



TEMPORARY WORKS GROUND CONDITIONS

RYLANDS BUILDING, MANCHESTER

FIRST ISSUE

APRIL 2023

PROJECT REF: TM/22/1343

Client

Russell WBHO

13 Westpoint Enterprise Park

Trafford Park, Manchester

M17 1QS

Consulting Engineer

Tier Consult

7-9 New Wakefield Street

Manchester

M1 5NP

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SHEET No : **1**

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1 EXECUTIVE SUMMARY

Tier Consult were engaged by Russell WBHO to assess the suitability of the highway surrounding the Rylands Building, Manchester, namely Tib Street and Bridgewater Place. The assessment to be with respect to the proposed structural loadings due to the temporary works activities associated with redevelopment work proposed.

Of Particular concern was the relatively recent 'surface collapses' attributed to the the culverted River Tib beneath Tib Street. The investigations were focussed on the location of this and any associated below ground voids.

Investigation works comprising Ground Penetrating Radar Survey and surface level plate bearing tests were undertaken which indicated the highway and footpaths to be suitable for supporting the various elements of temporary structures and loading requirements. No significant shallow depth voids were detected by the survey operations.



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2 INTRODUCTION

2.1 APPOINTMENT

Tier Consult have been engaged by Russell WBHO to design and assess the extensive temporary works required by the redevelopment of the Rylands Building. As part of this appointment Tier Consult have been required to investigate the immediate surroundings of the building with respect to the additional loading requirements which will be generated by the temporary works activities.

2.2 TEMPORARY WORKS REQUIREMENTS

The main activities currently foreseen to be applying load to the highway and footpath are;

- Perimeter Scaffold
- Perimeter Hoist to upper levels
- Tower Crane erection
- General Mobile Crane Use
- Site Deliveries and Waste disposal

This report is to consider the actions of each and assess the suitability of the existing highway to safely support the loads anticipated.



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3 LOCATION

3.1 SITE LOCATION

The site is located to city centre of Manchester and is bordered by Bridgewater Place to the north, Tib Street To the east, market street to the south and market Street to the west.

The Metrolink tram system runs adjacent to the south and west elevations and therefore is not generally trafficked by standard vehicles. Bridgewater place to the North is accessible by traffic however access is not directly available from market Street. Tib Street is accessible by vehicles apart from the southern end to the south of the Back Piccadilly junction which is pedestrianised.

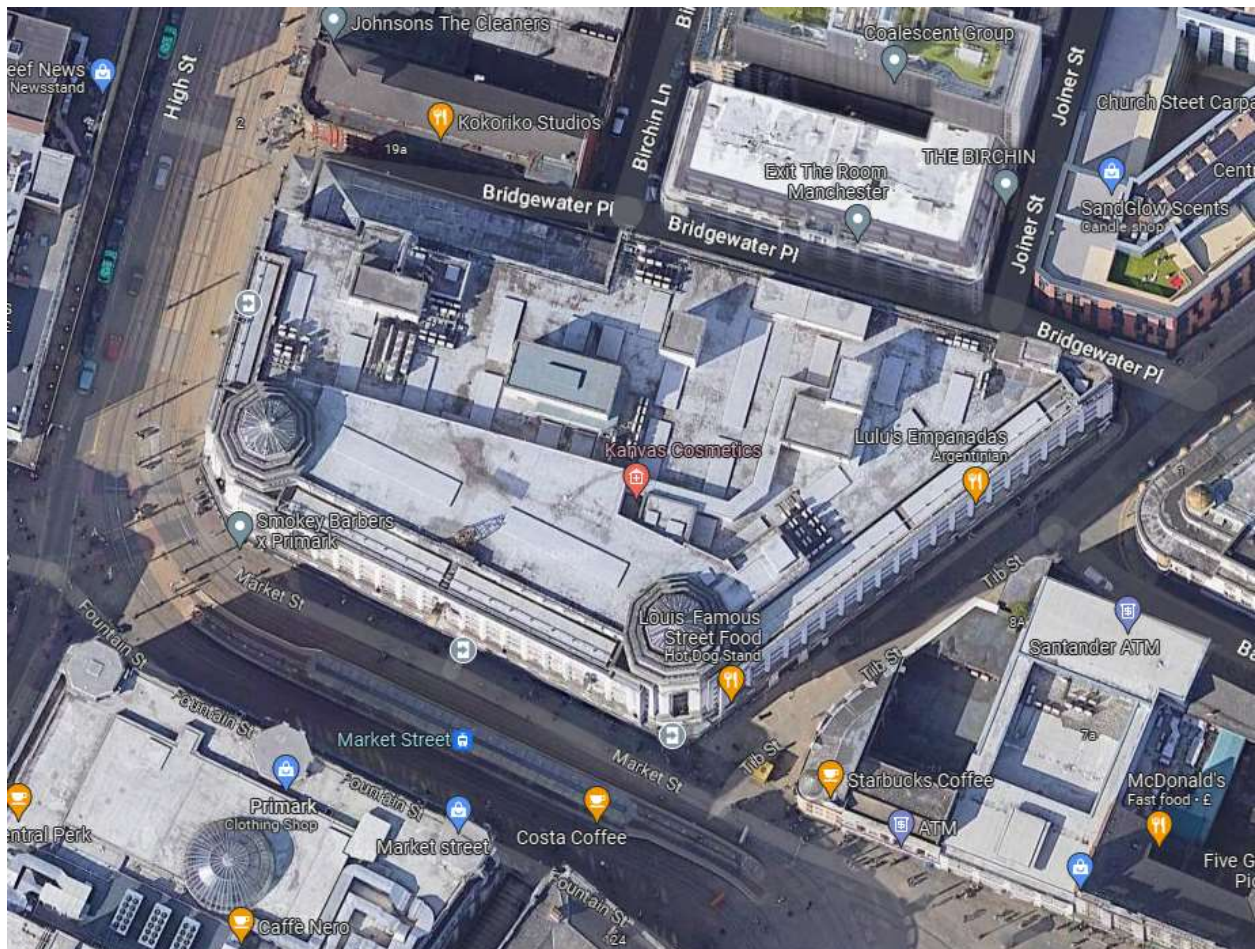


Figure 1 – Site Location



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4 INVESTIGATION WORKS

4.1 RIVER TIB

It is known that the River Tib is culverted beneath Tib Street. In recent years a couple of well reported surface collapses have occurred and been attributed to the culvert. One collapse was at the entrance to the Rylands Building at the junction of Market street and Tib Street and the other was within the former NCP surface car park where the building now exists to the North east of the Ryland Building. It is not clear if the collapse was directly attributable to a collapse of the culvert itself or indirectly due to sub-surface voids due to wash out or migration of material into the culvert. In both cases the surface was repaired. Anecdotally the culvert depth in the car park collapse was reported to be in the region of 10ft to the crown.

The figure below is an extract of the 'Hidden Manchester' map indicating the course of the River Tib below ground.

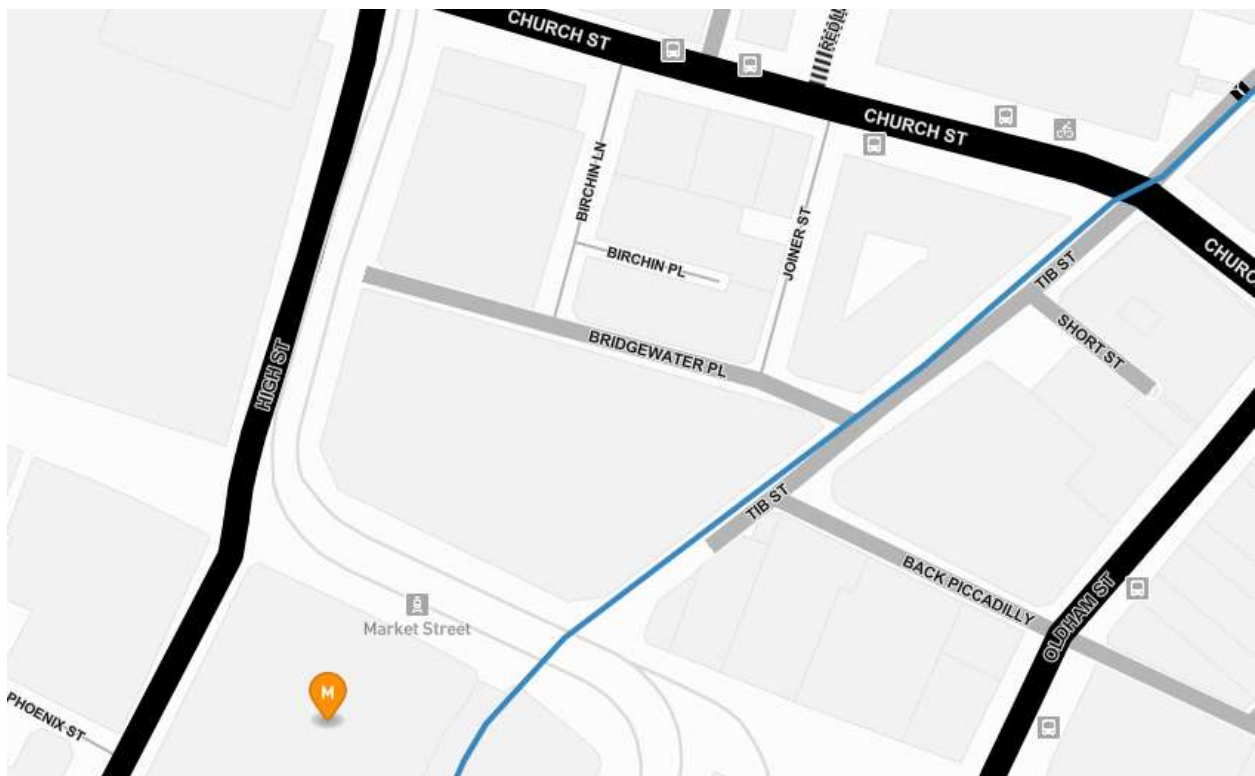


Figure 2 – location of River Tib

4.2 STATUTORY SERVICES

Application was made to the relevant statutory services for their records of their assets in the surrounding areas. The record details are contained in Appendix A



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4.3 GPRS SURVEY

A Ground Penetrating Radar Survey (GPRS) was undertaken By Norman Oliver Ltd to locate the below ground services and also to attempt to locate the River Tib Culvert. The survey was also tasked with locating any voids which were below ground and would reduce the load carrying capacity of the highway.

The survey findings are contained in Appendix B. No significant sub-surface voids were recorded.

4.4 CBR TESTS

California Bearing Ratio (CBR) tests were carried out on 1st and 12th April 2023 in various locations along Tib Street and Bridgewater Place on the existing surface in order to replicate the proposed loading conditions and to monitor the response of the existing ground to these loads. A 600mm diameter plate was used and in most cases the applied load was limited by the reaction on the JCB kentledge and as such the bearing pressures ranged between 177kN/m² and 415kN/m² with negligible displacement. CBR test locations are included in Appendix C with detailed test reports in Appendix D



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5 TEMPORARY WORKS LOADING

5.1 EXTERNAL SCAFFOLD AND ACCESS

It is proposed that an external scaffold will be provided together with a material hoist on Tib Street and a scaffold staircase for access on both Tib Street and Bridgewater Place.

The loadings from these installations are to be confirmed by the suppliers and suitable spreaders to be provided under all point loads to suit the findings of this report.

Proposed Scaffold methodology contained in Appendix E

5.2 MOBILE CRANE OUTRIGGER LOADS

Mobile cranes will be required at various stages of the project. Currently the most onerous condition is due to the mobile crane required to erect the internal tower crane. An initial crane plan is located in Appendix F which indicates maximum pressures of 90kN/m² beneath the spreader mats under the outriggers. The CBR test minimum pressures were circa 50% in excess of these.

5.3 HGV DELIVERY / WASTE REMOVAL

HGV deliveries are likely throughout the project. The GPRS survey did not reveal any significant voids beneath the surface and as such these movements should not be deemed extraordinary use of the highway and no specific protection measures required.



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6 CONCLUSION

The GPRS survey identified the below ground services but did not discover or record any significant surface voids which could be possibly attributed to the River Tib culvert

CBR tests exerted a pressures between 177-439 kN/m² on the existing surface without significant movement. The equivalent CBR results varying between 37% and 118%. All point loads on the surface to be adequately spread to suit.

The minimum pressure exerted exceeded the mobile crane pressures by circa 50% and therefore the use of standard spreader mats as indicated on the initial drawing should be sufficient. The crane operator should be issued with the CBR test results to ensure the anticipated movements are within the allowable range of the machinery.

All loading requirements to be mindful of the below ground services noted and suitable spreader arrangements provided particularly adjacent to the shallow services.

All loading to be approved by the Temporary Works Engineer, Tier Consult, prior to application.



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APPENDIX A

Statutory Services Records

Desktop Utility Search

Rylands Building, Manchester.

Completed 16th March 2023.



N D Oliver & Co Ltd
RICS Chartered Surveyors, *Geomatics*

Jupiter House, 21 Roebuck Lane,
Sale, Manchester, M33 7SY
www.ndoliver.com

Contents Page

Location Map / Site Plan	Plans used to obtain Assets
Information Page	Report / Guarantee
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Underground Utility Apparatus Page 2	Colour Coding of Apparatus
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BT	Plan
ELECTRIC	Company: Electricity North West
GAS	Company: Cadent
WATER	Company: United Utilities
CABLE TV	Company: Virgin Media
TELECOMS	Company: CityFibre Vodafone
LSBUD	Ref: 28818101
GTC	Plan
LSBUD Members	Affected Reports Obtained
Non LSBUD Members	Affected Reports Obtained
Unexploded Bomb Threat Level	Report and Plan
Environmental Agency Flood Report	Report and Plan
GOV: Streetlights	Plan
Appendices	Letters and Reports
Disclaimer	

Location Map / Site Plan



Grid Reference:

X (Easting)	Y (Northing)
384269	398426

Site Address:

Rylands Building
Market Street
Manchester
M60 1TA

Information Page

Report:

We have completed this report in accordance with the standards that are defined under Survey Category D of PAS128.

PAS128 is a Publicly Available Specification for Underground Utility Detection, verification and location published by the British Standards Institution.

It should be considered that positional accuracy of plant is not guaranteed from the information presented in a desktop search alone, the location of underground utilities should be verified through other means such as a full Underground Utility Survey prior to breaking ground and commencing work.

Where available we have included guidance documentation for Gas & Electric these should be referred to before work commences.

Relevant documents:

We recommend the following documents must be referred to before any work commences in the vicinity of existing services:

Health and Safety Booklet HS (GS) 6 Avoidance of Danger from Overhead Electric Lines

General Safety Measures to Avoid Injury and Damage to Gas Apparatus

HSE Guidance Note HS (G) 47 Avoiding Danger from Underground Services

National Joint Utilities Group (NJUG) Publications Vol.1

CDM Regulations 2007 (Regulation 34- Energy Distribution Installations)

Electricity at Work Regulations 1989

Guarantee:

We endeavour to contact all Utility Companies relevant for this desktop search however we cannot guarantee that all of the utility companies contacted will respond to our enquiries in the time period given.

If an essential part of the report returns after the document has been completed and sent, we will send this to the necessary person(s) as soon as it is physically possible.

Underground Utilities Apparatus

The following table is based on the current information from the National Joint Utilities Group Guidelines (2007) (<http://streetworks.org.uk/wp-content/uploads/2016/09/V1-Positioning-Colour-Coding-Issue-8.pdf>)

All depths are from the surface level to the crown of the apparatus

Utility	Duct	Pipe	Cable	Marker Systems	Minimum Depths	
					Recommended FOOTWAY VERGE	CARRIGEWAY
ELECTRICITY HIGH VOLTAGE HV	BLACK OR RED DUCT /OR TILE	N/A	RED OR BLACK	Yellow with black and red legend or concrete tiles	450-1200mm	750 – 1200mm
ELECTRICITY LOW VOLTAGE LV	BLACK OR RED DUCT/ OR TILE	N/A	RED OR BLACK	Yellow with black legend.	450mm	600mm
GAS	YELLOW	See Information below	N/A	Black legend on PE pies every linear metre.	600mm footway 750mm verge.	750mm
PE – up to 2 bar – Yellow or yellow with brown stripes. (removable skin revealing white or black core pipe) PE – between 2-7 bar – Orange. Steel pipes - May have yellow wrap or black tar coating or no coating. Ductile Iron - May have plastic wrapping. Asbestos and Pit / Spun Cast Iron – No distinguishable colour.						
WATER Non-potable & Grey Water 	N/A	BLACK WITH GREEN STRIPES	N/A	N/A	600-750mm	600-750mm
WATER Firefighting 	N/A	BLACK WITH RED STRIPES / BANDS	N/A	N/A	600-750mm	600-750mm
OIL / FUEL PIPELINES	N/A	BLACK	N/A	Various surface markers. Marker tape or tiles above red concrete.	900mm <i>All work within 3 metres of oil fuel pipelines must receive prior approval</i>	
SEWERAGE	BLACK	No distinguishing colour / material	N/A	N/A	Variable	Variable
COMMUNICATIONS (COMMS) 	Grey, white, green, black, purple	N/A	BLACK OR LIGHT GREY	Various	250 – 350mm	450 - 600mm
WATER	BLUE OR GREY	Blue polymer or blue or uncoated Iron / GRP Blue polymer with brown stripe (removable skin revealing white or black pipe)	N/A	BLUE OR BLUE / BLACK	750mm	750mm (minimum)
WATER PIPES FOR SPECIAL PURPOSES (contaminated Ground) 	N/A	Blue polymer with brown stripes (nonremovable skin)	N/A	BLUE OR BLUE / BLACK	750mm	750mm (Minimum)

***These guidelines describe utility industry practice; however, it should not be assumed that all apparatus will conform to the recommendations for positioning and colour coding in this report. ***

Underground Utility Apparatus

The following table is based on the current information from the National Joint Utilities Group Guidelines (2007) (<http://streetworks.org.uk/wp-content/uploads/2016/09/V1-Positioning-Colour-Coding-Issue-8.pdf>)

All depths are from the surface level to the crown of the apparatus.

Highway Authority Services

At the time of publication, the following were current examples of known highway authority apparatus colour coding but local variations may occur.

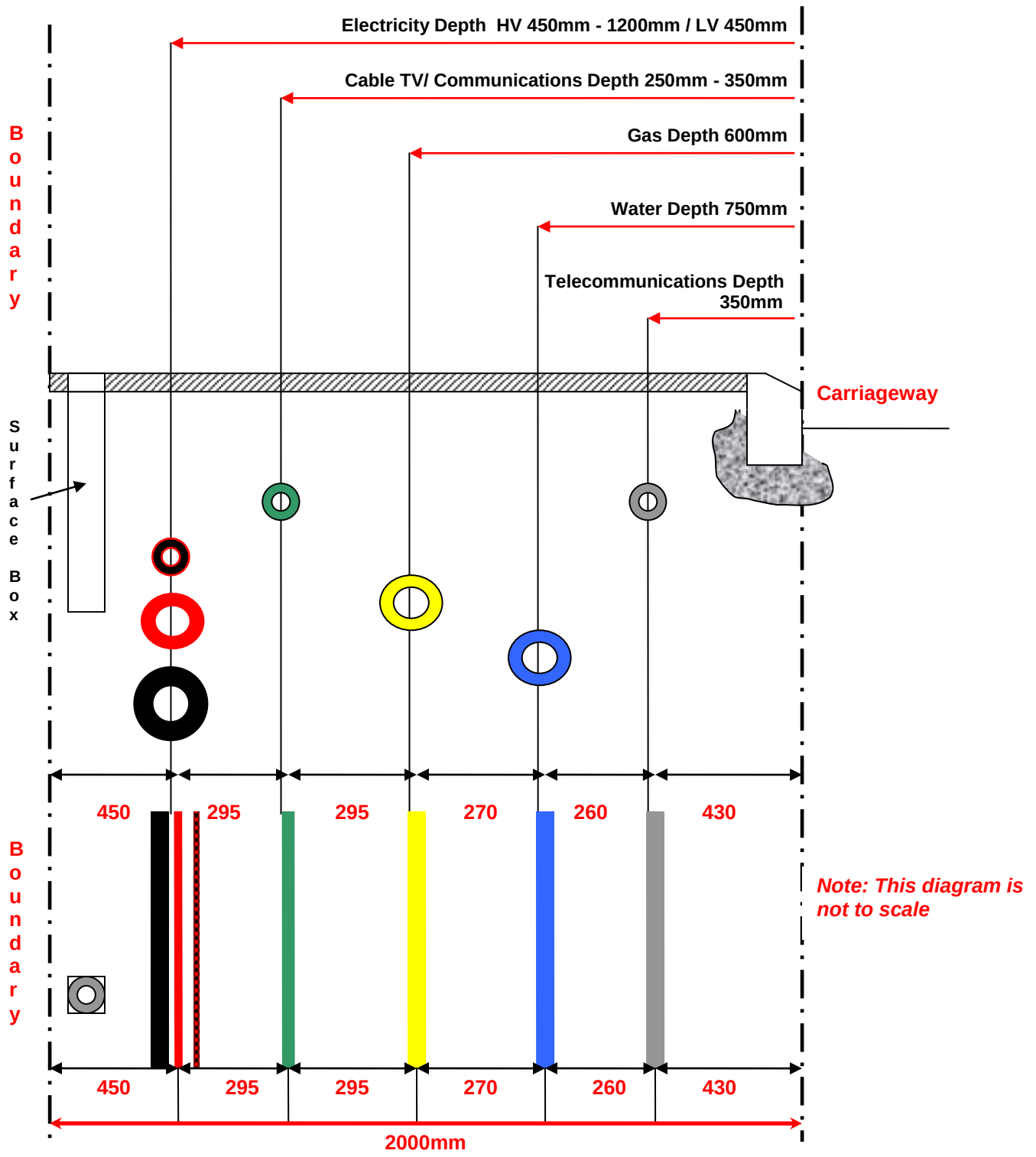
Utility	Duct	Pipe	Cable	Marker Systems	Recommended FOOTWAY VERGE	Minimum Depths CARRIGEWAY
STREET LIGHTING						
England and Wales	ORANGE	N/A	BLACK	Yellow with black legend.	450mm	600mm
Scotland	PURPLE	N/A	PURPLE	Yellow with black legend.	450mm	450mm
Northern Ireland	ORANGE	N/A	BLACK OR ORANGE		450mm	450mm
OTHER						
Traffic Control	ORANGE	N/A	ORANGE	Yellow with black legend.		
Street Furniture		N/A	BLACK	Yellow with black legend.	450mm	600mm
Communications		N/A	LIGHT GREY OR BLACK	Yellow with black legend.		
CCTV	PURPLE	N/A		Yellow with black legend.		
MOTORWAYS & TRUNK ROADS ENGLAND & WALES						
COMMUNICATIONS	PURPLE	N/A	GREY	Yellow with black legend.	450mm	
COMMUNICATIONS POWER	PURPLE	N/A	BLACK	Yellow with black legend.		
ROAD LIGHTING	ORANGE	N/A	BLACK	Yellow with black legend.		
SCOTLAND						
COMMUNICATIONS  	BLACK OR GREY	N/A	BLACK	Yellow with black legend.		
ROAD LIGHTING	PURPLE	N/A	PURPLE	Yellow with black legend.		

***These guidelines describe utility industry practice; however, it should not be assumed that all apparatus will conform to the recommendations for positioning and colour coding in this report. ***

The following table is based on the current information from the National Joint Utilities Group Guidelines (2007) (<http://streetworks.org.uk/wp-content/uploads/2016/09/V1-Positioning-Colour-Coding-Issue-8.pdf>)

Recommended Positioning of Utility Apparatus in a 2m Footway

Note – the same positioning should apply in the carriageway/service strip (if safe and practical to do so) where a development has no footway(s) available for services and/or the boundary of the property is on the carriageway (please refer to minimum depths in carriageways). For further advice please contact the asset owner.

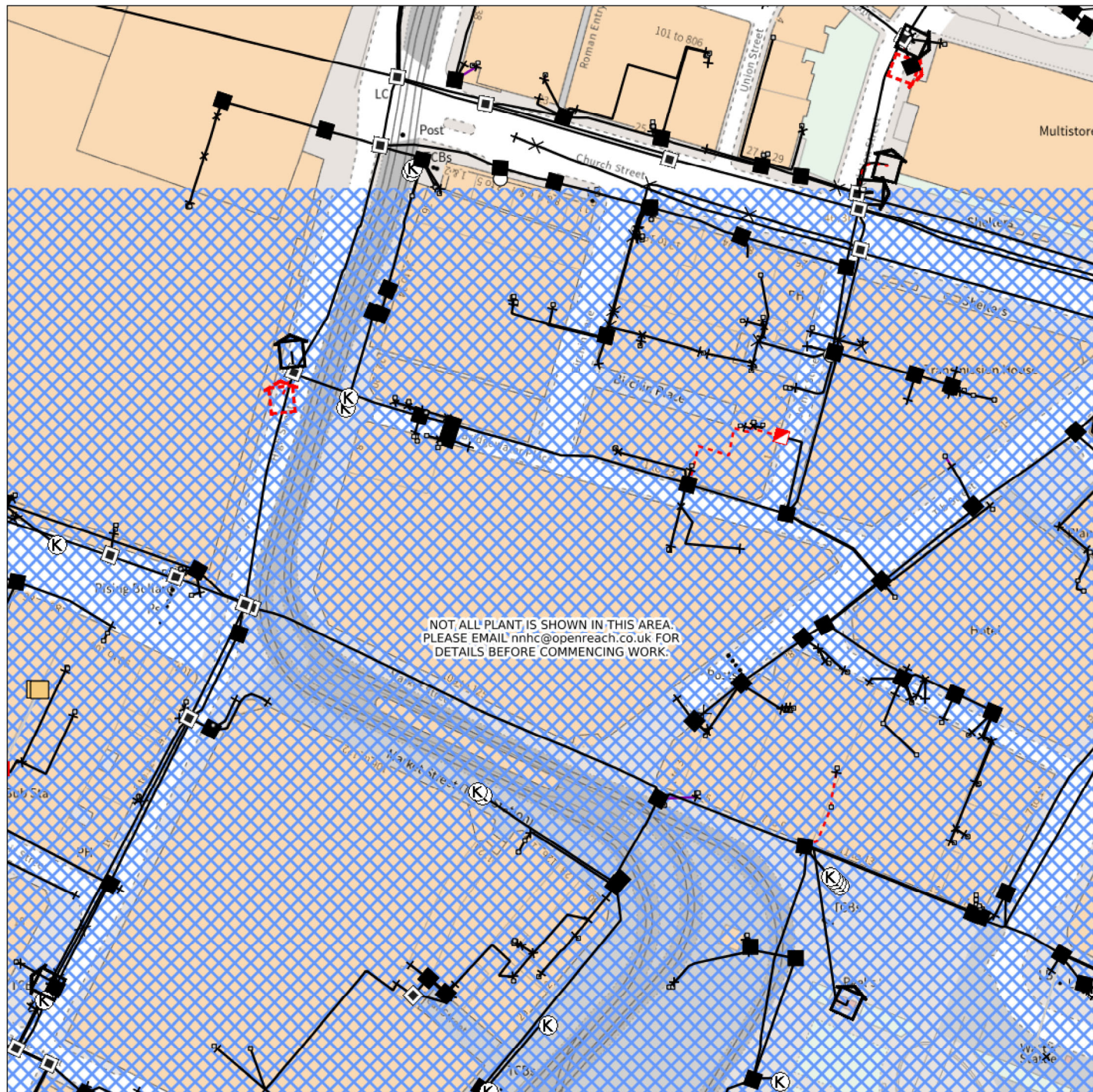


BT



www.home.bt.com

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

	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 : FFN11393Y

Map Reference : (centre) SJ8426998426

Easting/Northing : (centre) 384269,398426

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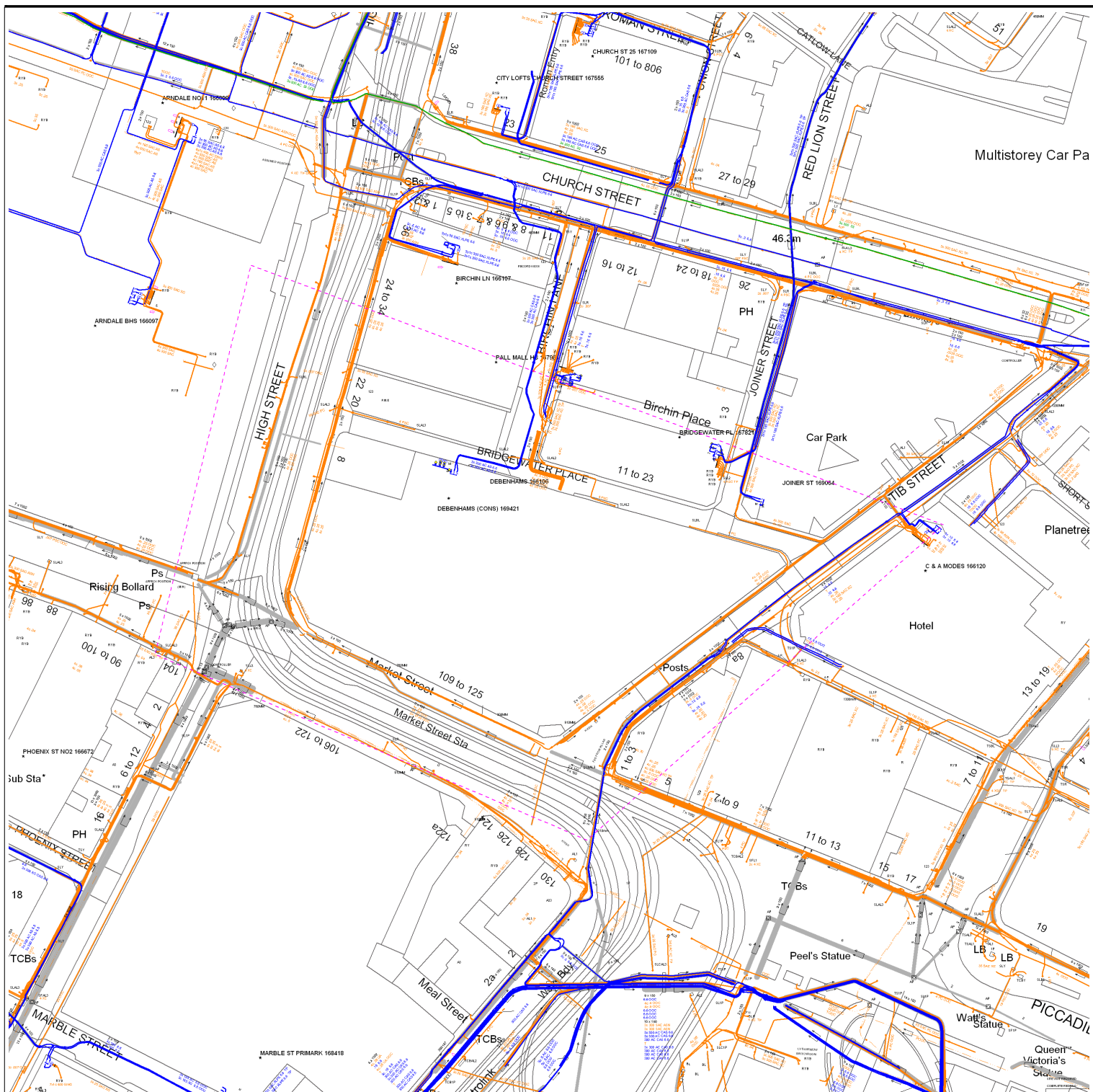
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Date Requested: 13/03/2023 Job Reference: 28818101 Your Scheme/Reference: U23-8536	<table> <tr> <th>Operating Voltage</th><th>Colour Code</th><th>Line Colour</th></tr> <tr> <td>132kV</td><td>Black</td><td></td></tr> <tr> <td>33kV</td><td>Green</td><td></td></tr> <tr> <td>22kV-25kV</td><td>Yellow</td><td></td></tr> <tr> <td>11kV</td><td>Red</td><td></td></tr> <tr> <td>6kV-6.6kV</td><td>Blue</td><td></td></tr> <tr> <td>1kV-6kV</td><td>Violet</td><td></td></tr> <tr> <td>LV</td><td>Orange</td><td></td></tr> <tr> <td>Unknown Voltage</td><td>Brown</td><td></td></tr> </table>	Operating Voltage	Colour Code	Line Colour	132kV	Black		33kV	Green		22kV-25kV	Yellow		11kV	Red		6kV-6.6kV	Blue		1kV-6kV	Violet		LV	Orange		Unknown Voltage	Brown		Data Management Electricity North West Linley House Dickinson Street Manchester, M1 4LF Phone: 0800 195 4141 Email: planrequest@enwl.co.uk Scales on A4 paper: 1:1250 Area dig site 1:250 Line dig site
Operating Voltage	Colour Code	Line Colour																											
132kV	Black																												
33kV	Green																												
22kV-25kV	Yellow																												
11kV	Red																												
6kV-6.6kV	Blue																												
1kV-6kV	Violet																												
LV	Orange																												
Unknown Voltage	Brown																												
Dig Sites: Area Line	Unless otherwise indicated the depth of Electricity North West Limited cables are in accordance with NJUG (450mm for Low Voltage & 600mm for 11kV cables) 33kV and 132kV cables are laid at depths as marked. The depth and positions of Electricity North West Limited equipment was accurate as shown when the equipment was installed. However third parties may have altered the level & other reference data. Therefore Electricity North West Limited accept no responsibility for the position of Electricity North West Limited equipment being different from shown. No person, body or company, shall be relieved from liability for damage caused to Electricity North West Limited equipment by reason of being located differently to the indications on this drawing or from any regulatory loss of income or incentive, or expense, which may be suffered by Electricity North West Limited and which is caused or contributed to by any loss of supply as a result of any damage caused to Electricity North West Limited's equipment. Service cables are not necessarily shown but must be assumed to exist to all premises, streetlights and signs. There may be other Electricity North West Limited apparatus in the vicinity which is not indicated on the cable records. Other apparatus may also be present which is owned by a third party other than Electricity North West Limited. Reproduced from or based upon Ordnance Survey's map with the permission of Her Majesty's Stationary Office. Crown Copyright Reserved. LICENCE No. 100017892. Unauthorised reproduction may lead to Prosecution or Civil Proceedings. Reference should be made to HSE Guidance, HS(G)47 "Avoiding Danger from Underground Services" and GS6 "Avoidance of Danger from Overhead Power Lines". Electricity North West Limited 304 Bridgewater Place, Birchwood Park, Warrington WA3 6XG. Registered in England and Wales. Registered No 02366949																												

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Your Gas Network

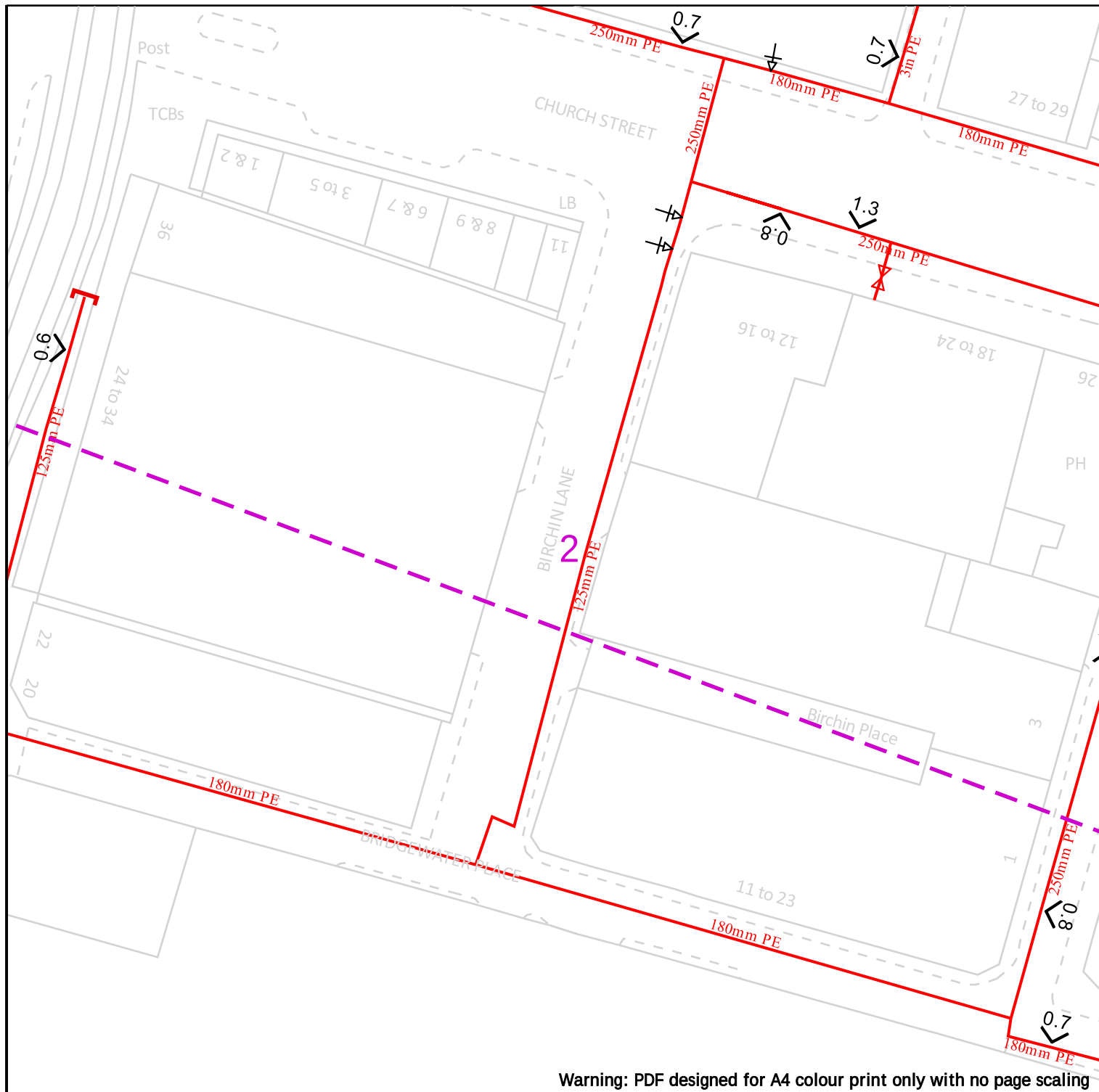
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Overview map of worksite

1 2 3 4 5 6

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

	Dig Sites Area:  Line:  <table border="0"> <tr> <td></td> <td>LP Mains</td> <td rowspan="4">  Valve  Depth of cover  Syphon </td> <td rowspan="4">  Diameter Change  Material Change  Out of Standard Service </td> </tr> <tr> <td></td> <td>MP Mains</td> </tr> <tr> <td></td> <td>IP Mains</td> </tr> <tr> <td></td> <td>LHP Mains</td> </tr> </table>		LP Mains	 Valve  Depth of cover  Syphon	 Diameter Change  Material Change  Out of Standard Service		MP Mains		IP Mains		LHP Mains
		LP Mains	 Valve  Depth of cover  Syphon			 Diameter Change  Material Change  Out of Standard Service					
	MP Mains										
	IP Mains										
	LHP Mains										
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25m

Dig Sites

Area:

Line:



LP Mains



MP Mains



IP Mains



LHP Mains



Valve



Depth of cover



Syphon



Diameter Change



Material Change



Out of Standard Service

Cadent
Your Gas Network

IMPORTANT NOTICES

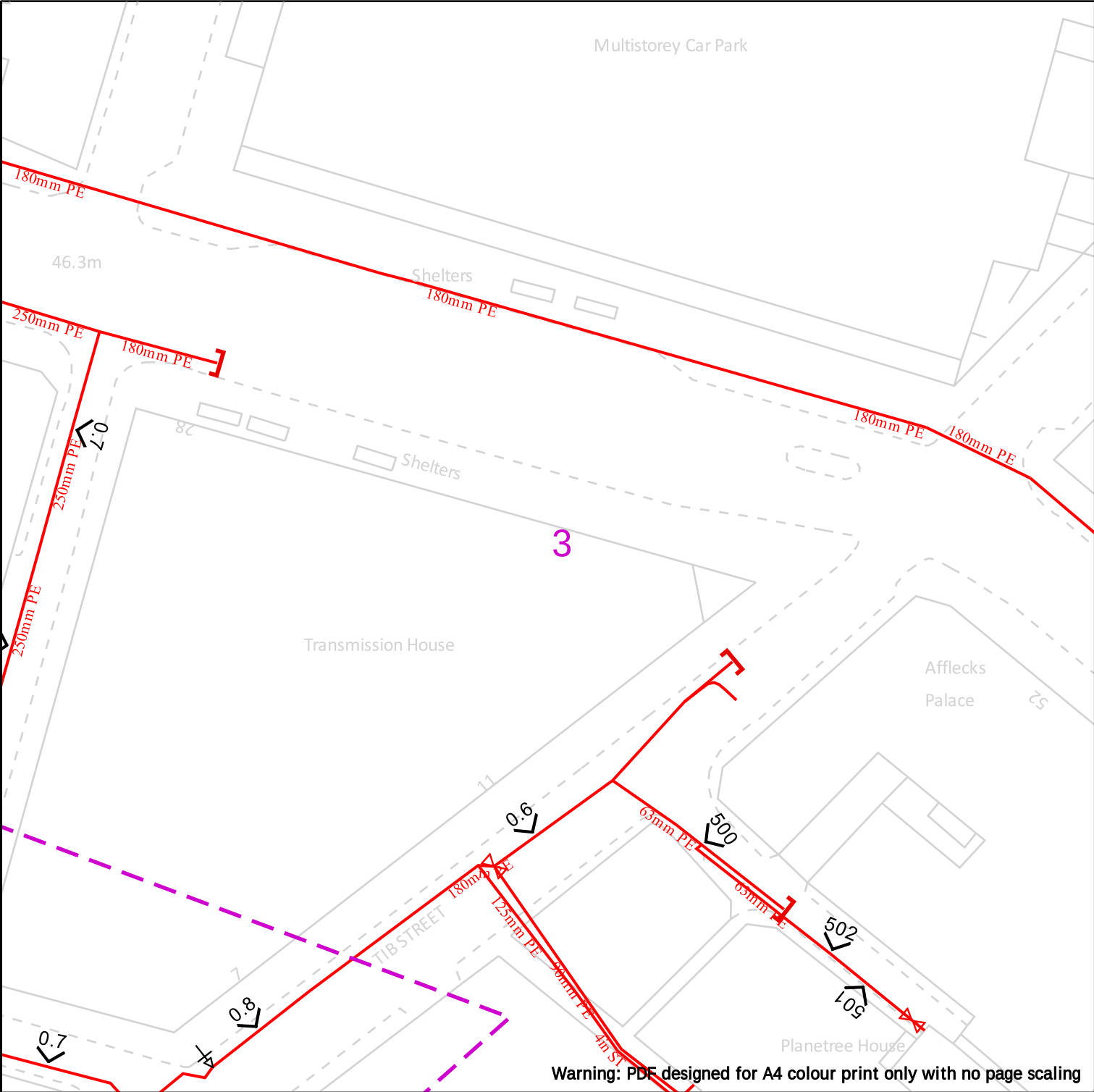
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View extent: 100m, 100m

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Scale: 1:500 (When plotted at A4)

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Dig Sites

Area:



Line:



LP Mains



MP Mains



IP Mains



LHP Mains



Valve



Depth of cover



Syphon



Diameter Change



Material Change



Out of Standard Service

IMPORTANT NOTICES

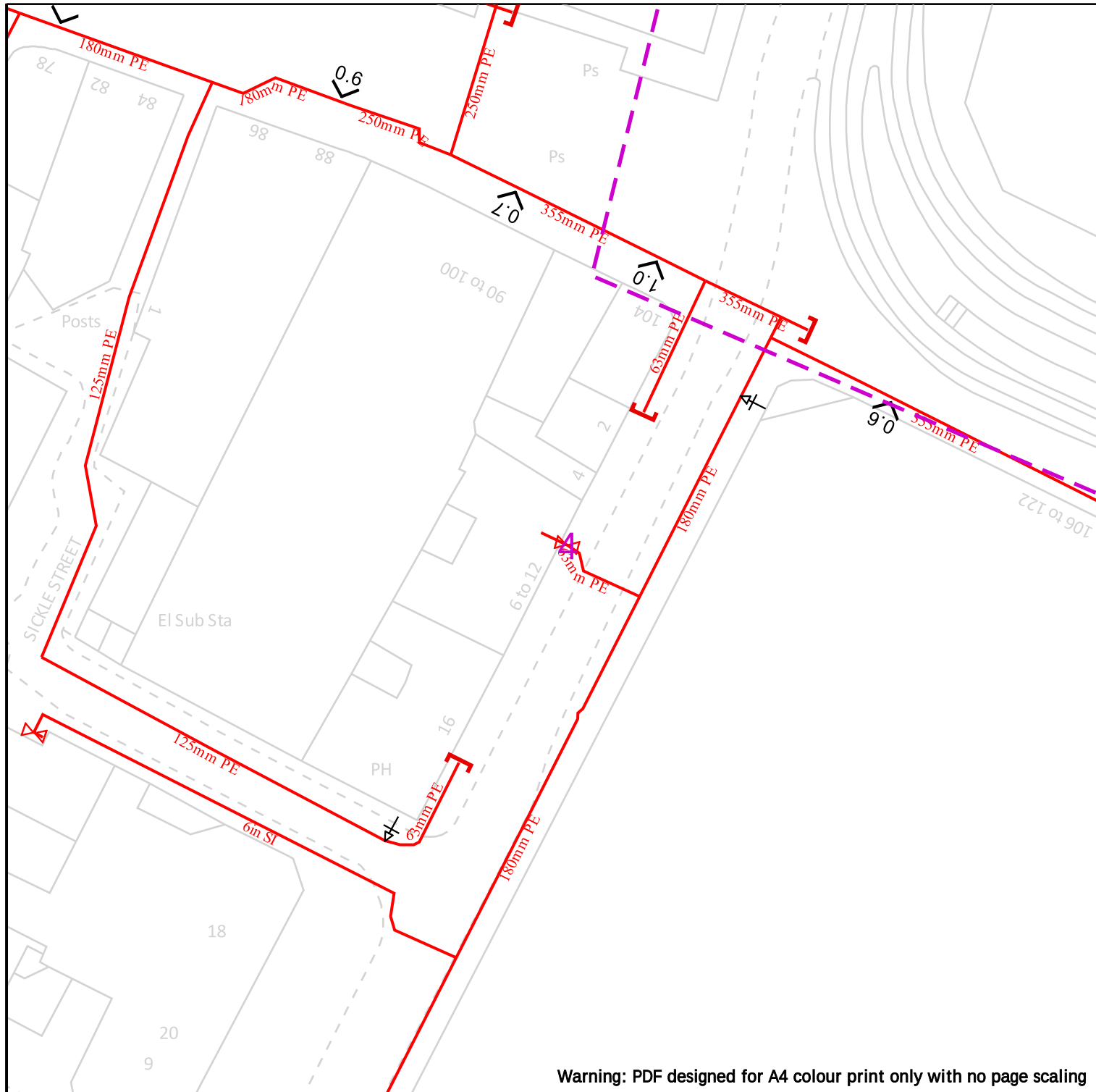
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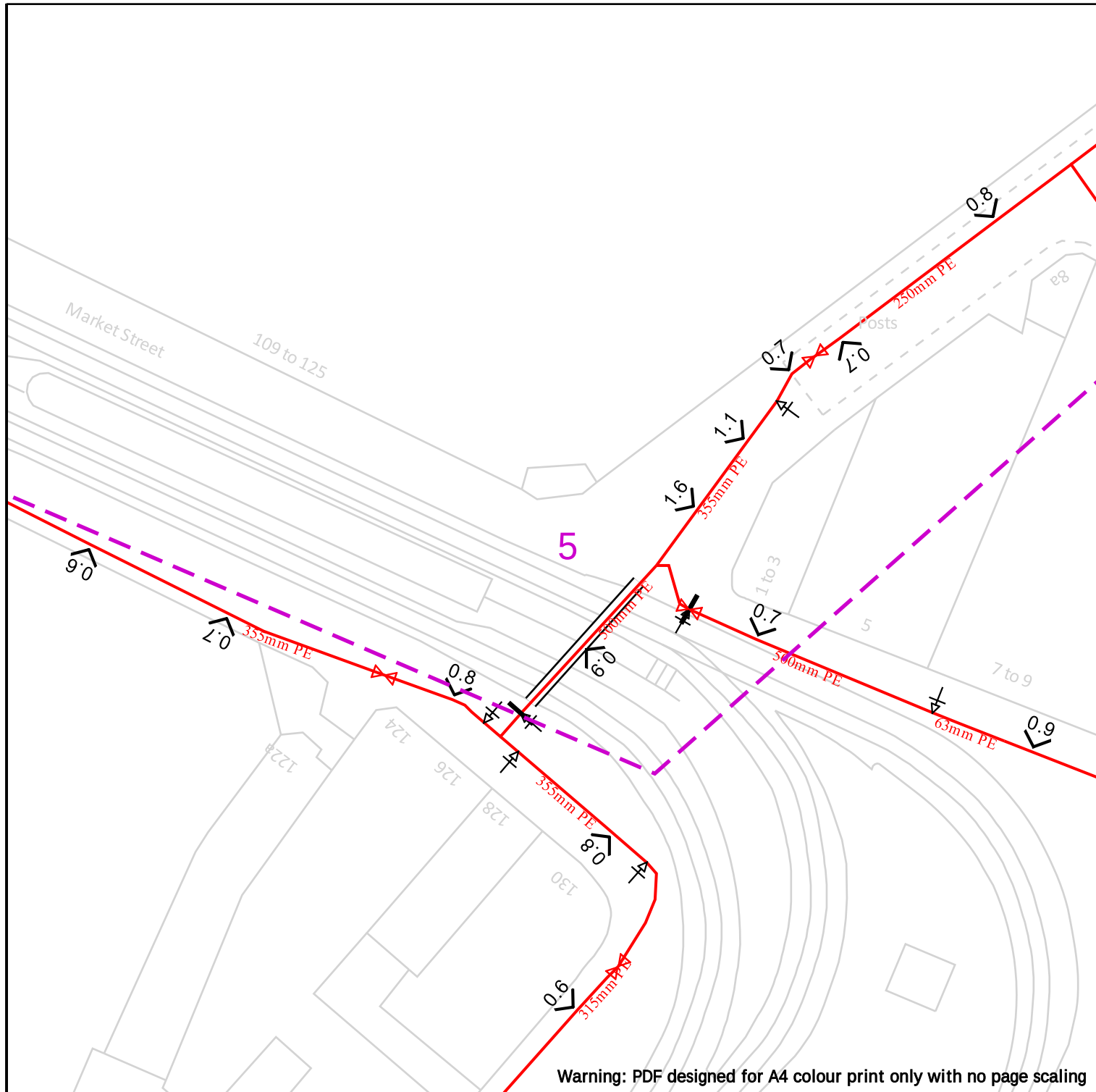
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Scale: 1:500 (When plotted at A4)

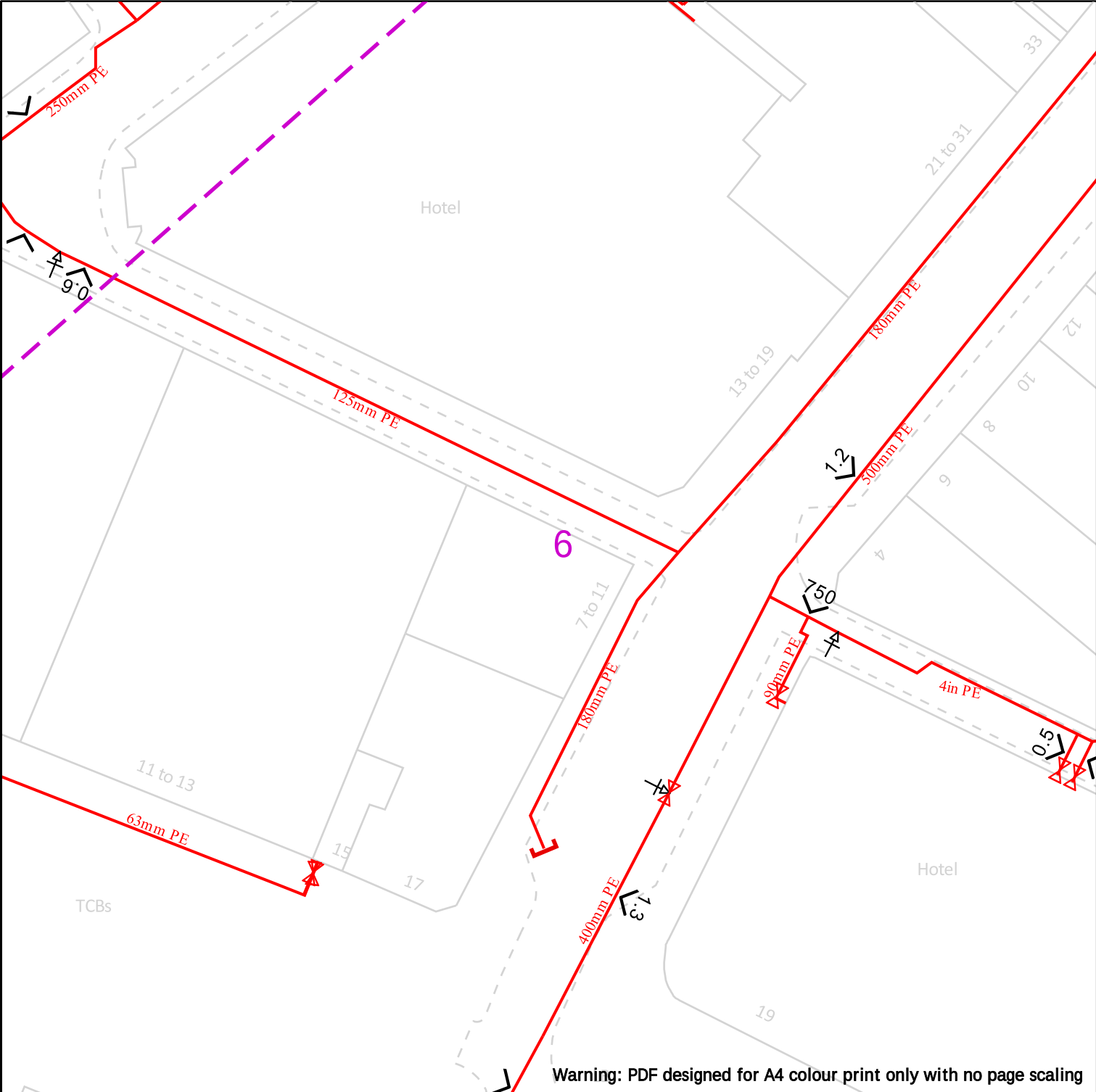
Crown Copyright © - This plan is reproduced from or based on the OS map by Cadent Gas Limited, with the sanction of the controller of HM Stationary Office. Crown Copyright Reserved. Ordnance Survey Licence number 100024886



	<table border="0"> <tr> <td>Dig Sites</td> <td>Area: </td> <td>Line: </td> <td></td> </tr> <tr> <td></td> <td>LP Mains</td> <td></td> <td>Valve</td> </tr> <tr> <td></td> <td>MP Mains</td> <td></td> <td>Depth of cover</td> </tr> <tr> <td></td> <td>IP Mains</td> <td></td> <td>Syphon</td> </tr> <tr> <td></td> <td>LHP Mains</td> <td></td> <td>Diameter Change</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Material Change</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Out of Standard Service</td> </tr> </table>	Dig Sites	Area:	Line:			LP Mains		Valve		MP Mains		Depth of cover		IP Mains		Syphon		LHP Mains		Diameter Change				Material Change				Out of Standard Service
Dig Sites	Area:	Line:																											
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	LHP Mains		Diameter Change																										
			Material Change																										
			Out of Standard Service																										
View extent: 100m, 100m Scale: 1:500 (When plotted at A4)	IMPORTANT NOTICES This plan shows these pipes owned by Cadent Gas Limited in its role as a Licensed Gas Transporter (GT). Gas pipes owned by other GT's or otherwise privately owned may be present in this area. Information with regards 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 Cadent Gas Limited or their agents, servants or contractors for any errors 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. In case of emergency call - 0800 111 999 Crown Copyright © - This plan is reproduced from or based on the OS map by Cadent Gas Limited, with the sanction of the controller of HM Stationary Office. Crown Copyright Reserved. Ordnance Survey Licence number 100024886																												



	<table border="0"> <tr> <td>Dig Sites</td> <td>Area: </td> <td>Line: </td> <td></td> </tr> <tr> <td></td> <td>LP Mains</td> <td></td> <td>Valve</td> </tr> <tr> <td></td> <td>MP Mains</td> <td></td> <td>Depth of cover</td> </tr> <tr> <td></td> <td>IP Mains</td> <td></td> <td>Syphon</td> </tr> <tr> <td></td> <td>LHP Mains</td> <td></td> <td>Diameter Change</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Material Change</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Out of Standard Service</td> </tr> </table>	Dig Sites	Area:	Line:			LP Mains		Valve		MP Mains		Depth of cover		IP Mains		Syphon		LHP Mains		Diameter Change				Material Change				Out of Standard Service
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Warning: PDF designed for A4 colour print only with no page scaling



Dig Sites

Area:



Line:



LP Mains



MP Mains



IP Mains



LHP Mains



Valve



Depth of cover



Syphon



Diameter Change



Material Change



Out of Standard Service

IMPORTANT NOTICES

This plan shows these pipes owned by Cadent Gas Limited in its role as a Licensed Gas Transporter (GT). Gas pipes owned by other GT's or otherwise privately owned may be present in this area. Information with regards 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 Cadent Gas Limited or their agents, servants or contractors for any errors 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.

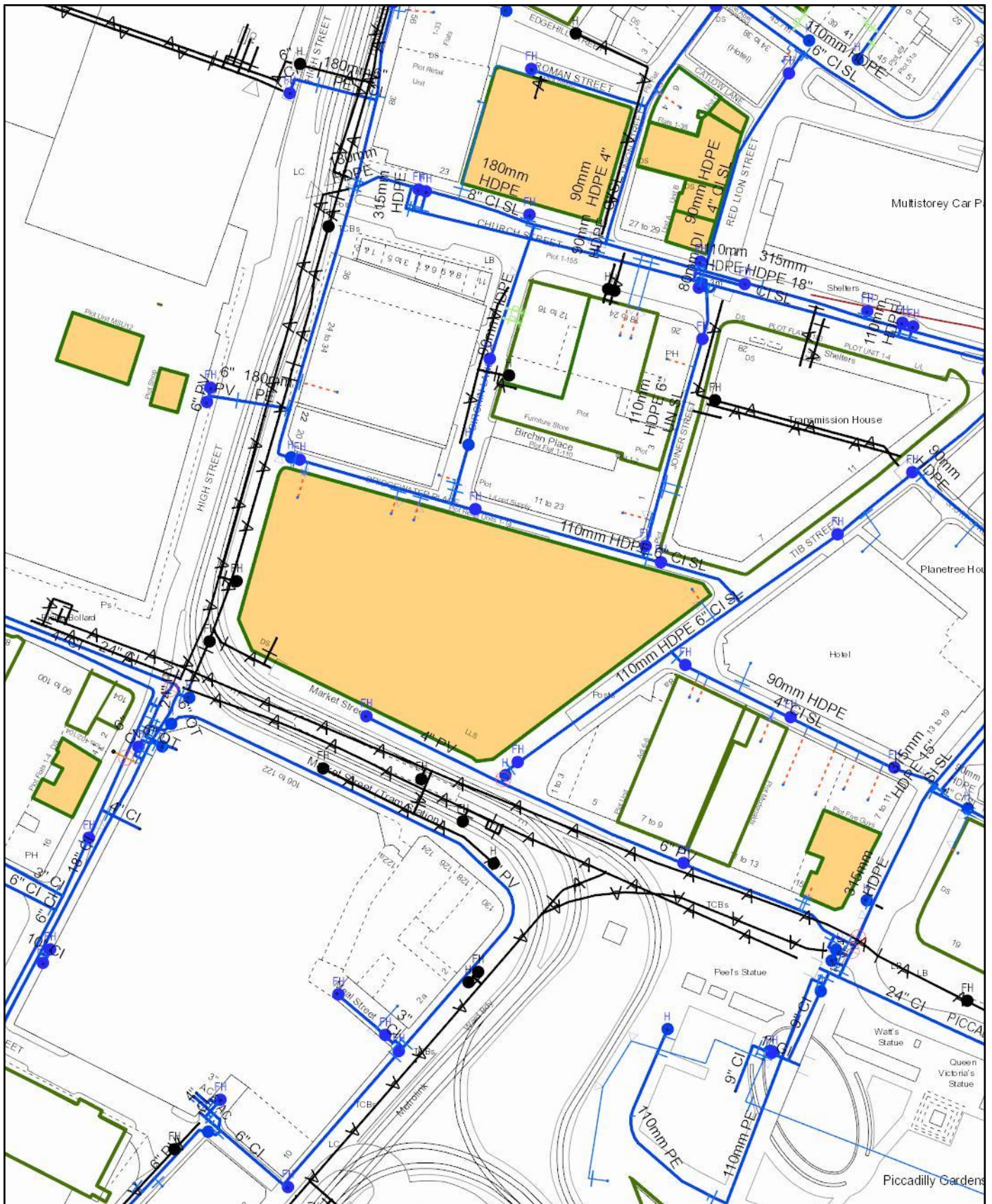
View extent: 100m, 100m

Scale: 1:500 (When plotted at A4)

In case of emergency call - 0800 111 999



www.unitedutilities.com



Scale: 1:1353
Date: 13/03/2023

WATER MAINS RECORDS



Address or Site Reference: Rylands Building
Printed by: Property Searches

The position of the underground apparatus shown on this plan is approximate only and is given in accordance with the best information currently available. United Utilities Water will not accept liability for any loss or damage caused by the actual position being different from those shown.

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Scale: 1:1353
Date: 13/03/2023

SEWER RECORDS



Address or Site Reference: Rylands Building
Printed by: Property Searches

The position of the underground apparatus shown on this plan is approximate only and is given in accordance with the best information currently available. United Utilities Water will not accept liability for any loss or damage caused by the actual position being different from those shown.

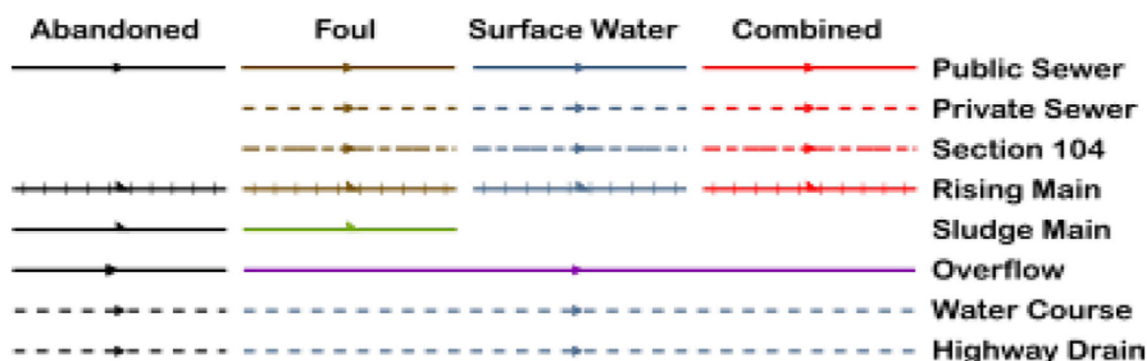
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Clean Water Symbolology

Proposed	Abandoned	Live	
			Distribution Main
			Trunk Main
			Comms Pipe
			Private Pipe
			Concessionary Service
			Raw Water
			LDTM Raw Water
			LDTM Treated Water
			Air Valve
			AC Valve, open
			AC Valve, closed
			CC Valve, open
			CC Valve, closed
			Non Return Valve
			Pressure Management Valve
			OMS Valve
			Stop Tap
			Flow Meter
			Domestic Meter
			Commercial Meter
			Pump
			Hydrant
			Fire Hydrant
			Anode
			Chlorination Point
			De-chlorination Point
			Strainer Point
			Access Point
			Hatch Box
			IP Point
			Sampling Station
			Logger Box
			Bore Hole
			Inlet Point
			Bulk Supply Point
			End Cap
			Site Termination
			Change of Characteristic
			Condition Report
			<u>Property Types</u>
			Water Tower
			Valve House
			Booster Pumping Station
			Intake Pumping Station
			Water Treatment Works
			Supply Reservoir
			Service Reservoir
			Impounding Reservoir
			Pipe Bridge

Symbology for proposed assets is the same as above, but shown in **green**
 Symbology for abandoned assets is the same as above, but shown in **black**

Wastewater Symbolology



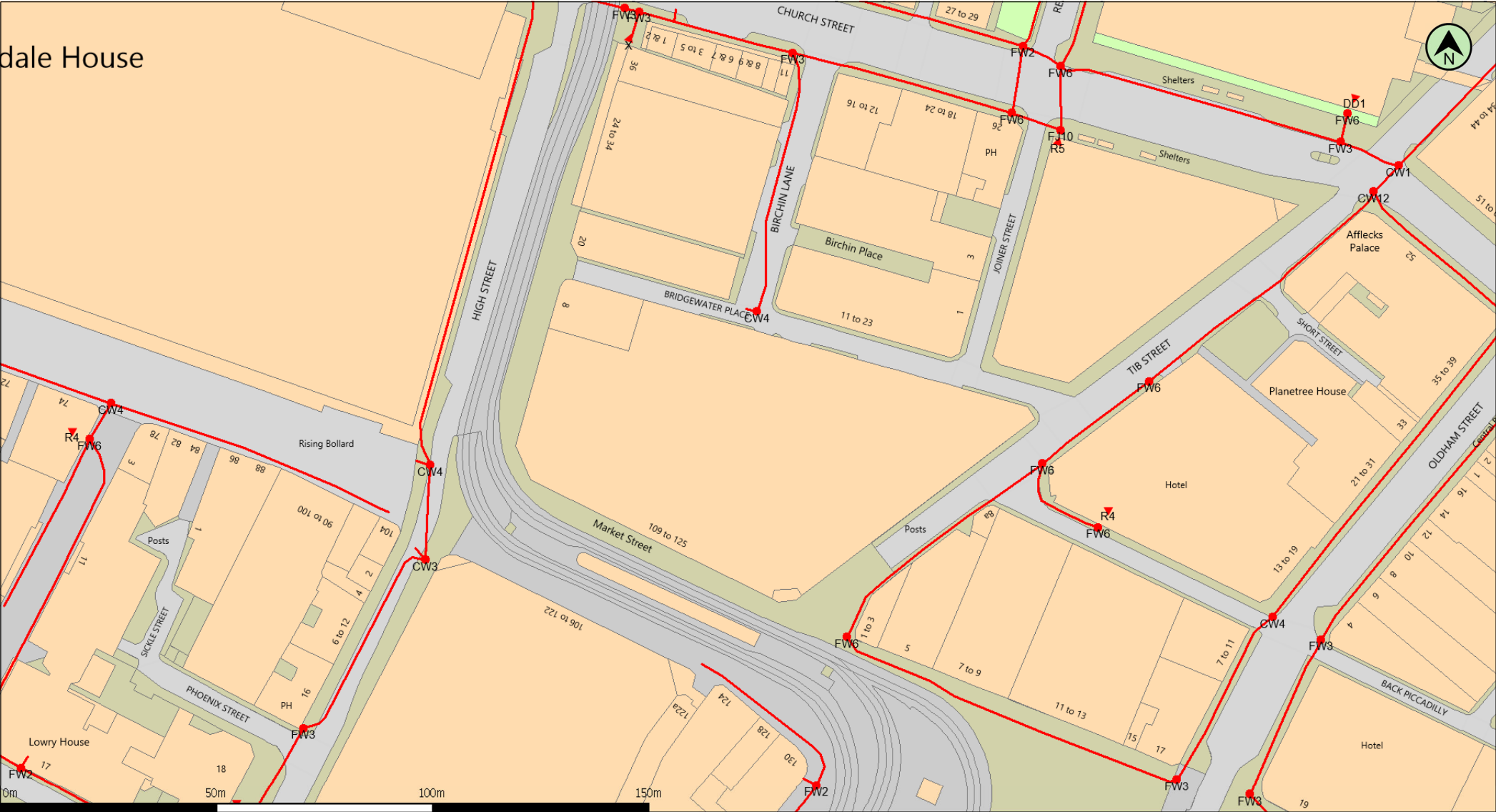
All point assets follow the standard colour convention: **red** – combined **brown** - foul
blue – surface water **purple** - overflow

Manhole	Side Entry Manhole
Head of System	Outfall
Extent of Survey	Screen Chamber
Rodding Eye	Inspection Chamber
Inlet	Bifurcation Chamber
Discharge Point	Lamp Hole
Vortex	T Junction / Saddle
Penstock	Catchpit
Washout Chamber	Valve Chamber
Valve	Vent Column
Air Valve	Vortex Chamber
Non Return Valve	Penstock Chamber
Soakaway	Network Storage Tank
Gully	Sewer Overflow
Cascade	Ww Treatment Works
Flow Meter	Ww Pumping Station
Hatch Box	Septic Tank
Oil Interceptor	Control Kiosk
Summit	
Drop Shaft	Change of Characteristic
Orifice Plate	



www.virginmedia.co.uk

dale House



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Date: 13/03/23

Telecoms Plan A4

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 2023 Ordnance Survey 100019209.

Duct, Trench



Chamber / Pole



Cabinet



CityFibre



bitmap_layout select_raster

LEGEND

- EXISTING PLANT
- EXISTING PLANT

bitmap_layout select_raster

Head Office
CityFibre Holdings Ltd
15 Bedford Street,
London,
WC2E 9HE
Tel: 0845 293 0774
Web: www.cityfibre.com

Asset Office
CityFibre Holdings Ltd,
Rutherford House,
Birchwood,
Warrington,
WA3 6ZH
Email: asset.team@cityfibre.com

Disclaimer:

Information shown on this plan is for general guidance only. No warranty is made as to its accuracy. This plan must not be solely relied upon in the event of excavation or other works being carried out in the vicinity of Cityfibre plant. No liability of any kind is accepted by Cityfibre, its agents or servants for any error, omission, discrepancy or deviation. This information is valid for the date printed.

Project
Plant Enquiry

Drawing
Existing Plant

Drawn by:
smallworld
Date: 13/03/2023

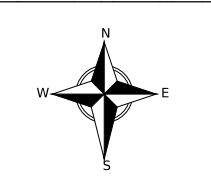
Drawing No.
CFH_EP_000001
Revision
001

Scale: 1:2500
A4
0m 20m 40m 60m 80m 100m
N

Vodafone



www.vodafone.co.uk



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Legend

- Access Chamber.Location Active Manhole
- Access Chamber.Location Active Carriageway Chamber
- Access Chamber.Location Active Footway Chamber
- Underground Route.Route Active - Owned
- Underground Route.Route Active - Leased
- Underground Route.Route Active - Third Party



Vodafone Limited (No01471587) registered office is at Vodafone House, The Connection, Newbury, Berkshire, RG142FN

Plot Date : 16/03/2023 Scale : 1:1250

This plan shows apparatus owned by members of the Vodafone Group of companies (including legacy telecommunication companies currently within the group)

Information with regard to such apparatus should always be obtained from Vodafone or its appointed agents.



e
Centre

CHURCH STREET

TIB

OLDHAM

BRIDGEWATER PL

Sta 3230556

JOINER S

BACK P

PICCADILLY

A62

LE STREET

Line Search Before You Dig



www.lineasearchbeforeudig.co.uk

Enquirer

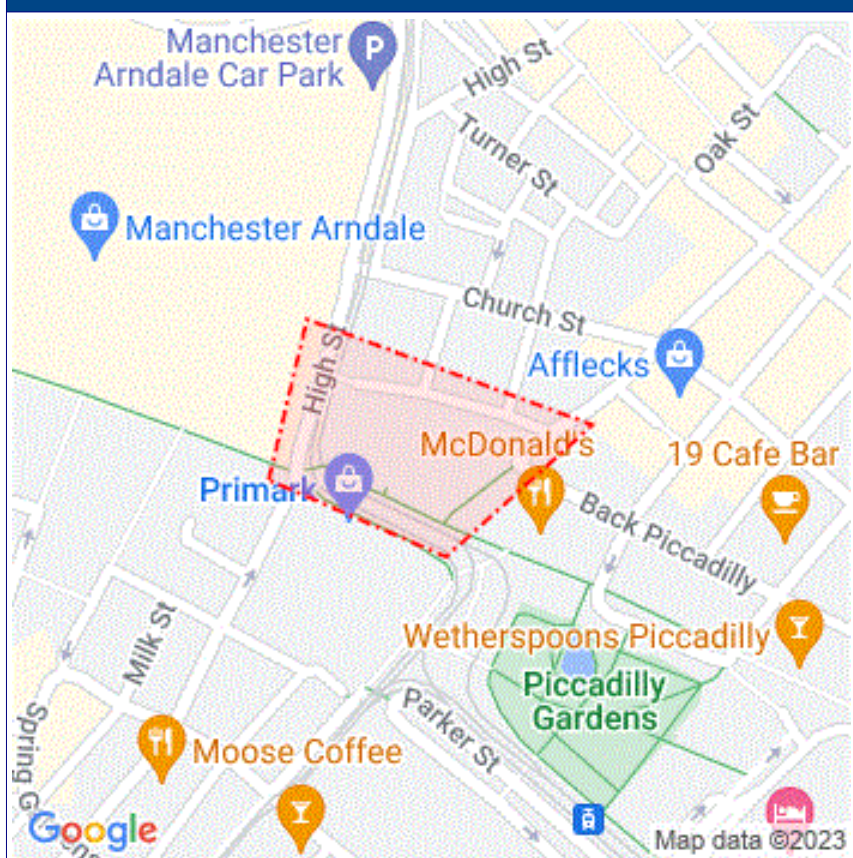
Name		Phone	
Company		Mobile	
Address			
Email			

Enquiry Details

Scheme/Reference	U23-8536		
Enquiry type	Initial Enquiry	Work category	Planning Applications
Start date	14/03/2023	Work type	C2 Enquiry (Stat Undertakers only)
End date	14/03/2023	Site size	14854 metres square
Searched location	XY= 384269, 398426	Work type buffer*	25 metres
Confirmed location	-02 53		
Site Contact Name	Not Supplied	Site Phone No	Not Supplied
Description of Works			

* The WORK TYPE BUFFER is a distance added to your search area based on the Work type you have chosen.

Site Map



Asset Owners

Terms and Conditions. Please note that this enquiry is subject always to our standard terms and conditions available at www.lineasearchbeforeudig.co.uk ("Terms of Use") and the disclaimer at the end of this document. Please note that in the event of any conflict or ambiguity between the terms of this Enquiry Confirmation and the Terms of Use, the Terms of Use shall take precedence.

Notes. Please ensure your contact details are correct and up to date on the system in case the LSBUD Members need to contact you.

Validity and search criteria. The results of this enquiry are based on the confirmed information you entered and are valid only as at the date of the enquiry. It is your responsibility to ensure that the Enquiry Details are correct, and LineasearchbeforeUdig accepts no responsibility for any errors or omissions in the Enquiry Details or any consequences thereof. LSBUD Members update their asset information on a regular basis so you are advised to consider this when undertaking any works. It is your responsibility to choose the period of time after which you need to resubmit any enquiry but the maximum time (after which your enquiry will no longer be dealt with by the LSBUD Helpdesk and LSBUD Members) is 28 days. If any details of the enquiry change, particularly including, but not limited to, the location of the work, then a further enquiry must be made.

Asset Owners & Responses. Please note the enquiry results include the following:

1. "LSBUD Members" who are asset owners who have registered their assets on the LSBUD service.
2. "Non LSBUD Members" are asset owners who have not registered their assets on the LSBUD service but LSBUD is aware of their existence. Please note that there could be other asset owners within your search area.

Below are three lists of asset owners:

1. **LSBUD Members who have assets registered within your search area. ("Affected")**
 - a. **These LSBUD Members will either:**
 - i. **Ask for further information ("Email Additional Info" noted in status).** The additional information includes: Site contact name and number, Location plan, Detailed plan (minimum scale 1:2500), Cross sectional drawings (if available), Work Specification.
 - ii. **Respond directly to you ("Await Response").** In this response they may either send plans directly to you or ask for further information before being able to do so, particularly if any payments or authorisations are required.
2. **LSBUD Members who do not have assets registered within your search area. ("Not Affected")**
3. **Non LSBUD Members who may have assets within your search area.** Please note that this list is not exhaustive and all details are provided as a guide only. It is your responsibility to identify and consult with all asset owners before proceeding.

LSBUD Members who have assets registered on the LSBUD service within the vicinity of your search area.

List of affected LSBUD members

Asset Owner	Phone/Email	Emergency Only	Status
Cadent Gas	0800688588	0800111999	Await response
Electricity North West Limited	08001954141	08001954141	Await response
Fulcrum Pipelines Limited	03330146455	0800111999	Await response
Zayo Group UK Ltd c/o JSM Group Ltd	01992 655 919	0800 169 1646	Await response

LSBUD Members who do not have assets registered on the LSBUD service within the vicinity of your search area. Please be aware that LSBUD Members make regular changes to their assets and this list may vary for new enquiries in the same area.

List of not affected LSBUD members

Angus Energy	AWE Pipeline	B & D Energy Limited
Balfour Beatty Investments Limited	BOC Limited (A Member of the Linde Group)	Box Broadband
BP Exploration Operating Company Limited	BPA	Carrington Gas Pipeline
CATS Pipeline c/o Wood Group PSN	Cemex	Centrica Storage Ltd
CNG Services Ltd	Concept Solutions People Ltd	ConocoPhillips (UK) Teesside Operator Ltd
D.S.Smith	Diamond Transmission Corporation	DIO (MOD Abandoned Pipelines)
DIO (MOD Live Pipelines)	E.ON UK CHP Limited	EDF Energy Renewables Ltd
EirGrid	Eleclink Limited	Energy Assets Networks
ENI & Himor c/o Penspen Ltd	EnQuest NNS Limited	EP Langage Limited
ESP Utilities Group	ESSAR	Esso Petroleum Company Limited
euNetworks Fiber UK Ltd	EXA Infrastructure	Exolum Pipeline System
Fulcrum Electricity Assets Limited	Gamma	Gas Networks Ireland (UK)
Gateshead Energy Company	Gigaclear Ltd	Harbour Energy
Heathrow Airport LTD	Humbly Grove Energy	IGas Energy
INEOS FPS Pipelines	INEOS Manufacturing (Scotland and TSEP)	INOVYN ChlorVinyls Limited
INOVYN Enterprises Limited	Intergen (Coryton Energy or Spalding Energy)	Jurassic Fibre Ltd
Last Mile	Mainline Pipelines Limited	Manchester Jetline Limited
Manx Cable Company	Marchwood Power Ltd (Gas Pipeline)	Melbourn Solar Limited
Moray East Offshore Windfarm	MUA Group Limited	National Gas Transmission
National Grid Electricity Distribution	National Grid Electricity Transmission	Neos Networks
Northern Gas Networks Limited	Northumbrian Water Group	NPower CHP Pipelines
NTT Global Data Centers EMEA UK Ltd	NYnet Ltd	Ogi
Oikos Storage Limited	Ørsted	Palm Paper Ltd
Perenco UK Limited (Purbeck Southampton Pipeline)	Petroineos	Phillips 66
Portsmouth Water	Premier Transmission Ltd (SNIP)	Redundant Pipelines - LPDA
RWE - Great Yarmouth Pipeline (Bacton to Great Yarmouth Power Station)	RWEnpower (Little Barford and South Haven)	SABIC UK Petrochemicals
SAS Utility Services Ltd	Scottish and Southern Electricity Networks	Scottish Power Generation

Seabank Power Ltd	SES Water	SGN
Shell	Shell NOP	SP Energy Networks
Squire Energy Networks	SSE Generation Ltd	SSE Transmission
SSE Utility Solutions Limited	Storengy	Tata Communications (c/o JSM Construction Ltd)
Total Colnbrook Pipelines	Total Finaline Pipelines	Transmission Capital
UK Power Networks	Uniper UK Ltd	University of Cambridge Granta Backbone Network
Vattenfall	Veolia ES SELCHP Limited	Veolia ES Sheffield Ltd
Voneus Limited	VPI Power Limited	Wales and West Utilities
West of Duddon Sands Transmission Ltd	Westminster City Council	

The following Non-LSBUD Members may have assets in your search area. It is **YOUR RESPONSIBILITY** to contact them before proceeding. Please be aware this list is not exhaustive and it is your responsibility to identify and contact all asset owners within your search area.

Non-LSBUD members (Asset owners not registered on LSBUD)			
Asset Owner	Preferred contact method	Phone	Status
Arelion UK Ltd	check-network@arelion.com	0800526015	Not Notified
BT	https://www.swns.bt.com/pls/mbe/welcome.home	08000232023	Not Notified
CityFibre	asset.team@cityfibre.com	033 3150 7282	Not Notified
Colt	plantenquiries@catelecomuk.com	01227768427	Not Notified
Equans	nrsua.uk@equans.com	0800 130 3600	Not Notified
GTC	https://pe.gtc-uk.co.uk/PlantEnqMembership	01359240363	Not Notified
Lumen Technologies	plantenquiries@instalcom.co.uk	02087314613	Not Notified
Manchester City Council	https://www.manchester.gov.uk		Not Notified
Mobile Broadband Network Limited	mbnl.plant.enquiries@turntown.com	01212 621 100	Not Notified
Sky UK Limited	nrsua@sky.uk	02070323234	Not Notified
Sota	SOTA.plantenquiries@instalcom.co.uk		Not Notified
United Utilities	WastewaterDeveloperServices@uuplc.co.uk	08707510101	Not Notified
Utility assets Ltd	assetrecords@utilityassets.co.uk		Not Notified
Verizon Business	osp-team@uk.verizonbusiness.com	01293611736	Not Notified
Virgin Media	http://www.digdat.co.uk	08708883116	Not Notified
Vodafone	osm.enquiries@atkinsglobal.com	01454662881	Not Notified

Disclaimer

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LSBUD Members

Key:

A: Affected

NA: Non-Affected

AWE Pipeine	NA	Esso Petroleum Company Ltd	NA	RWE Npower	NA
BOC Limited	NA	Fulcrum	A	Scottish Power Generation	NA
BPA	NA	Gamma	NA	Seabank Power Ltd	NA
Carrington Gas Pipelines	NA	Gateshead Energy Company	NA	Shell Pipelines	NA
CATS Pipeline	NA	Gigaclear PLC	NA	Tata Communications	NA
Cemex	NA	GT Humbly Grove Energy	NA	Total Finaline Pipelines	NA
Centrica Storage Ltd	NA	IGas Energy	NA	Transmission Capital	NA
CLH Pipeline	NA	Last Mile	NA	Uniper UK Ltd	NA
Concept Solutions	NA	Mainline Pipelines Ltd	NA	Vettenfall	NA
E.On UK CHP	NA	Manchester Jetline Ltd	NA	Veolia ES SEL CHP	NA
EriGrid	NA	Marchwood Power Ltd	NA	Westminster City Council	NA
EnQuest NNS Ltd	NA	National Grid Electricity Transmission	NA	Zayo Group	A
EP Langage Ltd	NA	Perenco UK Ltd	NA		
ESP Utilities Group	NA	Premier Transmission Ltd	NA		
ESSAR	NA	Redundant Pipelines	NA		

Fulcrum



www.fulcrum.co.uk



2 Europa View,
Sheffield
Business Park,
Sheffield, S9 1XH

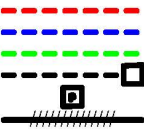
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SCALE: 1:250 @ A3

DATE: 18/07/2019

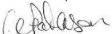
SITE ADDRESS:
Joiner Street
Manchester
M4 1PH

DESIGNED BY: Carla Parkinson
DESCRIPTION OF WORKS:
Lay new main and 4 point manifold terminating internally in plant room. Customer to arrange meters

DRAWING:
DRAWING KEY:
Proposed LP Main
Proposed MP Main
Proposed IP Main
Proposed Service
Proposed Meter Position
Pipes To Be Abandoned

Change Of Diameter
Governor
Change Of Material
Valve

APPROVED
By FPL at

9112427

GIRS ACCREDITED DESIGNER
DATE: 18/07/2019
SIGNATURE: 



TRENCH DEPTH GUIDELINES FOR PIPE INSTALLATIONS
All trenches to be provided in accordance with IGE/TD/3 (Mains) and IGE/TD/4 (Services) and operating pressures shown in the table below

Location Of Service	Minimum Depth Of Cover
Carriageways	750mm
Paved Footways	600mm
Verges	750mm
Open Fields & Agricultural Land	1100mm
Other Private Ground	600mm

All ducting (if used) must conform to BS4963, Be Yellow in colour, convoluted and perforated

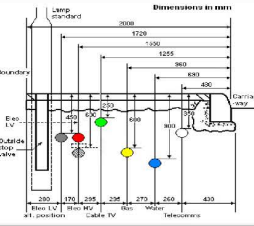
MINIMUM PROXIMITY DISTANCES FOR PIPE INSTALLATIONS
The permissible proximities to normally occupied buildings vary depending on the pipe material and operating pressures shown in the table below
All proximities are provided in accordance with IGE/TD/3 (Mains) and IGE/TD/4 (Services)

PE Mains - IGE/TD/3 Edition 5				
Type Of Main	Diameter Of Main (mm)	<=75mbar	>75mbar <=2 bar	>2 bar <=5 bar
PE Non-Inserted	Up to 125mm	2	2	4
	125mm to 355mm	1	2	4
	355mm to 500mm	1	2	4
	500mm to 1000mm	1	13	15

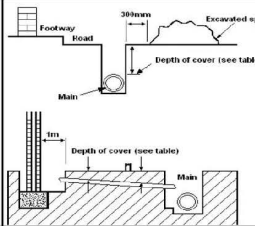
Steel Mains - IGE/TD/3 Edition 5				
Type Of Main	Wall Thickness Of Main (mm)	<=75mbar	>75mbar <=2 bar	>2 bar <=5 bar
Steel	t <= 9.5	0.25	1	3
	9.52 <t	0.25	1	3
	<=11.93	0.25	1	3
	11.91 <t	0.25	1	3

PE Services - IGE/TD/4 Edition 4				
Size (mm)	<=75mbar	>75mbar <=2 bar	>2 bar	
16mm to 140mm	0.25	3	Refer to GL5 / G17 Appraisal	
160mm to 250mm	1	3	Refer to GL5 / G17 Appraisal	
315mm	1	3	Refer to GL5 / G17 Appraisal	
355mm to 400mm	1	4	Refer to GL5 / G17 Appraisal	
>400mm	1	5	Refer to GL5 / G17 Appraisal	

For all steel services please seek advice or refer to IGE/TD/4 Edition 4

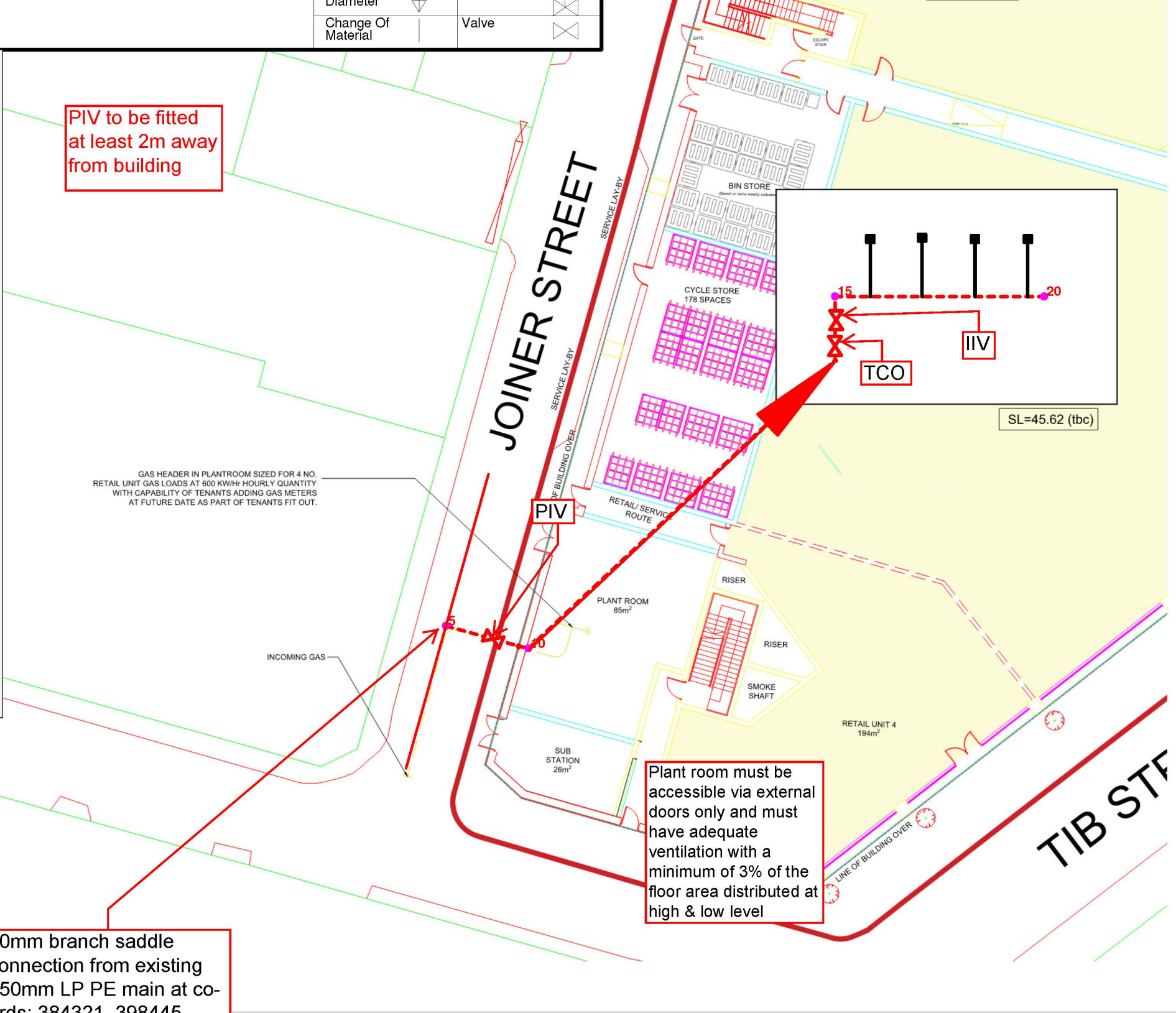


Disconnection to main



Excavated spoil

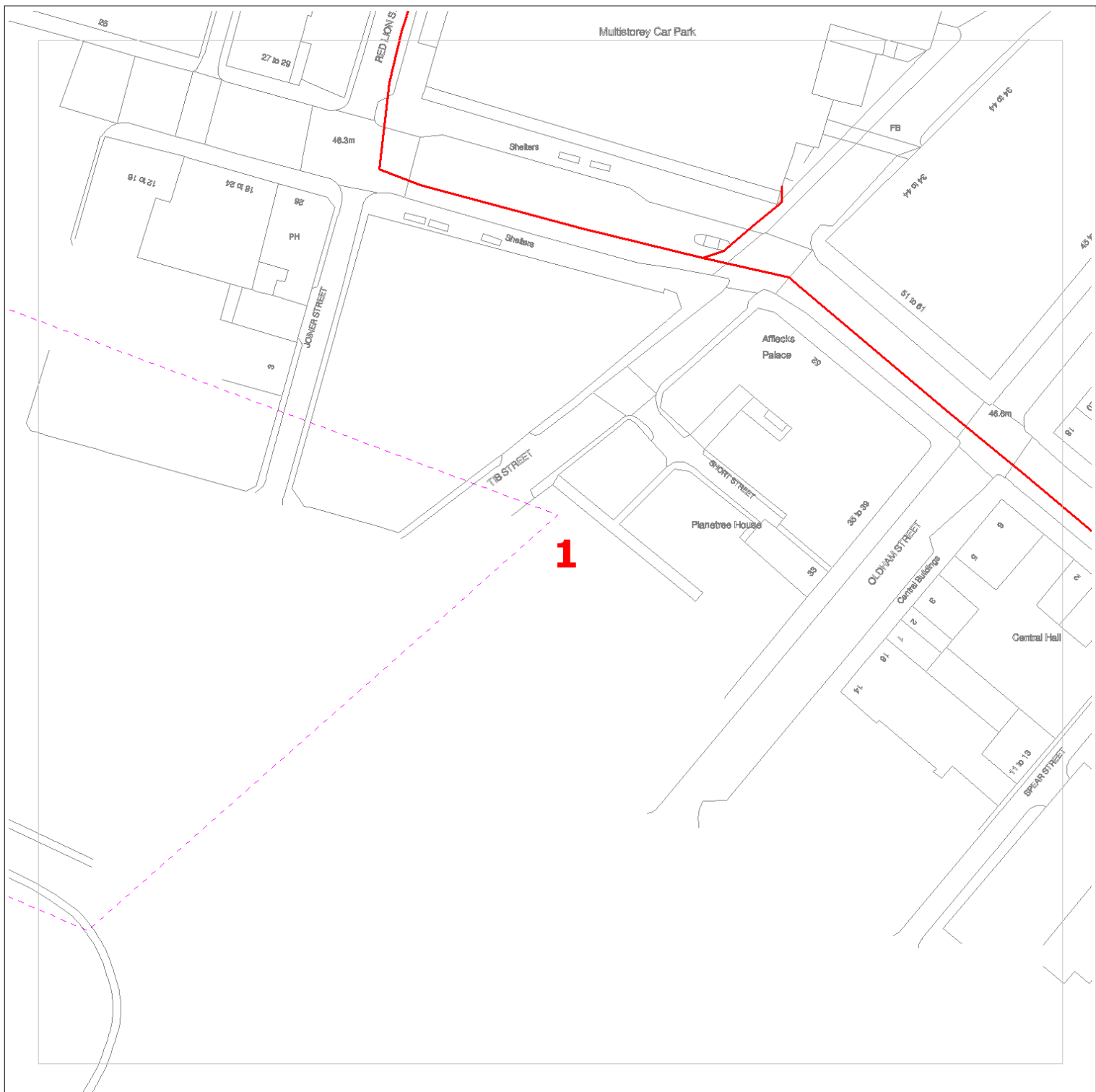
Mains on this project are designed to the latest edition of IGE/TD/3
Services on this project are designed to the latest edition of IGE/TD/4
All Non-Domestic Services will be installed with a service isolation valve
Manifold systems on this project are designed to the latest edition of IGE/G/5
UG Low pressure meters are designed and installed to comply with BS6400 - 1
UG Medium pressure meters are designed and installed to comply with BS6400 - 2
UG16 meters or greater are designed and installed to the latest Edition of IGE/GM/6 - IGE/GM/7 - IGE/GM/8
Ventilation and Hazardous area classifications for meter rooms and enclosures are in accordance with IGE/GM/6 - IGE/GM/7 - IGE/GM/8 - IGE/G/5



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Date Requested: 13/03/2023

Job Reference: 28818101

Your Scheme/Reference: U23-8536

— ZAYO DUCT
 ■ or ■ ZAYO CHAMBER

Dig Sites: Line --- Area - - - - -

Scale on A4 paper: 1:1000

The information on this document is proprietary and shall not be used, copied, reproduced or disclosed in whole or in part without written consent of Zayo Group UK Ltd. Approximate location only is shown. To determine exact location a trial hole must be dug with a Zayo Group UK Ltd Supervisor present. Zayo Group UK Ltd and JSM Construction Ltd accept no liability for errors or omissions.



Protecting Lives, Cables & Pipes

Warning: PDF designed for colour print only with no page scaling. This Information is given as a guide only and its accuracy cannot be guaranteed



In Emergency Only and if Zayo Plant or Cables damaged call: 0800 169 1646

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zayo
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zayoplantenquiries@jsmgroup.com

Non LSBUD Members

<u>Company</u>	<u>Report Y / N</u>
Arelion	N
Colt Technology	N
Cross Rail	N
ENGIE	N
EU Networks	N
Instalcom	N
KPN	N
Last Mile	N
Mobile Broadband	N
Network Rail	N
Sky UK	N
SOTA	N
Transport for London	N
Utility Assets	N
Verizon	N



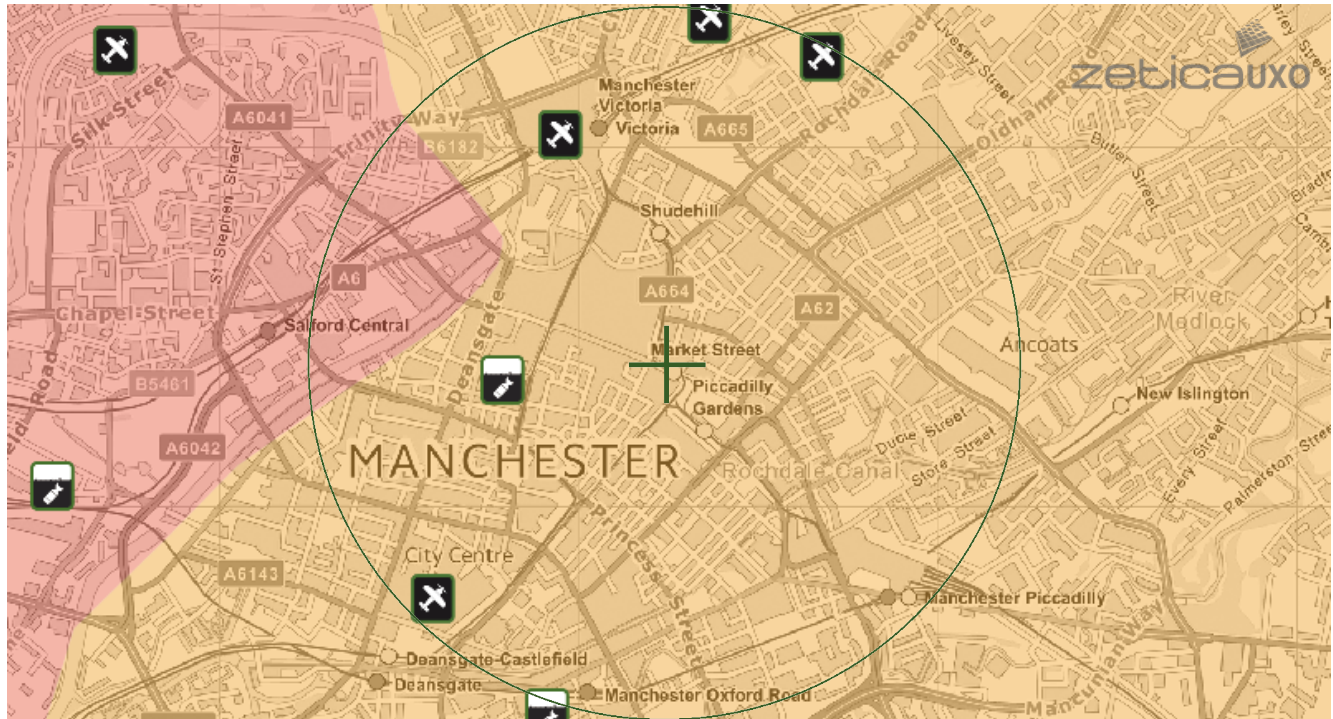
www.zeticauxo.com

UNEXPLODED BOMB RISK MAP



SITE LOCATION

Location: M60 1TA,
Map Centre: 384252,398399



LEGEND

- High:** Areas indicated as having a bombing density of 50 bombs per 1000acre or higher.
- Moderate:** Areas indicated as having a bombing density of 15 to 49 bombs per 1000acre.
- Low:** Areas indicated as having 15 bombs per 1000acre or less.

- military
- industry
- UXO find
- transport
- dock
- Luftwaffe targets
- utilities
- Bombing decoy
- other

How to use your Unexploded Bomb (UXB) risk map?

The map indicates the potential for Unexploded Bombs (UXB) to be present as a result of World War Two (WWII) bombing.

You can incorporate the map into your preliminary risk assessment* for potential Unexploded Ordnance (UXO) for a site. Using this map, you can make an informed decision as to whether more in-depth detailed risk assessment* is necessary.

What do I do if my site is in a moderate or high risk area?

Generally, we recommend that a detailed UXO desk study and risk assessment is undertaken for sites in a moderate or high UXB risk area.

Similarly, if your site is near to a designated Luftwaffe target or bombing decoy then additional detailed research is recommended.

More often than not, this further detailed research will conclude that the potential for a significant UXO hazard to be present on your site is actually low.

Never plan site work or undertake a risk assessment using these maps alone. More detail is required, particularly where there may be a source of UXO from other military operations which are not reflected on these maps.

If my site is in a low risk area, do I need to do anything?

If both the map and other research confirms that there is a low potential for UXO to be present on your site then, subject to your own comfort and risk tolerance, works can proceed with no special precautions.

A low risk really means that there is no greater probability of encountering UXO than anywhere else in the UK.

If you are unsure whether other sources of UXO may be present, you can ask for one of our **pre-desk study assessments (PDSA)**

If I have any questions, who do I contact?

tel: **+44 (0) 1993 886682**

email: **uxo@zetica.com**

web: **www.zeticauxo.com**

The information in this UXB risk map is derived from a number of sources and should be used in conjunction with the accompanying notes on our website: (<https://zeticauxo.com/downloads-and-resources/risk-maps/>)

Zetica cannot guarantee the accuracy or completeness of the information or data used and cannot accept any liability for any use of the maps. These maps can be used as part of a technical report or similar publication, subject to acknowledgment. The copyright remains with Zetica Ltd.

It is important to note that this map is not a UXO risk assessment and should not be reported as such when reproduced.

*Preliminary and detailed UXO risk assessments are advocated as good practice by industry guidance such as CIRIA C681 'Unexploded Ordnance (UXO), a guide for the construction industry'.



Environment
Agency

www.flood-map-for-planning.service.gov.uk

Flood map for planning

Your reference
<Unspecified>

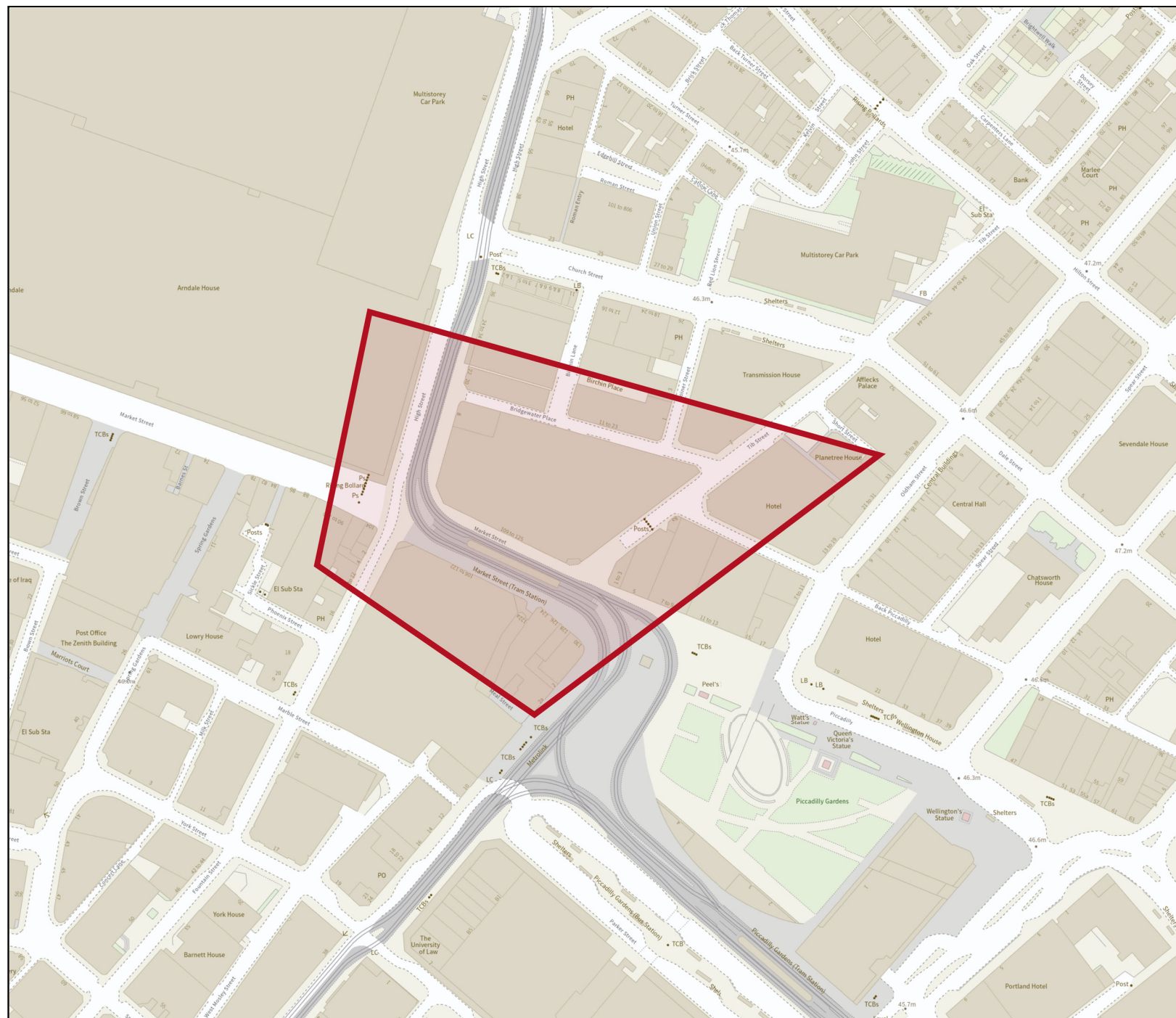
Location (easting/northing)
384289/398404

Scale
1:2500

Created
13 Mar 2023 11:32

-  Selected area
-  Flood zone 3
-  Flood zone 2
-  Flood zone 1
-  Flood defence
-  Main river
-  Water storage area

0 20 40 60m



Flood map for planning

Your reference
<Unspecified>

Location (easting/northing)
384289/398404

Created
13 Mar 2023 11:32

Your selected location is in flood zone 1, an area with a low probability of flooding.

You will need to do a flood risk assessment if your site is **any of the following**:

- bigger than 1 hectare (ha)
- In an area with critical drainage problems as notified by the Environment Agency
- identified as being at increased flood risk in future by the local authority's strategic flood risk assessment
- at risk from other sources of flooding (such as surface water or reservoirs) and its development would increase the vulnerability of its use (such as constructing an office on an undeveloped site or converting a shop to a dwelling)

Notes

The flood map for planning shows river and sea flooding data only. It doesn't include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.

Flood risk data is covered by the Open Government Licence **which** sets out the terms and conditions for using government data. <https://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/>

Use of the address and mapping data is subject to Ordnance Survey public viewing terms under Crown copyright and database rights 2022 OS 100024198. <https://flood-map-for-planning.service.gov.uk/os-terms>

Streetlights



www.gov.uk



1. [Wall-mounted street light, unit no: 0002, Side Of Birch Place, Birchin Lane](#)
2. [Street light, unit no: 0003, Junction Of Bridgewater Place, Birchin Lane](#)
3. [Street light, unit no: 0001, Only Col In Street, Birchin Place](#)
4. [Street light, unit no: 0001, Side Of 1-22, Bridgewater Place](#)
5. [Wall-mounted street light, unit no: 0003, Opp Junction Of Joiner Street, Bridgewater Place](#)
6. [Wall-mounted street light, unit no: 05, On Debenhams Outside 109, Market Street](#)
7. [Wall-mounted street light, unit no: 20, Side Of Debenhmas, Tib Street](#)
8. [Wall-mounted street light, unit no: 0002, Opposite 11-23, Bridgewater Place](#)
9. [Lit road sign, unit no: S01, Opposite Joiner Street, Bridgewater Place](#)
10. [Lit road sign, unit no: S02, Junction Of Bridgewater Place On Col 3, Birchin Lane](#)
11. [Lit road sign, unit no: S02, Junction Of Bridgewater Place, Joiner Street](#)
12. [Electrical power box, unit no: FP, Under Lantern 02, Birchin Lane](#)
13. [Electrical power box, unit no: FP, Under Wall Light 02, Bridgewater Place](#)
14. [Lit road sign, unit no: S05, Junction Of Birchin Place, Bridgewater Place](#)
15. [Street light, unit no: 02, Side Of 1, Joiner Street](#)

Electric- Electricity North West

Customer Letter
Conditions and Information

~

Gas- Cadent

None

~

Water- United Utilities

Customer Letter

~

Cable TV- Virgin Media

None

Telecoms: Vodafone

Letter

~

GTC

GTC Letter

~

LSBUD Members

Fulcrum Letter
Zayo Letter



Electricity North West
Data Management,
Electricity North West
Linley House
Dickinson Street
Manchester, M1 4LF
Phone: 0800 195 4141
Email: planrequest@enwl.co.uk
Web: www.enwl.co.uk

Our Reference: 28818101

Your Reference: U23-8536

Electricity Network Plans

I acknowledge with thanks your request dated 13/03/2023 11:29:42 AM for information on the location of our services.

Please find enclosed plan(s) showing the approximate position of our apparatus known to be in the vicinity of this site.

I attach Conditions and information regarding electricity mains, which details contact numbers for additional services (i.e. new supplies, connections, diversion). In addition you should ensure they are made available to anyone carrying out any works which may affect our apparatus.

Yours sincerely,

Data Management

Conditions and information regarding electricity mains

These general conditions and precautions apply to the electricity distribution system of Electricity North West Limited.

Please ensure that a copy of these conditions is passed to your representative and contractor on site.

1. There may be other Electricity North West Limited apparatus in the vicinity, which is not indicated on the cable records. Other apparatus may also be present which a third party owns other than Electricity North West Limited
2. Before any machines are used all of Electricity North West's underground apparatus should be located by manual excavation taking the appropriate safety precautions in accordance with the **Health and Safety Executive Guidance note HS(G)47 "Avoiding danger from underground services"**. This contains advice to site personnel when working near underground services.

Underground services, particularly electricity and gas, can be dangerous. Damage to electricity cables can cause a dangerous flash, leading to severe burns or even death. Gas leaks can cause fire or explosion.

Damage can result from excavation or penetration of the ground, e.g. by a road pin.

Underground services may be found in roads, footpaths and on sites. Always assume that they are present. Treat any services found anywhere as live.

Accidents have happened because people have mistaken one service for another, e.g. black plastic covered electricity cables look like black plastic water pipes and cast iron gas and water mains look alike. Check before you act.

3. Before starting work you must:
 - Make sure you have plans of the underground services in the area. This may not always be possible for emergency or unforeseen works. **Remember that service connection cables and pipes from the main to building or streetlight may not be shown.**
 - Use a cable and pipe locator to trace electricity cables and metal pipes.
 - Look for signs of service connection cables or pipes, e.g. a gas meter or service connection entry into a house or a streetlight.
 - Hand dig trial holes (as many as necessary) to confirm the position of services in close proximity to the area of work.

4. When you start work:

- Hand dig near buried services whenever possible. Spades and shovels are safer than picks, pins or forks.
- Remember that cables may be embedded in concrete. Electricity cables embedded in concrete **must** either be made dead before the concrete is broken out or another safe way of working agreed with the cable owner.
- Watch out for signs of services as work continues.
- Report damage to a cable, pipe or pipe coating however slight.
- Do not use hand held power tools within 0.5m of the marked position of an electricity cable, unless this is impracticable and the line of the cable has been identified by plans and positively confirmed by a locator.
- Do not use hand held power tools directly over the marked line of cable unless:
 - a) You have already found the cable at that position by careful hand digging beneath the surface and it is at a safe depth (at least 300mm) below the bottom of the surface to be broken, or
 - b) Physical means have been used to prevent the tool striking it.
- If an excavator is used near an electricity cable keep everyone clear of the bucket while it is digging. Buckets should not be used near cable – hand dig.
- Do not use exposed services as a convenient step or handhold.
- Do not handle or attempt to alter the position of an exposed service.
- Do not install plant close to an existing service.
- Do not build existing services into a manhole or other structure or encase them in concrete.

Would you also ensure that all site operators have this information and if any electrical apparatus is damaged, they/you should contact Electricity North West Limited fault desk on **0800 195 4141 (option 1)**

5. Overhead lines are not necessarily shown on the Electricity North West Limited cable records but may be present. In the event of work being carried out adjacent to overhead lines (including access, storage etc.) please always ensure strict adherence to the requirements of the **Health and Safety Executive's Document GS6 "Avoidance of Danger from Overhead Electric Lines"**.

Extreme personal danger can result from contact, or near contact, with live conductors or overhead lines.

Treat all overhead lines and other electrical apparatus as live. If in doubt, get advice.

6. Electricity North West Limited must be consulted if work is to take place within 15 metres of overhead lines on steel towers or 9 metres of overhead lines on wood, concrete or steel pylons. (All distances should be measure at ground level from a position estimated by eye to be vertically under the outermost conductor at a tower or pole position) Any person involved in work in the vicinity of overhead lines should:
- Understand and follow the instructions given on safe working areas and methods of work.
 - Make sure that warning notices are in the cabs of machines working in the vicinity of an overhead line.
 - Make sure that barriers and warning notices are erected as required.
 - Not tip soil or stack material underneath overhead lines as this may reduce the clearance to an unsafe distance.
 - Make sure when handling or using platforms, scaffold, poles, piping, ladders, hand tools etc., that they are kept at a safe distance from overhead lines.
 - Not steady a suspended load, skip, hoist wire, slings etc., unless satisfied that there isn't any danger from overhead lines.
 - Remember that when mobile plant, such as a crane or excavator, is operating near overhead lines, the raising or slewing of the jib may introduce danger.
 - Always keep overhead lines in view when manoeuvring mobile plant.
 - Never operate a machine unless carefully guided by an experienced banksman.
 - Not approach or touch any broken or fallen conductors or any plant in contact with an overhead line before Electricity North West Limited confirms that conditions are safe. Warn others to keep well clear.

Machine operators should note that: if a machine comes into contact with an overhead line and cannot be disentangled by backing off, remain seated in the cab and warn others to keep clear of the machine until Electricity North West Limited confirms that conditions are safe. If it is essential to

leave the machine while it is in contact with the overhead line, for example if it catches fire, jump well clear – and **do not** attempt to climb down in the normal way nor touch any part of the machine when on the ground.

7. Electricity North West Limited provides approximate locations of its electricity mains or apparatus according to its records but these records are not necessarily accurate or complete and do not always show the position of private cables from mains to properties. No person or company shall be relieved from liability for any damage caused by reason of the actual positions and/or depths being different from those indicated.

8. Care should be taken when excavating near cables. Known road crossings are highlighted on the enclosed plans. Should any cable, or Electricity North West Limited apparatus indicated on the attached plans, be affected by your proposals please contact us as follows:

Data Management
Linley House
Dickinson St
Manchester
M1 4LF

Telephone: **0800 195 4141 (option 2)**

Details of diversion costs, if any, will be provided on request once your firm proposals have been submitted.

9. Please note that service cables may be affected by some of the works being carried out on site.

If any services do require temporary disconnection please phone **0800 195 4141 (option 2)** for domestic and commercial disconnection, so that arrangement can be made to disconnect before work commences on site.

10. For information regarding supplies please contact us on **0800 195 4141 (option 2)**.

11. Please note that cable records supplied may not be up to date, or may be incomplete, if the area concerned is a new site.

12. For information regarding wayleave or easement agreements contact:

Manchester	08433 115157
Preston	08433 113969
Kendal	08433 115155

13. The latest cable records are always available for inspection during normal working hours and you should satisfy yourself that the information you have is up to date at the time you commence work. This service is consistent with the requirement of Regulation 36 of the Electricity Supply Regulations and paragraph 79 of the New Road and Street Works Act.

Please contact Data Management on **0800 195 4141 (option 2)** to arrange an appointment to view the records.



304 Bridgewater Place
Birchwood Park
Warrington
WA3 6XG

www.enwl.co.uk

Registered in England and Wales
Registered Number 2366949

I acknowledge with thanks your request dated 13/03/2023 for information on the location of our services.

Please find enclosed plans showing the approximate position of United Utilities' apparatus known to be in the vicinity of this site.

The enclosed plans are being provided to you subject to the United Utilities terms and conditions for both the wastewater and water distribution plans which are shown attached.

If you are planning works anywhere in the North West, please read United Utilities' access statement before you start work to check how it will affect our network. <http://www.unitedutilities.com/work-near-asset.aspx>.

I trust the above meets with your requirements and look forward to hearing from you should you need anything further.

If you have any queries regarding this matter please [contact us](#).

Yours Faithfully,



Karen McCormack
Property Searches Manager

TERMS AND CONDITIONS - WASTEWATER AND WATER DISTRIBUTION PLANS

These provisions apply to the public sewerage, water distribution and telemetry systems (including sewers which are the subject of an agreement under Section 104 of the Water Industry Act 1991 and mains installed in accordance with the agreement for the self construction of water mains) (UUWL apparatus) of United Utilities Water Limited "(UUWL)".

TERMS AND CONDITIONS:

- This Map and any information supplied with it is issued subject to the provisions contained below, to the exclusion of all others and no party relies upon any representation, warranty, collateral contract or other assurance of any person (whether party to this agreement or not) that is not set out in this agreement or the documents referred to in it.
- This Map and any information supplied with it is provided for general guidance only and no representation, undertaking or warranty as to its accuracy, completeness or being up to date is given or implied.
- In particular, the position and depth of any UUWL apparatus shown on the Map are approximate only. UUWL strongly recommends that a comprehensive survey is undertaken in addition to reviewing this Map to determine and ensure the precise location of any UUWL apparatus. The exact location, positions and depths should be obtained by excavation trial holes.
- The location and position of private drains, private sewers and service pipes to properties are not normally shown on this Map but their presence must be anticipated and accounted for and you are strongly advised to carry out your own further enquiries and investigations in order to locate the same.
- The position and depth of UUWL apparatus is subject to change and therefore this Map is issued subject to any removal or change in location of the same. The onus is entirely upon you to confirm whether any changes to the Map have been made subsequent to issue and prior to any works being carried out.
- This Map and any information shown on it or provided with it must not be relied upon in the event of any development, construction or other works (including but not limited to any excavations) in the vicinity of UUWL apparatus or for the purpose of determining the suitability of a point of connection to the sewerage or other distribution systems.
- No person or legal entity, including any company shall be relieved from any liability howsoever and whensoever arising for any damage caused to UUWL apparatus by reason of the actual position and/or depths of UUWL apparatus being different from those shown on the Map and any information supplied with it.
- If any provision contained herein is or becomes legally invalid or unenforceable, it will be taken to be severed from the remaining provisions which shall be unaffected and continue in full force and affect.
- This agreement shall be governed by English law and all parties submit to the exclusive jurisdiction of the English courts, save that nothing will prevent UUWL from bringing proceedings in any other competent jurisdiction, whether concurrently or otherwise.



Special Requirements relating to the External Plant Network of Vodafone

Contents

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1. Introduction

This document sets out the procedure that will apply when Other Parties intend or are undertaking works in the vicinity of Vodafone apparatus (see Appendix B for further information on what constitutes Vodafone apparatus).

2. Purpose of document

This document provides a means by which the Vodafone specific special requirements relating to their apparatus, regardless of it being situated in the public highway / road, private street, land or any other areas, is made aware to Other Parties.



3. Scope

This document will be presented to Other Parties or Contractors to encourage those undertaking works within the vicinity of Vodafone apparatus to refer to and comply with. This is in order to protect where necessary the Vodafone apparatus and to avoid damage to the apparatus and loss of service.

A National Joint Utilities Group (NJUG) document NJUG Volume 3 Guidelines on the Management of Third Party Cable Ducting provides useful reference material.

It should be noted that, where appropriate, additional information on avoiding danger from underground apparatus is contained within the HSG47 guidance book titled "Avoiding Danger from Underground Services."

4. Vodafone Network and Apparatus

Damage to Vodafone apparatus is extremely disruptive and can be expensive to repair, especially where long lengths of cable have to be replaced.

In order to maintain the network integrity and minimise disruption to service, it is essential that disturbances are absolutely minimal. When working within the vicinity of Vodafone apparatus, extreme care is necessary in order to avoid costly repairs. The Other Parties / Contractor shall make every effort to ensure that disturbance of Vodafone apparatus is no more than is absolutely necessary for the completion of the works in accordance with their contract. It should be noted that it is an offence to interfere with Vodafone apparatus without first contacting the company for advice.

5. Plant records

It is the responsibility of the Other Parties undertaking works which may affect Vodafone apparatus to obtain all relevant Vodafone plant records from our agent Atkins Global prior to works commencing. This may be done by contacting the Atkins Global Plant Enquiries Team listed in Appendix B.

Plant records for such enquiries will generally be provided within 10 working days of receipt and in compliance with the New Roads and Street Works Act 1991 [NRSWA] requirements.

6. Definitions

The following definitions are applicable in this document:

- a) **Apparatus** - means all surface or sub-surface equipment and plant used by Vodafone including any associated cables or ducts owned, leased or rented by Vodafone.
- b) **Cable** - means any polythene or other sheath containing optical fibres or metallic conductors.
- c) **Depth of cover** - means the depth from the surface to the topmost barrel of the duct nest, in the case of ducts encased in concrete, to the top of the concrete, and in the case of directly buried cable, the top of the cable.
- d) **Jointing chamber** - means any manhole, surface box or other chamber giving access to Vodafone apparatus or their network.
- e) **Utility** - means an organisation licensed to provide gas, water, electricity, Cable TV or telecommunications services.
- f) **Developer** - means an organisation licensed to develop industrial/residential premises or given license to connect to utility apparatus.



- g) **Contractor** - means the individual, firm or company contracted to undertake the work for a Utility or Other Parties.
- h) **Other Parties** - means the Utilities, Highway or Roads Authorities, Developers, Street/Roads Authority Section 50/109 licensees
- i) **Site** - means the location of, or in the vicinity of, the various works.

7. Requirements

Prior to commencing any work or moving heavy plant or equipment over any portion of the site, the Other Parties or Contractor shall notify Vodafone of their intentions. This may be done by contacting Vodafone via the contact list in Appendix B.

Upon receipt of this notification, Vodafone will identify if their apparatus is affected. If any Vodafone apparatus is affected by the works then they will arrange for the necessary records to be provided and confirm details of Vodafone apparatus and network operated within the affected area or adjacent to the proposed work site.

7.1 Location of Plant

It is the responsibility of the Other Parties or Contractors to undertake adequate plant location procedures. These may include searches for metallic cables which must be performed by actively inducing a signal in a cable conductor via a transmitter. A passive search is not considered sufficient.

Before applying a tracing signal to the Vodafone apparatus, the Other Parties or Contractors shall seek confirmation from Atkins Global that the Vodafone apparatus will not suffer any disruption to its networks normal workings as a result of the nature of the signal being induced.

7.2 Trial excavations

Optic fibre cables are very susceptible to damage from excavation tools. They are not electrically conductive and cannot be located by radio induction methods. Once an approximate location is known, the exact location must be ascertained by means of hand dug pilot holes. Where the work to be carried out by the Other Party or Contractor involves excavation in the vicinity of our apparatus, the Other Party or Contractor shall, by trial excavation at his own expense, determine the exact location and depth of the Vodafone apparatus. All excavations adjacent to the Vodafone apparatus are to be carried out by hand until the extent and /or location of the apparatus is known.

All excavation work shall be executed in accordance with the current issue of Health and Safety series booklet HSG47, Avoiding danger from underground services.

8. Depths of cover

The Other Party or Contractor should note that the minimum depths of cover for Vodafone apparatus shall be maintained together with specified separation requirements. Where the minimum depths of cover specified by Vodafone cannot be maintained, the Other Party or Contractor shall at their own expense, carry out the instructions of Vodafone requirements for the protection or diversion of their apparatus.

The Other Party or Contractor should have particular regard to the possibility of encountering Vodafone apparatus (including ducts and cables), at depths of cover other than that reported.

Surface cables (such as cables on bridges or walls) which are liable to be placed in danger from the Other Parties or Contractors works shall be protected, at the Other Parties expense, as directed by the Vodafone representative.

9. Separation

Reference should be made to HSG47 to ensure that adequate separation is achieved. The following details outline the specific requirements of Vodafone and capture the HSG47 requirements.



9.1 High voltage cables

High voltage single core cables of 1000 V and above shall have a minimum clearance from Company Apparatus of 500 mm.

High voltage multi-core cables of 1000 V and above shall have a minimum clearance from Company Apparatus of 350 mm.

In exceptional circumstances where the above clearances cannot be maintained, the separating distance may be reduced to a minimum of 175 mm. In such circumstances, concrete, of a quality as directed by the Company Representative, must be inserted to completely fill the space between the High Voltage cable and the Company Apparatus, in accordance with the requirements of the Company Representative. Any further services must have a minimum clearance of 250 mm from the concrete.

9.2 Low voltage cables

Low voltage cables of less than 1000 V shall have a minimum clearance from Company Apparatus of 180 mm. In exceptional circumstances where the above clearance cannot be maintained, the separating distance may be reduced to a minimum of 75 mm. In such circumstances, concrete, of a quality as directed by the Company Representative, must be inserted to completely fill the space between the services, in accordance with the requirements of the Company Representative. Any further services must have a minimum clearance of 250 mm from the concrete.

9.3 Ancillary electrical apparatus

Street furniture such as lamp posts, traffic posts and other such ancillary electrical apparatus shall have a minimum clearance of 150 mm from underground Company Apparatus and 600mm clearance from above ground Company Apparatus.

9.4 High pressure gas mains and other Undertakers plant/equipment

High pressure gas mains shall have a minimum clearance of 450 mm from Company Apparatus. All other undertakers' plant and equipment, when running in parallel with Company Apparatus, shall have a minimum clearance of 200mm. Where gas mains cross Company Apparatus, the minimum clearance shall be 200mm. All other undertakers' plant and equipment, when running across Company Apparatus, shall have a minimum clearance of 100 mm. NJUG Volume 1, Guidelines on the positioning and colour coding of underground utilities' apparatus refers.

9.5 Other Undertakers plant

Other undertakers' plant and equipment which runs in parallel with Company Apparatus shall have a minimum clearance of 200mm. All other undertakers' plant and equipment when running across Company Apparatus shall have a minimum clearance of 100mm.

9.6 Tramways

Each separating distance shall be individually agreed with the Company Representative.

10. Jointing chambers

10.1 Protection

Footway type jointing chambers are not designed to withstand carriageway loadings.

Where such chambers are liable to be placed at risk, either temporarily or permanently, from vehicular traffic or from the movement of plant and/or equipment, they will need to be adequately protected. Alternatively, they may have to be demolished and rebuilt to carriageway standards, at the Other Parties or Contractors expense under supervision of Vodafone representative.



All Vodafone jointing chambers and / or other access points shall be kept clear and unobstructed. Access for vehicles, winches, cable drums and / or any further equipment required by Vodafone for the maintenance of its apparatus, must be maintained at all reasonable times.

10.2 Access

The covers to Vodafone jointing chambers and / or apparatus shall only be lifted by means of the appropriate keys and under the direct supervision of a Vodafone representative. Other Parties or Contractors shall not enter any Vodafone jointing chamber and / or apparatus unless under the supervision of a Vodafone representative and in any case not before the mandatory gas test has been carried out in the presence of Vodafone representative and such checks have shown it to be safe to enter the Vodafone chamber and / or apparatus. The Other Parties or Contractors shall be given reasonable access to Vodafone apparatus and chambers when required.

11. Notification periods

Where the Other Parties or Contractors works or the movement of plant or equipment may endanger Vodafone apparatus, the Other Party or Contractor shall give the Vodafone at least 7 working days' notice in writing of the intended date to commence operations.

No excavation should be made without first consulting the relevant Vodafone apparatus layout drawings, which will be made available from the Vodafone agent Atkins Global on request and allowing 28 working days for processing the relevant drawings. However, should this not be possible, direct contact should be made to the Atkins Global Plant Enquiries Team as soon as possible to assess the situation.

When excavating, moving or backfilling (including use of Foamed Concrete for Reinstatements – FCR) around Vodafone apparatus, Vodafone shall be given adequate prior written notice of the Other Parties or Contractors intentions, in order that the works may be adequately supervised. Such notice shall not be less than 3 working days.

12. Excavation and backfill

All excavations adjacent to Vodafone apparatus are to be carried out by hand until the extent and or location of the Vodafone apparatus is known.

Use of mechanical borers and / or excavators shall not be used without the supervisory presence of a Vodafone representative or a given exemption.

Shuttering of the excavation or support to Vodafone apparatus, at the Other Parties or Contractors expense, shall be used as directed by the Vodafone representative.

At least 7 working days' notice must be given to Vodafone in order that any special protective measures which may be required to protect Vodafone apparatus, at the Other Parties or Contractors expense, when equipment such as pile driving, explosives, laser cutting high powered RF equipment or RF test gear, is to be used in conjunction with the works.

Other Parties or Contractors are advised to refer to the National Joint Utilities Group publication: NJUG Volume 1- Guidelines on the Positioning and Colour Coding of Underground Utilities' Apparatus

13. Foam concrete

If foam concrete is being used as the backfill material, it shall not be used either above or within 500 mm of any Company Apparatus. A suitable material in accordance with the specification for the Reinstatement of Openings in Highways shall be substituted.



14. Attendance of Company Representative

If a situation requires the attendance on site of a Vodafone representative for a continuous period of more than 6 hours, suitable facilities shall be provided by the Other Party or Contractor, at their expense, to meet the office and ablution requirements. If a situation arises that requires urgent attention Vodafone will endeavour to attend site within 2 hours for all other occasions arising, 24 hours.

15. Damage reports

In the event of any damage whatsoever occurring to Vodafone apparatus, the Other Party or Contractor shall immediately inform Vodafone by contacting their 24/7 number , (for contact details please refer to Appendix A).

All relevant costs of any subsequent repair and / or removal of the Vodafone apparatus shall be charged to the Other Party or Contractor, irrespective of who affects the repair.

The above requirements do not relieve the Other Party or Contractor of any of their obligations under their contract.



16. Appendix A – Street Works Team Contacts for Vodafone

Function	Address	Phone	Email Address
Streetworks Team	Vodafone Damage Claims, Pavilion 4, 1-2 Berkeley Square, 99 Berkeley Street Glasgow G3 7HR	0333 304 0759	utilitiescentre@vodafone.com
Customer Complaints	n/a	0333 304 0762	n/a
Liability Claims Or Damage to Vodafone Apparatus	Vodafone Damage Claims, Pavilion 4, 1-2 Berkeley Square, 99 Berkeley Street Glasgow G3 7HR	0333 304 1104	claims@vodafone.com
Diversionary Works C2/C3	Atkins Global, PO Box 290, 500 Aztec West, Almondsbury, Bristol, BS32 4RZ.	T: 01454 662881 F: 01454 663330	osm.enquiries@atkinsglobal.com
Diversionary Works C4 / Escalations	Smale House, Floor 2E, 114 Great Suffolk Street, London, SE1 OSL	02075281485	c3requests@vodafone.com
Emergencies 24 Hour – Defects & Faults	n/a	0333 304 0762	n/a
Plant Enquiries Vodafone inc: Cable & Wireless; Mercury Communications; Thus Plc; Energis; Scottish Telecom; Your Comms; Norweb Comms	Atkins Global PO Box 290 500 Aztec West, Almondsbury, Bristol, BS32 4RZ	T: 01454 662881 F: 01454 663330	osm.enquiries@atkinsglobal.com



17. Appendix B – What constitutes Vodafone Network

Vodafone own fibre network dedicated to business and residential users of telecommunications and has an international cable network that provides connectivity to 153 countries, either directly or indirectly through partners, reaching across the Atlantic Ocean, through Europe and on to India and throughout Asia. Spanning approximately 500,000 km in length, including interests in more than 69 major global cable systems, our next-generation network improves the quality and performance of telecommunications services through our use of advance optical and IP transmission.

In the UK & Ireland Vodafone's overall network includes the following legacy networks now owned through acquisitions or Company name changes.

Below are examples of what you could see on the streets and should be aware of:



Vodafone Limited



Cable & Wireless U.K





Mercury Communications Limited



Energis Communications Limited



Thus plc





Scottish Telecom



Your Communications





Norweb Communications



Our apparatus is installed in roads and streets of UK and Ireland, however in some places is undistinguishable from other operators' apparatus, for example in City Centres where high quality infill modular paving chamber covers are found; some with labels and some without.

See below as examples:





The apparatus shown here is now owned, maintained and still in operation by Vodafone and includes.

Vodafone Limited

Cable & Wireless U.K

Mercury Communications Limited

Energis Communications Limited

Thus plc, now Thus Group Holdings Limited

Your Communications Group Limited

Please see the Contact Details in Appendix A for Plant Enquiries and help on site.



18. About this Document

Content Owner

Changes since last version

Reformatted using the current Vodafone template to include updated Contact Details .

End of Document

GTC Apparatus Not Found In Search Area

Our Plant Enquiry Service Ref: 3230556

Your Enquiry Ref: U23-8536

Thank you for your enquiry concerning apparatus in the vicinity of your proposed work. GTC can confirm that we have no apparatus in the vicinity but please note that other asset owners may have and ensure all utility owners have been consulted. For your records, the search area is shown in the attached map.

Please note our assets now include those owned and operated by:

- GTC Pipelines Limited
- Independent Pipelines Limited
- Quadrant Pipelines Limited
- Electricity Network Company Limited
- Independent Power Networks Limited
- Independent Water Networks Limited
- Open Fibre Networks Limited
- Independent Community Heating Limited

If you have any queries or require any further information please do not hesitate to contact us.

Your sincerely,

GTC Plant Enquiry Service.

GTC
Synergy House
Woolpit Business Park
Woolpit
Bury St Edmunds
Suffolk, IP30 9UP
Tel: 01359 240363
plant.enquiries@gtc-uk.co.uk

NOTE:

This E-Mail originates from GTC, Synergy House, Woolpit Business Park, Woolpit, Bury St Edmunds, Suffolk, IP30 9UP

VAT Number: GB688 8971 40. Registered No: 029431.

DISCLAIMER

The information in this E-Mail and in any attachments is confidential and may be privileged. If you are not the intended recipient, please destroy this message, delete any copies held on your system and notify the sender immediately. You should not retain, copy or use this E-Mail for any purpose, nor disclose all or any part of its content to any other person. Whilst we run antivirus software on Internet E-Mails, we are not liable for any loss or damage. The recipient is advised to run their own up to date antivirus software.

Thank you

ALERT

Appendix 1

Safe working practices in the vicinity of metallic valves

All operatives are required to adhere to the following precautionary measures when working on or near metallic valves.

Where the valves are likely to be encountered?

In any location above or below ground, for example (please note this list is not exhaustive):

- Buried line valves
- Governor installations
- Meter installations
- ECVs / Construction valves
- Valve associated with outlet pipe work
- Metallic valves installed by other utilities (e.g. water)

REQUIRED ACTION

Below Ground

- DO NOT use hand held power tools or mechanical excavator within 0.5m (500mm) either side of the valve, or above the valve position.
- When excavating to expose a valve, dig down at the side of the marked position, and not directly above. Use an air lance, spades and shovels rather than grafts, forks or picks.
- DO NOT position yourself directly over or in front of the valve bonnet at any time, as should the valve fail catastrophically, parts of it and/or escaped gas and other materials could be ejected out. Should anything unusual become evident e.g. smell of gas, noise or ejection of material from the excavation – STOP, withdraw and contact National Gas Emergency Service on 0800 111 999
- DO NOT attempt to operate valve or remove any protective coatings.

In the Event of an Emergency

If there is a smell of gas you must take the following actions IMMEDIATELY:

- Stop work and get everyone away from the immediate vicinity of the escape
- Inform the National Gas Emergency Service on 0800 111 999
- DO NOT attempt to stop the escape by filling the excavation as gas may enter buildings

Issued by: Fulcrum Pipelines Limited

Date: June 2016

Version: 1.0

Design it well, Build it Correctly, Do it Safely



Zayo Plant Protection Centre

c/o JSM Group Ltd
Plant Protection Department
Sterling House
Mutton Lane
Potters Bar
Herts, EN6 3AR

Date: 13/03/2023

Your Reference: U23-8536

Our Reference: 28818101

ZAYO GROUP LTD UK AFFECTED C2 PRELIMINARY PLANT ENQUIRY

We acknowledge with thanks your request dated 13/03/2023 11:28:34 AM for information on the location of our assets.

We confirm we have reviewed your proposed plan and have enclosed maps of the area in which Zayo Group UK Ltd have apparatus.

Please note these maps indicate approximate location only and their accuracy cannot be guaranteed. To determine the exact location a trial hole must be dug using extreme caution and hand dig methods only. Please refer to the attached document "Guide to Excavation within the vicinity of Zayo Apparatus".

Please forward all C3 and C4 Diversionary Estimate requests for diversionary works under the New Roads and Street Works Act 1991 "Measures necessary where apparatus is affected by Major Works (Diversionary Works), A Code of Practice", to zayodiversions@jsmgroup.com.

Please do not hesitate to contact us for further assistance.

Yours faithfully,

Zayo Group UK Ltd c/o JSM Group Ltd
JSM Plant Protection Department
T: 01992 655 919
zayoplantenquiries@jsmgroup.com

GUIDE TO CONTRACTORS UNDERTAKING EXCAVATIONS IN THE VICINITY OF ZAYO PLANT

1. Prior to commencing any work or moving heavy plant or equipment over any portion of the site, the Contractor shall confirm details of the location of the Zayo apparatus by contacting and requesting utility drawings from LinesearchbeforeUdig

All Enquirers should register free of charge for the Zayo plant enquiry service at LinesearchbeforeUdig <http://www.linesearchbeforeudig.co.uk/>

Or follow the direct link to register at <http://onecall.linesearchbeforeudig.co.uk/RegisterNewUser> and start your search there.

If you have any queries or wish to speak to a member of the JSM Plant Protection Team please call 01992 655 919.

The accuracy of information on the plans cannot be guaranteed and no liability can be accepted for errors or omissions.

2. Where the utility drawings show that the works or the movement of plant or equipment may endanger the Zayo Apparatus the Contractor must mark out the location of the Zayo Apparatus and ensure the apparatus is adequately protected from damage.
3. The contractor should note that damage to Zayo's Fibre-optic network is extremely disruptive and costly to reinstate. The Contractor shall make every effort to avoid the disturbance of Zayo's apparatus for the completion of the work.
4. When excavating, moving or backfilling around Zayo's apparatus The Contractor should note that the normal depth of cover for Zayo ducts are as follows:
 - Carriageway 600mm
 - Footway 350mm
 - Verge 350mm
5. With regard to excavation in the vicinity of Zayo's apparatus the Contractor should be aware of the possibility of reduced cover and the possibility of encountering Zayo apparatus at depths of cover less than that given above.
6. All excavation adjacent to Zayo apparatus is to be carried out by hand until the exact extent and/or location of the Zayo apparatus is known. Use spades and shovels in preference to other tools.

7. Do NOT use Mechanical borers and/or excavators within 0.5m of Zayo Apparatus.
8. To prevent any movement of Zayo apparatus during excavations, complete shuttering shall be used if:
 - The excavation is deeper than the depth of cover of the adjacent Zayo apparatus.
 - The excavation is within 1.0m of Zayo apparatus in stable ground.
 - The excavation is within 5.0m of Zayo apparatus in unstable ground.
9. If for the completion of the works the Contractor intends using any of the following:
 - Pile driving equipment within 10.0m of Company Apparatus.
 - Explosives within 20.0m of Company Apparatus.

Then the Contractor shall advise the Zayo Plant Protection Centre giving a minimum 10 working days written notice.

10. All Zayo manhole, joint box and /or other access points and chambers within the site shall be kept clear and unobstructed at all times to allow access by Zayo and /or their Contractor to carryout maintenance on the network. The Contractor should particularly note that footway type jointing chambers are not specified for carriageway loadings and will need to be adequately protected and/or demolished and rebuilt by Zayo where such chambers are likely to be placed at risk, either temporarily or permanently, from the movement of plant and/or equipment on the site.
11. The covers to Zayo chambers and/or apparatus shall only be lifted by means of appropriate manhole keys under the direct supervision of a Zayo Representative. No employee of the Contractor or of any sub-contractor employed by the Contractor shall enter any Zayo chamber and/or apparatus unless under the supervision of a Zayo Representative.
12. In the event of any damage whatsoever to Zayo apparatus, the Contractor shall immediately report the incidence to Zayo by contacting Zayo as follows:

Telephone: 0800 169 1646 (Zayo 24Hr Network Operations Centre)

Damage to Communications Plant is Expensive – Please Take Care

Please note these basic safety details are explained in detail in the HSE booklet HS(G)47 – Avoiding Danger from Underground Services.

Disclaimer

Disclaimer

This Desktop Utility Search has been compiled with information provided by Statutory Utility Providers. Whilst every effort has been made to ensure accuracy and completion with the information

N D Oliver & CO Ltd can take no responsibility for erroneous or missing record data which has been provided from any of the Statutory Utility Providers. As the nature of the information provided is indicative, not accurate, we must therefore recommend a full Underground Utility Survey before any groundwork or construction commences.

We cannot guarantee that all possible searches have been carried out and will take no responsibility for any damages done to any apparatus, due to missing searches, which may not have been conducted or carried out within this Desktop Utility Search.

N D Oliver & Co Ltd
RICS Chartered Surveyors, *Geomatics*

Jupiter House, 21 Roebuck Lane,
Sale, Manchester, M33 7SY
www.ndoliver.com



PROJECT No : **TM/22/1343**

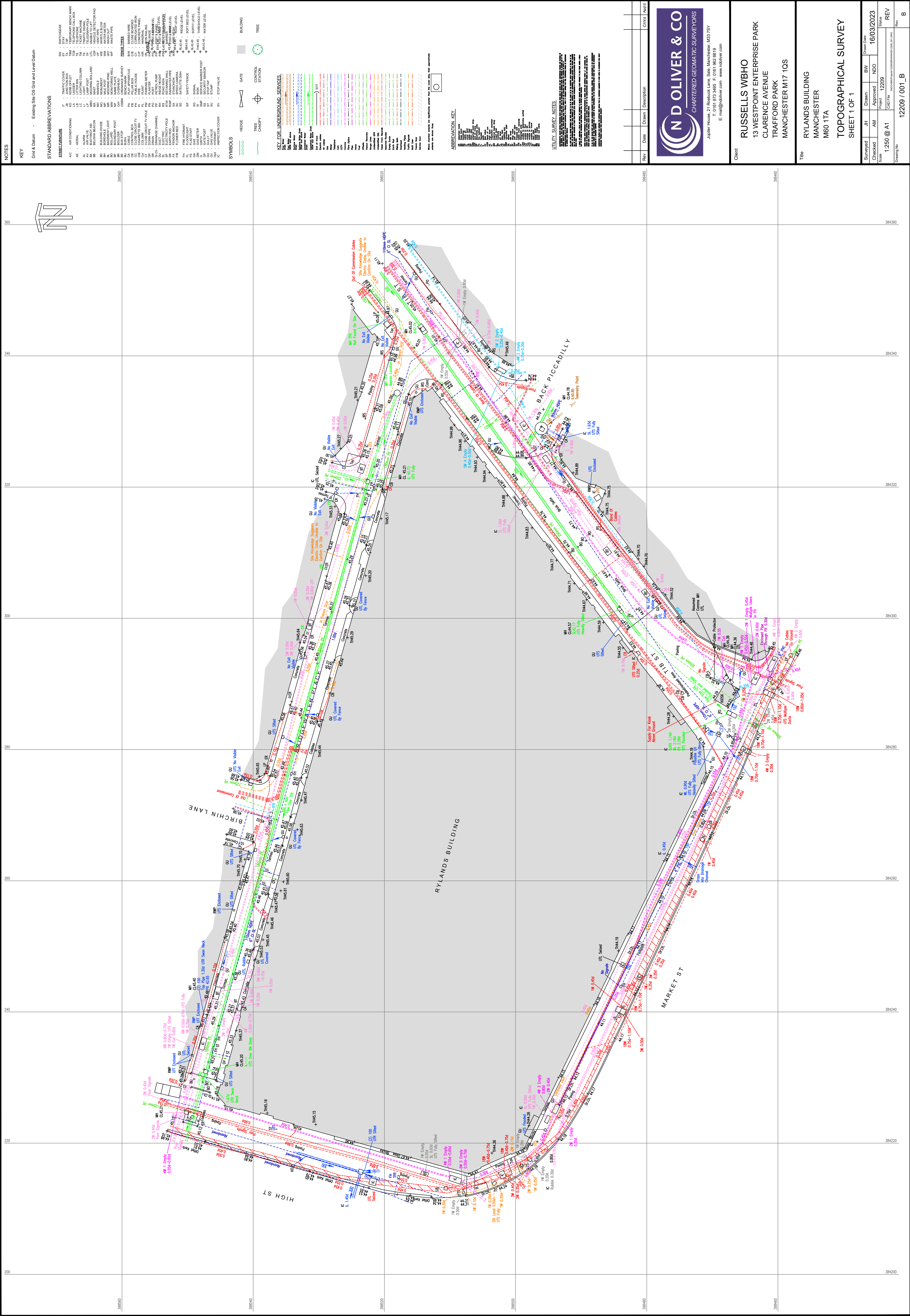
SHEET No : **9**

REPORT STATUS : FIRST ISSUE

TEMPORARY WORKS GROUND CONDITIONS

APPENDIX B

GPRS Record



NOTES

KEY

Grid & Datum

Existing Site OS Grid and Level Datum

STANDARD ABBREVIATIONS

SYMBOLS

KEY FOR UNDERGROUND SERVICES

ABBREVIATION KEY

UTILITY SURVEY NOTES

Rev

Date

Drawn

Description

Chkd

Apprd

ND OLIVER & CO

CHARTERED GEOMATIC SURVEYORS

Jupiter House, 21 Rochdale Lane, Sale, Manchester, M33 7SY

T: 0161 973 3405 F: 0161 962 0819

E: info@ndoliver.com www.ndoliver.com

Client

RUSSELLS WBHO

13 WESTPOINT ENTERPRISE PARK

CLARENCE AVENUE

TRAFORD PARK

MANCHESTER M17 1QS

Title

RYLANDS BUILDING

MANCHESTER

M60 1TA

Sheet 1 of 1

TOPOGRAPHICAL SURVEY

Surveyed

Checked

Scale

Drawing No

JH

AM

1:250 @ A1

12209 / 001_B

Drawn

Approved

NDO

16/03/2023

Status

REV

B



PROJECT No : **TM/22/1343**

SHEET No : **10**

REPORT STATUS : FIRST ISSUE

TEMPORARY WORKS GROUND CONDITIONS

APPENDIX C

CBR Test Locations

UTILITY SURVEY NOTES

KEY FOR UNDERGROUND SERVICES

NOTES

KEY

Grid & Data

STANDARD ABBREVIATIONS

STATE OF FLA.

Code	Description	Unit	Quantity	Price	Total
BU	BUSH	EA	1	1.00	1.00
CA	CABLE	EA	1	1.00	1.00
CE	CONTROLS BOX	EA	1	1.00	1.00

[illegible]

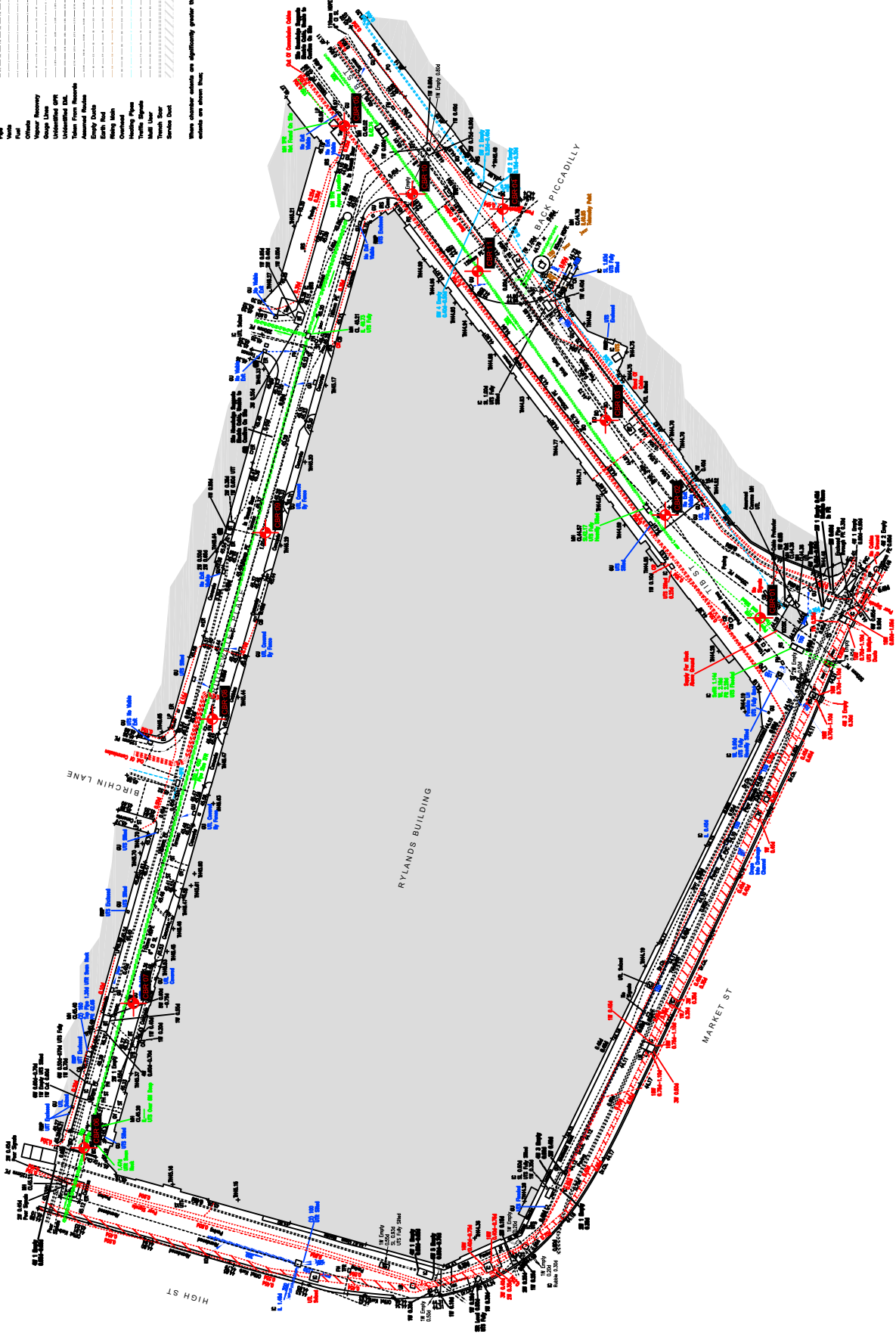
SYMBOLS



ABBREVIATION KEY

복합응답

Where chamber extents are significantly greater than the cover size, their approximate extents are shown thus:



REV

1

Client
RUSSE

Architect

Project
RYLAN

Title
RYLAND
TOPO
SHEET

Scale
AS SHOWN
Date
14.04.23

1220



PROJECT No : **TM/22/1343**

SHEET No : **11**

REPORT STATUS : FIRST ISSUE

TEMPORARY WORKS GROUND CONDITIONS

APPENDIX D

CBR Test Results



Job No. TE1737
Job Name: TIB STREET, MANCHESTER

Date of Test: 11.04.2023

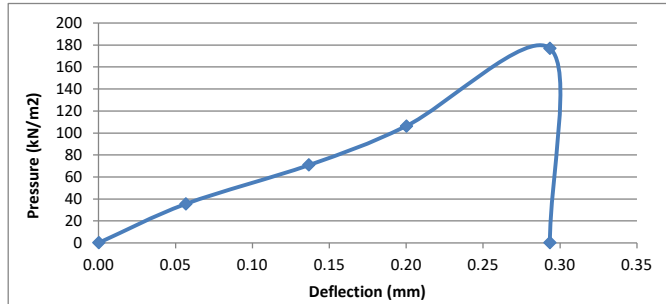
Test ID: CBR01

Technician: LEE HOGG

Plate Bearing Test Results

EN 1997-3:1999 (Modified)

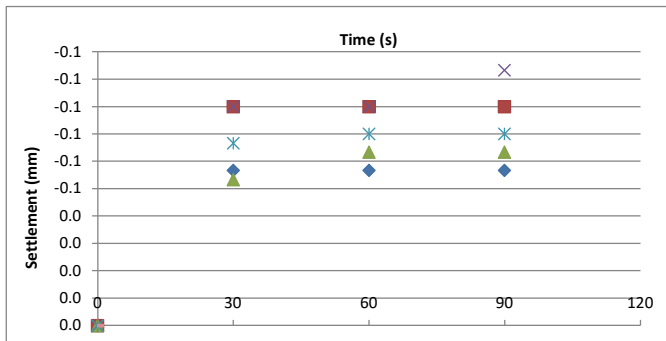
Load (kN)	Pressure (kN/m ²)	Average Cumulative Settlement (mm)	Time taken to Achieve Settlement (Sec)
0	0	0.00	30
10	35	0.06	120
20	71	0.14	210
30	106	0.20	300
50	177	0.29	390
0	0	0.29	480



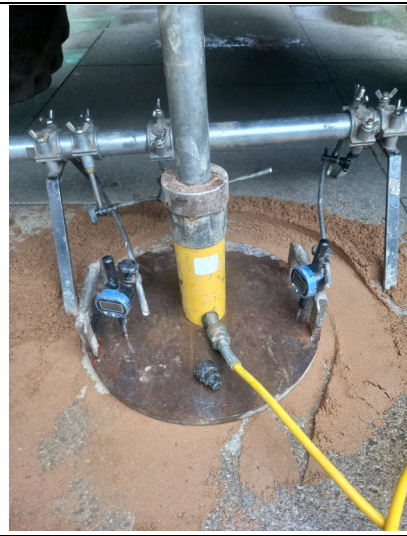
Maximum Deflection: 0.3 mm
Deflection for CBR: 1.25 mm

Pressure at 1.25 mm: 177.0 kN/m²
Subgrade Reaction (k): 117358.1 kN/m²/m

Equivalent CBR Value: 37.2 %



Photograph of Material Tested



Photograph of Test Location

Description of Subgrade: FLAGS
Test hole type: N/A
Test hole area (m²): N/A
Elevation (m AOD): N/A
Time (start/end): to
Moisture Content: N/A
Kentledge Description: 8T
Observations: SAND - USED

Depth (m bgl): 0

Conversion factor: 0.8288
Plate Diameter (mm): 600
Plate Area (m²): 0.2827

Tier Environmental Ltd
Suite 513 Chadwick House
Brichwood Park
Warrington, WA3 6AE



Inuppted by: NS
Checked: SL
Approved: SL



Job No. TE1737
Job Name: TIB STREET, MANCHESTER

Date of Test: 11.04.2023

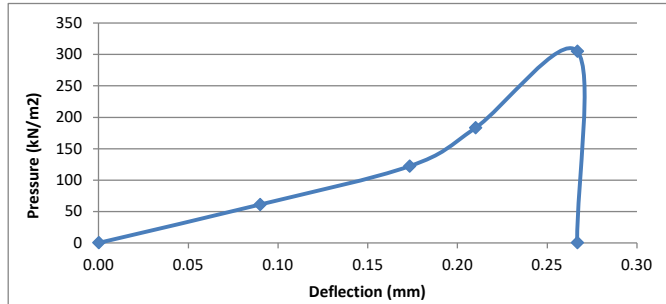
Plate Bearing Test Results

Test ID: CBR01A

EN 1997-3:1999 (Modified)

Technician: LEE HOGG

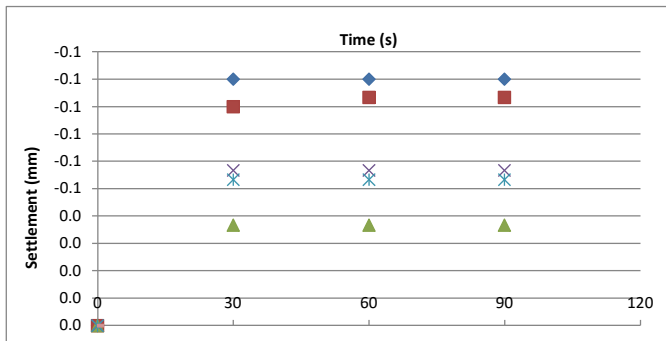
Load (kN)	Pressure (kN/m ²)	Average Cumulative Settlement (mm)	Time taken to Achieve Settlement (Sec)
0	0	0.00	30
10	61	0.09	120
20	122	0.17	210
30	183	0.21	300
50	305	0.27	390
0	0	0.27	480



Maximum Deflection: 0.3 mm
Deflection for CBR: 1.25 mm

Pressure at 1.25 mm: 305.0 kN/m²
Subgrade Reaction (k): 158961.1 kN/m²/m

Equivalent CBR Value: 63.0 %



Photograph of Material Tested



Photograph of Test Location

Description of Subgrade: FLAGS AND SAND
Test hole type: N/A
Test hole area (m²): N/A
Elevation (m AOD): N/A
Time (start/end): to
Moisture Content: N/A
Kentledge Description: 8T
Observations:

Depth (m bgl): 0

Conversion factor: 0.65148
Plate Diameter (mm): 457
Plate Area (m²): 0.164

Tier Environmental Ltd
Suite 513 Chadwick House
Brichwood Park
Warrington, WA3 6AE



Inuppted by: NS
Checked: SL
Approved: SL



Job No. TE1737
Job Name: TIB STREET, MANCHESTER

Date of Test: 11.04.2023

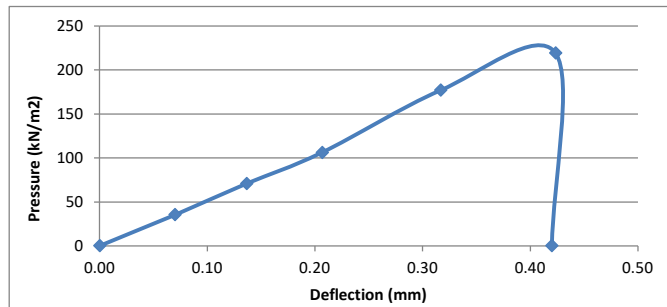
Plate Bearing Test Results

Test ID: CBR02

EN 1997-3:1999 (Modified)

Technician: LEE HOGG

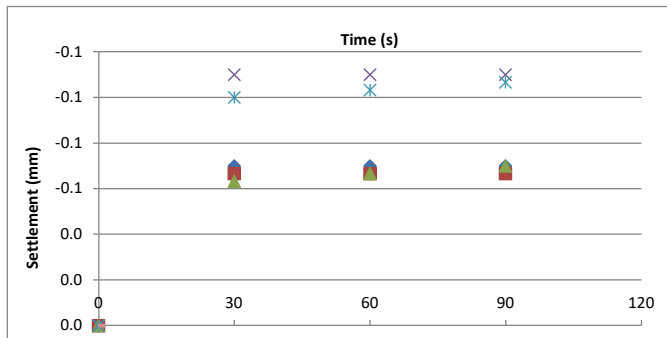
Load (kN)	Pressure (kN/m ²)	Average Cumulative Settlement (mm)	Time taken to Achieve Settlement (Sec)
0	0	0.00	30
10	35	0.07	120
20	71	0.14	210
30	106	0.21	300
50	177	0.32	390
62	219	0.42	480
0	0	0.42	480



Maximum Deflection: 0.4 mm
Deflection for CBR: 1.25 mm

Pressure at 1.25 mm: 219.0 kN/m²
Subgrade Reaction (k): 145205.8 kN/m²/m

Equivalent CBR Value: 53.8 %



Photograph of Material Tested



Photograph of Test Location

Description of Subgrade: FLAGS AND SAND
Test hole type: N/A
Test hole area (m²): N/A
Elevation (m AOD): N/A
Time (start/end): to
Moisture Content: N/A
Kentledge Description: 8T
Observations:

Depth (m bgl): 0

Conversion factor: 0.8288
Plate Diameter (mm): 600
Plate Area (m²): 0.2827

Tier Environmental Ltd
Suite 513 Chadwick House
Brichwood Park
Warrington, WA3 6AE



Inuppted by: NS
Checked: SL
Approved: SL



Job No. TE1737
Job Name: TIB STREET, MANCHESTER

Date of Test: 11.04.2023

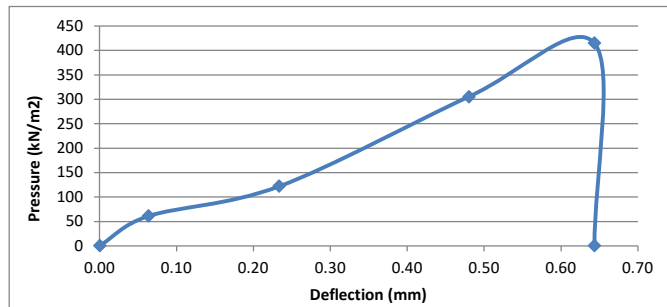
Plate Bearing Test Results

Test ID: CBR02A

EN 1997-3:1999 (Modified)

Technician: LEE HOGG

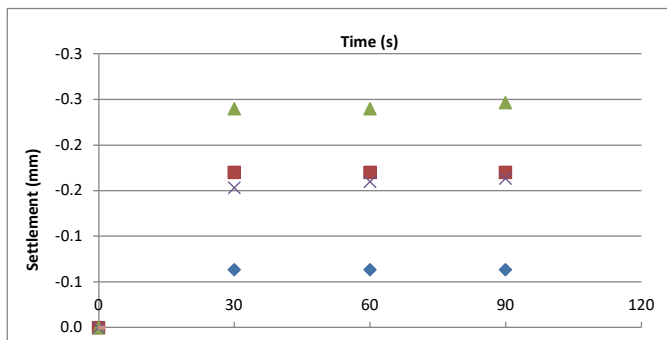
Load (kN)	Pressure (kN/m ²)	Average Cumulative Settlement (mm)	Time taken to Achieve Settlement (Sec)
0	0	0.00	30
10	61	0.06	120
20	122	0.23	210
50	305	0.48	300
68	415	0.64	390
0	0	0.64	390



Maximum Deflection: 0.6 mm
Deflection for CBR: 1.25 mm

Pressure at 1.25 mm: 415.0 kN/m²
Subgrade Reaction (k): 216291.4 kN/m²/m

Equivalent CBR Value: 107.4 %



Photograph of Material Tested



Photograph of Test Location

Description of Subgrade: FLAGS AND SAND
Test hole type: N/A
Test hole area (m²): N/A
Elevation (m AOD): N/A
Time (start/end): to
Moisture Content: N/A
Kentledge Description: 8T
Observations:

Depth (m bgl): 0

Conversion factor: 0.65148
Plate Diameter (mm): 457
Plate Area (m²): 0.164

Tier Environmental Ltd
Suite 513 Chadwick House
Brichwood Park
Warrington, WA3 6AE



Inuppted by: NS
Checked: SL
Approved: SL



Job No. TE1737
Job Name: TIB STREET, MANCHESTER

Date of Test: 11.04.2023

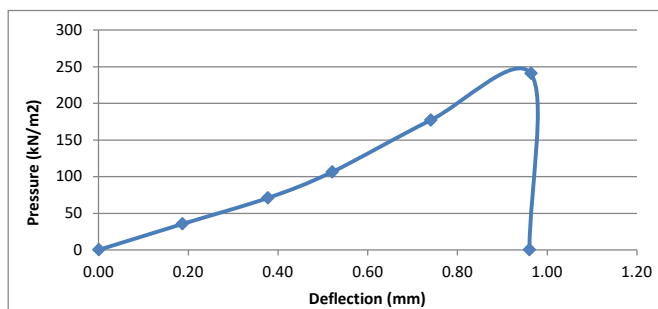
Test ID: CBR03

Technician: LEE HOGG

Plate Bearing Test Results

EN 1997-3:1999 (Modified)

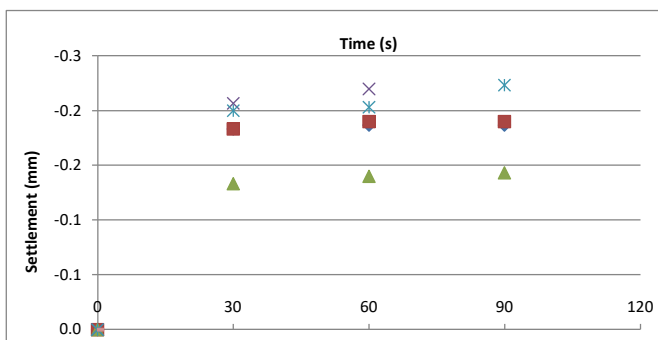
Load (kN)	Pressure (kN/m ²)	Average Cumulative Settlement (mm)	Time taken to Achieve Settlement (Sec)
0	0	0.00	30
10	35	0.19	120
20	71	0.38	210
30	106	0.52	300
50	177	0.74	390
68	241	0.96	480
0	0	0.96	480



Maximum Deflection: 1.0 mm
Deflection for CBR: 1.25 mm

Pressure at 1.25 mm: 241.0 kN/m²
Subgrade Reaction (k): 159792.6 kN/m²/m

Equivalent CBR Value: 63.5 %



Photograph of Material Tested



Photograph of Test Location

Description of Subgrade:	FLAGS
Test hole type:	N/A
Test hole area (m ²):	N/A
Elevation (m AOD):	N/A
Time (start/end):	to
Moisture Content:	N/A
Kentledge Description:	8T
Observations:	SAND - USED

Depth (m bgl): 0

Conversion factor: 0.8288
Plate Diameter (mm): 600
Plate Area (m²): 0.2827

Tier Environmental Ltd
Suite 513 Chadwick House
Brichwood Park
Warrington, WA3 6AE



Inuppted by: NS
Checked: SL
Approved: SL



Job No. TE1737
Job Name: TIB STREET, MANCHESTER

Date of Test: 11.04.2023

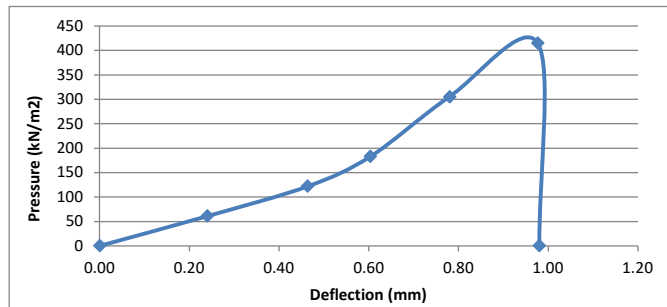
Test ID: CBR03A

Technician: LEE HOGG

Plate Bearing Test Results

EN 1997-3:1999 (Modified)

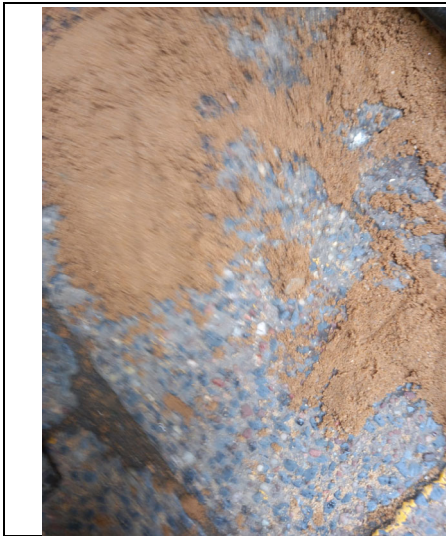
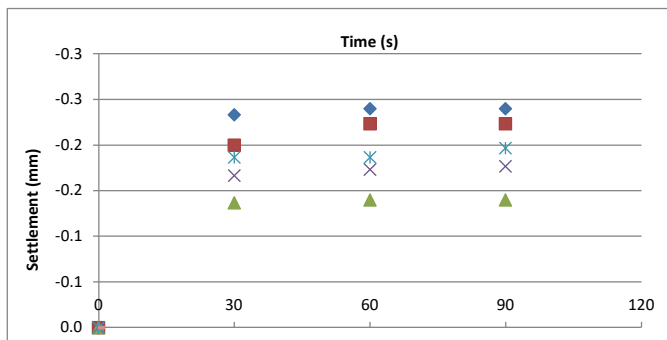
Load (kN)	Pressure (kN/m ²)	Average Cumulative Settlement (mm)	Time taken to Achieve Settlement (Sec)
0	0	0.00	30
10	61	0.24	120
20	122	0.46	210
30	183	0.60	300
50	305	0.78	390
68	415	0.98	480
0	0	0.98	480



Maximum Deflection: 1.0 mm
Deflection for CBR: 1.25 mm

Pressure at 1.25 mm: 415.0 kN/m²
Subgrade Reaction (k): 216291.4 kN/m²/m

Equivalent CBR Value: 107.4 %



Photograph of Material Tested



Photograph of Test Location

Description of Subgrade: **FLAGS AND SAND**
Test hole type: N/A
Test hole area (m²): N/A
Elevation (m AOD): N/A
Time (start/end): to
Moisture Content: N/A
Kentledge Description: 8T
Observations:

Depth (m bgl): 0

Conversion factor: 0.65148
Plate Diameter (mm): 457
Plate Area (m²): 0.164

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Inuppted by: NS
Checked: SL
Approved: SL



Job No. TE1737
Job Name: TIB STREET, MANCHESTER

Date of Test: 11.04.2023

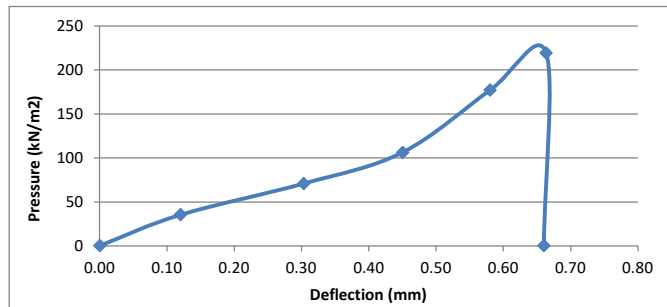
Plate Bearing Test Results

Test ID: CBR04

EN 1997-3:1999 (Modified)

Technician: LEE HOGG

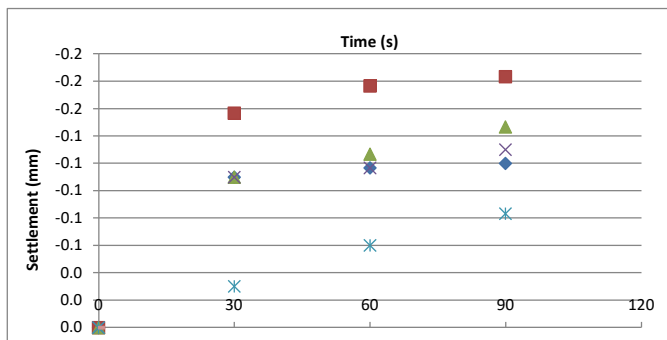
Load (kN)	Pressure (kN/m ²)	Average Cumulative Settlement (mm)	Time taken to Achieve Settlement (Sec)
0	0	0.00	30
10	35	0.12	120
20	71	0.30	210
30	106	0.45	300
50	177	0.58	390
62	219	0.66	480
0	0	0.66	480



Maximum Deflection: 0.7 mm
Deflection for CBR: 1.25 mm

Pressure at 1.25 mm: 219.0 kN/m²
Subgrade Reaction (k): 145205.8 kN/m²/m

Equivalent CBR Value: 53.8 %



Photograph of Material Tested



Photograph of Test Location

Description of Subgrade: SAND AND TARMAC
Test hole type: N/A
Test hole area (m²): N/A
Elevation (m AOD): N/A
Time (start/end): to
Moisture Content: N/A
Kentledge Description: 8T
Observations:

Depth (m bgl): 0

Conversion factor: 0.8288
Plate Diameter (mm): 600
Plate Area (m²): 0.2827

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Approved: SL



Job No. TE1737
Job Name: TIB STREET, MANCHESTER

Date of Test: 11.04.2023

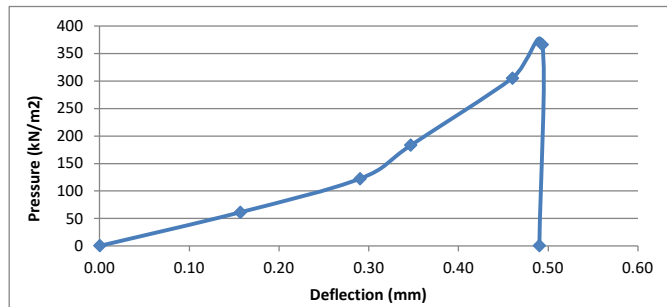
Test ID: CBR04A

Technician: LEE HOGG

Plate Bearing Test Results

EN 1997-3:1999 (Modified)

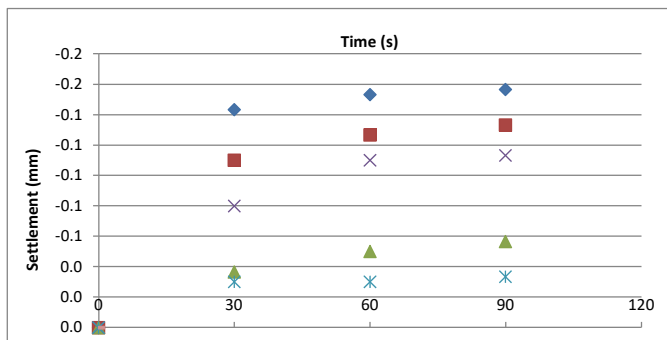
Load (kN)	Pressure (kN/m ²)	Average Cumulative Settlement (mm)	Time taken to Achieve Settlement (Sec)
0	0	0.00	30
10	61	0.16	120
20	122	0.29	210
30	183	0.35	300
50	305	0.46	390
60	366	0.49	480
0	0	0.49	480



Maximum Deflection: 0.5 mm
Deflection for CBR: 1.25 mm

Pressure at 1.25 mm: 366.0 kN/m²
Subgrade Reaction (k): 190753.3 kN/m²/m

Equivalent CBR Value: 86.4 %



Photograph of Material Tested



Photograph of Test Location

Description of Subgrade: SAND AND TARMAC
Test hole type: N/A
Test hole area (m²): N/A
Elevation (m AOD): N/A
Time (start/end): to
Moisture Content: N/A
Kentledge Description: 8 T
Observations:

Depth (m bgl): 0

Conversion factor: 0.65148
Plate Diameter (mm): 457
Plate Area (m²): 0.164

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Job Name: TIB STREET, MANCHESTER

Date of Test: 11.04.2023

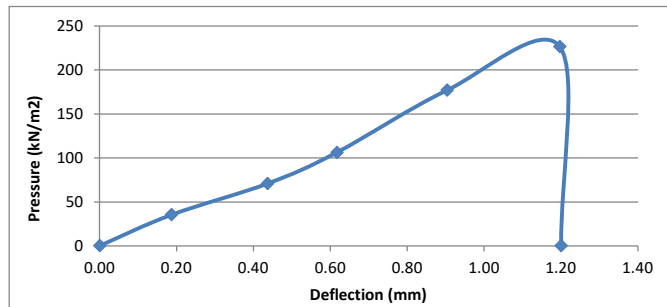
Plate Bearing Test Results

Test ID: CBR05

EN 1997-3:1999 (Modified)

Technician: LEE HOGG

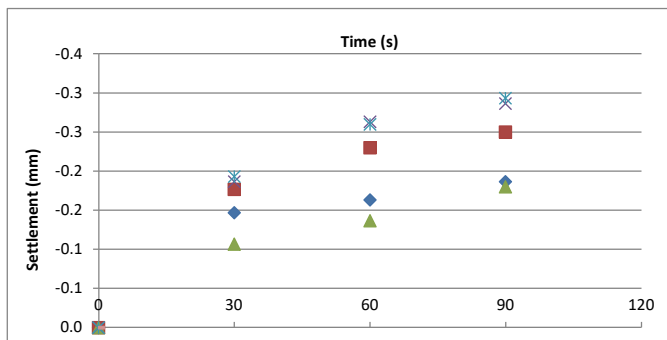
Load (kN)	Pressure (kN/m ²)	Average Cumulative Settlement (mm)	Time taken to Achieve Settlement (Sec)
0	0	0.00	30
10	35	0.19	120
20	71	0.44	210
30	106	0.62	300
50	177	0.90	390
64	226	1.20	480
0	0	1.20	480



Maximum Deflection: 1.2 mm
Deflection for CBR: 1.25 mm

Pressure at 1.25 mm: 226.0 kN/m²
Subgrade Reaction (k): 149847.0 kN/m²/m

Equivalent CBR Value: 56.8 %



Photograph of Material Tested



Photograph of Test Location

Description of Subgrade: TARMAC AND SAND
Test hole type: N/A
Test hole area (m²): N/A
Elevation (m AOD): N/A
Time (start/end): to
Moisture Content: N/A
Kentledge Description: 8T
Observations:

Depth (m bgl): 0

Conversion factor: 0.8288
Plate Diameter (mm): 600
Plate Area (m²): 0.2827

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Job Name: TIB STREET, MANCHESTER

Date of Test: 12.04.2023

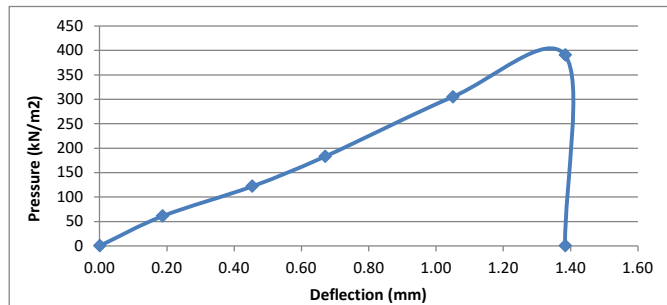
Plate Bearing Test Results

Test ID: CBR05A

EN 1997-3:1999 (Modified)

Technician: LEE HOGG

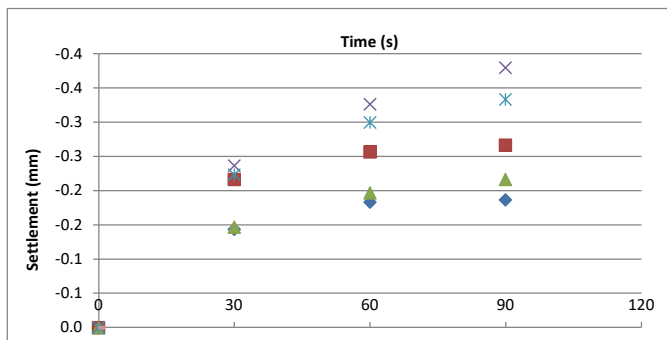
Load (kN)	Pressure (kN/m ²)	Average Cumulative Settlement (mm)	Time taken to Achieve Settlement (Sec)
0	0	0.00	0
10	61	0.19	90
20	122	0.45	180
30	183	0.67	270
50	305	1.05	360
64	390	1.38	450
0	0	1.38	450



Maximum Deflection: 1.4 mm
Deflection for CBR: 1.25 mm

Pressure at 1.25 mm: 356.1 kN/m²
Subgrade Reaction (k): 185592.4 kN/m²/m

Equivalent CBR Value: 82.4 %



Photograph of Material Tested



Photograph of Test Location

Description of Subgrade: TARMAC AND SAND
Test hole type: N/A
Test hole area (m²): N/A
Elevation (m AOD): N/A
Time (start/end): to
Moisture Content: N/A
Kentledge Description: 8T
Observations:

Depth (m bgl): 0

Conversion factor: 0.65148
Plate Diameter (mm): 457
Plate Area (m²): 0.164

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Date of Test: 12.04.2023

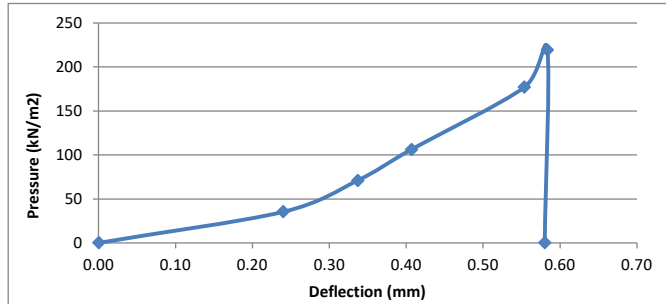
Plate Bearing Test Results

Test ID: CBR06

EN 1997-3:1999 (Modified)

Technician: LEE HOGG

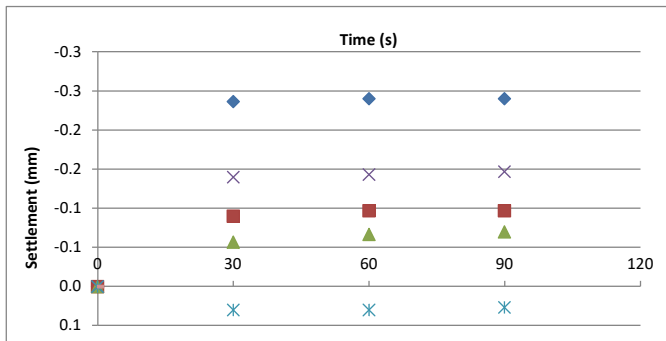
Load (kN)	Pressure (kN/m ²)	Average Cumulative Settlement (mm)	Time taken to Achieve Settlement (Sec)
0	0	0.00	30
10	35	0.24	120
20	71	0.34	210
30	106	0.41	300
50	177	0.55	390
62	219	0.58	480
0	0	0.58	480



Maximum Deflection: 0.6 mm
Deflection for CBR: 1.25 mm

Pressure at 1.25 mm: 219.0 kN/m²
Subgrade Reaction (k): 145205.8 kN/m²/m

Equivalent CBR Value: 53.8 %



Photograph of Material Tested



Photograph of Test Location

Description of Subgrade: TARMAC AND SAND
Test hole type: N/A
Test hole area (m²): N/A
Elevation (m AOD): N/A
Time (start/end): to
Moisture Content: N/A
Kentledge Description: 8T
Observations:

Depth (m bgl): 0

Conversion factor: 0.8288
Plate Diameter (mm): 600
Plate Area (m²): 0.2827

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Date of Test: 12.04.2023

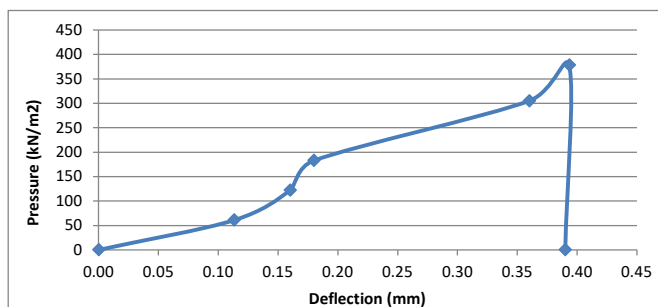
Test ID: CBR06A

Technician: LEE HOGG

Plate Bearing Test Results

EN 1997-3:1999 (Modified)

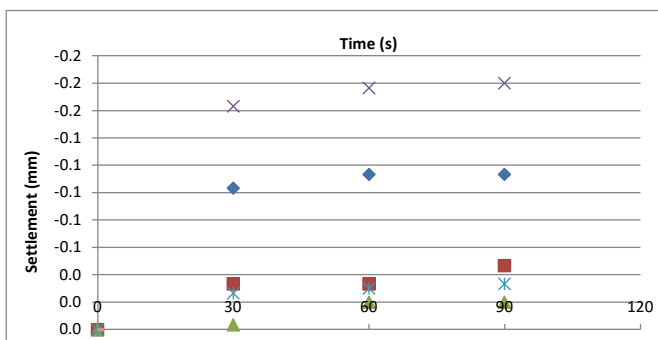
Load (kN)	Pressure (kN/m ²)	Average Cumulative Settlement (mm)	Time taken to Achieve Settlement (Sec)
0	0	0.00	30
10	61	0.11	120
20	122	0.16	210
30	183	0.18	300
50	305	0.36	390
62	378	0.39	480
0	0	0.39	480



Maximum Deflection: 0.4 mm
Deflection for CBR: 1.25 mm

Pressure at 1.25 mm: 378.0 kN/m²
Subgrade Reaction (k): 197007.6 kN/m²/m

Equivalent CBR Value: 91.3 %



Photograph of Material Tested



Photograph of Test Location

Description of Subgrade: TARMAC AND SAND
Test hole type: N/A
Test hole area (m²): N/A
Elevation (m AOD): N/A
Time (start/end): to
Moisture Content: N/A
Kentledge Description: 8T
Observations:

Depth (m bgl): 0

Conversion factor: 0.65148
Plate Diameter (mm): 457
Plate Area (m²): 0.164

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Job No. TE1737
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Date of Test: 12.04.2023

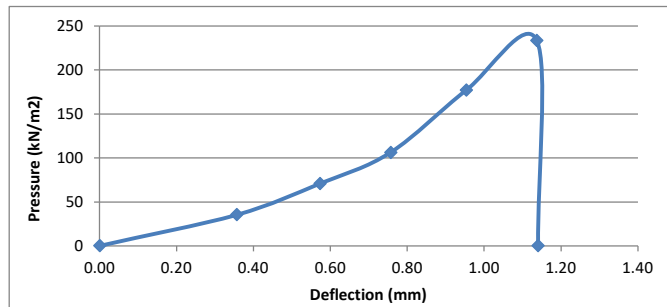
Plate Bearing Test Results

Test ID: CBR07

EN 1997-3:1999 (Modified)

Technician: LEE HOGG

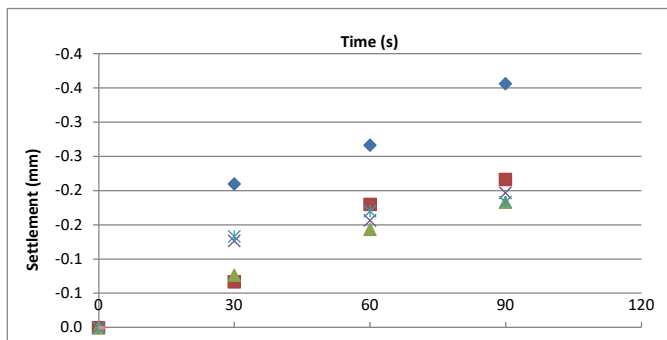
Load (kN)	Pressure (kN/m ²)	Average Cumulative Settlement (mm)	Time taken to Achieve Settlement (Sec)
0	0	0.00	30
10	35	0.36	120
20	71	0.57	210
30	106	0.76	300
50	177	0.95	390
66	233	1.14	480
0	0	1.14	480



Maximum Deflection: 1.1 mm
Deflection for CBR: 1.25 mm

Pressure at 1.25 mm: 233.0 kN/m²
Subgrade Reaction (k): 154488.3 kN/m²/m

Equivalent CBR Value: 59.9 %



Photograph of Material Tested



Photograph of Test Location

Description of Subgrade:	TARMAC AND SAND
Test hole type:	N/A
Test hole area (m ²):	N/A
Elevation (m AOD):	N/A
Time (start/end):	to
Moisture Content:	N/A
Kentledge Description:	8T
Observations:	

Depth (m bgl): 0

Conversion factor: 0.8288
Plate Diameter (mm): 600
Plate Area (m²): 0.2827

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Job Name: TIB STREET, MANCHESTER

Date of Test: 12.04.2023

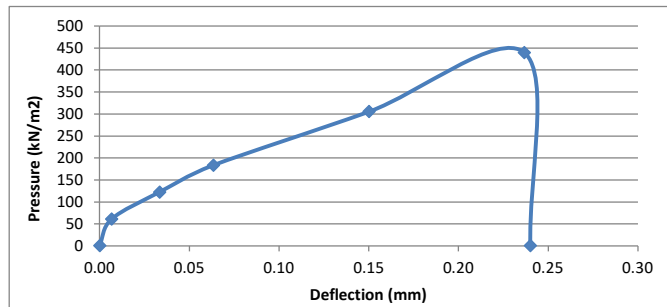
Plate Bearing Test Results

Test ID: CBR07A

EN 1997-3:1999 (Modified)

Technician: LEE HOGG

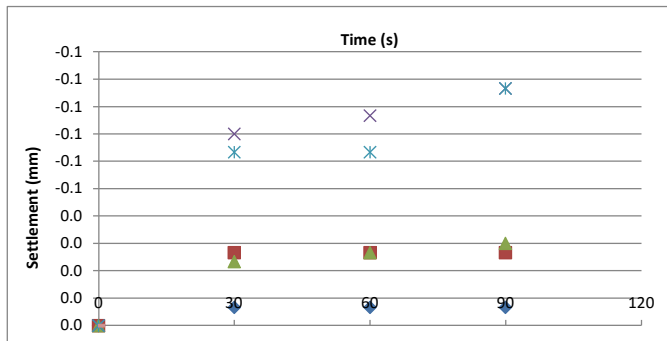
Load (kN)	Pressure (kN/m ²)	Average Cumulative Settlement (mm)	Time taken to Achieve Settlement (Sec)
0	0	0.00	30
10	61	0.01	120
20	122	0.03	210
30	183	0.06	300
50	305	0.15	390
72	439	0.24	480
0	0	0.24	480



Maximum Deflection: 0.2 mm
Deflection for CBR: 1.25 mm

Pressure at 1.25 mm: 439.0 kN/m²
Subgrade Reaction (k): 228799.8 kN/m²/m

Equivalent CBR Value: 118.4 %



Photograph of Material Tested



Photograph of Test Location

Description of Subgrade: TARMAC AND SAND
Test hole type: N/A
Test hole area (m²): N/A
Elevation (m AOD): N/A
Time (start/end): to
Moisture Content: N/A
Kentledge Description: 8T
Observations:

Depth (m bgl): 0

Conversion factor: 0.65148
Plate Diameter (mm): 457
Plate Area (m²): 0.164

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Job No. TE1737
Job Name: TIB STREET, MANCHESTER

Date of Test: 12.04.2023

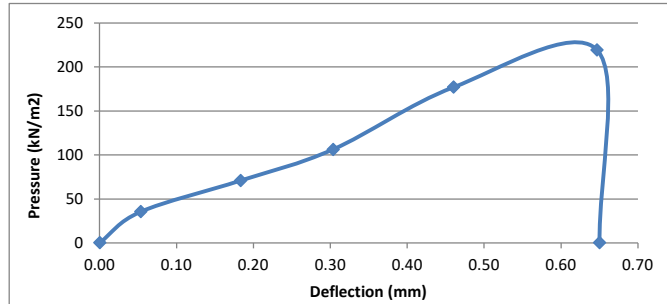
Plate Bearing Test Results

Test ID: CBR08

EN 1997-3:1999 (Modified)

Technician: LEE HOGG

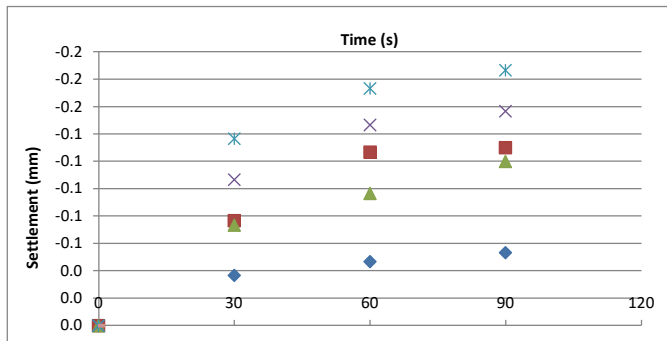
Load (kN)	Pressure (kN/m ²)	Average Cumulative Settlement (mm)	Time taken to Achieve Settlement (Sec)
0	0	0.00	30
10	35	0.05	120
20	71	0.18	210
30	106	0.30	300
50	177	0.46	390
62	219	0.65	480
0	0	0.65	480



Maximum Deflection: 0.7 mm
Deflection for CBR: 1.25 mm

Pressure at 1.25 mm: 219.0 kN/m²
Subgrade Reaction (k): 145205.8 kN/m²/m

Equivalent CBR Value: 53.8 %



Photograph of Material Tested



Photograph of Test Location

Description of Subgrade: TARMAC AND SAND
Test hole type: N/A
Test hole area (m²): N/A
Elevation (m AOD): N/A
Time (start/end): to
Moisture Content: N/A
Kentledge Description: 8T
Observations:

Depth (m bgl): 0

Conversion factor: 0.8288
Plate Diameter (mm): 600
Plate Area (m²): 0.2827

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Job Name: TIB STREET, MANCHESTER

Date of Test: 12.04.2023

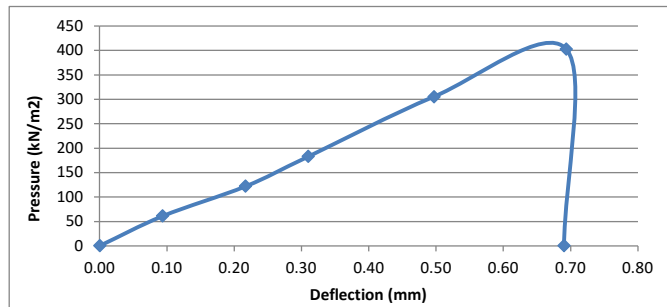
Plate Bearing Test Results

Test ID: CBR08A

EN 1997-3:1999 (Modified)

Technician: LEE HOGG

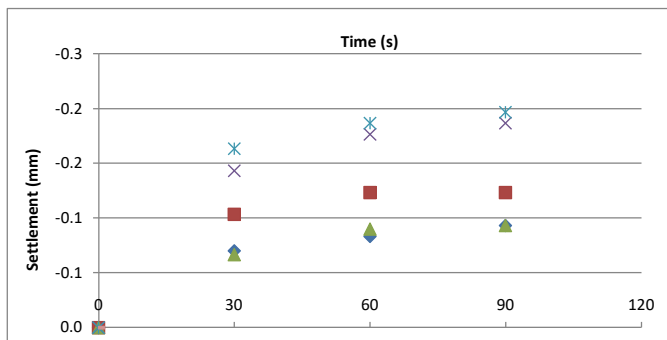
Load (kN)	Pressure (kN/m ²)	Average Cumulative Settlement (mm)	Time taken to Achieve Settlement (Sec)
0	0	0.00	30
10	61	0.09	120
20	122	0.22	210
30	183	0.31	300
50	305	0.50	390
66	402	0.69	480
0	0	0.69	480



Maximum Deflection: 0.7 mm
Deflection for CBR: 1.25 mm

Pressure at 1.25 mm: 402.0 kN/m²
Subgrade Reaction (k): 209516.0 kN/m²/m

Equivalent CBR Value: 101.6 %



Photograph of Material Tested



Photograph of Test Location

Description of Subgrade: TARMAC AND SAND
Test hole type: N/A
Test hole area (m²): N/A
Elevation (m AOD): N/A
Time (start/end): to
Moisture Content: N/A
Kentledge Description: 8T
Observations:

Depth (m bgl): 0

Conversion factor: 0.65148
Plate Diameter (mm): 457
Plate Area (m²): 0.164

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Job Name: TIB STREET, MANCHESTER

Date of Test: 12.04.2023

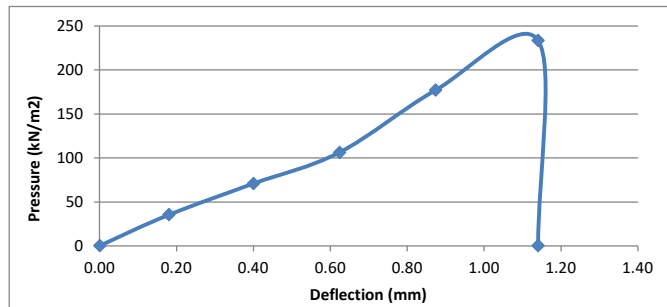
Test ID: CBR09

Technician: LEE HOGG

Plate Bearing Test Results

EN 1997-3:1999 (Modified)

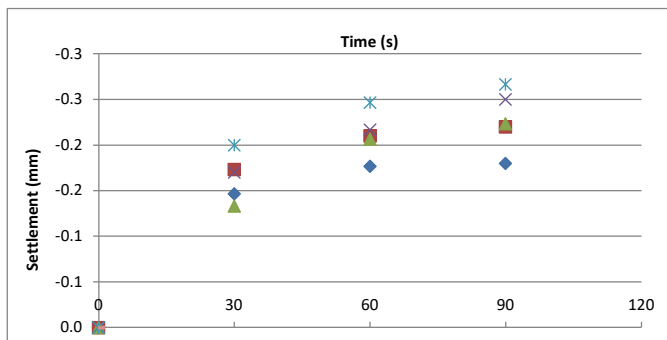
Load (kN)	Pressure (kN/m ²)	Average Cumulative Settlement (mm)	Time taken to Achieve Settlement (Sec)
0	0	0.00	30
10	35	0.18	120
20	71	0.40	210
30	106	0.62	300
50	177	0.87	390
66	233	1.14	480
0	0	1.14	480



Maximum Deflection: 1.1 mm
Deflection for CBR: 1.25 mm

Pressure at 1.25 mm: 233.0 kN/m²
Subgrade Reaction (k): 154488.3 kN/m²/m

Equivalent CBR Value: 59.9 %



Photograph of Material Tested



Photograph of Test Location

Description of Subgrade: TARMAC AND SAND
Test hole type: N/A
Test hole area (m²): N/A
Elevation (m AOD): N/A
Time (start/end): to
Moisture Content: N/A
Kentledge Description: 8T
Observations:

Depth (m bgl): 0

Conversion factor: 0.8288
Plate Diameter (mm): 600
Plate Area (m²): 0.2827

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Job Name: TIB STREET, MANCHESTER

Date of Test: 12.04.2023

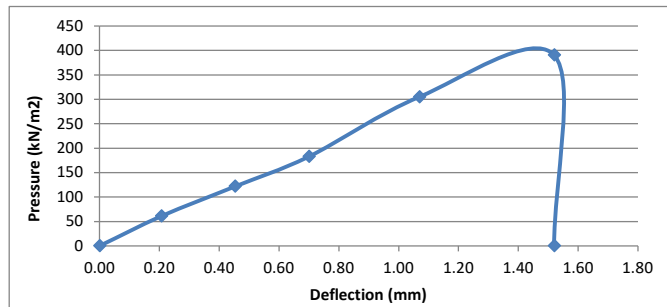
Plate Bearing Test Results

Test ID: CBR09A

EN 1997-3:1999 (Modified)

Technician: LEE HOGG

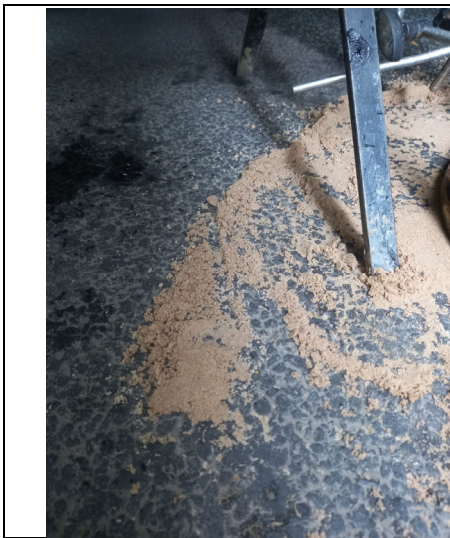
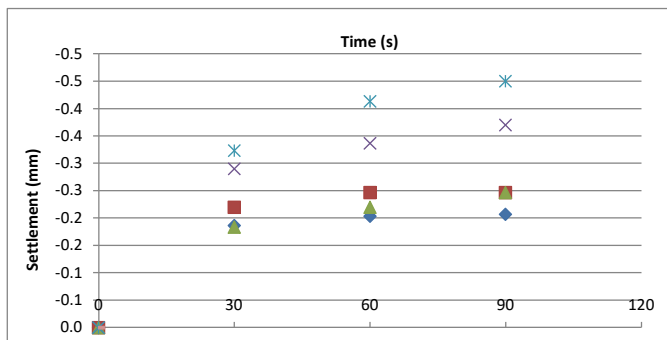
Load (kN)	Pressure (kN/m ²)	Average Cumulative Settlement (mm)	Time taken to Achieve Settlement (Sec)
0	0	0.00	30
10	61	0.21	120
20	122	0.45	210
30	183	0.70	300
50	305	1.07	390
64	390	1.52	480
0	0	1.52	480



Maximum Deflection: 1.5 mm
Deflection for CBR: 1.25 mm

Pressure at 1.25 mm: 339.0 kN/m²
Subgrade Reaction (k): 176694.1 kN/m²/m

Equivalent CBR Value: 75.6 %



Photograph of Material Tested



Photograph of Test Location

Description of Subgrade: TARMAC AND SAND
Test hole type: N/A
Test hole area (m²): N/A
Elevation (m AOD): N/A
Time (start/end): to
Moisture Content: N/A
Kentledge Description: 8T
Observations:

Depth (m bgl): 0

Conversion factor: 0.65148
Plate Diameter (mm): 457
Plate Area (m²): 0.164

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Job No. TE1737
Job Name: TIB STREET, MANCHESTER

Date of Test: 12.04.2023

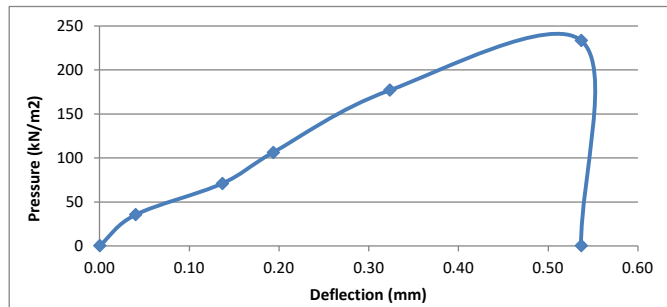
Plate Bearing Test Results

Test ID: CBR10

EN 1997-3:1999 (Modified)

Technician: LEE HOGG

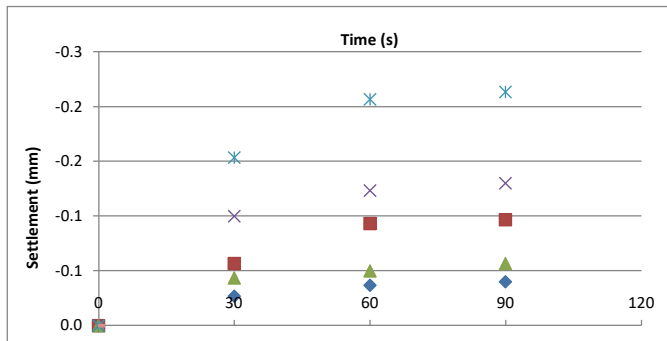
Load (kN)	Pressure (kN/m ²)	Average Cumulative Settlement (mm)	Time taken to Achieve Settlement (Sec)
0	0	0.00	30
10	35	0.04	120
20	71	0.14	210
30	106	0.19	300
50	177	0.32	390
66	233	0.54	480
0	0	0.54	480



Maximum Deflection: 0.5 mm
Deflection for CBR: 1.25 mm

Pressure at 1.25 mm: 233.0 kN/m²
Subgrade Reaction (k): 154488.3 kN/m²/m

Equivalent CBR Value: 59.9 %



Photograph of Material Tested



Photograph of Test Location

Description of Subgrade: TARMAC AND SAND
Test hole type: N/A
Test hole area (m²): N/A
Elevation (m AOD): N/A
Time (start/end): to
Moisture Content: N/A
Kentledge Description: 8T
Observations:

Depth (m bgl): 0

Conversion factor: 0.8288
Plate Diameter (mm): 600
Plate Area (m²): 0.2827

Tier Environmental Ltd
Suite 414 Chadwick House
Brichwood Park
Warrington, WA3 6AE



Inuppted by: NS
Checked: SL
Approved: SL



Job No. TE1737
Job Name: TIB STREET, MANCHESTER

Date of Test: 12.04.2023

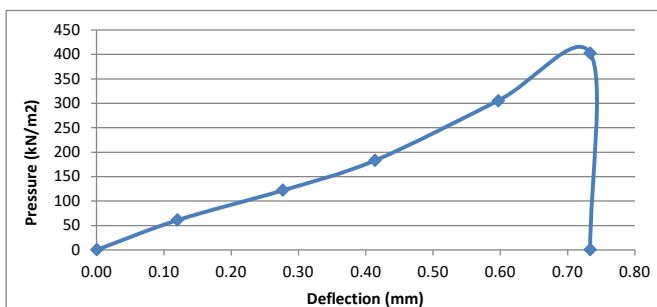
Plate Bearing Test Results

Test ID: CBR10A

EN 1997-3:1999 (Modified)

Technician: LEE HOGG

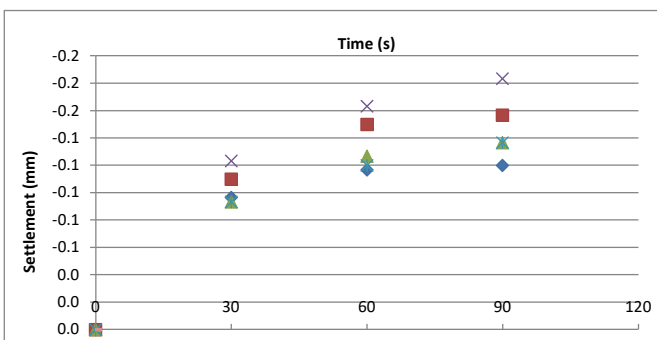
Load (kN)	Pressure (kN/m ²)	Average Cumulative Settlement (mm)	Time taken to Achieve Settlement (Sec)
0	0	0.00	30
10	61	0.12	120
20	122	0.28	210
30	183	0.41	300
50	305	0.60	390
66	402	0.73	480
0	0	0.73	480



Maximum Deflection: 0.7 mm
Deflection for CBR: 1.25 mm

Pressure at 1.25 mm: 402.0 kN/m²
Subgrade Reaction (k): 209516.0 kN/m²/m

Equivalent CBR Value: 101.6 %



Photograph of Material Tested



Photograph of Test Location

Description of Subgrade:	TARMAC AND SAND
Test hole type:	N/A
Test hole area (m ²):	N/A
Elevation (m AOD):	N/A
Time (start/end):	to
Moisture Content:	N/A
Kentledge Description:	8T
Observations:	

Depth (m bgl): 0

Conversion factor: 0.65148
Plate Diameter (mm): 457
Plate Area (m²): 0.164

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Job No. TE1737
Job Name: TIB STREET, MANCHESTER

Date of Test: 12.04.2023

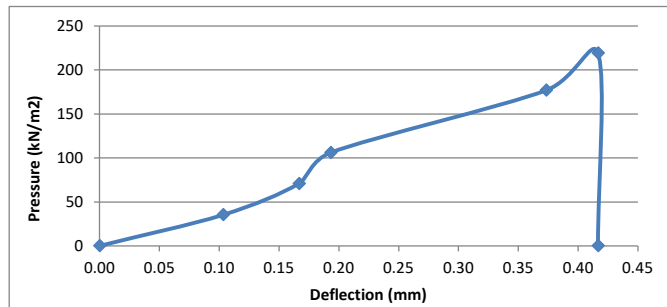
Test ID: CBR11

Technician: LEE HOGG

Plate Bearing Test Results

EN 1997-3:1999 (Modified)

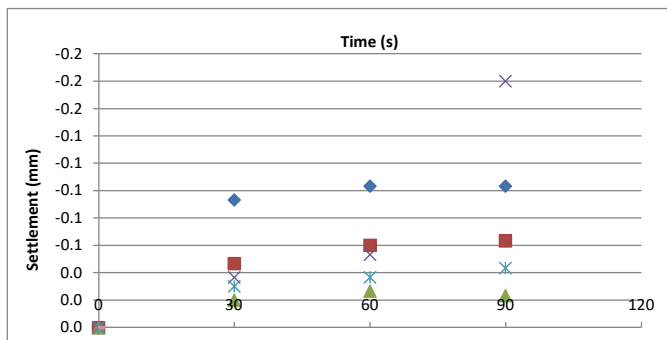
Load (kN)	Pressure (kN/m ²)	Average Cumulative Settlement (mm)	Time taken to Achieve Settlement (Sec)
0	0	0.00	30
10	35	0.10	120
20	71	0.17	210
30	106	0.19	300
50	177	0.37	390
62	219	0.42	480
0	0	0.42	480



Maximum Deflection: 0.4 mm
Deflection for CBR: 1.25 mm

Pressure at 1.25 mm: 219.0 kN/m²
Subgrade Reaction (k): 145205.8 kN/m²/m

Equivalent CBR Value: 53.8 %



Photograph of Material Tested



Photograph of Test Location

Description of Subgrade: TARMAC AND SAND
Test hole type: N/A
Test hole area (m²): N/A
Elevation (m AOD): N/A
Time (start/end): to
Moisture Content: N/A
Kentledge Description: 8T
Observations:

Depth (m bgl): 0

Conversion factor: 0.8288
Plate Diameter (mm): 600
Plate Area (m²): 0.2827

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Job No. TE1737
Job Name: TIB STREET, MANCHESTER

Date of Test: 12.04.2023

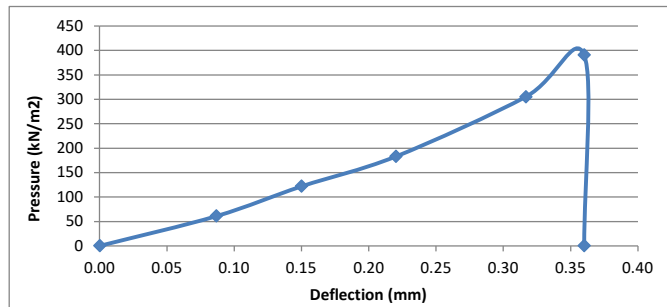
Plate Bearing Test Results

Test ID: CBR11A

EN 1997-3:1999 (Modified)

Technician: LEE HOGG

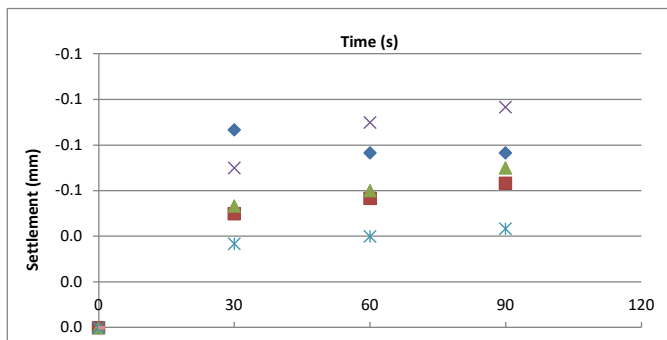
Load (kN)	Pressure (kN/m ²)	Average Cumulative Settlement (mm)	Time taken to Achieve Settlement (Sec)
0	0	0.00	30
10	61	0.09	120
20	122	0.15	210
30	183	0.22	300
50	305	0.32	390
64	390	0.36	480
0	0	0.36	480



Maximum Deflection: 0.4 mm
Deflection for CBR: 1.25 mm

Pressure at 1.25 mm: 390.0 kN/m²
Subgrade Reaction (k): 203261.8 kN/m²/m

Equivalent CBR Value: 96.4 %



Photograph of Material Tested



Photograph of Test Location

Description of Subgrade: TARMAC AND SAND
Test hole type: N/A
Test hole area (m²): N/A
Elevation (m AOD): N/A
Time (start/end): to
Moisture Content: N/A
Kentledge Description: 8T
Observations:

Depth (m bgl): 0

Conversion factor: 0.65148
Plate Diameter (mm): 457
Plate Area (m²): 0.164

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Warrington, WA3 6AE



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Checked: SL
Approved: SL



PROJECT No : **TM/22/1343**

SHEET No : **12**

REPORT STATUS : FIRST ISSUE

TEMPORARY WORKS GROUND CONDITIONS

APPENDIX E

Proposed Scaffold and Access Methodology

Scaffold Schedule

Ref: 1,2,3,4

All perimeter scaffolding.

Access to external elevations for cleaning & window refurb

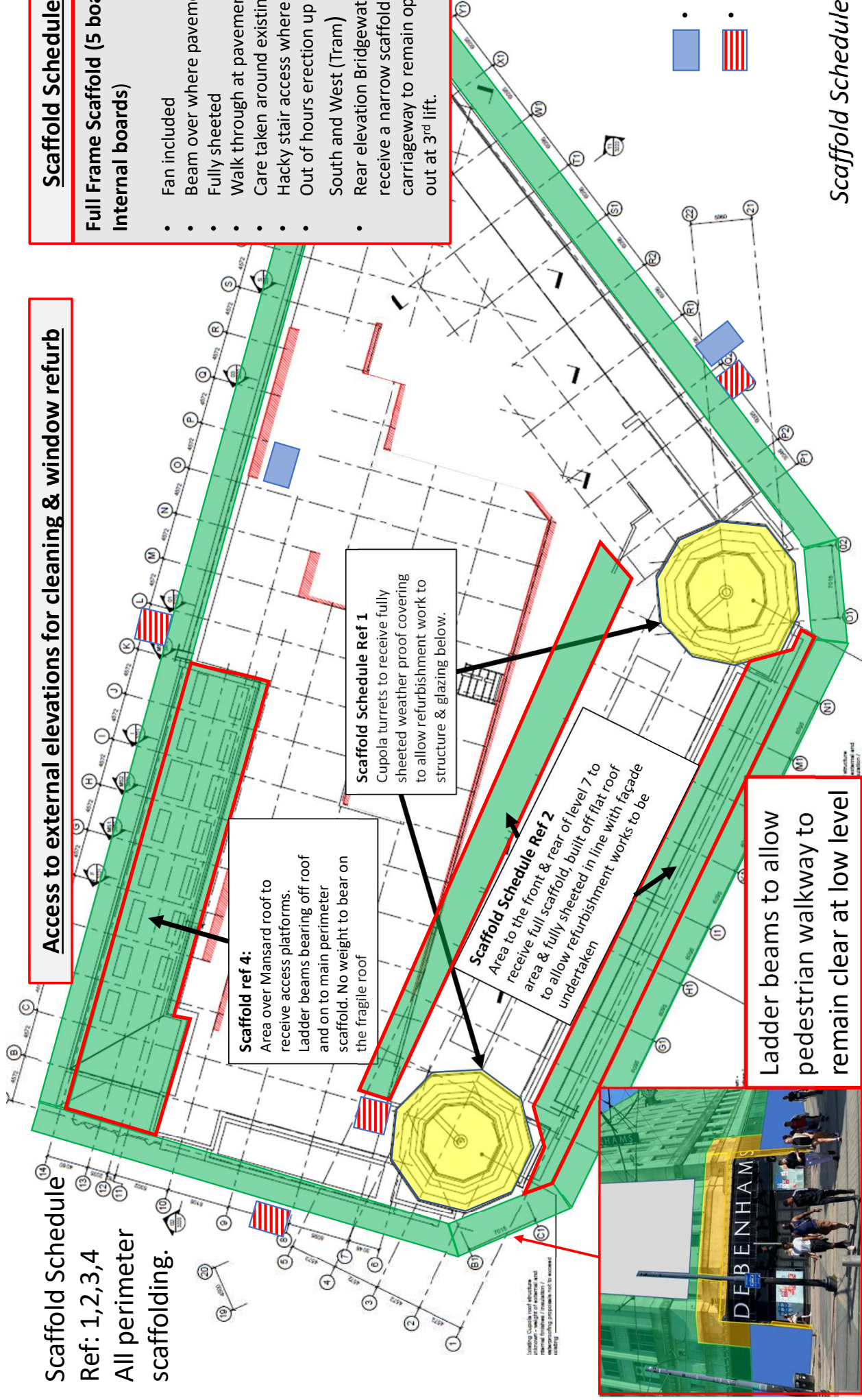
Scaffold Schedule Ref 3

Full Frame Scaffold (5 boards + 2 Internal boards)

- Fan included
- Beam over where pavement narrows
- Fully sheeted
- Walk through at pavement level
- Care taken around existing clock
- Hacky stair access where shown
- Out of hours erection up to fan to South and West (Tram)
- Rear elevation Bridgewater Place to receive a narrow scaffold to allow carriageway to remain open. To corbel out at 3rd lift.

• Hoist

• Hacky Stair tower



Scaffold Schedule Mark-up



PROJECT No : **TM/22/1343**

SHEET No : **13**

REPORT STATUS : FIRST ISSUE

TEMPORARY WORKS GROUND CONDITIONS

APPENDIX F

Proposed Mobile Crane Plan

LIFT INFORMATION		
Slew Ring Split (Lower)	te	6.70
Slew Ring Split (Upper)	te	3.90
Counter Jib	te	5.30
Winches	4.5 & 2.35 te	
A-Frame	te	4.65
60.0m Jib Split	te	6.50
MAX. OPERATING WIND SPEED		
 9.0 m/s (Subject To Wind Surface Area)		

