planned Pole	
Joint Box	
Change Of State	
Split Coupling	
Duct Tee	
Planned Box	
Manhole	
Planned Manhole	
Cabinet	
Planned Cabinet	

Other proposed plant is shown using dashed lines.  
BT Symbols not listed above maybe disregarded.  
Existing BT Plant may not be recorded.  
Information valid at time of preparation

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BT Ref : QUX02159F  
Map Reference : (centre) TQ025425 1858  
Easting/Northing : (centre) 502542, 1518  
Issued : 27/09/2016 14:15:52

**WARNING: IF PLANNED WORKS FALL INSIDE HATCHED AREA IT IS ESSENTIAL BEFORE PROCEEDING THAT YOU CONTACT THE NATIONAL NOTICE HANDLING CENTRE.**