LANMOR Consulting

Civil Engineers & Transport Planners

Parker Collins House

Utilities Strategy

January 2024

231743/US/MK/01

LANMOR Consulting

Civil Engineers & Transport Planners

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APPENDICES

1 INTRODUCTION

1.1 General

1.1.1 Lanmor Consulting has been appointed to undertake a review of the existing utilities in vicinity of the development, prepare an outline strategy and identify implications associated with procuring new potable water, foul water discharge, gas, electricity and telecommunications services to support the development at Parker Collins House. Portsmouth Road, Woking GU23 6JA.

1.1.2 Purpose of the Strategy

1.1.3 This report has been prepared for the proposed development of 9 new residential properties. Guildford Borough Council's (GBC) planning application validation requires a Fibre Broadband and Utility Strategy to be submitted for all proposals of housing development with over 50 units or more than 1,000 square meters of floor space.

1.1.4 This strategy considers the provision of superfast broadband to the residential properties in the development, and the service provisions needed to the site from the wider infrastructure network.

1.2 Site Description and Existing Conditions

1.2.1 The site is located in the village of Burnt Common, just off the intersection of Send Marsh Road and Portsmouth Road. The site is currently occupied by a single property. The surrounding area is mainly residential with open fields to the east/south. The site is approximately 7.5 km to the south east of Woking

1.2.2 Development Proposals

1.2.3 The proposed development will be formed of a number of buildings to create 9 residential houses. Parking will be provided to the front of the main run of houses or on plot.

A new road will be provided off Send Marsh Road in the development to serve the proposed dwellings and parking area. The proposed layout for the development is shown on drawing 1348-03 included in Appendix A.

2 ELECTRICY PROVISIONS

2.1 Existing Network

2.1.1 The electricity supply network in the vicinity of the site is owned and maintained by UK Power Networks (UKPN).

2.1.2 Existing electrical assets in the local area around the site include a low voltage cable running in the verge around the site from Portsmouth Road to Send Marsh Road. Low voltage cables are also shown on the opposite side of Send Marsh Road and a high voltage cable is indicated in Portsmouth Road crossing Send Marsh Road and running north.

2.1.3 The extent of the existing electricity apparatus in the area is included in Appendix B.

2.2 Proposed Electrical Infrastructure

2.2.1 Initial discussions are underway with UKPN to confirm the proposed connection to LV network in Send Marsh Lane. The new connection to the development will be taken from the existing infrastructure and with final point of connection will be confirmed at design stage.

3 GAS PROVISIONS

3.1 Existing Network

3.1.1 The Gas supply network in the vicinity of the site is owned and maintained by Southern Gas Networks (SGN).

3.1.2 Existing assets in the local area around the site include a 63mm diameter main to the north of the site in Send Marsh Road and 180mm main also in Send Marsh Road on its northern side. There is an also a 125mm medium pressure main in the northern verge of Portsmouth Road to the east of the site.

3.1.3 The extent of the existing apparatus in the area is included in Appendix C.

3.2 Proposed Gas Mains Infrastructure

3.2.1 Initial discussions are underway with SGN to confirm suitable points of connection to their network. New connections to the development will be taken from the existing infrastructure in Send Marsh Road. Confirmation is awaited from SNG if the 63mm main has capacity for the development or if a new connection need to be made to the 180mm main on the other side of the road.

4 TELECOM PROVISIONS

4.1 Existing Network

4.1.1 Openreach duct routes are located in the northern footway of Send Marsh Road, there are also duct routes indicated along Portsmouth Road under the footway and carriageway.

4.1.2 A copy of the Openreach infrastructure in the area of the site is included in Appendix D.

4.2 Proposed Telecommunications Infrastructure

4.2.1 New supplies to the development will be provided from chamber directly opposite the site in the opposite footway in Send Marsh Road. This will connect to the new ducts to be installed on site to serve the dwellings.

4.3 Superfast Broadband

Introduction

4.3.1 Superfast broadband provides much faster upload data speeds. Superfast broadband connections enable users to surf the internet, download files and stream data at speeds far higher than regular internet users

4.3.2 The UK Government's Broadband Delivery Guidance defined superfast broadband as providing data download speeds to premises in excess of 24 Mbps (Megabites per second). This can be achieved over fibre or copper infrastructure.

4.3.3 The government is now rolling out project Gigabit. The telecoms industry and government action, gigabit coverage across the UK has increased rapidly in recent years - from one in ten households in 2019 to nearly eight in ten today.

4.3.4 Usually, superfast broadband is provided by a fibreoptic infrastructure. The fibreoptic allows rapid pulses of light to be transmitted through glass or plastic filaments. The receiver converts these pulses into binary code that can be read by computers etc.

Types of Superfast Broadband Connections

4.3.5 Broadband connections can be Fixed Line, Fixed Wireless, Satellite or Mobile. The most common is residential properties is Fixed Line, there are two main types of fibre broadband connections, fibre to cabinet and fibre to premises:

Fibre-to-Cabinet

4.3.6 Fibre to Cabinet involves laying fibre optic cables from the telephone exchange or distribution points in cabinets on streets or joint boxes, converters contained within them switch the signal for transmission through copper cabling to the premise.

4.3.7 When the premise is located over 100m from the distribution point reductions in download and upload speed can be experienced using this method.

Fibre-to-Premises

4.3.8 Fibre to Premises provides direct fibre optic connection from the exchange to the premises. Faster uploads. Faster upload and download speeds can be achieved using this method provides especially when the last cabinet/joint box is located over 100m from the premise.

Superfast Broadband Benefits

4.3.9 Homeowners and commercial tenants are attracted by the increased download speed that they will receive as the end user. Developers see the benefits of installing superfast broadband for marketing the property to potential homeowners and commercial tenants with no or very little capital outlay compared to traditional services.

4.3.10 Fibre optic infrastructure is also less susceptible data loss due to noise and interference than the more common copper networks.

4.4 Broadband Infrastructure

Existing Broadband Infrastructure

4.4.1 Within the area there are a number of operators that offer superfast broadband connections, including Sky, Voadaphone, talk talk and Now, all offering speeds of up 67Mb.

4.4.2 British Telecom also offer fibre broadband in the area providing speeds of up to 36Mb. Openreach current infrastructure around the site includes a network of underground cables, the nearest cables to the application site are located on the opposite side of Send Marsh Road to the development.

4.4.3 The infrastructure in the area will support the installation of fibre broadband to the door of each property, this will involve the crossing of Send Marsh Road into the site with new ducts / infrastructure. A copy of the Openreach infrastructure in the area of the site is included in Appendix B.

Proposed Broadband Delivery Options

4.4.4 The development can be supplied with broadband infrastructure by a number of providers. The preferred option is to enter in to a contract with Sky for the provision of broadband to the site.

4.4.5 OFCOM require that every home and business in the UK has the legal right to request a decent, affordable broadband connection.

4.4.6 Openreach states that:- *"We're committed to building the best digital future for the UK, so we've announced an ambitious plan to deliver Ultrafast full Fibre Broadband to 25 million homes and businesses by December 2026, if the right investment conditions are in place. Our plans support the Government's ambition of making Gigabit capable broadband available to more than 85% of the country and, in doing this, we're determined to be as open and transparent about our build programme as we can be."*

4.4.7 To support this Openreach say "*even if we don't have major plans for an area, we may still be building fibre for some customers. For example we connect new housing developments to fibre all the time and right across the UK*. "

4.4.8 The proposed fibre connection will be provided from the wider infrastructure network to a fibre joint cabinet, from this point a fibre connection will be made to a customer splice point and an optical network termination within each of the dwellings.

Preferred Delivery of Broadband

4.4.9 Discussions are on going with broadband providers, but as the development is only at outline stage, it difficult to give any commitments to providers and for them to agree proposals until the form of development is firmed up and the date when installation is required is known.

4.4.10 It is envisaged that discussions will continue with the various providers through to the detail design stage before a final discussion is made. However, at this stage the preferred option is to have Sky supply the premises, with a fall back with BT should the preferred supplier not be able to fulfil their commitment.

5 POTABLE WATER PROVISIONS

5.1 Existing Network

5.1.1 The water authority for the area is Affinity Water

5.1.2 Surrounding the site is a network of freshwater mains, to the south in Portsmouth road the service record drawings are showing a 180mm and 125mm diameter water main. Also within Send Marsh Road there a 3 inch main shown running across the front of the site before crossing the road to the opposite footway.

5.1.3 A copy of Affinity Water record drawings for freshwater infrastructure in the area of the site is included in Appendix E.

5.2 Proposed Telecommunications Infrastructure

5.2.1 A request has been made to Affinity Water to ascertain if the existing 3 inch service in Send Marsh Road has the capacity to serve the development or if a connection to the mains in Portsmouth need to be made. For the benefit of this assessment, it is assume that the new service to the development will connect from the main in Send Marsh Lane.

6 SEWARAGE PROVISIONS

6.1 Existing Network

6.1.1 The drainage authority for the area is Thames Water they own and maintain the adopted surface water and foul sewer in the area.

6.1.2 Thames Water sewer records do not show the presence of any sewer in the vicinity of the development. The nearest foul sewer is located in Send Marsh Road to the North of the Site. This sewer is shown as a 375mm diameter foul sewer and runs north in Send Marsh Road.

6.1.3 A copy of the Thames Water adopted sewers in the area of the site is included in Appendix F.

6.2 Proposed Foul Sewage Infrastructure

6.2.1 A separate surface water drainage strategy has been prepared for the development that addresses the discharge and connection for the surface water disposal from the development.

6.2.2 The proposed foul strategy will involve the installation of a network of pipes on site and connection out of the site up Send Marsh Road to the adopted Thames Water sewer in the north.

7 SUMMARY & CONCLUSION

7.1.1 At this outline stage of the development there is nothing to suggest that new service connections from the existing apparatus located in area cannot be provided. The final points of connection and capacity will be confirmed as the development proposals are firmed up. Drawing 231743/US/01 included in Appendix G shows the anticipated route of new service to the development and within the site.

APPENDIX A

Drawing 1348-03 – Propsoed Development Layout

PRIOR TO THE COMMENCEMENT OF ANY WORKS, THE BUILDER IS TO CHECK AND/OR DETERMINE ALL CONSTRUCTION DETAILS, INCLUDING CHECKING EXISTING SITE LEVELS AND DIMENSIONSTHE DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER PROJECT DRAWINGS, CONSTRUCTION NOTES AND/OR PROJECT SPECIFICATION. ALL DISCREPANCIES SHOULD BE REPORTED IMMEDIATELY.

LEGEND

- ASHP LOCATIONS
- TARMAC ACCESS ROAD TURNING AREAS
- PRIVATE GARDEN AREAS
- BLOCK PAVED PARKING AREAS
- SOFT LANDSCAPING AREAS
- FOOTPATHS & PATIOS
- RETAINING WALL
- 1.8M CLOSE BOARDED FENCE
- EXISTING TREE TO BE RETAINED
- EXISTING TREE TO BE REMOVED
- EXISTING PANTING/HEDGE TO BE RETAINED
- PROPOSED REPLACEMENT TREES

MAPLE ROAD

SEND MARSH ROAD

PORTSMOUTH ROAD

RS

RIDGE

RET. WALL

FENCE CB 1.8M

FENCE CB 1.0M

SHED APPROX.

FENCE

DENSELY OVERGROWN

GATES OBSCURED

GATE GP GP

RIDGE EAVES

SLEEPERS

POST

A/S

1 2 3 4 5 6 7 8 9

NORTH

EVENING SUN

MORNING SUN

MIDDAY SUN

0 5M 10M 20M

Rev	Date	Details	Drawn

Client:

RUSHMON HOMES

Site Address:

PARKER COLLINS HOUSE, PORTSMOUTH RD, RIPLEY, WOKING, SURREY, GU23 6JA

Description:

PROPOSED SITE PLAN

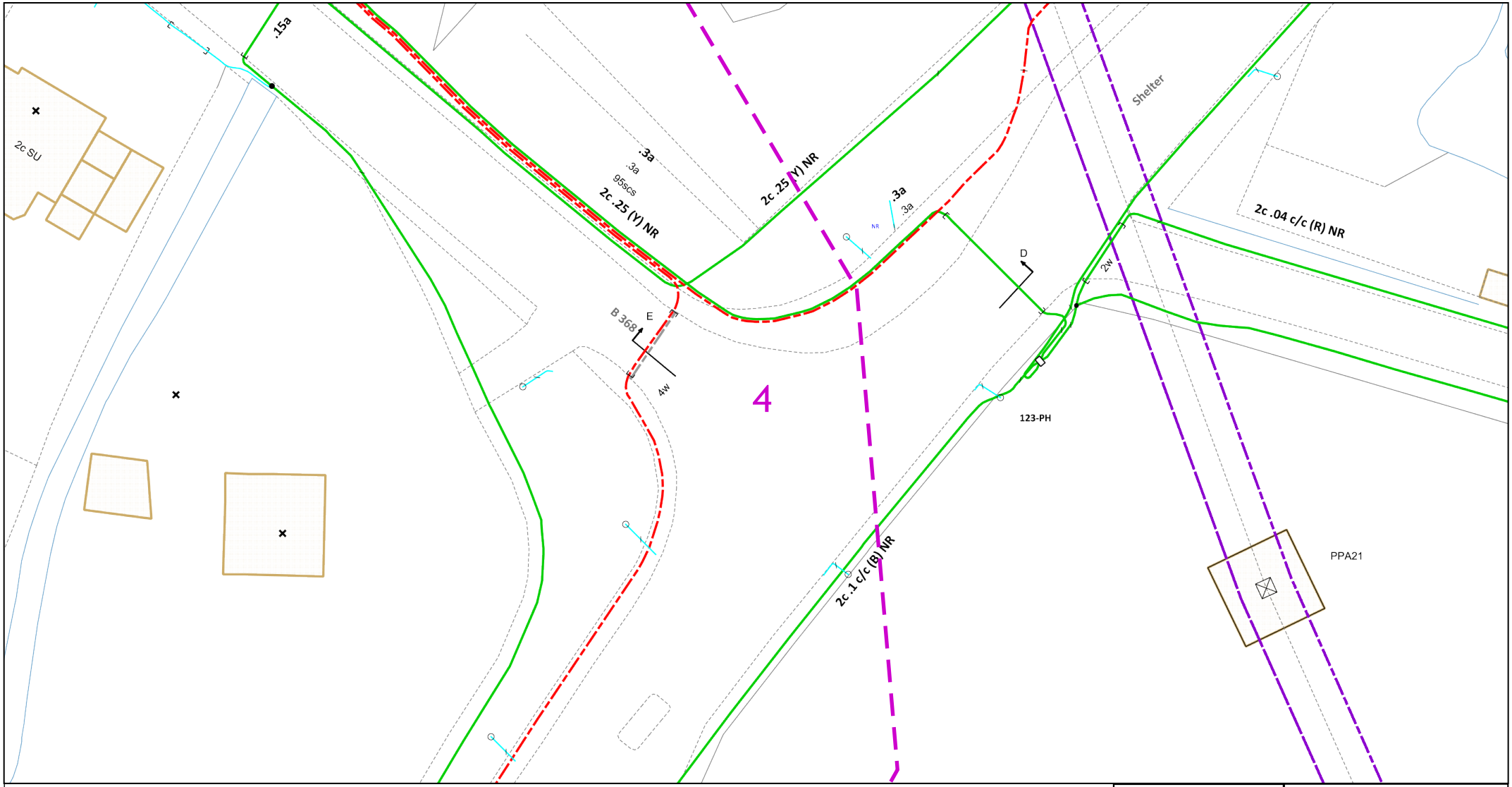
Status:	PLANNING		
Date:	DEC '23	Scale:	1:200@A1
Drawn:	JC	Checked:	TCA
Job Number:	1348	Drawing Number:	03
		Revision:	–

TCA ARCHITECTURAL DESIGN

Dorset House,
297-299 Kingston Road,
Leatherhead,
KT22 7PL
Tel: 01372 466443
Email: info@tcalimited.com
www.tcalimited.com

APPENDIX B

Electricity Infrastructure Records



0 12.5 25
metres

Dig Sites Area: Line:

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

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

Date Requested: 24/07/2023
Job Reference: 30264699
Site Location: 504186 155161
Requested by: Mr Ben Evans

Your Scheme/Reference: LM 208208/SJ
Scale: 1:500 (When plotted at A4)

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

1. UK Power Networks does not warrant that the information provided to you is correct. You rely upon it at your own risk.
2. UK Power Networks does not exclude or limit its liability if it causes the death of any persons or causes personal injury to a person.
3. Subject to paragraph 2 UK Power Networks has no liability to you in contract, in tort (including negligence), for breach of statutory duty or otherwise for any loss, damage, cost, claims, demands, or expenses that you or any third party may suffer or incur as a result of using the information provided whether for physical damage to property or for any economic loss (including without limitation loss of profit, loss of opportunity, loss of savings, loss of goodwill, loss of business, loss of use) or any special or consequential loss or damage whatsoever.
4. This plan has been provided to you on the basis of the terms of use set out in the covering letter that accompanies this plan. If you do not accept and/or do not understand the terms of use set out in the covering letter you must not use the plan and must return it to the sender of the letter.
5. You are responsible for the security of the information provided to you. It must not be given, sold or made available upon payment of a fee to a third party.
6. Please Note: The Overview map does not display UK Power Networks electricity network and should not be used for the location of UK Power Networks assets. For detail of the electricity network please view the relevant page as highlighted in the Overview map.

N W E S

UK Power Networks

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

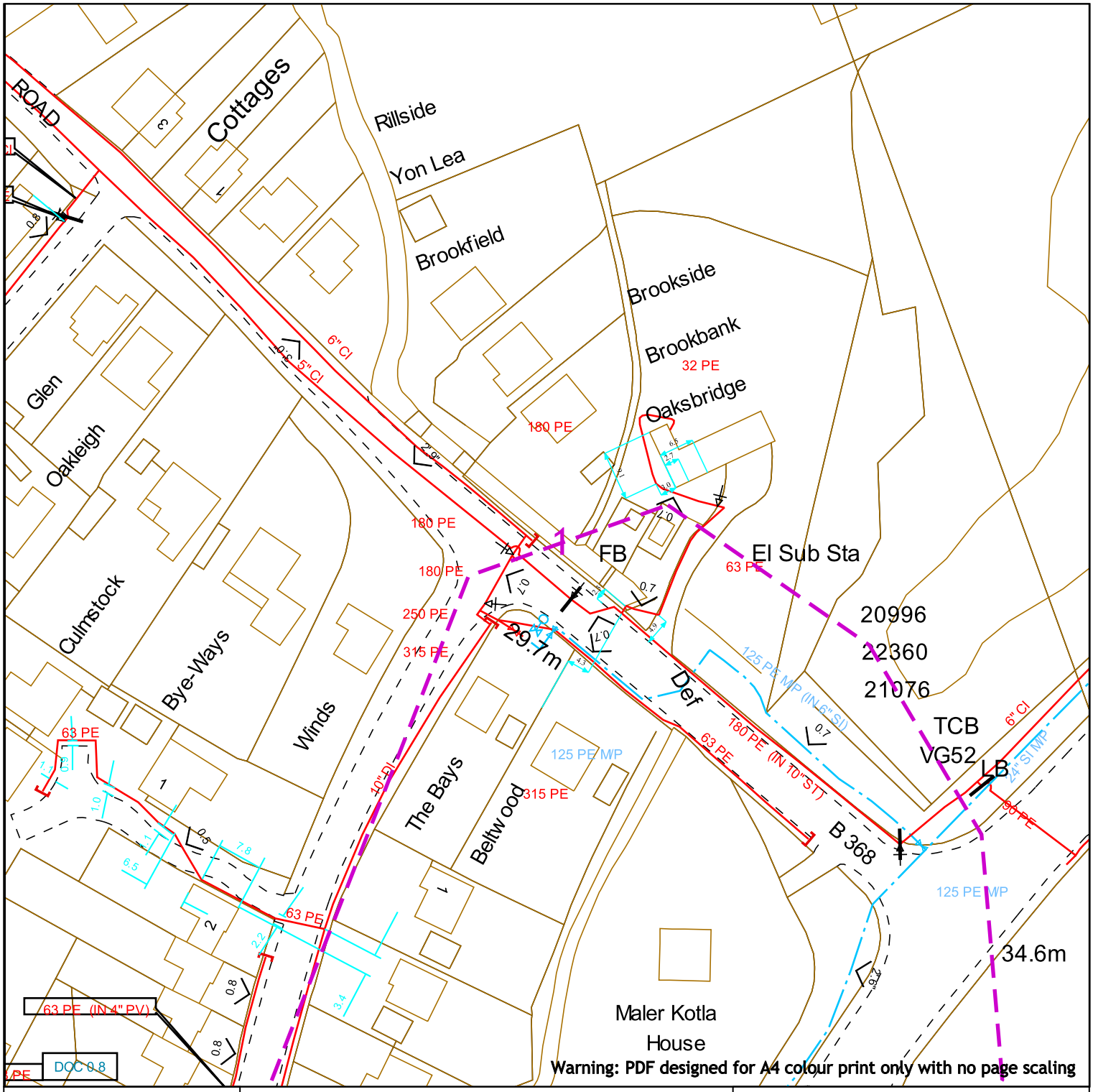
LOOK OUT LOOK UP

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

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

APPENDIX C

Gas Infrastructure Records



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

SGN
Your gas. Our network.

Contact Us
SGN Safety Admin Team:
0800 912 1722
Email:
plantlocation@sgn.co.uk

Low Pressure Mains
Medium Pressure Mains
Intermediate Pressure Mains
High Pressure Mains
Some Examples Of Plant Items
Valve | Syphon | Depth of Cover | Diameter Change | Material Change

Digsite:
Line: Area:
LAs
GTs SSSIs

This information is given as a guide only and its accuracy cannot be guaranteed.

Linesearch before dig

Date Requested: 24/07/2023
Job Reference: 30264699
Site Location: 504284 155265
Requested by: Mr Ben Evans

Your Scheme/Reference: LM 208208/SJ

Scale: 1:1000 (When plotted at A4)

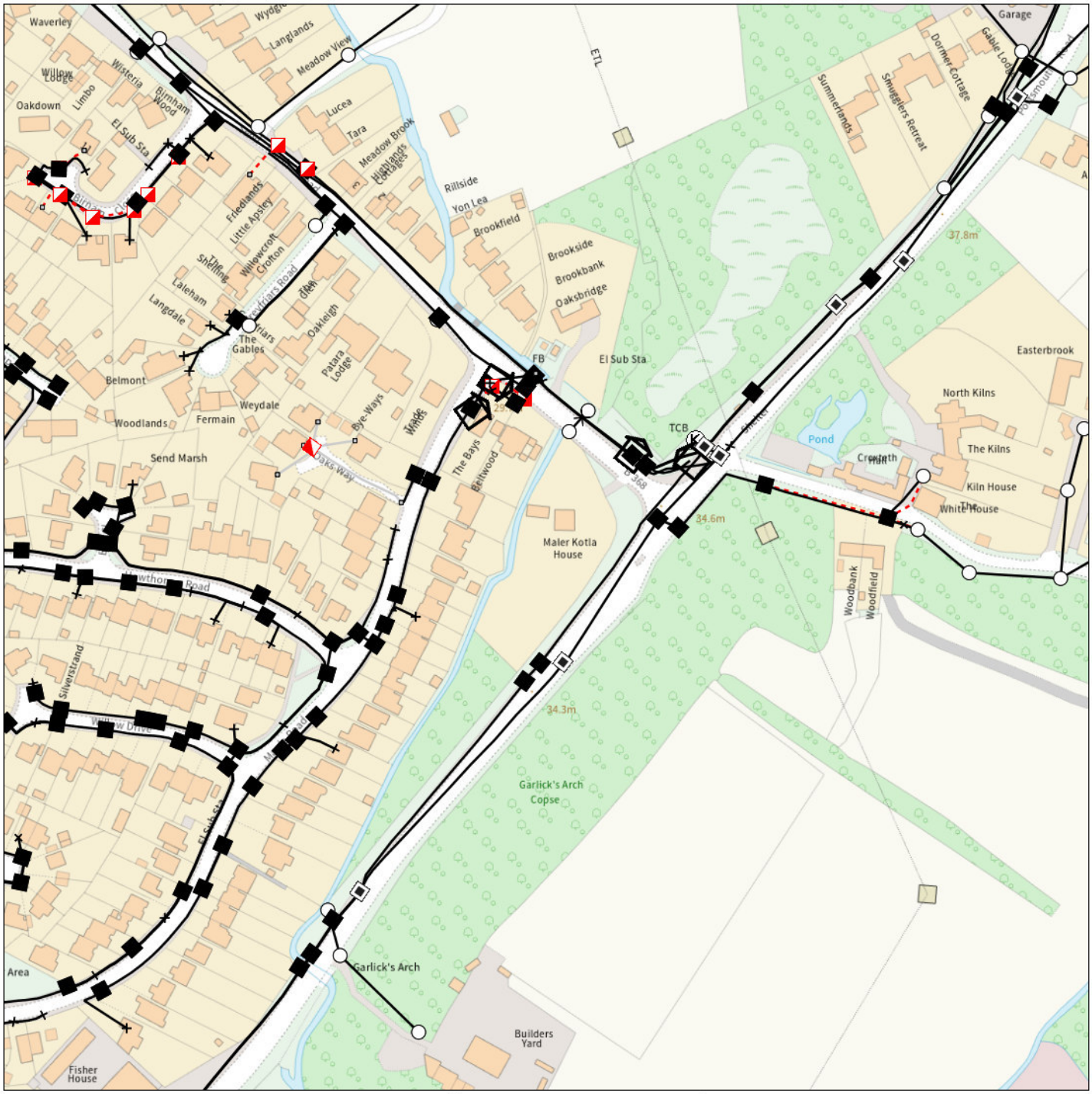
This plan shows the location of those pipes owned by Scotia Gas Networks (SGN) by virtue of being a licensed Gas Transporter (GT). Gas pipes owned by other GTs or third parties may also be present in this area but are not shown on this plan. Information with regard to such pipes should be obtained from the relevant owners. No warranties are given with regard to the accuracy of the information shown on this plan. Service pipes, valves, siphons, sub-connections etc. are not shown but their presence should be anticipated. You should be aware that a small percentage of our pipes/assets may be undergoing review and will temporarily be highlighted in yellow. If your proposed works are close to one of these pipes, you should contact the SGN Safety Admin Team on 0800 912 1722 for advice. No liability of any kind whatsoever is accepted by SGN or its agents, servants or sub-contractors for any error or omission contained herein. 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 plant location information is provided to all persons (whether direct labour or sub-contractors) working for you on or near gas apparatus. Information included on this plan should not be referred to beyond a period of 28 days from the date of issue.

Report damage immediately – KEEP EVERYONE AWAY FROM THE AREA
0800 111 999

APPENDIX D

Telecom Infrastructure Records

Maps by email Plant Information Reply



IMPORTANT WARNING

Information regarding the location of BT apparatus is given for your assistance and is intended for general guidance only. No guarantee is given of its accuracy. It should not be relied upon in the event of excavations or other works being made near to BT apparatus which may exist at various depths and may deviate from the marked route.

openreach

CLICK BEFORE YOU DIG

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

email cbyd@openreach.co.uk

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

Accidents happen

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

KEY TO BT SYMBOLS

	Planned	Live
PCP		
Pole		
Box		
Manhole		
Cabinet		

Change Of State	+	Hatchings	
Split Coupling		Built	
Duct Tee		Planned	
Building		Inferred	
Kiosk	K	Duct	

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 : OSN07302W
Map Reference : (centre) TQ0428655280
Easting/Northing : (centre) 504286,155280
Issued : 26/07/2023 07:30:30

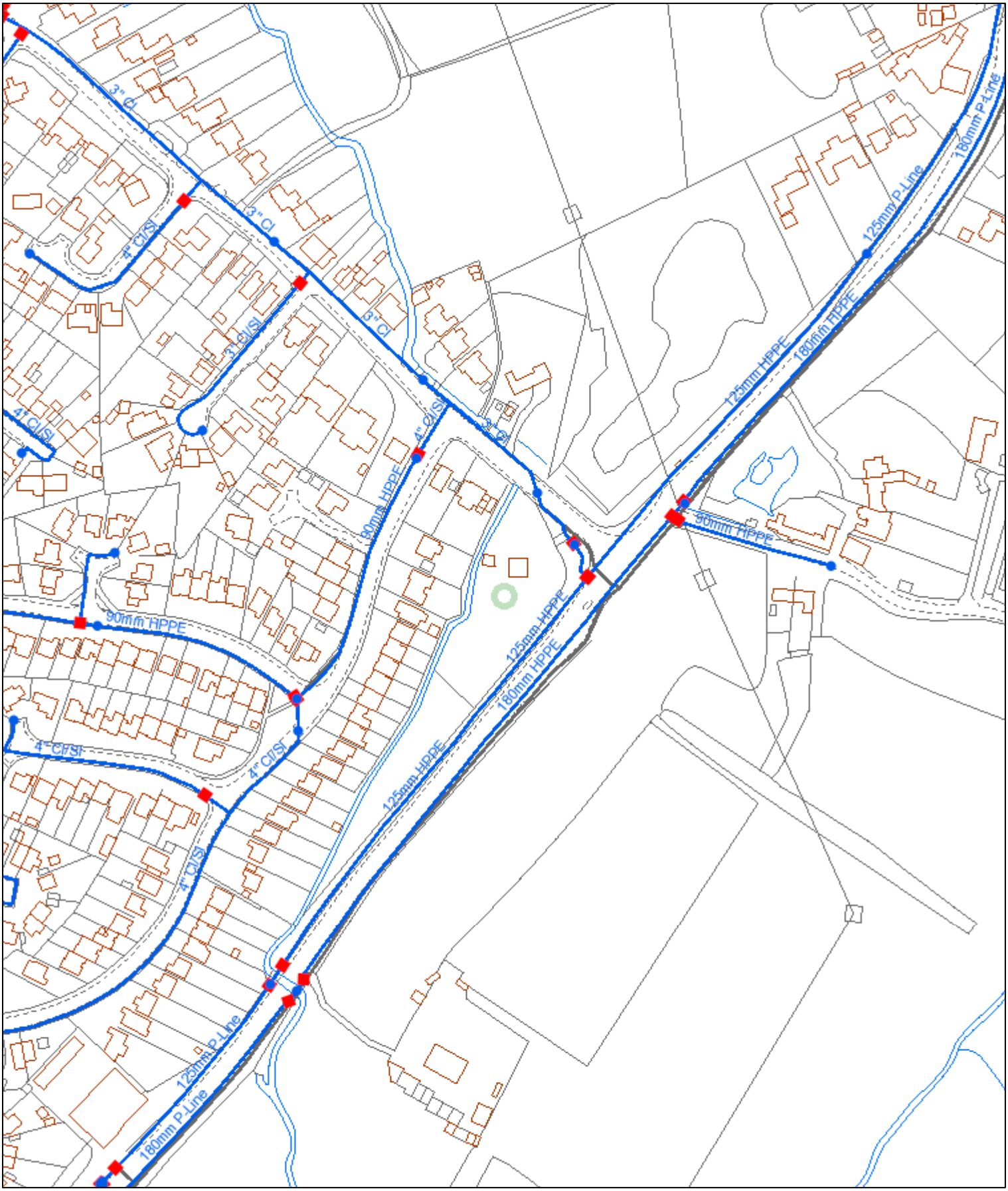
WARNING: IF PLANNED WORKS FALL INSIDE HATCHED AREA IT IS ESSENTIAL BEFORE PROCEEDING THAT YOU CONTACT THE NATIONAL NOTICE HANDLING CENTRE. PLEASE SEND E-MAIL TO: nnhc@openreach.co.uk

APPENDIX E

Fresh Water Infrastructure Records

208208

Created on - 7/26/2023



N

1:2,500

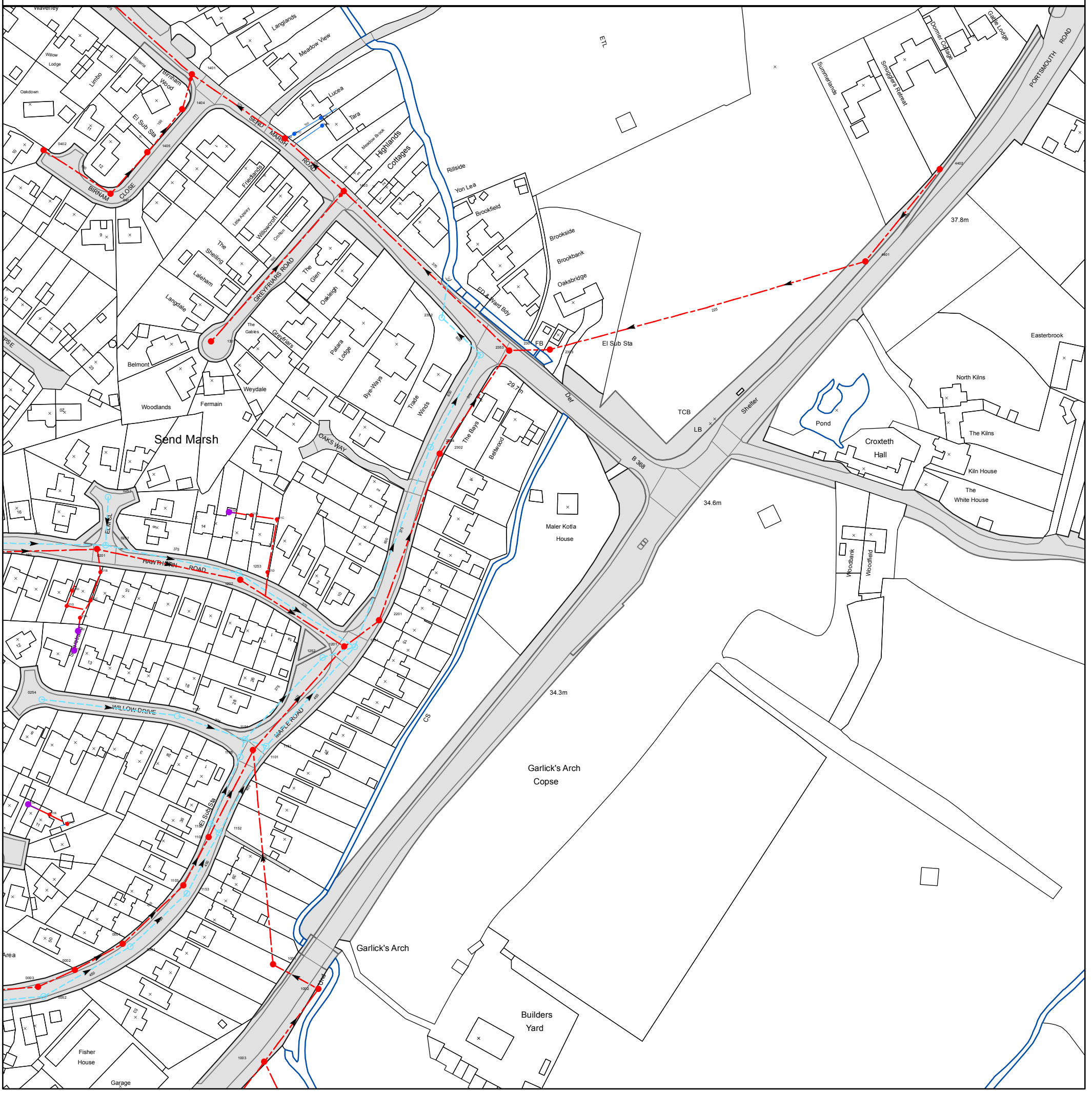
- Distribution Main
- Asbestos Distribution Main
- Abandoned Main
- Asbestos Abandoned Main
- Adit / Tunnel
- Cable
- Searched Location
- Hydrant
- Fitting
- Easement
- Company Boundary

APPENDIX F

Sewerage Infrastructure Records

Based on the Ordnance Survey Map with the sanction of the Controller of H.M Stationary Office License Number 10019345

ALS/ALS Standard/2023_4863003



0 10 20 40 60 80 Meters

Scale:	1:1789
Width:	500m
Printed By:	Skrishna1
Print Date:	26/07/2023
Map Centre:	504284,155273
Grid Reference:	TQ0455SW

Comments:

APPENDIX G

Drawing 231743/US/01 – Proposed Service Routes.

DWG No. 231743/US/01

Proposed Foul Sewer

Proposed gas connection

Proposed BT connection

Proposed electric connection

Proposed Service Corridor

Proposed water connection

Key:

- Existing BT ducts
- Existing gas main
- Existing water mains
- Existing electric cables
- Existing Foul Sewer
- Existing SW Sewer
- Proposed BT cables
- Proposed gas main
- Proposed water main
- Proposed electric cables
- Proposed foul sewer

Rushmon Homes Ltd	Parker Collins House Portsmouth Road, Ripley		Utility Strategy			
DRAWN RS	CHECKED KBL	APPROVED KBL	SCALE 1:200	JOB No. 231743	SIZE A1	REV -
DATE Jan-24	DATE Jan-24	DATE Jan-24	DWG No. 231743/US/01			

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www.lanmor.co.uk