



United Utilities Maps
for SafeDig

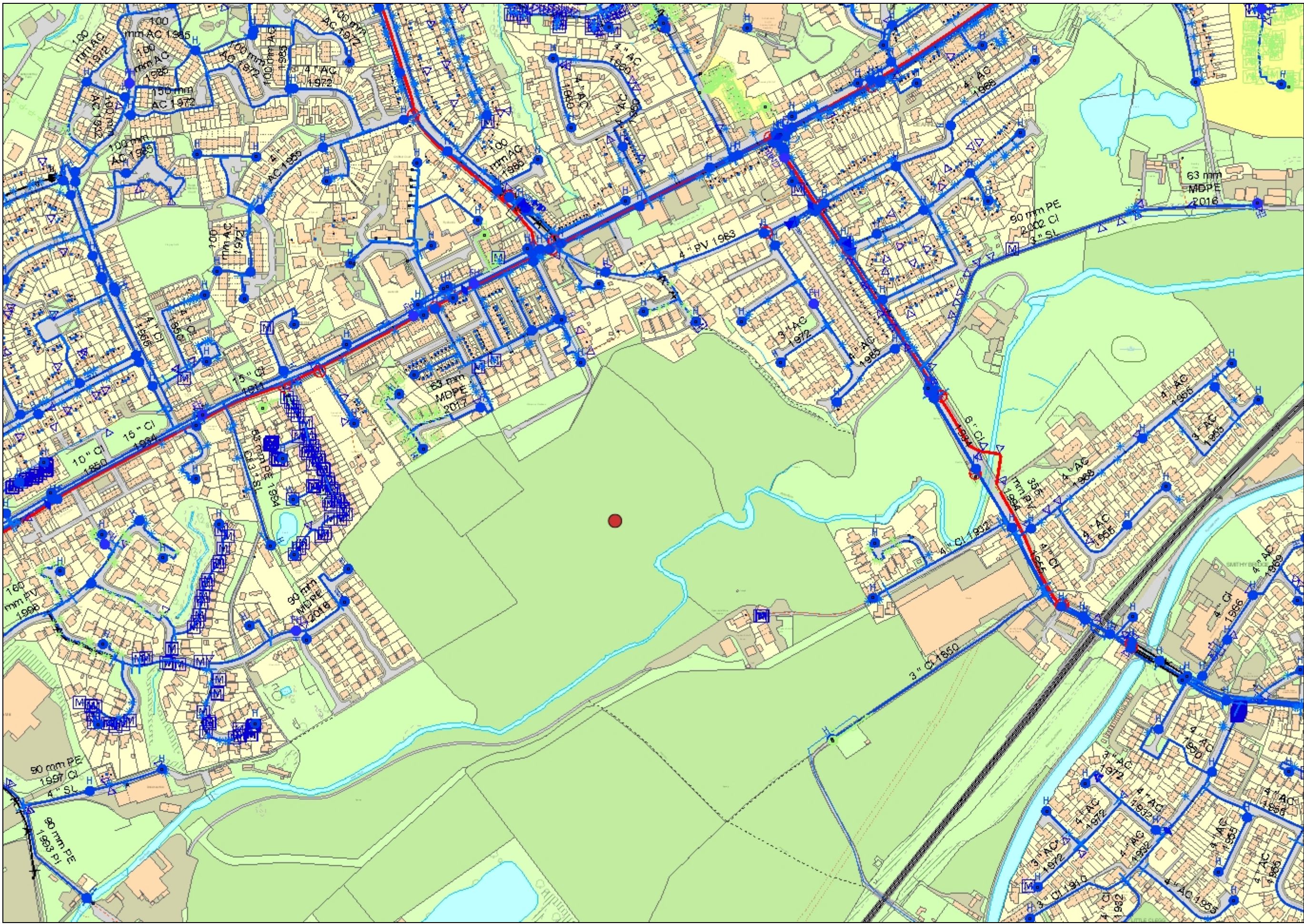
Date :	04/04/2022 15:07:48
Centre X:	392402
Centre Y:	415394
Scale :	1000
UserName:	G4LG72Y

Extract from maps of United Utilities'
Underground Assets

The position of the underground apparatus shown on this plan is approximate only and is given in accordance with the best information currently available. The actual positions may be different from those shown on the plan and private service pipes may be shown by a blue broken line. United Utilities Water will not accept liability for any damage caused by the actual position being different from those shown.

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**United Utilities Maps
for SafeDig**

Date :	04/04/2022 15:06:59
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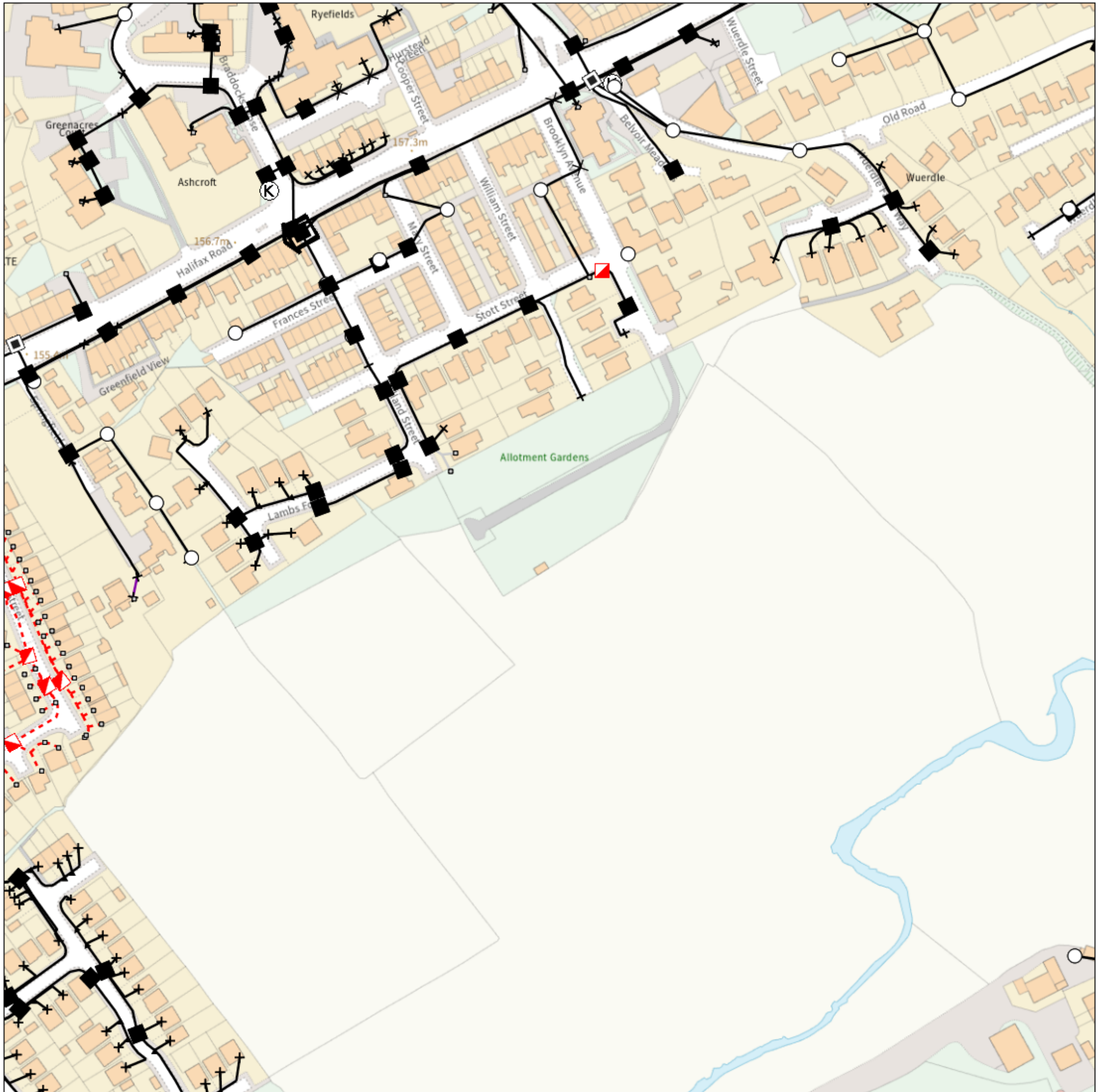
**Extract from maps of United Utilities'
Underground Assets**

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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.



openreach

CLICK BEFORE YOU DIG

FOR PROFESSIONAL FREE ON SITE ASSISTANCE PRIOR TO COMMENCEMENT OF EXCAVATION WORKS INCLUDING LOCATE AND MARKING SERVICE

email cbyd@openreach.co.uk

ADVANCE NOTICE REQUIRED
(Office hours: Monday - Friday 08.00 to 17.00)
www.openreach.co.uk/cbyd

Accidents happen

If you do damage any Openreach equipment please let us know by calling 0800 023 2023 (opt 1 + opt 1) and we can get it fixed ASAP

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KEY TO BT SYMBOLS

KEY TO BT SYMBOLS			Change Of State	+	Hatchings	
	<i>Planned</i>	<i>Live</i>	Split Coupling	×	Built	
PCP			Duct Tee	▲	Planned	
Pole			Building		Inferred	
Box			Kiosk		Duct	
Manhole			Other proposed plant is shown using dashed lines. BT Symbols not listed above may be disregarded. Existing BT Plant may not be recorded. Information valid at time of preparation. Maps are only valid for 90 days after the date of publication.			
Cabinet						
	<i>Pending Add</i>	<i>In Place</i>	<i>Pending Remove</i>	<i>Not In Use</i>		
Power Cable						
Power Duct				N/A		

BT Ref : BFJ03083I

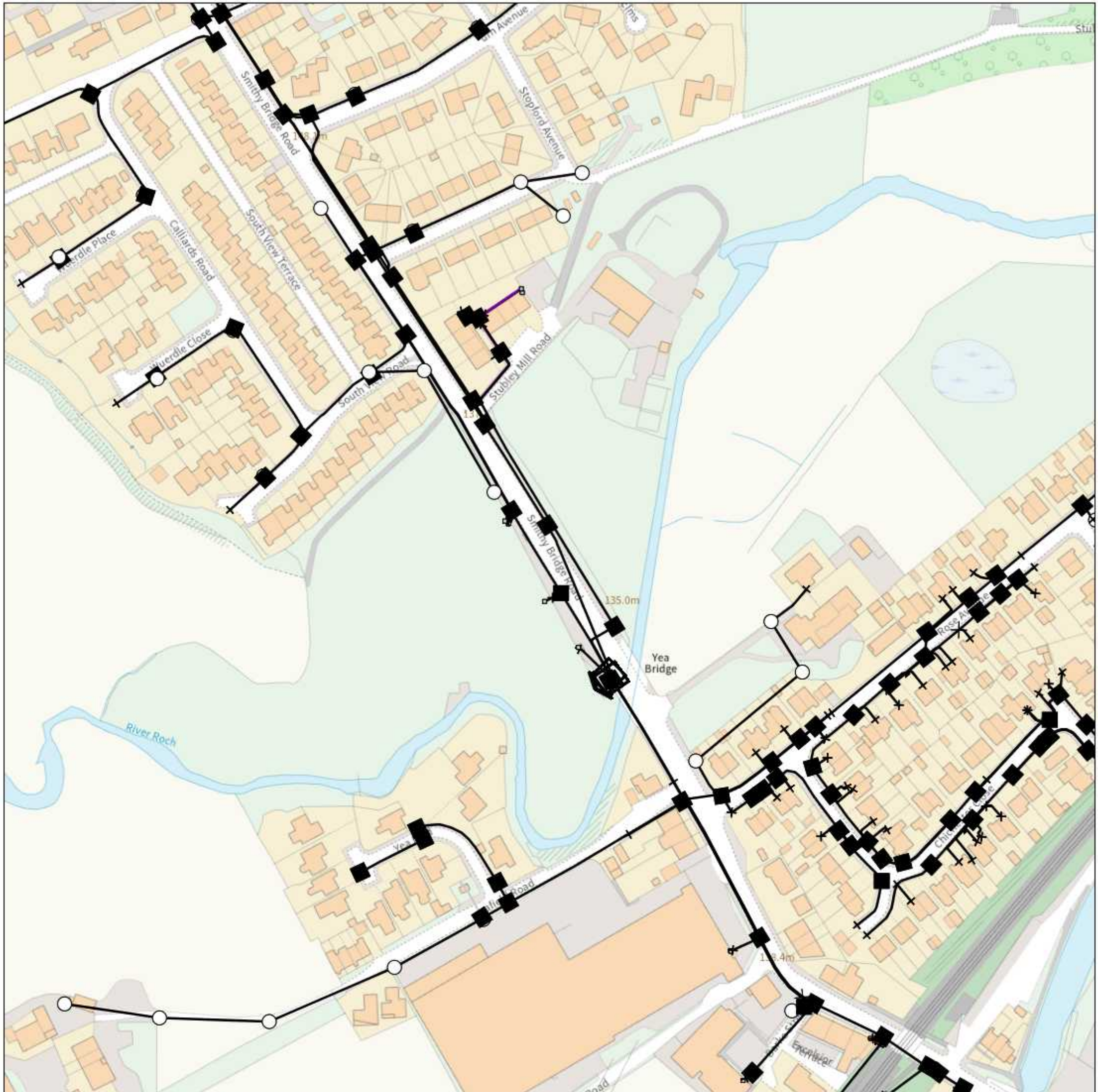
Map Reference : (centre) SD9197615417

Easting/Northing : (centre) 391976,415417

Issued : 04/04/2022 15:08:47

WARNING: IF PLANNED WORKS FALL INSIDE HATCHED AREA IT IS ESSENTIAL BEFORE PROCEEDING THAT YOU CONTACT THE NATIONAL NOTICE HANDLING CENTRE. PLEASE SEND E-MAIL TO: nnhc@openreach.co.uk

Maps by email Plant Information Reply



IMPORTANT WARNING

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KEY TO BT SYMBOLS

	Planned	Live	Change Of State	+	Hatchings	
PCP			Split Coupling		Built	
Pole			Duct Tee		Planned	
Box			Building		Inferred	
Manhole			Kiosk		Duct	
Cabinet			Other proposed plant is shown using dashed lines. BT Symbols not listed above may be disregarded. Existing BT Plant may not be recorded. Information valid at time of preparation. Maps are only valid for 90 days after the date of publication.			
	Pending Add	In Place	Pending Remove	Not In Use		
Power Cable						
Power Duct				N/A		

BT Ref : FKT03086D

Map Reference : (centre) SD9243915439

Easting/Northing : (centre) 392439,415439

Issued : 04/04/2022 15:08:28

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Important Information - please read The purpose of this plan is to identify Virgin Media apparatus. We have tried to make it as accurate as possible but we cannot warrant its accuracy. In addition, we caution that within Virgin Media apparatus there may be instances where mains voltage power cables have been placed inside green, rather than black ducting. Further details can be found using the "Affected Postcodes.pdf", which can be downloaded from this website. Therefore, you must not rely solely on this plan if you are carrying out any excavation or other works in the vicinity of Virgin Media apparatus. The actual position of any underground service must be verified by cable detection equipment, etc. and established on site before any mechanical plant is used. Accordingly, unless it is due to the negligence of Virgin Media, its employees or agents, Virgin Media will not have any liability for any omissions or inaccuracies in the plan or for any loss or damage caused or arising from the use of and/or any reliance on this plan. This plan is produced by Virgin Media Limited (c) Crown copyright and database rights 2022 Ordnance Survey 100019209.

Duct, Trench



Chamber / Pole



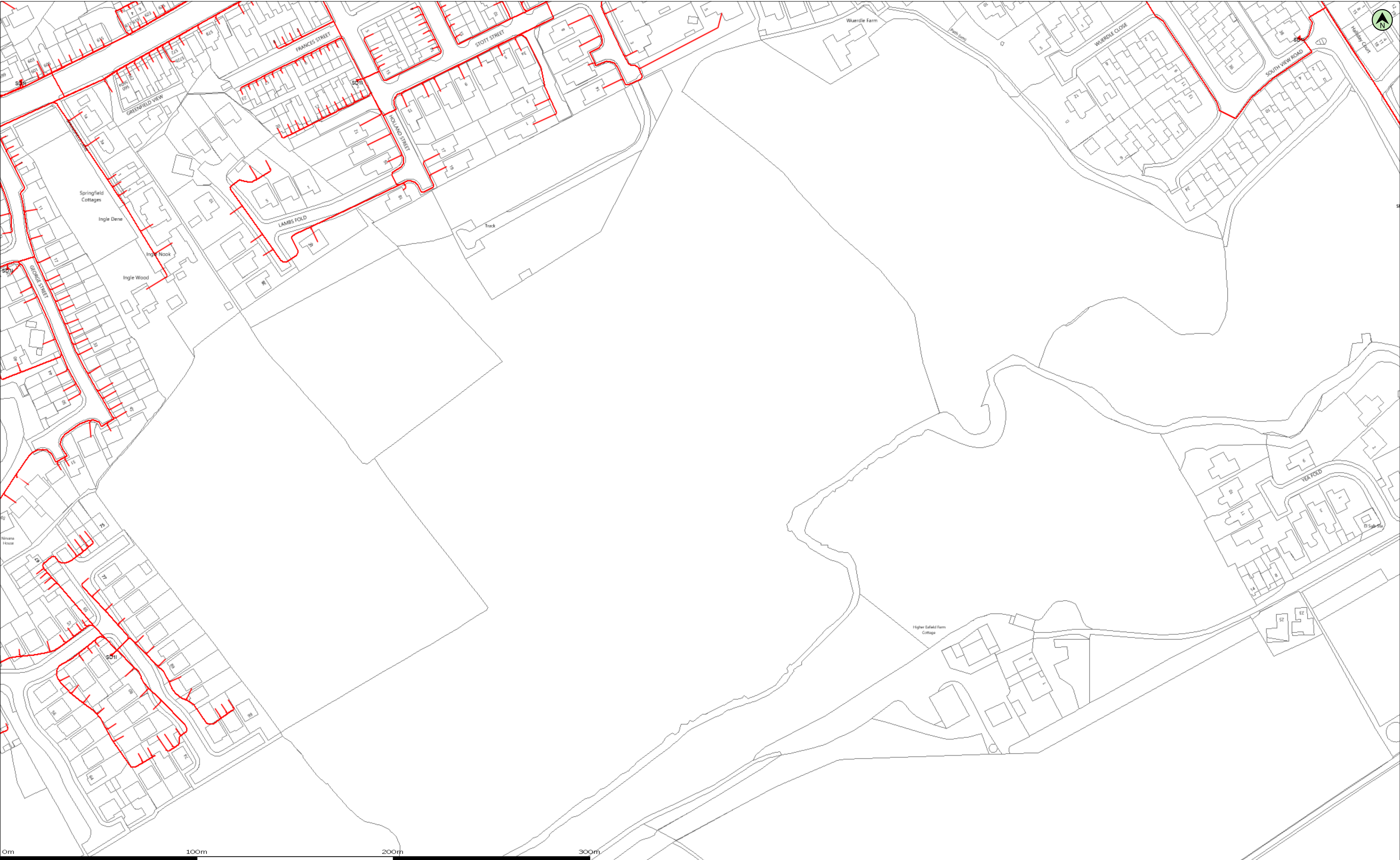
Cabinet



caitlin.hillman@t-d-s.com

Smithy Bridge





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Date: 04/04/22

Scale: 1:1250

Map Centre: 392062,415328

Data updated: 25/01/22

Our Ref: 823185 - 1

Telecoms Plan A2

Important Information - please read The purpose of this plan is to identify Virgin Media apparatus. We have tried to make it as accurate as possible but we cannot warrant its accuracy. In addition, we caution that within Virgin Media apparatus there may be instances where mains voltage power cables have been placed inside green, rather than black ducting. Further details can be found using the "Affected Postcodes.pdf" which can be downloaded from this website. Therefore, you must not rely solely on this plan if you are carrying out any excavation or other works in the vicinity of Virgin Media apparatus. The actual position of any underground service must be verified by cable detection equipment, etc. and established on site before any mechanical plant is used. Accordingly, unless it is due to the negligence of Virgin Media, its employees or agents, Virgin Media will not have any liability for any omissions or inaccuracies in the plan or for any loss or damage caused or arising from the use of and/or any reliance on this plan. This plan is produced by Virgin Media Limited (c) Crown copyright and database rights 2022 Ordnance Survey 100019209.

Duct, Trench	Chamber / Pole	Cabinet
caitlin.hillman@t-d-s.com Smithy Bridge		



APPENDIX 2 – Diversions

04/05/2022



Technical & Development Services (Northern) Ltd

For the attention of Caitlin Hillman

Our ref: 5500233274 A

Dear Sir,

RE: electricity cable diversions at Land off Smithy Bridge Rd, Rochdale, OL16 2SG

Further to your enquiry in relation to the above scheme, I can now confirm the outline arrangements required for the diversion of Electricity North West Limited's apparatus.

Our scope of works broadly includes the following: -

- Diversion of one High Voltage Cable

These proposals are shown on the attached drawing.

Estimated Costs

The estimated cost of this work, based upon Electricity North West Limited interpretation of your submitted details, is estimated at £ 15,442.18 plus VAT.

Please note that Electricity North West Limited's final charges will be rendered on an actual cost basis, based upon the labour and material utilised to complete the project and using the actual labour rates, contractor charges and material costs ruling at the time the work is carried out.

Please refer to the enclosed specific caveats and general estimate qualifications for further details relating to the estimate.

This estimate will remain open for acceptance for 180 days from the date of this letter. If you wish to proceed after the expiry of 180 days a revised estimate may be necessary.

Programme

Generally, 12-14 weeks' notice is required from when your payment is received before we can commence work on site. These timescales may however be extended due to restrictions imposed by the local authority under the New Roads and Street works Act.

Once the scheme has been handed over to our construction team and following liaison with the Local Authority, a more accurate time scale and program of works will be provided.

Should you wish to proceed with this project, please return the attached 'Acceptance Form'.

I trust the above meets with your approval and should you require any further information, do not hesitate to contact this office. Please ensure that all correspondence carries the reference shown at the top of this letter.

Yours faithfully

Lauren Teasdale
Design Engineer
Infrastructure Solutions
Electricity North West Limited

Tel No: 07825388358

lauren.teasdale@enwl.co.uk

Specific Caveats

General Estimate Qualifications

The Estimate is based on the following qualifications, which are in addition to the “Conditions of Contract for Alterations to Electricity North West Limited’s Electrical Infrastructure Imposed by A Third Party” (available upon request):

- (a) Electricity North West Limited’s final charges will be rendered on an actual cost basis, based upon the labour and material utilised to complete the project and using the actual labour rates, contractor charges and material costs ruling at the time the work is carried out.
- (b) Any costs associated with connection and / or disconnection of street furniture have not been included in this estimate unless otherwise stipulated. Disconnection requests from the asset owners should be referred to Electricity North West Connections if applicable.
- (c) This estimate assumes that all facilities and information would be made available to enable our works to be carried out with reasonable continuity.
- (d) Any excavation through or removing obstructions will extend the working time and incur additional costs. However, final charges for the scheme will be based on actual costs incurred.
- (e) All work is carried out in normal working hours.
- (f) Any variations to these diversions for additional work due to unforeseen problems will be agreed between Electricity North West and you as work proceeds. The cost of this additional work will be chargeable to you.
- (g) Any excavation undertaken by Electricity North West is assumed to be in ground free from contamination.
- (h) The above estimate is subject to any additional consideration, third parties included, which Electricity North West Limited may require in the surrender or negotiation of any legal interests, easements, and rights of way, which may affect the site notwithstanding Electricity North West Limited’s statutory rights under the Electricity Act.
- (i) Where additional consideration is required, the cost of acquiring the agreements will be recharged to you. Please be aware that such agreements often have long lead in times. It is recommended that you make allowance in your programme for the same.
- (j) Any requests for ducts to be installed by you or your principal contractor must be agreed well in advance of works commencing on site.
- (k) Where ducts are to be installed by the Principal Contractor for Electricity North West’s use, these ducts will be supplied by Electricity North West and installed to Electricity North West specifications. The exact depth and position of such ducts should be agreed on site with the Electricity North West Project Supervisor. We reserve the right to supervise or inspect any duct installation work.
- (l) The lines and levels of new and existing cables shall be kept to Electricity North West specification. The customer or their representatives will mark out proposed finished lines and levels as requested by ENWL.
- (m) Upon completion of our works all disconnected cables will be left in situ, some of which will fall within your site. Such cables will be disconnected at the extremities of our work area only. No allowance has been made for the recovery of any such apparatus. ALL CABLES ON SITE MUST BE ASSUMED LIVE UNLESS PROVED DEAD BY ELECTRICITY NORTH WEST AUTHORISED PERSONNEL USING ELECTRICITY NORTH WEST APPROVED PROCEDURES.
- (n) Please note that it may be necessary to cancel any outages, sometimes at very short notice or even restore circuits once work has started, due to system loading problems or circuit faults in adjacent circuits. Electricity North West will endeavour to reduce any impact on your programme of works and costs incurred but will not be held responsible for any costs incurred by you as a result of the cancellation of the works or delay to commencement.

Health and Safety

The following information is given to assist you in maintaining safe working practices on the site:

- (a) Electricity North West plans carry an endorsement stamp that is there for your safety. Before any machines are used, all underground plant should be located by manual excavation. All excavation should be done by taking the appropriate safety precautions in the 'Health and Safety Executive Guidance Note G47' "Avoiding Danger from Underground Services", taking cognizance of the fact that other plant may be in the vicinity which is not shown on the plans, including uncharted and private cables.
- (b) Ensure that the current issue of plans is referred to when commencing work on site.
- (c) Any work carried out in the vicinity of any overhead conductors by you or your contractors must be carried out in accordance with the requirements of the Health and Safety Executive (HSE) document GS6 "Avoidance of Danger from Overhead Electric Lines".
- (d) If any plant or apparatus is damaged this should be reported immediately to Electricity North West on 0800 195 4141. Please ensure that all your site operatives have this information.
- (e) You will have a better knowledge of your site and if there are any hazardous processes, operations or materials (including structural materials) on the site, kindly let us know so that appropriate precautions may be taken.
- (f) Our cable records indicate that there are several Electricity North West cables in the vicinity of this project. **ALL CABLES ON SITE MUST BE ASSUMED LIVE UNLESS PROVED DEAD BY ELECTRICITY NORTH WEST AUTHORISED PERSONNEL USING ELECTRICITY NORTH WEST APPROVED PROCEDURES.**
- (g) Electricity North West considers that the project will be governed by the requirements of the Construction (Design and Management) Regulations 2015 (CDM 2015). Before commencement of work, can you please provide us with the name, addresses and contact telephone number of the organisation and personnel who will undertake the following roles: -
 - 1. Client
 - 2. Principal Designer
 - 3. Principal Contractor
 - 4. Contractor (if different)

This information will enable us to complete our Health and Safety documentation prior to the commencement of the work.

Diversion Estimate – Acceptance Form

To: Lauren Teasdale
Electricity North West Limited
Diversions & Disconnections Team
Hartington Road
Preston
PR1 8AF
E-mail: Diversions@enwl.co.uk

Project Number: 5500233274 A

Site Address: **Land off Smithy Bridge Rd, Rochdale, OL16 2SG**

If known at this stage, please provide an estimated start date that you require Electricity North West on site:

Date: _____

I accept the estimate of cost, caveats and terms and conditions for the diversion of Electricity North West assets as per your letter dated .

Please forward Electricity North West Limited's invoice to me for £15,422.18 plus VAT.

Note: Payment is required before work commences. You are now able to pay by BACS transfer.

During the current Coronavirus controls, please do not pay by cheque

To Pay by BACS / CHAPS Please raise a payment for £15,442.18 plus VAT to Electricity North West Limited Account Number 00657315 Sort Code 30-00-02 Please quote your project reference in the reference field

Name: _____

Signature: _____

Position: _____

Company: _____

Date: _____

The invoice for the work is to be sent to:

Name: _____

Position: _____

Company: _____

Address: _____

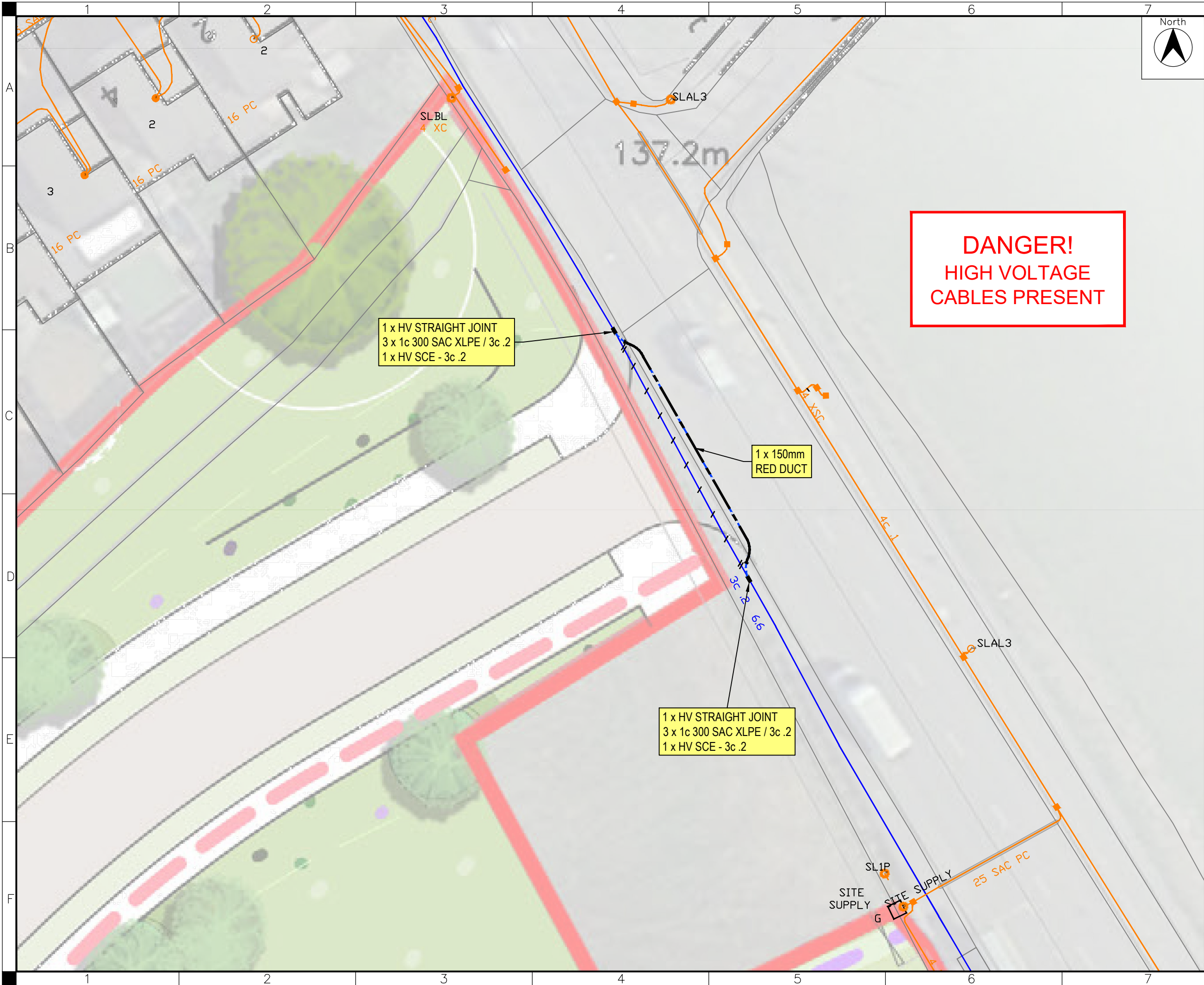
Please provide details of the person we need to contact to arrange the works

Project Manager: _____

Company: _____

Contact Telephone No: _____

Contact E-mail Address: _____



Existing 33kV U/G cable	
Existing 11kV U/G cable	
Existing 6.6kV U/G cable	
Existing LV U/G cable	
Prop. 33kV U/G cable	
Prop. 11kV U/G cable	
Prop. 6.6kV U/G cable	
Prop. LV U/G cable	
Existing 33kV O/H line	
Existing 11kV O/H line	
Existing 6.6kV O/H line	
Existing LV O/H line	
Prop. 33kV O/H line	
Prop. 11kV O/H line	
Prop. 6.6kV O/H line	
Prop. LV O/H line	
Prop. HV earth wire	
Pilot/Tele Cable	
Proposed Duct	
Existing Assets to be Abandoned/Reclaimed	
Proposed Joints	
Proposed Pole	

NOTES

REV.	DRN.	APP.	DATE.	COMMENTS.

REVISIONS

NOT TO BE
USED FOR
CONSTRUCTION

STATUS: PRELIMINARY

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ELECTRICITY NORTH WEST LTD
BORRON ST, PORTWOOD, STOCKPORT, CHESHIRE, SK1 2JD

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Title:
LAND OFF
SMITHY BRIDGE ROAD
ROCHDALE
OL16 2SG

Project No: 5500233274	
Grid Ref: 392402,415477	
Drawn By: L.TEASDALE	Sats:
Designed By: L.TEASDALE	Sheet No:1 of 1
Approved By: J.BENNETT	Sheet Size: A3
Drawn Date: 04/05/22	Scale: 1:250
Drawing No: ENWL-5500233274-00 PROPOSAL PLAN	Rev: -

Diversion Information Booklet





Welcome to Electricity North West and thanks for choosing us to provide a design and cost for the electricity diversions needed for your project.

Our focus is to ensure we deliver a safe, affordable and reliable supply to our customers.

Contents

Hello	2
Key information	3
Diversion process	4
After your diversion	5
Shared trench installations	6
Contact details	7



SAFETY FIRST

Never attempt to move a cable yourself. Treat all cables and services as LIVE unless they have been confirmed DEAD.

Thank you for your recent application for an electricity asset diversion.

Included in this booklet you will find useful information to answer some of the queries you may have and to help you plan for the diversion of our assets.

We carry out diversion works to make sure that you and your contractors can work safely on site by reducing the possibility of contact with, or damage to existing cables, overhead lines and other electrical distribution equipment.

It is also essential that we maintain safe, quick access to our cables once your work is completed. This helps to reduce the time taken to repair faults when customers are off supply and also allows access to the cables for future connection of new supplies.

When we receive your enquiry, our design team will make sure we have sufficient information and then prepare and issue a design and cost estimate for your diversion and this price is valid for a period of six months. The estimate will be based on our interpretation of your proposed works. If you have any queries, please discuss these with our design engineer.

Once you have accepted your diversion project, we will assign a diversion works coordinator to you. Your coordinator will be responsible for delivering the project on behalf of Electricity North West and will be able to answer any of your questions and make sure everything goes to plan.

For more information visit our web page: www.enwl.co.uk/diversions

We hope you find the information in this booklet useful and we look forward to working with you.

If you need to contact us at any time during your enquiry, or throughout the process, please email us at Diversions@enwl.co.uk



Timescales

After all legal consents are in place, work usually starts within 12 weeks of payment, this allows us time to notify the local authority of the works and gain permission to excavate in footways and carriageways.

The time on site is dependent on the extent of works required and your coordinator will be able to advise you further.

Please be aware that during busy periods these times may vary.

Existing cables

To avoid unnecessary cost and environmental impact, all existing cables are left in the ground after the new cables are energised.

The cables will be identified as dead at the point of diversion, but it is important that your site contractors take care when excavating.

You should follow the HSE guidelines in document HS (G) 47 to employ safe dig methods to avoid contact with the new and old cables.

If you require us to re-visit site to prove any old cables dead or to identify other assets, this will result in an additional charge.

Overhead lines

If your project is on land that contains, or is close to an overhead line or tower, you may need to have the line diverted or protected whilst you work nearby.

It is your responsibility to ensure that all works on your site are carried out in a safe manner and avoid the need for plant and equipment to come into close proximity to overhead lines.

Our overhead line network is installed on wooden poles and steel towers and operates at voltages up to 132,000 volts.

You do not need to make contact with a power line for electricity to flow, a spark can jump across gaps in the air. You must ensure safety clearances are maintained near overhead lines.

Information can be found in the Health and Safety Executives GS6 document online.

“ You must ensure safety clearances are maintained near overhead lines ”



Supply interruptions

Our work may require a supply interruption, which means we need to turn off other customers on our network. We have an obligation to make sure that sufficient notice is given to these customers to allow them time to plan for this. This notice period (usually no less than 30 days) may have an impact on available outage dates.

Variations

Our initial estimate is based on criteria which is detailed in our offer letter, but it is not uncommon for variations to occur once work starts on site and as the job progresses.

Your coordinator will keep you informed of these variations, will explain any cost and programme implications and seek approval of the variations as work proceeds. The final cost will be reflective of the work that we actually complete.

Completion and final account

Once we have completed our work on site, we will prepare a final valuation of the works and produce a final account statement for you. This normally takes up to three months from completion.

You will only be charged for the actual work we have completed. If, after variations, this turns out to be less than the initial estimate and your upfront payment, we will refund the difference back to you. Our Commercial team will write to confirm the final balance.

If there is an increase in cost due to variations, a supplementary invoice will be raised at the final account stage and details will be provided to you by our Commercial team to explain the increased costs incurred.

1

Quotation

Our design team will prepare and issue you with a design and cost estimate for your diversion and this price is valid for a period of six months. The estimate is based on our interpretation of your proposed works. If you have any queries, please discuss these with our design engineer.

2

Acceptance and payment

Once you have received the estimate and are happy to proceed, you can accept the work by signing and returning the acceptance form included with your estimate. Please ensure you have read and understood the details in your offer letter, any design drawings and the information in this booklet. If you have any queries, please discuss them with our design engineer. Payment terms will be detailed in your estimate letter and all works require upfront payment in order to proceed.

3

Local authority permits and third party consents

Once you have accepted and paid for the diversion, we will notify the local authority highways team and commence the process to raise a permit to work in the highway.

We will also begin negotiations with any third party land owners who may be affected by the diversion works and seek to secure consents to commence works on site. This process can sometimes be quite lengthy and often involves agreements with third party legal representatives. Your diversion works coordinator will keep you up to date with progress and advise on any issues that may impact the works start dates.

4

Schedule work

We will try to schedule the works to meet your desired programme, but allowing for third party consents, highway permits and outage notifications may mean that it is not always possible. After you accept the estimate, we will need to put together construction drawings and health and safety packs for issue to our delivery team and your coordinator will make contact with you to discuss and agree the programme dates, arrange any pre-site inspections and confirm any other specific issues or restrictions.

5

Works on site

Once dates are agreed, an excavation team will attend site to commence installation of the new cables and apparatus that will allow us to transfer the existing circuits onto the diversion route. Our team will protect all open excavations for the duration of the works and until the final connections are made by our engineering and jointing teams. We will then follow up with backfill and reinstatement of trenches and joint bays.

6

Completion

It is important for you to know that all the old cables are left in the ground and are not removed from site. The cables are proved dead at the point of diversion, but any requests for us to return to site to prove dead other apparatus may be chargeable to you.

Due to the possible presence of third party or unrecorded cables, we are not able to provide a certificate of diversion or provide conclusive proof that all cables on site are dead. Our records will be updated to show the new installed cables and the old cables marked up as **Out of Commission (OOC)**.

You should continue to excavate with caution and follow the Health and Safety Executive guidelines (document HS (G) 47) which can be found at www.hse.gov.uk.

Project closure

Usually within three months of your diversion works being completed we will send a final account statement showing any additional costs or refund due.

This statement will include:

- A brief breakdown of final costs.
- Confirmation of any previous payments received from you.
- Details of any refunds due to you or additional funds required by us.
- Summary of any New Roads and Streetworks Act allowances which have been applied to your account.

In the event of
damage or contact with
electricity cables please
call us direct to report it
on **0800 195 4141**
or **105**

Safe working practises

We understand that diversion works often precede building works and site clearances and further works will continue after the diversion is complete.

We recommend that you and your contractors refer to industry guidance to ensure you are working safely.

The Energy Networks Association (ENA) and Health and Safety Executive have produced some helpful guides for working near overhead and underground cables which you can find at www.energynetworks.org or www.hse.gov.uk.

Details of work completed on site

We don't normally issue copies of the as-laid drawings completed by our delivery team. You should refer to our cable records for details of where the new and old cables are located.

There are many different companies who are able to install, operate and work near the electricity network in our area. Because of this, we cannot be sure if other connections or changes have been made to the network during or after our diversion work is complete.

There is also the possibility that other unauthorised third party interference has changed the electricity network without our knowledge. As a result of this, we can only recommend our published cable records to be the most accurate and up to date information on the electricity network in the vicinity of your works.

Please make sure you provide your site teams with regularly updated records and always employ safe digging practices when excavating.

For more information visit www.enwl.co.uk/knowbeforeyoudig.



SAFETY FIRST

Never attempt to move cables or allow anyone to move cables on your behalf. Treat all cables and services as LIVE unless they have been identified and confirmed to be DEAD.

Shared trench installations

We are industry leaders in providing shared trench installations for utility apparatus.

As part of our diversion service, we are able to provide you with a bespoke design for multi-utility trenching. Our team can produce a design that will incorporate the installation of other utilities such as water, gas pipes and communication lines.

We have worked for a number of years with local authorities, transport and utility companies to improve the programme timescales of utility diversion associated with projects in the public highway.

Using one contractor on site for excavation can demonstrate to local businesses, residents and other stakeholders that you have considered the impact that a major project can have on their businesses and the inconvenience that these works can cause to the general public and local traffic.

We can liaise with other utility companies on your behalf to design and gain approval for joint utility trenching and to install or manage their equipment installations in purpose built trenches.



“ Using one contractor on site can reduce the impact that a major project can have on the public and local area. ”

Our process

1

Design

Our team can produce a design for shared trench installations.



2

Utility coordination

We can liaise with other utility companies to secure design approval for other services such as gas, water and telecoms to share our trench.



3

Installation

Our expert installers are fully authorised to install other utility assets.

If you would like to know more about how we can help you shorten your programme durations, reduce disruption and improve your reputation with local stakeholders, please let our design team know and we will tailor a design to suit your requirements.

Electricity North West contacts

The best way to contact us about your diversion is to use our email address Diversions@enwl.co.uk

Send us an email and one of the team will be in touch with you as quickly as possible.

Get connected

- Electricity connections
- Diversions
- Disconnections
- Service alterations
- Add loads

0800 988 1730

General enquiries and updates regarding your electricity connection requirements and general enquiries about the electricity distribution services we provide such as diversions, disconnections, service alterations and additional loads.

You can contact our team:

Monday to Thursday 8am-5pm

Fridays 8am-4.30pm

Electricity fault information and emergencies

- Loss of electricity supply

**0800 195 4141
or 105**

For customers who need to report a power cut, an emergency or dangerous situation.

Our contact centre is open 24 hours a day, seven days a week.

Signage around street works

- Electricity streetworks

0800 195 4141

To report a problem with signage or barriers around work being carried out on site.

Our website and useful links

www.enwl.co.uk

- www.enwl.co.uk/diversions
- www.enwl.co.uk/disconnect-your-supply



Our Reference:
NWGD235068

Date:
Wednesday 04 May, 2022

Caitlin Hillman
Technical & Development Services
Northern House
3A Kennerleys Lane
Wilmslow
SK9 5EQ

Julia Greenhough
Design Officer
Email julia.greenhough@cadentgas.com
Direct tel. +44(0)161 790 3000
Mobile: +44(0)7702 759488



Dear Caitlin,

Re: Gas Mains Diversion(s) at Smithy Bridge Road, Rochdale

Please find enclosed one copy of our plans showing the existing mains in this area. Inspection of your proposals and Cadent Gas' records would indicate that we have the following apparatus affected by the proposed works:

6" CI

Prior to the commencement of your scheme it will be necessary for you to undertake hand excavated trial holes to prove the exact depth and position of the above main(s). I would be pleased to receive details of your site investigations and proposed construction depths in due course for further assessment.

A budget cost for diverting the affected main(s) is £33000 (Thirty-Three Thousand Pounds)

This estimate figure will also be subject to VAT charged at 20% .

Please see the following page for a list of specific inclusions, exclusions and information.

This budget estimate should be regarded as a rough guide only. It has been prepared using the information currently available. A detailed estimate, showing any allowances which may be applicable, can be prepared when the proposals are firmed up.

Please note that an official order, accompanied by payment in full for the rechargeable proportion of the costs, will be required before any programming of work can commence. An order cannot be accepted against this budget estimate. Cadent Gas reserves the right to divert any affected apparatus if proved necessary during the course of your works, the cost of which will be recharged. Copies of our "General Conditions and Precautions" leaflet and card, which outline the precautions to be taken whilst excavating in the vicinity of live gas distribution apparatus, are enclosed for your information.

I trust this is satisfactory, should you require any further details please do not hesitate to contact me.

Yours faithfully,

Julia Greenhough
Design Officer
Mains Diversions Team
(On behalf of Cadent Gas)

Further Design Officer Comments:



Please be aware of the following:

1. Standard depth of cover for a Low Pressure gas main is 650mm - 700mm (FW) and 750mm (CW).
The finished ground level above the mains must not be raised to greater than 1.2m or reduced to less than 750mm.
2. Metallic mains have been known to fail as a result of major construction activities, even at standard depth, and may incur a necessary diversion.
3. No new kerb line, barrier or other street furniture should be set out to run directly over or within 300mm of an existing gas main.
Any existing street furniture shall be removed, stored and reinstated by the customer **prior** to work commencing.
4. Gas mains must not become contained within the new carriageway formation. A fine fill layer of not less than 150mm must be maintained between the mains and the carriageway formation.
5. Gas mains must remain in Public Adopted Highway. Gas mains installed in private land must be subject to a free Deed of Grant of Easement in perpetuity.
6. If applicable, as a condition of doing the work, the client will be required to enter into a deed of easement with Cadent **prior** to work commencing and will be responsible for paying both their own and Cadent legal fees. This will require a direct undertaking from the grantors solicitors to Cadent panel solicitors.
7. All redundant apparatus will be capped, purged to air and left in situ. No pipework will be removed from site unless specifically requested.
8. If applicable, all existing meters shall be removed **prior** to work commencing.
9. A minimum of 10m should be accounted for when (re)planting Poplar and Willow Trees. A 6m allowance should be made for conifers and deciduous trees, and 1.5 - 6m for lesser trees and shrubs in accordance with standard tree planting guidelines.

The following have/have not not been included in this estimate:

Permanent Reinstatement in the public highway has been included.

Deep Excavation has not been included.

Specialist excavation & reinstatement has not been included

Traffic Management costs and logistics have not been included.

T.T.R.O.s, Footpath Closures, Crossing & Bus Stop suspensions have not been included.

Peak hours uplift has not been included.

Fees for legal consents & permissions have not been included.

Professional fees (third party work) has not been included

Removal, storage & re-installation of Street Furniture has not been included

Testing, removal & disposal of contaminated materials & liquids has not been included

Removal & disposal of indigenous & non-indigenous vegetation (trees & plants) has not been included

If you discover a main that is not shown on Cadents' records, call Plant Protection on 0800 688 588

For Services/Connections, call 0800 074 5788



To report a gas emergency, call 0800 111 999



We always determine and mark the location of underground services and take actions to prevent damage that could cause harm.

ALWAYS CONSULT UTILITY PLANS AND CARRY OUT PLANT LOCATION SURVEY BEFORE EXCAVATING**THIS DRAWING MUST BE VIEWED ON COLOUR****Permits and Authorisations**

We never carry out any work unless we have the necessary current safety documentation, authorisation, permits and licences.

DETAILING NOTATIONS - PROPOSED

LP GAS MAIN	ASSET ID CHANGE POINT	
MP GAS MAIN	VALVE	
IP GAS MAIN	CHANGE POINT - METHOD / DIA	
HP GAS MAIN	CAPEND	
NHIP GAS MAIN	SYPHON	
PROPOSED PIPE - LP	TRIAL HOLE	
PROPOSED PIPE - MP	SERVICE	
PROPOSED PIPE - IP	EXCAVATION PIT	
ABANDON - LP	TREE	
ABANDON - MP	EXCAVATION REFERENCE / PROCEDURE	
RELAY	PRESSURE REFERENCE	
TRANSFER	UNIT REFERENCE	
RISER- PROPOSED	>= 1.2m DEPTH TRENCH SUPPORT REQUIRED	
CONNECTION	CAUTION SYMBOL	
WORK LOCATION	Out Of Standard Service	
CAUTION ELECTRIC		

WARNING! This area contains Gas Mains Operating at Low Pressure of between 2 and 7 bar. Before excavating in the area contact the Local Network

WARNING! This area contains Gas Mains Operating at Medium Pressure of between 2 and 7 bar. Before excavating in the area contact the Local Network

SEE SKETCH BOOK 10/11**SEE SKETCH BOOK 10/7****EXACT LOCATION UNKNOWN .****EXACT LOCATION UNKNOWN .****DR4: 53367**
Date: 20/09

HEALTH AND SAFETY INFORMATION					
THIS DRAWING CONTAINS ALL RELEVANT INFORMATION ON SIGNIFICANT OR UNUSUAL RISKS FROM THE DESIGN AND / OR EXISTING IDENTIFIED SITE CONDITIONS					
UTILITY	MAJOR SERVICE	PRESENT	UTILITY	MAJOR SERVICE	PRESENT
Electric	6.6kVA or above (Below ground)	Yes	Water	12" and above	Yes
	Overhead Cables	Yes		Asbestos	Yes
	National High Pressure	Yes		Underground Apparatus, Contact Freephone 100 "Dial Before You Dig"	Yes
Gas	High Pressure	Yes	B.T.	Underground Apparatus, Contact Freephone 100 "Dial Before You Dig"	Yes
	Intermediate Pressure	Yes		Overhead Cables	Yes
	Medium Pressure	Yes		Underground Apparatus, Contact Virgin Media 0870 883 3113	Yes
	12" and above	Yes		Cable T.V.	Yes
Sewers	Asbestos	Yes	Pipeline Agency "Linewatch"	Underground Apparatus, Contact Before Excavation	Yes
	600mm and above	Yes			

FOR POSITION OF SERVICES REFER TO UTILITY DRAWINGS

THIS DRAWING SHOULD ALWAYS BE READ IN CONJUNCTION WITH THE CONSTRUCTION PACKS

SIGNIFICANT OR UNUSUAL RISKS**<SIGNIFICANT RISKS>****ENGINEERING DIFFICULTIES****<ENGINEERING DIFFICULTIES>****NRSWA / TRAFFIC MANAGEMENT**

Work to be carried out in accordance with SAFETY AT STREET WORKS AND ROAD WORKS CODE OF PRACTICE

BUS ROUTE - Y / N

BY-PASS REQUIREMENTS

SEE ROUTINE OPERATIONS PROCEDURE

NOTE: Temporary overland bypasses are not identified on this drawing - A by-pass may be required to perform the construction technique identified. Consult the overview drawing for area feeds & always install bypasses as instructed within the SCO routine operation, in accordance with the specification as detailed in the Cadent management procedures for main laying & service laying.

CUSTOMER CARE

ENSURE PEDESTRIAN WALK-WAYS ARE PROVIDED AND DISABLED ACCESS MAINTAINED

ENVIRONMENTAL

SEE NJUG GUIDELINES FOR THE PLANNING, INSTALLATION AND MAINTENANCE OF UTILITY APPARATUS IN PROXIMITY TO TREES (VOLUME 4)

ASBESTOS CONTROL

WORKS TO BE CARRIED OUT IN ACCORDANCE WITH THE CONTROL OF ASBESTOS REGULATIONS 2006 PART II. Size / material / on (street name) TO BE REPLACED.

IN THE EVENT OF ANY DESIGN CHANGES CONTACT**CHANGE NOTIFICATION - 0161 790 3000****PRINCIPAL QUANTITIES SCHEDULE**

STREET DETAILS

EXISTING / PROPOSED ASSETS AND SERVICES

Design ID	Street Name	Asset Type and SAP ID	Dia. (mm) (inch)	Mat.	Method	Carrier/ Inserted Pipe IDs	Length (m)	Services
3	SMITHY BRIDGE ROAD	LP Main 311504697	6in	CI	Abandon	-	24.19	-
4	SMITHY BRIDGE ROAD	LP Main	180mm	PE	Open cut	-	25.29	-
Total Length - LAY							25.29	0
Total Length - ABANDON							24.19	0

CONSTRUCTION APPROVAL

SIGNATURE

DATE

DESIGN:-

CONSTRUCTION:-

SCHEME: Smithy Bridge Road

DESIGN: NWGD235068

MAP REF: 392413, 415444

SUPER PROJECT:-

POSTAL CODE:-

WORK PACKAGE:-

LOCATION:- Smithy Bridge Road

Rochdale

OL16 2SG

OS Ref:- SD9215

Area <Area>

CAD / Planner:- julia.greenhough

Checked:- <Checked>

Date:- 03-May-2022 14:19:41

Date:- <Date>

1:500 @ A3

NTS - OTHER SIZES

DWG NO: NWGD235068

REV:

This plan shows only those pipes owned by Cadent in its role as a Licensed Gas Transporter (GT). Gas pipes owned by other GTs and also privately owned may be present in this area. Information with regard to such pipes should be obtained from the owners. The information shown on this plan is given without obligation, or 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 Cadent Gas Limited, its agents or servants 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 any 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.

Amendments

REV: A

INITIAL DATE

DISCLAIMER

CADENT IS NOT LIABLE IF THIS PLAN IS SHOWN TO BE INACCURATE. IT IS PROVIDED FOR INFORMATION ONLY ON THE APPROXIMATE POSITION OF MAINS AND OTHER APPARATUS. THERE IS NO CONTRACT AND NO WARRANTY IS IMPLIED AS TO THE ACCURACY OF THIS PLAN. COPYRIGHT

BASED UPON THE ORDINANCE SURVEY MAP WITH THE PERMISSION OF THE CONTROLLER OF H.M. STATIONERY OFFICE. CROWN COPYRIGHT RESERVED LICENCE No. 100058025

Specification for Safe Working in the Vicinity of Cadent Assets

CAD/SP/SSW/22

August 2021



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Cadent contact details



Central admin team

Address: Cadent, Brick Kiln Street, Hinckley, Leicestershire, LE10 0NA

Phone: 0800 688 588

Email: plantprotection@cadentgas.com

East of England Operations Plant Protection

Address: Cadent Gas Limited, Vicarage Farm Road, Peterborough, PE1 5TP

Email: eaplantprotectionops@cadentgas.com

East Midlands Operations Plant Protection

Address: Cadent Gas Limited, Effingham Street, Sheffield, S4 7YP

Email: emplantprotectionops@cadentgas.com

North London Operations Plant Protection

Address: Cadent Gas Limited, Uxbridge Road, Slough, SL2 5NA

Email: nlplantprotection@cadentgas.com

North West Operations Plant Protection

Address: Cadent Gas Limited, Plant Protection (Block C), Mersey Road North, Failsworth, Greater Manchester, M35 9FF

Email: plantprotection.nw@cadentgas.com

West Midlands Operations Plant Protection

Address: Cadent Gas Limited, Windsor Street, Birmingham, B7 4DN

Email: plantprotection.wm@cadentgas.com

Step by Step Process

Register with LinesearchbeforeUdig (LSBUD)

LSBUD provide a free online enquiry service giving results within minutes from a grid reference, postcode or street name. This allows you to submit enquiries about activities and work that you are planning which may have an impact on the gas network.

www.linesearchbeforeudig.co.uk

Submit an enquiry

Within LSBUD there are 3 enquiry types, initial enquiry, planned works and emergency works. Initial enquires are for information only purposes and will not be escalated for operational site-specific advice, should you wish to carry out works you must submit a planned works enquiry. If your works are of a genuine emergency nature (e.g. burst water main etc.) then you should submit an emergency enquiry.

Review the response, asset location and enclosed guidance

LSBUD will auto-generate a response based on your enquiry details and our assets in the area. The assessment will be based on the selected Work Category and Work Type, if your planned works propose activities to be undertaken within the distances specified within this booklet you must obtain site specific advice from our specialist operational plant protection team.

If your response says that we need to assess your enquiry further, you must not start any work until we confirm it is safe to do so.

If you are advised to proceed with caution, then you must ensure that you utilise the provided asset plans and follow the guidance in this document.

Observe restrictions

In addition to the guidance contained in this booklet, you must ensure that you observe any site-specific advice provided by our specialist operational plant protection teams.

If in doubt contact Cadent using the details in this booklet

Keeping you, your workers and the public safe when working near our pipelines



Disclaimer

This document is provided for use by third parties for safe working in the vicinity of Cadent assets. Where this document is used by any other party it is the responsibility of that party to ensure that this document is correctly applied.

Users should ensure that they are in possession of the latest edition of this document by referring to the Digging Safely webpage on the Cadent website.

www.cadentgas.com/help-advice/digging-safely

Mandatory and non-mandatory requirements

In this document:

- Shall: indicates a mandatory requirement
- Should: indicates best practice and is the preferred option

If an alternative method is used then a suitable and sufficient risk assessment shall be completed to show that the alternative method delivers the same, or better, level of protection.

Introduction

Safe Working in the Vicinity of Cadent Assets: Requirements for Third Parties

This specification is for issue to third parties carrying out work in the vicinity of Cadent gas assets and associated installations. It is provided to ensure that individuals planning and undertaking work take appropriate measures to prevent damage.

Any damage to a gas asset, or its coating, can affect its integrity and can result in failure leading to potentially serious hazardous consequences for individuals located in the vicinity.

It is therefore essential that the safety advice outlined in this document, along with any site-specific advice given by our operatives, is complied with when working near to our assets. If Cadent consider any work to be in breach of the requirements stipulated in this document, then the Cadent Plant Protection Officer will request that work is suspended until the non-compliances have been rectified.

Every reasonable precaution shall be undertaken to avoid personal injury or damage to our apparatus. If we incur any direct or indirect costs as a consequence of your works and we are required to repair or divert any gas apparatus, you'll be recharged in full.

Any damage to our apparatus will be subject to legislative reporting responsibilities to the HSE under Reporting of Injuries, Diseases & Dangerous Occurrences Regulations 2013, Gas Safety Management Regulations 1996 and the Pipelines Safety Regulations 1996.

The requirements in this document are in line with the Institution of Gas Engineers and Managers (IGEM) recommendations IGEM/SR/18 Edition 3 - Safe Working Practices to Ensure the Integrity of Gas Assets and Associated Installations and the HSE's guidance document HS(G)47 Avoiding Danger from Underground Services.

It is the responsibility of the third party to ensure that any work carried out also conforms with the requirements of the Construction and Design Management (CDM) Regulations 2015 and all other relevant health and safety legislation. Reference shall be made to our apparatus within your site Health and Safety file.

1. Scope

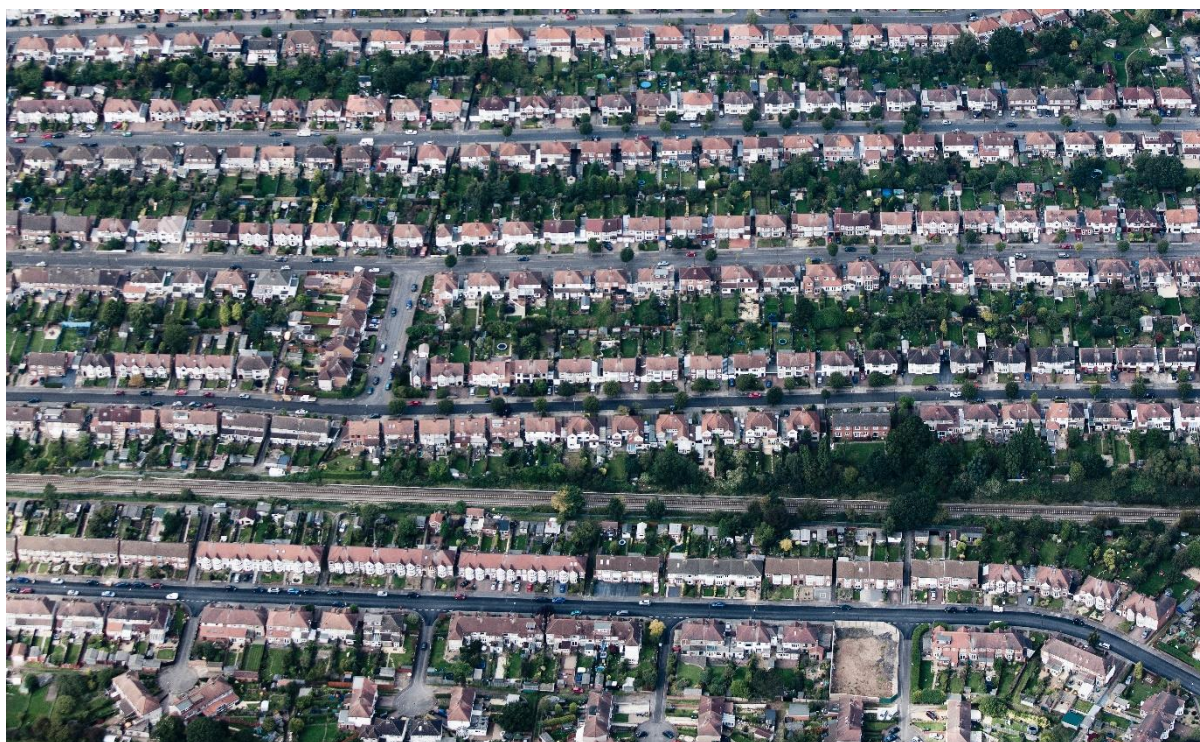
This specification sets out the safety precautions and other conditions associated with working in the vicinity of Cadent assets, located in negotiated easements (see Section 13) and public highways.

Where the guidance in this document cannot be adhered to, then the diversions process shall be followed.

Before contacting our diversions team, you'll need to have your site information and any design proposals available.

Once you have this information, please contact our diversions team diversions@cadentgas.com or on 0330 678 1034.

Visit www.cadentgas.com/diversions for more information.



2. Formal Consent

Cadent's assets are either located in an easement agreed with the landowner at the time of installation, or within the highway. As the required arrangements for working in an easement and working in the highway differ, this section describes the specific requirements for these two areas.

Any documents handed to contractors or other individuals undertaking work (e.g. farmers, local authorities etc.), on site by Cadent, shall be signed for and adhered to by the site. All personnel working on site shall be made aware of the potential hazards of working near gas assets and the actions they should follow in case of an emergency.

2.1 Within an easement

The promoter of any works (see Section 13) within an easement shall provide Cadent with details of the proposed works, including a risk assessment and method statement of how the work is intended to be carried out. Work shall not commence in an easement strip until formal written consent has been provided by Cadent. This will include details of Cadent's protection requirements, contact telephone numbers and the emergency telephone number. On acceptance of Cadent's requirements, the promoter of the works shall give Cadent at least 14 days' notice before commencing work on site.

Where clearance to proceed has been granted directly from the system, for example, if your works only affect low pressure assets (operating at less than 75 mbar), but the asset concerned is within an easement, the promoter of the works shall contact the network Plant Protection Office for formal written consent.

In addition to formal written consent, an easement crossing agreement (deed of indemnity) may be required. This shall be discussed with the Cadent Plant Protection Officer prior to the commencement of the works.

The width of an easement is dependent on a number of factors and is mainly dependent on the operating pressure, pipeline material and diameter as these factors influence safe working requirements and building proximity distances. Easement details should be registered at Land Registry however if you are unsure please liaise with your network Plant Protection Officer.

Below is a list of our standard easement widths, however, some easements may vary:

Pressure tier/ Material	Diameter	Easement Width (total)
HP Steel	900mm, 1060mm, 1200mm (36", 42", 48")	24.4m (80')
HP Steel	750mm and 600mm (30" & 24")	18.3m (60')
HP Steel	Up to and including 450mm (18")	12.2m (40')
HP RTP	Determined on a case by case basis	
IP Steel	All sizes	6m plus pipe diameter
IP PE > 5.5 bar	Above 500mm (19")	30m plus pipe diameter
	356mm to 500mm	16m plus pipe diameter
	126mm to 365mm	12m plus pipe diameter
	Up to and including 125mm	12m plus pipe diameter
IP PE <5.5 bar	Above 500mm (19")	26m plus pipe diameter
	356mm to 500mm	8m plus pipe diameter
	126mm to 365mm	8m plus pipe diameter
	Up to and including 125mm	8m plus pipe diameter
AGI's	All sites	3m restrictive width around the installation
MP PE	Above 500mm (19")	12m plus pipe diameter
	356mm to 500mm	6m plus pipe diameter
	126mm to 355mm	5m plus pipe diameter
	Up to and including 125mm	4.5m plus pipe diameter
MP Steel	All sizes	6m plus pipe diameter
MP Iron*	All sizes	6m plus pipe diameter
LP	Above 125mm	3m plus pipe diameter
	Up to and including 125mm	1m plus pipe diameter

2.2 Within a highway

Work shall be notified to Cadent in accordance with the requirements of the New Roads and Street Works Act (NRSWA) and HS(G)47. The promoter of any works within the highway should provide Cadent with details of the proposed works, including a risk assessment and method statement of how the work is intended to be carried out. This shall be submitted at least 14 days before the planned work is to be carried out. If similar works are being carried out at several locations in close proximity, a single risk assessment and method statement should be adequate depending on the nature of the works. Work should not go ahead until formal written consent has been given by Cadent. This will include details of Cadent's protection requirements, contact telephone numbers and the emergency telephone number.



3. Location of Gas Assets

A copy of our plans with your marked-out site is provided in our LSBUD response. Cadent asset records shall be consulted to establish the indicative location of the gas assets in relation to the promoter's work area.

If the marked-out area is incorrect you MUST resubmit your enquiry with the correct area marked out.

Prior to work commencing on site, the gas assets should be located to verify the indicative location from plans.

This should initially be carried out through non-intrusive methods utilising pipe locators where possible. The indicative location should be verified through trial holes. Once located, the gas assets should be marked out at regular intervals using asset location markers with triangular flags (see Appendix A) or other suitable methods.



For assets exceeding 2 bar, the excavation of all trial holes shall be monitored by Cadent. For assets not exceeding 2 bar, monitoring will be at the discretion of the Cadent Plant Protection Officer.

Safe digging practices, in accordance with HSE publication HS(G)47, shall be followed. Direct and consequential damage to gas plant can be dangerous both to employees and to the general public.

We utilise marker posts and surface boxes to denote the location of our apparatus providing access to key parts of our network. Free access shall be maintained to such apparatus during and after your works and these shall not be moved, covered or damaged during the works.

	Low Pressure
	Medium Pressure
	Intermediate Pressure
	High Pressure

4. Temporary and Permanent Protective Measures

No temporary or permanent protective measures, including the installation of concrete slab protection, shall be installed over or near to a Cadent asset without the prior written consent of Cadent. Cadent will need to approve the material, dimensions and method of installation for the proposed protective measure.

The method of installation shall be confirmed through the submission of a formal written method statement from the contractor to Cadent. Where permanent protection is to be installed over an asset, Cadent will normally carry out a coating survey of metallic assets to check that there is no existing damage to the coating, prior to the slab protection being installed. Cadent shall, therefore, be given at least 14 days' notice prior to the laying of any slab protection to arrange for this survey to be carried out.

Generally, due to the need for future access to below 2 bar gas assets, permanent protection is not permitted, however, can be approved at Cadent's discretion.

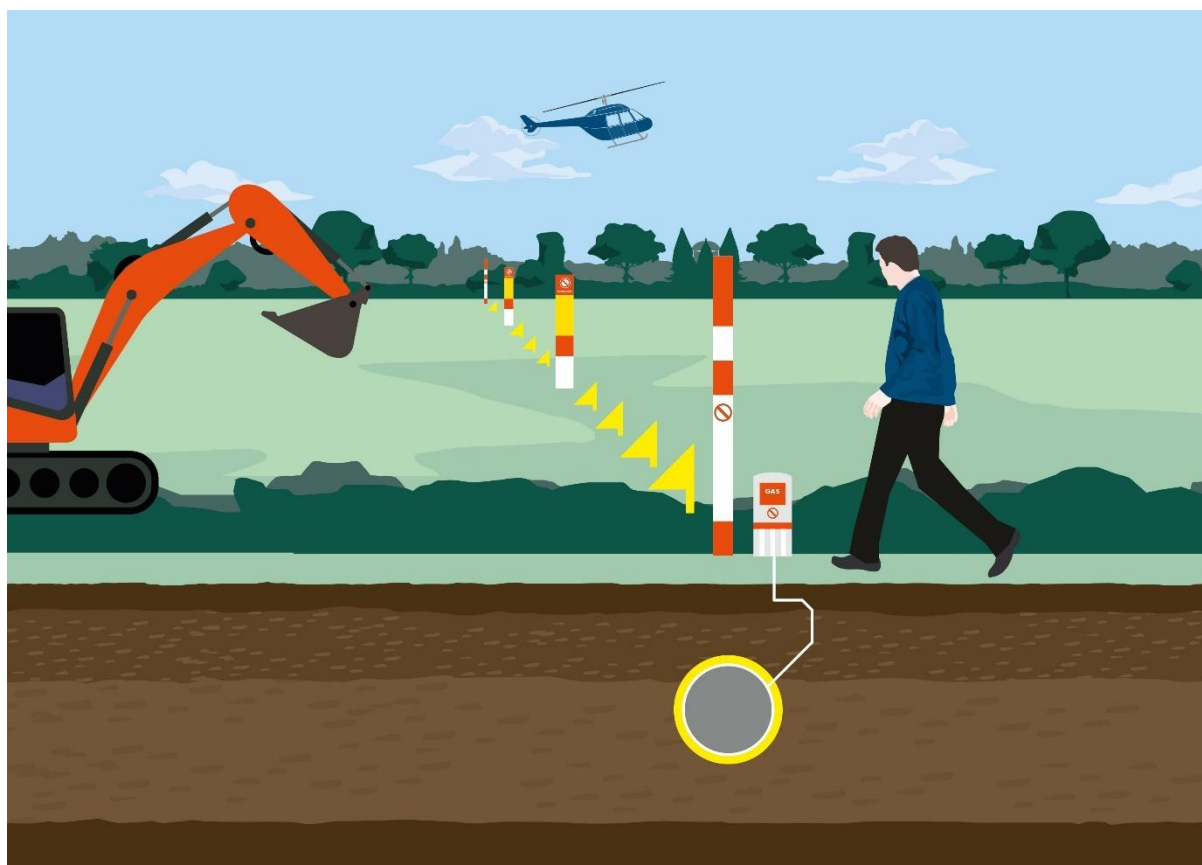
The safety precautions detailed in Sections 5, 6, 7 or 8 of this document should also be observed during the installation of the asset protection.



5. Working in the Vicinity of a High or Intermediate Pressure Gas Asset (Operating at Pressures Greater than 2 bar)

The below information shall only be used as guidance, for all works in the vicinity of High and Intermediate Pressure Pipelines the auto-response from the system will advise not to carry out any works until we have undertaken a technical review of the planned works and provided site specific safe working advice.

Initial enquires are for information only purposes and will not be escalated for operational site-specific advice, should you wish to carry out works you must submit a planned works enquiry for assessment.



5.1 Excavation

Mechanical excavators should not be sited or moved above an asset.

Mechanical excavators, and any other powered mechanical plant, shall not dig on one side of the asset with the cab of the excavator positioned on the other side.

All traffic should be positioned far enough away from the trench to prevent trench wall collapse.

5.1.1 In proximity to an asset in an easement

Following location and marking of assets in agreement with the Cadent Plant Protection Officer, powered mechanical excavation may be used no closer than 3m (see Figure 1). The use of toothed excavator buckets vastly increases the potential for damage to assets, therefore only toothless buckets shall be used.

Any fitting, attachment or connecting pipework on an asset shall be exposed by hand.

If third parties are using any form of trench support system, they shall ensure that none of the components are in contact with the Cadent asset.

Consideration may be given to a relaxation of these limits or lower risk excavation methods by agreement with the Cadent Plant Protection Officer on site.

Where sufficient depth of cover exists and the absence of attachments and projections has been confirmed (e.g. valve spindles, pressure points etc.) and following evidence from hand dug trial holes, light tracked vehicles may be permitted to strip topsoil to a depth of 250mm, using a toothless bucket.

No topsoil or other materials shall be stored within the easement without the written permission of Cadent. No fires are allowed in the easement strip or close to above ground gas installations.

After the completion of the work, the level of cover over an asset should be the same as that prior to work commencing, unless otherwise agreed by Cadent.

No new service shall be laid parallel to an asset within the easement. In special circumstances, and only with formal written agreement from Cadent, this may be relaxed for short excursions where the service shall be laid no closer than 600mm.

Where work is being carried out parallel to an asset, within or just alongside the easement, suitable barriers shall be erected for protection between the works and the asset to prevent encroachment.

5.1.2 In proximity to an asset in the highway

Following locating and marking of assets in agreement with the Cadent Plant Protection Officer, powered mechanical excavation may be used no closer than 3 meters (see Figure 1).

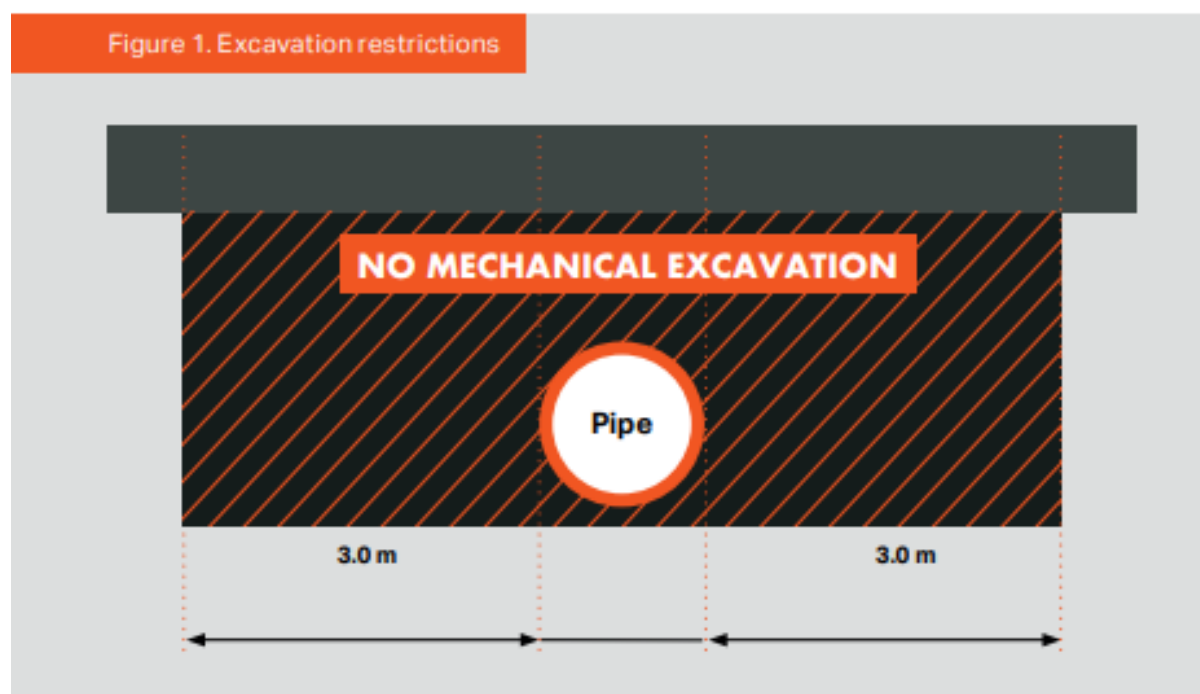
The use of toothed excavator buckets vastly increases the potential for damage to assets, therefore only toothless buckets shall be used.

Any fitting, attachment or connecting pipework shall be exposed by hand.

If third parties are using any form of trench support system, they shall ensure that none of the components are in contact with the Cadent asset.

Removal of the bituminous or concrete highway surface layer by mechanical means is permitted to a depth of 300mm, unless any attachments or projections are present on an asset (e.g. valve spindles, pressure points etc.). The use of chain trenchers is not permitted within 3m of an asset. The Cadent Plant Protection Officer may need to be present to monitor this work. Where the bituminous or concrete highway surface layer extends below 300mm deep, it shall only be removed by handheld power assisted tools under the observation of Cadent.

In special circumstances, consideration may be given to a relaxation of these rules by agreement with the Cadent Plant Protection Officer and only whilst they remain on site.



5.1.3 Crossing over an asset (Open cut)

Where a new service is to cross over an asset, a clearance distance of 600mm between the crown of the asset and underside of the service should be maintained. If this cannot be achieved, the service shall cross below the asset (see Section 5.1.4).

In special circumstances, this distance may be reduced at the discretion of the Cadent Plant Protection Officer on site.

5.1.4 Crossing below an asset (Open cut)

Where a service is to cross below an asset, a clearance distance of 600mm between the crown of the new service and underside of the asset shall be maintained. Where lengths of pipe greater than one metre are to be exposed, the Cadent Plant Protection Officer shall be consulted. Exposed assets should be suitably supported and protected by matting and timber cladding. Any supports shall be removed prior to backfilling.

In special circumstances, this clearance distance may be reduced at the discretion of the Cadent Plant Protection Officer on site.

5.1.5 Cathodic protection

Cathodic protection (CP) is applied to Cadent's buried steel pipe and is a method of protecting assets from corrosion by maintaining an electrical potential between the pipe and anodes placed at strategic points along the asset.

Where a new service is to be laid and similarly protected, the party installing the CP system shall undertake tests to determine whether the new service is interfering with the cathodic protection of Cadent assets.

Should any cathodic protection posts or associated apparatus need to be moved to facilitate third party works, at least 14 days' notice shall be given to Cadent. Cadent will undertake this work and any associated costs will be borne by the third party.

5.1.6 Installation of electrical equipment

Where electrical equipment is being installed close to Cadent's buried steel assets, the effects of a rise of earth potential under fault conditions shall be considered by the third party and a risk assessment and method statement shall be submitted to Cadent for approval, prior to the works commencing.

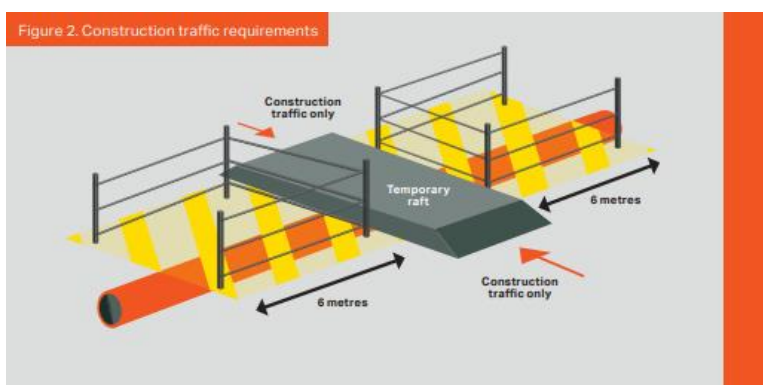
The installation of electrical cables parallel to Cadent assets may induce currents into the asset. This may interfere with the effective operation of the cathodic protection system. In these instances, Cadent will require the promoter of the works to conduct pre and post energisation potential surveys of Cadent's assets. The costs for any stray current mitigation systems required will be borne by the promoter of the works.

5.2 Construction traffic

Where existing roads cannot be used, construction traffic shall only cross an asset at locations agreed with the Cadent Plant Protection Officer. Notices shall be placed directing traffic to the crossing points. Post and wire fencing shall be erected at all crossing points, and the fence should cover the width of the easement and extend a further 6 metres along the length of the easement on both sides (see Figure 2).

Assets shall be protected at all crossing points by a suitable method agreed with the Cadent Plant Protection Officer prior to installation. The promoter of the works shall review ground conditions, vehicle types and crossing frequencies to determine the type and construction of the protection required.

For larger scale projects or permanent solutions, a protection slab may be required.



5.3 Specific activities

This section details the precautions that need to be taken when carrying out certain prescribed activities in the vicinity of an asset. The promoter of works is required to consult Cadent when intending to undertake one of the listed activities and/or further advice is required on whether the work has the potential to affect the asset. The table below shows, for some specific activities, the prescribed distances where the advice of Cadent shall be sought.

Activity	Distance within which Cadent advice shall be sought
Piling	15m
Surface mineral extraction	100m
Landfilling	100m
Demolition	150m or 400m for structure mass > 10,000 tonnes
Blasting	500m if the MIC is > 200kg 250m if the MIC is > 10kg but ≤ 200kg 100m if the MIC is ≤ 10kg
Deep mining	1000m
Wind turbine	1.5 times mast height

5.3.1 Trenchless techniques

Where trenchless techniques are being considered, a formal risk assessment and method statement shall be produced. This risk assessment and method statement shall be formally agreed with Cadent prior to the commencement of the work. Please provide Cadent with at least 14 days' notice as the Cadent Plant Protection Officer may wish to be present to monitor this work.

5.3.2 Changes to depth of cover

The depth of cover over Cadent's asset shall not be altered. Cadent shall be consulted for any activity proposed that will lead to a change in cover over the asset. Expert advice may need to be sought, which will be determined by the Cadent Plant Protection Officer.

5.3.3 Piling

No piling shall be allowed within 15m of an asset without an assessment of the vibration levels at the asset. The peak particle velocity at the asset shall be limited to a maximum level of 75mm/sec. The promoter of the works should provide Cadent the anticipated vibration levels prior to the work commencing. The ground vibration should be monitored by the promoter to verify the anticipated levels and to ensure allowable peak particle velocity is not exceeded. Alarms should be set at suitable increments to provide a forewarning of limit exceedance. The promoter shall retain records of ground vibration levels for provision of the Cadent Plant Protection Officer on request.

Where ground conditions include silt or sand, an assessment of the effect of vibration on settlement and liquefaction at the asset shall be made. Expert advice may need to be sought, which can be arranged through Cadent.

5.3.4 Demolition

No demolition should be allowed within 150m of an asset, or 400m for a structure mass greater than 10,000t without an assessment of the vibration levels at the asset. The peak particle velocity at the asset shall be limited to a maximum level of 75mm/sec.

The promoter of the works should provide Cadent the anticipated vibration levels prior to the work commencing. The ground vibration should be monitored by the promoter to verify the anticipated levels and to ensure allowable peak particle velocity is not exceeded. Alarms should be set at suitable increments to provide a forewarning of limit exceedance. The promoter shall retain records of ground vibration levels for provision of the Cadent Plant Protection Officer on request.

Where ground conditions include silt or sand, an assessment of the effect of vibration on settlement and liquefaction at the asset shall be made. Expert advice may need to be sought, which can be arranged through Cadent.

5.3.5 Blasting

The Maximum Instantaneous Charge (MIC) dictates the distance at which an assessment of the vibration levels (at the located asset) is required. The measured distances are as follows:

- 500m if the MIC is greater than 200kg
- 250m if the MIC is greater than 10kg but less than 200kg
- 100m if the MIC is 10kg or less

The peak particle velocity at the asset shall be limited to a maximum level of 75mm/sec.

The promoter of the works should provide Cadent the anticipated vibration levels prior to the work commencing. The ground vibration should be monitored by the promoter to verify the anticipated levels and to ensure allowable peak particle velocity is not exceeded. Alarms should be set at suitable increments to provide a forewarning of limit exceedance.

The promoter shall retain records of ground vibration levels for provision of the Cadent Plant Protection Officer on request.

Where ground conditions include silt or sand, an assessment of the effect of vibration on settlement and liquefaction at the asset shall be made. Expert advice may need to be sought, which can be arranged through Cadent.

5.3.6 Surface mineral extraction

An assessment shall be carried out on the effect of surface mineral extraction activity within 100 metres of an asset. Consideration should also be given to extraction around other plant and equipment associated with assets (e.g. cathodic protection ground beds).

Where the mineral extraction extends up to the asset easement, a stable slope angle and stand-off distance between the asset and slope crest shall be determined by Cadent. The easement strip should be clearly marked by a suitable permanent boundary, such as a post and wire fence. Additionally, where appropriate, slope indicator markers shall be erected to facilitate the verification of the recommended slope angle as the slope is formed, by the third party. The asset easement and slope need to be inspected periodically to identify any signs of developing instability. This may include any change of slope profile including:

- Bulging
- The development of tension cracks on the slope or easement
- Any changes in drainage around the slope

The results of each inspection should be recorded

Where surface mineral extraction activities are planned within 100m of the asset but do not extend up to the asset easement boundary, Cadent shall assess whether this could promote instability in the vicinity of the asset. This may occur where the asset is routed across a natural slope or the excavation is deep. A significant cause of this problem is where the groundwater profile is affected by changes in drainage or the development of lagoons.

Where the extraction technique involves explosives, the provisions of Section 5.3.5 apply.

5.3.7 Deep mining

Assets within 1km of active deep mining may be affected by subsidence resulting from mineral extraction. The determination of protective or remedial measures will normally require expert assistance, which can be arranged through Cadent.

5.3.8 Landfilling

The creation of slopes outside of the asset easements may promote instability within the vicinity of an asset. Cadent should carry out an assessment to determine the effect of any landfilling activity within 100m of an asset. The assessment is particularly important if landfilling operations are taking place on a slope in which an asset is routed.

5.3.9 Pressure testing

Hydrostatic testing of a third-party asset should not be permitted within 8 metres either side of a Cadent asset, to provide protection against the effects of a burst. Where this cannot be achieved, typically where the third-party asset needs to cross a Cadent asset, one of the following precautions would need to be adopted:

- limiting of the design factor of the third-party pipeline to 0.3 at the asset's nominated maximum operating pressure (MOP), and the use of pre-tested pipe
- the use of sleeving
- Cadent conduct risk analysis of pipe failure

In either case, the third party shall submit their site-specific risk assessment and safe system of works for consideration by Cadent.

5.3.10 Seismic surveys

The promoter of works shall advise Cadent of any seismic surveying work in the vicinity of an asset that will result in peak particle velocities in excess of 75mm/sec at the asset.

The promoter of the works should provide Cadent the anticipated vibration levels prior to the work commencing. The ground vibration should be monitored by the promoter to verify the anticipated levels and to ensure allowable peak particle velocity is not exceeded. Alarms should be set at suitable increments to provide a forewarning of limit exceedance. The promoter shall retain records of ground vibration levels for provision of the Cadent Plant Protection Officer on request.

5.3.11 Hot work

Where a Cadent metallic gas asset has been exposed, welding (or other hot works that may involve naked flames) should not be carried out in proximity of the gas asset. This may be reduced if suitable protection and precautions has been agreed with Cadent.

If the gas asset is PE (or a PE asset is contained within a metallic sleeve) welding, or other hot works that may involve naked flames, should not take place within 500mm of the gas asset. This may be reduced if suitable protection and precautions have been agreed with the Cadent Plant Protection Officer to prevent against the effects of sparks, radiant heat transfer etc.

The Cadent Plant Protection Officer shall be present to monitor all welding, burning or other 'hot work' that takes place.

5.3.12 Wind turbines

Wind turbines shall not be sited any closer than 1.5 times the proposed height of the turbine mast away from the nearest edge of a gas asset.

Further guidance can be found from UKOPA's Good Practice Guide 13 (UKOPA/GP/013) - Requirements for the Siting and Installation of Wind Turbines Installations in the Vicinity of Buried Pipelines.

5.3.13 Solar farms

Solar Farms can be built adjacent to gas assets but never within an easement. Advice shall be sought from Cadent at the early stages of design to ensure that electrical interference, security, future access and construction methods can be mutually agreed.

Further guidance can be found from UKOPA's Good Practice Guide 14 (UKOPA/GP/014) - Requirements for the Siting and Installation of Solar Photovoltaic (PV) Installations in the Vicinity of Buried Pipelines.

5.4 Backfilling

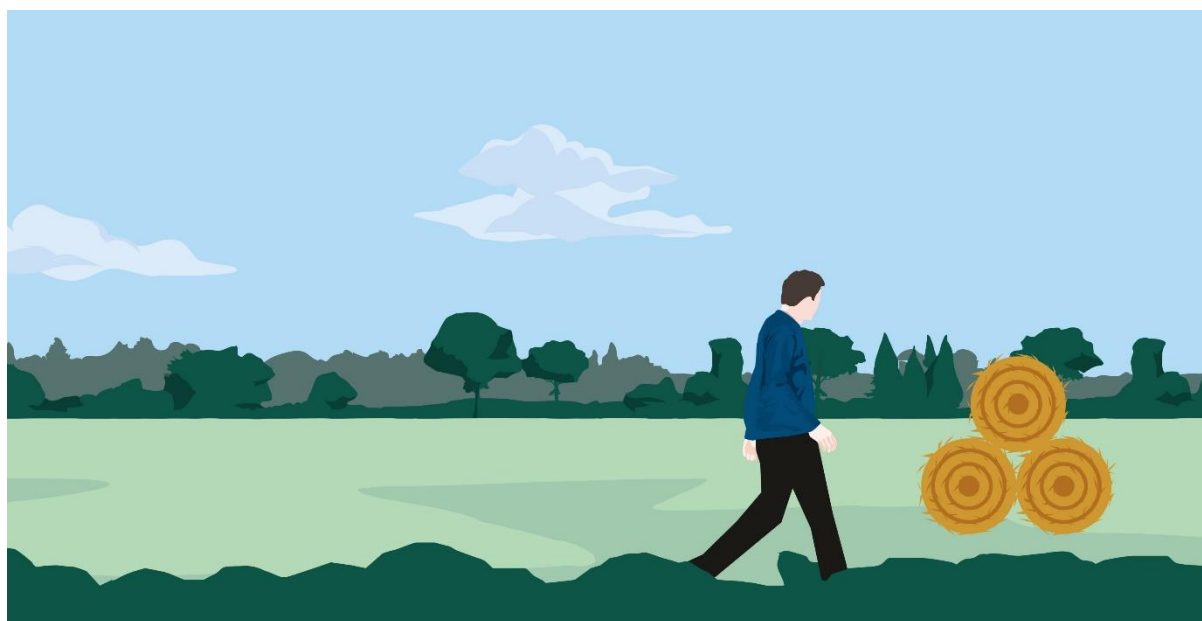
No backfilling should be undertaken without Cadent's agreement to proceed and the Cadent Plant Protection Officer will stipulate the necessary requirements. Some equipment may not be suitable for use over or around an asset due to the adverse effects of excessive compaction and vibration levels. The Cadent Plant Protection Officer will be able to advise on suitable equipment. Third parties undertaking work shall provide Cadent with 48 hours' notice, or shorter only if agreed with Cadent, of the intent to backfill over, under or alongside the asset.

This requirement should also apply to any backfilling operations that:

- are within 3 metres of an asset
- could influence the ground stability

Any damage to an asset or its coating shall be reported to Cadent in order that damage can be assessed, and repairs carried out.

Minor damage to pipe coating and cathodic protection test leads will be repaired by Cadent free of charge. If an asset has been backfilled without the knowledge of the Cadent Plant Protection Officer, the third party shall re-excavate to enable the condition of the asset coating to be assessed.



6. Working in the Vicinity of a Medium Pressure Gas Asset (Operating at Pressures Greater than 75 mbar but not Exceeding 2 bar)

The below information shall only be used as guidance, and where appropriate, will be supplemented by site specific safe working advice from the network Plant Protection Officer.

Initial enquires are for information only purposes and will not be escalated for operational site-specific advice, should you wish to carry out works you must submit a planned works enquiry for assessment.

6.1 Temporary and permanent structures

No temporary or permanent structures are permitted to be installed above, or in close proximity to a gas asset or easement due to the restriction of access this imposes. This includes, but is not limited to, permanent street furniture such as planters and bollards and temporary buildings such as welfare units and other enclosed spaces. The building proximity distances for medium pressure assets is as follows:

Material	Minimum proximity to premises
Cast/Spun Iron	3m
Ductile Iron	30m
Steel	1m
PE (inserted)	1m
PE (non-inserted)	2m for diameters $\leq$ 500mm 5m for diameters $>$ 500mm

Please note that the easement distance may be greater than the building proximity distance. For any proposed structures in the easement, please consult with the Cadent network Plant Protection Officer.

6.2 Excavation

6.2.1 General

Mechanical excavators should not be sited or moved above an asset.

Mechanical excavators and any other powered mechanical plant shall not dig on one side of the asset with the cab of the excavator positioned on the other side. All traffic should be positioned far enough away from the trench to prevent trench wall collapse.

Excavation with a powered mechanical excavator should not be carried out until the asset has been located through vacuum excavation or by hand. No mechanical excavation is permitted within 500mm of a gas asset. Any mechanical excavation should utilise a banksman. Toothless buckets shall be used due to the potential of damage to assets using toothed excavator buckets.

Consideration shall be given to apparatus installed on gas assets including valves, spindles, pressure points etc. Any fitting, attachment or connecting pipework on an asset shall be exposed by hand.

Where concrete is exposed around gas apparatus, it shall not be removed without first consulting with a Cadent Plant Protection Officer as it could be providing protection or anchorage to live apparatus.

Where a third party is using any trench support system, they shall ensure that none of its components are in contact with an asset.

The use of chain trenchers is not permitted within 3m of the confirmed location of an asset.

6.2.2 Working in vicinity of iron pipework

When deep excavation greater than 1.5m in depth is carried out in the vicinity of iron pipework, steps shall be taken to ensure the risk associated with immediate and latent asset failure are considered and, where necessary, excavations are cut back to reduce the shear factor created by ground disturbance likely to result in settlement. This also includes instances where excavations are part of construction works, including basement conversions, underground car parks, shaft construction, etc.

Care should be taken to ensure that any exposed iron pipework is suitably supported at 1m intervals and protected from damage to avoid creating tensions that could lead to joint disturbance or pipe barrel fracture.

Where fittings or existing repairs are uncovered, care shall be taken to ensure that these are not disturbed.

When working near ductile iron pipework, any corrosion identified on the pipeline shall be reported to 0800 111 999 for a first call operative to attend to undertake a hazard assessment.

6.2.3 In proximity to an asset in an easement

Where sufficient depth of cover exists and the absence of attachments and projections has been confirmed (e.g. valve spindles, pressure points etc.), following evidence from hand dug trial holes, light tracked vehicles may be permitted to strip topsoil to a depth of 250mm using a toothless bucket.

No topsoil or other materials shall be stored within the easement without the written permission of Cadent. No fires are allowed in the easement strip or other gas assets.

After the completion of the work, the level of cover over the asset should be the same as that prior to work commencing.

No new service shall be laid parallel to the asset within the easement.

Where work is being carried out parallel to the asset, within or alongside the easement, suitable barriers shall be erected between the works and the asset to prevent encroachment or damage.

6.2.4 In proximity to an asset in the highway

Where sufficient depth of cover exists, and the absence of attachments and projections has been confirmed (e.g. valve spindles, pressure points etc.), following evidence from hand dug trial holes, removal of the bituminous or concrete highway surface layer by mechanical means is permitted to a depth of 300mm. Where the bituminous or concrete highway surface layer extends below 300mm deep, it shall only be removed by handheld power assisted tools.

6.2.5 Crossing over an asset (Open cut)

Where a new service is to cross over a gas asset, a minimum clearance distance of 1.5 times the diameter of the gas asset or 300mm, whichever is greater, shall be maintained. If this cannot be achieved, the service shall cross below the asset, see Section 6.2.6.

6.2.6 Crossing below an asset (Open cut)

Where a service is to cross below a gas asset, a minimum clearance distance of 1.5 times the diameter of the gas asset or 300mm, whichever is greater, between the crown of the new service and underside of the asset shall be maintained. The exposed asset shall be suitably supported and protected by matting and timber cladding. Any supports shall be removed prior to backfilling.



6.2.7 Cathodic protection

Cathodic protection (CP) is applied to some buried steel pipes and is a method of protecting assets from corrosion by maintaining an electrical potential between the asset and anodes placed at strategic points along the asset. Where a new service is to be laid and similarly protected, the party installing the CP system shall liaise with the Cadent Plant Protection Officer and undertake tests to determine whether the new service is interfering with the cathodic protection of the Cadent asset.

Should any cathodic protection posts or associated apparatus need moving to facilitate third party works, at least 14 days' notice shall be given to Cadent. Cadent will undertake this work and any associated costs will be borne by the third party.

6.2.8 Installation of electrical equipment

Where electrical equipment is being installed close to Cadent's buried steel assets, the effects of a rise of earth potential under fault conditions shall be considered by the third party, a risk assessment carried out and this shall be provided to the Cadent Plant Protection Officer for inspection. Equipment shall not be installed if the integrity of Cadent's assets is compromised. In this case, diversion of the affected assets is required.

The installation of electrical cables parallel to Cadent assets may induce currents into the asset. This may interfere with the effective operation of cathodic protection systems. In these instances, Cadent will require the promoter of the works to work with the Cadent Plant Protection Officer to ensure that pre and post energisation potential surveys of Cadent's assets are undertaken. The costs for any stray current mitigation systems required will be borne by the third-party promoter.

6.3 Construction traffic

The promoter of the works shall review the ground conditions, vehicle types and crossing frequency to determine the type and construction of crossing that will be required. Additionally, no undue loads such as spoil heaps, lighting columns, permanent traffic lights or road signs should be allowed over gas assets.

Iron pipes, or pipes that are not already within an existing road (such as those within footways or verges), shall not be crossed by construction vehicles without suitable protection and the consent of the Cadent Plant Protection Officer.

Where existing roads cannot be used, construction traffic should only cross Cadent assets at specific locations, with notices directing traffic to the crossing points erected. All crossing points shall:

- Be at right angles to the asset
- Be fenced denoting the existence of the asset to ensure all traffic uses the crossing point. The fencing shall cover the width of any easements and extend a further 6m along the length of any easements on both sides (see Figure 2).
- Have signs attached to the fence denoting the asset that the crossing point is located over

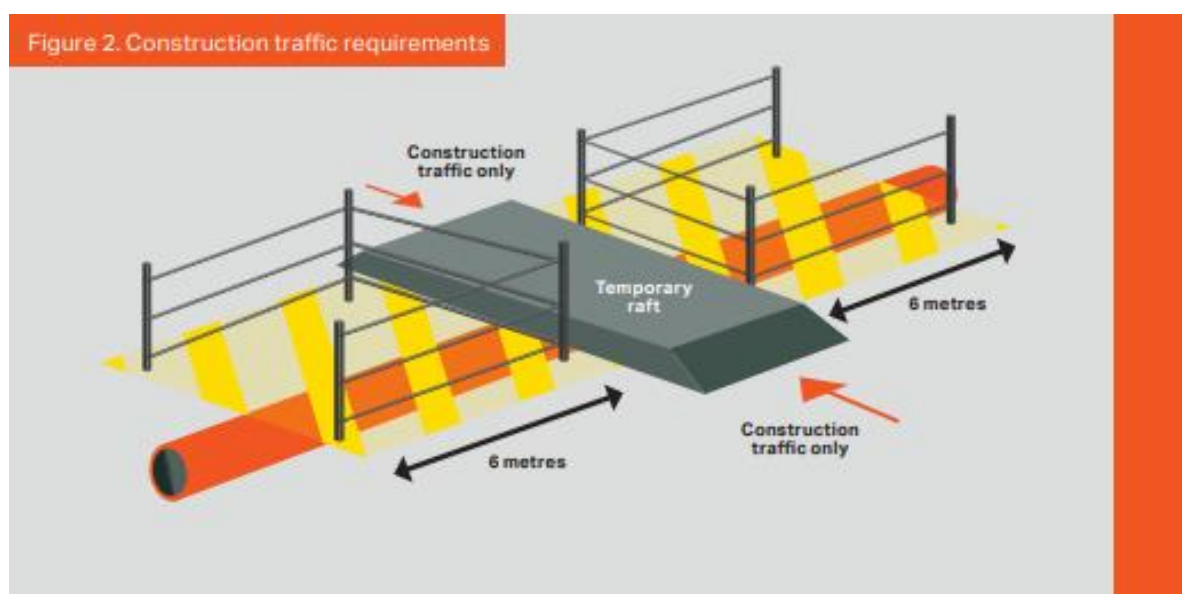
- Be regularly inspected and maintained in good condition

Note: A 5mph speed restriction should be enforced at all crossing points.

Suitable protection methods may include:

- Temporary protection slab
- Free-standing bridges (prefabricated modular steel or pre-cast concrete bridges)
- Proprietary access roadways
- Haul roads (including hardcore, sleepers, steel plates or a combination)

For larger scale projects or permanent crossings, diversion of the asset may be required.



6.4 Specific activities

This section details the precautions that need to be taken when carrying out certain prescribed activities in the vicinity of a Cadent asset. The promoter of works is required to consult Cadent when intending to undertake one of the activities listed below to obtain further site-specific advice on whether the work has the potential to affect the asset. The table below shows, for some specific activities, the prescribed distances where the advice of Cadent shall be sought.

Activity	Distance within which Cadent advice shall be sought
Piling	15m
Surface mineral extraction	100m
Landfilling	100m
Demolition	150m or 400m for structure mass > 10,000 tonnes
Blasting	500m if the MIC is > 200kg 250m if the MIC is > 10kg but ≤ 200kg 100m if the MIC is ≤ 10kg
Deep mining	1000m
Wind turbine	1.5 times mast height

6.4.1 Carriageway construction (including widening & bell mouth construction)

Where it is proposed to carry out carriageway construction over an asset previously located in a footway or verge, you must contact the diversions team to determine if diversion or replacement of the asset is required before commencement of your works.

6.4.2 Trenchless techniques

Where trenchless techniques are being considered, a formal risk assessment and method statement shall be produced and submitted to the Cadent Plant Protection Officer for review prior to commencing work. Please provide Cadent with at least 14 days' notice as we may wish to be present to monitor the work.

6.4.2.1 Tunnelling

Ground movement may occur when tunnelling in soft ground conditions. Ground movement contours from the tunnelling operation shall be calculated and all gas assets within the affected zone should be identified and assessed.

PE assets can tolerate some differential ground movement.

For cast and ductile iron assets, acceptable limits on stress increase and joint disturbances are defined in the performance acceptance criteria for iron mains.

For steel assets, an integrity assessment should be carried out according to the industry standard **IGEM/TD/12 – Pipework stress analysis for gas industry plant**. An expert on Soil/Pipe Interaction Analysis should be consulted when required for the evaluation of ground movement effects on the assets.

For any proposed tunnelling works, you must contact the diversions team to determine if diversion or replacement of the asset is required before commencement of your works, due to the likely impact on our assets.

6.4.3 Changes to depth of cover

The depth of cover over Cadent's asset shall not be altered. Where a change in cover is required, contact your network Plant Protection Officer.

6.4.4 Piling

No piling shall be allowed within 15m of an asset without an assessment of the vibration levels at the asset.

For steel or PE assets, the peak particle velocity at the asset shall be limited to a maximum level of 75mm/sec.

For iron assets, the peak particle velocity at the asset shall be limited to a maximum level of 25mm/sec.

The promoter of the works should provide the Cadent Plant Protection Officer with the anticipated vibration levels prior to the work commencing. The ground vibration should be monitored by the promoter to verify the anticipated levels and to ensure the allowable peak particle velocity is not exceeded. Alarms should be set at suitable increments to provide a forewarning of limit exceedance. The promoter shall retain records of ground vibration levels for provision of the Cadent Plant Protection Officer on request.

Where ground conditions include silt or sand, an assessment of the effect of vibration on settlement and liquefaction at the asset shall be made, which may require expert advice.

