Land at Victoria Avenue East,

New Moston

Proposed Retail Development

Flood Risk Assessment &

Outline Drainage Strategy

For: Aldi Stores Ltd.

Integra Consulting
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Manchester
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Ref: 3325-FRA
Job: 3325
Rev: -
By: NS

Date: Jan 2022

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1.0 INTRODUCTION

1.1 Integra Consulting has been commissioned by Aldi Stores Ltd. to undertake a Flood Risk Assessment & Outline Drainage Strategy (FRA) for the land at Victoria Avenue East, New Moston. This document has been prepared to accompany the detailed planning application for the proposed development of a new food retail store and associated car parking / servicing areas at the site (refer to Appendix 5).

1.2 The objective of the FRA is to identify potential flooding issues and any consequent implications on the proposed site development. The proposed surface and foul water drainage strategies for the development site are also considered.

1.3 The FRA has been undertaken in accordance with the pro-forma guidance contained in:

- Department for Communities and Local Government document 'National Planning Practice Guidance: Flood Risk and Coastal Change'

- Manchester City, Salford City and Trafford Councils Level 2 Hybrid Strategic Flood Risk Assessment - Level 1 SFRA prepared by JBA Consulting and dated March 2010

- Manchester City, Salford City and Trafford Councils Level 2 Hybrid Strategic Flood Risk Assessment - Level 2 SFRA prepared by JBA Consulting and dated March 2011

- DEFRA / Environment Agency publication SC030219 'Rainfall Runoff Management for Developments' dated October 2013.

1.4 To date, consultations have been undertaken with the Environment Agency (EA).

2.0 STANDARDS AND LIMITATIONS

This report has been prepared solely for use by Aldi Stores Ltd.

It shall not be relied upon or transferred to any other party without the prior written authorisation of Integra Consulting.

The findings and opinions in the report are based on information derived from a variety of different sources. Integra Consulting do not accept any liability for the accuracy or otherwise of any information provided by third parties.

It should be noted that some of the aspects considered in this study may be subject to change with time. Therefore, if the development is delayed or postponed, consideration may need to be given to reviewing such issues to confirm that no changes have taken place, either at the site or within relevant legislation.

Further consultations with statutory bodies are likely as the scheme progresses. It should be noted that even where responses have been received from Regulators, these could be subject to change at a later date.

3.0 CURRENT SITUATION

3.1 Site Location and Description

The circa 0.69 hectare site is located approximately 700m north west of the centre of Moston at National Grid reference 388213, 403392 as shown on the site location plan in Appendix 1.

The site is bounded by Victoria Avenue East to the south, playing fields directly to the east, open fields, a vegetated area and the M60 to the north and a surface car park / residential apartment block to the west (refer to existing site plan in Appendix 2). Boggart Hole Brook (designated by the Environment Agency as 'main river') lies circa 1200m south of the site with Wince Brook ('main river') located circa 1250m to the north.

Site levels fall from a maximum level around 106.0m AOD in the north of the site to circa 104.7m AOD in the south of the site. The existing topographical survey can be found in Appendix 2.

The central section of the site is hard landscaped comprising a building and a bitmacadam surfaced car park with existing soft landscaped areas in the north western and eastern areas of the site.

3.2 Flooding

Current Environment Agency flood data indicates the proposed development site to lie wholly in Flood Zone 1 (refer to Appendix 3 for details).

EA / DEFRA flood mapping indicates an isolated area in the central area of the site at a low risk of surface water flooding together with a further isolated area in the eastern area of the site at low to high risk of surface water flooding.

EA / DEFRA flood mapping does not indicate any areas of the proposed development platform at elevated risk of reservoir flooding.

3.3 Existing Sewers

The United Utilities sewer plan in Appendix 4 indicate the following adopted sewer infrastructure at the site:

- 300mm / 450mm diameter combined sewer extending from north west to south east beneath the northern side of Victoria Avenue East
- 300mm diameter combined sewer extending from north west to south east beneath the southern side of Victoria Avenue East

It is noted that the Thirlmere Aqueduct water main extends north west-south east beneath the proposed development site. Accordingly, an associated overall 10m easement width has been accommodated within the development proposals.

4.0 PROPOSED DEVELOPMENT

4.1 Development Proposals

It is proposed to submit a detailed planning application for the construction of a food retail unit with associated vehicle and pedestrian access, parking, and landscaping (refer to Appendix 5 for details of the proposed site plan).

4.2 Surface Water Drainage

The issue of surface water drainage to the proposed development has been considered with reference to the hierarchy of surface water disposal as noted in the Building Regulations H3:

i) Sustainable Urban Drainage Systems (SUDS)
ii) Discharge of surface water off site direct to watercourse
iii) Discharge to adopted sewer

SUDS are made up of one or more structures built to manage surface water runoff. They are used in conjunction with good management of the site to prevent flooding and pollution. There are four general methods of control:

- Filter strips and swales
- Filter drains and permeable surfaces
- Infiltration devices
- Basins and Ponds

A Phase 1 geo-environmental desk study has been undertaken by EEG followed by the construction of 10 No window sample boreholes to 6m depth and 2 No shell sand auger boreholes to circa 15m depth (refer to Appendix 7 for Phase 1 desk study details). The desk study indicates the site to be underlain by superficial deposits of Devensian Diamicton Till and Peat which are in turn underlain by Pennine Middle Coal Measures Formation solid deposits.

Intrusive geo-environmental ground investigations have been undertaken although the final report has not yet been published. Initial findings are reported as set out below:

- 10 No window samples were completed to 6m depth along with 2 No cable percussion holes to 15m although the second cable hole refused at around 13.5m.
- The boreholes generally encountered made ground up to approximately 1.20m thick overlying firm to stiff clay with frequent interbedded sand lenses.
- Peat was found in several of the boreholes and one of the cable holes, up to 2m thick on the existing rugby pitch to the east.
- The cable holes encountered softer, silty sand after 10m.

Although no specific infiltration testing in line with BRE 365 has been undertaken, it is evident from the above noted borehole data / desk study data that the underlying soils at shallow depth beneath the site are not suitable for the use of post-development soakaway surface water drainage techniques.

On the basis that the nearest natural watercourse to the site lies circa 1200m south of the site through multiple third party land ownerships, it is therefore proposed to discharge suitably attenuated site surface water to the 300mm diameter (becoming 450mm diameter) combined sewer that extends from north west to south east beneath the northern side of Victoria Avenue East potentially using the existing site connection. A survey of the existing private on-site sewer network has been undertaken and the results are provided in Appendix 6 of this report.

The site lies in a Critical Drainage Area and hence it is proposed that the post-development flows are limited to 50% of the existing brownfield runoff rate within the brownfield areas of the site with post-development surface water flows limited to greenfield run off rates over the existing greenfield areas of the site.

The existing drainage survey recently undertaken at the site encountered a below ground attenuation tank in the south eastern area of the site adjacent to Victoria Avenue East. As noted above, it is the intention to provide a 50% reduction on the existing brownfield flows although it is recognised that an existing attenuation system is already in use. The final proposed surface water flow rate for the overall site will be determined on completion of further investigation of the existing site surface water drainage system and in particular the existing flow restrictions and existing attenuation volume provided on site.

Based on the nature of this proposed retail development, a lifespan up to 2069 is anticipated and hence a climate change factor of 20% on peak rainfall intensity has been adopted.

Estimated preliminary surface water storage volumes to cater for a 1 in 30 year event and for a 1 in 100 year plus 20% climate change event will be provided once the above noted drainage investigations have been completed and reported on. It is noted that these estimated figures will be subject to finalisation of soil type following detailed ground investigation.

The post-development surface water drainage strategy will naturally need to be agreed in principle with the LLFA officer and United Utilities. Discharge of post-development surface water into the adjacent adopted combined sewer system will also naturally require a formal S104 application to be made to United Utilities.

Ultimately the final design of the drainage system will be subject to the finalised site arrangement, further targeted site investigation and subsequent development of a detailed drainage scheme.

4.3 National Planning Policy Framework and Technical Guidance

The retail site development proposals are classed as ‘less vulnerable’ in Table 2 of the Flood Risk and Coastal Change guidance.

‘Less vulnerable’ developments in Flood Zone 1 are classed as appropriate according to Table 3 of the Flood Risk and Coastal Change guidance. Proposed post development levels will be engineered in order to protect the development and not provide any increased flood risk elsewhere.

Types of flooding that could affect the site are:

River- the site wholly lies in Flood Zone 1
Sea – there is no risk of flooding from the sea
Groundwater – there are no springs or weep areas on the site
Sewers – there have been no local reports of sewer surcharge

4.4 Strategic Flood Risk Assessment & EA Mapping Review

From our review of the Manchester City, Salford City and Trafford Councils Level 2 Hybrid Strategic Flood Risk Assessment - Level 2 SFRA prepared by JBA Consulting and dated March 2011, the site lies in the Conurbation Core Critical Drainage Area.

There are no groundwater protection zones in the vicinity of the site and there is negligible residual fluvial risk. The site is not noted to lie within a flood warning area.

4.5 Safe Access and Egress

Safe access / egress from the site in extreme conditions will be via the entrance on Victoria Avenue East.

4.6 Foul Water Drainage

We would propose to discharge post-development foul drainage from the new food retail unit to the existing adjacent adopted combined sewerage system beneath the northern side of Victoria Avenue East potentially utilising the existing site connection.

The foul drainage network will naturally comply with Building Regulations 2010 – Approved Document H1 and the calculations for post-development foul water discharge will be based on Sewers for Adoption 8th Edition.

5.0 SuDS DESIGN STATEMENT

5.1 SuDS Requirements

SuDS measures are required on the proposed development to comply with the National Planning Policy Framework (NPPF), DEFRA Non-Statutory Technical Standards for Sustainable Drainage Systems and the SuDS guidance in the Manchester City, Salford City and Trafford Councils Level 2 Hybrid Strategic Flood Risk Assessment - Level 2 SFRA prepared by JBA Consulting and dated March 2011

The key conceptual SUDS design criteria for the development are covered in Non-Statutory Technical Standards for Sustainable Drainage under sections S1 to S9 based on the part brownfield / part greenfield nature of the development site.

Peak Flow Control

S2 of the DEFRA Technical Standards stipulates that for greenfield developments, the peak runoff from the development for the 1 in 1 year and 1 in 100 year rainfall events should never exceed the greenfield runoff rate for the same event.

S3 of the DEFRA Technical Standards stipulates that for brownfield developments, the peak runoff from the development for the 1 in 1 year and 1 in 100 year rainfall event must be as close as reasonably practicable to the greenfield runoff rate for the same rainfall event but should never exceed the rate of discharge from the development prior to re-development for that event.

Volume Control

Requirement S4 stipulates that the runoff volume in the 1 in 100 year, 6 hour rainfall event should never exceed the greenfield runoff volume for the same event.

Requirement S5 stipulates that the runoff volume in the 1 in 100 year, 6 hour rainfall event must be constrained to a value as close as is reasonably practicable to the greenfield runoff volume for the same event but should never exceed the runoff volume from the development site prior to development.

Flood Risk within the Development

S7 stipulates that the drainage system shall be designed such that no flooding shall occur on any part of the site during a 1 in 30 year storm event whilst the S8 requirement stipulates that, during a 1 in 100 year enhanced rainfall event, no flooding of any building shall occur.

S9 stipulates that site levels shall be designed such that flows which are as a result of rainfall events exceeding the 1 in 100 year enhanced rainfall event, are managed in exceedance routes that minimise the risks to people and property.

Water Quality

Water quality measures are generally considered with reference to CIRIA Report 'C753 – The SUDS Manual', specifically Chapters 4 and 26. In this instance, the hierarchy of surface discharge has demonstrated that it is not feasible to discharge surface water flows to ground or to watercourse and hence the local existing adopted combined sewer system is the only viable discharge option. Accordingly, no further water quality treatment is considered appropriate.

5.2 Proposed SUDS Methodology & Drainage Design Principles

As detailed in section 4.2, discharge of surface water direct to the ground in the form of infiltration measures is deemed infeasible due to the underlying permeability of the natural strata. Accordingly, controlled discharge to the adjacent existing adopted combined sewerage network beneath the northern side of Victoria Avenue East is the proposed method of post-development surface water discharge.

Peak Flow Control

Post-development surface water flow from the proposed development site shall be limited to 50% of the existing brownfield runoff rate within the brownfield areas of the site with post-development surface water flows limited to greenfield run off rates over the existing greenfield areas of the site thereby providing a significant betterment in relation to the existing situation.

Volume Control

The proposed discharge flow rate (to be determined following completion of drainage investigations - refer to section 4.2 for details) will apply for all flood events from the 1 in 1 year to the 1 in 100 year (enhanced) event. This is deemed to equate to a significant betterment over the development site.

Flood Risk within the Development

To cater for excess surface water runoff, the proposed method of attenuation on the site is to utilise underground crate storage beneath the external areas of the development platform with a downstream piped drainage system discharging attenuated site surface water into the existing adjacent adopted combined sewerage system beneath the northern side of Victoria Avenue East.

It is proposed to accommodate the 1 in 100 year (enhanced) event storage volume within the underground crate storage. Accordingly, this will ensure that criteria S7 and S8 are met.

The site is to discharge post-development surface water into underground crate storage within the 'red line' site boundary which in turn will discharge through a flow control chamber to limit the discharge to a runoff rate that provides a 50% betterment on the pre-development brownfield surface water flow rate for the existing brownfield site extent site with post-development surface water flows limited to greenfield run off rates over the existing greenfield areas of the site. Downstream of the crate storage / flow control chamber, the attenuated surface water flow will discharge to the adjacent adopted combined water sewerage system beneath the northern side of Victoria Avenue East.

It is intended that post-development surface water discharge to the adopted combined sewerage system will utilise existing site private drainage connections to the adjacent adopted United Utilities combined sewer beneath Victoria Avenue East where possible (refer to Appendix 6 for details).

5.3 Management and Maintenance of SuDS Drainage System

The management and maintenance of the above noted SuDS measures to serve the proposed development will be undertaken by a maintenance management company to be appointed for the project. The appointment of the maintenance and management company is to be confirmed at the completion of the build phase. All parts of the drainage network are to be accessible and are to be constructed from materials that are suitable and robust for the lifetime of the development.

The maintenance activities required for the drainage network are as follows:

5.3.1 Cellular Storage Structure

The maintenance for the cellular storage structure is as follows:

Operation	**Frequency**
Inspect and identify any areas that are not operating correctly and if required take remedial actions	Monthly for three months then six monthly intervals
Debris caused from catchment surface (where it may cause risk to performance)	Monthly
Where rainfall infiltration into cellular storage from above, check surface or filter for blockage or silt, algae or other matter by jetting	As required but at least twice a year
Remove sediment from upstream surface water network by jetting	Annually or as required
Repair / check all inlets, outlets, overflows and vents	As required
Inspect / check all inlets, outlets, vents and overflows to ensure that they are in good condition and operating as designed	Annually and after severe storms

5.3.2 Flow Control

The maintenance for the flow control is as follows:

Operation	Frequency
Inspect and identify any areas that are not operating correctly, if required take remedial actions	Monthly for three months then at six monthly intervals
Debris removal from catchment surface (where it may cause risk to performance)	Monthly
Check control chamber for blockage or silt, algae or other matter by jetting	As required, but at least four times a year
Remove sediment from upstream drainage network and sediment from within manhole by jetting	As required, but at least twice a year
Repair / check all inlets and control mechanics	As required
Inspect / check all inlets and control mechanics to ensure that they are operating as designed	Twice a year as a minimum and after severe storm events

5.3.3 Flow Control Chamber Design Criteria

In addition to the above maintenance methods, the flow control chamber will be designed so it works effectively throughout the lifespan of the development and will have precautionary features to ensure maintenance work can be carried out promptly and efficiently to ensure no control failure which may otherwise subsequently lead to flooding.

Details of the flow control chamber are as follows:

- High Water Level Alarm: Alarm installed and directed to site maintenance team
- Spares: Control spares to be kept on site for efficient maintenance

5.3.6 Flood Routes

A visual monthly inspection of flood routes should be made in order to check that routes are not blocked by new fences, walls, soil or other rubbish with removal undertaken as necessary.

5.3.7 Spillage – Emergency Action

Most spillages on development sites are of compounds that do not pose a serious risk to the environment as they enter the drainage system in a slow and controlled manner with time available for natural breakdown in a treatment system. Therefore, small spillages of oil, milk or other known organic substances should be removed where possible using soak mats as recommend by the Environment Agency with residual spillage allowed to bio-remediate in the drainage system.

In the event of a serious spillage, either by volume or of unknown or toxic compounds, then the spillage should be isolated using soil, turf or fabric and outlet pipes from chambers downstream of the spillage blocked with bungs. Bungs for blocking pipes may be made by wrapping soil or turf in a plastic sheet or close woven fabric. The Environment Agency should be contacted immediately.

5.3.8 Linked and Further Maintenance

The maintenance of the drainage network and SuDS features is to be linked with the landscape maintenance plan for the proposed development.

5.3.9 Maintenance Activities

A log of all maintenance activities is to be kept and made available to the Local Planning Authority (LPA) and / or the Lead Local Flood Authority (LLFA) on request.

6. CONCLUSIONS

6.1 Flooding

Following review of the Environment Agency flood maps and data, it has been confirmed that the site lies wholly in Flood Zone 1.

There are to be no off site surface water flood routes generated by the development during an enhanced 1 in 100 year storm. All surface water run-off will remain on site in the 1 in 100 year + 20% climate change event.

6.2 Site Surface Water Drainage

It is proposed to discharge suitably attenuated post-development surface water into underground crate storage within the 'red line' site boundary which in turn will discharge through a flow control chamber to limit the discharge to a runoff rate that provides a 50% betterment on the pre-development brownfield surface water flow rate for the existing brownfield site extent site with post-development surface water flows limited to greenfield run off rates over the existing greenfield areas of the site, all subject to detailed drainage design.

Downstream of the crate storage / flow control chamber, the attenuated surface water flow will discharge to the adjacent adopted combined water sewerage system beneath the northern side of Victoria Avenue East.

6.3 Site Foul Water Drainage

We would propose that post-development foul drainage discharges from the new food retail unit to the existing adjacent adopted combined sewerage system beneath the northern section of Victoria Avenue East to the south of the site.

6.4 Flood Risk Management Measures

There will be a site management Health and Safety document prepared in respect of the site.

6.5 Off Site Impacts

All roofed and paved areas are to be drained into the site surface water drainage system. The design of the site surface water system will ensure that no off site flood flows are generated by the proposed development in the 1% plus climate change event.

6.6 Residual Risk

With careful design of the drainage elements as described above, there will be no residual flood related risks remaining after the development has been completed.

The proposed building envelope will naturally fully lie in Flood Zone 1.

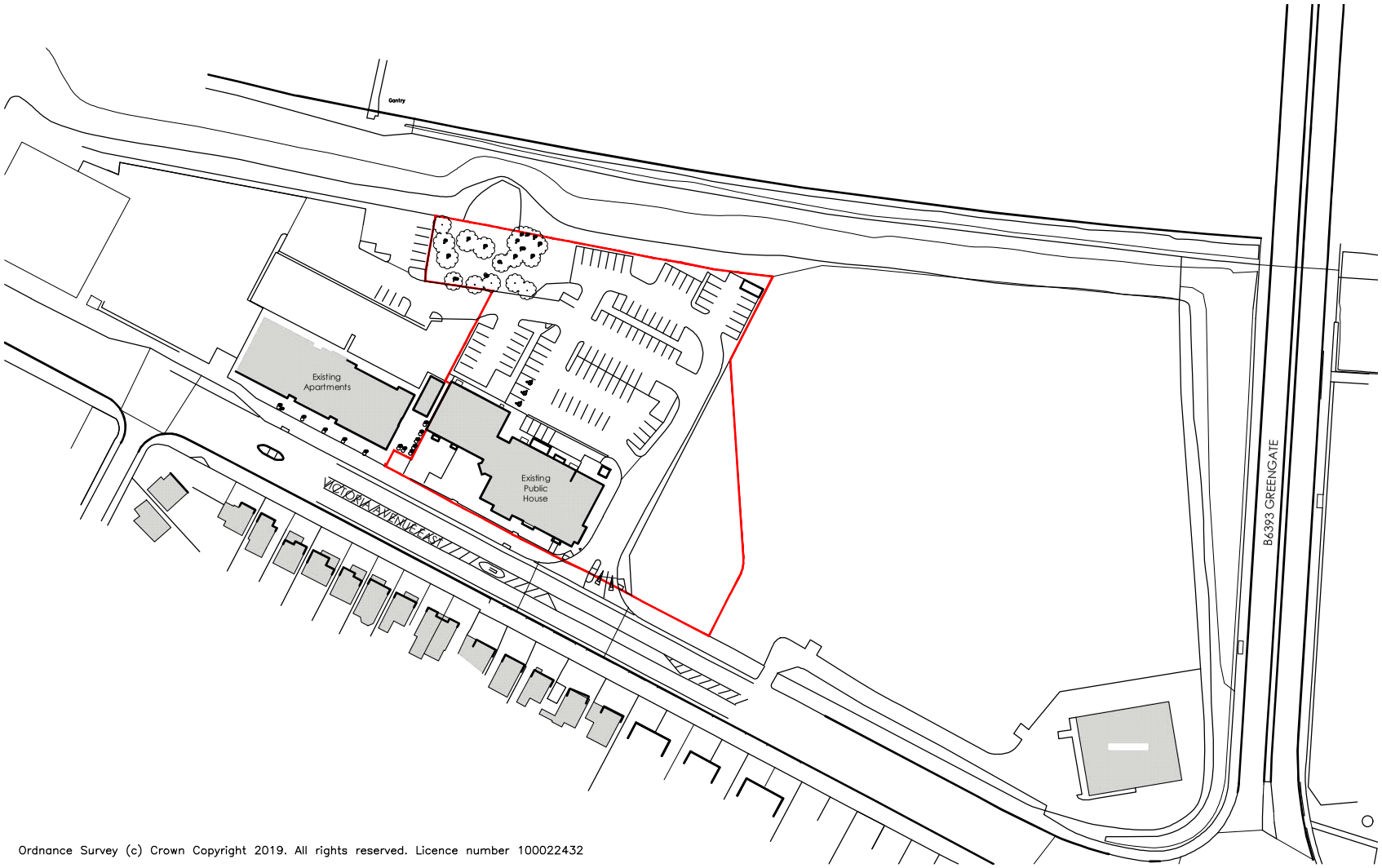
A post-development safe emergency access can be maintained at all times during a flood event with emergency access from Victoria Avenue East.

APPENDIX

APPENDIX 1

SITE LOCATION PLAN

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SITE LOCATION PLAN
SCALE 1:1250 @ A3

0 12.5 25 37.5 50 62.5m
SCALE 1:1250

NORTH

ASSUMED BOUNDARY (Red Line)
2.06 ACRES (0.83 HA)

CAD file reference J:/ALDI/BOLTON/16223/17.0 DRAWINGS/001 SERIES

Note:
Information is based on received information and is subject to full topographical, building survey and site visit

Assumed site boundary and site constraints based on desktop study and subject to confirmation.

All Legal easements and extent of existing underground services locations are subject to confirmation.

Rev	Date	Description	Rev By	Chk'd By
-	dd-mm-yy	-----	---	---

Project Title	PROPOSED FOODSTORE VICTORIA AVENUE EAST MANCHESTER M9 7HW
Client	ALDI STORES LTD
Status	PLANNING
Scale	1:1250
Drawing Size	A3
Date	MARCH 21
Drawn By	CM
Checked	LEEB
Drawing Title	SITE LOCATION PLAN
Job-Dwg No	16223BOL-098
Rev	-

25t. Johns North, Wakefield, WF1 3QA t. 01924 291800
Carvers Warehouse, 77 Dale Street, Manchester, M1 2HG t. 0161 2388555
The Old Rectory, 79 High Street, Newport Pagnell, MK1 6 8AB t. 01908 211577
101 London Road, Reading, RG1 5BY t. 0118 9507700
10 Gees Court, St Christophers Place, London, W1U 1JJ t. 0207 4091215

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APPENDIX 2

EXISTING SITE PLAN / TOPOGRAPHICAL SURVEY

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Note:
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Assumed site boundary and site constraints based on desktop study and subject to confirmation.

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Rev	Date	Description	Rev By	Chk'd By
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Project Title	PROPOSED FOODSTORE VICTORIA AVENUE EAST MANCHESTER M9 7HW
Client	ALDI STORES LTD
Status	PLANNING
Scale	1:500
Drawing Size	A3
Date	MARCH 21
Drawn By	CM
Checked	LEEB
Drawing Title	EXISTING SITE PLAN
Job-Dwg No	16223BOL-099
Rev	-

EXISTING SITE PLAN
SCALE 1:500 @ A3

0 5 10 15 20 25m
SCALE 1:500

NORTH

ASSUMED BOUNDARY (Red Line)
2.06 ACRES (0.83 HA)

CAD file reference J:/ALDI/BOLTON/16223/17.0 DRAWINGS/001 SERIES

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APPENDIX 3

ENVIRONMENT AGENCY FLOOD MAPPING

Flood map for planning

Your reference	Location (easting/northing)	Created
New Moston	**388201/403332**	**29 Jan 2022 16:13**

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

This means:

- you don't need to do a flood risk assessment if your development is smaller than 1 hectare and not affected by other sources of flooding
- you may need to do a flood risk assessment if your development is larger than 1 hectare or affected by other sources of flooding or in an area with critical drainage problems

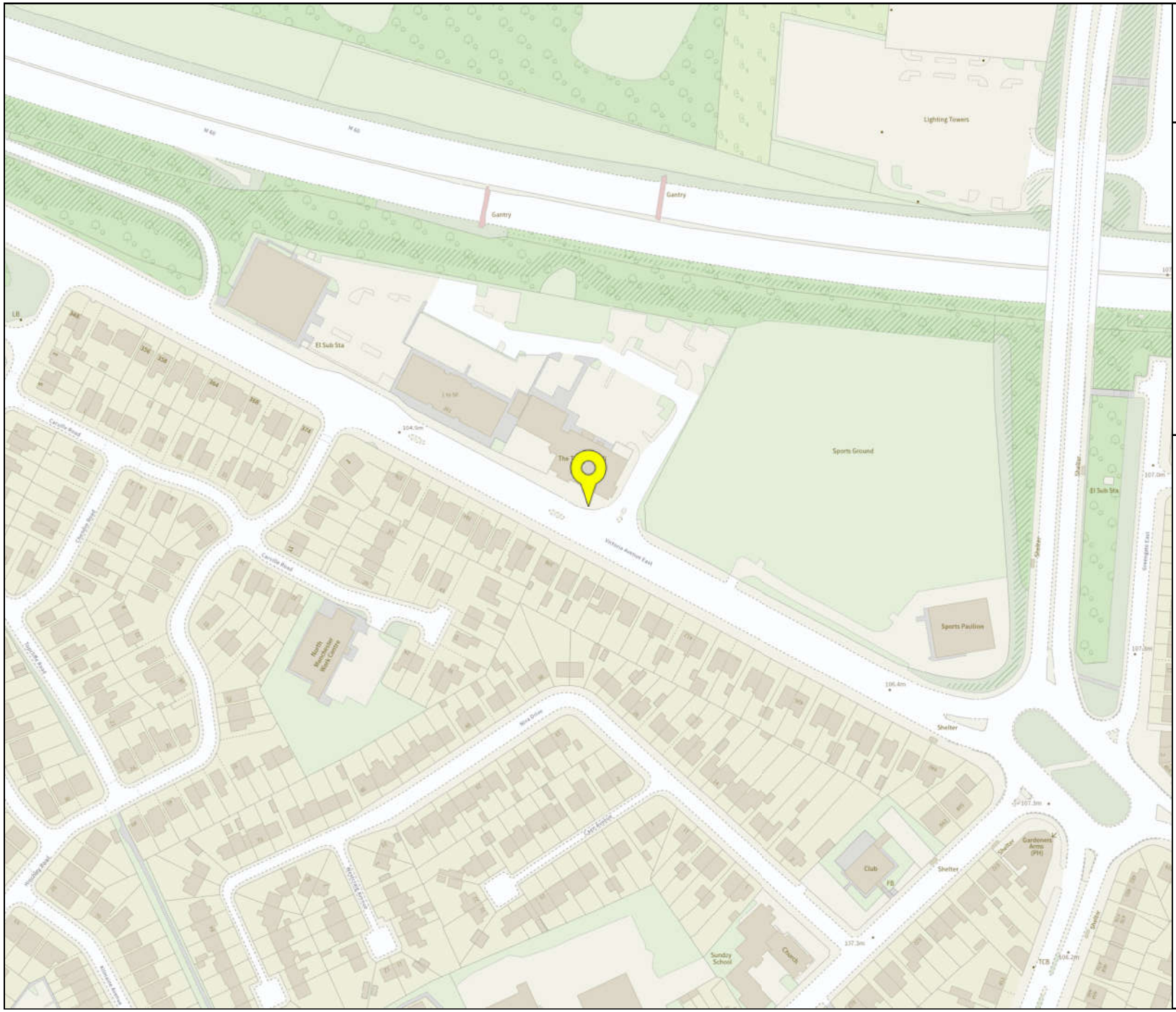
Notes

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 2021 OS 100024198. https://flood-map-for-planning.service.gov.uk/os-terms



Environment Agency

Flood map for planning

Your reference
New Moston

Location (easting/northing)
388201/403332

Scale
1:2500

Created
29 Jan 2022 16:13

- Selected point
- Flood zone 3
- Flood zone 3: areas benefitting from flood defences
- Flood zone 2
- Flood zone 1
- Flood defence
- Main river
- Flood storage area

0 20 40 60m

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APPENDIX 4

UNITED UTILITIES SEWER PLAN

United Utilities
Water for the North West

How to contact us:

United Utilities Water Limited
Property Searches
Haweswater House
Lingley Mere Business Park
Great Sankey
Warrington
WA5 3LP

Telephone: 0370 7510101

E-mail: propertysearches@uuplc.co.uk

Integra Consulting

14-32
Hewitt Street,
Manchester,
M15 4GB

FAO:

Your Ref: New Moston
Our Ref: UUPS-ORD-344474
Date: 16/11/2021

Dear Sirs

Location: New Moston

I acknowledge with thanks your request dated 15/11/2021 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

United Utilities Water Limited
Registered In England & Wales No. 2366678
Registered Office Haweswater House, Lingley Mere Business Park,
Lingley Green Avenue, Great Sankey, Warrington, WA5 3LP

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.

United Utilities Water Limited
Registered In England & Wales No. 2366678
Registered Office Haweswater House, Lingley Mere Business Park,
Lingley Green Avenue, Great Sankey, Warrington, WA5 3LP



Refno	Cover	Func	Invert	Size x	Size y	Shape	Matl	Length	Grad
0005	104.62	FO	102.27	150			CO	15.81143	1 in 144
0003	104.79	FO	102.27	150			CO	22.73351	1 in 47
9404		CO	0	300			VC	95.86525	
8302	102.2	FO	100.28	150			CO	16.79805	1 in 153
0009	104.8	SW	103.05	225			CO	26.22037	1 in 131
9202	101.91	SW	95.67	300			VC	35.24108	1 in 226
0007	103	SW	100.24	1050			CO	35.81618	1 in 358
9403		CO	0	225			VC	16.94332	
8202	101.69	SW	96.95	300			VC	20.88635	1 in 251
0203	104.18	SW	102.68	225			CO	30.19503	1 in 92
0211	103.82	SW	101.94	225			CO	8.712745	1 in 58
2201		CO		100			VC	0.283847	
8301	102.03	FO	100.87	150			CO	16.33423	1 in 115
9103	102.24	SW	96.71	375			CO	29.24171	1 in 183
9001	102.88	SW	100.38	225			VC	51.31291	1 in 40
9103	102.03	SW	96.34	375			CO	49.63475	1 in 64
9304	105.17	FO	102.01	150			CO	14.71168	1 in 140
0004	104.23	FO	101.28	150			CO	35.40756	1 in 145
0204	105.23	FO	101.28	150			CO	35.40756	1 in 145
9111	102.95	SW	100.07	1050			CO	66.10721	1 in 451
8305	102.16	SW	100.04	450			CO	16.48615	1 in 235
0304	104.84	FO	102.66	150			CO	16.56606	1 in 134
0212	103.36	SW	101.79	300			CO	46.29927	1 in 33
9110	102.82	FO	102.21	150			CO	66.31665	1 in 150
4404	107.04	SW	104.64	225			VC	60.07583	
0210	103.64	SW	102.25	225			CO	24.63225	1 in 79
9103	101.2	FO	96.41	225			VC	48.12403	1 in 117
0306	104.81	FO	102.16	150			CO	22.90801	1 in 151
0011	102.79	FO	100.56	150			VC	17.33135	1 in 72
0301	104.62	FO	102.5	150			CO	16.28075	1 in 148
0310	104.27	SW	103.19	225			CO	23.31817	1 in 167
8305	102.61	SW	100.1	450			CO	14.3045	1 in 238
1203	104.25	FO	102.91	150			CO	25.13106	1 in 148
9207	104.27	SW	100.33	1050			CO	72.50861	1 in 259
0202	104.45	FO	102.29	150			CO	16.57038	1 in 155
0205	103.28	FO	102.28	150			CO	28.18803	1 in 145
9203	101.3	FO	99.88	150			VC	35.34217	1 in 155
0311	104.53	SW	102.47	375			CO	16.25905	1 in 321
9102	102.6	SW	99.52	375			CO	24.12181	1 in 134
2209		CO		100			VC	17.76095	
9107	102.58	FO	99.1	150			VC	25.59866	1 in 108
9105	102.54	SW	100.78	225			VC	45.67913	1 in 115
9205	102.21	SW	100.24	1050			CO	17.01588	1 in 125
0304	104.21	FO	102.75	150			CO	20.39524	1 in 153
8303	102.82	FO	101.1	150			CO	15.91269	1 in 151
0206	104.27	SW	102.6	300			CO	25.45675	1 in 161
0208	104.2	SW	103.05	225			CO	23.31817	1 in 167
1205	104.5	FO	101.19	225			CO	34.39556	1 in 80
9106	102.23	FO	99.45	150			VC	26.28967	1 in 83
8312		FO		100			PSC	3.698636	
0305	105.13	SW	102.68	375			CO	74.14184	1 in 44
0203	104.25	FO	102.74	150			CO	34.83954	1 in 145
0306	104.28	SW	102.24	375			CO	21.67807	1 in 213
8313		FO		100			PSC	2.9501159	
0205	103.51	FO	102.37	150			CO	11.33323	1 in 142
0212	104.03	SW	102.52	375			CO	19.11002	1 in 319
9104	101.54	SW	97.48	375			CO	45.59024	1 in 64
0201		FO		150			VC	13.07	
1102	103.23	CO	100.3	225			VC	34.52586	1 in 69
1302	104.23	CO	101.29	300			VC	35.82401	1 in 478
3102	106.02	CO	99.38	1100			CO	76.83122	1 in 226
2211		CO		150			VC	6.913744	
3104		CG		150			VC	11.38774	
0209	104.89	SW	102.72	150			CO	35.85336	1 in 39
2301		CO	0	450			VC	68.53466	
0401	104.79	CO	102.24	300			VC	50.47727	1 in 445
4105	105.21	CO	103.27	225			VC	35.52727	1 in 71
9205	104.22	FO	101.48	150			CO	73.54663	1 in 149
9210		CO		100			VC	2.349856	
2202	105.72	CO	102.67	225			VC	54.29316	1 in 126
0211		CO		150			VC	3.231965	
9106	107.28	FO	35.68	150			VC	47.21455	1 in 105
0214		FO		150			VC	26.37048	
9201		FO		150			VC	5.286036	
9009	102.64	FO	99.92	150			VC	32.68418	1 in 48
1304		CO		150			VC	10.24869	
4404	101.23	CO	102.81	300			VC	32.79859	1 in 7
1301	104.27	CO	101.02	375			VC	16.29683	1 in 257
9103		FO		100			VC	11.58152	
0102	103.69	CO	101.91	225			VC	32.90151	1 in 105
3202	107.26	CO	103.87	450			VC	43	1 in 9
3101	106.73	CO	100.28	300			VC	92.19564	1 in 49
1101	104.89	CO	101.02	225			VC	53.31041	1 in 105
2203	105.73	CO	101.23	450			VC	113.9622	1 in 350
9205	103.41	SW	101.72	225			CO	15.34553	1 in 14
9205	103.26	FO	101.21	150			CO	16.15205	1 in 165
8412		FO		100			VC	7.213571	
9208		FO		150			VC	5.0704	
8113		FO		150			VC	4.874604	
2102		CO		150			VC	9.194325	
4106	107.28	CO	104.46	225			VC	23.85372	
1010	105.44	FO	101.62	225			VC	41.14608	1 in 70
0402	104.76	CO	101.94	300			VC	55.47727	1 in 389
9209		CO		100			VC	4.248456	
1201	105.27	CO	103.54	225			VC	71.34424	1 in 111
0213	104.13	FO	102.13	150			VC	13.04807	
1202	105.28	CO	102.21	300			VC	35.3017	1 in 118
0103	104.95	CO	102.45	225			VC	56.36488	1 in 111
0104		FO		150			VC	11.62388	
0216		CO		150			VC	0.05366849	
4104	108.23	CO	105.68	225			VC	58.24804	1 in 65
4301	107.21	CO	103.29	300			VC	58.22861	1 in 145
4103	107.29	CO	103.83	225			VC	119.4194	1 in 127
4103	107.1	CO	104.77	225			VC	22.56103	1 in 73
4102	107.41	CO	99.85	1100			VC	42.34163	1 in 138
9115		FO		100			VC	11.09837	
9401		CO	0	225			VC	94.52616	
0101	103.41	CO	101.28	225			VC	38.62402	1 in 107
4205	103.23	CO	95.82	1100			CO	37.48233	
1303	104.76	CO	101.69	300			VC	86.76961	1 in 334
4201	107.26	CO	102.9	300			VC	84.33231	1 in 111
0601	103.79	CO	101.29	225			VC	115.4858	1 in 101
1304	104.57	CO	101.41	450			CO	25.20143	
2201	105.48	CO	102.29	300			VC	11.27272	1 in 171
9402		CO	0	225			VC	94.52616	
1009	104.28	SW	101.62	225			VC	16.98772	1 in 60

Refno	Cover	Func	Invert	Size x	Size y	Shape	Matl	Length	Grad

LEGEND

Abandoned — Foul — Surface Water — Combined

- Public Sewer
- Private Sewer
- Section 104
- Rising Main
- Sludge Main
- Overflow
- Water Course
- Highway Drain

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

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

MANHOLE FUNCTION

FO	Foul
SW	Surface Water
CO	Combined
OV	Overflow

SEWER SHAPE

CI	Circular	TR	Trapezoidal
EG	Egg	AR	Arch
OV	Oval	BA	Barrel
FT	Flat Top	HO	HorseShoe
RE	Rectangular	UN	Unspecified
SQ	Square		

SEWER MATERIAL

AC	Asbestos Cement
BR	Brick
PE	Polyethylene
RP	Reinforced Plastic Matrix
CO	Concrete
CSB	Concrete Segment Bolted
CSU	Concrete Segment Unbolted
CC	Concrete Box Culverted
PSC	Plastic / Steel Composite
GRC	Glass Reinforced Plastic
D	Ductile Iron
PVC	Polyvinyl Chloride
C	Cast Iron
SI	Spun Iron
ST	Steel
VC	Vitrified Clay
PP	Polypropylene
PF	Pitch Fibre
MAC	Masonry, Coursed
MAR	Masonry, Random
U	Unspecified

Address or Site Reference:

New Moston,

Scale: 1:1250 **Date:** 16/11/2021

Sheet: 1 of 1

Printed by: Property Searches

SEWER RECORDS

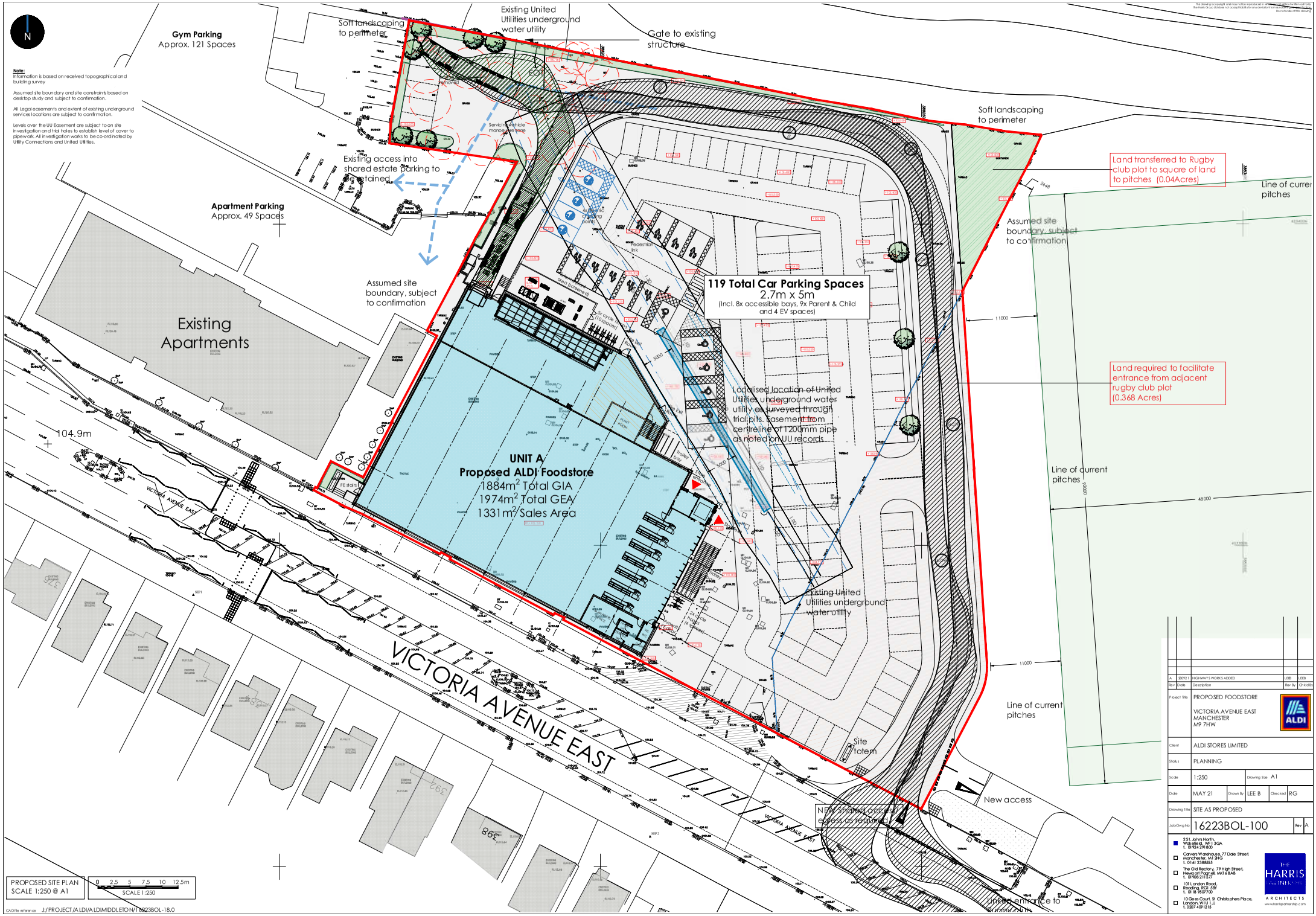
United Utilities
Water for the North West

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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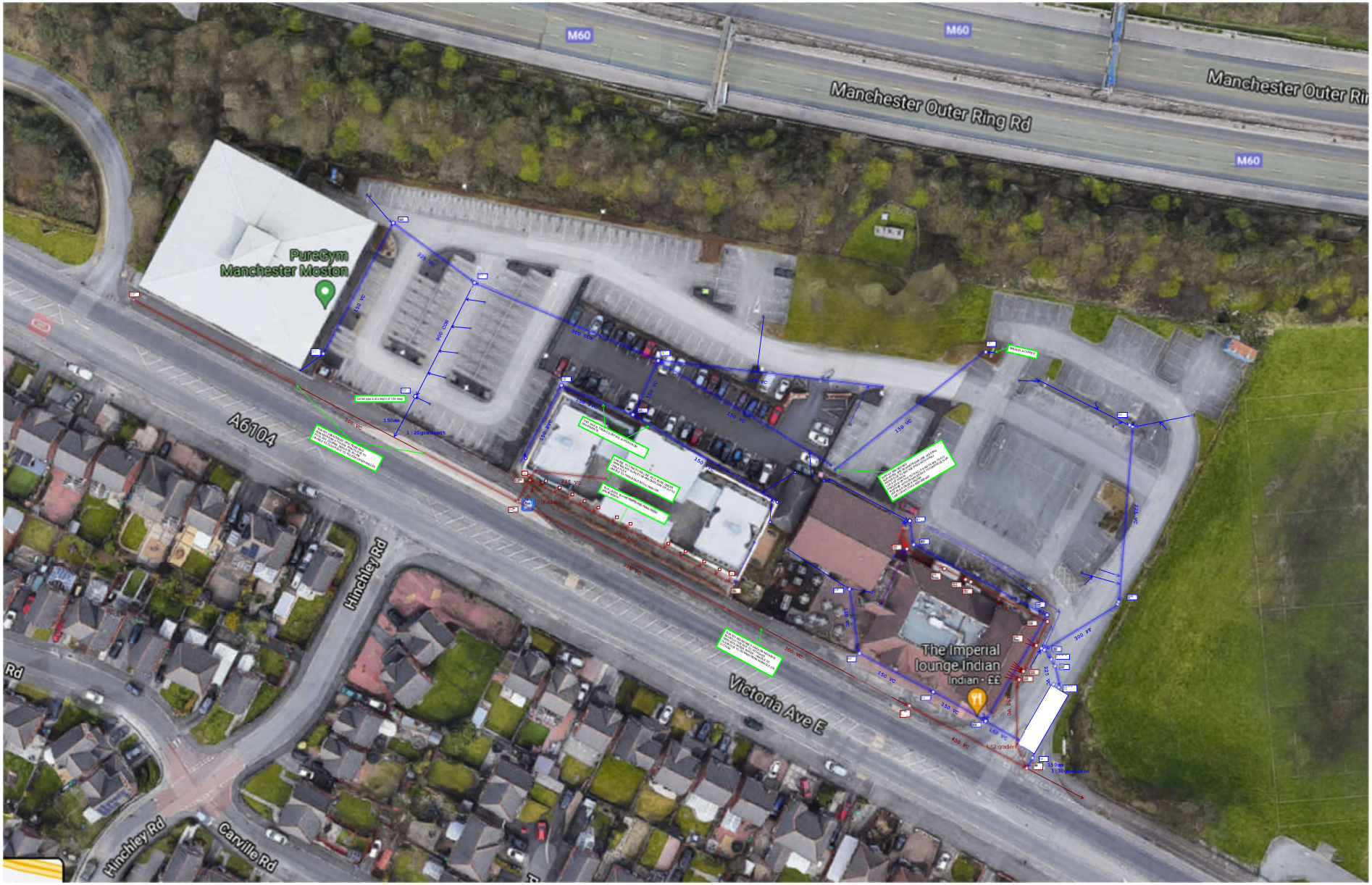
APPENDIX 5

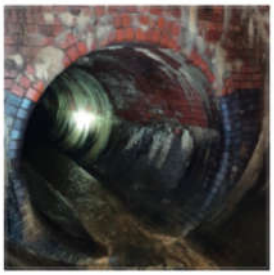
PROPOSED SITE PLAN


N
Gym Parking
Approx. 121 Spaces
Note:
Information is based on received topographical and building survey
Assumed site boundary and site constraints based on desktop study and subject to confirmation.
All Legal easements and extent of existing underground services locations are subject to confirmation.
Levels over the UU Easement are subject to on site investigation and trial holes to establish level of cover to pipework. All investigation works to be co-ordinated by Utility Connections and United Utilities.
Soft landscaping to perimeter
Existing United Utilities underground water utility
Gate to existing structure
Existing access into shared estate parking to be retained
Apartment Parking
Approx. 49 Spaces
Assumed site boundary, subject to confirmation
Existing Apartments
119 Total Car Parking Spaces
2.7m x 5m
(Incl. 8x accessible bays, 9x Parent & Child and 4 EV spaces)
Localised location of United Utilities underground water utility as surveyed through trial pits. Easement from centreline of 1200mm pipe as noted on UU records
UNIT A
Proposed ALDI Foodstore
1884m² Total GIA
1974m² Total GEA
1331m² Sales Area
Land transferred to Rugby club plot to square of land to pitches (0.04Acres)
Land required to facilitate entrance from adjacent rugby club plot (0.368 Acres)
Line of current pitches
Assumed site boundary, subject to confirmation
Soft landscaping to perimeter
Existing United Utilities underground water utility
Site totem
New access
New shared access/ egress as required
Linked entrance to
104.9m
VICTORIA AVENUE EAST
PROPOSED SITE PLAN
SCALE 1:250 @ A1
0 2.5 5 7.5 10 12.5m
SCALE 1:250
CAD file reference J:/PROJECT/A LDI/A LDIMIDDLETON/16223BOL-18.0
A 28/7/21 HIGHWAYS WORKS ADDED LEB LEEB
Rev Date Description Rev By Chk'd By
Project Title PROPOSED FOODSTORE
VICTORIA AVENUE EAST
MANCHESTER
M9 7HW
Client ALDI STORES LIMITED
Status PLANNING
Scale 1:250 Drawing Size A1
Date MAY 21 Drawn By LEE B Checked RG
Drawing Title SITE AS PROPOSED
Job-Dwg No 16223BOL-100 Rev A
2 St. Johns North, Wakefield, WF1 3QA t. 01924 291600
Carvers Warehouse, 77 Dale Street Manchester, M1 2HG t. 0161 2388855
The Old Rectory, 79 High Street, Newcastle Pagnell, MK13 8AB t. 01908 211577
101 London Road, Reading, RG1 5BF t. 01 18 9509700
10 Greek Court, St Christophers Place, London, W1U 1JJ t. 0207 4091215
THE HARRIS PARTNERSHIP
ARCHITECTS
www.harrispartnership.com

APPENDIX 6

EXISTING DRAINAGE SURVEY

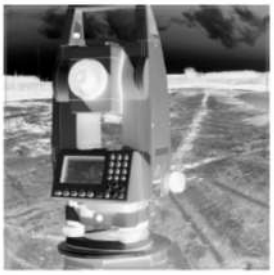

M60
M60
Manchester Outer Ring Rd
M60
PureGym
Manchester Mosley
A6104
Hinchley Rd
Victoria Ave E
The Imperial
lounge Indian
Indian · ££
Hinchley Rd
Carville Rd









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DRAINAGE SURVEY

LAYER SURVEYS LTD
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Project Information

Layer Surveys Ltd
Francis House
Meadowcroft Business Park
Pope Lane
Preston
Lancashire
PR4 4BA

Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**

Client Details:

Integra Consulting
Suite 4,
14-32 Hewitt Street,
Manchester,
M15 4GB

Client Contact Name: Neville Shaw
Client Contact Tel: 07740 723 258

Site Details:

Aldi Moston Development,
Victoria Ave E,
Manchester
M9 7GH

Site Contact Name: Adam Westwell
Site Contact Tel: 07779 035443

Contractor Details:

Layer Surveys Ltd
Francis House
Meadowcroft Business Park
Pope Lane
Preston
Lancashire
PR4 4BA

Office Contact Number: 01772 611634

Purpose of Survey:

Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**

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Page 16 Survey Run Sheet(Survey 5 - MH F1 to BRANCH C)

Page 18 Survey Run Sheet(Survey 6 - MH F1 to BRANCH D)

Page 20 Survey Run Sheet(Survey 7 - MH F1 to MH F2)

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Layer Surveys Ltd
Francis House
Meadowcroft Business Park
Pope Lane
Preston
Lancashire
PR4 4BA

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CCTV Inspection Report

Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**MH S1 X**	**24/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**2/1**	**ELFEIYII63**	**1**

Road **AIdi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

Division
District
Location Details

Purpose
Duty **Surface water**
Catchment

Shape/Size **100mm**
Material **Vitrified clay**
Category

Start Node **MH S2**
End Node **MH S1**
Total length **4.24 metres**

Scale **1:0.21**
Direction **Upstream**

Start Node Ref:MH S2 | I/L :mm | Depth: 1.17mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH S2	5773420	Comment / 0
0.00	WL	Water level 5% height/diameter	5773421	Comment / 0
0.64	JDM	Joint displaced medium	5773422	Structural / 1
0.64	DES	Settled deposits fine 5% cross-sectional area loss	5773430	Service / 2
2.50	JDL	Joint displaced large	5773431	Structural / 1
2.50	DES	Settled deposits fine 5% cross-sectional area loss	5773432	Service / 2
4.24	MHF	Finish node type, manhole, reference MH S1	5773437	Comment / 0

End Node Ref:MH S1 | I/L :mm | Depth: 1.08mm

CCTV Inspection Photos

Layer Surveys Ltd
Francis House
Meadowcroft Business Park
Pope Lane
Preston
Lancashire
PR4 4BA

Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**



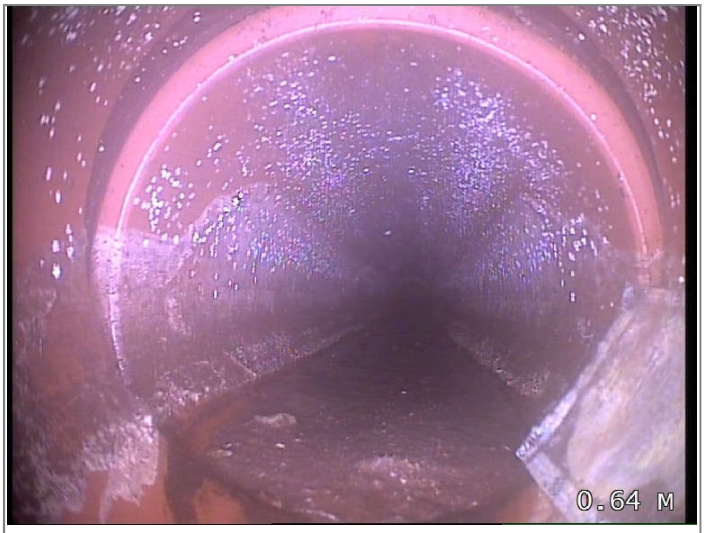
Start node type, manhole, reference MH S2



Water level 5% height/diameter



Joint displaced medium



Settled deposits fine 5% cross-sectional area loss



Joint displaced large



Settled deposits fine 5% cross-sectional area loss

CCTV Inspection Photos

Layer Surveys Ltd
Francis House
Meadowcroft Business Park
Pope Lane
Preston
Lancashire
PR4 4BA

Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**



Finish node type, manhole, reference MH S1

Layer Surveys Ltd
Francis House
Meadowcroft Business Park
Pope Lane
Preston
Lancashire
PR4 4BA

LAYER SURVEYS LTD
SEE THE COMPLETE PICTURE

CCTV Inspection Report

Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**MH S2 X**	**24/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**4/0**	**ELFEIYII63**	**2**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

Division
District
Location Details

Purpose
Duty **Surface water**
Catchment

Shape/Size **150mm**
Material **Vitrified clay**
Category

Start Node **MH S2**
End Node **MH S3**
Total length **30 metres**

Scale **1:1.57**
Direction **Downstream**

Start Node Ref:MH S2 | I/L :mm | Depth: 1.17mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH S2	5773483	Comment / 0
0.00	WL	Water level 5% height/diameter	5773484	Comment / 0
2.81	JN	Junction at 1 o'clock, diameter 100mm	5773486	Comment / 0
3.02	DES	Settled deposits fine 5% cross-sectional area loss	5773487	Service / 2
6.31	JN	Junction at 3 o'clock, diameter 100mm	5773488	Comment / 0
8.19	DER	Settled deposits coarse 5% cross-sectional area loss - Remark: PIECE OF PIPE	5773490	Service / 2
12.55	DEX	Other settled deposits 25% cross-sectional area loss - Remark: DEBRIS	5773491	Service / 4
13.38	DES	Settled deposits fine 25% cross-sectional area loss	5773492	Service / 4
15.57	SA	Survey abandoned - Remark: UNABLE TO PASS DUE TO HIGH SILT DEPOSITS	5773503	Comment / 0



End Node Ref:MH S3 | I/L :mm | Depth: 1.52mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**



Start node type, manhole, reference MH S2



Water level 5% height/diameter



Junction at 1 o'clock, diameter 100mm



Settled deposits fine 5% cross-sectional area loss



Junction at 3 o'clock, diameter 100mm



Settled deposits coarse 5% cross-sectional area loss - Remark: PIECE OF PIPE

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**



Other settled deposits 25% cross-sectional area loss - Remark: DEBRIS



Settled deposits fine 25% cross-sectional area loss



Survey abandoned - Remark: UNABLE TO PASS DUE TO HIGH SILT DEPOSITS

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**SOURCE X**	**24/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**0/0**	**ELFEIYII63**	**3**

Road **AIdi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

Division
District
Location Details

Purpose
Duty **Combined**
Catchment

Shape/Size **100mm**
Material **Vitrified clay**
Category

Start Node **MH F1**
End Node **SOURCE**
Total length **3.17 metres**

Scale **1:0.16**
Direction **Upstream**

Start Node Ref:MH F1 | I/L :mm | Depth: 1.52mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH F1	5773546	Comment / 0
0.00	WL	Water level 5% height/diameter	5773547	Comment / 0
0.00	LL	Line of drain/sewer deviates left	5773548	Comment / 0
3.17	LU	Line of drain/sewer deviates up - Remark: REST BEND	5773558	Comment / 0
3.17	OCF	Finish node type, other special chamber, reference REST BEND	5773578	Comment / 0

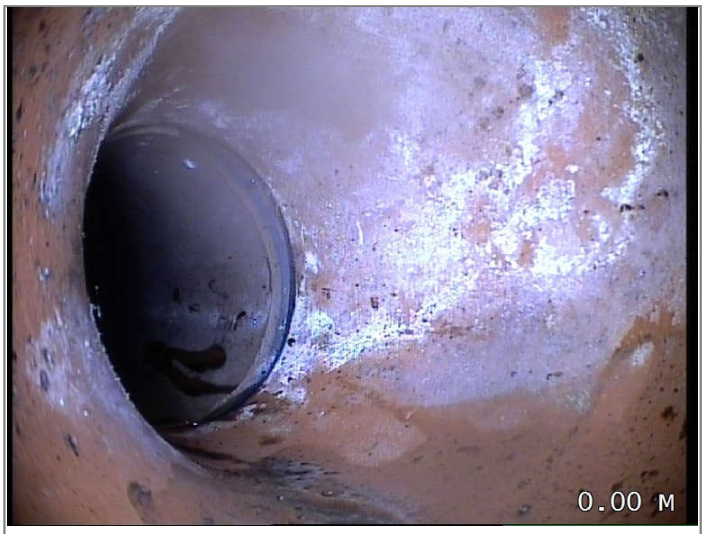
End Node Ref:SOURCE | I/L :mm

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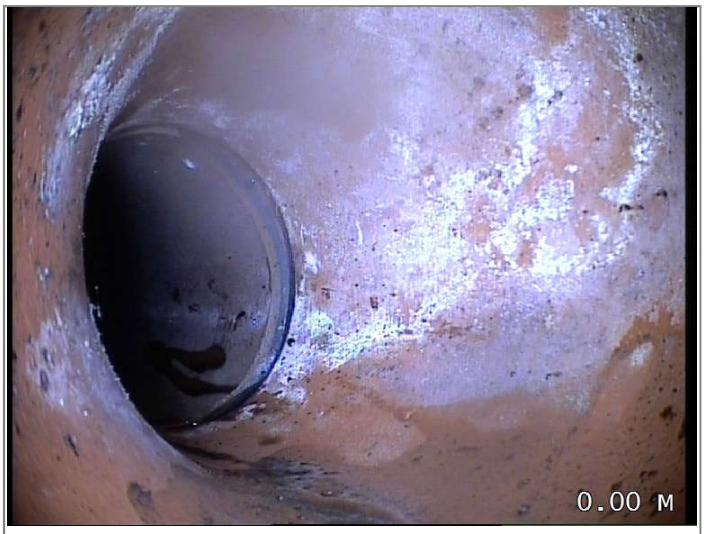
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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**



Start node type, manhole, reference MH F1



Water level 5% height/diameter



Line of drain/sewer deviates left



Line of drain/sewer deviates up - Remark: REST BEND



Finish node type, other special chamber, reference REST BEND

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**BRANCH B X**	**24/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**3/0**	**ELFEIYII63**	**4**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

Division
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Location Details

Purpose
Duty **Combined**
Catchment

Shape/Size **150mm**
Material **Vitrified clay**
Category

Start Node **MH F1**
End Node **BRANCH B**
Total length **12.52 metres**

Scale **1:0.63**
Direction **Upstream**

Start Node Ref:MH F1 | I/L :mm | Depth: 1.52mm



Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH F1	5773580	Comment / 0
0.00	WL	Water level 5% height/diameter	5773581	Comment / 0
0.55	LL	Line of drain/sewer deviates left	5773597	Comment / 0
11.52	DEE	Attached deposits, encrustation from 4 to 8 o'clock 20% cross-sectional area loss	5773599	Service / 3
12.52	GYF	Finish node type, gully, reference BRANCH B	5773607	Comment / 0

End Node Ref:BRANCH B | I/L :mm

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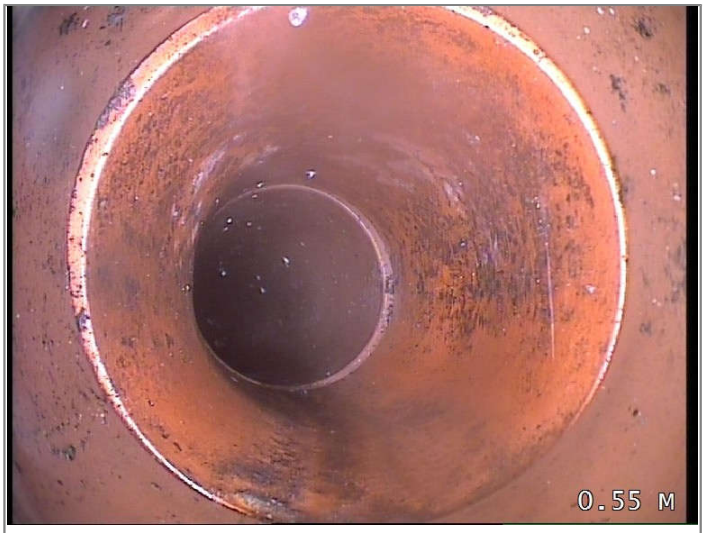
Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**



Start node type, manhole, reference MH F1



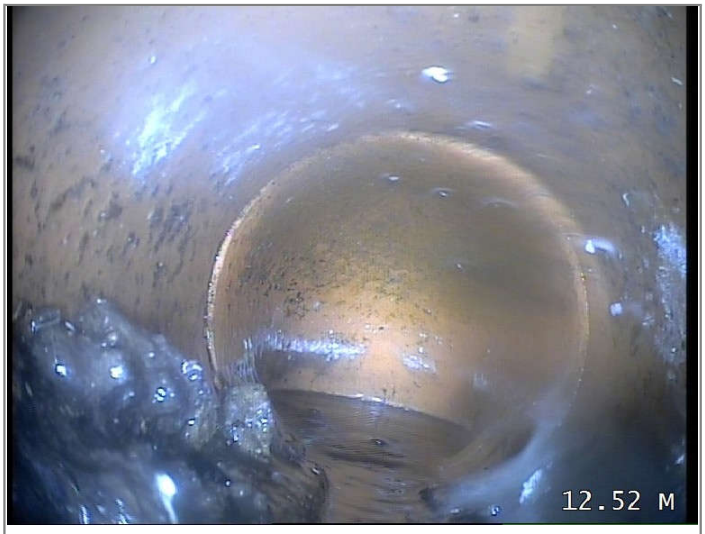
Water level 5% height/diameter



Line of drain/sewer deviates left



Attached deposits, encrustation from 4 to 8 o'clock 20% cross-sectional area loss



Finish node type, gully, reference BRANCH B

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**BRANCH C X**	**24/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**0/0**	**ELFEIYII63**	**5**

Road **AIdi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

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Location Details

Purpose
Duty **Combined**
Catchment

Shape/Size **100mm**
Material **Vitrified clay**
Category

Start Node **MH F1**
End Node **BRANCH C**
Total length **2.74 metres**

Scale **1:0.10**
Direction **Upstream**

Start Node Ref:MH F1 | I/L :mm | Depth: 1.52mm



Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH F1	5773833	Comment / 0
0.00	WL	Water level 5% height/diameter	5773834	Comment / 0
1.21	LL	Line of drain/sewer deviates left	5773835	Comment / 0
2.19	LU	Line of drain/sewer deviates up	5773836	Comment / 0
2.74	OCF	Finish node type, other special chamber, reference REST BEND	5773844	Comment / 0

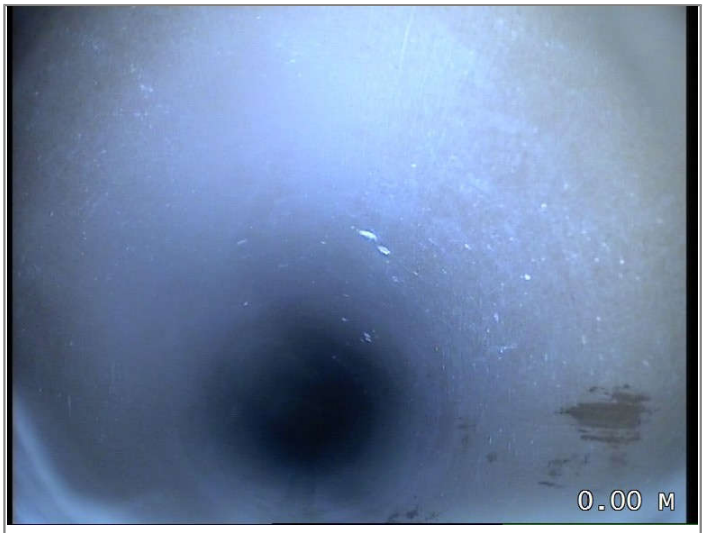
End Node Ref:BRANCH C | I/L :mm

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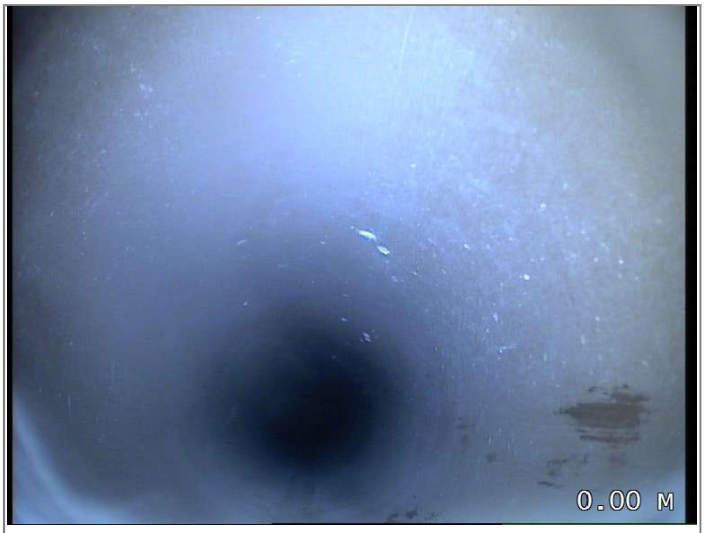
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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**



Start node type, manhole, reference MH F1



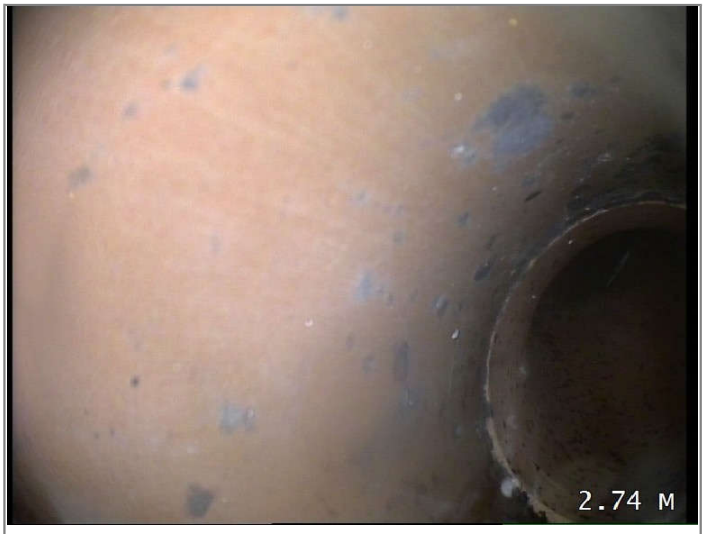
Water level 5% height/diameter



Line of drain/sewer deviates left



Line of drain/sewer deviates up



Finish node type, other special chamber, reference REST BEND

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**BRANCH D X**	**24/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**0/0**	**ELFEIYII63**	**6**

Road **AIdi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

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Location Details

Purpose
Duty **Combined**
Catchment

Shape/Size **150mm**
Material **Vitrified clay**
Category

Start Node **MH F1**
End Node **BRANCH D**
Total length **4.64 metres**

Scale **1:0.21**
Direction **Upstream**

Start Node Ref:MH F1 | I/L :mm | Depth: 1.52mm

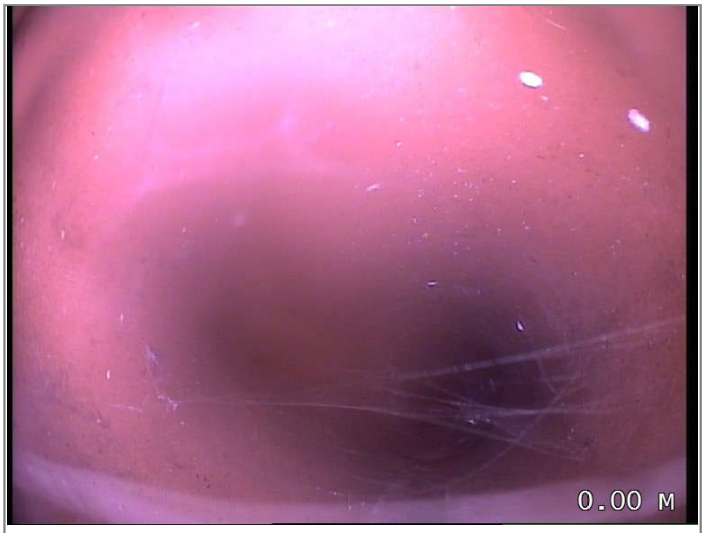


Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH F1	5773847	Comment / 0
0.00	WL	Water level 5% height/diameter	5773848	Comment / 0
3.48	LL	Line of drain/sewer deviates left	5773858	Comment / 0
4.64	LU	Line of drain/sewer deviates up	5773859	Comment / 0
4.64	OCF	Finish node type, other special chamber, reference REST BEND	5773860	Comment / 0

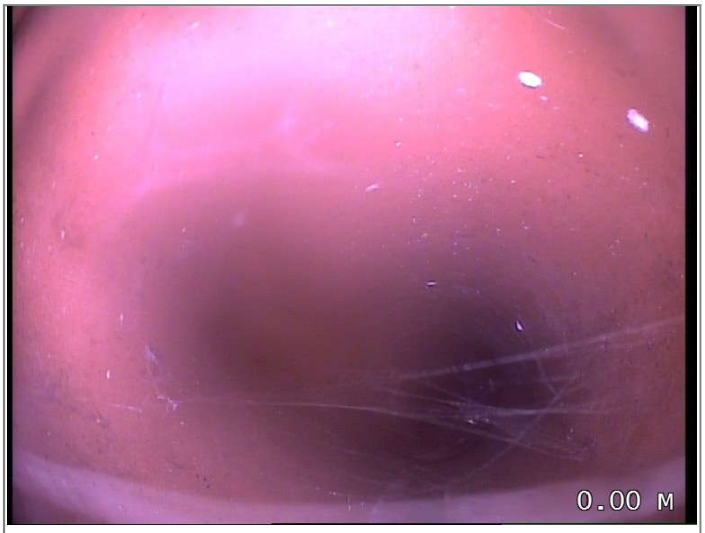
End Node Ref:BRANCH D | I/L :mm

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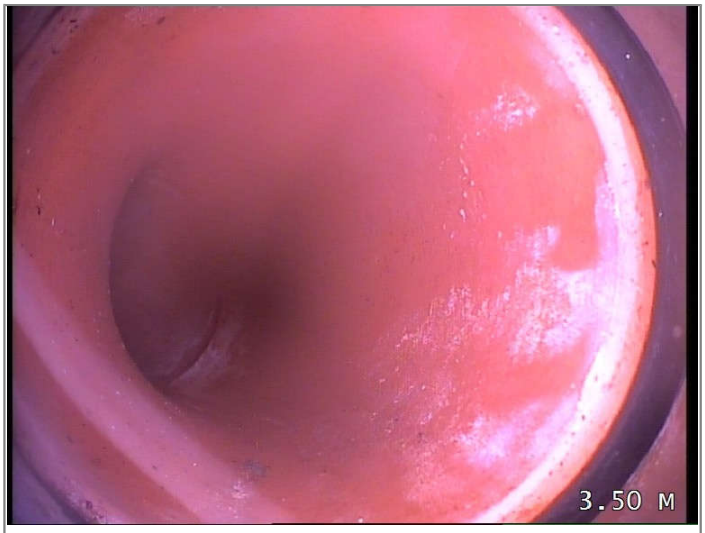
Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**



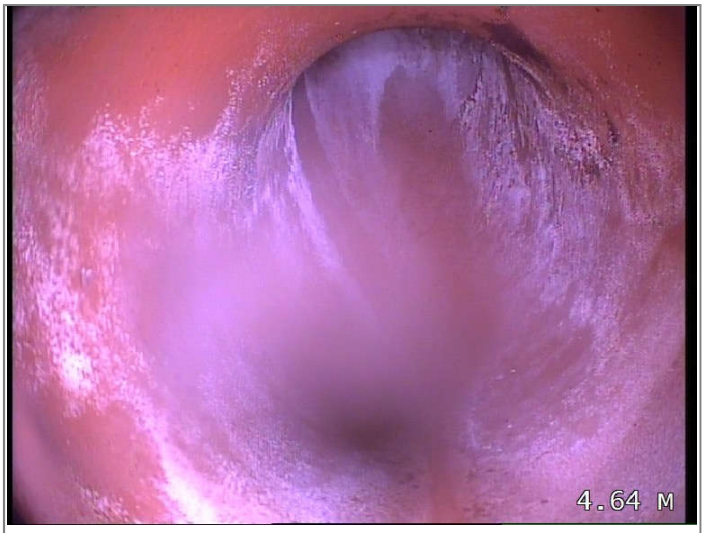
Start node type, manhole, reference MH F1



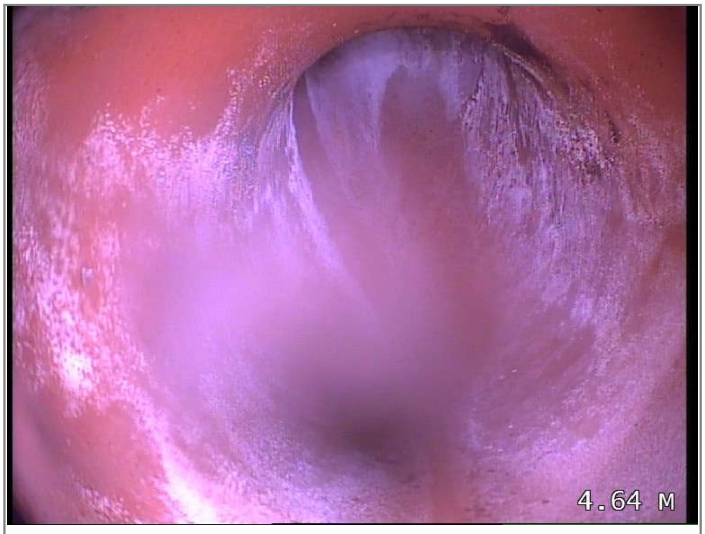
Water level 5% height/diameter



Line of drain/sewer deviates left



Line of drain/sewer deviates up



Finish node type, other special chamber, reference REST BEND

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**MH F1 X**	**24/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**0/0**	**ELFEIYII63**	**7**

Road **AIdi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

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Location Details

Purpose
Duty **Combined**
Catchment

Shape/Size **150mm**
Material **Vitrified clay**
Category

Start Node **MH F1**
End Node **MH F2**
Total length **10.24 metres**

Scale **1:0.52**
Direction **Downstream**

Start Node Ref:MH F1 | I/L :mm | Depth: 1.52mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH F1	5773870	Comment / 0
0.00	WL	Water level 5% height/diameter	5773871	Comment / 0
10.24	MHF	Finish node type, manhole, reference MH F2	5773872	Comment / 0

End Node Ref:MH F2 | I/L :mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**



Start node type, manhole, reference MH F1



Water level 5% height/diameter



Finish node type, manhole, reference MH F2

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**MH S2 X**	**24/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**3/0**	**ELFEIYII63**	**8**

Road **Aldi Moston Development,**
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Location **Manchester**

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Location Details

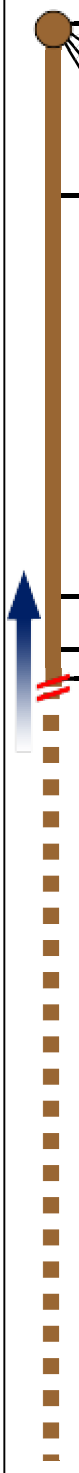
Purpose
Duty **Surface water**
Catchment

Shape/Size **150mm**
Material **Vitrified clay**
Category

Start Node **MH S3**
End Node **MH S2**
Total length **35 metres**

Scale **1:1.84**
Direction **Upstream**

Start Node Ref:MH S3 | I/L :mm | Depth: 1.52mm



Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH S3	5775241	Comment / 0
0.00	WL	Water level 5% height/diameter	5775242	Comment / 0
0.00	DES	Settled deposits fine 10% cross-sectional area loss	5775245	Service / 3
0.00	DEZ	Other attached deposits from 8 to 4 o'clock 5% cross-sectional area loss - Remark SILT	5775261	Service / 2
4.19	JN	Junction at 1 o'clock, diameter 100mm	5775262	Comment / 0
14.00	WL	Water level 25% height/diameter	5775280	Comment / 0
15.29	CUD	Loss of vision, silt	5775282	Comment / 0
16.00	SA	Survey abandoned - Remark: OBSTRUCTION UNABLE TO PASS DUE TO HIGH SILT DEPOSITS	5775301	Comment / 0

End Node Ref:MH S2 | I/L :mm | Depth: 1.17mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**



Start node type, manhole, reference MH S3



Water level 5% height/diameter



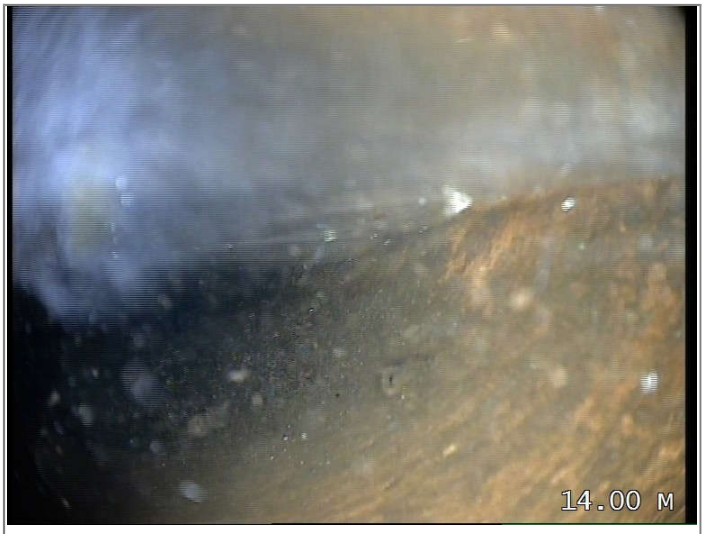
Settled deposits fine 10% cross-sectional area loss



Other attached deposits from 8 to 4 o'clock 5% cross-sectional area loss - Remark SILT



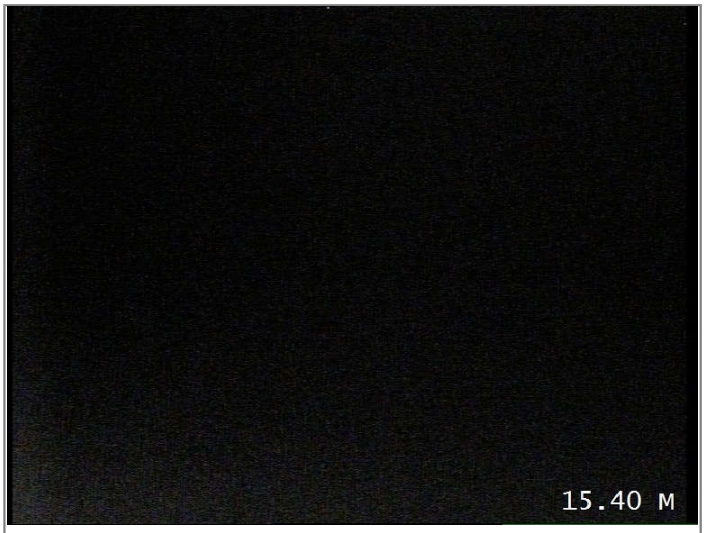
Junction at 1 o'clock, diameter 100mm



Water level 25% height/diameter

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**



Loss of vision, silt



Survey abandoned - Remark: OBSTRUCTION UNABLE TO PASS DUE TO HIGH SILT DEPOSITS

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**MH F4 X**	**24/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**3/0**	**ELFEIYII63**	**9**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

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Location Details

Purpose
Duty **Combined**
Catchment

Shape/Size **150mm**
Material **Vitrified clay**
Category

Start Node **MH F5**
End Node **MH F4**
Total length **17.7 metres**

Scale **1:0.89**
Direction **Upstream**

Start Node Ref:MH F5 | I/L :mm | Depth: 1.90mm



Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH F5	5775498	Comment / 0
0.00	WL	Water level 5% height/diameter	5775499	Comment / 0
0.00	DEF	Attached deposits, fouling from 5 to 7 o'clock 10% cross-sectional area loss	5775519	Service / 3
11.01	WL	Water level 25% height/diameter	5775528	Comment / 0
11.01	DEX	Other settled deposits 10% cross-sectional area loss - Remark: FOUL WASTE	5775529	Service / 3
15.09	DEF	Attached deposits, fouling from 5 to 7 o'clock 10% cross-sectional area loss	5775537	Service / 3
17.70	MHF	Finish node type, manhole, reference MH F4	5775541	Comment / 0

End Node Ref:MH F4 | I/L :mm | Depth: 1.62mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**



Start node type, manhole, reference MH F5



Water level 5% height/diameter



Attached deposits, fouling from 5 to 7 o'clock 10% cross-sectional area loss



Water level 25% height/diameter



Other settled deposits 10% cross-sectional area loss - Remark: FOUL WASTE



Attached deposits, fouling from 5 to 7 o'clock 10% cross-sectional area loss

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**



Finish node type, manhole, reference MH F4

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**MH F3 X**	**24/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**0/0**	**ELFEIYII63**	**10**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

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Location Details

Purpose
Duty **Combined**
Catchment

Shape/Size **150mm**
Material **Vitrified clay**
Category

Start Node **MH F4**
End Node **MH F3**
Total length **0.69 metres**

Scale **1:0.00**
Direction **Upstream**

Start Node Ref:MH F4 | I/L :mm | Depth: 1.62mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH F4	5775550	Comment / 0
0.00	WL	Water level 5% height/diameter	5775551	Comment / 0
0.69	MHF	Finish node type, manhole, reference MH F3	5775552	Comment / 0

End Node Ref:MH F3 | I/L :mm | Depth: 1.58mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**



Start node type, manhole, reference MH F4



Water level 5% height/diameter



Finish node type, manhole, reference MH F3

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**MH F2 X**	**24/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**2/0**	**ELFEIYII63**	**11**

Road **AIdi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

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Location Details

Purpose
Duty **Combined**
Catchment

Shape/Size **150mm**
Material **Vitrified clay**
Category

Start Node **MH F3**
End Node **MH F2**
Total length **4.57 metres**

Scale **1:0.21**
Direction **Upstream**

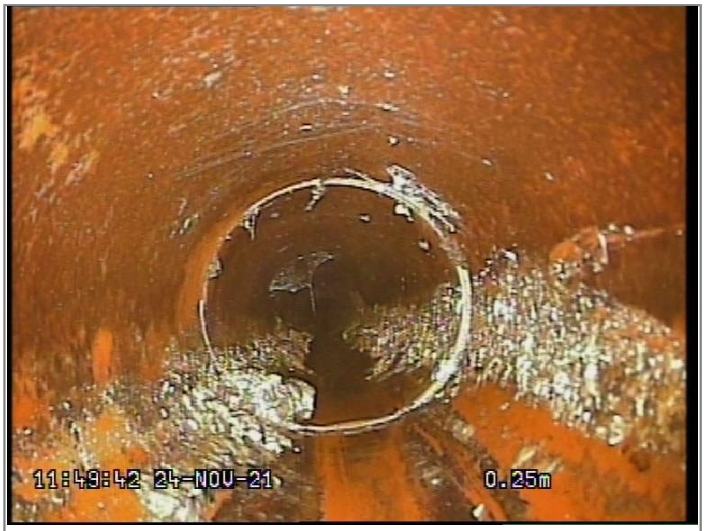
Start Node Ref:MH F3 | I/L :mm | Depth: 1.58mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH F3	5775557	Comment / 0
0.00	WL	Water level 5% height/diameter	5775558	Comment / 0
0.25	DEF	Attached deposits, fouling at 7 o'clock 5% cross-sectional area loss	5775559	Service / 2
4.57	MHF	Finish node type, manhole, reference MH F2	5775562	Comment / 0

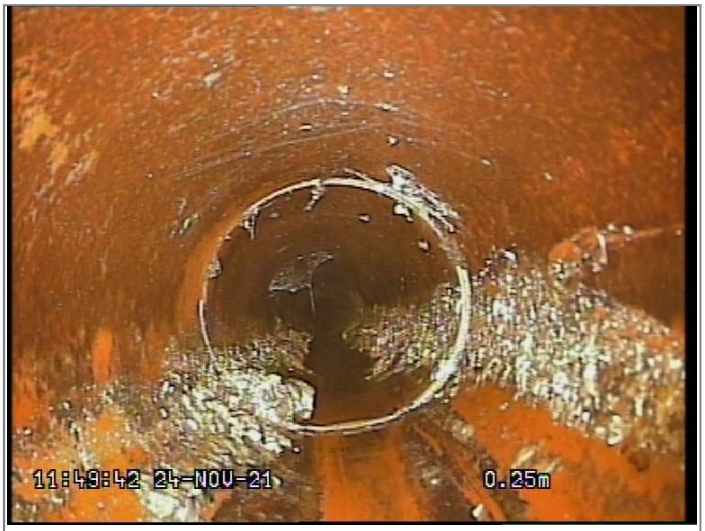
End Node Ref:MH F2 | I/L :mm

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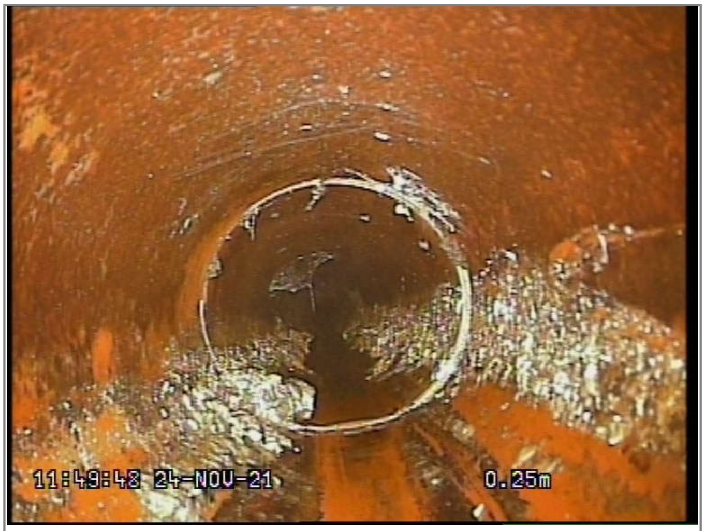
Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**



Start node type, manhole, reference MH F3



Water level 5% height/diameter



Attached deposits, fouling at 7 o'clock 5% cross-sectional area loss



Finish node type, manhole, reference MH F2

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**MH F5 X**	**24/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**3/4**	**ELFEIYII63**	**12**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

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Location Details

Purpose
Duty **Combined**
Catchment

Shape/Size **150mm**
Material **Vitrified clay**
Category

Start Node **MH F5**
End Node **MH F6**
Total length **4.84 metres**

Scale **1:0.21**
Direction **Downstream**

Start Node Ref:MH F5 | I/L :mm | Depth: 1.90mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH F5	5775631	Comment / 0
0.00	WL	Water level 5% height/diameter	5775632	Comment / 0
0.00	DEF	Attached deposits, fouling at 4 o'clock 10% cross-sectional area loss	5775633	Service / 3
0.34	DEE	Attached deposits, encrustation from 7 to 5 o'clock 5% cross-sectional area loss	5775652	Service / 2
3.78	FM	Fracture multiple from 10 to 2 o'clock	5775654	Structural / 4
4.84	MHF	Finish node type, manhole, reference MH F6	5775674	Comment / 0

End Node Ref:MH F6 | I/L :mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**



Start node type, manhole, reference MH F5



Water level 5% height/diameter



Attached deposits, fouling at 4 o'clock 10% cross-sectional area loss



Attached deposits, encrustation from 7 to 5 o'clock 5% cross-sectional area loss



Fracture multiple from 10 to 2 o'clock



Finish node type, manhole, reference MH F6

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**MH F6 X**	**24/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**0/0**	**ELFEIYII63**	**13**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

Division
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Location Details

Purpose
Duty **Combined**
Catchment

Shape/Size **150mm**
Material **Vitrified clay**
Category

Start Node **MH F6**
End Node **MH F7**
Total length **4.19 metres**

Scale **1:0.21**
Direction **Downstream**

Start Node Ref:MH F6 | I/L :mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH F6	5775683	Comment / 0
0.00	WL	Water level 5% height/diameter	5775685	Comment / 0
4.19	MHF	Finish node type, manhole, reference MH F7	5775691	Comment / 0

End Node Ref:MH F7 | I/L :mm | Depth: 1.99mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**



Start node type, manhole, reference MH F6



Water level 5% height/diameter



Finish node type, manhole, reference MH F7

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**MH F7 X**	**24/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**2/0**	**ELFEIYII63**	**14**

Road **AIdi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

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Location Details

Purpose
Duty **Combined**
Catchment

Shape/Size **150mm**
Material **Vitrified clay**
Category

Start Node **MH F7**
End Node **MH F8**
Total length **2.38 metres**

Scale **1:0.10**
Direction **Downstream**

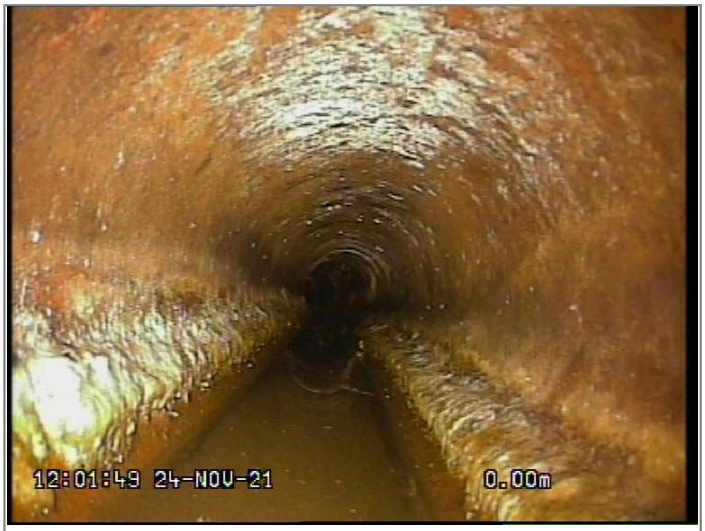
Start Node Ref:MH F7 | I/L :mm | Depth: 1.99mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH F7	5775694	Comment / 0
0.00	WL	Water level 5% height/diameter	5775696	Comment / 0
0.00	DEF	Attached deposits, fouling at 5 o'clock 5% cross-sectional area loss	5775698	Service / 2
2.38	MHF	Finish node type, manhole, reference MH F8	5775699	Comment / 0

End Node Ref:MH F8 | I/L :mm | Depth: 2.01mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**



Start node type, manhole, reference MH F7



Water level 5% height/diameter



Attached deposits, fouling at 5 o'clock 5% cross-sectional area loss



Finish node type, manhole, reference MH F8

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**MH F8 X**	**24/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**0/4**	**ELFEIYII63**	**15**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

Division
District
Location Details

Purpose
Duty **Combined**
Catchment

Shape/Size **150mm**
Material **Vitrified clay**
Category

Start Node **MH F8**
End Node **UU 2301**
Total length **10 metres**

Scale **1:0.52**
Direction **Downstream**

Start Node Ref:MH F8 | I/L :mm | Depth: 2.01mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH F8	5776990	Comment / 0
0.00	WL	Water level 5% height/diameter	5776991	Comment / 0
0.31	LL	Line of drain/sewer deviates left	5776992	Comment / 0
6.58	LD	Line of drain/sewer deviates down	5776993	Comment / 0
6.58	FM	Fracture multiple from 12 to 12 o'clock	5776994	Structural / 4
6.80	LL	Line of drain/sewer deviates left	5776995	Comment / 0
6.80	SA	Survey abandoned - Remark: UNABLE TO PASS THIS POINT DUE TO SHARP TURN AND DROP IN PIPE - NOT SAFE TO DO SO	5776996	Comment / 0

End Node Ref:UU 2301 | I/L :mm | Depth: 3.40mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**



Start node type, manhole, reference MH F8



Water level 5% height/diameter



Line of drain/sewer deviates left



Line of drain/sewer deviates down



Fracture multiple from 12 to 12 o'clock



Line of drain/sewer deviates left

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**



Survey abandoned - Remark: UNABLE TO PASS THIS POINT DUE TO SHARP TURN AND DROP IN PIPE - NOT SAFE TO DO SO

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**MH S8 X**	**24/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**2/1**	**ELFEIYII63**	**16**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

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Location Details

Purpose
Duty **Surface water**
Catchment

Shape/Size **300mm**
Material **Pitch fibre**
Category

Start Node **MH S7**
End Node **MH S8**
Total length **14.41 metres**

Scale **1:0.73**
Direction **Upstream**

Start Node Ref:MH S7 | I/L :mm | Depth: 0.70mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH S7	5778416	Comment / 0
0.00	WL	Water level 5% height/diameter	5778417	Comment / 0
6.53	DES	Settled deposits fine 5% cross-sectional area loss	5778418	Service / 2
9.82	WL	Water level 20% height/diameter	5778426	Comment / 0
12.99	SC	Dimensions of drain/sewer changes to 225mm	5778440	Comment / 0
12.99	LL	Line of drain/sewer deviates left	5778441	Comment / 0
13.65	OJL	Open joint large	5778444	Structural / 1
13.65	MCVC	Material of drain/sewer changes to vitrified clay at this point	5778448	Comment / 0
14.41	MHF	Finish node type, manhole, reference MH S8	5778449	Comment / 0

End Node Ref:MH S8 | I/L :mm | Depth: 0.88mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**



Start node type, manhole, reference MH S7



Water level 5% height/diameter



Settled deposits fine 5% cross-sectional area loss



Water level 20% height/diameter



Dimensions of drain/sewer changes to 225mm



Line of drain/sewer deviates left

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**



Open joint large



Material of drain/sewer changes to vitrified clay at this point



Finish node type, manhole, reference MH S8

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**MH S9 X**	**24/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**4/0**	**ELFEIYII63**	**17**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

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Purpose
Duty **Surface water**
Catchment

Shape/Size **225mm**
Material **Vitrified clay**
Category

Start Node **MH S8**
End Node **MH S9**
Total length **36.49 metres**

Scale **1:1.89**
Direction **Upstream**

Start Node Ref:MH S8 | I/L :mm | Depth: 0.88mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH S8	5778471	Comment / 0
0.00	WL	Water level 5% height/diameter	5778472	Comment / 0
1.88	JN	Junction at 9 o'clock, diameter 150mm	5778477	Comment / 0
2.03	DES	Settled deposits fine 20% cross-sectional area loss	5778478	Service / 4
4.75	JN	Junction at 9 o'clock, diameter 150mm	5778484	Comment / 0
36.49	MHF	Finish node type, manhole, reference MH S9	5778507	Comment / 0

End Node Ref:MH S9 | I/L :mm | Depth: 0.68mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**



Start node type, manhole, reference MH S8



Water level 5% height/diameter



Junction at 9 o'clock, diameter 150mm



Settled deposits fine 20% cross-sectional area loss



Junction at 9 o'clock, diameter 150mm



Finish node type, manhole, reference MH S9

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**MH S7 X**	**24/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**0/0**	**ELFEIYII63**	**18**

Road **AIdi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

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Purpose
Duty **Surface water**
Catchment

Shape/Size **225mm**
Material **Vitrified clay**
Category

Start Node **MH S7**
End Node **INTERCEPTOR**
Total length **2.11 metres**

Scale **1:0.10**
Direction **Downstream**

Start Node Ref:MH S7 | I/L :mm | Depth: 0.70mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH S7	5778734	Comment / 0
0.00	WL	Water level 5% height/diameter	5778735	Comment / 0
2.11	OSF	Finish node type, oil separator, reference INTERCEPTOR	5778737	Comment / 0

End Node Ref:INTERCEPTOR | I/L :mm

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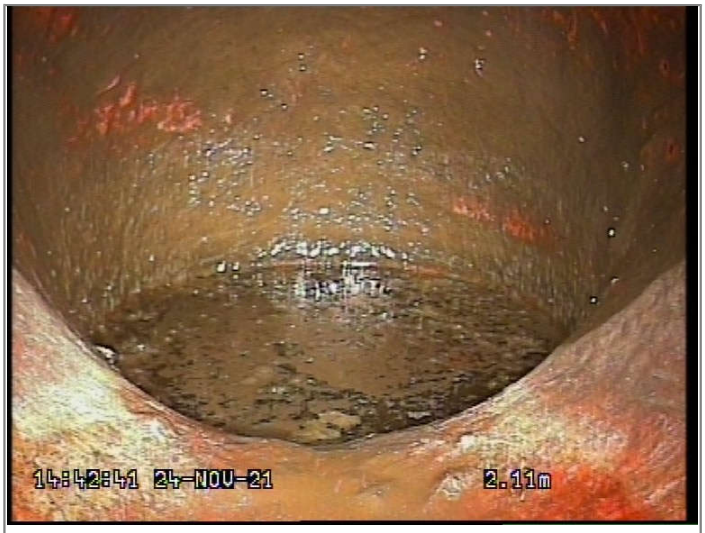
Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**



Start node type, manhole, reference MH S7



Water level 5% height/diameter



Finish node type, oil separator, reference INTERCEPTOR

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**INTERCEPTOX**	**24/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**0/0**	**ELFEIYII63**	**19**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

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Purpose
Duty **Surface water**
Catchment

Shape/Size **225mm**
Material **Vitrified clay**
Category

Start Node **MH S10**
End Node **INTERCEPTOR**
Total length **1.11 metres**

Scale **1:0.05**
Direction **Upstream**

Start Node Ref:MH S10 | I/L :mm | Depth: 1.42mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH S10	5779258	Comment / 0
0.00	WL	Water level 5% height/diameter	5779260	Comment / 0
1.11	OSF	Finish node type, oil separator, reference INTERCEPTOR	5779261	Comment / 0

End Node Ref:INTERCEPTOR | I/L :mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**



Start node type, manhole, reference MH S10



Water level 5% height/diameter



Finish node type, oil separator, reference INTERCEPTOR

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**MH S10 X**	**24/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**0/0**	**ELFEIYII63**	**20**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

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Purpose
Duty **Surface water**
Catchment

Shape/Size **225mm**
Material **Vitrified clay**
Category

Start Node **MH S10**
End Node **ATTENUATION TANK**
Total length **1.87 metres**

Scale **1:0.05**
Direction **Downstream**

Start Node Ref:MH S10 | I/L :mm | Depth: 1.42mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH S10	5779321	Comment / 0
0.00	WL	Water level 10% height/diameter	5779322	Comment / 0
0.94	WL	Water level 50% height/diameter	5779332	Comment / 0
1.87	CPF	Finish node type, catchpit, reference ATTENUATION TANK	5779358	Comment / 0

End Node Ref:ATTENUATION TANK | I/L :mm | Depth: 3.10mm

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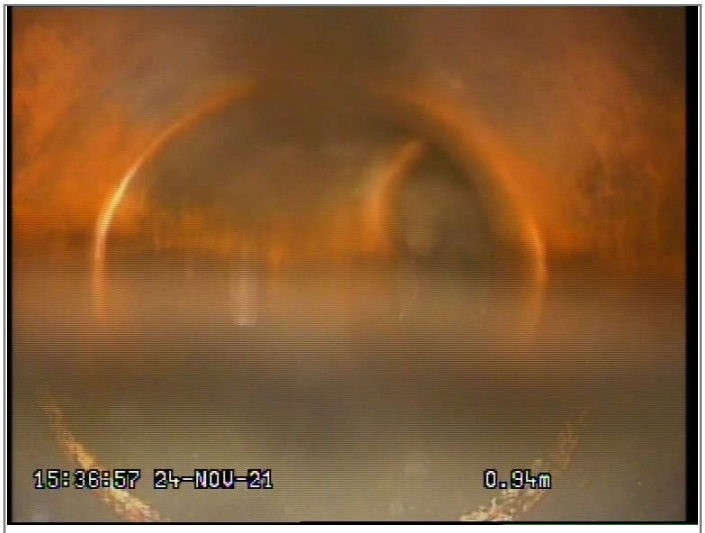
Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**



Start node type, manhole, reference MH S10



Water level 10% height/diameter



Water level 50% height/diameter



Finish node type, catchpit, reference ATTENUATION TANK

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**UU 1304 X**	**24/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**3/2**	**ELFEIYII63**	**21**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

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Location Details

Purpose
Duty **Combined**
Catchment

Shape/Size **450mm**
Material **Vitrified clay**
Category

Start Node **UU 2301**
End Node **UU 1304**
Total length **27.39 metres**

Scale **1:1.42**
Direction **Upstream**

Start Node Ref:UU 2301 | I/L :mm | Depth: 3.40mm



Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference UU 2301	5779720	Comment / 0
0.00	WL	Water level 10% height/diameter	5779721	Comment / 0
0.18	CL	Crack longitudinal at 12 o'clock	5779724	Structural / 2
0.66	DEE (S01)	Attached deposits, encrustation from 7 to 10 o'clock 5% cross-sectional area loss - Remark: THIS IS A CONTINUOUS DEFECT UPSTREAM TO UU 1304 , Start	5791839	Service / 2
13.00	JN	Junction at 10 o'clock, diameter 150mm	5779753	Comment / 0
27.39	DEE	Attached deposits, encrustation from 1 to 6 o'clock 20% cross-sectional area loss	5779765	Service / 3
27.39	MHF	Finish node type, manhole, reference UU 1304	5779769	Comment / 0

End Node Ref:UU 1304 | I/L :mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**



Start node type, manhole, reference UU 2301



Water level 10% height/diameter



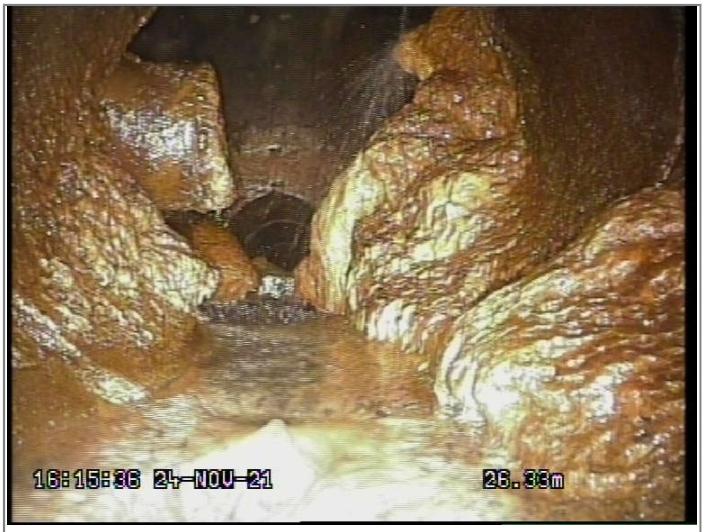
Crack longitudinal at 12 o'clock



Attached deposits, encrustation from 7 to 10 o'clock 5% cross-sectional area loss - Remark: THIS IS A CONTINUOUS DEFECT UPSTREAM TO UU 1304 , Start



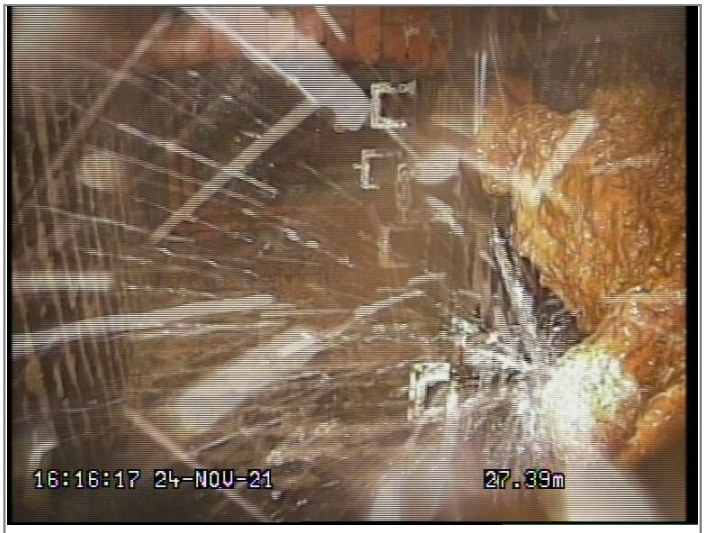
Junction at 10 o'clock, diameter 150mm



Attached deposits, encrustation from 1 to 6 o'clock 20% cross-sectional area loss

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**



Finish node type, manhole, reference UU 1304

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**MH F8 X**	**24/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**3/0**	**ELFEIYII63**	**22**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

Division
District
Location Details

Purpose
Duty **Combined**
Catchment

Shape/Size **150mm**
Material **Vitrified clay**
Category

Start Node **UU 2301**
End Node **MH F8**
Total length **17.95 metres**

Scale **1:0.89**
Direction **Upstream**

Start Node Ref:UU 2301 | I/L :mm | Depth: 3.40mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference UU 2301	5779826	Comment / 0
0.00	WL	Water level 5% height/diameter	5779827	Comment / 0
6.83	DEF	Attached deposits, fouling from 5 to 7 o'clock 10% cross-sectional area loss	5779835	Service / 3
11.05	LU	Line of drain/sewer deviates up	5779839	Comment / 0
11.05	LR	Line of drain/sewer deviates right	5779842	Comment / 0
17.95	MHF	Finish node type, manhole, reference MH F8	5779845	Comment / 0

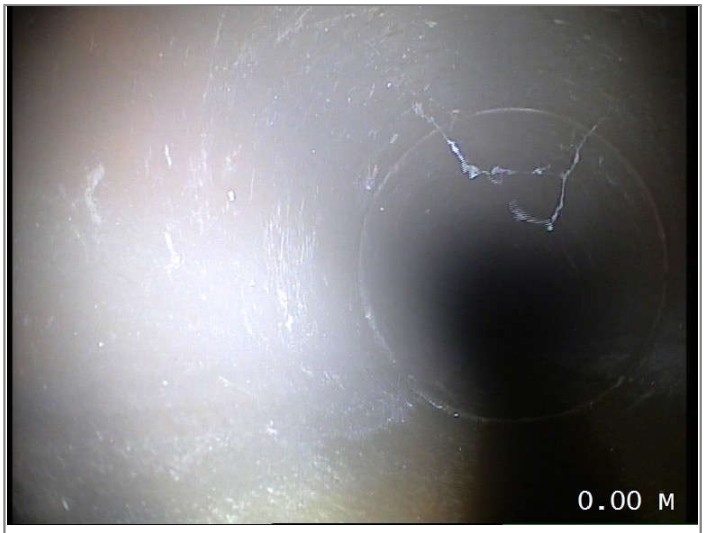
End Node Ref:MH F8 | I/L :mm | Depth: 2.01mm

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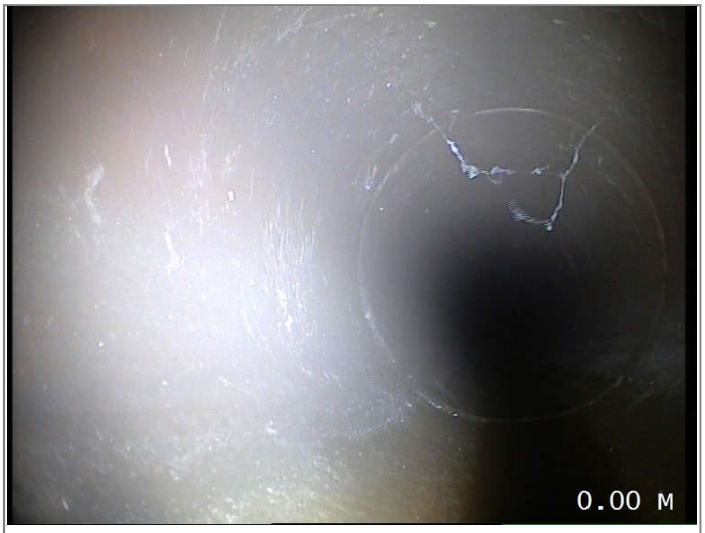
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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**



Start node type, manhole, reference UU 2301



Water level 5% height/diameter



Attached deposits, fouling from 5 to 7 o'clock 10% cross-sectional area loss



Line of drain/sewer deviates up



Line of drain/sewer deviates right



Finish node type, manhole, reference MH F8

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**MH S11 X**	**24/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**0/0**	**ELFEIYII63**	**23**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

Division
District
Location Details

Purpose
Duty **Combined**
Catchment

Shape/Size **150mm**
Material **Vitrified clay**
Category

Start Node **UU 2301**
End Node **MH S11**
Total length **1.74 metres**

Scale **1:0.05**
Direction **Upstream**

Start Node Ref:UU 2301 | I/L :mm | Depth: 3.40mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference UU 2301	5779853	Comment / 0
0.00	WL	Water level 5% height/diameter	5779855	Comment / 0
1.74	MHF	Finish node type, manhole, reference MH S11	5779856	Comment / 0

End Node Ref:MH S11 | I/L :mm | Depth: 1.90mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**



Start node type, manhole, reference UU 2301



Water level 5% height/diameter



Finish node type, manhole, reference MH S11

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**ATTENUATIOX**	**24/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**0/0**	**ELFEIYII63**	**24**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

Division
District
Location Details

Purpose
Duty **Surface water**
Catchment

Shape/Size **225mm**
Material **Vitrified clay**
Category

Start Node **MH S11**
End Node **ATTENUATION TANK**
Total length **2.31 metres**

Scale **1:0.10**
Direction **Upstream**

Start Node Ref:MH S11 | I/L :mm | Depth: 1.90mm

Position	Code	Description	Photo	Type/Grade
0.00	CP	Start node type, catchpit, reference MH S11	5779897	Comment / 0
0.00	WL	Water level 10% height/diameter	5779899	Comment / 0
2.31	CPF	Finish node type, catchpit, reference ATTENUATION TANK	5779900	Comment / 0

End Node Ref:ATTENUATION TANK | I/L :mm | Depth: 3.10mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**24/11/2021**



Start node type, catchpit, reference MH S11



Water level 10% height/diameter



Finish node type, catchpit, reference ATTENUATION TANK

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**IC 01 X**	**25/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**0/0**	**ELFEIYII63**	**25**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

Division
District
Location Details

Purpose
Duty **Combined**
Catchment

Shape/Size **150mm**
Material **Polyvinyl chloride**
Category

Start Node **IC 01**
End Node **MH 1303 A**
Total length **44.17 metres**

Scale **1:2.31**
Direction **Downstream**

Start Node Ref:IC 01 | I/L :mm | Depth: 0.80mm

Position	Code	Description	Photo	Type/Grade
0.00	IC	Start node type, inspection chamber, reference IC S1	5782279	Comment / 0
0.00	WL	Water level 5% height/diameter	5782280	Comment / 0
2.62	JN	Junction at 3 o'clock, diameter 100mm	5782282	Comment / 0
5.48	JN	Junction at 3 o'clock, diameter 100mm	5782295	Comment / 0
6.00	JN	Junction at 2 o'clock, diameter 100mm	5782296	Comment / 0
9.86	JN	Junction at 2 o'clock, diameter 100mm	5782305	Comment / 0
14.12	JN	Junction at 1 o'clock, diameter 100mm	5782306	Comment / 0
17.55	JN	Junction at 2 o'clock, diameter 100mm	5782313	Comment / 0
21.17	JN	Junction at 1 o'clock, diameter 100mm	5782396	Comment / 0
22.40	JN	Junction at 1 o'clock, diameter 100mm	5782397	Comment / 0
27.12	JN	Junction at 2 o'clock, diameter 100mm	5782398	Comment / 0
30.00	CUS	Loss of vision, steam	5782406	Comment / 0
30.69	JN	Junction at 1 o'clock, diameter 100mm	5782407	Comment / 0
33.88	JN	Junction at 2 o'clock, diameter 100mm	5782421	Comment / 0
38.62	JN	Junction at 1 o'clock, diameter 100mm	5782429	Comment / 0
41.93	JN	Junction at 1 o'clock, diameter 100mm	5782430	Comment / 0
43.57	LD	Line of drain/sewer deviates down - Remark: BACK DROP	5782446	Comment / 0
44.17	MHF	Finish node type, manhole, reference IC S2	5782461	Comment / 0

End Node Ref:MH 1303 A | I/L :mm | Depth: 2.65mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**25/11/2021**



Start node type, inspection chamber, reference IC S1



Water level 5% height/diameter



Junction at 3 o'clock, diameter 100mm



Junction at 3 o'clock, diameter 100mm



Junction at 2 o'clock, diameter 100mm



Junction at 2 o'clock, diameter 100mm

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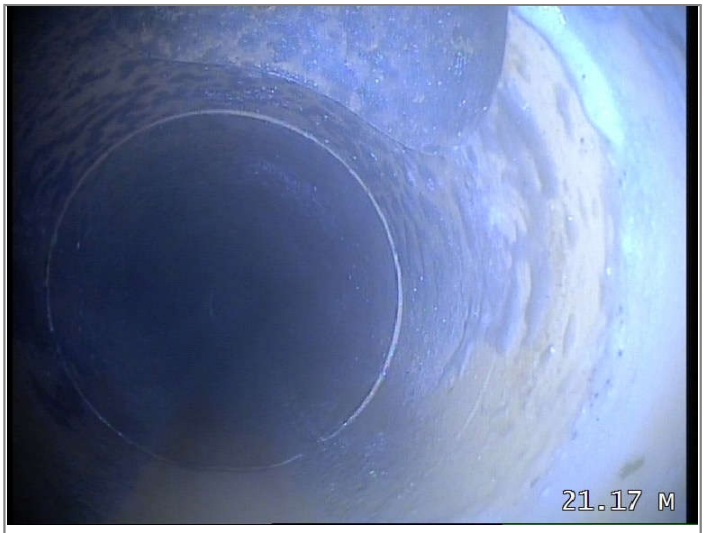
Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**25/11/2021**



Junction at 1 o'clock, diameter 100mm



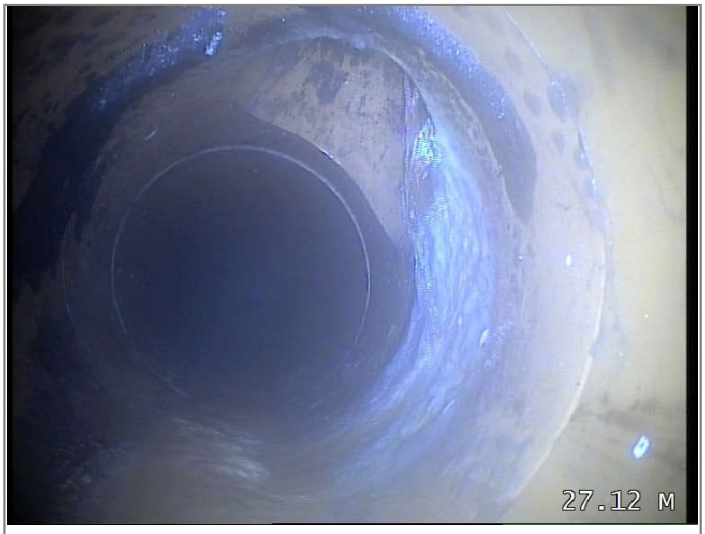
Junction at 2 o'clock, diameter 100mm



Junction at 1 o'clock, diameter 100mm



Junction at 1 o'clock, diameter 100mm



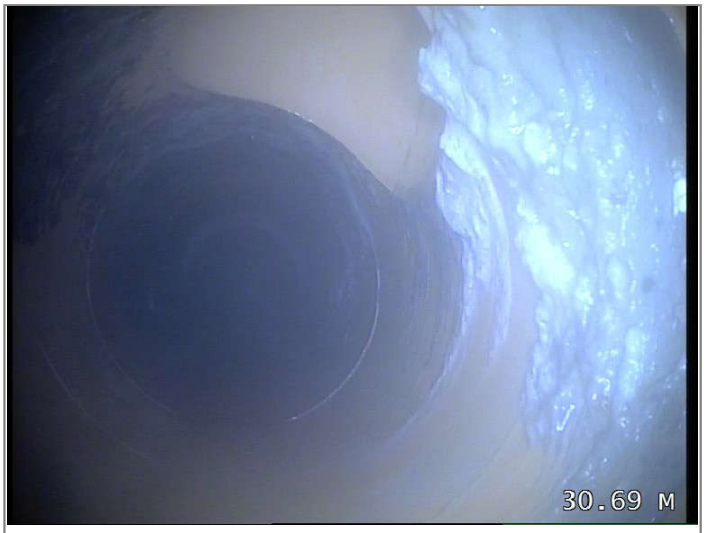
Junction at 2 o'clock, diameter 100mm



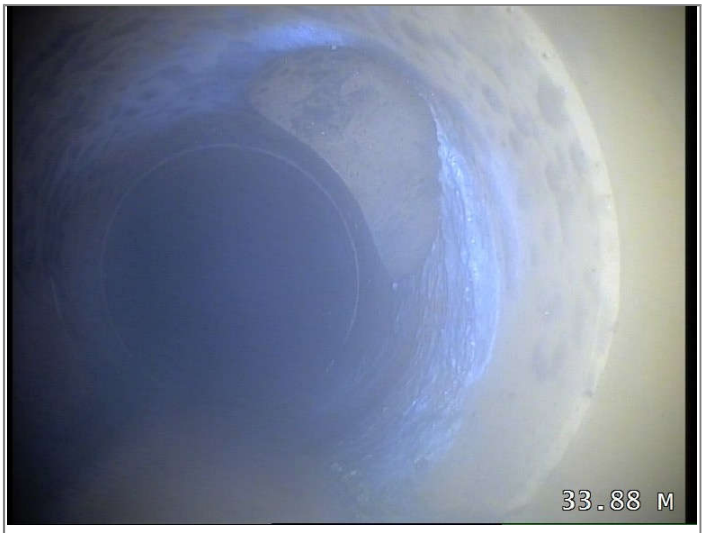
Loss of vision, steam

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**25/11/2021**



Junction at 1 o'clock, diameter 100mm



Junction at 2 o'clock, diameter 100mm



Junction at 1 o'clock, diameter 100mm



Junction at 1 o'clock, diameter 100mm



Line of drain/sewer deviates down - Remark: BACK DROP



Finish node type, manhole, reference IC S2

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**SOURCE X**	**25/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**2/0**	**ELFEIYII63**	**26**

Road **AIdi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

Division
District
Location Details

Purpose
Duty **Surface water**
Catchment

Shape/Size **100mm**
Material **Polyvinyl chloride**
Category

Start Node **IC 01**
End Node **SOURCE**
Total length **10.38 metres**

Scale **1:0.52**
Direction **Upstream**

Start Node Ref:IC 01 | I/L :mm | Depth: 0.80mm

Position	Code	Description	Photo	Type/Grade
0.00	IC	Start node type, inspection chamber, reference IC S1	5782553	Comment / 0
0.00	WL	Water level 5% height/diameter	5782555	Comment / 0
1.48	LL	Line of drain/sewer deviates left	5782559	Comment / 0
1.60	JN	Junction at 9 o'clock, diameter 100mm	5782566	Comment / 0
1.93	DES	Settled deposits fine 5% cross-sectional area loss	5782567	Service / 2
1.93	WL	Water level 10% height/diameter	5782568	Comment / 0
9.81	LL	Line of drain/sewer deviates left	5782571	Comment / 0
10.38	OCF	Finish node type, other special chamber, reference REST BEND	5782585	Comment / 0

End Node Ref:SOURCE | I/L :mm

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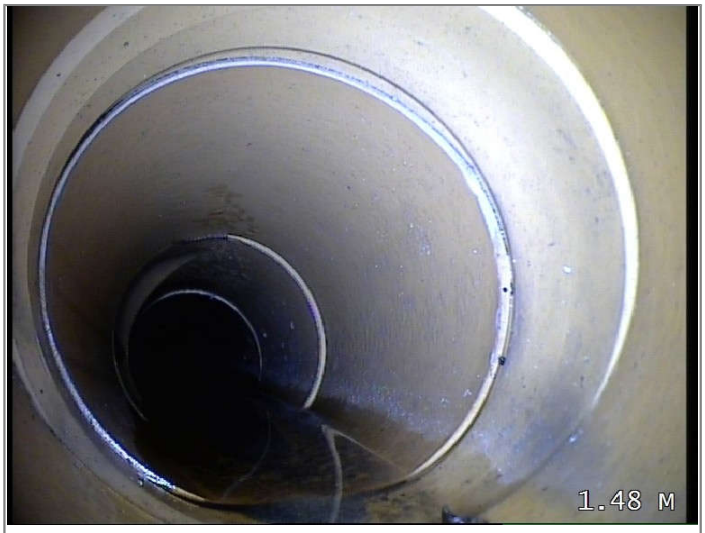
Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**25/11/2021**



Start node type, inspection chamber, reference IC S1



Water level 5% height/diameter



Line of drain/sewer deviates left



Junction at 9 o'clock, diameter 100mm



Settled deposits fine 5% cross-sectional area loss



Water level 10% height/diameter

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**25/11/2021**



Line of drain/sewer deviates left



Finish node type, other special chamber, reference REST BEND

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**SOURCE X**	**25/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**3/0**	**ELFEIYII63**	**27**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

Division
District
Location Details

Purpose
Duty **Surface water**
Catchment

Shape/Size **150mm**
Material **Polyvinyl chloride**
Category

Start Node **IC S01**
End Node **SOURCE**
Total length **30.24 metres**

Scale **1:1.57**
Direction **Upstream**

Start Node Ref:IC S01 | I/L :mm | Depth: 1.12mm

Position	Code	Description	Photo	Type/Grade
0.00	IC	Start node type, inspection chamber, reference IC S01	5782699	Comment / 0
0.00	WL	Water level 5% height/diameter	5782700	Comment / 0
5.69	JN	Junction at 1 o'clock, diameter 100mm	5782701	Comment / 0
10.24	JN	Junction at 1 o'clock, diameter 100mm	5782702	Comment / 0
14.14	JN	Junction at 1 o'clock, diameter 100mm	5782704	Comment / 0
17.05	JN	Junction at 2 o'clock, diameter 100mm	5782715	Comment / 0
18.00	DEX	Other settled deposits 10% cross-sectional area loss - Remark: DEBRIS	5782727	Service / 3
25.62	DES	Settled deposits fine 10% cross-sectional area loss	5782728	Service / 3
28.69	JN	Junction at 2 o'clock, diameter 100mm	5782776	Comment / 0
29.81	JN	Junction at 10 o'clock, diameter 100mm	5783633	Comment / 0
30.24	JN	Junction at 3 o'clock, diameter 100mm	5783644	Comment / 0
30.24	OCF	Finish node type, other special chamber, reference REST BEND	5783645	Comment / 0

End Node Ref:SOURCE | I/L :mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**25/11/2021**



Start node type, inspection chamber, reference IC S01



Water level 5% height/diameter



Junction at 1 o'clock, diameter 100mm



Junction at 1 o'clock, diameter 100mm



Junction at 1 o'clock, diameter 100mm



Junction at 2 o'clock, diameter 100mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**25/11/2021**



Other settled deposits 10% cross-sectional area loss - Remark: DEBRIS



Settled deposits fine 10% cross-sectional area loss



Junction at 2 o'clock, diameter 100mm



Junction at 10 o'clock, diameter 100mm



Junction at 3 o'clock, diameter 100mm



Finish node type, other special chamber, reference REST BEND

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**IC S01 X**	**25/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**0/0**	**ELFEIYII63**	**28**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

Division
District
Location Details

Purpose
Duty **Surface water**
Catchment

Shape/Size **150mm**
Material **Polyvinyl chloride**
Category

Start Node **IC S01**
End Node **MH S12**
Total length **11.55 metres**

Scale **1:0.58**
Direction **Downstream**

Start Node Ref:IC S01 | I/L :mm | Depth: 1.12mm

Position	Code	Description	Photo	Type/Grade
0.00	IC	Start node type, inspection chamber, reference IC S01	5783682	Comment / 0
0.00	WL	Water level 5% height/diameter	5783683	Comment / 0
11.55	MHF	Finish node type, manhole, reference MH S12	5783685	Comment / 0

End Node Ref:MH S12 | I/L :mm | Depth: 1.97mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**25/11/2021**



Start node type, inspection chamber, reference IC S01



Water level 5% height/diameter



Finish node type, manhole, reference MH S12

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**IC S02 X**	**25/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**0/0**	**ELFEIYII63**	**29**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

Division
District
Location Details

Purpose
Duty **Surface water**
Catchment

Shape/Size **150mm**
Material **Polyvinyl chloride**
Category

Start Node **IC S01**
End Node **IC S02**
Total length **16.48 metres**

Scale **1:0.84**
Direction **Upstream**

Start Node Ref:IC S01 | I/L :mm | Depth: 1.12mm



Position	Code	Description	Photo	Type/Grade
0.00	IC	Start node type, inspection chamber, reference IC S01	5783727	Comment / 0
0.00	WL	Water level 5% height/diameter	5783728	Comment / 0
3.69	JN	Junction at 3 o'clock, diameter 150mm	5783729	Comment / 0
10.57	JN	Junction at 11 o'clock, diameter 100mm	5783730	Comment / 0
16.48	ICF	Finish node type, inspection chamber, reference IC S02	5783731	Comment / 0

End Node Ref:IC S02 | I/L :mm | Depth: 0.96mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**25/11/2021**



Start node type, inspection chamber, reference IC S01



Water level 5% height/diameter



Junction at 3 o'clock, diameter 150mm



Junction at 11 o'clock, diameter 100mm



Finish node type, inspection chamber, reference IC S02

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**SOURCE X**	**25/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**2/0**	**ELFEIYII63**	**30**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

Division
District
Location Details

Purpose
Duty **Surface water**
Catchment

Shape/Size **150mm**
Material **Polyvinyl chloride**
Category

Start Node **IC S02**
End Node **SOURCE**
Total length **18.19 metres**

Scale **1:0.94**
Direction **Upstream**

Start Node Ref:IC S02 | I/L :mm

Position	Code	Description	Photo	Type/Grade
0.00	IC	Start node type, inspection chamber, reference IC S02	5783757	Comment / 0
0.00	WL	Water level 5% height/diameter	5783758	Comment / 0
1.40	JN	Junction at 9 o'clock, diameter 100mm	5783765	Comment / 0
9.74	JN	Junction at 9 o'clock, diameter 100mm	5783772	Comment / 0
16.10	DES	Settled deposits fine 5% cross-sectional area loss	5783781	Service / 2
17.69	JN	Junction at 9 o'clock, diameter 100mm	5783784	Comment / 0
18.19	OCF	Finish node type, other special chamber, reference HEAD OF LINE	5783801	Comment / 0

End Node Ref:SOURCE | I/L :mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**25/11/2021**



Start node type, inspection chamber, reference IC S02



Water level 5% height/diameter



Junction at 9 o'clock, diameter 100mm



Junction at 9 o'clock, diameter 100mm



Settled deposits fine 5% cross-sectional area loss



Junction at 9 o'clock, diameter 100mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**25/11/2021**



Finish node type, other special chamber, reference HEAD OF LINE

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**SOURCE X**	**25/11/2021**	**HPWJ to clean prior to survey**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**2/0**	**ELFEIYII63**	**31**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

Division
District
Location Details

Purpose
Duty **Surface water**
Catchment

Shape/Size **225mm**
Material **Vitrified clay**
Category

Start Node **MH S12**
End Node **SOURCE**
Total length **20.16 metres**

Scale **1:1.05**
Direction **Upstream**

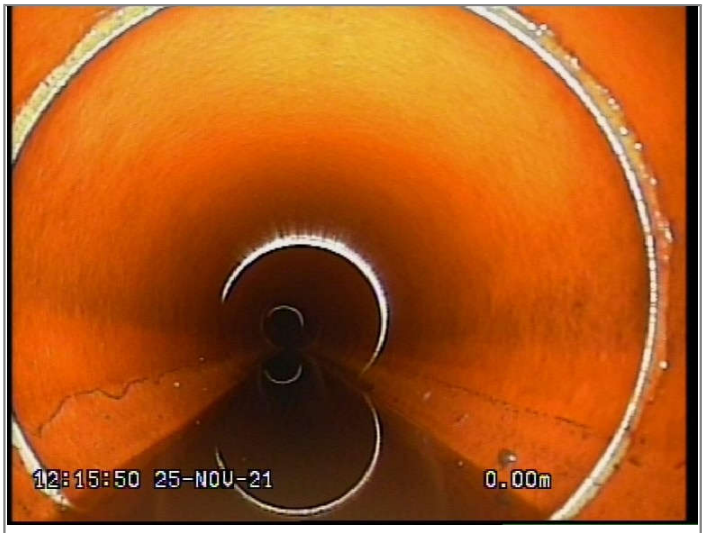
Start Node Ref:MH S12 | I/L :mm | Depth: 1.97mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH S12	5784021	Comment / 0
0.00	WL	Water level 10% height/diameter	5784024	Comment / 0
5.74	JN	Junction at 10 o'clock, diameter 100mm	5784037	Comment / 0
10.58	RF	Roots fine	5784043	Service / 2
19.16	JN	Junction at 10 o'clock, diameter 100mm	5784061	Comment / 0
20.16	SC	Dimensions of drain/sewer changes to 100mm	5784073	Comment / 0
20.16	GYF	Finish node type, gully, reference UNABLE TO PASS DUE TO CHANGE OF PIPE SIZE - REST BEND IN VIEW A FEW METERS U/S	5784090	Comment / 0

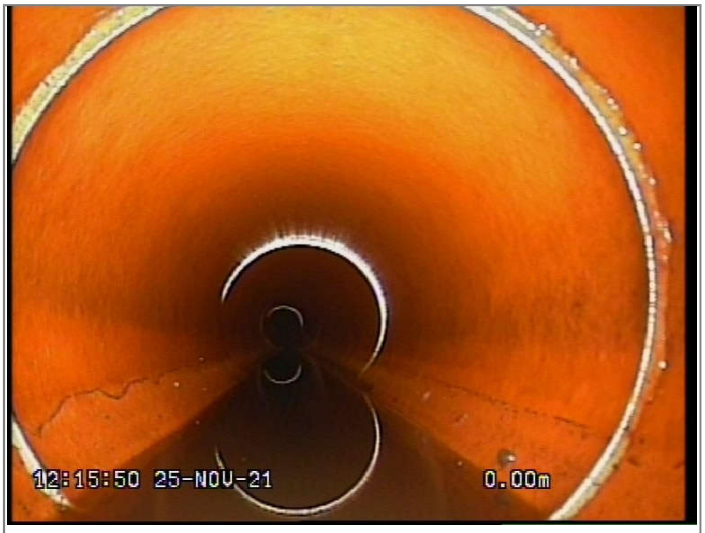
End Node Ref:SOURCE | I/L :mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**25/11/2021**



Start node type, manhole, reference MH S12



Water level 10% height/diameter



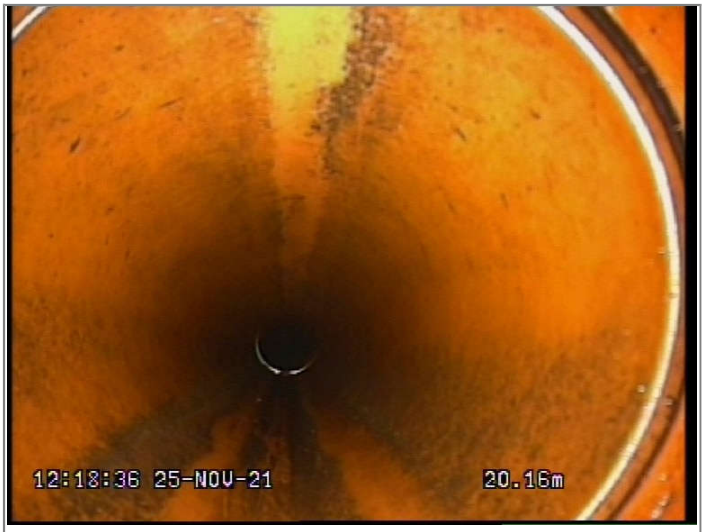
Junction at 10 o'clock, diameter 100mm



Roots fine



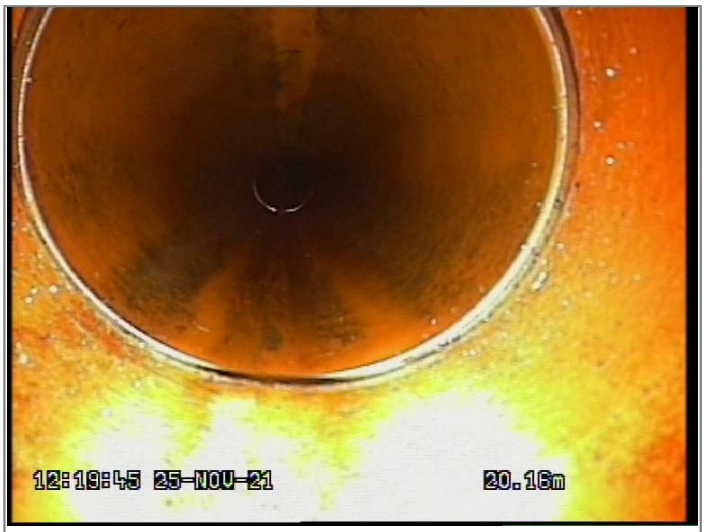
Junction at 10 o'clock, diameter 100mm



Dimensions of drain/sewer changes to 100mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**25/11/2021**



Finish node type, gully, reference UNABLE TO PASS DUE TO CHANGE OF PIPE SIZE - REST BEND IN VIEW A FEW METERS U/S

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**BRANCH B X**	**25/11/2021**	**HPWJ to clean prior to survey**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**0/1**	**ELFEIYII63**	**32**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

Division
District
Location Details

Purpose
Duty **Surface water**
Catchment

Shape/Size **150mm**
Material **Vitrified clay**
Category

Start Node **MH S12**
End Node **BRANCH B**
Total length **40.25 metres**

Scale **1:2.10**
Direction **Upstream**

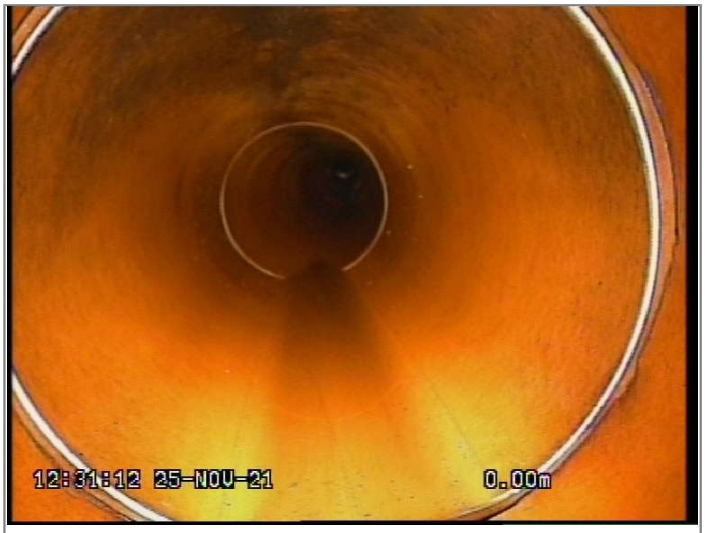
Start Node Ref:MH S12 | I/L :mm | Depth: 1.97mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH S12	5784243	Comment / 0
0.00	WL	Water level 5% height/diameter	5784244	Comment / 0
5.61	JDM	Joint displaced medium	5784265	Structural / 1
9.36	JN	Junction at 1 o'clock, diameter 150mm	5784271	Comment / 0
16.24	JN	Junction at 9 o'clock, diameter 150mm	5784284	Comment / 0
36.23	JN	Junction at 1 o'clock, diameter 150mm	5784292	Comment / 0
40.25	LU	Line of drain/sewer deviates up	5784305	Comment / 0
40.25	GYF	Finish node type, gully, reference GULLY	5784315	Comment / 0

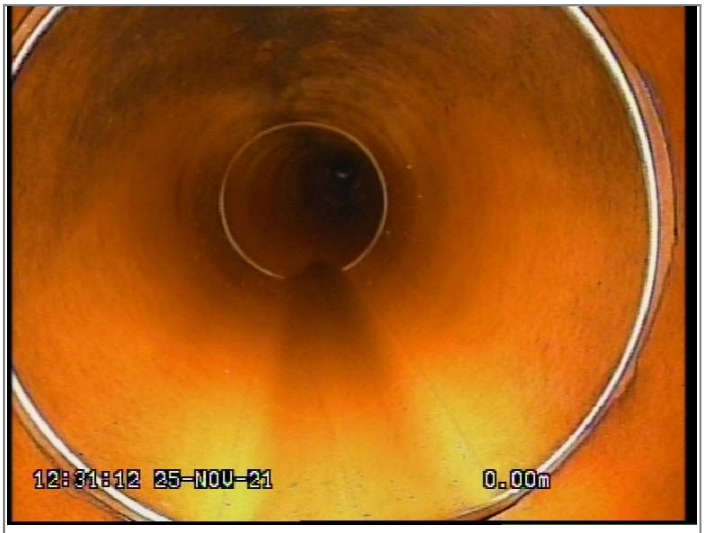
End Node Ref:BRANCH B | I/L :mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**25/11/2021**



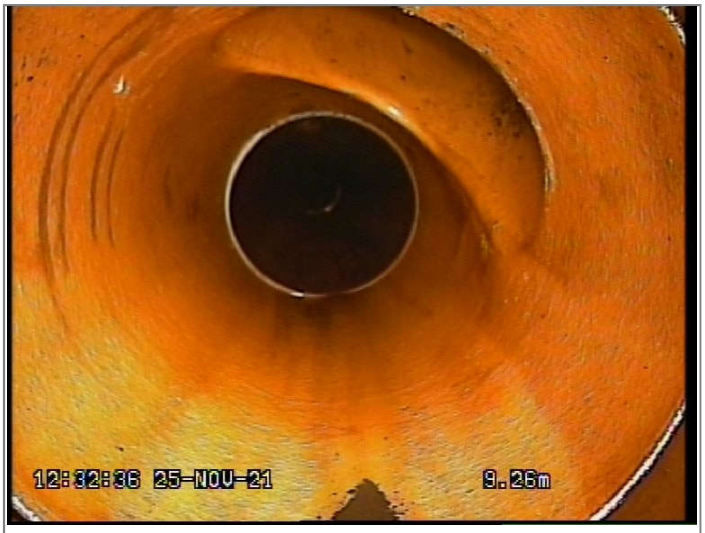
Start node type, manhole, reference MH S12



Water level 5% height/diameter



Joint displaced medium



Junction at 1 o'clock, diameter 150mm



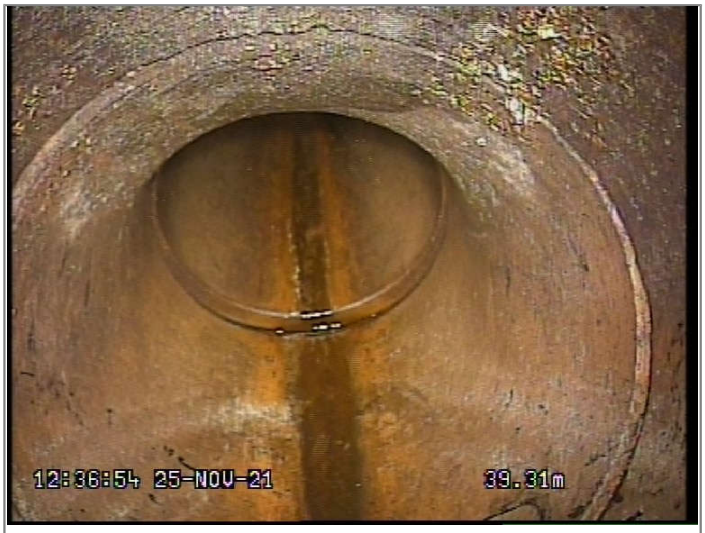
Junction at 9 o'clock, diameter 150mm



Junction at 1 o'clock, diameter 150mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**25/11/2021**



Line of drain/sewer deviates up



Finish node type, gully, reference GULLY

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**MH S12 X**	**25/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**2/0**	**ELFEIYII63**	**33**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

Division
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Location Details

Purpose
Duty **Surface water**
Catchment

Shape/Size **900mm**
Material **Concrete**
Category

Start Node **MH S12**
End Node **MH S13**
Total length **38.84 metres**

Scale **1:1.99**
Direction **Downstream**

Start Node Ref:MH S12 | I/L :mm | Depth: 1.97mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH S12	5784550	Comment / 0
0.00	WL	Water level 5% height/diameter	5784551	Comment / 0
0.00	DES	Settled deposits fine 5% cross-sectional area loss	5784553	Service / 2
8.00	CN	Connection other than junction at 9 o'clock, diameter 100mm	5784567	Comment / 0
10.62	DES	Settled deposits fine 5% cross-sectional area loss	5784572	Service / 2
38.84	MHF	Finish node type, manhole, reference MH S13	5784602	Comment / 0

End Node Ref:MH S13 | I/L :mm | Depth: 2.05mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**25/11/2021**



Start node type, manhole, reference MH S12



Water level 5% height/diameter



Settled deposits fine 5% cross-sectional area loss



Connection other than junction at 9 o'clock, diameter 100mm



Settled deposits fine 5% cross-sectional area loss



Finish node type, manhole, reference MH S13

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**MH S13 X**	**25/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**3/0**	**ELFEIYII63**	**34**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

Division
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Location Details

Purpose
Duty **Surface water**
Catchment

Shape/Size **900mm**
Material **Concrete**
Category

Start Node **MH S13**
End Node **MH S14**
Total length **30 metres**

Scale **1:1.57**
Direction **Downstream**

Start Node Ref:MH S13 | I/L :mm | Depth: 2.05mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH S13	5784605	Comment / 0
0.00	WL	Water level 10% height/diameter	5784606	Comment / 0
0.00	DES	Settled deposits fine 10% cross-sectional area loss	5784617	Service / 3
0.90	CN	Connection other than junction at 10 o'clock, diameter 100mm	5784626	Comment / 0
9.14	CN	Connection other than junction at 10 o'clock, diameter 100mm	5784635	Comment / 0
11.40	DES (S01)	Settled deposits fine 10% cross-sectional area loss, Start	5784656	Service / 3
13.31	DES (F01)	Settled deposits fine 10% cross-sectional area loss, Finished	5784673	Service / 3
13.31	SA	Survey abandoned - Remark: UNABLE TO PASS DUE TO HIGH SILT DEPOSITS - CLEANING REQUIRED	5784689	Comment / 0



End Node Ref:MH S14 | I/L :mm | Depth: 2.10mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**25/11/2021**



Start node type, manhole, reference MH S13



Water level 10% height/diameter



Settled deposits fine 10% cross-sectional area loss



Connection other than junction at 10 o'clock, diameter 100mm



Connection other than junction at 10 o'clock, diameter 100mm



Settled deposits fine 10% cross-sectional area loss, Start

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**25/11/2021**



Settled deposits fine 10% cross-sectional area loss, Finished



Survey abandoned - Remark: UNABLE TO PASS DUE TO HIGH SILT DEPOSITS - CLEANING REQUIRED

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**MH S9 X**	**25/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**3/0**	**ELFEIYII63**	**35**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

Division
District
Location Details

Purpose
Duty **Surface water**
Catchment

Shape/Size **150mm**
Material **Vitrified clay**
Category

Start Node **MH S9A**
End Node **MH S9**
Total length **30 metres**

Scale **1:1.57**
Direction **Upstream**

Start Node Ref:MH S9A | I/L :mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH S9A	5785878	Comment / 0
0.00	WL	Water level 5% height/diameter	5785880	Comment / 0
0.02	DES	Settled deposits fine 10% cross-sectional area loss	5785883	Service / 3
25.14	DES	Settled deposits fine 10% cross-sectional area loss	5785884	Service / 3
25.14	SA	Survey abandoned - Remark: UNABLE TO PASS DUE TO HIGH SILT DEPOSITS	5785904	Comment / 0



End Node Ref:MH S9 | I/L :mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**25/11/2021**



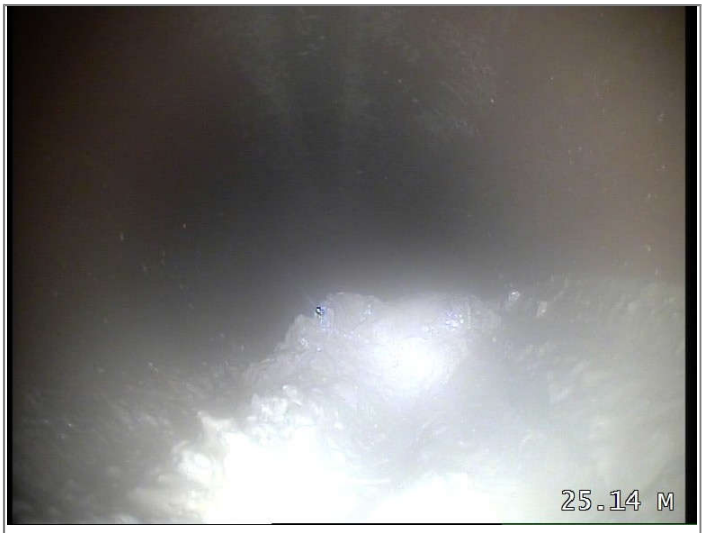
Start node type, manhole, reference MH S9A



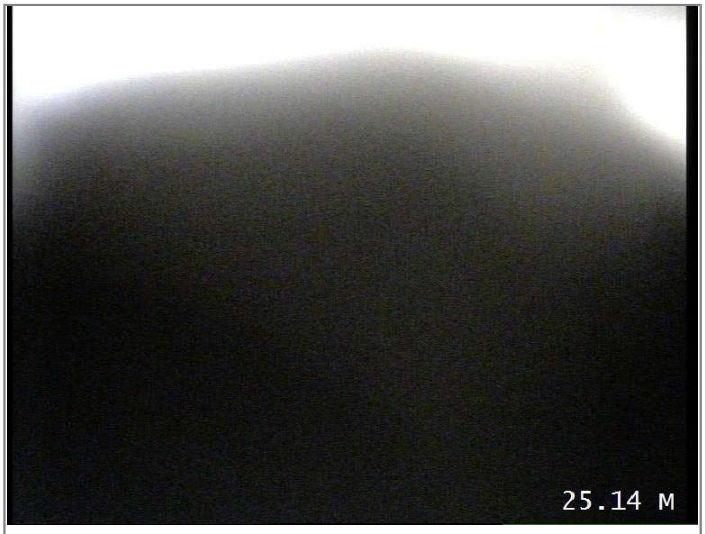
Water level 5% height/diameter



Settled deposits fine 10% cross-sectional area loss



Settled deposits fine 10% cross-sectional area loss



Survey abandoned - Remark: UNABLE TO PASS DUE TO HIGH SILT DEPOSITS

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**UU 0402 X**	**26/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**3/0**	**ELFEIYII63**	**36**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

Division
District
Location Details

Purpose
Duty **Combined**
Catchment

Shape/Size **300mm**
Material **Vitrified clay**
Category

Start Node **UU 1303**
End Node **UU 0402**
Total length **60 metres**

Scale **1:3.15**
Direction **Upstream**

Start Node Ref:UU 1303 | I/L :mm | Depth: 3.00mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference UU 1303	5791821	Comment / 0
0.00	WL	Water level 5% height/diameter	5791822	Comment / 0
0.00	CUS	Loss of vision, steam	5791823	Comment / 0
5.00	WL	Water level 10% height/diameter	5791824	Comment / 0
10.97	JN	Junction at 9 o'clock, diameter 150mm	5791825	Comment / 0
20.22	DEF	Attached deposits, fouling from 4 to 8 o'clock 15% cross-sectional area loss	5791826	Service / 3
20.22	DER	Settled deposits coarse 15% cross-sectional area loss	5791827	Service / 3
20.22	SA	Survey abandoned - Remark: OBSTRUCTION - UNABLE TO PASS DUE TO FOUL AND COARSE DEPOSITS	5791828	Comment / 0



End Node Ref:UU 0402 | I/L :mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**26/11/2021**



Start node type, manhole, reference UU 1303



Water level 5% height/diameter



Loss of vision, steam



Water level 10% height/diameter



Junction at 9 o'clock, diameter 150mm



Attached deposits, fouling from 4 to 8 o'clock 15% cross-sectional area loss

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**26/11/2021**



Settled deposits coarse 15% cross-sectional area loss



Survey abandoned - Remark: OBSTRUCTION - UNABLE TO PASS DUE TO FOUL AND COARSE DEPOSITS

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**UU 1303 X**	**26/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**4/2**	**ELFEIYII63**	**37**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

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Location Details

Purpose
Duty **Combined**
Catchment

Shape/Size **300mm**
Material **Vitrified clay**
Category

Start Node **UU 1303**
End Node **UU 1304**
Total length **70 metres**

Scale **1:3.67**
Direction **Downstream**

Start Node Ref:UU 1303 | I/L :mm | Depth: 3.00mm



Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference UU 1303	5791829	Comment / 0
0.00	WL	Water level 5% height/diameter	5791830	Comment / 0
4.66	DEE	Attached deposits, encrustation from 9 to 7 o'clock 5% cross-sectional area loss - Remark: CONTINUOUS DEFECT DOWNSTREAM TO UU 1304 , Start	5791831	Service / 2
9.32	JN	Junction at 3 o'clock, diameter 150mm	5791832	Comment / 0
10.42	CL	Crack longitudinal at 11 o'clock	5791833	Structural / 2
19.47	DES	Settled deposits fine 10% cross-sectional area loss	5791834	Service / 3
31.70	JN	Junction at 3 o'clock, diameter 150mm	5791835	Comment / 0
51.17	WL	Water level 25% height/diameter	5791836	Comment / 0
54.20	DEF	Attached deposits, fouling from 5 to 7 o'clock 20% cross-sectional area loss	5791837	Service / 4
54.20	SA	Survey abandoned - Remark: OBSTRUCTION UNABLE TO PASS DUE TO ATTACHED DEPOSITS UNDER WATER	5791838	Comment / 0

End Node Ref:UU 1304 | I/L :mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**26/11/2021**



Start node type, manhole, reference UU 1303



Water level 5% height/diameter



Attached deposits, encrustation from 9 to 7 o'clock 5% cross-sectional area loss - Remark: CONTINUOUS DEFECT DOWNSTREAM TO UU 1304 , Start



Junction at 3 o'clock, diameter 150mm



Crack longitudinal at 11 o'clock



Settled deposits fine 10% cross-sectional area loss

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**26/11/2021**



Junction at 3 o'clock, diameter 150mm



Water level 25% height/diameter



Attached deposits, fouling from 5 to 7 o'clock 20% cross-sectional area loss



Survey abandoned - Remark: OBSTRUCTION UNABLE TO PASS DUE TO ATTACHED DEPOSITS UNDER WATER

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**MH 1303 A X**	**26/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**0/0**	**ELFEIYII63**	**38**

Road **AIdi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

Division
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Location Details

Purpose
Duty **Combined**
Catchment

Shape/Size **225mm**
Material **Vitrified clay**
Category

Start Node **UU 1303**
End Node **MH 1303 A**
Total length **5.09 metres**

Scale **1:0.26**
Direction **Upstream**

Start Node Ref:UU 1303 | I/L :mm | Depth: 3.00mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference UU 1303	5791840	Comment / 0
0.00	WL	Water level 5% height/diameter	5791841	Comment / 0



5.09	MHF	Finish node type, manhole, reference IC 02	5791842	Comment / 0

End Node Ref:MH 1303 A | I/L :mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**26/11/2021**



Start node type, manhole, reference UU 1303



Water level 5% height/diameter



Finish node type, manhole, reference IC 02

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**UU 0402 X**	**26/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**3/0**	**ELFEIYII63**	**39**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

Division
District
Location Details

Purpose
Duty **Combined**
Catchment

Shape/Size **300mm**
Material **Vitrified clay**
Category

Start Node **UU 0402**
End Node **UU 1303**
Total length **80 metres**

Scale **1:4.20**
Direction **Downstream**

Start Node Ref:UU 0402 | I/L :mm | Depth: 2.75mm



Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference UU 0402	5791847	Comment / 0
0.00	WL	Water level 5% height/diameter	5791848	Comment / 0
0.30	DEE	Attached deposits, encrustation from 8 to 4 o'clock 5% cross-sectional area loss	5791849	Service / 2
5.78	DEE (S01)	Attached deposits, encrustation from 12 to 12 o'clock 5% cross-sectional area loss, Start	5791850	Service / 2
5.78	DES	Settled deposits fine 5% cross-sectional area loss	5791851	Service / 2
11.09	JN	Junction at 3 o'clock, diameter 150mm	5791852	Comment / 0
33.77	DER	Settled deposits coarse 5% cross-sectional area loss	5791853	Service / 2
33.77	DEE (F01)	Attached deposits, encrustation from 12 to 12 o'clock 5% cross-sectional area loss, Finished	5791854	Service / 2
33.77	DES	Settled deposits fine 10% cross-sectional area loss	5791855	Service / 3
33.77	SA	Survey abandoned - Remark: UNABLE TO PASS DUE TO FOUL AND SILT DEPOSITS	5791856	Comment / 0

End Node Ref:UU 1303 | I/L :mm | Depth: 3.00mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**26/11/2021**



Start node type, manhole, reference UU 0402



Water level 5% height/diameter



Attached deposits, encrustation from 8 to 4 o'clock 5% cross-sectional area loss



Attached deposits, encrustation from 12 to 12 o'clock 5% cross-sectional area loss, Start



Settled deposits fine 5% cross-sectional area loss



Junction at 3 o'clock, diameter 150mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**26/11/2021**



Settled deposits coarse 5% cross-sectional area loss



Attached deposits, encrustation from 12 to 12 o'clock 5% cross-sectional area loss, Finished



Settled deposits fine 10% cross-sectional area loss



Survey abandoned - Remark: UNABLE TO PASS DUE TO FOUL AND SILT DEPOSITS

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**MH 1303 A X**	**26/11/2021**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**3/0**	**ELFEIYII63**	**40**

Road **AIdi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

Division
District
Location Details

Purpose
Duty **Combined**
Catchment

Shape/Size **225mm**
Material **Vitrified clay**
Category

Start Node **MH 1303 A**
End Node **SOURCE**
Total length **50 metres**

Scale **1:2.62**
Direction **Downstream**

Start Node Ref:MH 1303 A | I/L :mm | Depth: 2.65mm

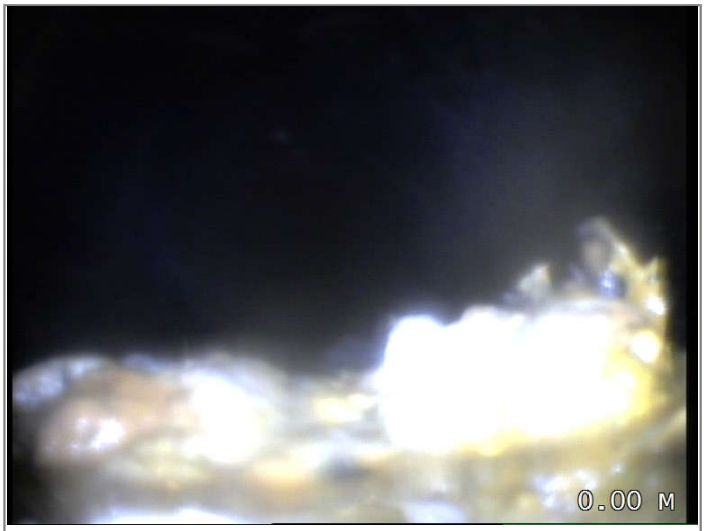


Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH 1303 A	5791857	Comment / 0
0.00	WL	Water level 5% height/diameter	5791858	Comment / 0
0.52	DEX	Other settled deposits 10% cross-sectional area loss - Remark: FOUL	5791859	Service / 3
1.29	LR	Line of drain/sewer deviates right	5791860	Comment / 0
32.95	SA	Survey abandoned - Remark: UNABLE TOP PASS DUE TO CABLE FLEX	5791861	Comment / 0

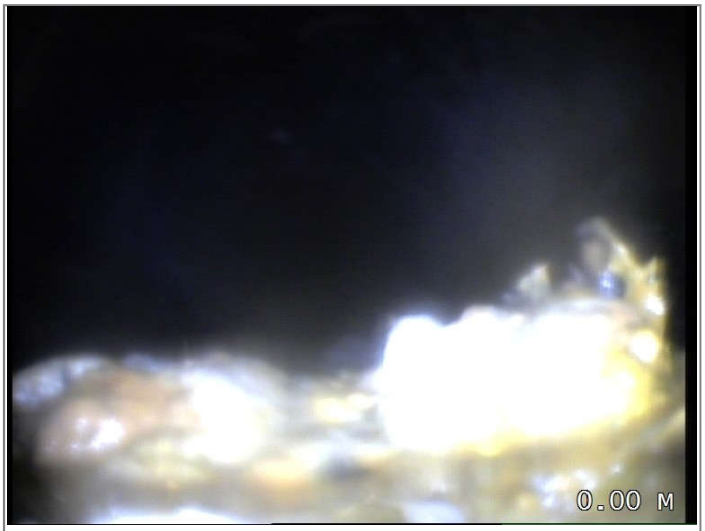
End Node Ref:SOURCE | I/L :mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**26/11/2021**



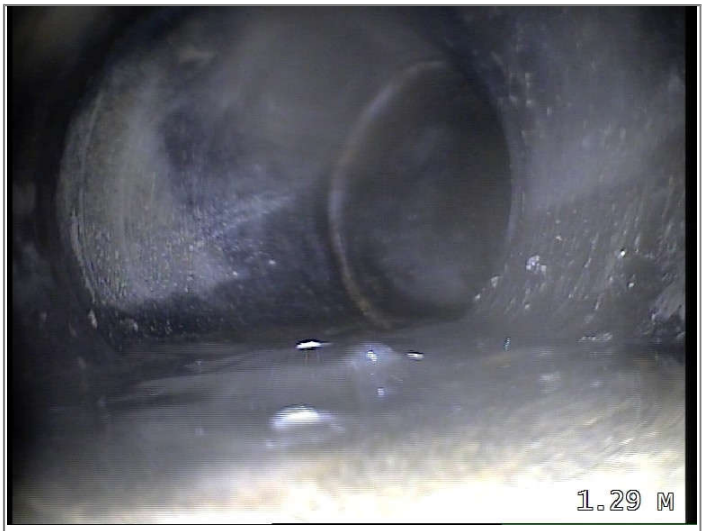
Start node type, manhole, reference MH 1303 A



Water level 5% height/diameter



Other settled deposits 10% cross-sectional area loss - Remark: FOUL



Line of drain/sewer deviates right



Survey abandoned - Remark: UNABLE TOP PASS DUE TO CABLE FLEX

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**MH S3 X**	**26/11/2021**	**HPWJ to clean prior to survey**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**2/0**	**ELFEIYII63**	**41**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

Division
District
Location Details

Purpose
Duty **Surface water**
Catchment

Shape/Size **150mm**
Material **Vitrified clay**
Category

Start Node **MH S3**
End Node **MH S4**
Total length **23.29 metres**

Scale **1:1.21**
Direction **Downstream**

Start Node Ref:MH S3 | I/L :mm | Depth: 1.52mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH S3	5791865	Comment / 0
0.00	WL	Water level 5% height/diameter	5791866	Comment / 0
2.40	JN	Junction at 2 o'clock, diameter 100mm	5791867	Comment / 0
6.59	DEX	Other settled deposits 5% cross-sectional area loss - Remark: METAL OBJECT	5791868	Service / 2
8.48	WL	Water level 10% height/diameter	5791869	Comment / 0
21.78	JN	Junction at 1 o'clock, diameter 100mm	5791870	Comment / 0
23.29	MHF	Finish node type, manhole, reference MH S4	5791871	Comment / 0

End Node Ref:MH S4 | I/L :mm | Depth: 1.50mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**26/11/2021**



Start node type, manhole, reference MH S3



Water level 5% height/diameter



Junction at 2 o'clock, diameter 100mm



Other settled deposits 5% cross-sectional area loss - Remark: METAL OBJECT



Water level 10% height/diameter



Junction at 1 o'clock, diameter 100mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**26/11/2021**



Finish node type, manhole, reference MH S4

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**MH S6 X**	**26/11/2021**	**HPWJ to clean prior to survey**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**0/1**	**ELFEIYII63**	**42**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

Division
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Location Details

Purpose
Duty **Surface water**
Catchment

Shape/Size **150mm**
Material **Vitrified clay**
Category

Start Node **MH S6**
End Node **MH S5**
Total length **17.19 metres**

Scale **1:0.89**
Direction **Downstream**

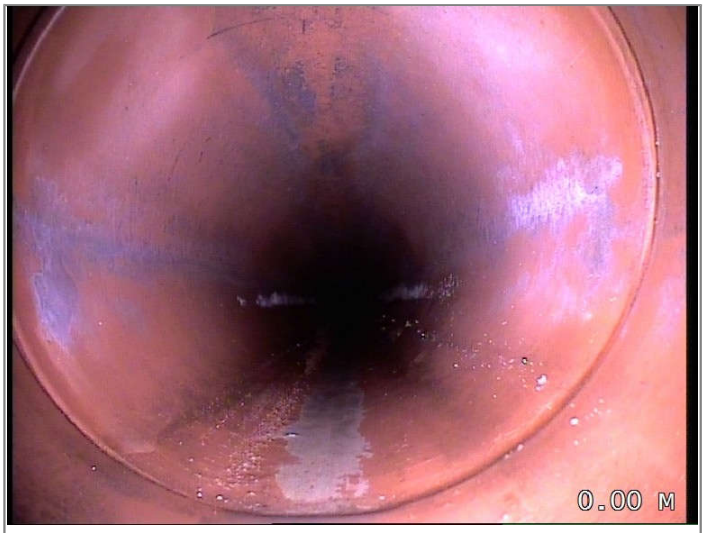
Start Node Ref:MH S6 | I/L :mm | Depth: 1.10mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH S6	5791874	Comment / 0
0.00	WL	Water level 5% height/diameter	5791875	Comment / 0
7.62	JN	Junction at 9 o'clock, diameter 100mm	5791876	Comment / 0
9.71	WL	Water level 10% height/diameter - Remark: DIP IN PIPE	5791877	Comment / 0
9.71	JN	Junction at 11 o'clock, diameter 100mm	5791878	Comment / 0
16.10	JDM	Joint displaced medium	5791879	Structural / 1
17.19	MHF	Finish node type, manhole, reference MH S5	5791880	Comment / 0

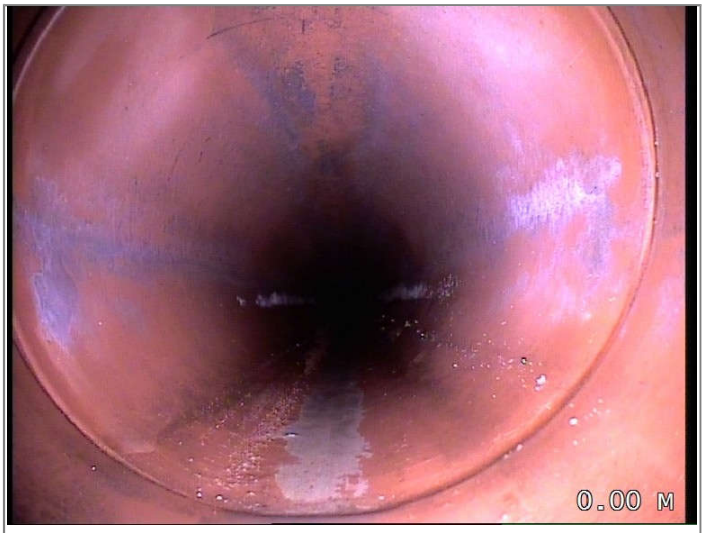
End Node Ref:MH S5 | I/L :mm | Depth: 1.47mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**26/11/2021**



Start node type, manhole, reference MH S6



Water level 5% height/diameter



Junction at 9 o'clock, diameter 100mm



Water level 10% height/diameter - Remark: DIP IN PIPE



Junction at 11 o'clock, diameter 100mm



Joint displaced medium

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**26/11/2021**



Finish node type, manhole, reference MH S5

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**MH S5 X**	**26/11/2021**	**HPWJ to clean prior to survey**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**0/0**	**ELFEIYII63**	**43**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

Division
District
Location Details

Purpose
Duty **Surface water**
Catchment

Shape/Size **150mm**
Material **Vitrified clay**
Category

Start Node **MH S5**
End Node **MH S4**
Total length **13.43 metres**

Scale **1:0.68**
Direction **Downstream**

Start Node Ref:MH S5 | I/L :mm | Depth: 1.47mm



Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH S5	5791881	Comment / 0
0.00	WL	Water level 5% height/diameter	5791882	Comment / 0
5.90	WL	Water level 10% height/diameter - Remark: DIP IN PIPE	5791883	Comment / 0
5.90	JN	Junction at 2 o'clock, diameter 100mm	5791884	Comment / 0
8.07	LL	Line of drain/sewer deviates left	5791885	Comment / 0
11.40	LL	Line of drain/sewer deviates left	5791886	Comment / 0
11.95	LR	Line of drain/sewer deviates right	5791887	Comment / 0
13.43	MHF	Finish node type, manhole, reference MH S4	5791888	Comment / 0

End Node Ref:MH S4 | I/L :mm | Depth: 1.50mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**26/11/2021**



Start node type, manhole, reference MH S5



Water level 5% height/diameter



Water level 10% height/diameter - Remark: DIP IN PIPE



Junction at 2 o'clock, diameter 100mm



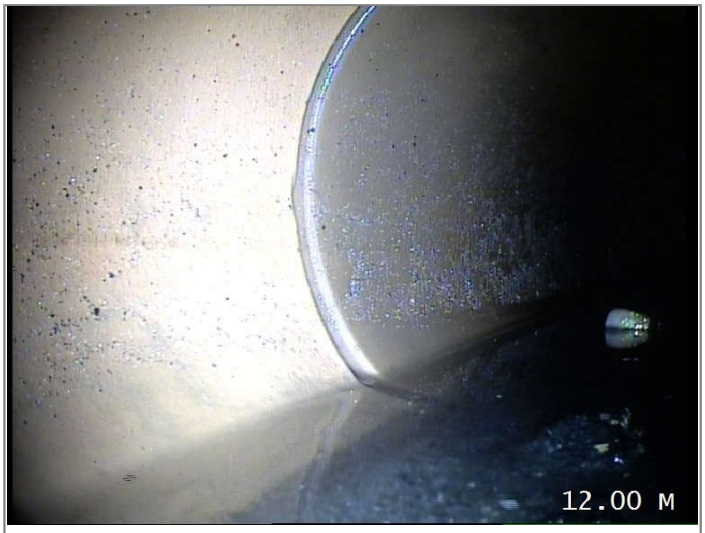
Line of drain/sewer deviates left



Line of drain/sewer deviates left

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**26/11/2021**



Line of drain/sewer deviates right



Finish node type, manhole, reference MH S4

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**MH S6 A X**	**26/11/2021**	**HPWJ to clean prior to survey**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**2/0**	**ELFEIYII63**	**44**

Road **AIdi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

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Location Details

Purpose
Duty **Surface water**
Catchment

Shape/Size **100mm**
Material **Vitrified clay**
Category

Start Node **MH S6**
End Node **MH S6 A**
Total length **13.76 metres**

Scale **1:0.68**
Direction **Upstream**

Start Node Ref:MH S6 | I/L :mm | Depth: 1.10mm



Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH S6	5791889	Comment / 0
0.00	WL	Water level 5% height/diameter	5791890	Comment / 0
1.45	JN	Junction at 10 o'clock, diameter 100mm	5791891	Comment / 0
7.81	JN	Junction at 3 o'clock, diameter 100mm	5791892	Comment / 0
9.48	JN	Junction at 9 o'clock, diameter 100mm	5791893	Comment / 0
10.10	DES	Settled deposits fine 5% cross-sectional area loss	5791894	Service / 2
13.62	MHF	Finish node type, manhole, reference MH S6 A	5791896	Comment / 0

End Node Ref:MH S6 A | I/L :mm | Depth: 0.77mm

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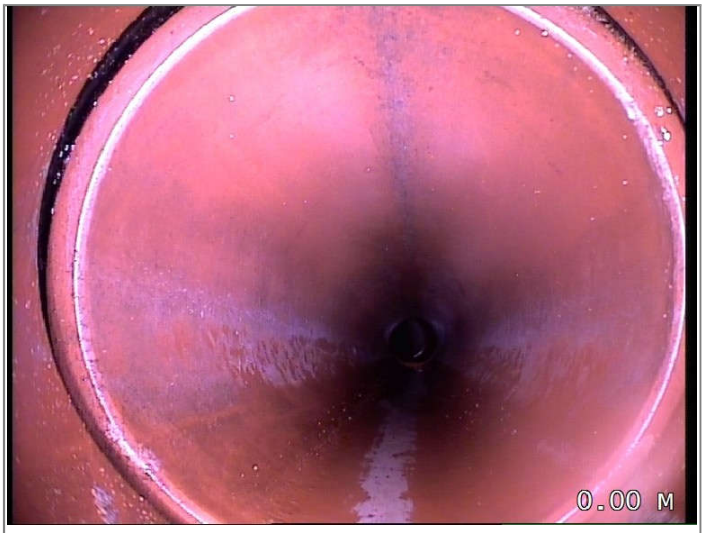
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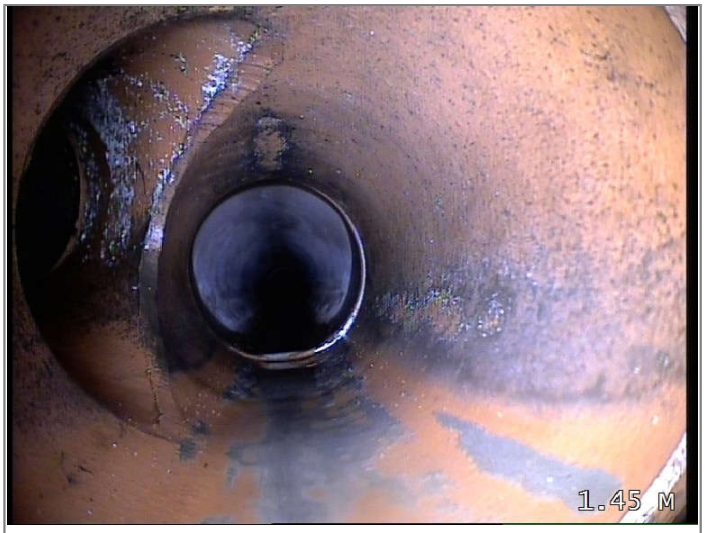
Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**26/11/2021**



Start node type, manhole, reference MH S6



Water level 5% height/diameter



Junction at 10 o'clock, diameter 100mm



Junction at 3 o'clock, diameter 100mm



Junction at 9 o'clock, diameter 100mm



Settled deposits fine 5% cross-sectional area loss

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**26/11/2021**



Finish node type, manhole, reference MH S6 A

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**MH S2 X**	**26/11/2021**	**HPWJ to clean prior to survey**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**3/0**	**ELFEIYII63**	**45**

Road **AIdi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

Division
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Location Details

Purpose
Duty **Surface water**
Catchment

Shape/Size **100mm**
Material **Vitrified clay**
Category

Start Node **MH S3**
End Node **MH S2**
Total length **32.45 metres**

Scale **1:1.68**
Direction **Upstream**

Start Node Ref:MH S3 | I/L :mm | Depth: 1.52mm



Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH S3	5791897	Comment / 0
0.00	WL	Water level 5% height/diameter	5791898	Comment / 0
0.79	DEZ	Other attached deposits from 8 to 4 o'clock 5% cross-sectional area loss - Remark SILT	5791899	Service / 2
3.14	DES	Settled deposits fine 10% cross-sectional area loss	5791900	Service / 3
4.48	JN	Junction at 2 o'clock, diameter 100mm	5791901	Comment / 0
14.57	JN	Junction at 10 o'clock, diameter 100mm	5791902	Comment / 0
15.07	JN	Junction at 10 o'clock, diameter 100mm	5791903	Comment / 0
15.29	WL	Water level 10% height/diameter - Remark: DIP 0N PIPE	5791904	Comment / 0
25.57	JN	Junction at 9 o'clock, diameter 100mm	5791906	Comment / 0
29.21	JN	Junction at 10 o'clock, diameter 100mm	5791907	Comment / 0
32.45	MHF	Finish node type, manhole, reference MH S2	5791909	Comment / 0

End Node Ref:MH S2 | I/L :mm | Depth: 1.17mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**26/11/2021**



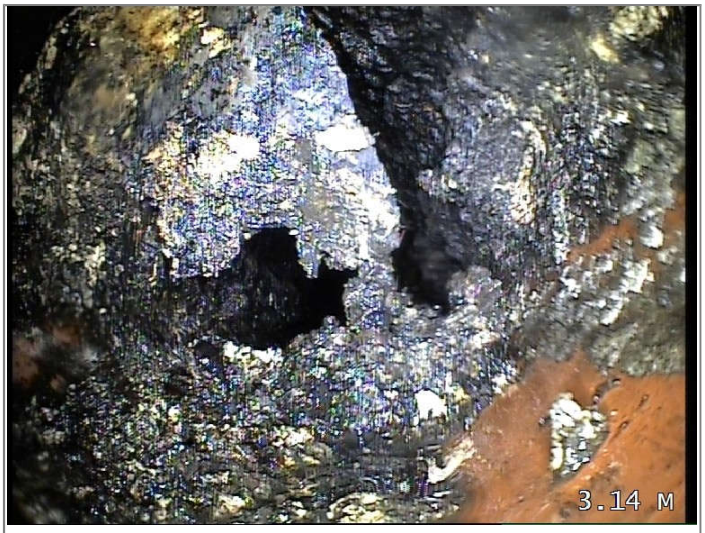
Start node type, manhole, reference MH S3



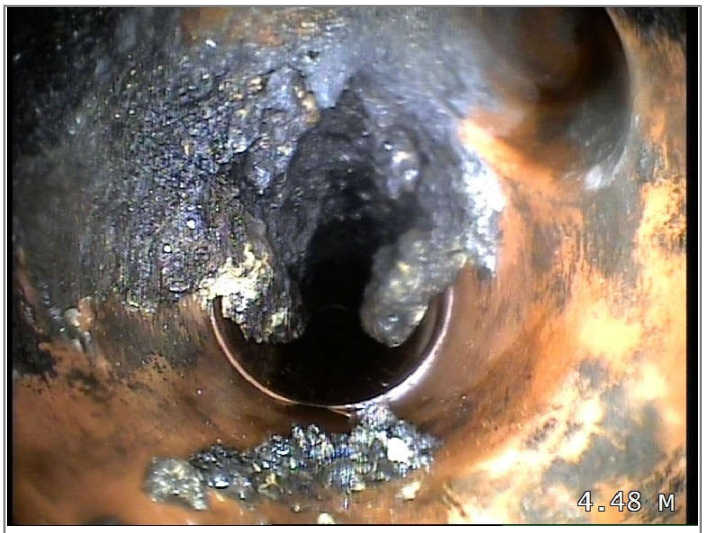
Water level 5% height/diameter



Other attached deposits from 8 to 4 o'clock 5% cross-sectional area loss - Remark SILT



Settled deposits fine 10% cross-sectional area loss



Junction at 2 o'clock, diameter 100mm



Junction at 10 o'clock, diameter 100mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**26/11/2021**



Junction at 10 o'clock, diameter 100mm



Water level 10% height/diameter - Remark: DIP 0N PIPE



Junction at 9 o'clock, diameter 100mm



Junction at 10 o'clock, diameter 100mm



Finish node type, manhole, reference MH S2

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**MH S9A X**	**26/11/2021**	**HPWJ to clean prior to survey**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**2/0**	**ELFEIYII63**	**46**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

Division
District
Location Details

Purpose
Duty **Surface water**
Catchment

Shape/Size **150mm**
Material **Vitrified clay**
Category

Start Node **MH S9A**
End Node **MAIN CARRIER**
Total length **70 metres**

Scale **1:3.67**
Direction **Downstream**

Start Node Ref:MH S9A | I/L :mm | Depth: 1.12mm



Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH S9A	5791911	Comment / 0
0.00	WL	Water level 5% height/diameter	5791912	Comment / 0
0.73	DES	Settled deposits fine 5% cross-sectional area loss	5791914	Service / 2
4.14	DES	Settled deposits fine 5% cross-sectional area loss	5791916	Service / 2
11.68	DER	Settled deposits coarse 5% cross-sectional area loss	5791917	Service / 2
18.01	WL	Water level 25% height/diameter - Remark: LINE HOLDING WATER	5791918	Comment / 0
20.43	CUW	Loss of vision, camera under water	5791919	Comment / 0
37.96	SA	Survey abandoned - Remark: LOSS OF VISION - NOT SAFE TO SURVEY DUE TO UNKNOWN OBSTACLES AND OUTFALLS	5791921	Comment / 0

End Node Ref:MAIN CARRIER | I/L :mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**26/11/2021**



Start node type, manhole, reference MH S9A



Water level 5% height/diameter



Settled deposits fine 5% cross-sectional area loss



Settled deposits fine 5% cross-sectional area loss



Settled deposits coarse 5% cross-sectional area loss



Water level 25% height/diameter - Remark: LINE HOLDING WATER

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**26/11/2021**



Loss of vision, camera under water



Survey abandoned - Remark: LOSS OF VISION - NOT SAFE TO SURVEY DUE TO UNKNOWN OBSTACLES AND OUTFALLS

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**MH S15 X**	**26/11/2021**	**HPWJ to clean prior to survey**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**3/3**	**ELFEIYII63**	**47**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

Division
District
Location Details

Purpose
Duty **Surface water**
Catchment

Shape/Size **150mm**
Material **Vitrified clay**
Category

Start Node **MH S15**
End Node **MH S16**
Total length **30.07 metres**

Scale **1:1.57**
Direction **Downstream**

Start Node Ref:MH S15 | I/L :mm | Depth: 0.78mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH S15	5791922	Comment / 0
0.00	WL	Water level 5% height/diameter	5791923	Comment / 0
1.69	CS	Crack spiral from 1 to 9 o'clock	5791924	Structural / 3
4.14	CC	Crack circumferential from 12 to 12 o'clock	5791925	Structural / 2
23.90	FC	Fracture circumferential from 12 to 12 o'clock	5791926	Structural / 3
28.36	DEX	Other settled deposits 10% cross-sectional area loss - Remark: DEBRIS	5791927	Service / 3
28.69	JN	Junction at 11 o'clock, diameter 150mm	5791928	Comment / 0
28.93	LR	Line of drain/sewer deviates right	5791929	Comment / 0
30.07	MHF	Finish node type, manhole, reference MH S16	5791930	Comment / 0

End Node Ref:MH S16 | I/L :mm | Depth: 1.40mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**26/11/2021**



Start node type, manhole, reference MH S15



Water level 5% height/diameter



Crack spiral from 1 to 9 o'clock



Crack circumferential from 12 to 12 o'clock



Fracture circumferential from 12 to 12 o'clock



Other settled deposits 10% cross-sectional area loss - Remark: DEBRIS

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**26/11/2021**



Junction at 11 o'clock, diameter 150mm



Line of drain/sewer deviates right



Finish node type, manhole, reference MH S16

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CCTV Inspection Report

Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**MH S4 X**	**26/11/2021**	**HPWJ to clean prior to survey**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**0/1**	**ELFEIYII63**	**48**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

Division
District
Location Details

Purpose
Duty **Surface water**
Catchment

Shape/Size **150mm**
Material **Vitrified clay**
Category

Start Node **MH S4**
End Node **ATTENUATION TANK**
Total length **6.81 metres**

Scale **1:0.31**
Direction **Downstream**

Start Node Ref:MH S4 | I/L :mm | Depth: 1.50mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH S4	5791931	Comment / 0
0.00	WL	Water level 50% height/diameter	5791932	Comment / 0
0.00	CUW	Loss of vision, camera under water - Remark: HOLDING WATER DIP IN PIPE	5791933	Comment / 0
6.62	JDM	Joint displaced medium	5791934	Structural / 1
6.81	CPF	Finish node type, catchpit, reference ATTENUATION TANK	5791935	Comment / 0

End Node Ref:ATTENUATION TANK | I/L :mm | Depth: 3.10mm

CCTV Inspection Photos

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**26/11/2021**



Start node type, manhole, reference MH S4



Water level 50% height/diameter



Loss of vision, camera under water - Remark: HOLDING WATER DIP IN PIPE



Joint displaced medium



Finish node type, catchpit, reference ATTENUATION TANK

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
CHRIS LUCOCK	**LAYERSERV0001064**	**MH S16 X**	**26/11/2021**	**HPWJ to clean prior to survey**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**0/0**	**ELFEIYII63**	**49**

Road **Aldi Moston Development,**
Place **Victoria Ave E,**
Location **Manchester**

Division
District
Location Details

Purpose
Duty **Surface water**
Catchment

Shape/Size **225mm**
Material **Vitrified clay**
Category

Start Node **MH S16**
End Node **MH S13**
Total length **0 metres**

Scale **1:0.00**
Direction **Downstream**

Start Node Ref:MH S16 | I/L :mm | Depth: 1.40mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH S16	5791936	Comment / 0
0.00	WL	Water level 5% height/diameter	5791937	Comment / 0
0.00	MHF	Finish node type, manhole, reference MH S13	5791938	Comment / 0



End Node Ref:MH S13 | I/L :mm | Depth: 2.05mm

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Job Number	Surveyed by (Operator)	Base Unit	Date
LAYERSERV0001064	**CHRIS LUCOCK**	**ELFEIYII63**	**26/11/2021**



Start node type, manhole, reference MH S16



Water level 5% height/diameter



Finish node type, manhole, reference MH S13



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Layer Surveys Ltd Manhole Survey Card

Card No	01	Map No	
Catchment		MH No	MH S1
Location	Aldi Moston		
Town			

★ PR	Status	Syphon	★ SW	Function	★ MH	MH Type	24/11/2021	Date of Survey

COVER DETAILS

☒ Square ☐ Rectangle ☐ Triangle ☐ Dbl Triangle ☐ Circular ☐ Oval ☐ Other ☐ Multiple ☐ Hinged ☐ Lockable

Cover Level	m	H / M / L Cover Duty	★ H	Initials	JP

PIPE DETAILS

Incoming Pipes

Clockwise from pipe X

Pipe	Depth from Invert (m)	Upstream / Downstream MH Ref	Shape	Size (mm) Height		Width	Pipe Mat	Lining Mat	Back Drop Dia (mm)	Back Drop Depth (m)
A	1.06		C	100	X		VC			
B	1.07		C	100	X		VC			
C					X					
D					X					
E					X					
F					X					

Outgoing Pipes

X	1.08		C	100	X		VC			
Y					X					

Cover Opening at narrowest	670 X 670	mm	Chamber Dimension	900	mm	Evidence of Surcharge	
Shaft at narrowest		mm	Shaft Depth (from CL)		mm	OX / H2S / METH Toxic atmosphere	

MANHOLE CONSTRUCTION DETAILS

☒ Pre Cast Concrete ☐ In Situ Concrete ☐ Brick ☐ GRP ☐ Arch ☐ Corbel ☐ Taper ☐ Side Entry

☒ Reducing Slab ☐ Segments ☐ No. of Landings 2 No. Steps ☐ No. of Ladders

☐ No. of Regulating Brick Courses

CONDITION INFORMATION (specific in remark)

	Cover	Shaft	Irons / Ladders	Chamber	Benching	Channel
OK	☒	☐	☒	☒	☒	☒
Needs attention	☐	☐	☐	☐	☐	☐
Urgent attention	☐	☐	☐	☐	☐	☐

Depth of Flow	mm	Depth of Silt	mm	Height of Surcharge from CL	mm

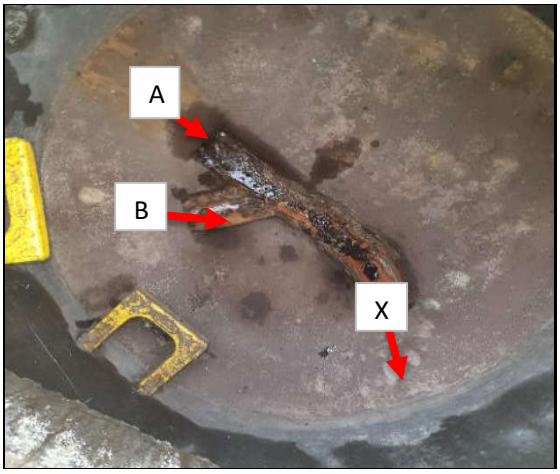
REMARKS

★ *See Overleaf for Key*

LOCATION SKETCH



PLAN OF MANHOLE



STATUS	PU : Public	PR : Private	WC : Culverted Watercourse	}	Applies to main outlet
	24 : Section 24	HD : Highway Drain			
FUNCTION	F : Foul	C : Combined	S : Surface Water	}	Applies to main outlet
MANHOLE TYPE	IF : Infall	MH : Manhole	CP : Catchpit	CSO	:Consented Sewer Overflow
	LH : Lamphole	RE : Rodding Eye	SO : Storm Overflow	DS	:Dual system Manhole
	GU : Gully	OF : Outfall	SA : Soakaway	PS	:Pumping Station
COVER DUTY	L : Light Duty	M : Medium Duty	H : Heavy Duty		
SHAPE	C : Circular	E : Egg	R : Rectangular		
	S : Square	T : Trapezoidal	A : Arched		
	B : Barrel	H : Horseshoe (Inverted U)	U : U-shaped with flat top		
	X : Other (state in words)				
PIPE (OR LINING) MATERIAL	AK : Alkathene	AC : Asbestos Cement	BR : Brick		
	CI : Cast Iron	SI : Spun (Grey) Iron	CO : Concrete		
	CSB : Concrete Segments (Bolted)	CSU : Concrete Segments (Unbolted)	CC : Concrete Box Culvert		
	DI : Ductile Iron	GRC : Glass Reinforced Concrete	GRP : Glass Reinforced Plastic		
	PSC : Plastic/Steel Composite	PVC : Polyvinyl Chloride	PE : Polyethylene		
	RPM : Reinforced Plastic Matrix	ST : Steel	VC : Vitrified Clay		
	PP : Polypropylene	PF : Pitch Fibre	MAC : Masonry, Coursed		
	MAR : Masonry, Randon Courses	XXX : Other (State in remarks)			
LINING	BL : Bitumen	RL : Resin	IS : Insituform		
	CL : Cement	PI : Plastic			

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Layer Surveys Ltd Manhole Survey Card

Card No	02	Map No	
Catchment		MH No	MH S2
Location	Aldi Moston		
Town			

★		★		★		
PR	Status		Syphon	SW	Function	MH	MH Type	24/11/2021	Date of Survey

COVER DETAILS

☒ Square ☐ Rectangle ☐ Triangle ☐ Dbl Triangle ☐ Circular ☐ Oval ☐ Other ☐ Multiple ☐ Hinged ☐ Lockable

			★		
Cover Level		m	H / M / L Cover Duty	H	Initials	JP

PIPE DETAILS

Incoming Pipes

Clockwise from pipe X

Pipe	Depth from Invert (m)	Upstream / Downstream MH Ref	Shape	Size (mm) Height		Width	Pipe Mat	Lining Mat	Back Drop Dia (mm)	Back Drop Depth (m)
A	1.15		C	100	X		VC			
B					X					
C					X					
D					X					
E					X					
F					X					

Outgoing Pipes

X	1.17		C	150	X		VC			
Y					X					

Cover Opening at narrowest	670 X 670 mm	Chamber Dimension	1050 mm	Evidence of Surcharge	
Shaft at narrowest	mm	Shaft Depth (from CL)	mm	OX / H2S / METH Toxic atmosphere	

MANHOLE CONSTRUCTION DETAILS

☒ Pre Cast Concrete ☐ In Situ Concrete ☐ Brick ☐ GRP ☐ Arch ☐ Corbel ☐ Taper ☐ Side Entry
☒ Reducing Slab ☐ Segments ☐ No. of Landings 2 No. Steps ☐ No. of Ladders
☐ No. of Regulating Brick Courses

CONDITION INFORMATION (specific in remark)

	Cover	Shaft	Irons / Ladders	Chamber	Benching	Channel
OK	☒	☐	☒	☒	☒	☒
Needs attention	☐	☐	☐	☐	☐	☐
Urgent attention	☐	☐	☐	☐	☐	☐

Depth of Flow	mm	Depth of Silt	mm	Height of Surcharge from CL	mm

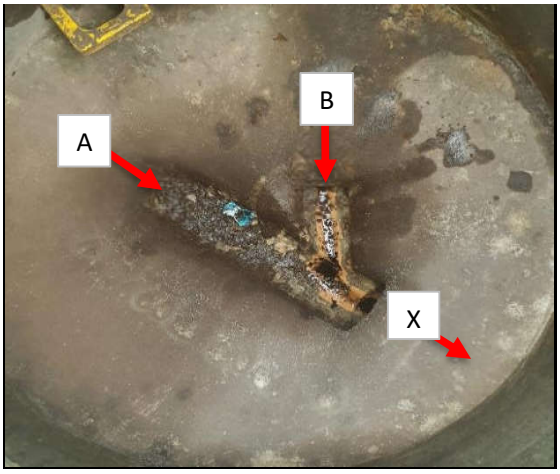
REMARKS

★ *See Overleaf for Key*

LOCATION SKETCH



PLAN OF MANHOLE



STATUS	PU : Public	PR : Private	WC : Culverted Watercourse	} Applies to main outlet	
	24 : Section 24	HD : Highway Drain			
FUNCTION	F : Foul	C : Combined	S : Surface Water	} Applies to main outlet	
MANHOLE TYPE	IF : Infall	MH : Manhole	CP : Catchpit	CSO :Consented Sewer Overflow	
	LH : Lamphole	RE : Rodding Eye	SO : Storm Overflow	DS :Dual system Manhole	
	GU : Gully	OF : Outfall	SA : Soakaway	PS :Pumping Station	
COVER DUTY	L : Light Duty	M : Medium Duty	H : Heavy Duty		
SHAPE	C : Circular	E : Egg	R : Rectangular		
	S : Square	T : Trapezoidal	A : Arched		
	B : Barrel	H : Horseshoe (Inverted U)	U : U-shaped with flat top		
	X : Other (state in words)				
PIPE (OR LINING) MATERIAL	AK : Alkathene	AC : Asbestos Cement	BR : Brick		
	CI : Cast Iron	SI : Spun (Grey) Iron	CO : Concrete		
	CSB : Concrete Segments (Bolted)	CSU : Concrete Segments (Unbolted)	CC : Concrete Box Culvert		
	DI : Ductile Iron	GRC : Glass Reinforced Concrete	GRP : Glass Reinforced Plastic		
	PSC : Plastic/Steel Composite	PVC : Polyvinyl Chloride	PE : Polyethylene		
	RPM : Reinforced Plastic Matrix	ST : Steel	VC : Vitrified Clay		
	PP : Polypropylene	PF : Pitch Fibre	MAC : Masonry, Coursed		
	MAR : Masonry, Randon Courses	XXX : Other (State in remarks)			
LINING	BL : Bitumen	RL : Resin	IS : Insituform		
	CL : Cement	PI : Plastic			

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Card No	03	Map No	
Catchment		MH No	MH F1
Location	Aldi Moston		
Town			

★		★	★		
PR	Status	Syphon	F	Function	MH	MH Type	24/11/2021	Date of Survey

COVER DETAILS

☒ Square ☐ Rectangle ☐ Triangle ☐ Dbl Triangle ☐ Circular ☐ Oval ☐ Other ☐ Multiple ☐ Hinged ☐ Lockable

			★		
Cover Level		m	H / M / L Cover Duty	H	Initials	JP

PIPE DETAILS

Incoming Pipes

Clockwise from pipe X

Pipe	Depth from Invert (m)	Upstream / Downstream MH Ref	Shape	Size (mm) Height		Width	Pipe Mat	Lining Mat	Back Drop Dia (mm)	Back Drop Depth (m)
A	1.50		C	100	X		VC			
B	1.45		C	150	X		VC			
C	1.45		C	100	X		VC			
D	1.45		C	150	X		VC			
E					X					
F					X					

Outgoing Pipes

X	1.52		C	150	X		VC			
Y					X					

Cover Opening at narrowest	670 X 670 mm	Chamber Dimension	1050 mm	Evidence of Surcharge	
Shaft at narrowest	650 X 650 mm	Shaft Depth (from CL)	480 mm	OX / H2S / METH Toxic atmosphere	

MANHOLE CONSTRUCTION DETAILS

☒ Pre Cast Concrete ☐ In Situ Concrete ☐ Brick ☐ GRP ☐ Arch ☐ Corbel ☐ Taper ☐ Side Entry
☒ Reducing Slab ☐ Segments ☐ No. of Landings 3 No. Steps ☐ No. of Ladders
3 No. of Regulating Brick Courses

CONDITION INFORMATION (specific in remark)

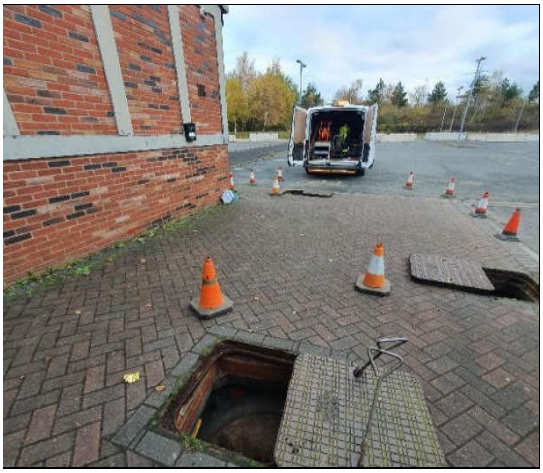
	Cover	Shaft	Irons / Ladders	Chamber	Benching	Channel
OK	☒	☒	☒	☒	☒	☒
Needs attention	☐	☐	☐	☐	☐	☐
Urgent attention	☐	☐	☐	☐	☐	☐

Depth of Flow	mm	Depth of Silt	mm	Height of Surcharge from CL	mm

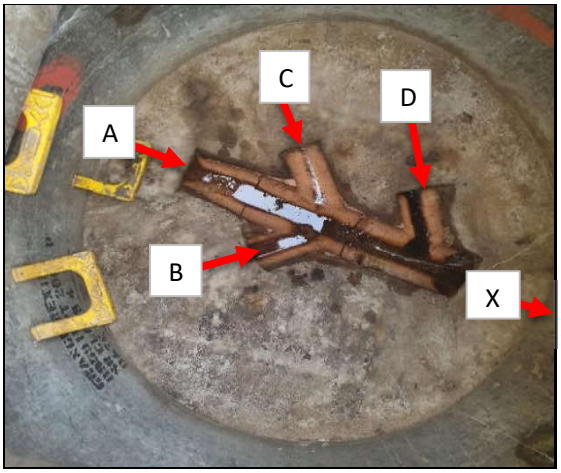
REMARKS

★ *See Overleaf for Key*

LOCATION SKETCH



PLAN OF MANHOLE



STATUS	PU : Public	PR : Private	WC : Culverted Watercourse	} Applies to main outlet	
	24 : Section 24	HD : Highway Drain			
FUNCTION	F : Foul	C : Combined	S : Surface Water	} Applies to main outlet	
MANHOLE TYPE	IF : Infall	MH : Manhole	CP : Catchpit	CSO :Consented Sewer Overflow	
	LH : Lamphole	RE : Rodding Eye	SO : Storm Overflow	DS :Dual system Manhole	
	GU : Gully	OF : Outfall	SA : Soakaway	PS :Pumping Station	
COVER DUTY	L : Light Duty	M : Medium Duty	H : Heavy Duty		
SHAPE	C : Circular	E : Egg	R : Rectangular		
	S : Square	T : Trapezoidal	A : Arched		
	B : Barrel	H : Horseshoe (Inverted U)	U : U-shaped with flat top		
	X : Other (state in words)				
PIPE (OR LINING) MATERIAL	AK : Alkathene	AC : Asbestos Cement	BR : Brick		
	CI : Cast Iron	SI : Spun (Grey) Iron	CO : Concrete		
	CSB : Concrete Segments (Bolted)	CSU : Concrete Segments (Unbolted)	CC : Concrete Box Culvert		
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	RPM : Reinforced Plastic Matrix	ST : Steel	VC : Vitrified Clay		
	PP : Polypropylene	PF : Pitch Fibre	MAC : Masonry, Coursed		
	MAR : Masonry, Randon Courses	XXX : Other (State in remarks)			
LINING	BL : Bitumen	RL : Resin	IS : Insituform		
	CL : Cement	PI : Plastic			

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Layer Surveys Ltd Manhole Survey Card

Card No	04	Map No	
Catchment		MH No	MH F3
Location	Aldi Moston		
Town			

★ PR Status	Syphon	★ C Function	★ MH MH Type	24/11/2021 Date of Survey

COVER DETAILS

☒ Square	☐ Rectangle	☐ Triangle	☐ Dbl Triangle	☐ Circular	☐ Oval	☐ Other	☐ Multiple	☐ Hinged	☐ Lockable

Cover Level	m	H / M / L Cover Duty ★ H	Initials JP

PIPE DETAILS

Incoming Pipes

Clockwise from pipe X

Pipe	Depth from Invert (m)	Upstream / Downstream MH Ref	Shape	Size (mm) Height		Width	Pipe Mat	Lining Mat	Back Drop Dia (mm)	Back Drop Depth (m)
A	1.57		C	150	X		VC			
B	1.53		C	100	X		VC			
C	1.53		C	100	X		VC			
D					X					
E					X					
F					X					

Outgoing Pipes

X	1.58		C	150	X		VC			
Y					X					

Cover Opening at narrowest	670 X 670 mm	Chamber Dimension	1050 mm	Evidence of Surcharge	
Shaft at narrowest	650 X 650 mm	Shaft Depth (from CL)	480 mm	OX / H2S / METH Toxic atmosphere	

MANHOLE CONSTRUCTION DETAILS

☒ Pre Cast Concrete	☐ In Situ Concrete	☐ Brick	☐ GRP	☐ Arch	☐ Corbel	☐ Taper	☐ Side Entry
☒ Reducing Slab	☐ Segments	☐ No. of Landings		3 No. Steps		☐ No. of Ladders	

3 No. of Regulating Brick Courses

CONDITION INFORMATION (specific in remark)

	Cover	Shaft	Irons / Ladders	Chamber	Benching	Channel
OK	☒	☒	☒	☒	☒	☒
Needs attention	☐	☐	☐	☐	☐	☐
Urgent attention	☐	☐	☐	☐	☐	☐

Depth of Flow	mm	Depth of Silt	mm	Height of Surcharge from CL	mm

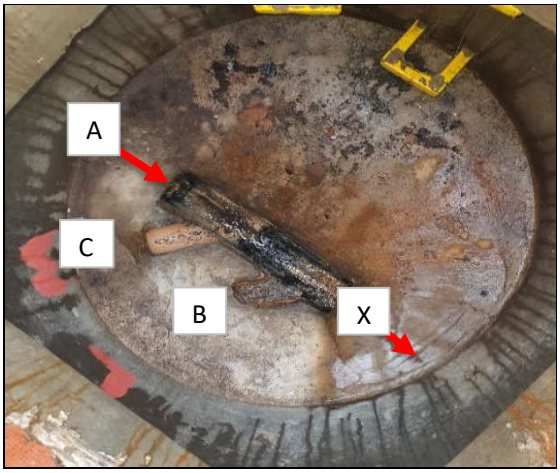
REMARKS

★ *See Overleaf for Key*

LOCATION SKETCH



PLAN OF MANHOLE



STATUS	PU : Public	PR : Private	WC : Culverted Watercourse	} Applies to main outlet	
	24 : Section 24	HD : Highway Drain			
FUNCTION	F : Foul	C : Combined	S : Surface Water	} Applies to main outlet	
MANHOLE TYPE	IF : Infall	MH : Manhole	CP : Catchpit	CSO :Consented Sewer Overflow	
	LH : Lamphole	RE : Rodding Eye	SO : Storm Overflow	DS :Dual system Manhole	
	GU : Gully	OF : Outfall	SA : Soakaway	PS :Pumping Station	
COVER DUTY	L : Light Duty	M : Medium Duty	H : Heavy Duty		
SHAPE	C : Circular	E : Egg	R : Rectangular		
	S : Square	T : Trapezoidal	A : Arched		
	B : Barrel	H : Horseshoe (Inverted U)	U : U-shaped with flat top		
	X : Other (state in words)				
PIPE (OR LINING) MATERIAL	AK : Alkathene	AC : Asbestos Cement	BR : Brick		
	CI : Cast Iron	SI : Spun (Grey) Iron	CO : Concrete		
	CSB : Concrete Segments (Bolted)	CSU : Concrete Segments (Unbolted)	CC : Concrete Box Culvert		
	DI : Ductile Iron	GRC : Glass Reinforced Concrete	GRP : Glass Reinforced Plastic		
	PSC : Plastic/Steel Composite	PVC : Polyvinyl Chloride	PE : Polyethylene		
	RPM : Reinforced Plastic Matrix	ST : Steel	VC : Vitrified Clay		
	PP : Polypropylene	PF : Pitch Fibre	MAC : Masonry, Coursed		
	MAR : Masonry, Randon Courses	XXX : Other (State in remarks)			
LINING	BL : Bitumen	RL : Resin	IS : Insituform		
	CL : Cement	PI : Plastic			

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Layer Surveys Ltd Manhole Survey Card

Card No	05	Map No	
Catchment		MH No	MH F4
Location	Aldi Moston		
Town			

★			★		★		
PR	Status		C	Function	MH	MH Type	24/11/2021 Date of Survey

Syphon

COVER DETAILS

☒ Square ☐ Rectangle ☐ Triangle ☐ Dbl Triangle ☐ Circular ☐ Oval ☐ Other ☐ Multiple ☐ Hinged ☐ Lockable

			★		
Cover Level	m	H / M / L Cover Duty	H	Initials	JP

PIPE DETAILS

Incoming Pipes

Clockwise from pipe X

Pipe	Depth from Invert (m)	Upstream / Downstream MH Ref	Shape	Size (mm) Height		Width	Pipe Mat	Lining Mat	Back Drop Dia (mm)	Back Drop Depth (m)
A	1.61		C	150	X		VC			
B	1.54		C	100	X		VC			
C	1.54		C	100	X		VC			
D	1.54		C	100	X		VC			
E					X					
F					X					

Outgoing Pipes

X	1.62		C	150	X		VC			
Y					X					

Cover Opening at narrowest	670 X 670 mm	Chamber Dimension	1050 mm	Evidence of Surcharge	
Shaft at narrowest	650 X 650 mm	Shaft Depth (from CL)	520 mm	OX / H2S / METH Toxic atmosphere	

MANHOLE CONSTRUCTION DETAILS

☒ Pre Cast Concrete ☐ In Situ Concrete ☐ Brick ☐ GRP ☐ Arch ☐ Corbel ☐ Taper ☐ Side Entry

☒ Reducing Slab ☐ Segments ☐ No. of Landings 2 No. Steps ☐ No. of Ladders

3 No. of Regulating Brick Courses

CONDITION INFORMATION (specific in remark)

	Cover	Shaft	Irons / Ladders	Chamber	Benching	Channel
OK	☒	☒	☒	☒	☒	☐
Needs attention	☐	☐	☐	☐	☐	☒
Urgent attention	☐	☐	☐	☐	☐	☐

Depth of Flow mm Depth of Silt mm Height of Surcharge from CL mm

REMARKS

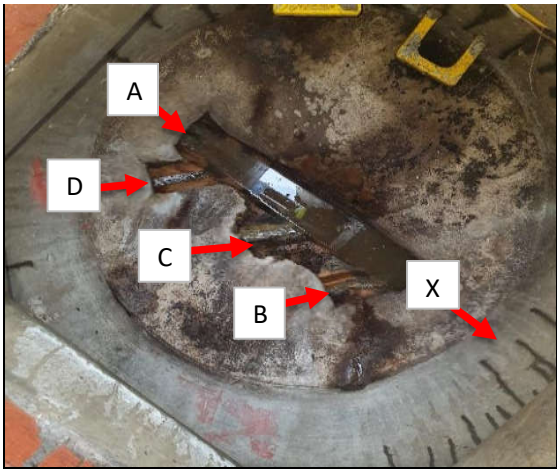
CHANNEL HOLDING FOUL DEPOSITS

★ *See Overleaf for Key*

LOCATION SKETCH



PLAN OF MANHOLE



STATUS	PU : Public	PR : Private	WC : Culverted Watercourse	} Applies to main outlet	
	24 : Section 24	HD : Highway Drain			
FUNCTION	F : Foul	C : Combined	S : Surface Water	} Applies to main outlet	
MANHOLE TYPE	IF : Infall	MH : Manhole	CP : Catchpit	CSO :Consented Sewer Overflow	
	LH : Lamphole	RE : Rodding Eye	SO : Storm Overflow	DS :Dual system Manhole	
	GU : Gully	OF : Outfall	SA : Soakaway	PS :Pumping Station	
COVER DUTY	L : Light Duty	M : Medium Duty	H : Heavy Duty		
SHAPE	C : Circular	E : Egg	R : Rectangular		
	S : Square	T : Trapezoidal	A : Arched		
	B : Barrel	H : Horseshoe (Inverted U)	U : U-shaped with flat top		
	X : Other (state in words)				
PIPE (OR LINING) MATERIAL	AK : Alkathene	AC : Asbestos Cement	BR : Brick		
	CI : Cast Iron	SI : Spun (Grey) Iron	CO : Concrete		
	CSB : Concrete Segments (Bolted)	CSU : Concrete Segments (Unbolted)	CC : Concrete Box Culvert		
	DI : Ductile Iron	GRC : Glass Reinforced Concrete	GRP : Glass Reinforced Plastic		
	PSC : Plastic/Steel Composite	PVC : Polyvinyl Chloride	PE : Polyethylene		
	RPM : Reinforced Plastic Matrix	ST : Steel	VC : Vitrified Clay		
	PP : Polypropylene	PF : Pitch Fibre	MAC : Masonry, Coursed		
	MAR : Masonry, Randon Courses	XXX : Other (State in remarks)			
LINING	BL : Bitumen	RL : Resin	IS : Insituform		
	CL : Cement	PI : Plastic			

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Card No	06	Map No	
Catchment		MH No	MH S3
Location	Aldi Moston		
Town			

★		★	★		
PR Status	Syphon	SW Function	MH MH Type	24/11/2021 Date of Survey	

COVER DETAILS

☒ Square ☐ Rectangle ☐ Triangle ☐ Dbl Triangle ☐ Circular ☐ Oval ☐ Other ☐ Multiple ☐ Hinged ☐ Lockable

		★	
Cover Level	m	H / M / L Cover Duty	H Initials JP

PIPE DETAILS

Incoming Pipes

Clockwise from pipe X

Pipe	Depth from Invert (m)	Upstream / Downstream MH Ref	Shape	Size (mm) Height		Width	Pipe Mat	Lining Mat	Back Drop Dia (mm)	Back Drop Depth (m)
A	1.51		C	150	X		VC			
B					X					
C					X					
D					X					
E					X					
F					X					

Outgoing Pipes

X	1.52		C	150	X		VC			
Y					X					

Cover Opening at narrowest	670 X 670 mm	Chamber Dimension	1050 mm	Evidence of Surcharge	
Shaft at narrowest	650 X 650 mm	Shaft Depth (from CL)	700 mm	OX / H2S / METH Toxic atmosphere	

MANHOLE CONSTRUCTION DETAILS

☒ Pre Cast Concrete ☐ In Situ Concrete ☐ Brick ☐ GRP ☐ Arch ☐ Corbel ☐ Taper ☐ Side Entry
☒ Reducing Slab ☐ Segments ☐ No. of Landings 2 No. Steps ☐ No. of Ladders
☐ No. of Regulating Brick Courses

CONDITION INFORMATION (specific in remark)

	Cover	Shaft	Irons / Ladders	Chamber	Benching	Channel
OK	☒	☒	☒	☒	☒	☒
Needs attention	☐	☐	☐	☐	☐	☐
Urgent attention	☐	☐	☐	☐	☐	☐

Depth of Flow	mm	Depth of Silt	mm	Height of Surcharge from CL	mm

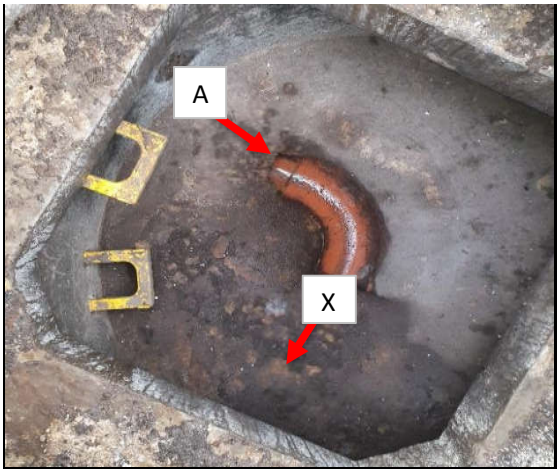
REMARKS

★ *See Overleaf for Key*

LOCATION SKETCH



PLAN OF MANHOLE



STATUS	PU : Public	PR : Private	WC : Culverted Watercourse	} Applies to main outlet	
	24 : Section 24	HD : Highway Drain			
FUNCTION	F : Foul	C : Combined	S : Surface Water	} Applies to main outlet	
MANHOLE TYPE	IF : Infall	MH : Manhole	CP : Catchpit	CSO :Consented Sewer Overflow	
	LH : Lamphole	RE : Rodding Eye	SO : Storm Overflow	DS :Dual system Manhole	
	GU : Gully	OF : Outfall	SA : Soakaway	PS :Pumping Station	
COVER DUTY	L : Light Duty	M : Medium Duty	H : Heavy Duty		
SHAPE	C : Circular	E : Egg	R : Rectangular		
	S : Square	T : Trapezoidal	A : Arched		
	B : Barrel	H : Horseshoe (Inverted U)	U : U-shaped with flat top		
	X : Other (state in words)				
PIPE (OR LINING) MATERIAL	AK : Alkathene	AC : Asbestos Cement	BR : Brick		
	CI : Cast Iron	SI : Spun (Grey) Iron	CO : Concrete		
	CSB : Concrete Segments (Bolted)	CSU : Concrete Segments (Unbolted)	CC : Concrete Box Culvert		
	DI : Ductile Iron	GRC : Glass Reinforced Concrete	GRP : Glass Reinforced Plastic		
	PSC : Plastic/Steel Composite	PVC : Polyvinyl Chloride	PE : Polyethylene		
	RPM : Reinforced Plastic Matrix	ST : Steel	VC : Vitrified Clay		
	PP : Polypropylene	PF : Pitch Fibre	MAC : Masonry, Coursed		
	MAR : Masonry, Randon Courses	XXX : Other (State in remarks)			
LINING	BL : Bitumen	RL : Resin	IS : Insituform		
	CL : Cement	PI : Plastic			

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Card No	07	Map No	
Catchment		MH No	MH F5
Location	Aldi Moston		
Town			

★		★	★		
PR	Status	Syphon	F	Function	MH	MH Type	24/11/2021	Date of Survey

COVER DETAILS

☒ Square ☐ Rectangle ☐ Triangle ☐ Dbl Triangle ☐ Circular ☐ Oval ☐ Other ☐ Multiple ☐ Hinged ☐ Lockable

			★		
Cover Level		m	H / M / L Cover Duty	H	Initials	JP

PIPE DETAILS

Incoming Pipes

Clockwise from pipe X

Pipe	Depth from Invert (m)	Upstream / Downstream MH Ref	Shape	Size (mm) Height		Width	Pipe Mat	Lining Mat	Back Drop Dia (mm)	Back Drop Depth (m)
A	1.89		C	150	X		VC			
B					X					
C					X					
D					X					
E					X					
F					X					

Outgoing Pipes

X	1.90		C	150	X		VC			
Y					X					

Cover Opening at narrowest	670 X 670 mm	Chamber Dimension	1050 mm	Evidence of Surcharge	
Shaft at narrowest	610 X 610 mm	Shaft Depth (from CL)	560 mm	OX / H2S / METH Toxic atmosphere	

MANHOLE CONSTRUCTION DETAILS

☒ Pre Cast Concrete ☐ In Situ Concrete ☐ Brick ☐ GRP ☐ Arch ☐ Corbel ☐ Taper ☐ Side Entry
☒ Reducing Slab ☐ Segments ☐ No. of Landings 4 No. Steps ☐ No. of Ladders
☐ No. of Regulating Brick Courses

CONDITION INFORMATION (specific in remark)

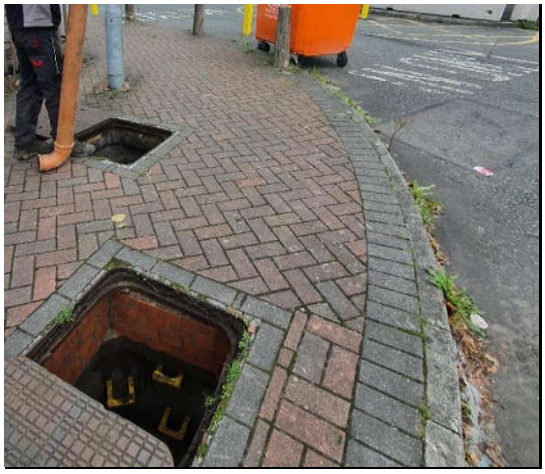
	Cover	Shaft	Irons / Ladders	Chamber	Benching	Channel
OK	☒	☒	☒	☒	☒	☒
Needs attention	☐	☐	☐	☐	☐	☐
Urgent attention	☐	☐	☐	☐	☐	☐

Depth of Flow	mm	Depth of Silt	mm	Height of Surcharge from CL	mm

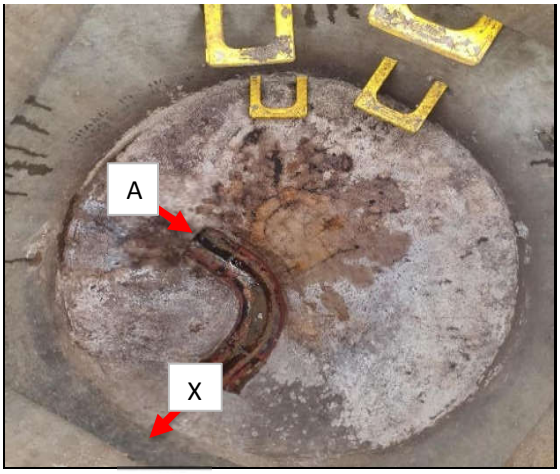
REMARKS

★ *See Overleaf for Key*

LOCATION SKETCH



PLAN OF MANHOLE



STATUS	PU : Public	PR : Private	WC : Culverted Watercourse	} Applies to main outlet	
	24 : Section 24	HD : Highway Drain			
FUNCTION	F : Foul	C : Combined	S : Surface Water	} Applies to main outlet	
MANHOLE TYPE	IF : Infall	MH : Manhole	CP : Catchpit	CSO :Consented Sewer Overflow	
	LH : Lamphole	RE : Rodding Eye	SO : Storm Overflow	DS :Dual system Manhole	
	GU : Gully	OF : Outfall	SA : Soakaway	PS :Pumping Station	
COVER DUTY	L : Light Duty	M : Medium Duty	H : Heavy Duty		
SHAPE	C : Circular	E : Egg	R : Rectangular		
	S : Square	T : Trapezoidal	A : Arched		
	B : Barrel	H : Horseshoe (Inverted U)	U : U-shaped with flat top		
	X : Other (state in words)				
PIPE (OR LINING) MATERIAL	AK : Alkathene	AC : Asbestos Cement	BR : Brick		
	CI : Cast Iron	SI : Spun (Grey) Iron	CO : Concrete		
	CSB : Concrete Segments (Bolted)	CSU : Concrete Segments (Unbolted)	CC : Concrete Box Culvert		
	DI : Ductile Iron	GRC : Glass Reinforced Concrete	GRP : Glass Reinforced Plastic		
	PSC : Plastic/Steel Composite	PVC : Polyvinyl Chloride	PE : Polyethylene		
	RPM : Reinforced Plastic Matrix	ST : Steel	VC : Vitrified Clay		
	PP : Polypropylene	PF : Pitch Fibre	MAC : Masonry, Coursed		
	MAR : Masonry, Randon Courses	XXX : Other (State in remarks)			
LINING	BL : Bitumen	RL : Resin	IS : Insituform		
	CL : Cement	PI : Plastic			

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Card No	08	Map No	
Catchment		MH No	MH F7
Location	Aldi Moston		
Town			

★		★	★		
PR Status	Syphon	C Function	MH MH Type	24/11/2021 Date of Survey	

COVER DETAILS

☑ Square ☐ Rectangle ☐ Triangle ☐ Dbl Triangle ☐ Circular ☐ Oval ☐ Other ☐ Multiple ☐ Hinged ☐ Lockable

			★	
Cover Level	m	H / M / L Cover Duty	H	Initials JP

PIPE DETAILS

Incoming Pipes

Clockwise from pipe X

Pipe	Depth from Invert (m)	Upstream / Downstream MH Ref	Shape	Size (mm) Height		Width	Pipe Mat	Lining Mat	Back Drop Dia (mm)	Back Drop Depth (m)
A	1.98		C	150	X		VC			
B	1.96		C	100	X		VC		100	1.19
C	1.96		C	100	X		VC		100.00	1.19
D	1.96		C	100	X		VC		100.00	1.19
E	1.96		C	100	X		VC		100.00	1.19
F					X					

Outgoing Pipes

X	1.99		C	150	X		VC			
Y					X					

Cover Opening at narrowest	670 X 670 mm	Chamber Dimension	1200 mm	Evidence of Surcharge	
Shaft at narrowest	650 X 650 mm	Shaft Depth (from CL)	390 mm	OX / H2S / METH Toxic atmosphere	

MANHOLE CONSTRUCTION DETAILS

☑ Pre Cast Concrete ☐ In Situ Concrete ☐ Brick ☐ GRP ☐ Arch ☐ Corbel ☐ Taper ☐ Side Entry

☑ Reducing Slab ☐ Segments ☐ No. of Landings 5 No. Steps ☐ No. of Ladders

1 No. of Regulating Brick Courses

CONDITION INFORMATION (specific in remark)

	Cover	Shaft	Irons / Ladders	Chamber	Benching	Channel
OK	☑	☑	☑	☑	☑	☑
Needs attention	☐	☐	☐	☐	☐	☐
Urgent attention	☐	☐	☐	☐	☐	☐

Depth of Flow	mm	Depth of Silt	mm	Height of Surcharge from CL	mm

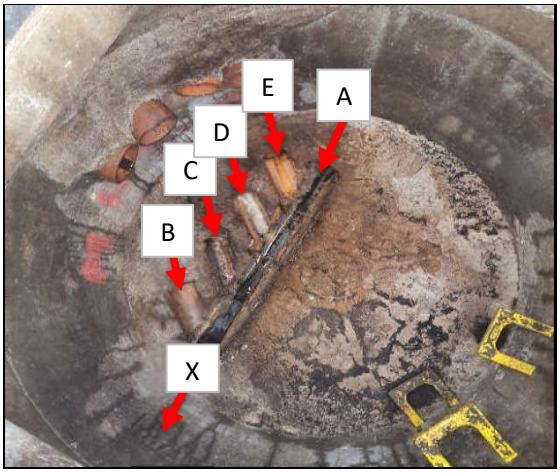
REMARKS

★ *See Overleaf for Key*

LOCATION SKETCH



PLAN OF MANHOLE



STATUS	PU : Public	PR : Private	WC : Culverted Watercourse	} Applies to main outlet	
	24 : Section 24	HD : Highway Drain			
FUNCTION	F : Foul	C : Combined	S : Surface Water	} Applies to main outlet	
MANHOLE TYPE	IF : Infall	MH : Manhole	CP : Catchpit	CSO :Consented Sewer Overflow	
	LH : Lamphole	RE : Rodding Eye	SO : Storm Overflow	DS :Dual system Manhole	
	GU : Gully	OF : Outfall	SA : Soakaway	PS :Pumping Station	
COVER DUTY	L : Light Duty	M : Medium Duty	H : Heavy Duty		
SHAPE	C : Circular	E : Egg	R : Rectangular		
	S : Square	T : Trapezoidal	A : Arched		
	B : Barrel	H : Horseshoe (Inverted U)	U : U-shaped with flat top		
	X : Other (state in words)				
PIPE (OR LINING) MATERIAL	AK : Alkathene	AC : Asbestos Cement	BR : Brick		
	CI : Cast Iron	SI : Spun (Grey) Iron	CO : Concrete		
	CSB : Concrete Segments (Bolted)	CSU : Concrete Segments (Unbolted)	CC : Concrete Box Culvert		
	DI : Ductile Iron	GRC : Glass Reinforced Concrete	GRP : Glass Reinforced Plastic		
	PSC : Plastic/Steel Composite	PVC : Polyvinyl Chloride	PE : Polyethylene		
	RPM : Reinforced Plastic Matrix	ST : Steel	VC : Vitrified Clay		
	PP : Polypropylene	PF : Pitch Fibre	MAC : Masonry, Coursed		
	MAR : Masonry, Randon Courses	XXX : Other (State in remarks)			
LINING	BL : Bitumen	RL : Resin	IS : Insituform		
	CL : Cement	PI : Plastic			

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Card No	09	Map No	
Catchment		MH No	MH F8
Location	Aldi Moston		
Town			

★ PR	Status	Syphon	★ C	Function	★ MH	MH Type	24/11/2021	Date of Survey

COVER DETAILS

☒ Square ☐ Rectangle ☐ Triangle ☐ Dbl Triangle ☐ Circular ☐ Oval ☐ Other ☐ Multiple ☐ Hinged ☐ Lockable

Cover Level	m	H / M / L Cover Duty	★ H	Initials	JP

PIPE DETAILS

Incoming Pipes

Clockwise from pipe X

Pipe	Depth from Invert (m)	Upstream / Downstream MH Ref	Shape	Size (mm) Height		Width	Pipe Mat	Lining Mat	Back Drop Dia (mm)	Back Drop Depth (m)
A	2.00		C	150	X		VC			
B	1.99		C	100	X		VC		100	1.14
C	1.99		C	100	X		VC		100.00	1.14
D	1.99		C	100	X		VC		100.00	1.14
E					X					
F					X					

Outgoing Pipes

X	2.01		C	150	X		VC			
Y					X					

Cover Opening at narrowest	670 X 670	mm	Chamber Dimension	1200	mm	Evidence of Surcharge	
Shaft at narrowest	650 X 650	mm	Shaft Depth (from CL)	450	mm	OX / H2S / METH Toxic atmosphere	

MANHOLE CONSTRUCTION DETAILS

☒ Pre Cast Concrete ☐ In Situ Concrete ☐ Brick ☐ GRP ☐ Arch ☐ Corbel ☐ Taper ☐ Side Entry

☒ Reducing Slab ☐ Segments ☐ No. of Landings 5 No. Steps ☐ No. of Ladders

3 No. of Regulating Brick Courses

CONDITION INFORMATION (specific in remark)

	Cover	Shaft	Irons / Ladders	Chamber	Benching	Channel
OK	☒	☒	☒	☒	☒	☒
Needs attention	☐	☐	☐	☐	☐	☐
Urgent attention	☐	☐	☐	☐	☐	☐

Depth of Flow	mm	Depth of Silt	mm	Height of Surcharge from CL	mm

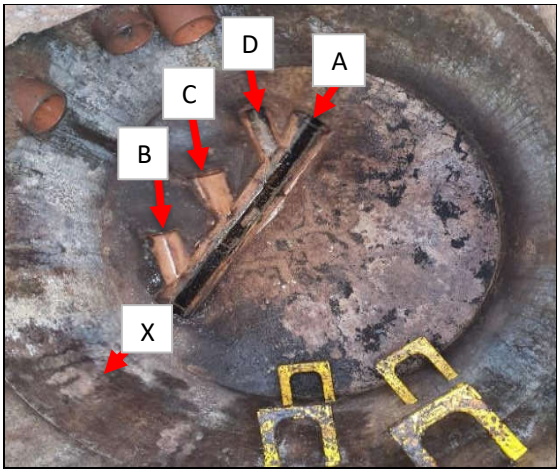
REMARKS

★ *See Overleaf for Key*

LOCATION SKETCH



PLAN OF MANHOLE



STATUS	PU : Public	PR : Private	WC : Culverted Watercourse	}	Applies to main outlet
	24 : Section 24	HD : Highway Drain			
FUNCTION	F : Foul	C : Combined	S : Surface Water	}	Applies to main outlet
MANHOLE TYPE	IF : Infall	MH : Manhole	CP : Catchpit	CSO	:Consented Sewer Overflow
	LH : Lamphole	RE : Rodding Eye	SO : Storm Overflow	DS	:Dual system Manhole
	GU : Gully	OF : Outfall	SA : Soakaway	PS	:Pumping Station
COVER DUTY	L : Light Duty	M : Medium Duty	H : Heavy Duty		
SHAPE	C : Circular	E : Egg	R : Rectangular		
	S : Square	T : Trapezoidal	A : Arched		
	B : Barrel	H : Horseshoe (Inverted U)	U : U-shaped with flat top		
	X : Other (state in words)				
PIPE (OR LINING) MATERIAL	AK : Alkathene	AC : Asbestos Cement	BR : Brick		
	CI : Cast Iron	SI : Spun (Grey) Iron	CO : Concrete		
	CSB : Concrete Segments (Bolted)	CSU : Concrete Segments (Unbolted)	CC : Concrete Box Culvert		
	DI : Ductile Iron	GRC : Glass Reinforced Concrete	GRP : Glass Reinforced Plastic		
	PSC : Plastic/Steel Composite	PVC : Polyvinyl Chloride	PE : Polyethylene		
	RPM : Reinforced Plastic Matrix	ST : Steel	VC : Vitrified Clay		
	PP : Polypropylene	PF : Pitch Fibre	MAC : Masonry, Coursed		
	MAR : Masonry, Randon Courses	XXX : Other (State in remarks)			
LINING	BL : Bitumen	RL : Resin	IS : Insituform		
	CL : Cement	PI : Plastic			

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Layer Surveys Ltd Manhole Survey Card

Card No	10	Map No	
Catchment		MH No	MH S4
Location	Aldi Moston		
Town			

★		★		★		
PR	Status		Syphon	SW	Function	MH	MH Type	24/11/2021	Date of Survey

COVER DETAILS

☒ Square ☐ Rectangle ☐ Triangle ☐ Dbl Triangle ☐ Circular ☐ Oval ☐ Other ☐ Multiple ☐ Hinged ☐ Lockable

			★		
Cover Level		m	H / M / L Cover Duty	H	Initials	JP

PIPE DETAILS

Incoming Pipes

Clockwise from pipe X

Pipe	Depth from Invert (m)	Upstream / Downstream MH Ref	Shape	Size (mm) Height		Width	Pipe Mat	Lining Mat	Back Drop Dia (mm)	Back Drop Depth (m)
A	1.49		C	150	X		VC			
B	1.48		C	100	X		VC			
C	1.49		C	150	X		VC			
D					X					
E					X					
F					X					

Outgoing Pipes

X	1.50		C	150	X		VC			
Y					X					

Cover Opening at narrowest	670 X 670 mm	Chamber Dimension	1200 mm	Evidence of Surcharge	
Shaft at narrowest	650 X 650 mm	Shaft Depth (from CL)	500 mm	OX / H2S / METH Toxic atmosphere	

MANHOLE CONSTRUCTION DETAILS

☒ Pre Cast Concrete ☐ In Situ Concrete ☐ Brick ☐ GRP ☐ Arch ☐ Corbel ☐ Taper ☐ Side Entry
☒ Reducing Slab ☐ Segments ☐ No. of Landings ☐ No. Steps ☐ No. of Ladders
3 No. of Regulating Brick Courses

CONDITION INFORMATION (specific in remark)

	Cover	Shaft	Irons / Ladders	Chamber	Benching	Channel
OK	☒	☒	☐	☐	☐	☐
Needs attention	☐	☐	☐	☐	☒	☐
Urgent attention	☐	☐	☐	☒	☐	☒

Depth of Flow	mm	Depth of Silt	120 mm	Height of Surcharge from CL	mm

REMARKS

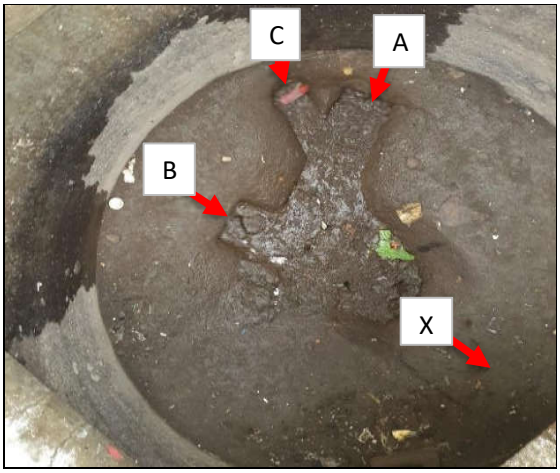
HIGH SILT DEPOSITS IN CHAMBER - JET VAC REQUIRED

★ *See Overleaf for Key*

LOCATION SKETCH



PLAN OF MANHOLE



STATUS	PU : Public	PR : Private	WC : Culverted Watercourse	}	Applies to main outlet
	24 : Section 24	HD : Highway Drain			
FUNCTION	F : Foul	C : Combined	S : Surface Water	}	Applies to main outlet
MANHOLE TYPE	IF : Infall	MH : Manhole	CP : Catchpit	CSO	:Consented Sewer Overflow
	LH : Lamphole	RE : Rodding Eye	SO : Storm Overflow	DS	:Dual system Manhole
	GU : Gully	OF : Outfall	SA : Soakaway	PS	:Pumping Station
COVER DUTY	L : Light Duty	M : Medium Duty	H : Heavy Duty		
SHAPE	C : Circular	E : Egg	R : Rectangular		
	S : Square	T : Trapezoidal	A : Arched		
	B : Barrel	H : Horseshoe (Inverted U)	U : U-shaped with flat top		
	X : Other (state in words)				
PIPE (OR LINING) MATERIAL	AK : Alkathene	AC : Asbestos Cement	BR : Brick		
	CI : Cast Iron	SI : Spun (Grey) Iron	CO : Concrete		
	CSB : Concrete Segments (Bolted)	CSU : Concrete Segments (Unbolted)	CC : Concrete Box Culvert		
	DI : Ductile Iron	GRC : Glass Reinforced Concrete	GRP : Glass Reinforced Plastic		
	PSC : Plastic/Steel Composite	PVC : Polyvinyl Chloride	PE : Polyethylene		
	RPM : Reinforced Plastic Matrix	ST : Steel	VC : Vitrified Clay		
	PP : Polypropylene	PF : Pitch Fibre	MAC : Masonry, Coursed		
	MAR : Masonry, Randon Courses	XXX : Other (State in remarks)			
LINING	BL : Bitumen	RL : Resin	IS : Insituform		
	CL : Cement	PI : Plastic			

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Layer Surveys Ltd Manhole Survey Card

Card No	11	Map No	
Catchment		MH No	MH S7
Location	Aldi Moston		
Town			

★		★		★		
PR	Status		Syphon	SW	Function	MH	MH Type	24/11/2021	Date of Survey

COVER DETAILS

☒ Square ☒ Rectangle ☐ Triangle ☒ Dbl Triangle ☐ Circular ☐ Oval ☐ Other ☐ Multiple ☐ Hinged ☐ Lockable

			★		
Cover Level		m	H / M / L Cover Duty	H	Initials	JP

PIPE DETAILS

Incoming Pipes

Clockwise from pipe X

Pipe	Depth from Invert (m)	Upstream / Downstream MH Ref	Shape	Size (mm) Height		Width	Pipe Mat	Lining Mat	Back Drop Dia (mm)	Back Drop Depth (m)
A	0.64		C	300	X		PF			
B	0.62		C	150	X		VC			
C	0.64		C	150	X		VC			
D	0.64		C	150	X		VC			
E					X					
F					X					

Outgoing Pipes

X	0.70		C	225	X		VC			
Y					X					

Cover Opening at narrowest	610 X 610	mm	Chamber Dimension	1100 X 650	mm	Evidence of Surcharge	
Shaft at narrowest		mm	Shaft Depth (from CL)		mm	OX / H2S / METH Toxic atmosphere	

MANHOLE CONSTRUCTION DETAILS

☒ Pre Cast Concrete ☐ In Situ Concrete ☐ Brick ☐ GRP ☐ Arch ☐ Corbel ☐ Taper ☐ Side Entry
☒ Reducing Slab ☐ Segments ☐ No. of Landings ☐ No. Steps ☐ No. of Ladders
☐ No. of Regulating Brick Courses

CONDITION INFORMATION (specific in remark)

	Cover	Shaft	Irons / Ladders	Chamber	Benching	Channel
OK	☒	☒	☐	☒	☒	☒
Needs attention	☐	☐	☐	☐	☐	☐
Urgent attention	☐	☐	☐	☐	☐	☐

Depth of Flow		mm	Depth of Silt		mm	Height of Surcharge from CL		mm

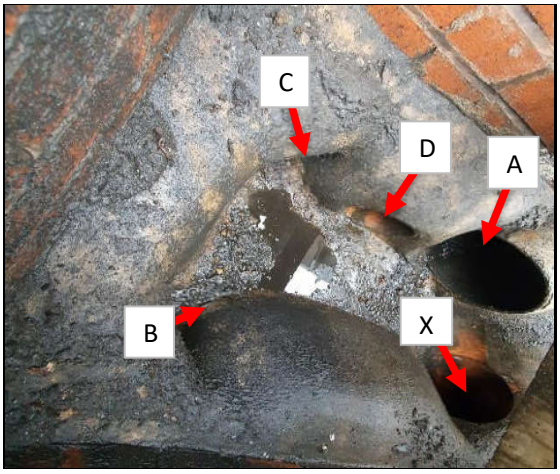
REMARKS

★ *See Overleaf for Key*

LOCATION SKETCH



PLAN OF MANHOLE



STATUS	PU : Public	PR : Private	WC : Culverted Watercourse	} Applies to main outlet	
	24 : Section 24	HD : Highway Drain			
FUNCTION	F : Foul	C : Combined	S : Surface Water	} Applies to main outlet	
MANHOLE TYPE	IF : Infall	MH : Manhole	CP : Catchpit	CSO :Consented Sewer Overflow	
	LH : Lamphole	RE : Rodding Eye	SO : Storm Overflow	DS :Dual system Manhole	
	GU : Gully	OF : Outfall	SA : Soakaway	PS :Pumping Station	
COVER DUTY	L : Light Duty	M : Medium Duty	H : Heavy Duty		
SHAPE	C : Circular	E : Egg	R : Rectangular		
	S : Square	T : Trapezoidal	A : Arched		
	B : Barrel	H : Horseshoe (Inverted U)	U : U-shaped with flat top		
	X : Other (state in words)				
PIPE (OR LINING) MATERIAL	AK : Alkathene	AC : Asbestos Cement	BR : Brick		
	CI : Cast Iron	SI : Spun (Grey) Iron	CO : Concrete		
	CSB : Concrete Segments (Bolted)	CSU : Concrete Segments (Unbolted)	CC : Concrete Box Culvert		
	DI : Ductile Iron	GRC : Glass Reinforced Concrete	GRP : Glass Reinforced Plastic		
	PSC : Plastic/Steel Composite	PVC : Polyvinyl Chloride	PE : Polyethylene		
	RPM : Reinforced Plastic Matrix	ST : Steel	VC : Vitrified Clay		
	PP : Polypropylene	PF : Pitch Fibre	MAC : Masonry, Coursed		
	MAR : Masonry, Randon Courses	XXX : Other (State in remarks)			
LINING	BL : Bitumen	RL : Resin	IS : Insituform		
	CL : Cement	PI : Plastic			

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Card No	12	Map No	
Catchment		MH No	MH S10
Location	Aldi Moston		
Town			

★		★	★		
PR Status	Syphon	SW Function	MH MH Type	24/11/2021 Date of Survey	

COVER DETAILS

☒ Square ☐ Rectangle ☐ Triangle ☒ Dbl Triangle ☐ Circular ☐ Oval ☐ Other ☐ Multiple ☐ Hinged ☐ Lockable

		★	
Cover Level	m	H / M / L Cover Duty	H Initials JP

PIPE DETAILS

Incoming Pipes

Clockwise from pipe X

Pipe	Depth from Invert (m)	Upstream / Downstream MH Ref	Shape	Size (mm) Height		Width	Pipe Mat	Lining Mat	Back Drop Dia (mm)	Back Drop Depth (m)
A	1.41		C	225	X		VC			
B					X					
C					X					
D					X					
E					X					
F					X					

Outgoing Pipes

X	1.42		C	225	X		VC			
Y					X					

Cover Opening at narrowest	610 X 610 mm	Chamber Dimension	1200 mm	Evidence of Surcharge	
Shaft at narrowest	610 X 610 mm	Shaft Depth (from CL)	480 mm	OX / H2S / METH Toxic atmosphere	

MANHOLE CONSTRUCTION DETAILS

☒ Pre Cast Concrete ☐ In Situ Concrete ☐ Brick ☐ GRP ☐ Arch ☐ Corbel ☐ Taper ☐ Side Entry

☒ Reducing Slab ☐ Segments ☐ No. of Landings 2 No. Steps ☐ No. of Ladders

2 No. of Regulating Brick Courses

CONDITION INFORMATION (specific in remark)

	Cover	Shaft	Irons / Ladders	Chamber	Benching	Channel
OK	☒	☒	☒	☒	☒	☒
Needs attention	☐	☐	☐	☐	☐	☐
Urgent attention	☐	☐	☐	☐	☐	☐

Depth of Flow	mm	Depth of Silt	mm	Height of Surcharge from CL	mm

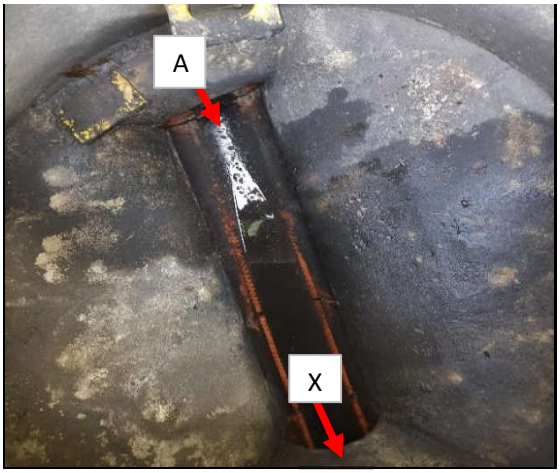
REMARKS

★ *See Overleaf for Key*

LOCATION SKETCH



PLAN OF MANHOLE



STATUS	PU : Public	PR : Private	WC : Culverted Watercourse	} Applies to main outlet	
	24 : Section 24	HD : Highway Drain			
FUNCTION	F : Foul	C : Combined	S : Surface Water	} Applies to main outlet	
MANHOLE TYPE	IF : Infall	MH : Manhole	CP : Catchpit	CSO :Consented Sewer Overflow	
	LH : Lamphole	RE : Rodding Eye	SO : Storm Overflow	DS :Dual system Manhole	
	GU : Gully	OF : Outfall	SA : Soakaway	PS :Pumping Station	
COVER DUTY	L : Light Duty	M : Medium Duty	H : Heavy Duty		
SHAPE	C : Circular	E : Egg	R : Rectangular		
	S : Square	T : Trapezoidal	A : Arched		
	B : Barrel	H : Horseshoe (Inverted U)	U : U-shaped with flat top		
	X : Other (state in words)				
PIPE (OR LINING) MATERIAL	AK : Alkathene	AC : Asbestos Cement	BR : Brick		
	CI : Cast Iron	SI : Spun (Grey) Iron	CO : Concrete		
	CSB : Concrete Segments (Bolted)	CSU : Concrete Segments (Unbolted)	CC : Concrete Box Culvert		
	DI : Ductile Iron	GRC : Glass Reinforced Concrete	GRP : Glass Reinforced Plastic		
	PSC : Plastic/Steel Composite	PVC : Polyvinyl Chloride	PE : Polyethylene		
	RPM : Reinforced Plastic Matrix	ST : Steel	VC : Vitrified Clay		
	PP : Polypropylene	PF : Pitch Fibre	MAC : Masonry, Coursed		
	MAR : Masonry, Randon Courses	XXX : Other (State in remarks)			
LINING	BL : Bitumen	RL : Resin	IS : Insituform		
	CL : Cement	PI : Plastic			

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Card No	13	Map No	
Catchment		MH No	UU 2301
Location	Aldi Moston		
Town			

★		★	★		
PU Status	Syphon	C Function	MH MH Type	24/11/2021 Date of Survey	

COVER DETAILS

☑ Square ☐ Rectangle ☐ Triangle ☑ Dbl Triangle ☐ Circular ☐ Oval ☐ Other ☐ Multiple ☐ Hinged ☐ Lockable

			★	
Cover Level	m	H / M / L Cover Duty	H	Initials JP

PIPE DETAILS

Incoming Pipes

Clockwise from pipe X

Pipe	Depth from Invert (m)	Upstream / Downstream MH Ref	Shape	Size (mm) Height		Width	Pipe Mat	Lining Mat	Back Drop Dia (mm)	Back Drop Depth (m)
A	3.39		C	450	X		VC			
B	3.00		C	150	X		VC			
C	3.00		C	150	X		VC			
D					X					
E					X					
F					X					

Outgoing Pipes

X	3.40		C	450	X		VC			
Y					X					

Cover Opening at narrowest	610 X 610 mm	Chamber Dimension	1200 mm	Evidence of Surcharge	
Shaft at narrowest	mm	Shaft Depth (from CL)	mm	OX / H2S / METH Toxic atmosphere	

MANHOLE CONSTRUCTION DETAILS

☑ Pre Cast Concrete ☐ In Situ Concrete ☐ Brick ☐ GRP ☐ Arch ☐ Corbel ☐ Taper ☐ Side Entry
☑ Reducing Slab ☐ Segments ☐ No. of Landings 8 No. Steps ☐ No. of Ladders
☐ No. of Regulating Brick Courses

CONDITION INFORMATION (specific in remark)

	Cover	Shaft	Irons / Ladders	Chamber	Benching	Channel
OK	☑	☐	☑	☑	☑	☑
Needs attention	☐	☐	☐	☐	☐	☐
Urgent attention	☐	☐	☐	☐	☐	☐

Depth of Flow mm Depth of Silt mm Height of Surcharge from CL mm

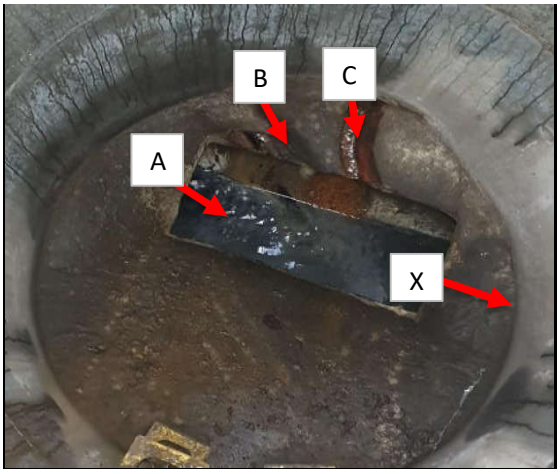
REMARKS

★ *See Overleaf for Key*

LOCATION SKETCH



PLAN OF MANHOLE



STATUS	PU : Public	PR : Private	WC : Culverted Watercourse	}	Applies to main outlet
	24 : Section 24	HD : Highway Drain			
FUNCTION	F : Foul	C : Combined	S : Surface Water	}	Applies to main outlet
MANHOLE TYPE	IF : Infall	MH : Manhole	CP : Catchpit	CSO	:Consented Sewer Overflow
	LH : Lamphole	RE : Rodding Eye	SO : Storm Overflow	DS	:Dual system Manhole
	GU : Gully	OF : Outfall	SA : Soakaway	PS	:Pumping Station
COVER DUTY	L : Light Duty	M : Medium Duty	H : Heavy Duty		
SHAPE	C : Circular	E : Egg	R : Rectangular		
	S : Square	T : Trapezoidal	A : Arched		
	B : Barrel	H : Horseshoe (Inverted U)	U : U-shaped with flat top		
	X : Other (state in words)				
PIPE (OR LINING) MATERIAL	AK : Alkathene	AC : Asbestos Cement	BR : Brick		
	CI : Cast Iron	SI : Spun (Grey) Iron	CO : Concrete		
	CSB : Concrete Segments (Bolted)	CSU : Concrete Segments (Unbolted)	CC : Concrete Box Culvert		
	DI : Ductile Iron	GRC : Glass Reinforced Concrete	GRP : Glass Reinforced Plastic		
	PSC : Plastic/Steel Composite	PVC : Polyvinyl Chloride	PE : Polyethylene		
	RPM : Reinforced Plastic Matrix	ST : Steel	VC : Vitrified Clay		
	PP : Polypropylene	PF : Pitch Fibre	MAC : Masonry, Coursed		
	MAR : Masonry, Randon Courses	XXX : Other (State in remarks)			
LINING	BL : Bitumen	RL : Resin	IS : Insituform		
	CL : Cement	PI : Plastic			

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Card No	14	Map No	
Catchment		MH No	MH S11
Location	Aldi Moston		
Town			

★		★	★	
PU Status	Syphon	SW Function	MH MH Type	24/11/2021 Date of Survey

COVER DETAILS

☒ Square ☐ Rectangle ☐ Triangle ☒ Dbl Triangle ☐ Circular ☐ Oval ☐ Other ☐ Multiple ☐ Hinged ☐ Lockable

		★	
Cover Level	m	H / M / L Cover Duty	H Initials JP

PIPE DETAILS

Incoming Pipes

Clockwise from pipe X

Pipe	Depth from Invert (m)	Upstream / Downstream MH Ref	Shape	Size (mm) Height		Width	Pipe Mat	Lining Mat	Back Drop Dia (mm)	Back Drop Depth (m)
A	2.89		C	225	X		VC			
B					X					
C					X					
D					X					
E					X					
F					X					

Outgoing Pipes

X	2.90		C	150	X		VC			
Y					X					

Cover Opening at narrowest	610 X 610 mm	Chamber Dimension	1200 mm	Evidence of Surcharge	
Shaft at narrowest	610 X 610 mm	Shaft Depth (from CL)	450 mm	OX / H2S / METH Toxic atmosphere	

MANHOLE CONSTRUCTION DETAILS

☒ Pre Cast Concrete ☐ In Situ Concrete ☐ Brick ☐ GRP ☐ Arch ☐ Corbel ☐ Taper ☐ Side Entry

☒ Reducing Slab ☐ Segments ☐ No. of Landings 8 No. Steps ☐ No. of Ladders

1 No. of Regulating Brick Courses

CONDITION INFORMATION (specific in remark)

	Cover	Shaft	Irons / Ladders	Chamber	Benching	Channel
OK	☒	☒	☒	☒	☒	☒
Needs attention	☐	☐	☐	☐	☐	☐
Urgent attention	☐	☐	☐	☐	☐	☐

Depth of Flow	mm	Depth of Silt	mm	Height of Surcharge from CL	mm

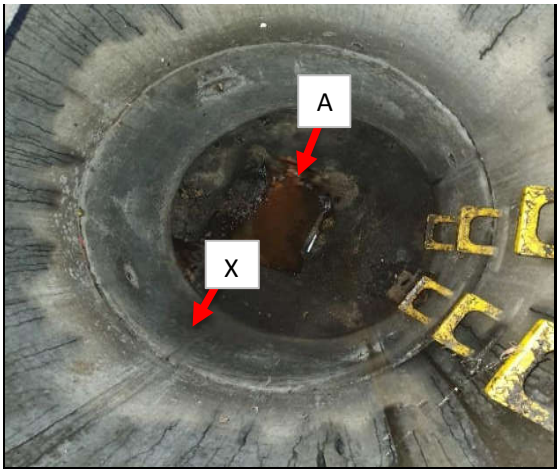
REMARKS

★ *See Overleaf for Key*

LOCATION SKETCH



PLAN OF MANHOLE



STATUS	PU : Public	PR : Private	WC : Culverted Watercourse	} Applies to main outlet	
	24 : Section 24	HD : Highway Drain			
FUNCTION	F : Foul	C : Combined	S : Surface Water	} Applies to main outlet	
MANHOLE TYPE	IF : Infall	MH : Manhole	CP : Catchpit	CSO :Consented Sewer Overflow	
	LH : Lamphole	RE : Rodding Eye	SO : Storm Overflow	DS :Dual system Manhole	
	GU : Gully	OF : Outfall	SA : Soakaway	PS :Pumping Station	
COVER DUTY	L : Light Duty	M : Medium Duty	H : Heavy Duty		
SHAPE	C : Circular	E : Egg	R : Rectangular		
	S : Square	T : Trapezoidal	A : Arched		
	B : Barrel	H : Horseshoe (Inverted U)	U : U-shaped with flat top		
	X : Other (state in words)				
PIPE (OR LINING) MATERIAL	AK : Alkathene	AC : Asbestos Cement	BR : Brick		
	CI : Cast Iron	SI : Spun (Grey) Iron	CO : Concrete		
	CSB : Concrete Segments (Bolted)	CSU : Concrete Segments (Unbolted)	CC : Concrete Box Culvert		
	DI : Ductile Iron	GRC : Glass Reinforced Concrete	GRP : Glass Reinforced Plastic		
	PSC : Plastic/Steel Composite	PVC : Polyvinyl Chloride	PE : Polyethylene		
	RPM : Reinforced Plastic Matrix	ST : Steel	VC : Vitrified Clay		
	PP : Polypropylene	PF : Pitch Fibre	MAC : Masonry, Coursed		
	MAR : Masonry, Randon Courses	XXX : Other (State in remarks)			
LINING	BL : Bitumen	RL : Resin	IS : Insituform		
	CL : Cement	PI : Plastic			

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Layer Surveys Ltd Manhole Survey Card

Card No	15	Map No	
Catchment		MH No	MH S9
Location	Aldi Moston		
Town			

★		★	★		
PR Status	Syphon	SW Function	MH MH Type	24/11/2021 Date of Survey	

COVER DETAILS

☑ Square ☑ Rectangle ☐ Triangle ☑ Dbl Triangle ☐ Circular ☐ Oval ☐ Other ☐ Multiple ☐ Hinged ☐ Lockable

		★	
Cover Level	m	H / M / L Cover Duty	H Initials: JP

PIPE DETAILS

Incoming Pipes

Clockwise from pipe X

Pipe	Depth from Invert (m)	Upstream / Downstream MH Ref	Shape	Size (mm) Height		Width	Pipe Mat	Lining Mat	Back Drop Dia (mm)	Back Drop Depth (m)
A	0.65		C	150	X		VC			
B	0.66		C	150	X		VC			
C	0.66		C	150	X		VC			
D					X					
E					X					
F					X					

Outgoing Pipes

X	0.68		C	225	X		VC			
Y					X					

Cover Opening at narrowest	700 x 1200 mm	Chamber Dimension	700 x 1200 mm	Evidence of Surcharge	
Shaft at narrowest	mm	Shaft Depth (from CL)	mm	OX / H2S / METH Toxic atmosphere	

MANHOLE CONSTRUCTION DETAILS

☐ Pre Cast Concrete ☐ In Situ Concrete ☑ Brick ☐ GRP ☐ Arch ☐ Corbel ☐ Taper ☐ Side Entry
☑ Reducing Slab ☐ Segments ☐ No. of Landings ☐ No. Steps ☐ No. of Ladders
☐ No. of Regulating Brick Courses

CONDITION INFORMATION (specific in remark)

	Cover	Shaft	Irons / Ladders	Chamber	Benching	Channel
OK	☑	☐	☐	☑	☑	☑
Needs attention	☐	☐	☐	☐	☐	☐
Urgent attention	☐	☐	☐	☐	☐	☐

Depth of Flow	mm	Depth of Silt	mm	Height of Surcharge from CL	mm

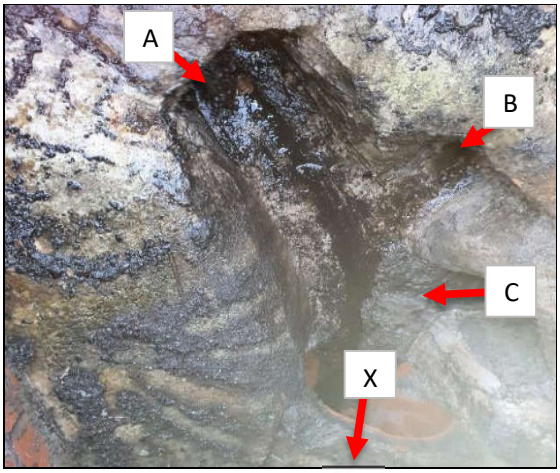
REMARKS

★ *See Overleaf for Key*

LOCATION SKETCH



PLAN OF MANHOLE



STATUS	PU : Public	PR : Private	WC : Culverted Watercourse	} Applies to main outlet	
	24 : Section 24	HD : Highway Drain			
FUNCTION	F : Foul	C : Combined	S : Surface Water	} Applies to main outlet	
MANHOLE TYPE	IF : Infall	MH : Manhole	CP : Catchpit	CSO : Consented Sewer Overflow	
	LH : Lamphole	RE : Rodding Eye	SO : Storm Overflow	DS : Dual system Manhole	
	GU : Gully	OF : Outfall	SA : Soakaway	PS : Pumping Station	
COVER DUTY	L : Light Duty	M : Medium Duty	H : Heavy Duty		
SHAPE	C : Circular	E : Egg	R : Rectangular		
	S : Square	T : Trapezoidal	A : Arched		
	B : Barrel	H : Horseshoe (Inverted U)	U : U-shaped with flat top		
	X : Other (state in words)				
PIPE (OR LINING) MATERIAL	AK : Alkathene	AC : Asbestos Cement	BR : Brick		
	CI : Cast Iron	SI : Spun (Grey) Iron	CO : Concrete		
	CSB : Concrete Segments (Bolted)	CSU : Concrete Segments (Unbolted)	CC : Concrete Box Culvert		
	DI : Ductile Iron	GRC : Glass Reinforced Concrete	GRP : Glass Reinforced Plastic		
	PSC : Plastic/Steel Composite	PVC : Polyvinyl Chloride	PE : Polyethylene		
	RPM : Reinforced Plastic Matrix	ST : Steel	VC : Vitrified Clay		
	PP : Polypropylene	PF : Pitch Fibre	MAC : Masonry, Coursed		
	MAR : Masonry, Randon Courses	XXX : Other (State in remarks)			
LINING	BL : Bitumen	RL : Resin	IS : Insituform		
	CL : Cement	PI : Plastic			

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Layer Surveys Ltd Manhole Survey Card

Card No	16	Map No	
Catchment		MH No	MH S8
Location	Aldi Moston		
Town			

★		★	★	
PR Status	Syphon	SW Function	MH MH Type	24/11/2021 Date of Survey

COVER DETAILS

☑ Square ☑ Rectangle ☐ Triangle ☑ Dbl Triangle ☐ Circular ☐ Oval ☐ Other ☐ Multiple ☐ Hinged ☐ Lockable

		★	
Cover Level	m	H / M / L Cover Duty	H Initials JP

PIPE DETAILS

Incoming Pipes

Clockwise from pipe X

Pipe	Depth from Invert (m)	Upstream / Downstream MH Ref	Shape	Size (mm) Height		Width	Pipe Mat	Lining Mat	Back Drop Dia (mm)	Back Drop Depth (m)
A	0.87		C	225	X		VC			
B					X					
C					X					
D					X					
E					X					
F					X					

Outgoing Pipes

X	0.88		C	225	X		VC			
Y					X					

Cover Opening at narrowest	700 x 1200 mm	Chamber Dimension	700 x 1200 mm	Evidence of Surcharge	
Shaft at narrowest	mm	Shaft Depth (from CL)	mm	OX / H2S / METH Toxic atmosphere	

MANHOLE CONSTRUCTION DETAILS

☐ Pre Cast Concrete ☐ In Situ Concrete ☑ Brick ☐ GRP ☐ Arch ☐ Corbel ☐ Taper ☐ Side Entry
☑ Reducing Slab ☐ Segments ☐ No. of Landings ☐ No. Steps ☐ No. of Ladders
☐ No. of Regulating Brick Courses

CONDITION INFORMATION (specific in remark)

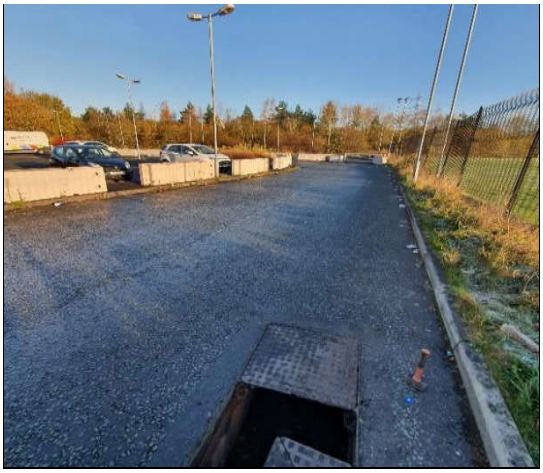
	Cover	Shaft	Irons / Ladders	Chamber	Benching	Channel
OK	☑	☐	☐	☑	☑	☑
Needs attention	☐	☐	☐	☐	☐	☐
Urgent attention	☐	☐	☐	☐	☐	☐

Depth of Flow	mm	Depth of Silt	mm	Height of Surcharge from CL	mm

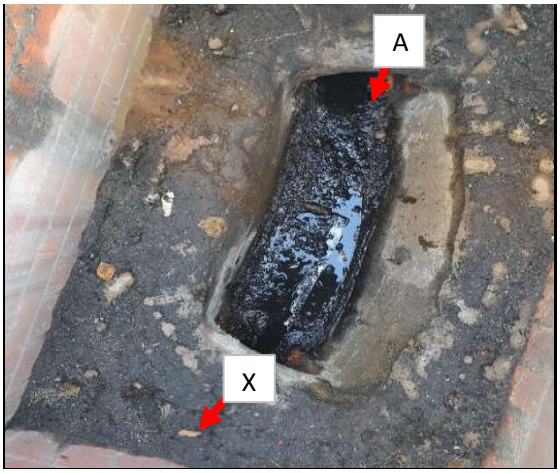
REMARKS

★ *See Overleaf for Key*

LOCATION SKETCH



PLAN OF MANHOLE



STATUS	PU : Public	PR : Private	WC : Culverted Watercourse	} Applies to main outlet	
	24 : Section 24	HD : Highway Drain			
FUNCTION	F : Foul	C : Combined	S : Surface Water	} Applies to main outlet	
MANHOLE TYPE	IF : Infall	MH : Manhole	CP : Catchpit	CSO :Consented Sewer Overflow	
	LH : Lamphole	RE : Rodding Eye	SO : Storm Overflow	DS :Dual system Manhole	
	GU : Gully	OF : Outfall	SA : Soakaway	PS :Pumping Station	
COVER DUTY	L : Light Duty	M : Medium Duty	H : Heavy Duty		
SHAPE	C : Circular	E : Egg	R : Rectangular		
	S : Square	T : Trapezoidal	A : Arched		
	B : Barrel	H : Horseshoe (Inverted U)	U : U-shaped with flat top		
	X : Other (state in words)				
PIPE (OR LINING) MATERIAL	AK : Alkathene	AC : Asbestos Cement	BR : Brick		
	CI : Cast Iron	SI : Spun (Grey) Iron	CO : Concrete		
	CSB : Concrete Segments (Bolted)	CSU : Concrete Segments (Unbolted)	CC : Concrete Box Culvert		
	DI : Ductile Iron	GRC : Glass Reinforced Concrete	GRP : Glass Reinforced Plastic		
	PSC : Plastic/Steel Composite	PVC : Polyvinyl Chloride	PE : Polyethylene		
	RPM : Reinforced Plastic Matrix	ST : Steel	VC : Vitrified Clay		
	PP : Polypropylene	PF : Pitch Fibre	MAC : Masonry, Coursed		
	MAR : Masonry, Randon Courses	XXX : Other (State in remarks)			
LINING	BL : Bitumen	RL : Resin	IS : Insituform		
	CL : Cement	PI : Plastic			

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Card No	17	Map No	
Catchment		MH No	MH S12
Location	Aldi Moston		
Town			

★		★		★		
PR	Status		Syphon	SW	Function	MH	MH Type	24/11/2021	Date of Survey

COVER DETAILS

☒ Square ☐ Rectangle ☐ Triangle ☒ Dbl Triangle ☐ Circular ☐ Oval ☐ Other ☐ Multiple ☐ Hinged ☐ Lockable

			★		
Cover Level		m	H / M / L Cover Duty	H	Initials	JP

PIPE DETAILS

Incoming Pipes

Clockwise from pipe X

Pipe	Depth from Invert (m)	Upstream / Downstream MH Ref	Shape	Size (mm) Height		Width	Pipe Mat	Lining Mat	Back Drop Dia (mm)	Back Drop Depth (m)
A	1.96		C	225	X		VC			
B	1.96		C	150	X		VC			
C	1.45		C	150	X		VC			
D					X					
E					X					
F					X					

Outgoing Pipes

X	1.97		C	900	X		CON			
Y					X					

Cover Opening at narrowest	610 X 610 mm	Chamber Dimension	1800 mm	Evidence of Surcharge	
Shaft at narrowest	610 X 610 mm	Shaft Depth (from CL)	420 mm	OX / H2S / METH Toxic atmosphere	

MANHOLE CONSTRUCTION DETAILS

☒ Pre Cast Concrete ☐ In Situ Concrete ☐ Brick ☐ GRP ☐ Arch ☐ Corbel ☐ Taper ☐ Side Entry
☒ Reducing Slab ☐ Segments ☐ No. of Landings 2 No. Steps ☐ No. of Ladders
☐ No. of Regulating Brick Courses

CONDITION INFORMATION (specific in remark)

	Cover	Shaft	Irons / Ladders	Chamber	Benching	Channel
OK	☒	☒	☒	☒	☒	☒
Needs attention	☐	☐	☐	☐	☐	☐
Urgent attention	☐	☐	☐	☐	☐	☐

Depth of Flow	mm	Depth of Silt	mm	Height of Surcharge from CL	mm

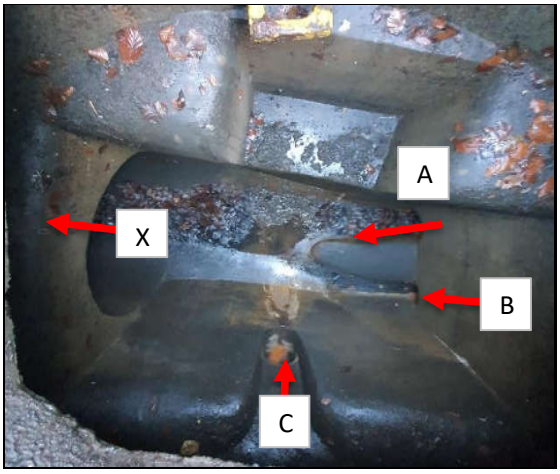
REMARKS

★ *See Overleaf for Key*

LOCATION SKETCH



PLAN OF MANHOLE



STATUS	PU : Public	PR : Private	WC : Culverted Watercourse	} Applies to main outlet	
	24 : Section 24	HD : Highway Drain			
FUNCTION	F : Foul	C : Combined	S : Surface Water	} Applies to main outlet	
MANHOLE TYPE	IF : Infall	MH : Manhole	CP : Catchpit	CSO :Consented Sewer Overflow	
	LH : Lamphole	RE : Rodding Eye	SO : Storm Overflow	DS :Dual system Manhole	
	GU : Gully	OF : Outfall	SA : Soakaway	PS :Pumping Station	
COVER DUTY	L : Light Duty	M : Medium Duty	H : Heavy Duty		
SHAPE	C : Circular	E : Egg	R : Rectangular		
	S : Square	T : Trapezoidal	A : Arched		
	B : Barrel	H : Horseshoe (Inverted U)	U : U-shaped with flat top		
	X : Other (state in words)				
PIPE (OR LINING) MATERIAL	AK : Alkathene	AC : Asbestos Cement	BR : Brick		
	CI : Cast Iron	SI : Spun (Grey) Iron	CO : Concrete		
	CSB : Concrete Segments (Bolted)	CSU : Concrete Segments (Unbolted)	CC : Concrete Box Culvert		
	DI : Ductile Iron	GRC : Glass Reinforced Concrete	GRP : Glass Reinforced Plastic		
	PSC : Plastic/Steel Composite	PVC : Polyvinyl Chloride	PE : Polyethylene		
	RPM : Reinforced Plastic Matrix	ST : Steel	VC : Vitrified Clay		
	PP : Polypropylene	PF : Pitch Fibre	MAC : Masonry, Coursed		
	MAR : Masonry, Randon Courses	XXX : Other (State in remarks)			
LINING	BL : Bitumen	RL : Resin	IS : Insituform		
	CL : Cement	PI : Plastic			

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Card No	18	Map No	
Catchment		MH No	MH S5
Location	Aldi Moston		
Town			

★		★		★		
PR	Status		Syphon	SW	Function	MH	MH Type	24/11/2021	Date of Survey

COVER DETAILS

☒ Square ☐ Rectangle ☐ Triangle ☐ Dbl Triangle ☐ Circular ☐ Oval ☐ Other ☐ Multiple ☐ Hinged ☐ Lockable

			★		
Cover Level		m	H / M / L Cover Duty	H	Initials	JP

PIPE DETAILS

Incoming Pipes

Clockwise from pipe X

Pipe	Depth from Invert (m)	Upstream / Downstream MH Ref	Shape	Size (mm) Height		Width	Pipe Mat	Lining Mat	Back Drop Dia (mm)	Back Drop Depth (m)
A	1.44		C	150	X		VC			
B	1.40		C	100	X		VC			
C	1.40		C	100	X		VC			
D					X					
E					X					
F					X					

Outgoing Pipes

X	1.47		C	150	X		VC			
Y					X					

Cover Opening at narrowest	670 X 670 mm	Chamber Dimension	1050 mm	Evidence of Surcharge	
Shaft at narrowest	610 X 610 mm	Shaft Depth (from CL)	380 mm	OX / H2S / METH Toxic atmosphere	

MANHOLE CONSTRUCTION DETAILS

☒ Pre Cast Concrete ☐ In Situ Concrete ☐ Brick ☐ GRP ☐ Arch ☐ Corbel ☐ Taper ☐ Side Entry
☒ Reducing Slab ☐ Segments ☐ No. of Landings 3 No. Steps ☐ No. of Ladders
1 No. of Regulating Brick Courses

CONDITION INFORMATION (specific in remark)

	Cover	Shaft	Irons / Ladders	Chamber	Benching	Channel
OK	☒	☒	☒	☒	☒	☒
Needs attention	☐	☐	☐	☐	☐	☐
Urgent attention	☐	☐	☐	☐	☐	☐

Depth of Flow	mm	Depth of Silt	mm	Height of Surcharge from CL	mm

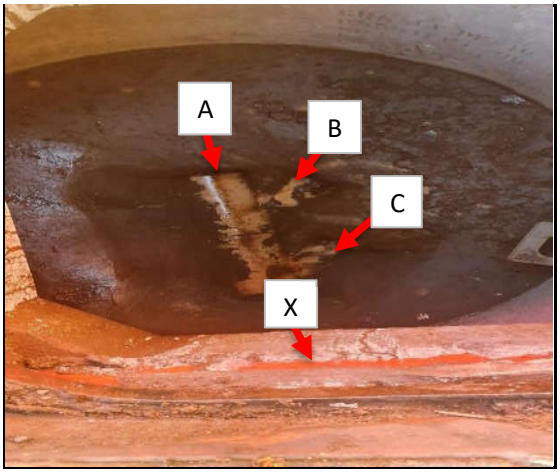
REMARKS

★ *See Overleaf for Key*

LOCATION SKETCH



PLAN OF MANHOLE



STATUS	PU : Public	PR : Private	WC : Culverted Watercourse	} Applies to main outlet	
	24 : Section 24	HD : Highway Drain			
FUNCTION	F : Foul	C : Combined	S : Surface Water	} Applies to main outlet	
MANHOLE TYPE	IF : Infall	MH : Manhole	CP : Catchpit	CSO :Consented Sewer Overflow	
	LH : Lamphole	RE : Rodding Eye	SO : Storm Overflow	DS :Dual system Manhole	
	GU : Gully	OF : Outfall	SA : Soakaway	PS :Pumping Station	
COVER DUTY	L : Light Duty	M : Medium Duty	H : Heavy Duty		
SHAPE	C : Circular	E : Egg	R : Rectangular		
	S : Square	T : Trapezoidal	A : Arched		
	B : Barrel	H : Horseshoe (Inverted U)	U : U-shaped with flat top		
	X : Other (state in words)				
PIPE (OR LINING) MATERIAL	AK : Alkathene	AC : Asbestos Cement	BR : Brick		
	CI : Cast Iron	SI : Spun (Grey) Iron	CO : Concrete		
	CSB : Concrete Segments (Bolted)	CSU : Concrete Segments (Unbolted)	CC : Concrete Box Culvert		
	DI : Ductile Iron	GRC : Glass Reinforced Concrete	GRP : Glass Reinforced Plastic		
	PSC : Plastic/Steel Composite	PVC : Polyvinyl Chloride	PE : Polyethylene		
	RPM : Reinforced Plastic Matrix	ST : Steel	VC : Vitrified Clay		
	PP : Polypropylene	PF : Pitch Fibre	MAC : Masonry, Coursed		
	MAR : Masonry, Randon Courses	XXX : Other (State in remarks)			
LINING	BL : Bitumen	RL : Resin	IS : Insituform		
	CL : Cement	PI : Plastic			

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Layer Surveys Ltd Manhole Survey Card

Card No	19	Map No	
Catchment		MH No	MH S6
Location	Aldi Moston		
Town			

★		★		★		
PR	Status		Syphon	SW	Function	MH	MH Type	24/11/2021	Date of Survey

COVER DETAILS

☒ Square ☐ Rectangle ☐ Triangle ☐ Dbl Triangle ☐ Circular ☐ Oval ☐ Other ☐ Multiple ☐ Hinged ☐ Lockable

			★		
Cover Level		m	H / M / L Cover Duty	H	Initials	JP

PIPE DETAILS

Incoming Pipes

Clockwise from pipe X

Pipe	Depth from Invert (m)	Upstream / Downstream MH Ref	Shape	Size (mm) Height		Width	Pipe Mat	Lining Mat	Back Drop Dia (mm)	Back Drop Depth (m)
A	1.08		C	150	X		VC			
B	1.08		C	100	X		VC			
C					X					
D					X					
E					X					
F					X					

Outgoing Pipes

X	1.10		C	150	X		VC			
Y					X					

Cover Opening at narrowest	670 X 670 mm	Chamber Dimension	1050 mm	Evidence of Surcharge	
Shaft at narrowest	620 X 400 mm	Shaft Depth (from CL)	350 mm	OX / H2S / METH Toxic atmosphere	

MANHOLE CONSTRUCTION DETAILS

☒ Pre Cast Concrete ☐ In Situ Concrete ☐ Brick ☐ GRP ☐ Arch ☐ Corbel ☐ Taper ☐ Side Entry
☒ Reducing Slab ☐ Segments ☐ No. of Landings 2 No. Steps ☐ No. of Ladders
☐ No. of Regulating Brick Courses

CONDITION INFORMATION (specific in remark)

	Cover	Shaft	Irons / Ladders	Chamber	Benching	Channel
OK	☒	☒	☒	☒	☒	☐
Needs attention	☐	☐	☐	☐	☐	☒
Urgent attention	☐	☐	☐	☐	☐	☐

Depth of Flow	mm	Depth of Silt	mm	Height of Surcharge from CL	mm

REMARKS

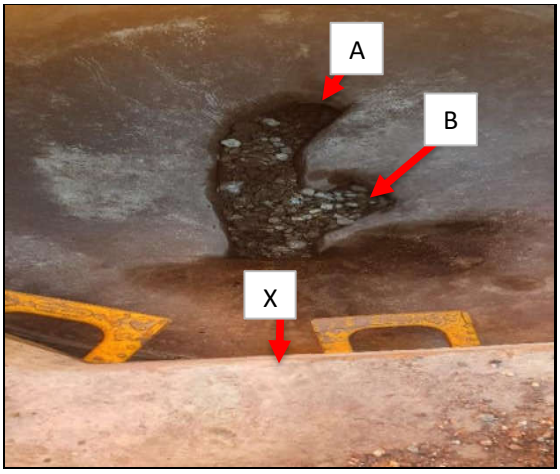
RUBBLE IN CHAMBER

★ *See Overleaf for Key*

LOCATION SKETCH



PLAN OF MANHOLE



STATUS	PU : Public	PR : Private	WC : Culverted Watercourse	}	Applies to main outlet
	24 : Section 24	HD : Highway Drain			
FUNCTION	F : Foul	C : Combined	S : Surface Water	}	Applies to main outlet
MANHOLE TYPE	IF : Infall	MH : Manhole	CP : Catchpit	CSO	:Consented Sewer Overflow
	LH : Lamphole	RE : Rodding Eye	SO : Storm Overflow	DS	:Dual system Manhole
	GU : Gully	OF : Outfall	SA : Soakaway	PS	:Pumping Station
COVER DUTY	L : Light Duty	M : Medium Duty	H : Heavy Duty		
SHAPE	C : Circular	E : Egg	R : Rectangular		
	S : Square	T : Trapezoidal	A : Arched		
	B : Barrel	H : Horseshoe (Inverted U)	U : U-shaped with flat top		
	X : Other (state in words)				
PIPE (OR LINING) MATERIAL	AK : Alkathene	AC : Asbestos Cement	BR : Brick		
	CI : Cast Iron	SI : Spun (Grey) Iron	CO : Concrete		
	CSB : Concrete Segments (Bolted)	CSU : Concrete Segments (Unbolted)	CC : Concrete Box Culvert		
	DI : Ductile Iron	GRC : Glass Reinforced Concrete	GRP : Glass Reinforced Plastic		
	PSC : Plastic/Steel Composite	PVC : Polyvinyl Chloride	PE : Polyethylene		
	RPM : Reinforced Plastic Matrix	ST : Steel	VC : Vitrified Clay		
	PP : Polypropylene	PF : Pitch Fibre	MAC : Masonry, Coursed		
	MAR : Masonry, Randon Courses	XXX : Other (State in remarks)			
LINING	BL : Bitumen	RL : Resin	IS : Insituform		
	CL : Cement	PI : Plastic			

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Card No	20	Map No	
Catchment		MH No	MH S6A
Location	Aldi Moston		
Town			

★		★	★		
PR Status	Syphon	SW Function	MH MH Type	24/11/2021 Date of Survey	

COVER DETAILS

☐ Square ☑ Rectangle ☐ Triangle ☐ Dbl Triangle ☐ Circular ☐ Oval ☐ Other ☐ Multiple ☐ Hinged ☐ Lockable

Cover Level m | H / M / L Cover Duty ★ H | Initials JP

PIPE DETAILS

Incoming Pipes

Clockwise from pipe X

Pipe	Depth from Invert (m)	Upstream / Downstream MH Ref	Shape	Size (mm) Height		Width	Pipe Mat	Lining Mat	Back Drop Dia (mm)	Back Drop Depth (m)
A	0.75		C	100	X		VC			
B	0.73		C	100	X		VC			
C					X					
D					X					
E					X					
F					X					

Outgoing Pipes

X	0.77		C	100	X		VC			
Y					X					

Cover Opening at narrowest	820 X 670 mm	Chamber Dimension	1050 mm	Evidence of Surcharge	
Shaft at narrowest	470 X 580 mm	Shaft Depth (from CL)	130 mm	OX / H2S / METH Toxic atmosphere	

MANHOLE CONSTRUCTION DETAILS

☑ Pre Cast Concrete ☐ In Situ Concrete ☐ Brick ☐ GRP ☐ Arch ☐ Corbel ☐ Taper ☐ Side Entry

☑ Reducing Slab ☐ Segments ☐ No. of Landings ☐ No. Steps ☐ No. of Ladders

5 No. of Regulating Brick Courses

CONDITION INFORMATION (specific in remark)

	Cover	Shaft	Irons / Ladders	Chamber	Benching	Channel
OK	☑	☑	☐	☑	☑	☐
Needs attention	☐	☐	☐	☐	☐	☑
Urgent attention	☐	☐	☐	☐	☐	☐

Depth of Flow mm | Depth of Silt mm | Height of Surcharge from CL mm

REMARKS

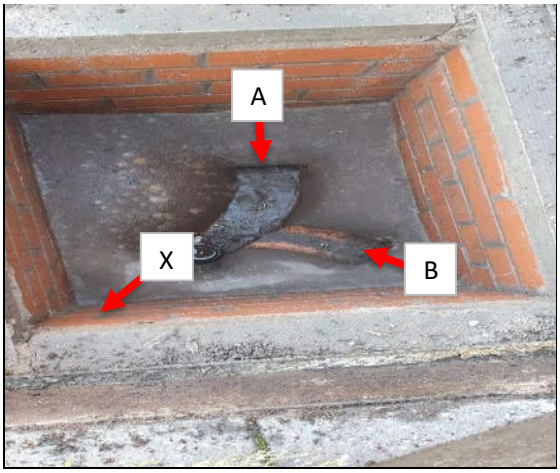
HIGH SILT DEPOSITS IN CHANNEL

★ *See Overleaf for Key*

LOCATION SKETCH



PLAN OF MANHOLE



STATUS	PU : Public	PR : Private	WC : Culverted Watercourse	}	Applies to main outlet
	24 : Section 24	HD : Highway Drain			
FUNCTION	F : Foul	C : Combined	S : Surface Water	}	Applies to main outlet
MANHOLE TYPE	IF : Infall	MH : Manhole	CP : Catchpit	CSO	:Consented Sewer Overflow
	LH : Lamphole	RE : Rodding Eye	SO : Storm Overflow	DS	:Dual system Manhole
	GU : Gully	OF : Outfall	SA : Soakaway	PS	:Pumping Station
COVER DUTY	L : Light Duty	M : Medium Duty	H : Heavy Duty		
SHAPE	C : Circular	E : Egg	R : Rectangular		
	S : Square	T : Trapezoidal	A : Arched		
	B : Barrel	H : Horseshoe (Inverted U)	U : U-shaped with flat top		
	X : Other (state in words)				
PIPE (OR LINING) MATERIAL	AK : Alkathene	AC : Asbestos Cement	BR : Brick		
	CI : Cast Iron	SI : Spun (Grey) Iron	CO : Concrete		
	CSB : Concrete Segments (Bolted)	CSU : Concrete Segments (Unbolted)	CC : Concrete Box Culvert		
	DI : Ductile Iron	GRC : Glass Reinforced Concrete	GRP : Glass Reinforced Plastic		
	PSC : Plastic/Steel Composite	PVC : Polyvinyl Chloride	PE : Polyethylene		
	RPM : Reinforced Plastic Matrix	ST : Steel	VC : Vitrified Clay		
	PP : Polypropylene	PF : Pitch Fibre	MAC : Masonry, Coursed		
	MAR : Masonry, Randon Courses	XXX : Other (State in remarks)			
LINING	BL : Bitumen	RL : Resin	IS : Insituform		
	CL : Cement	PI : Plastic			

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Layer Surveys Ltd Manhole Survey Card

Card No	21	Map No	
Catchment		MH No	UU 1303
Location	Aldi Moston		
Town			

★		★	★		
PR	Status	Syphon	C	Function	MH	MH Type	24/11/2021	Date of Survey

COVER DETAILS

☑ Square ☐ Rectangle ☐ Triangle ☐ Dbl Triangle ☐ Circular ☐ Oval ☐ Other ☐ Multiple ☑ Hinged ☐ Lockable

			★	
Cover Level	m	H / M / L Cover Duty	H	Initials	JP

PIPE DETAILS

Incoming Pipes

Clockwise from pipe X	Pipe	Depth from Invert (m)	Upstream / Downstream MH Ref	Shape	Size (mm) Height		Width	Pipe Mat	Lining Mat	Back Drop Dia (mm)	Back Drop Depth (m)
	A	2.99		C	300	X		VC			
	B	2.65		C	225	X		VC			
	C					X					
	D					X					
	E					X					
	F					X					

Outgoing Pipes

Pipe	Depth from Invert (m)	Upstream / Downstream MH Ref	Shape	Size (mm) Height		Width	Pipe Mat	Lining Mat	Back Drop Dia (mm)	Back Drop Depth (m)
X	3.00		C	300	X		VC			
Y					X					

Cover Opening at narrowest	610 x 610 mm	Chamber Dimension	1400 x 800 mm	Evidence of Surcharge	
Shaft at narrowest	600 x 600 mm	Shaft Depth (from CL)	1100 mm	OX / H2S / METH Toxic atmosphere	

MANHOLE CONSTRUCTION DETAILS

☐ Pre Cast Concrete ☐ In Situ Concrete ☑ Brick ☐ GRP ☐ Arch ☐ Corbel ☐ Taper ☐ Side Entry

☑ Reducing Slab ☐ Segments ☐ No. of Landings 5 No. Steps ☐ No. of Ladders

6 No. of Regulating Brick Courses

CONDITION INFORMATION (specific in remark)

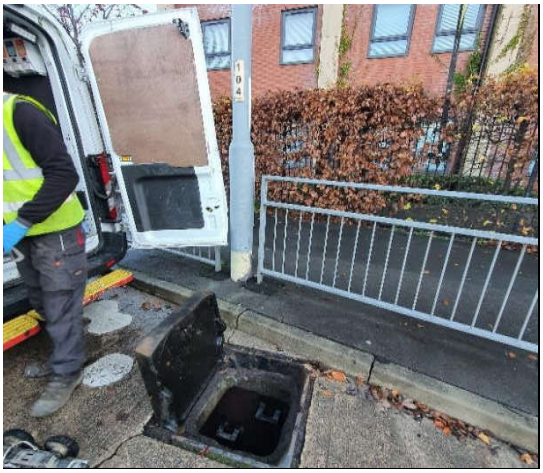
	Cover	Shaft	Irons / Ladders	Chamber	Benching	Channel
OK	☑	☑	☑	☑	☑	☑
Needs attention	☐	☐	☐	☐	☐	☐
Urgent attention	☐	☐	☐	☐	☐	☐

Depth of Flow	mm	Depth of Silt	mm	Height of Surcharge from CL	mm

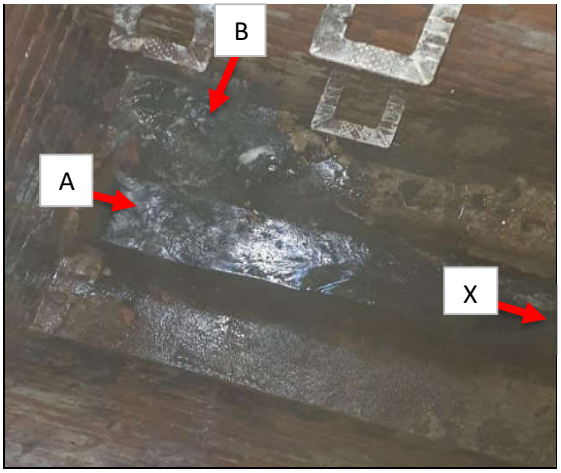
REMARKS

★ *See Overleaf for Key*

LOCATION SKETCH



PLAN OF MANHOLE



STATUS	PU : Public	PR : Private	WC : Culverted Watercourse	}	Applies to main outlet
	24 : Section 24	HD : Highway Drain			
FUNCTION	F : Foul	C : Combined	S : Surface Water	}	Applies to main outlet
MANHOLE TYPE	IF : Infall	MH : Manhole	CP : Catchpit	CSO	:Consented Sewer Overflow
	LH : Lamphole	RE : Rodding Eye	SO : Storm Overflow	DS	:Dual system Manhole
	GU : Gully	OF : Outfall	SA : Soakaway	PS	:Pumping Station
COVER DUTY	L : Light Duty	M : Medium Duty	H : Heavy Duty		
SHAPE	C : Circular	E : Egg	R : Rectangular		
	S : Square	T : Trapezoidal	A : Arched		
	B : Barrel	H : Horseshoe (Inverted U)	U : U-shaped with flat top		
	X : Other (state in words)				
PIPE (OR LINING) MATERIAL	AK : Alkathene	AC : Asbestos Cement	BR : Brick		
	CI : Cast Iron	SI : Spun (Grey) Iron	CO : Concrete		
	CSB : Concrete Segments (Bolted)	CSU : Concrete Segments (Unbolted)	CC : Concrete Box Culvert		
	DI : Ductile Iron	GRC : Glass Reinforced Concrete	GRP : Glass Reinforced Plastic		
	PSC : Plastic/Steel Composite	PVC : Polyvinyl Chloride	PE : Polyethylene		
	RPM : Reinforced Plastic Matrix	ST : Steel	VC : Vitrified Clay		
	PP : Polypropylene	PF : Pitch Fibre	MAC : Masonry, Coursed		
	MAR : Masonry, Randon Courses	XXX : Other (State in remarks)			
LINING	BL : Bitumen	RL : Resin	IS : Insituform		
	CL : Cement	PI : Plastic			

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Layer Surveys Ltd Manhole Survey Card

Card No	22	Map No	
Catchment		MH No	UU 0402
Location	Aldi Moston		
Town			

★ PR Status	Syphon	★ C Function	★ MH MH Type	24/11/2021 Date of Survey

COVER DETAILS

☒ Square ☐ Rectangle ☐ Triangle ☒ Dbl Triangle ☐ Circular ☐ Oval ☐ Other ☐ Multiple ☐ Hinged ☐ Lockable

Cover Level m | ★ H / M / L Cover Duty: H | Initials: JP

PIPE DETAILS

Incoming Pipes

Clockwise from pipe X

Pipe	Depth from Invert (m)	Upstream / Downstream MH Ref	Shape	Size (mm) Height		Width	Pipe Mat	Lining Mat	Back Drop Dia (mm)	Back Drop Depth (m)
A	2.74		C	300	X		VC			
B	2.64		C	300	X		VC		300	1.71
C	2.64		C	150	X		VC			
D					X					
E					X					
F					X					

Outgoing Pipes

X	2.75		C	300	X		VC			
Y					X					

Cover Opening at narrowest	610 x 610 mm	Chamber Dimension	900 X 1300 mm	Evidence of Surcharge	
Shaft at narrowest	500.00 mm	Shaft Depth (from CL)	300 mm	OX / H2S / METH Toxic atmosphere	

MANHOLE CONSTRUCTION DETAILS

☐ Pre Cast Concrete ☐ In Situ Concrete ☒ Brick ☐ GRP ☐ Arch ☐ Corbel ☐ Taper ☐ Side Entry
☒ Reducing Slab ☐ Segments ☐ No. of Landings 5 No. Steps ☐ No. of Ladders
☐ No. of Regulating Brick Courses

CONDITION INFORMATION (specific in remark)

	Cover	Shaft	Irons / Ladders	Chamber	Benching	Channel
OK	☒	☒	☒	☒	☒	☒
Needs attention	☐	☐	☐	☐	☐	☐
Urgent attention	☐	☐	☐	☐	☐	☐

Depth of Flow mm | Depth of Silt mm | Height of Surcharge from CL mm

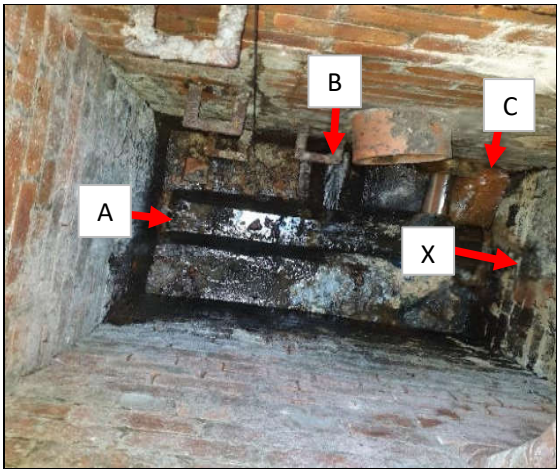
REMARKS

★ *See Overleaf for Key*

LOCATION SKETCH



PLAN OF MANHOLE



STATUS	PU : Public	PR : Private	WC : Culverted Watercourse	}	Applies to main outlet
	24 : Section 24	HD : Highway Drain			
FUNCTION	F : Foul	C : Combined	S : Surface Water	}	Applies to main outlet
MANHOLE TYPE	IF : Infall	MH : Manhole	CP : Catchpit	CSO	:Consented Sewer Overflow
	LH : Lamphole	RE : Rodding Eye	SO : Storm Overflow	DS	:Dual system Manhole
	GU : Gully	OF : Outfall	SA : Soakaway	PS	:Pumping Station
COVER DUTY	L : Light Duty	M : Medium Duty	H : Heavy Duty		
SHAPE	C : Circular	E : Egg	R : Rectangular		
	S : Square	T : Trapezoidal	A : Arched		
	B : Barrel	H : Horseshoe (Inverted U)	U : U-shaped with flat top		
	X : Other (state in words)				
PIPE (OR LINING) MATERIAL	AK : Alkathene	AC : Asbestos Cement	BR : Brick		
	CI : Cast Iron	SI : Spun (Grey) Iron	CO : Concrete		
	CSB : Concrete Segments (Bolted)	CSU : Concrete Segments (Unbolted)	CC : Concrete Box Culvert		
	DI : Ductile Iron	GRC : Glass Reinforced Concrete	GRP : Glass Reinforced Plastic		
	PSC : Plastic/Steel Composite	PVC : Polyvinyl Chloride	PE : Polyethylene		
	RPM : Reinforced Plastic Matrix	ST : Steel	VC : Vitrified Clay		
	PP : Polypropylene	PF : Pitch Fibre	MAC : Masonry, Coursed		
	MAR : Masonry, Randon Courses	XXX : Other (State in remarks)			
LINING	BL : Bitumen	RL : Resin	IS : Insituform		
	CL : Cement	PI : Plastic			

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Layer Surveys Ltd Manhole Survey Card

Card No	23	Map No	
Catchment		MH No	MH 1303 A
Location	Aldi Moston		
Town			

★		★	★		
PR Status	Syphon	C Function	MH MH Type	24/11/2021 Date of Survey	

COVER DETAILS

☒ Square ☐ Rectangle ☐ Triangle ☒ Dbl Triangle ☐ Circular ☐ Oval ☐ Other ☐ Multiple ☐ Hinged ☐ Lockable

		★	
Cover Level	m	H / M / L Cover Duty	H

Initials: JP

PIPE DETAILS

Incoming Pipes

Clockwise from pipe X

Pipe	Depth from Invert (m)	Upstream / Downstream MH Ref	Shape	Size (mm) Height		Width	Pipe Mat	Lining Mat	Back Drop Dia (mm)	Back Drop Depth (m)
A	2.64		C	225	X		VC			
B	2.61		C	100	X		PVC		100	1.54
C	2.61		C	150	X		PVC		150.00	1.84
D					X					
E					X					
F					X					

Outgoing Pipes

X	2.65		C	225	X		VC			
Y					X					

Cover Opening at narrowest	610 x 610 mm	Chamber Dimension	1200 mm	Evidence of Surcharge	
Shaft at narrowest	mm	Shaft Depth (from CL)	mm	OX / H2S / METH Toxic atmosphere	

MANHOLE CONSTRUCTION DETAILS

☒ Pre Cast Concrete ☐ In Situ Concrete ☐ Brick ☐ GRP ☐ Arch ☐ Corbel ☐ Taper ☐ Side Entry

☒ Reducing Slab ☐ Segments ☐ No. of Landings 6 No. Steps ☐ No. of Ladders

☐ No. of Regulating Brick Courses

CONDITION INFORMATION (specific in remark)

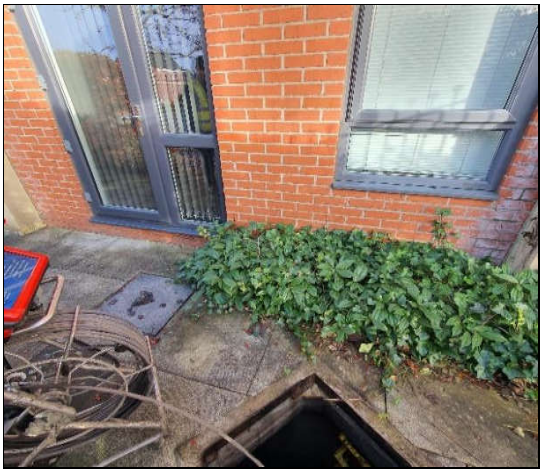
	Cover	Shaft	Irons / Ladders	Chamber	Benching	Channel
OK	☒	☐	☒	☒	☒	☒
Needs attention	☐	☐	☐	☐	☐	☐
Urgent attention	☐	☐	☐	☐	☐	☐

Depth of Flow mm Depth of Silt mm Height of Surcharge from CL mm

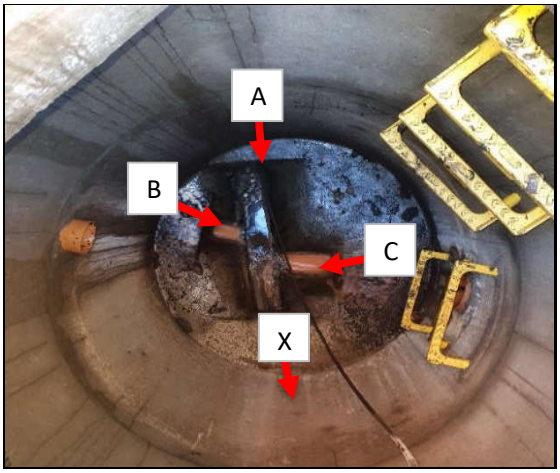
REMARKS

★ *See Overleaf for Key*

LOCATION SKETCH



PLAN OF MANHOLE



STATUS	PU : Public	PR : Private	WC : Culverted Watercourse	} Applies to main outlet	
	24 : Section 24	HD : Highway Drain			
FUNCTION	F : Foul	C : Combined	S : Surface Water	} Applies to main outlet	
MANHOLE TYPE	IF : Infall	MH : Manhole	CP : Catchpit	CSO :Consented Sewer Overflow	
	LH : Lamphole	RE : Rodding Eye	SO : Storm Overflow	DS :Dual system Manhole	
	GU : Gully	OF : Outfall	SA : Soakaway	PS :Pumping Station	
COVER DUTY	L : Light Duty	M : Medium Duty	H : Heavy Duty		
SHAPE	C : Circular	E : Egg	R : Rectangular		
	S : Square	T : Trapezoidal	A : Arched		
	B : Barrel	H : Horseshoe (Inverted U)	U : U-shaped with flat top		
	X : Other (state in words)				
PIPE (OR LINING) MATERIAL	AK : Alkathene	AC : Asbestos Cement	BR : Brick		
	CI : Cast Iron	SI : Spun (Grey) Iron	CO : Concrete		
	CSB : Concrete Segments (Bolted)	CSU : Concrete Segments (Unbolted)	CC : Concrete Box Culvert		
	DI : Ductile Iron	GRC : Glass Reinforced Concrete	GRP : Glass Reinforced Plastic		
	PSC : Plastic/Steel Composite	PVC : Polyvinyl Chloride	PE : Polyethylene		
	RPM : Reinforced Plastic Matrix	ST : Steel	VC : Vitrified Clay		
	PP : Polypropylene	PF : Pitch Fibre	MAC : Masonry, Coursed		
	MAR : Masonry, Randon Courses	XXX : Other (State in remarks)			
LINING	BL : Bitumen	RL : Resin	IS : Insituform		
	CL : Cement	PI : Plastic			

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Layer Surveys Ltd Manhole Survey Card

Card No	24	Map No	
Catchment		MH No	MH S9A
Location	Aldi Moston		
Town			

★		★		★		
PR	Status		Syphon	SW	Function	MH	MH Type	24/11/2021	Date of Survey

COVER DETAILS

☒ Square ☐ Rectangle ☐ Triangle ☒ Dbl Triangle ☐ Circular ☐ Oval ☐ Other ☐ Multiple ☐ Hinged ☐ Lockable

			★		
Cover Level		m	H / M / L Cover Duty	H	Initials	JP

PIPE DETAILS

Incoming Pipes

Clockwise from pipe X

Pipe	Depth from Invert (m)	Upstream / Downstream MH Ref	Shape	Size (mm) Height		Width	Pipe Mat	Lining Mat	Back Drop Dia (mm)	Back Drop Depth (m)
A	1.11		C	150	X		VC			
B					X					
C					X					
D					X					
E					X					
F					X					

Outgoing Pipes

X	1.12		C	150	X		VC			
Y					X					

Cover Opening at narrowest	610 x 610	mm	Chamber Dimension	1050	mm	Evidence of Surcharge	
Shaft at narrowest	610 X 610	mm	Shaft Depth (from CL)	380	mm	OX / H2S / METH Toxic atmosphere	

MANHOLE CONSTRUCTION DETAILS

☒ Pre Cast Concrete ☐ In Situ Concrete ☐ Brick ☐ GRP ☐ Arch ☐ Corbel ☐ Taper ☐ Side Entry

☒ Reducing Slab ☐ Segments ☐ No. of Landings 2 No. Steps ☐ No. of Ladders

2 No. of Regulating Brick Courses

CONDITION INFORMATION (specific in remark)

	Cover	Shaft	Irons / Ladders	Chamber	Benching	Channel
OK	☒	☒	☒	☒	☒	☒
Needs attention	☐	☐	☐	☐	☐	☐
Urgent attention	☐	☐	☐	☐	☐	☐

Depth of Flow		mm	Depth of Silt		mm	Height of Surcharge from CL		mm

REMARKS

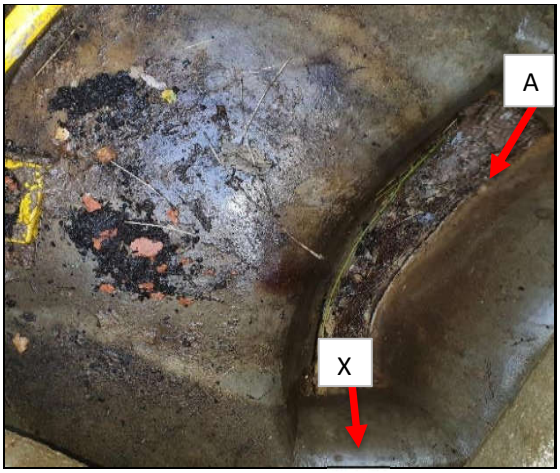
POSSIBLE REDUNDANT LINE

★ *See Overleaf for Key*

LOCATION SKETCH



PLAN OF MANHOLE



STATUS	PU : Public	PR : Private	WC : Culverted Watercourse	} Applies to main outlet	
	24 : Section 24	HD : Highway Drain			
FUNCTION	F : Foul	C : Combined	S : Surface Water	} Applies to main outlet	
MANHOLE TYPE	IF : Infall	MH : Manhole	CP : Catchpit	CSO :Consented Sewer Overflow	
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	GU : Gully	OF : Outfall	SA : Soakaway	PS :Pumping Station	
COVER DUTY	L : Light Duty	M : Medium Duty	H : Heavy Duty		
SHAPE	C : Circular	E : Egg	R : Rectangular		
	S : Square	T : Trapezoidal	A : Arched		
	B : Barrel	H : Horseshoe (Inverted U)	U : U-shaped with flat top		
	X : Other (state in words)				
PIPE (OR LINING) MATERIAL	AK : Alkathene	AC : Asbestos Cement	BR : Brick		
	CI : Cast Iron	SI : Spun (Grey) Iron	CO : Concrete		
	CSB : Concrete Segments (Bolted)	CSU : Concrete Segments (Unbolted)	CC : Concrete Box Culvert		
	DI : Ductile Iron	GRC : Glass Reinforced Concrete	GRP : Glass Reinforced Plastic		
	PSC : Plastic/Steel Composite	PVC : Polyvinyl Chloride	PE : Polyethylene		
	RPM : Reinforced Plastic Matrix	ST : Steel	VC : Vitrified Clay		
	PP : Polypropylene	PF : Pitch Fibre	MAC : Masonry, Coursed		
	MAR : Masonry, Randon Courses	XXX : Other (State in remarks)			
LINING	BL : Bitumen	RL : Resin	IS : Insituform		
	CL : Cement	PI : Plastic			

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Layer Surveys Ltd Manhole Survey Card

Card No	25	Map No	
Catchment		MH No	MH S16
Location	Aldi Moston		
Town			

★		★		★		
PR	Status		Syphon	SW	Function	MH	MH Type	24/11/2021	Date of Survey

COVER DETAILS

☒ Square ☐ Rectangle ☐ Triangle ☒ Dbl Triangle ☐ Circular ☐ Oval ☐ Other ☐ Multiple ☐ Hinged ☐ Lockable

Cover Level ____ m H / M / L Cover Duty ★ H Initials JP

PIPE DETAILS

Incoming Pipes

Clockwise from pipe X

Pipe	Depth from Invert (m)	Upstream / Downstream MH Ref	Shape	Size (mm) Height		Width	Pipe Mat	Lining Mat	Back Drop Dia (mm)	Back Drop Depth (m)
A	1.37		C	150	X		VC			
B	1.37		C	150	X		VC			
C					X					
D					X					
E					X					
F					X					

Outgoing Pipes

X	1.40		C	225	X		VC			
Y					X					

Cover Opening at narrowest	610 x 610 mm	Chamber Dimension	900 mm	Evidence of Surcharge	
Shaft at narrowest	610 X 610 mm	Shaft Depth (from CL)	500 mm	OX / H2S / METH Toxic atmosphere	

MANHOLE CONSTRUCTION DETAILS

☒ Pre Cast Concrete ☐ In Situ Concrete ☐ Brick ☐ GRP ☐ Arch ☐ Corbel ☐ Taper ☐ Side Entry

☒ Reducing Slab ☐ Segments ☐ No. of Landings 2 No. Steps ☐ No. of Ladders

3 No. of Regulating Brick Courses

CONDITION INFORMATION (specific in remark)

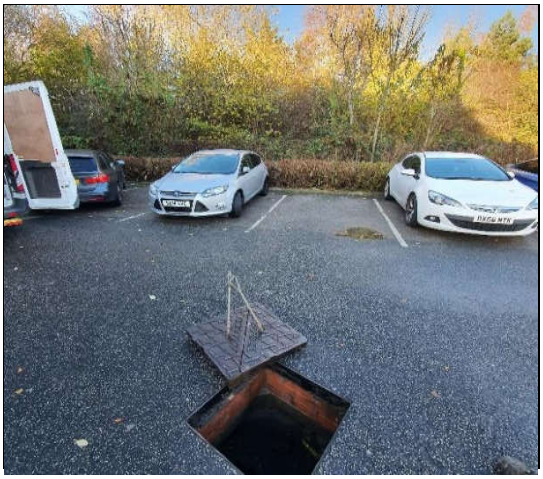
	Cover	Shaft	Irons / Ladders	Chamber	Benching	Channel
OK	☒	☒	☒	☒	☒	☒
Needs attention	☐	☐	☐	☐	☐	☐
Urgent attention	☐	☐	☐	☐	☐	☐

Depth of Flow ____ mm Depth of Silt ____ mm Height of Surcharge from CL ____ mm

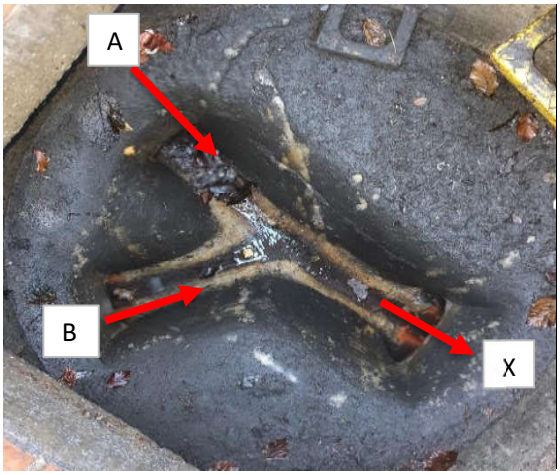
REMARKS

★ *See Overleaf for Key*

LOCATION SKETCH



PLAN OF MANHOLE



STATUS	PU : Public	PR : Private	WC : Culverted Watercourse	} Applies to main outlet	
	24 : Section 24	HD : Highway Drain			
FUNCTION	F : Foul	C : Combined	S : Surface Water	} Applies to main outlet	
MANHOLE TYPE	IF : Infall	MH : Manhole	CP : Catchpit	CSO :Consented Sewer Overflow	
	LH : Lamphole	RE : Rodding Eye	SO : Storm Overflow	DS :Dual system Manhole	
	GU : Gully	OF : Outfall	SA : Soakaway	PS :Pumping Station	
COVER DUTY	L : Light Duty	M : Medium Duty	H : Heavy Duty		
SHAPE	C : Circular	E : Egg	R : Rectangular		
	S : Square	T : Trapezoidal	A : Arched		
	B : Barrel	H : Horseshoe (Inverted U)	U : U-shaped with flat top		
	X : Other (state in words)				
PIPE (OR LINING) MATERIAL	AK : Alkathene	AC : Asbestos Cement	BR : Brick		
	CI : Cast Iron	SI : Spun (Grey) Iron	CO : Concrete		
	CSB : Concrete Segments (Bolted)	CSU : Concrete Segments (Unbolted)	CC : Concrete Box Culvert		
	DI : Ductile Iron	GRC : Glass Reinforced Concrete	GRP : Glass Reinforced Plastic		
	PSC : Plastic/Steel Composite	PVC : Polyvinyl Chloride	PE : Polyethylene		
	RPM : Reinforced Plastic Matrix	ST : Steel	VC : Vitrified Clay		
	PP : Polypropylene	PF : Pitch Fibre	MAC : Masonry, Coursed		
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LINING	BL : Bitumen	RL : Resin	IS : Insituform		
	CL : Cement	PI : Plastic			

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Layer Surveys Ltd Manhole Survey Card

Card No	26	Map No	
Catchment		MH No	MH S13
Location	Aldi Moston		
Town			

★		★		★		
PR	Status		Syphon	SW	Function	MH	MH Type	24/11/2021	Date of Survey

COVER DETAILS

☒ Square ☐ Rectangle ☐ Triangle ☒ Dbl Triangle ☐ Circular ☐ Oval ☐ Other ☐ Multiple ☐ Hinged ☐ Lockable

			★		
Cover Level		m	H / M / L Cover Duty	H	Initials	JP

PIPE DETAILS

Incoming Pipes

Clockwise from pipe X

Pipe	Depth from Invert (m)	Upstream / Downstream MH Ref	Shape	Size (mm) Height		Width	Pipe Mat	Lining Mat	Back Drop Dia (mm)	Back Drop Depth (m)
A	2.04		C	900	X		CON			
B	1.49		C	225	X		VC			
C	1.47		C	150	X		VC			
D					X					
E					X					
F					X					

Outgoing Pipes

X	2.05		C	900	X		CON			
Y					X					

Cover Opening at narrowest	610 x 610	mm	Chamber Dimension	1500	mm	Evidence of Surcharge	
Shaft at narrowest	610 X 610	mm	Shaft Depth (from CL)	550	mm	OX / H2S / METH Toxic atmosphere	

MANHOLE CONSTRUCTION DETAILS

☒ Pre Cast Concrete ☐ In Situ Concrete ☐ Brick ☐ GRP ☐ Arch ☐ Corbel ☐ Taper ☐ Side Entry

☒ Reducing Slab ☐ Segments ☐ No. of Landings 2 No. Steps ☐ No. of Ladders

3 No. of Regulating Brick Courses

CONDITION INFORMATION (specific in remark)

	Cover	Shaft	Irons / Ladders	Chamber	Benching	Channel
OK	☒	☒	☒	☒	☒	☒
Needs attention	☐	☐	☐	☐	☐	☐
Urgent attention	☐	☐	☐	☐	☐	☐

Depth of Flow		mm	Depth of Silt		mm	Height of Surcharge from CL	1300	mm

REMARKS

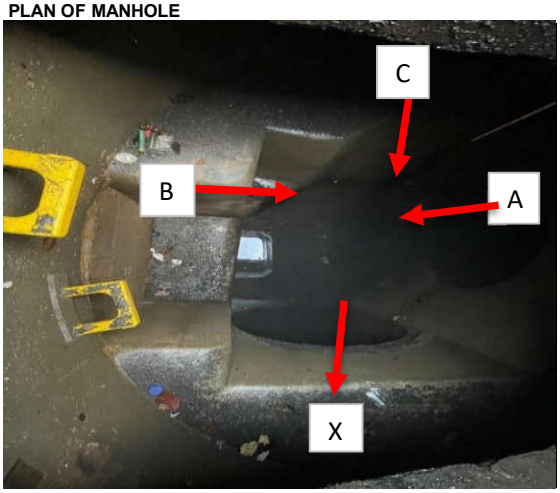
MANHOLE SURCHARGED

★ *See Overleaf for Key*

LOCATION SKETCH



PLAN OF MANHOLE



STATUS	PU : Public	PR : Private	WC : Culverted Watercourse	}	Applies to main outlet
	24 : Section 24	HD : Highway Drain			
FUNCTION	F : Foul	C : Combined	S : Surface Water	}	Applies to main outlet
MANHOLE TYPE	IF : Infall	MH : Manhole	CP : Catchpit	CSO	:Consented Sewer Overflow
	LH : Lamphole	RE : Rodding Eye	SO : Storm Overflow	DS	:Dual system Manhole
	GU : Gully	OF : Outfall	SA : Soakaway	PS	:Pumping Station
COVER DUTY	L : Light Duty	M : Medium Duty	H : Heavy Duty		
SHAPE	C : Circular	E : Egg	R : Rectangular		
	S : Square	T : Trapezoidal	A : Arched		
	B : Barrel	H : Horseshoe (Inverted U)	U : U-shaped with flat top		
	X : Other (state in words)				
PIPE (OR LINING) MATERIAL	AK : Alkathene	AC : Asbestos Cement	BR : Brick		
	CI : Cast Iron	SI : Spun (Grey) Iron	CO : Concrete		
	CSB : Concrete Segments (Bolted)	CSU : Concrete Segments (Unbolted)	CC : Concrete Box Culvert		
	DI : Ductile Iron	GRC : Glass Reinforced Concrete	GRP : Glass Reinforced Plastic		
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LINING	BL : Bitumen	RL : Resin	IS : Insituform		
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Layer Surveys Ltd Manhole Survey Card

Card No	27	Map No	
Catchment		MH No	MH S14
Location	Aldi Moston		
Town			

★		★	★	
PR Status	Syphon	SW Function	MH MH Type	24/11/2021 Date of Survey

COVER DETAILS

☒ Square ☐ Rectangle ☐ Triangle ☒ Dbl Triangle ☐ Circular ☐ Oval ☐ Other ☐ Multiple ☐ Hinged ☐ Lockable

		★	
Cover Level	m	H / M / L Cover Duty	H Initials JP

PIPE DETAILS

Incoming Pipes

Clockwise from pipe X

Pipe	Depth from Invert (m)	Upstream / Downstream MH Ref	Shape	Size (mm) Height		Width	Pipe Mat	Lining Mat	Back Drop Dia (mm)	Back Drop Depth (m)
A	2.09		C	900	X		CON			
B	1.25		C	150	X		VC			
C					X					
D					X					
E					X					
F					X					

Outgoing Pipes

X	2.10		C	225	X		VC			
Y					X					

Cover Opening at narrowest	610 x 610 mm	Chamber Dimension	1300 mm	Evidence of Surcharge	
Shaft at narrowest	610 X 610 mm	Shaft Depth (from CL)	390 mm	OX / H2S / METH Toxic atmosphere	

MANHOLE CONSTRUCTION DETAILS

☒ Pre Cast Concrete ☐ In Situ Concrete ☐ Brick ☐ GRP ☐ Arch ☐ Corbel ☐ Taper ☐ Side Entry

☒ Reducing Slab ☐ Segments ☐ No. of Landings 2 No. Steps ☐ No. of Ladders

3 No. of Regulating Brick Courses

CONDITION INFORMATION (specific in remark)

	Cover	Shaft	Irons / Ladders	Chamber	Benching	Channel
OK	☒	☒	☒	☒	☒	☐
Needs attention	☐	☐	☐	☐	☐	☐
Urgent attention	☐	☐	☐	☐	☐	☒

Depth of Flow	mm	Depth of Silt	mm	Height of Surcharge from CL	1300 mm

REMARKS

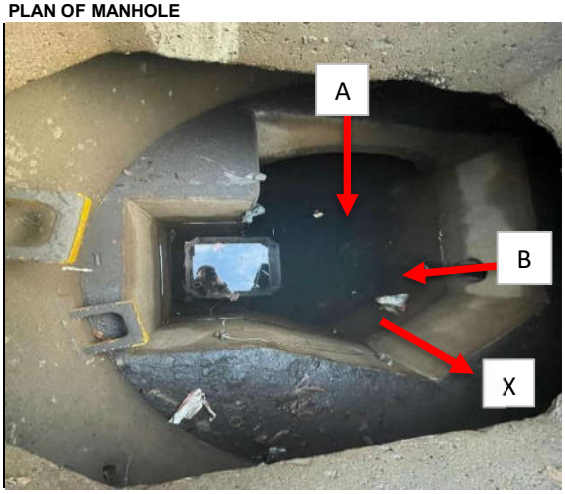
MANHOLE SURCHARGED

★ *See Overleaf for Key*

LOCATION SKETCH



PLAN OF MANHOLE

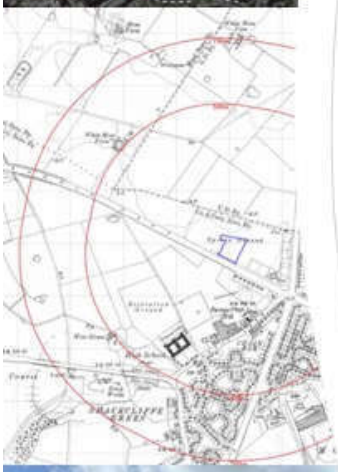


STATUS	PU : Public	PR : Private	WC : Culverted Watercourse	}	Applies to main outlet
	24 : Section 24	HD : Highway Drain			
FUNCTION	F : Foul	C : Combined	S : Surface Water	}	Applies to main outlet
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	GU : Gully	OF : Outfall	SA : Soakaway	PS	:Pumping Station
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SHAPE	C : Circular	E : Egg	R : Rectangular		
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	B : Barrel	H : Horseshoe (Inverted U)	U : U-shaped with flat top		
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	MAR : Masonry, Randon Courses	XXX : Other (State in remarks)			
LINING	BL : Bitumen	RL : Resin	IS : Insituform		
	CL : Cement	PI : Plastic			

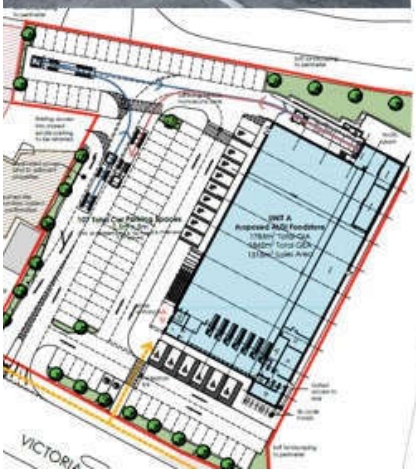
APPENDIX 7

EEG PHASE 1 GEO-ENVIRONMENTAL DESK STUDY REPORT MARCH 2020









EARTH ENVIRONMENTAL & GEOTECHNICAL

Phase I Geo-Environmental Desk Study

Victoria Avenue

Moston

March 2020

On behalf of

ALDI

Earth Environmental & Geotechnical Ltd
Houldsworth Mill Business Centre
Houldsworth Street
Stockport
SK5 6DA

Tel : 01619756088

Email
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VICTORIA AVENUE

MOSTON

PHASE I GEOENVIRONMENTAL DESK STUDY

FOR

ALDI STORES UK

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1.0 INTRODUCTION

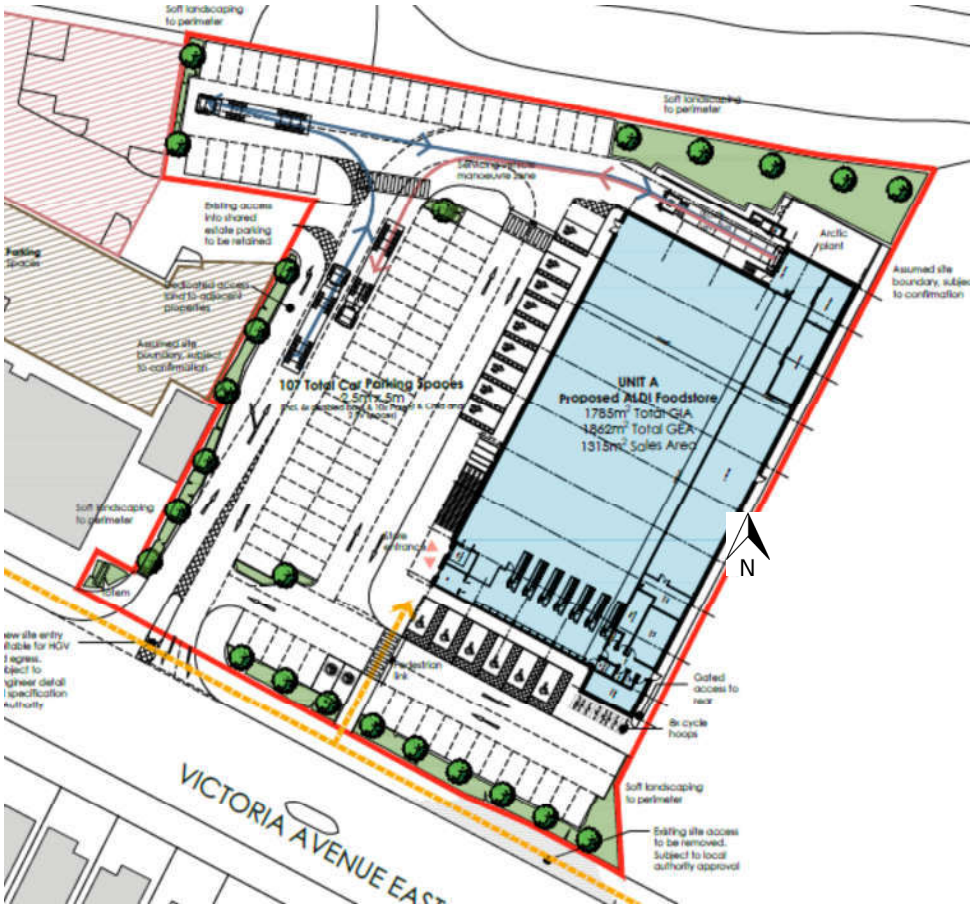
Appointment

1.1 Earth Environmental & Geotechnical Ltd have been commissioned by SWF Consulting, on behalf of ALDI Stores UK (the client), to undertake a Phase I Environmental Desk Study for the proposed development at Victoria Avenue, Moston.

1.2 It is understood that the Client intends to erect a foodstore with associated vehicle parking facilities. The store will cover a total area of 1862m^2 and there will be 107 parking spaces. Access will be provided via Victoria Avenue East.

1.3 A proposed development plan for the site is shown in Figure 1 below.

Figure 1 Proposed Development Plan



Objective

1.4 The purpose of the Desk Study is to collate available geological and environmental data for the site (and its environment) and provide a preliminary geotechnical and geo-environmental appraisal, with a site-specific conceptual model. This enables a preliminary assessment of geo-environmental risks to be undertaken and, if necessary, provides information for the design of a

Phase 2 Ground Investigation.

Scope

1.5 The Phase I Environmental Desk Study comprises of a site reconnaissance visit and a review of the following information sources.

- British Geological Survey online maps.
- Google Earth imagery.
- Environment Agency online mapping data.
- Historical Ordnance Survey maps.
- The site and surrounding areas environmental, geological and mining data presented in the site specific GroundSure Reports (Appendix 1).
- Coal Authority Interactive Viewer.
- Manchester City Council Planning Portal.

2.0 SITE LOCATION AND DESCRIPTION

2.1 The site is located 1.6km north of the centre of Moston. The approximate National Grid Reference for the centre of the site is SD 88213 03383 (X: 388213, Y: 403383) with the closest postcode being M9 7GH.

2.2 The site is an irregular shaped parcel of land with maximum dimensions of approximately 127m north east to south west and 124m north west to south east. The area of the site is 0.68ha with a flat and level topography.

2.3 Currently on site are 2no. restaurant style businesses in the south western section. There is an outdoor seating area associated with these businesses. The north eastern area is a large macadam car park. There is an oblong shaped area in the northern most part of the site covered with grass and trees. The boundaries to the north and east are made of metal fencing. The southern boundary is made up by the building. The western most boundary is partially open and partially made up of a restaurant building on site.

2.4 Immediately north of the site is a wooded area containing an unspecified concrete block housing manhole covers and vents. Beyond that is the M60. To the east is a sports field. South of the site is Victoria Avenue East. Directly west of the site is an apartment block, just north of which are the associated macadam parking facilities. Past that to the west is a gym with parking.

2.5 A location plan is shown below as Figure 2 together with a site photograph as Figure 3 (overleaf).

Figure 2 Site Location Plan



Figure 3 Site Photograph



Site Utility Services

2.6 Site service plans have not been obtained for the site on behalf of the client. The status of all services should be checked prior to any development (including site investigation) commencing.

3.0 ENVIRONMENTAL SETTING

3.1 The geology of the site is covered by British Geological Survey (BGS) online data and the site specific GroundSure GeoInsight report (Appendix 1).

3.2 Environmental conditions are covered by Environment Agency (EA) and British Geological Survey (BGS) online data, and the site specific GroundSure EnviroInsight report (Appendix 1).

Geology

3.3 The BGS states that the site is not underlain by artificial deposits. However, is should be noted made ground is found to be 3m north of the site.

3.4 The site is underlain by 2no. superficial deposits, Devensian Diamicton Till and Peat.

3.5 The solid geology beneath the site is shown to be the Pennine Middle Coal Measures Formation comprising mudstone, coal seams, siltstone and sandstone.

3.6 There are 18no. records of linear features within 500m of the site boundary. There are 2no. features located on site. The first is an inferred coal seam and the second is a buried channel or valley margin.

3.7 There are no records of landslips within 500m of the site boundary.

3.8 There are 43no. borehole records identified within 250m of the site. The closest record named Victoria Avenue East 6 located 14m to the south west of the site. It is confidential and therefore no information is available. The closest available record is M66 MHR OUTER R/RD BHF46 and is located 71m to the north of the site. It describes a 10.00m borehole encountering clay with strengths varying from soft to stiff, generally increasing with depth.

3.9 The site is in an area where the hazard rating is negligible for soluble rocks. It is very low with regard to running sands, collapsible deposits, landslides and shrink-swell clays. The risk with regard to compressible deposits is considered to be high, due to the presence of peat.

Ground Workings

3.10 There are 8no. records of historical surface ground working features identified within 250m of the site boundary. The closest record refers to an unspecified disused pit located 111m to the north of the site. Other records in the vicinity refer to further disused pits, ponds and unspecified ground workings.

Mining and Other Underground Workings

3.11 There is 1no. record of a historical mining area within 1km of the site boundary. This record refers to Greengate Brickworks located 244m to the north west of the site. It is a historical clay and shale surface mineral working.

3.12 Reference to the Coal Authority Interactive viewer shows the site to be located within a Development High Risk Area, associated with a coal seam outcropping on the site.

3.13 There are no records for non-coal mining areas located within 1km of the site.

3.14 There are no areas of brine extraction, gypsum extraction, tin mining or clay mining within 1km of the site.

3.15 There are no records for non-coal cavities or natural cavities identified within 1km of the site.

3.16 There are 9no. records for historical underground working features identified within 1km of the site. The closest record refers to a Collieries in 1906 located 532m to the south of the site. Other records refer to further Collieries, unspecified old shafts and unspecified mines.

Radon Potential

3.17 The property is not located in a Radon Affected Area as less than 1% of properties are above the Action Level. Therefore, radon protection measures are not necessary.

Hydrogeology and Hydrology

3.18 The superficial deposits are classified by the Environment Agency (EA) as an unproductive Aquifer. The superficial deposits both have a mixed flow type and very low to high permeability. The BGS states the following:

> *'These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow.'*

3.19 The Pennine Middle Coal Measures are classified by the Environment Agency (EA) as a Secondary A Aquifer with a fracture flow type and low to moderate permeability. The BGS states the following:

> *Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers.'*

3.20 The groundwater vulnerability and soil leaching potential of the soils at the site has been classified as having low vulnerability and low leaching potential the BGS states:

> *'Areas that provide the greatest protection from pollution. They are likely to be characterised by low leaching soils and/or the presence of superficial deposits characterised by a low permeability.'*

3.21 There are no groundwater abstraction licence records within 2km of the site.

3.22 There are no surface water abstraction licence records within 2km of the site.

3.23 There are no potable water abstraction licence records within 2km of the site.

3.24 The site is not located within 500m of a Source Protection Zone or Source Protection Zone within a confined aquifer.

3.25 There are no water network entries within 500m of the site.

3.26 There are no surface water features identified within 250m of the site.

Landfill & Waste Management Activity

3.27 There is 1no. record for a current Environment Agency landfill record within 500m of the site. This record refers to a Co-Disposal Landfill site located 82m to the north of the site. No further details regarding waste type or dates of activity are provided.

3.28 There are 4no. records of historic Environment Agency landfill sites within 500m of the site. The closest record refers to Chadderton Landfill located 81m to the north of the site. The site received Inert, Industrial, Commercial, Household and Special waste beginning in 1948. The licence was surrendered in 1996.

3.29 There are no records of a BGS/DoE non-operational landfill sites within 500m of the study site.

3.30 There are no records of landfills from the Local Authority and Historical Mapping Records within 500m of the site.

3.31 There is 1no. record of waste treatment, transfer or disposal sites within 500m of the study site. The closest record refers to Higher Gibfield Farm located 371m to the south of the site. It is used for the storage of sludge.

3.32 There are 3no. records of Environment Agency/Natural Resources Wales licensed waste sites within 500m of the site. The closest record refers to Chadderton Landfill site located 333m to the north of the site. It is a Co-Disposal Landfill site.

Industrial Land Use Information

3.33 There are 29no. records of potentially contaminative historical land uses identified within 500m of the site. The closest record refers to an unspecified disused pit located 111m to the north of the site. Other records in the vicinity refer to unspecified depots, unspecified pits, railway sidings, unspecified mills, sponge cloth mills, unspecified disused pits, cotton waste mills, cloth mills, unspecified factories, unspecified ground workings, brick works, unspecified works, unspecified commercial/industrial, engineering works, cuttings and unspecified warehouses.

3.34 There are 6no. records of potentially contaminative current land uses identified within 500m of the site. The closest record refers to travelling cranes and gantries located 36m to the north of the site. Other records in the vicinity refer to further travelling cranes and gantries, electricity substations and vehicle repair, testing and servicing facilities.

3.35 There are 12no. records of historical tanks identified within 500m of the site. The closest record refers to tanks located 221m to the south of the site.

3.36 There are 7no. records of historical energy features identified within 500m of the site. The closest record refers to an electricity substation located 182m to the east of the site from 1980-1997.

3.37 There are no records for current petrol or fuel sites within 500m of the site.

3.38 There are no records of historical petrol or fuel sites within 500m of the site.

3.39 There are no historical garage and motor vehicle repair site records identified within 500m of the site.

3.40 There are no National Grid high voltage underground electricity transmission cables within 500m of the site.

3.41 There are no National Grid high-pressure gas transmission pipelines within 500m of the site.

3.42 There are 4no. historical railway and tunnel features identified within 250m of the site. The closest record refers to railway sidings located 137m to the north east of the site in 1966.

3.43 There are no historical railway lines identified within 250m of the site.

3.44 There are no current active railway lines identified within 250m of the site.

3.45 There are no underground railway lines or tunnels identified within 250m of the site.

3.46 The site is not within 5km of the route of the High Speed 2 rail project.

3.47 The site is not within 500m of the route of the Crossrail 1 rail project.

Environmental Permits, Incidents and Registers

3.48 The Groundsure Report includes records of environmental permits, incidents and registers within 500m of the site, which are summarised in Table 1 below.

Table 1: Environmental Permits, Incidents and Registers within 500m of the Site

Permit/Incident/Register	Number
Sites Determined as Contaminated Land under Part 2A EPA1990	0
Control of Major Accident Hazards (COMAH)	0
Regulated explosive sites	0
Hazardous substance storage/usage	0
Historical licensed industrial activities (IPC)	0
Licensed industrial activities (Part A (1))	0
Licensed pollutant release (Part A (2)/B)	0
Radioactive Substance Authorisations	0
Licensed Discharge Consents to controlled waters	0
Pollutant release to surface water (Red List)	0
Pollutant release to public sewer	0
List 1 Dangerous Substances	2
List 2 Dangerous Substances	0
Pollution Incidents (EA/NRW)	0
Pollution Inventory Substances	0
Pollution Inventory waste transfers	0

Permit/Incident/Register	Number
Pollution inventory radioactive waste	0

3.49 There are 2no. records for List 1 Dangerous Substances within 500m of the study site. The closest record refers to an active licence with regard to Cadmium at a site located 370m to the north of the site.

Environmentally Sensitive Sites

3.50 There are 3no. Sites of Special Scientific Interest (SSSI) within 2km of the study site. The closest is the Rochdale Canal located 1km to the north east of the site.

3.51 There are 3no. Special Areas of Conservation (SAC) within 2km of the study site. The closest is the Rochdale Canal located 1km to the north east of the site with regards to floating water-plantain.

3.52 There are no Special Protection Areas within 2km of the study site.

3.53 There are 2no. records of Ancient Woodland within 2km of the study site. The closest is Boggart Hole Clough located 827m to the south west of the site.

3.54 There are 2no. records of Local Nature Reserves (LNR) within 2km of the study site. The closest is Boggart Hole Clough located 1.1km to the south west of the site.

3.55 There site is located within a Nitrate Vulnerable Zone.

3.56 There are no records of National Parks (NP) within 250m of the study site.

3.57 There are no records of Greenbelt land within 2km of the study site.

3.58 There are no other records for Designated Environmentally Sensitive Sites within 2km of the study site.

Ecology

3.59 An ecological assessment of the site falls outside the brief of this report. Where considered necessary, advice should be sought from an ecological specialist in this respect.

Archaeology

3.60 An archaeological assessment falls outside the brief of this report. Where considered necessary, advice should be sought from an archaeological specialist in this respect.

Potential Flood Risks

3.61 Detailed assessment of flood risks is outside the scope of this report.

3.62 However, the site does not lie within 50m of an Environment Agency Zone 2 or Zone 3 floodplain.

3.63 There are no records of flood defences, areas benefitting from flood defences or areas used for flood storage within 250m of the site.

3.64 According to the Environment Agency the highest risk of flooding on site is moderate.

Previous Site Investigations

3.65 Earth Environmental & Geotechnical Ltd are not aware of any previous site investigations carried out for the site.

4.0 SITE HISTORY

4.1 The historical development of the site has been determined by reference historical plans and Google Earth imagery. The reviewed historical plans comprise only readily available records and may be limited; however, the information available to date indicates that additional searches are unlikely to add to our understanding of the site. The earliest available historical mapping covering the site dates back to 1848.

4.2 The site history is summarised in Table 2, below, followed by selected extracts from maps and aerial photographs.

Table 2: Summary of Site History

Date	On-Site History	Surrounding Land Use History
1848 1:10,560	There is a road running northwest to southeast across the centre of the site. The remainder of the site is made up of agricultural fields.	All of the areas directly surrounding the site are agricultural fields. There are residential properties 175m to the southwest 500m east of the site is a railway line running north south. There is an old coal pit 675m to the south of the site. 1km north west of the site is a sand and marl pit.
1891 1:10,560 1893 1:2,500	Along the northern boundary of the site is a pond.	There are many small ponds across the entire area. 350m south of the site are residential properties and places of worship. 600m to the southeast of the site are reservoirs. Sand and marl pit is no longer in use.
1906-1907 1:10,560 1909 1:2,500	The site remains unchanged.	350m south, 400m south east and 800m south east are increased residential properties. 350m south is a cotton waste mill.
1915-1916 1:10,560 1922 1:2,500 1923 1:10,560	The site remains unchanged.	Sponge Cloth Mill is 330m south. Moston mill is 650m south east. 700m south west are clay pits.
1932-1933 1:10,560 1932-1933 1:2,500	The site makes up part of a large sports field.	Immediately south of the site is Victoria Avenue, East. 50m south are residential properties. 150m south east is a sports pavilion surrounded by bowling greens, a putting green and tennis grounds. 200m east and south east are residential properties.

Date	On-Site History	Surrounding Land Use History
		400m south east is an engineering works. 400m south west is a high school. There are large residential estates 400m south and 750m south east of the site. There is a brick works 650m south west of the site. There are buildings 750m north east.
1938 1:10,560	The site remains unchanged.	There are residential properties 250m east, 550m east 700m south west.
1950-1951 1:1,250 1951 1:2,500 1952 1:1,250	The site has a track and a thin and of vegetation running along its most southern boundary, parallel to Victoria Avenue, East.	There are residential properties just beyond Victoria Avenue to the south of the site. There are residential properties 120m west. There is a clay pit 150m north east. There is a factory 250m north east.
1953-1958 1:1,250 1956 1:10,560	The site remains unchanged.	There are residential properties 130m to the south west. There is a brick works 400m north. 500m and 650m south west are schools. 500m west are more residential properties. 500m north west is a golf course. 650m south west are residential properties. The buildings 750m north are engineering works.
1966 1:10,560	The site remains unchanged.	There are residential properties 150m south west. 800m north east is a generating station
1967 1:1,250 1969 1:2,500	The site remains unchanged.	The residential properties 20m to the south west across Victoria Avenue are no longer present. There is a pond 150m north east.
1974-1975 1:1,250 1975 1:10,000 1975-1976 1:1,250 1980 1:10,000	The site remains unchanged.	All of the residential properties to the west of the site are no longer present. They are replaced by infrequent individual residential properties. There is a large residential building complex 50m south west of the site. There is a disused pit 90m north and 700m south west of the site. 100m south west of the site is a work centre.

Date	On-Site History	Surrounding Land Use History
1980-1985 1:1,250		120m north west is a depot. The tennis courts to the east are no longer present. 750m north west a factory and depot. 750m south east are residential properties. 750m south west is a clay pit.
1988 1:10,000 1990-1992 1:1,250 1992-1993 1:1,250	The site remains unchanged.	250m south west are residential properties. The works 450m north east is no longer present. There is a works 500m north. 550 north of the site is a warehouse. 600m east is an electricity substation. There are residential properties 750m north. The reservoirs to the south of the site are no longer present.
2001 1:10,000	There is a restaurant in the south part of the site.	The depot to the west of the site is no longer present. Greengate industrial park is 650m north of the site. 750m north east are industrial buildings.
2003 1:1,250	The site is laid out as it is presently. There is a car park in the northern section of the site and there is a separate soft cover area in the north west.	30m north is the M60. 30m south of the site are residential properties. 100m west is an electricity substation.
2010 1:10,000	The site remains unchanged.	20m south west are residential properties. 100m west is an unspecified building. 400m west is a playing field. 400m south west are residential properties. Factory 250m north east has reduced in size. 750m north east is an industrial building.
2020 1:10,000	There is a road running along the eastern edge of the site and cutting across to the western boundary.	There is an apartment building directly west of the site. There are green spaces directly north of the site running along the border of the M60, 300m west, 520m west, and 600m south of the site. There is an education facility 500m west. There are ponds 500m north west, 600m north west and 800m north west.

Date	On-Site History	Surrounding Land Use History
Google Earth Aerial Imagery 2000	The site has restaurant along its southern most border. North of this is a macadam car park. There is an area of soft cover in the north western corner of the site.	Directly north of the site is a thing parcel of land followed by the M60. At this time, it is under construction. East of the site is playing field. South of the site is Victoria Avenue East, beyond which are residential properties. West is a construction site beyond which is a gym. 60m north of the site are grassy fields. 110m north east is a large car park. 220m east are residential properties. 250m north east is a factory. 270m south west is a high-rise residential building. There are 2no. education facilities c. 490m south west. 540m east is a railway. 650m west are further high-rise residential properties.
Google Earth Aerial Imagery 2003	The site remains unchanged.	The construction site to the west of the site is now a completed car park.
Google Earth Aerial Imagery 2005	The site remains unchanged.	There is a construction site 260m south west.
Google Earth Aerial Imagery 2009-2019	The site remains unchanged.	There are apartment buildings directly west of the site. The construction site 260m south west is now a residential estate.

Figure 4 OS Map Extract 1848

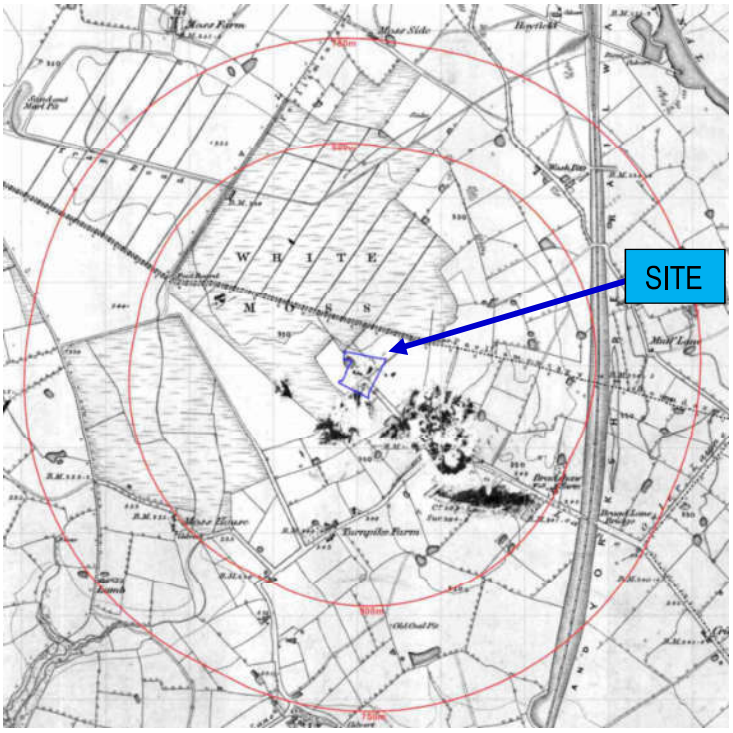


Figure 5 OS Map Extract 1932-1933

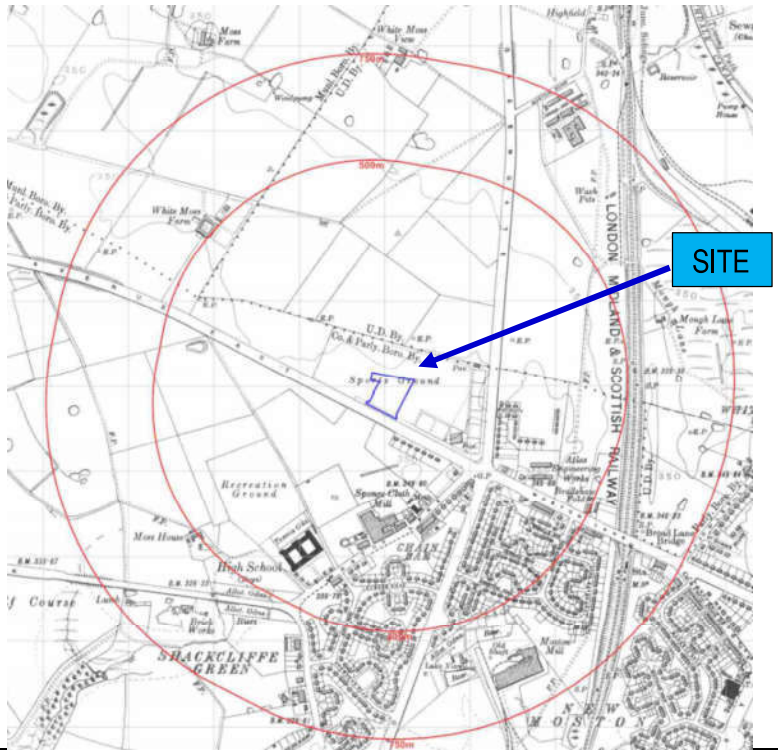


Figure 6 OS Map Extract 2001

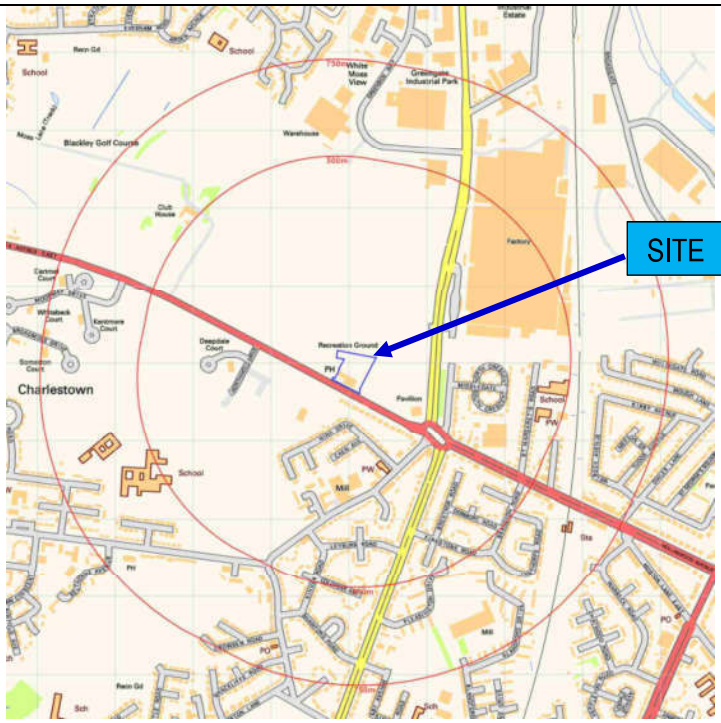


Figure 7 Google Earth Aerial Photograph 2017



5.0 SITE WALKOVER SURVEY

5.1 A walkover survey was completed on 12th March 2020. The photographs and notes from this survey are appended to this report as Appendix 2 and Appendix 3 respectively.

5.2 The site is accessed via Victoria Avenue East in the south east corner of the site. It currently comprises 2no. restaurants in the southern area of the site. The northern section is made up of a macadam car park. In the north western corner of the site is an area of soft cover with grass and trees.

5.3 The site is understood to be occupied and in use for its above described purposes.

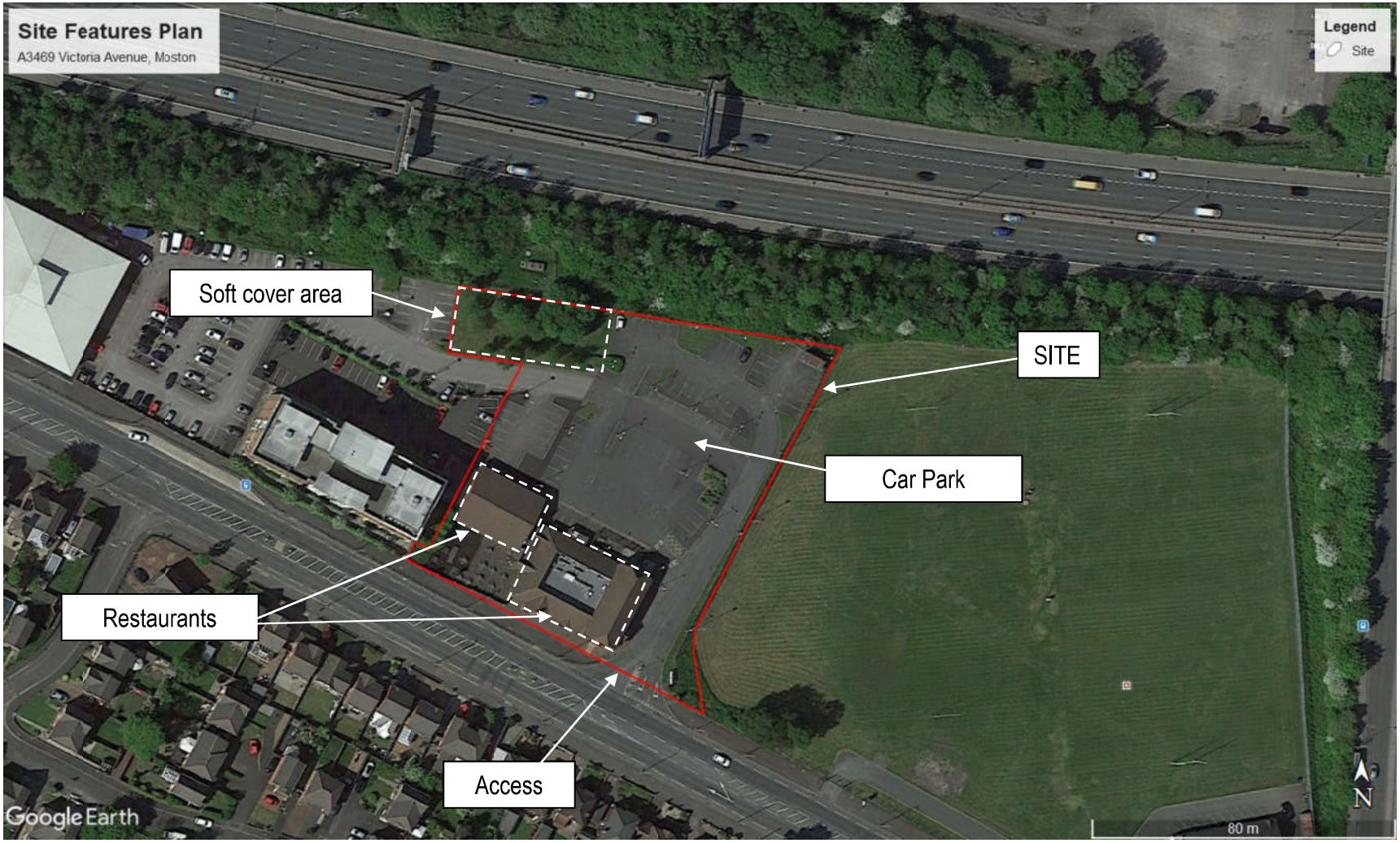
5.4 The site is generally by macadam with small areas of grassy cover around the northern and eastern boundary as well as the area in the north west corner.

5.5 The site is generally bordered by metal fencing to the north and east and partially to the west. The buildings on site make up the rest if the southern and western boundaries.

5.6 The immediate surrounding areas to the north is a heavily vegetated strip of land beyond which is the M60. The area to the east is a playing field. To the south and west are residential properties.

5.7 A site features plan is presented as Figure 8 overleaf.

Figure 8 Site Features Plan



6.0 PRELIMINARY CONTAMINATION RISK ASSESSMENT

Introduction

6.1 The following paragraphs outline a Preliminary Risk Assessment (PRA) for the site based on the above desk study information as defined by DEFRA and the EA Model Procedures for the Management of Land Contamination, CLR11(2004).

6.2 Table 5 provides a Preliminary Conceptual Model (PCM) which considers the source-pathway-receptor linkages present alongside the likelihood, severity and risk level as defined within Table 3 and Table 4 below. The assessment of probability, a modified risk table, and certain consequence definitions are based on CIRIA C552 and CLR11.

6.3 Table 5 considers whether a pollution linkage is potentially present and provides a preliminary qualitative assessment of risk based on the information currently available. Where a possible linkage is identified, it does not necessarily mean that a significant risk exists but indicates that further information is required through appropriate site investigation to substantiate the conceptual model.

6.4 The PCM/PRA is based on a continued commercial end use.

Table 3: Consequence, Probability and Risk

Probability	Consequence,	Risk
High Likelihood- There is a pollution linkage and an event either appears very likely in the short term and almost inevitable over the long term, or there is evidence at the receptor of harm or pollution	Very High – acute risk to the human health likely to result in significant harm. Risk of severe or irreversible effect on ground/surface water quality. Catastrophic damage to buildings / property.	Very High – there is a high potential that the source-pathway-receptor scenarios may give rise to harm to human health or the environment and remedial action is likely to be required.
Likely – there is a pollution linkage and all the elements are present, which means that it is probable an event will occur. Circumstances are such that an event is not inevitable, but possible in the short term and likely over the long term.	High – Severe or irreversible effect on human health. Temporary severe or irreversible effect on ground/surface water quality. Reduction of water quality rendering groundwater or surface water unfit to drink and/or substantial adverse impact on groundwater dependant environmental receptors.	High – it is likely that the source-pathway-receptor scenarios may give rise to an impact on human health or the environment, which may require remediation and/or control measures to mitigate risks
Low likelihood– there is a pollutant linkage and circumstances are possible for an event could occur. However, it is by no means certain that even over a longer period such event would take place, and is less likely in the shorter term	Moderate – Long term or short-term moderate effect on human health. Moderate effect on ground/surface water quality, reversible with time. Reduced reliability of a supply at a groundwater or surface water abstraction source	Moderate – it is possible that the source-pathway-receptor scenarios may give rise to an impact on human health or the environment, however it is either relatively unlikely that such are would be severe, or if any harm were to occur it is more likely that harm would be mild.
Unlikely – there is a pollution linkage, but circumstances are such that it is doubtful that an event would occur even in the very long term.	Low – Non-permanent health effects to human health (easily prevented by means such as personal protective clothing etc.) Slight effect on ground/surface water quality, reversible with time. Marginal reduced reliability of a supply at a groundwater or surface water abstraction source.	Low – it is possible that harm could arise at the source, however it is likely that this would at worst be mild.
		Very Low – it is unlikely that the source-pathway-receptor scenarios will give rise to an impact on human health or the environment.

Table 4: Estimation of Level of Risk by Comparison of Consequence and Probability

		Consequence			
		High	**Moderate**	**Low**	**Very low**
Probability	**High Likelihood**	Very High	High risk	Moderate risk	Moderate to low risk
	Likely	High risk	Moderate risk	Moderate to low risk	Low risk
	Low Likelihood	Moderate risk	Moderate to low risk	Low risk	Very low risk
	Unlikely	Moderate to low risk	Low risk	Very low risk	Very low risk

Potential Sources

6.5 There was a road present on site in 1848. In 1932 the site became part of a large sports field. In 2001 restaurants were built on the south of the site. Following this in 2003 a car park was built to the north of the site. Beyond the northern boundary of the site is the M60. There are industrial buildings 216m north east, 216m south and 330m south east of the site. The remaining surrounding area is made up of residential properties.

6.6 There is potential for the presence of contamination associated with the following:

- Made Ground from various phases of on-site development, infilled features along the site boundary and land associated with the construction of the M60 just north of the site.
- Asbestos containing materials (ACM) from structures on site
- Ground gas associated with peat, nearby historical landfill, deep made ground and nearby infilled features.

Potential Receptors

6.7 The following receptors have been considered for the construction and operational stages of the proposed redevelopment.

- Current site users;
- Adjacent land users;
- Future land users;
- Construction workers during site development works;
- Groundwater within the underlying aquifer

Potential Pathways

6.8 The following pathways have been considered for the construction and operational stages of the proposed redevelopment.

- Dermal contact, ingestion, inhalation pathways of potentially contaminated soils;
- Downward vertical migration of leachate to shallow groundwater;
- Vertical or lateral migration of ground gas.

Table 5: Preliminary Conceptual Model

Source	Pathway	Receptor	Probability	Consequence	Risk	Comment
Made Ground across site (Heavy Metals, PAH & TPH)	Dermal contact, ingestion and inhalation of soils dust	Current Site Users	Unlikely	Moderate	Low risk	The site is generally covered by hard standing macadam. There is therefore no potential for direct contact between contaminated soils and receptors. The only area of soft standing is in the north west corner of the site where there has been minimal development. The risk is therefore considered to be **LOW**.
		Adjacent land users	Low Likelihood	Moderate	Moderate to Low risk	Residential properties partially surround the site. The risk is considered **MODERATE to LOW** and usual dust control measures should be implemented as part of good site working practices during construction to reduce dust generation.
		Future land users	Unlikely	Moderate	Low risk	The proposed development will include a commercial food store with areas of soft cover. However, the majority of the site will be covered by hardstanding. The risk to future site users via direct exposure is considered to be **LOW.** This assessment is based on the sensitivity of the receptor and the potential for contamination to be present beneath the site.
		Construction Workers	Low Likelihood	Moderate	Moderate to Low risk	Construction workers are likely to be exposed to potentially contaminated Made Ground materials during construction works, however exposure duration will be short-term only. Assuming appropriate health and safety measures are adopted (in line with CDM and other relevant health and safety guidance) a **LOW** risk to construction workers is anticipated.
	Downward vertical migration of leachate to shallow groundwater	Groundwater within the Underlying Aquifer	Unlikely	Moderate	Low risk	Shallow groundwater is unlikely to be present beneath the site, there are no nearby abstraction licenses and the underlying superficial soils are anticipated to have generally low permeability. The risk to groundwater is therefore considered **LOW.**
	Vertical or lateral migration of ground gas	Current Site Users	Low Likelihood	Moderate	Moderate to Low risk	There is potential for Made Ground soils beneath the site from various stages of onsite development. However, the impermeable nature of the underlying superficial deposits would likely inhibit migration of any ground gases present. The risk to current site users from ground gas is therefore considered **LOW.**
		Adjacent land users	Unlikely	Moderate	Low risk	Considering the nature of the underlying superficial deposits there is low potential for ground gas migration. The risk to adjacent site users from ground gas is therefore considered **LOW.**

Source	Pathway	Receptor	Probability	Consequence	Risk	Comment
		Future land users	Low Likelihood	Moderate	Moderate to Low risk	There is potential for Made Ground from former structures and potentially organic soils beneath the site. However, given the nature of the underlying superficial deposits, they would likely inhibit migration of any ground gases present. Equally the majority of the site will be covered by hard standing therefore breaking the pollutant receptor linkage. The risk to future site users from ground gas is therefore considered **LOW.**
		Construction Workers	Low Likelihood	Moderate	Moderate to Low risk	Construction workers may be exposed to ground gas/depleted oxygen conditions in confined spaces and excavations; however, the duration will be short term. The risk to construction workers from ground gas is considered **MODERATE to LOW.**
Asbestos Containing Material (ACM)		Current Site Users	Unlikely	Moderate	Low risk	Asbestos may be present in the Made Ground soils beneath the site However, asbestos is only harmful when disturbed. The site is currently covered by hardstanding and there is therefore no plausible pollutant linkage. The risk to current site users is considered to be **LOW.**
		Adjacent land users	Low Likelihood	Moderate	Moderate to Low risk	Asbestos may be present in the Made Ground soils beneath the site. Disturbance of soil during the construction phase may allow fibres to become airborne. The risk is therefore considered **MODERATE.** Dust control measures (dampening down) should be implemented as part of good site working practices in order to reduce the risk to **LOW.**
		Future land users	Low Likelihood	Moderate	Moderate to Low risk	The proposed commercial development includes areas of soft standing; however, the majority of the site will be covered by hardstanding. Disturbance of potential ACM by future users may allow fibres to become airborne. The risk is therefore considered **MODERATE.** A contamination assessment of the existing on-site soils and appropriate remediation, if required, will reduce the risk to **LOW.**
		Construction Workers	Low Likelihood	Moderate	Moderate to Low risk	Construction workers will be exposed to potential asbestos in soils during the construction phase. The risk is considered **MODERATE.** A contamination assessment of the existing on-site soils would be required to determine the level of risk and necessary mitigation measures.

7.0 CONCLUSIONS AND RECOMMENDATIONS

Conclusion

7.1 The site is currently made up of a restaurant along the southern boundary of the site. The northern section is made up of a macadam car park. There have been a few stages of development on the site. There have been roads cross cutting the site. It then became part of a sports field before being laid out as it is today. There may be contamination associated with these stages of development. Additionally, there may be contamination from the construction of the M60 which runs just north of the site.

7.2 A former landfill is located close to the northern boundary of the site.

7.3 The proposed development of the site includes a commercial foodstore and associated parking.

7.4 The site is underlain by superficial deposits of Devensian Diamicton till and Peat (Unproductive Aquifer) and the solid geology of Pennine Middle Coal Measures (Secondary A Aquifer).

7.5 The overall risk from soil contamination to commercial end users and construction workers is concluded to be **LOW.**

7.6 The risk to controlled waters is concluded to be **LOW** based on the underlying cohesive geology and absence of a nearby abstraction.

7.5 Given the anticipated extent and age of made ground the risk from ground gas to end users is considered to be **MODERATE to LOW**.

7.6 Due to the presence of peat the use of shallow foundations may not be viable.

Recommendations

7.7 An intrusive investigation should be undertaken to establish geotechnical parameters for the design of foundations, floor slabs and pavement construction for the proposed new structures and surrounding area.

7.8 As part of the geotechnical investigation, it is recommended that samples of soil and groundwater samples are recovered for contamination testing and to confirm whether there are any potential risks. Ground gases should also be monitored.

7.9 A Coal Mining Risk Assessment will need to accompany any planning application.

7.10 A pre-demolition / refurbishment asbestos survey should be prepared by a specialist asbestos consultant prior to commencing the development in order to accurately identify suspected ACM.

APPENDIX 1

GROUNDSURE REPORTS

Groundsure LOCATION INTELLIGENCE

Enviro+Geo Insight

FLAT 1, 261, VICTORIA AVENUE EAST, MANCHESTER, M9 7GH

Order Details

Date: 09/03/2020

Your ref: A3469_Moston

Our Ref: GS-6669462

Client: Earth Environmental & Geotechnical Ltd

Site Details

Location: 388180 403375

Area: 0.68 ha



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Summary of findings p. 2

OS MasterMap site plan p.12

Aerial image p. 8

groundsure.com/insightuserguide

Contact us with any questions at:
info@groundsure.com
08444 159 000

Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
13	1.1	Historical industrial land uses	0	0	15	14	-
15	1.2	Historical tanks	0	0	3	9	-
15	1.3	Historical energy features	0	0	2	5	-
16	1.4	Historical petrol stations	0	0	0	0	-
16	1.5	Historical garages	0	0	0	0	-
16	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped	On site	0-50m	50-250m	250-500m	500-2000m
17	2.1	Historical industrial land uses	0	0	25	16	-
19	2.2	Historical tanks	0	0	4	19	-
20	2.3	Historical energy features	0	0	3	12	-
21	2.4	Historical petrol stations	0	0	0	0	-
21	2.5	Historical garages	0	0	0	0	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
22	3.1	Active or recent landfill	0	0	1	0	-
23	3.2	Historical landfill (BGS records)	0	0	0	0	-
23	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
23	3.4	Historical landfill (EA/NRW records)	0	0	2	2	-
24	3.5	Historical waste sites	0	0	0	0	-
24	3.6	Licensed waste sites	0	0	0	3	-
25	3.7	Waste exemptions	0	0	0	1	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
27	4.1	Recent industrial land uses	0	1	5	-	-
28	4.2	Current or recent petrol stations	0	0	0	0	-
28	4.3	Electricity cables	0	0	0	0	-
28	4.4	Gas pipelines	0	0	0	0	-
28	4.5	Sites determined as Contaminated Land	0	0	0	0	-

29	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
29	4.7	Regulated explosive sites	0	0	0	0	-
29	4.8	Hazardous substance storage/usage	0	0	0	0	-
29	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
29	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
30	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
30	4.12	Radioactive Substance Authorisations	0	0	0	0	-
30	4.13	Licensed Discharges to controlled waters	0	0	0	0	-
30	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
30	4.15	Pollutant release to public sewer	0	0	0	0	-
31	**4.16**	**List 1 Dangerous Substances**	0	0	0	2	-
31	4.17	List 2 Dangerous Substances	0	0	0	0	-
31	4.18	Pollution Incidents (EA/NRW)	0	0	0	0	-
31	4.19	Pollution inventory substances	0	0	0	0	-
32	4.20	Pollution inventory waste transfers	0	0	0	0	-
32	4.21	Pollution inventory radioactive waste	0	0	0	0	-

Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
33	**5.1**	**Superficial aquifer**	Identified (within 500m)				
34	**5.2**	**Bedrock aquifer**	Identified (within 500m)				
35	**5.3**	**Groundwater vulnerability**	Identified (within 50m)				
36	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
36	5.5	Groundwater vulnerability- local information	None (within 0m)				
37	5.6	Groundwater abstractions	0	0	0	0	0
37	5.7	Surface water abstractions	0	0	0	0	0
37	5.8	Potable abstractions	0	0	0	0	0
37	5.9	Source Protection Zones	0	0	0	0	-
38	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-

Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
39	6.1	Water Network (OS MasterMap)	0	0	0	-	-

39	6.2	Surface water features	0	0	0	-	-
40	**6.3**	**WFD Surface water body catchments**	1	-	-	-	-
40	**6.4**	**WFD Surface water bodies**	0	0	0	-	-
41	**6.5**	**WFD Groundwater bodies**	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
42	7.1	Risk of Flooding from Rivers and Sea (RoFRaS)	None (within 50m)				
42	7.2	Historical Flood Events	0	0	0	-	-
42	7.3	Flood Defences	0	0	0	-	-
42	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
43	7.5	Flood Storage Areas	0	0	0	-	-
44	7.6	Flood Zone 2	None (within 50m)				
44	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
45	**8.1**	**Surface water flooding**	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding					
47	**9.1**	**Groundwater flooding**	Moderate (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
48	**10.1**	**Sites of Special Scientific Interest (SSSI)**	0	0	0	0	3
49	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
49	**10.3**	**Special Areas of Conservation (SAC)**	0	0	0	0	3
50	10.4	Special Protection Areas (SPA)	0	0	0	0	0
50	10.5	National Nature Reserves (NNR)	0	0	0	0	0
50	**10.6**	**Local Nature Reserves (LNR)**	0	0	0	0	2
50	**10.7**	**Designated Ancient Woodland**	0	0	0	0	2
51	10.8	Biosphere Reserves	0	0	0	0	0
51	10.9	Forest Parks	0	0	0	0	0
51	10.10	Marine Conservation Zones	0	0	0	0	0
51	10.11	Green Belt	0	0	0	0	0
52	10.12	Proposed Ramsar sites	0	0	0	0	0

52	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
52	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
52	10.15	Nitrate Sensitive Areas	0	0	0	0	0
53	**10.16**	**Nitrate Vulnerable Zones**	1	0	0	0	0
54	**10.17**	**SSSI Impact Risk Zones**	1	-	-	-	-
55	**10.18**	**SSSI Units**	0	0	0	0	3
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
57	11.1	World Heritage Sites	0	0	0	-	-
57	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
57	11.3	National Parks	0	0	0	-	-
57	11.4	Listed Buildings	0	0	0	-	-
58	11.5	Conservation Areas	0	0	0	-	-
58	11.6	Scheduled Ancient Monuments	0	0	0	-	-
58	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
59	**12.1**	**Agricultural Land Classification**	Urban (within 250m)				
60	12.2	Open Access Land	0	0	0	-	-
60	12.3	Tree Felling Licences	0	0	0	-	-
60	12.4	Environmental Stewardship Schemes	0	0	0	-	-
60	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
61	**13.1**	**Priority Habitat Inventory**	0	0	1	-	-
62	13.2	Habitat Networks	0	0	0	-	-
62	13.3	Open Mosaic Habitat	0	0	0	-	-
62	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	Geology 1:10,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
63	**14.1**	**10k Availability**	Identified (within 500m)				
64	**14.2**	**Artificial and made ground (10k)**	0	1	2	2	-
66	**14.3**	**Superficial geology (10k)**	2	0	1	0	-

67	14.4	Landslip (10k)	0	0	0	0	-
68	14.5	Bedrock geology (10k)	1	0	3	3	-
69	14.6	Bedrock faults and other linear features (10k)	2	1	8	7	-
Page	Section	Geology 1:50,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
71	15.1	50k Availability	Identified (within 500m)				
72	15.2	Artificial and made ground (50k)	0	0	2	0	-
73	15.3	Artificial ground permeability (50k)	0	0	-	-	-
74	15.4	Superficial geology (50k)	2	0	1	0	-
75	15.5	Superficial permeability (50k)	Identified (within 50m)				
75	15.6	Landslip (50k)	0	0	0	0	-
75	15.7	Landslip permeability (50k)	None (within 50m)				
76	15.8	Bedrock geology (50k)	1	0	3	3	-
77	15.9	Bedrock permeability (50k)	Identified (within 50m)				
77	15.10	Bedrock faults and other linear features (50k)	1	1	5	6	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
79	16.1	BGS Boreholes	0	3	40	-	-
Page	Section	Natural ground subsidence					
82	17.1	Shrink swell clays	Very low (within 50m)				
83	17.2	Running sands	Very low (within 50m)				
84	17.3	Compressible deposits	High (within 50m)				
85	17.4	Collapsible deposits	Very low (within 50m)				
86	17.5	Landslides	Very low (within 50m)				
87	17.6	Ground dissolution of soluble rocks	Negligible (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
88	18.1	Natural cavities	0	0	0	0	-
89	18.2	BritPits	0	0	1	0	-
89	18.3	Surface ground workings	0	0	8	-	-
90	18.4	Underground workings	0	0	0	0	9
90	18.5	Historical Mineral Planning Areas	0	0	1	0	-

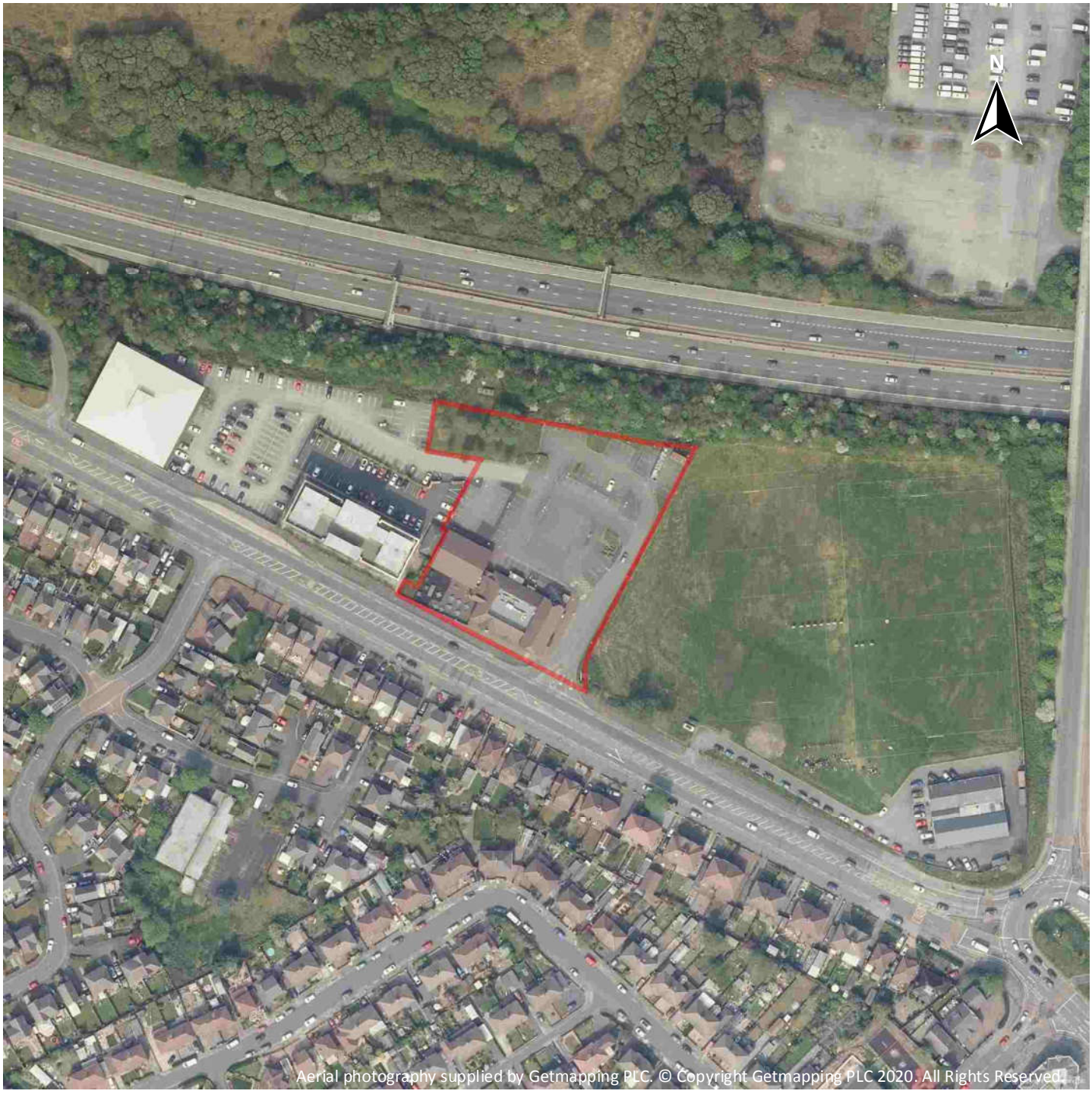
91	18.6	Non-coal mining	0	0	0	0	0
91	18.7	Mining cavities	0	0	0	0	0
91	18.8	JPB mining areas	None (within 0m)				
91	**18.9**	**Coal mining**	Identified (within 0m)				
92	18.10	Brine areas	None (within 0m)				
92	18.11	Gypsum areas	None (within 0m)				
92	18.12	Tin mining	None (within 0m)				
92	18.13	Clay mining	None (within 0m)				

Page	Section	Radon	
93	**19.1**	**Radon**	Less than 1% (within 0m)

Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
94	**20.1**	**BGS Estimated Background Soil Chemistry**	2	1	-	-	-
94	20.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
94	20.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-

Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
95	21.1	Underground railways (London)	0	0	0	-	-
95	21.2	Underground railways (Non-London)	0	0	0	-	-
96	21.3	Railway tunnels	0	0	0	-	-
96	**21.4**	**Historical railway and tunnel features**	0	0	4	-	-
96	21.5	Royal Mail tunnels	0	0	0	-	-
97	21.6	Historical railways	0	0	0	-	-
97	21.7	Railways	0	0	0	-	-
97	21.8	Crossrail 1	0	0	0	0	-
97	21.9	Crossrail 2	0	0	0	0	-
97	21.10	HS2	0	0	0	0	-

Recent aerial photograph



Capture Date: 22/04/2019

Site Area: 0.68ha

Recent site history - 2015 aerial photograph

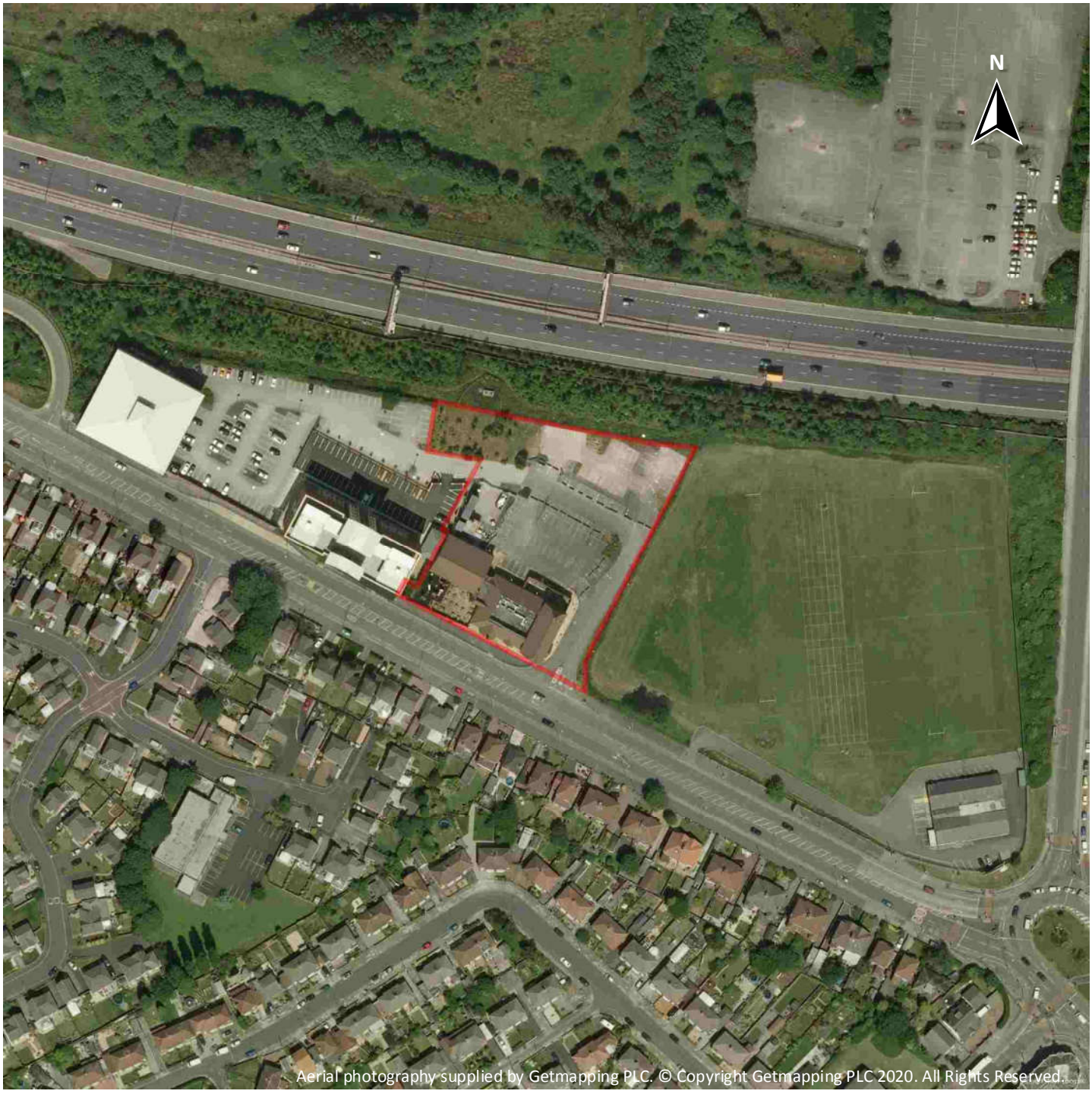


Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2020. All Rights Reserved.

Capture Date: 11/06/2015

Site Area: 0.68ha

Recent site history - 2009 aerial photograph



Capture Date: 02/06/2009

Site Area: 0.68ha

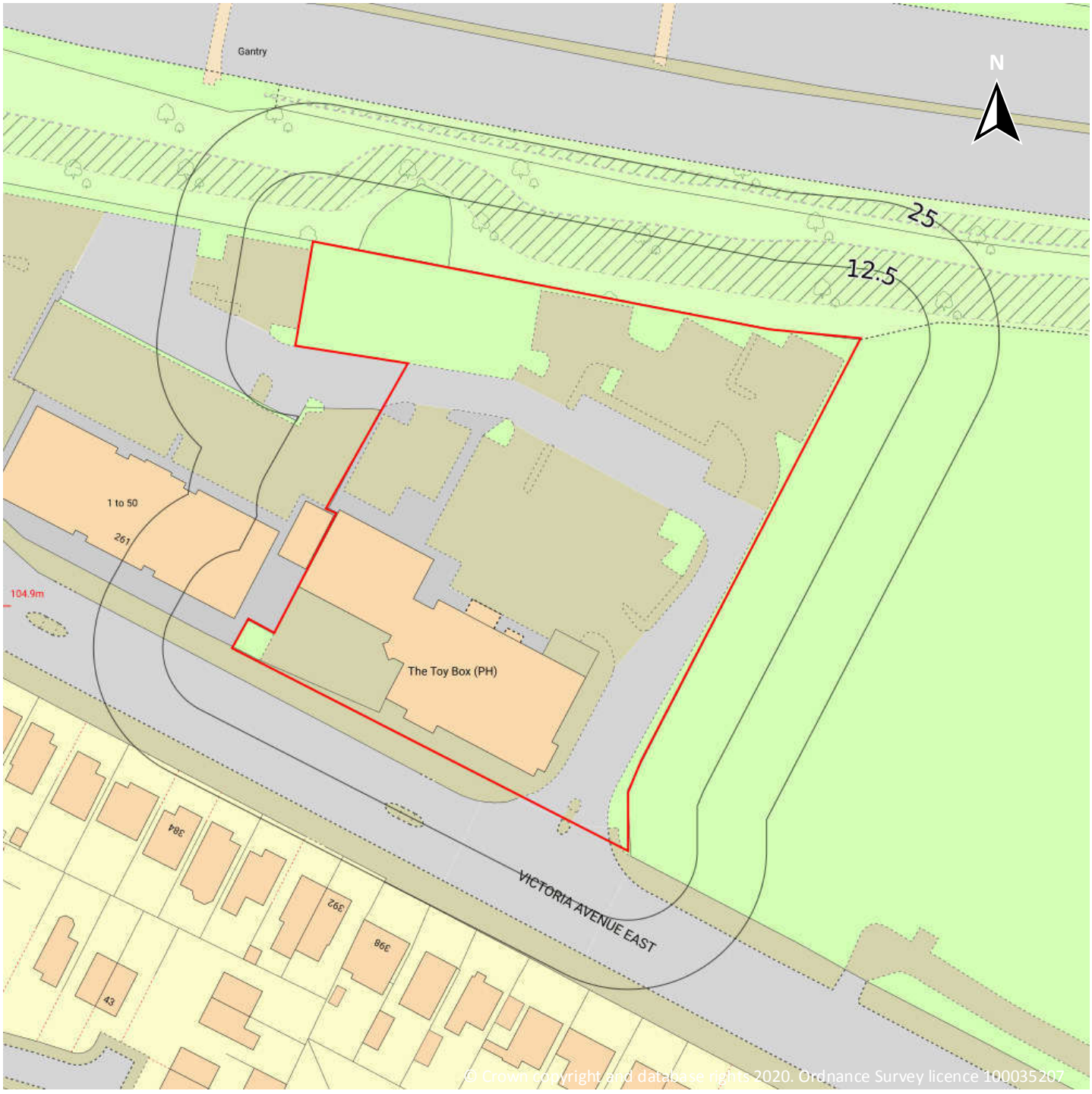
Recent site history - 2000 aerial photograph



Capture Date: 19/06/2000

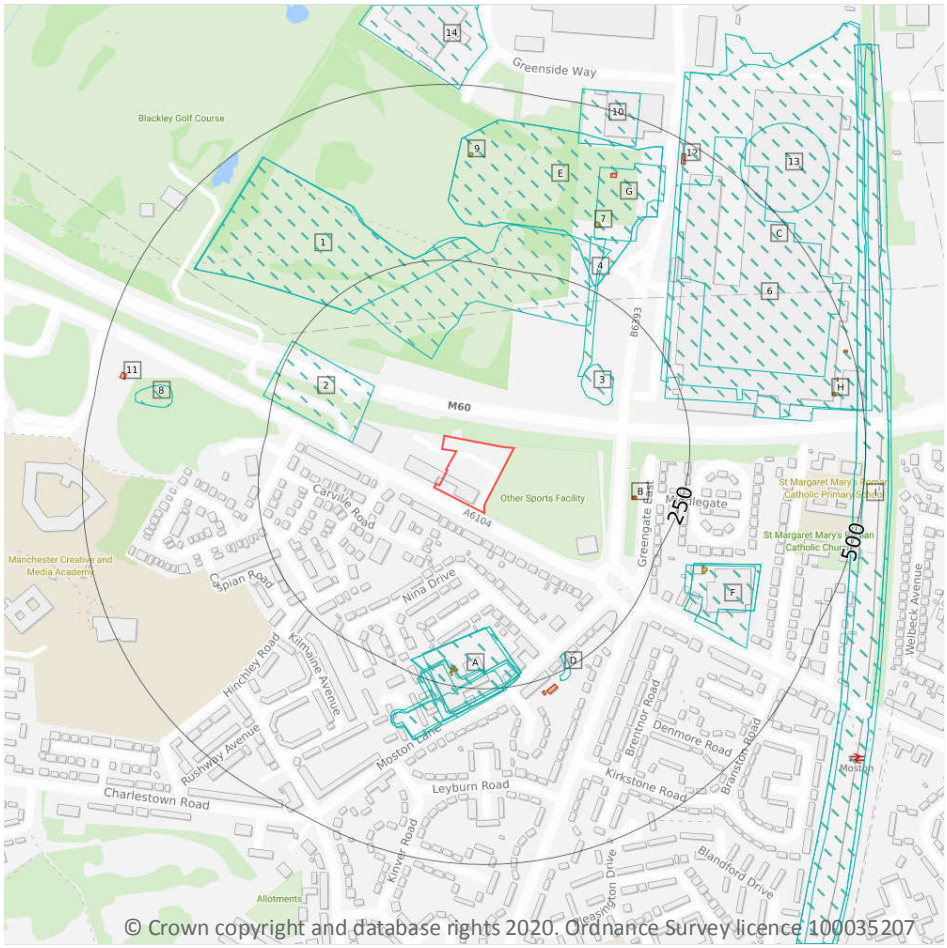
Site Area: 0.68ha

OS MasterMap site plan



Site Area: 0.68ha

1 Past land use



Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

Historical energy features

1.1 Historical industrial land uses

Records within 500m	29

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 1:10,560 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 13**

ID	Location	Land use	Dates present	Group ID
1	111m N	Unspecified Disused Pit	1988	725423

ID	Location	Land use	Dates present	Group ID
2	118m W	Unspecified Depot	1975 - 1988	738551
3	127m NE	Unspecified Pit	1956	691271
4	137m NE	Railway Sidings	1956 - 1966	711431
A	162m S	Unspecified Mill	1975 - 1980	728915
A	162m S	Unspecified Mill	1988	758486
A	163m S	Unspecified Mill	1956 - 1966	710557
A	211m S	Sponge Cloth Mill	1915 - 1923	700759
A	212m S	Sponge Cloth Mill	1933	700422
5	215m NW	Unspecified Disused Pit	1975 - 1980	694987
A	216m S	Cotton Waste Mill	1906	641794
A	216m S	Cloth Mill	1938	691495
C	226m E	Unspecified Factory	1975 - 1988	756769
D	229m SE	Unspecified Ground Workings	1906	648245
C	230m NE	Unspecified Factory	1956 - 1966	779411
E	257m NE	Brick Works	1956	668975
E	257m NE	Unspecified Works	1966	716711
6	288m NE	Unspecified Commercial/Industrial	1938	643390
F	294m SE	Engineering Works	1933 - 1938	723374
F	303m SE	Unspecified Commercial/Industrial	1988	643360
F	303m SE	Unspecified Works	1975 - 1980	705414
G	318m N	Unspecified Works	1975	750100
8	390m W	Unspecified Pit	1923	691272
10	444m N	Unspecified Works	1988	733841
I	485m E	Cuttings	1851	693959
I	485m E	Cuttings	1851	693960
13	492m NE	Unspecified Pits	1906 - 1915	778571
14	493m N	Unspecified Warehouse	1988	652413
I	500m E	Cuttings	1891	695849

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m	12

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 13**

ID	Location	Land use	Dates present	Group ID
A	221m S	Tanks	1951	102237
A	225m S	Tanks	1951	88089
A	230m S	Unspecified Tank	1932	85488
F	315m SE	Tanks	1986 - 1993	88673
7	335m N	Unspecified Tank	1950 - 1951	91463
9	399m N	Unspecified Tank	1990	85487
H	460m E	Unspecified Tank	1951 - 1986	94230
H	460m E	Unspecified Tank	1993	97602
H	469m E	Unspecified Tank	1950	95842
H	469m E	Unspecified Tank	1951	103403
H	488m E	Unspecified Tank	1988	94339
H	489m E	Unspecified Tank	1950 - 1996	95726

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	7

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 13**

ID	Location	Land use	Dates present	Group ID
B	182m E	Electricity Substation	1980 - 1997	58255
B	184m E	Electricity Transformer	1976	46560
D	263m S	Electricity Substation	1951	53984
D	266m S	Electricity Substation	1980 - 1997	56811
G	409m N	Electricity Substation	1950 - 1969	54051
11	460m W	Electricity Substation	1950 - 1951	47247
12	469m NE	Electricity Substation	1988 - 1996	46915

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m	**0**

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m	**0**

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

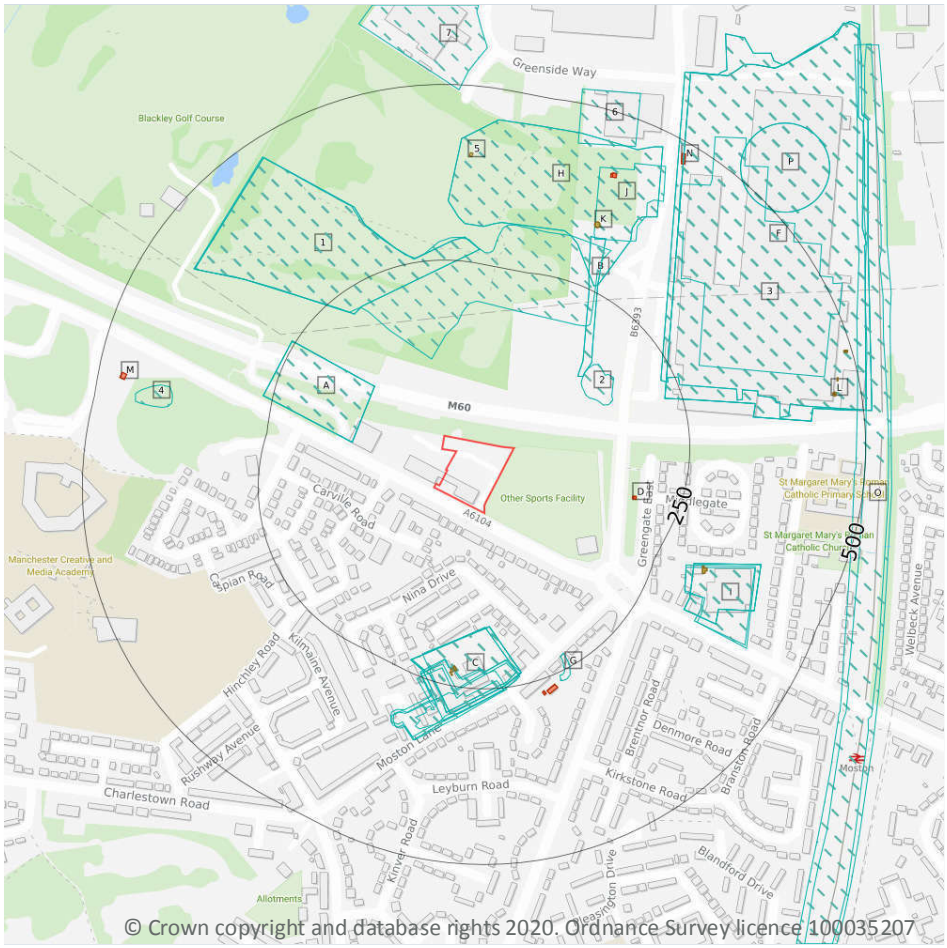
1.6 Historical military land

Records within 500m	**0**

Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

This data is sourced from Ordnance Survey / Groundsure / other sources.

2 Past land use - un-grouped



Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

Historical energy features

2.1 Historical industrial land uses

Records within 500m	41

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 10,560 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 17**

ID	Location	Land Use	Date	Group ID
1	111m N	Unspecified Disused Pit	1988	725423
A	118m W	Unspecified Depot	1980	738551
A	118m W	Unspecified Depot	1988	738551

ID	Location	Land Use	Date	Group ID
A	118m W	Unspecified Depot	1975	738551
2	127m NE	Unspecified Pit	1956	691271
B	137m NE	Railway Sidings	1966	711431
B	137m NE	Railway Sidings	1956	711431
C	162m S	Unspecified Mill	1980	728915
C	162m S	Unspecified Mill	1988	758486
C	162m S	Unspecified Mill	1975	728915
C	163m S	Unspecified Mill	1966	710557
C	163m S	Unspecified Mill	1956	710557
C	211m S	Sponge Cloth Mill	1915	700759
C	212m S	Sponge Cloth Mill	1933	700422
E	215m NW	Unspecified Disused Pit	1980	694987
E	215m NW	Unspecified Disused Pit	1975	694987
C	216m S	Cotton Waste Mill	1906	641794
C	216m S	Cloth Mill	1938	691495
F	226m E	Unspecified Factory	1980	756769
F	226m E	Unspecified Factory	1988	756769
F	226m E	Unspecified Factory	1975	756769
C	228m S	Sponge Cloth Mill	1923	700759
G	229m SE	Unspecified Ground Workings	1906	648245
F	230m NE	Unspecified Factory	1966	779411
F	230m NE	Unspecified Factory	1956	779411
H	257m NE	Unspecified Works	1966	716711
H	257m NE	Brick Works	1956	668975
3	288m NE	Unspecified Commercial/Industrial	1938	643390
I	294m SE	Engineering Works	1933	723374
I	295m SE	Engineering Works	1938	723374
I	303m SE	Unspecified Works	1980	705414

ID	Location	Land Use	Date	Group ID
I	303m SE	Unspecified Commercial/Industrial	1988	643360
I	303m SE	Unspecified Works	1975	705414
J	318m N	Unspecified Works	1975	750100
4	390m W	Unspecified Pit	1923	691272
6	444m N	Unspecified Works	1988	733841
O	485m E	Cuttings	1851	693959
P	492m NE	Unspecified Pits	1906	778571
P	492m NE	Unspecified Pits	1915	778571
7	493m N	Unspecified Warehouse	1988	652413
O	500m E	Cuttings	1891	695849

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	**23**

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 17**

ID	Location	Land Use	Date	Group ID
C	221m S	Tanks	1951	102237
C	222m S	Tanks	1951	102237
C	225m S	Tanks	1951	88089
C	230m S	Unspecified Tank	1932	85488
I	315m SE	Tanks	1993	88673
I	316m SE	Tanks	1986	88673
K	335m N	Unspecified Tank	1950	91463
K	335m N	Unspecified Tank	1951	91463
5	399m N	Unspecified Tank	1990	85487
L	460m E	Unspecified Tank	1986	94230

ID	Location	Land Use	Date	Group ID
L	460m E	Unspecified Tank	1993	97602
L	460m E	Unspecified Tank	1957	94230
L	460m E	Unspecified Tank	1951	94230
L	461m E	Unspecified Tank	1969	94230
L	461m E	Unspecified Tank	1951	94230
L	469m E	Unspecified Tank	1950	95842
L	469m E	Unspecified Tank	1951	103403
L	488m E	Unspecified Tank	1988	94339
L	489m E	Unspecified Tank	1996	95726
L	489m E	Unspecified Tank	1966	95726
L	489m E	Unspecified Tank	1950	95726
L	490m E	Unspecified Tank	1969	95726
L	490m E	Unspecified Tank	1951	95726

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	**15**

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 17**

ID	Location	Land Use	Date	Group ID
D	182m E	Electricity Substation	1997	58255
D	183m E	Electricity Substation	1980	58255
D	184m E	Electricity Transformer	1976	46560
G	263m S	Electricity Substation	1951	53984
G	264m S	Electricity Substation	1951	53984
G	266m S	Electricity Substation	1997	56811
G	267m S	Electricity Substation	1980	56811

ID	Location	Land Use	Date	Group ID
J	409m N	Electricity Substation	1969	54051
J	409m N	Electricity Substation	1951	54051
J	410m N	Electricity Substation	1967	54051
J	410m N	Electricity Substation	1950	54051
M	460m W	Electricity Substation	1950	47247
M	460m W	Electricity Substation	1951	47247
N	469m NE	Electricity Substation	1988	46915
N	470m NE	Electricity Substation	1996	46915

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m	**0**

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

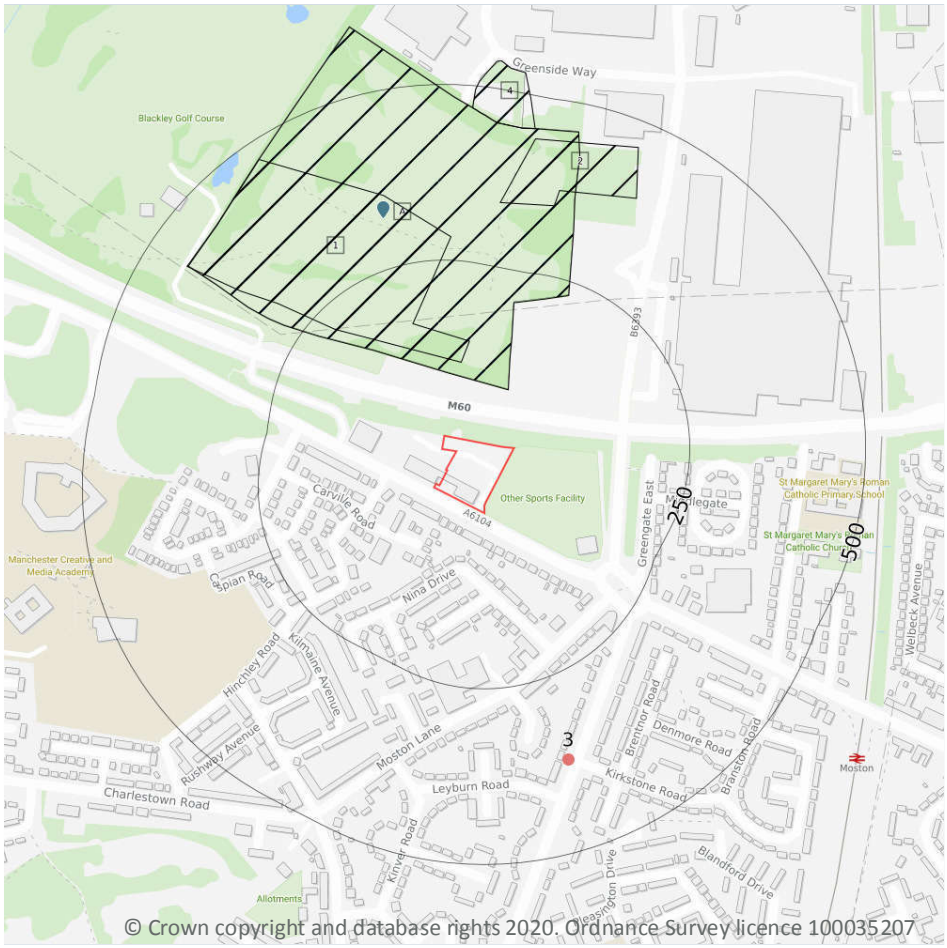
2.5 Historical garages

Records within 500m	**0**

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

3 Waste and landfill



Site Outline

Search buffers in metres (m)

Active or recent landfill

Historical landfill (EA/NRW)

Licensed waste sites

Waste exemptions

3.1 Active or recent landfill

Records within 500m	1

Active or recently closed landfill sites under Environment Agency/Natural Resources Wales regulation.

Features are displayed on the Waste and landfill map on **page 22**

ID	Location	Details	
A	82m N	Operator: Biffa Waste Services Limited Site Address: Chadderton Landfill Site, Greenside Way, Chadderton, Middleton, Oldham, M24 1SW	WML Number: 53651 EPR Reference: BIF014 Landfill type: A01: Co-Disposal Landfill Site Status: Closure IPPC Reference: - EPR Number: EA/EPR/GB3107GU/T001

This data is sourced from the Environment Agency and Natural Resources Wales.

3.2 Historical landfill (BGS records)

Records within 500m	0

Landfill sites identified on a survey carried out on behalf of the DoE in 1973. These sites may have been closed or operational at this time.

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m	0

Landfill sites identified from Local Authority records and high detail historical mapping.

This data is sourced from the Ordnance Survey/Groundsure and Local Authority records.

3.4 Historical landfill (EA/NRW records)

Records within 500m	4

Known historical (closed) landfill sites (e.g. sites where there is no PPC permit or waste management licence currently in force). This includes sites that existed before the waste licensing regime and sites that have been licensed in the past but where a licence has been revoked, ceased to exist or surrendered and a certificate of completion has been issued.

Features are displayed on the Waste and landfill map on **page 22**

ID	Location	Details		
A	81m N	Site Address: Chadderton Landfill, Off Greenside Way, Chadderton, Oldham, Greater Manchester Licence Holder Address: 629 Eccles New Road, Salford, Manchester	Waste Licence: Yes Site Reference: G011, RD/LIC/107/77, 0570 Waste Type: Inert, Industrial, Commercial, Household, Special Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 13/06/1978 Licence Surrender: -	Operator: - Licence Holder: George Wimpey and Company Limited First Recorded 31/12/1948 Last Recorded: -
1	107m N	Site Address: Greengate, Off Greengate, Chadderton, Oldham, Greater Manchester Licence Holder Address: 629 Eccles New Road, Salford, Manchester	Waste Licence: Yes Site Reference: RD/LIC/107/77, G011 Waste Type: Inert, Industrial, Commercial, Household, Special Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 13/06/1978 Licence Surrender: 11/03/1996	Operator: - Licence Holder: G Wimpey and Company Limited First Recorded 31/12/1948 Last Recorded: -

ID	Location	Details		
2	340m N	Site Address: Greengate Industrial Estate, Greengate, Chadderton, Oldham, Greater Manchester Licence Holder Address: -	Waste Licence: Yes Site Reference: WML 0570, RD/LIC/287/83, G032, 4200/9104 Waste Type: Inert, Industrial, Commercial, Household, Special, Liquid sludge Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 03/11/1983 Licence Surrender: -	Operator: - Licence Holder: UK Waste Management Limited First Recorded 31/12/1983 Last Recorded: 31/12/1987
4	450m N	Site Address: Land off Greenside Way, Greenside Way, Chadderton, Oldham, Greater Manchester Licence Holder Address: -	Waste Licence: - Site Reference: G384 Waste Type: - Environmental Permitting Regulations (Waste) Reference: - Licence Issue: - Licence Surrender: -	Operator: - Licence Holder: - First Recorded - Last Recorded: -

This data is sourced from the Environment Agency and Natural Resources Wales.

3.5 Historical waste sites

Records within 500m	**0**

Waste site records derived from Local Authority planning records and high detail historical mapping.

This data is sourced from Ordnance Survey/Groundsure and Local Authority records.

3.6 Licensed waste sites

Records within 500m	**3**

Active or recently closed waste sites under Environment Agency/Natural Resources Wales regulation.

Features are displayed on the Waste and landfill map on **page 22**

ID	Location	Details		
A	333m N	Site Name: Chadderton Landfill Site Site Address: Greenside Way, Middleton, Manchester, M24 1SW Correspondence Address: Po Box 83, Birchwood, Warrington, Cheshire, WA3 6FL	Type of Site: Co-Disposal Landfill Site Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: UKW008 EPR reference: - Operator: U K Waste Management Ltd Waste Management licence No: 53651 Annual Tonnage: 6250	Issue Date: 14/07/1995 Effective Date: - Modified:: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
A	333m N	Site Name: Chadderton Landfill Site Site Address: Greenside Way, Middleton, Manchester, M24 1SW Correspondence Address: -	Type of Site: Co-Disposal Landfill Site Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: UKW008 EPR reference: EA/EPR/PP3496CL/A001 Operator: U K Waste Management Ltd Waste Management licence No: 53651 Annual Tonnage: 6250	Issue Date: 14/07/1995 Effective Date: - Modified:: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Closure
A	333m N	Site Name: Chadderton Landfill Site Site Address: Chadderton Landfill Site, Greenside Way, Chadderton, Middleton, Oldham, M24 1SW Correspondence Address: -	Type of Site: Co-Disposal Landfill Site Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: BIF014 EPR reference: EA/EPR/GB3107GU/T001 Operator: Biffa Waste Services Limited Waste Management licence No: 53651 Annual Tonnage: 6250	Issue Date: 14/07/1995 Effective Date: 08/06/2018 Modified:: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Closure

This data is sourced from the Environment Agency and Natural Resources Wales.

3.7 Waste exemptions

Records within 500m	**1**

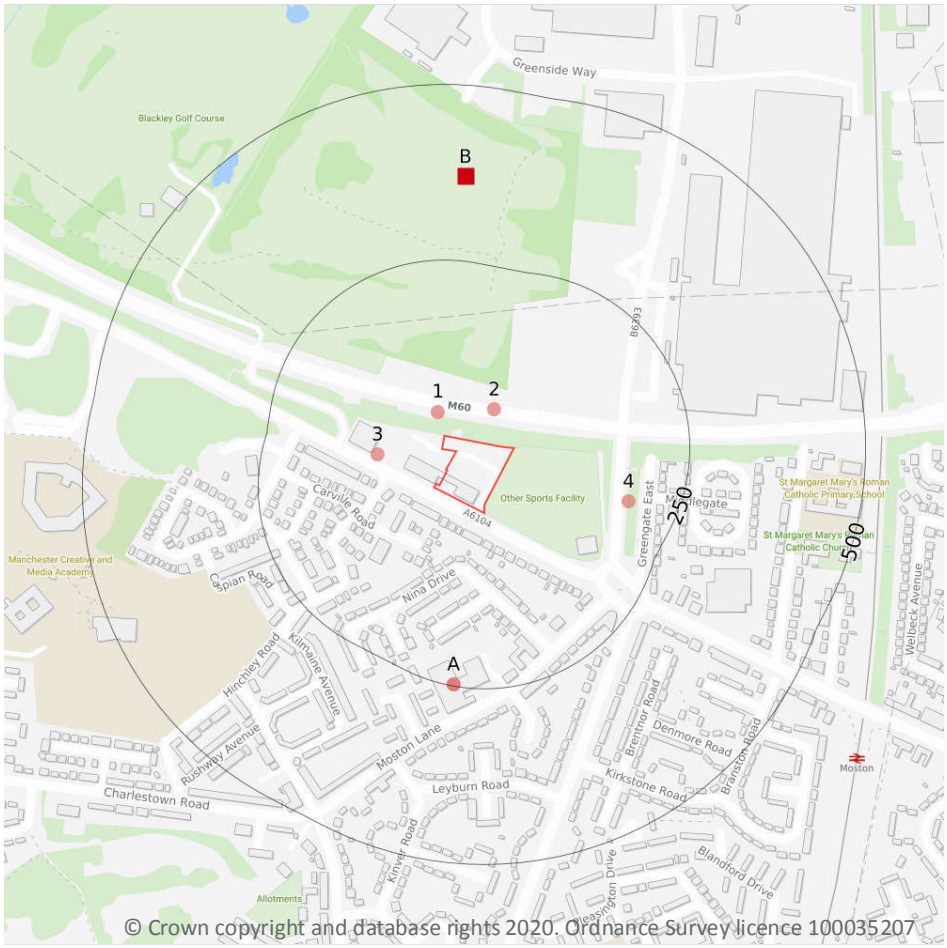
Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

Features are displayed on the Waste and landfill map on **page 22**

ID	Location	Site	Reference	Category	Sub-Category	Description
3	371m S	Higher Gibfield Farm Manchester Road BURNLEY Lancashire BB11 5NS	EPR/CE5785JM/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of sludge

This data is sourced from the Environment Agency and Natural Resources Wales.

4 Current industrial land use



4.1 Recent industrial land uses

Records within 250m	6

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 27**

ID	Location	Company	Address	Activity	Category
1	36m N	Gantry	Greater Manchester, M9	Travelling Cranes and Gantries	Industrial Features
2	50m N	Gantry	Greater Manchester, M24	Travelling Cranes and Gantries	Industrial Features
3	92m W	Electricity Sub Station	Greater Manchester, M9	Electrical Features	Infrastructure and Facilities

ID	Location	Company	Address	Activity	Category
4	180m SE	Electricity Sub Station	Greater Manchester, M40	Electrical Features	Infrastructure and Facilities
A	248m S	M V S	Chain Bar Mill 809, Moston Lane, Manchester, Greater Manchester, M40 5RT	Vehicle Repair, Testing and Servicing	Repair and Servicing
A	248m S	Miller Vehicle Services Ltd	Chain Bar Mill 809, Moston Lane, Manchester, Greater Manchester, M40 5RT	Vehicle Repair, Testing and Servicing	Repair and Servicing

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m	0

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m	0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m	0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m	0

Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m	0

Control of Major Accident Hazards (COMAH) sites. This data includes upper and lower tier sites, and includes a historical archive of COMAH sites and Notification of Installations Handling Hazardous Substances (NIHHS) records.

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m	0

Sites registered and licensed by the Health and Safety Executive under the Manufacture and Storage of Explosives Regulations 2005 (MSER). The last update to this data was in April 2011.

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m	0

Consents granted for a site to hold certain quantities of hazardous substances at or above defined limits in accordance with the Planning (Hazardous Substances) Regulations 2015.

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m	0

Integrated Pollution Control (IPC) records of substance releases to air, land and water. This data represents a historical archive as the IPC regime has been superseded.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.10 Licensed industrial activities (Part A(1))

Records within 500m	0

Records of Part A(1) installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.11 Licensed pollutant release (Part A(2)/B)

Records within 500m	0

Records of Part A(2) and Part B installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m	0

Records of the storage, use, accumulation and disposal of radioactive substances regulated under the Radioactive Substances Act 1993.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.13 Licensed Discharges to controlled waters

Records within 500m	0

Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.14 Pollutant release to surface waters (Red List)

Records within 500m	0

Discharges of specified substances under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.15 Pollutant release to public sewer

Records within 500m	0

Discharges of Special Category Effluents to the public sewer.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.16 List 1 Dangerous Substances

Records within 500m	2

Discharges of substances identified on List I of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

Features are displayed on the Current industrial land use map on **page 27**

ID	Location	Name	Status	Receiving Water	Authorised Substances
B	370m N	Rank Brimar, Greenside Way, Middleton, Manchester	Not Active	River Irk, Manchester Ship Canal	Cadmium
B	370m N	Brimar Ltd, Middleton, Manchester	Active	River Irk, Manchester Ship Canal	Cadmium

This data is sourced from the Environment Agency and Natural Resources Wales.

4.17 List 2 Dangerous Substances

Records within 500m	0

Discharges of substances identified on List II of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.18 Pollution Incidents (EA/NRW)

Records within 500m	0

Records of substantiated pollution incidents. Since 2006 this data has only included category 1 (major) and 2 (significant) pollution incidents.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.19 Pollution inventory substances

Records within 500m	0

The pollution inventory (substances) includes reporting on annual emissions of certain regulated substances to air, controlled waters and land. A reporting threshold for each substance is also included. Where emissions fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.20 Pollution inventory waste transfers

Records within 500m	0

The pollution inventory (waste transfers) includes reporting on annual transfers and recovery/disposal of controlled wastes from a site. A reporting threshold for each waste type is also included. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

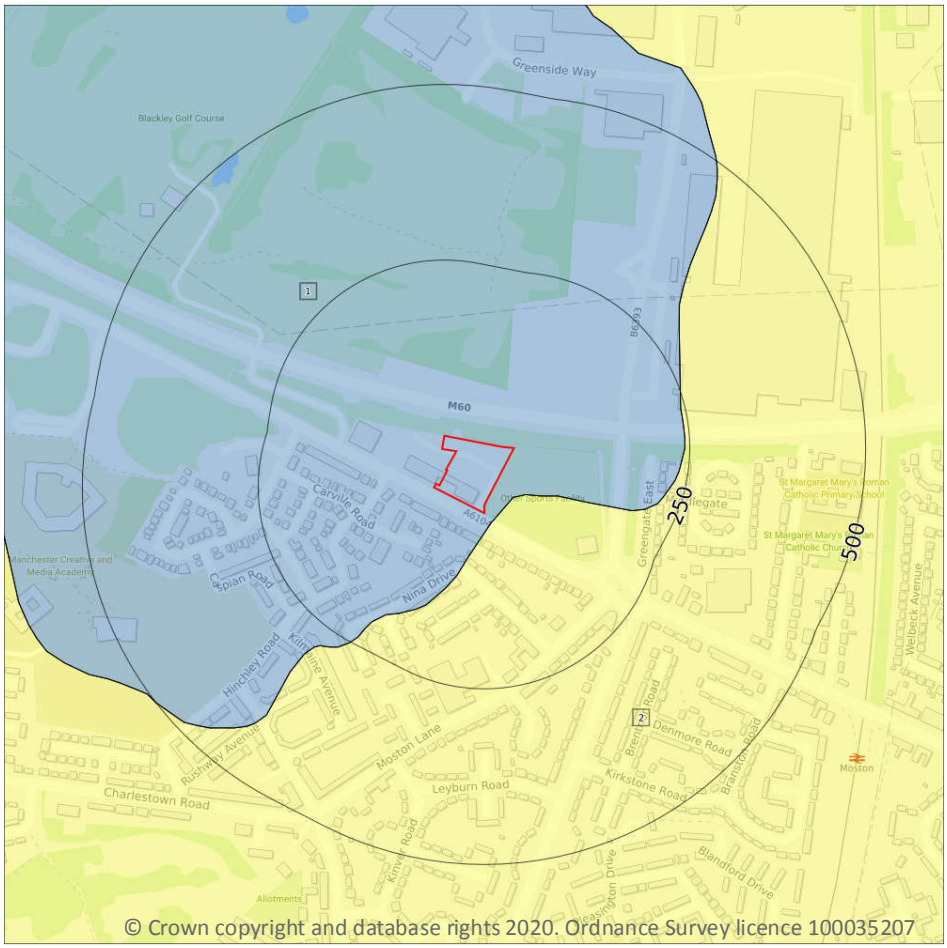
4.21 Pollution inventory radioactive waste

Records within 500m	0

The pollution inventory (radioactive wastes) includes reporting on annual releases of radioactive substances from a site, including the means of release. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

5 Hydrogeology - Superficial aquifer



Site Outline

Search buffers in metres (m)

- Principal
- Secondary A
- Secondary B
- Secondary Undifferentiated
- Unproductive
- Unknown

5.1 Superficial aquifer

Records within 500m	2

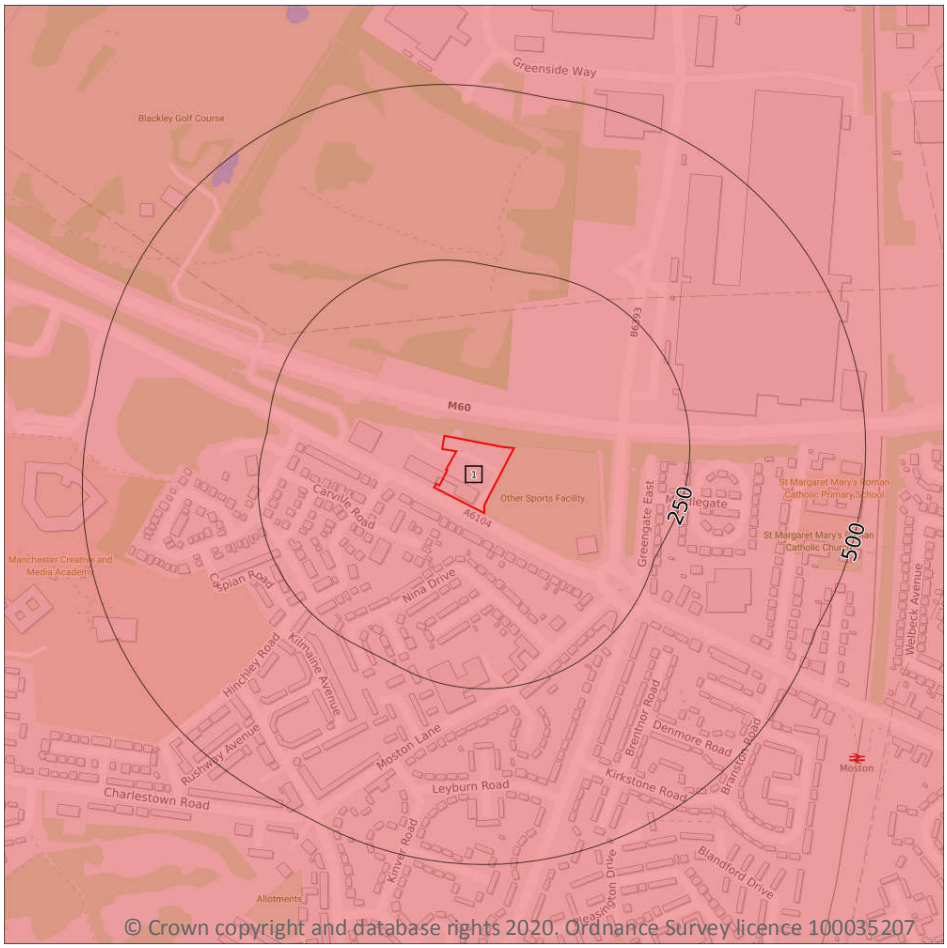
Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 33**

ID	Location	Designation	Description
1	**On site**	**Unproductive**	**These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow**
2	16m SE	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

Bedrock aquifer



Site Outline

Search buffers in metres (m)

- Principal
- Secondary A
- Secondary B
- Secondary Undifferentiated
- Unproductive

5.2 Bedrock aquifer

Records within 500m	1

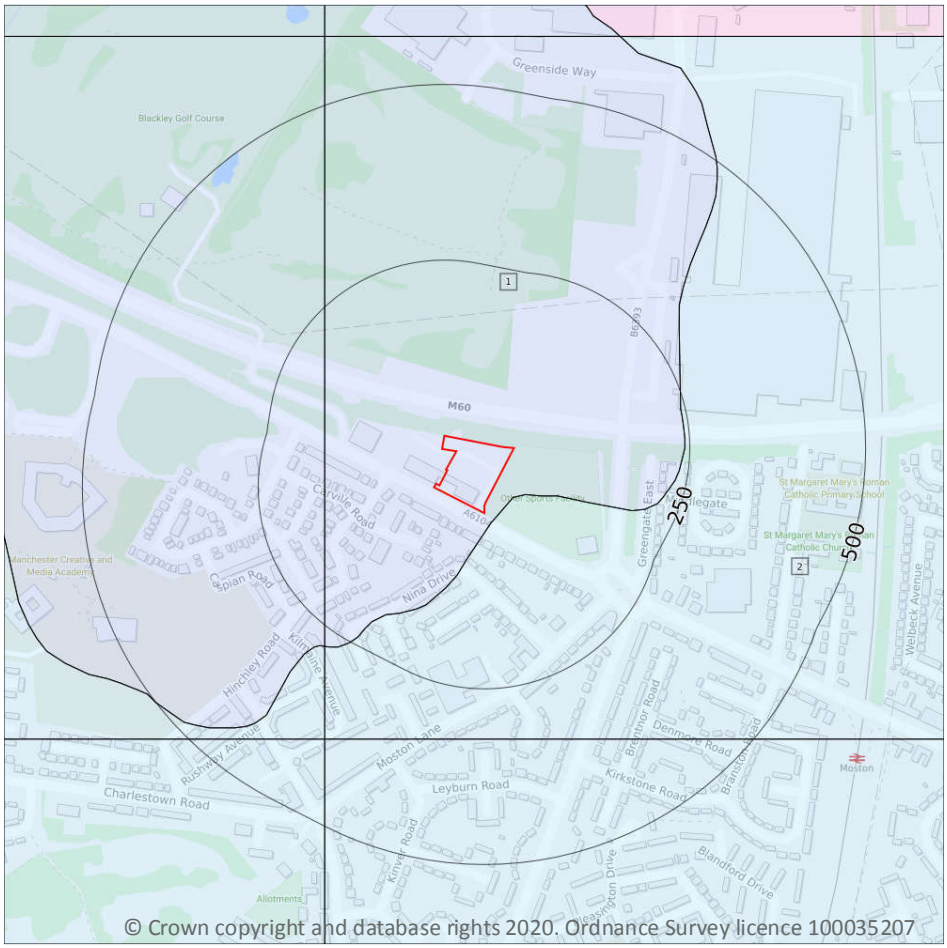
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 34**

ID	Location	Designation	Description
1	On site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

Groundwater vulnerability



Site Outline

Search buffers in metres (m)

Superficial vulnerability
- Principal superficial aquifer, high vulnerability
- Secondary superficial aquifer, high vulnerability
- Principal superficial aquifer, medium vulnerability
- Secondary superficial aquifer, medium vulnerability
- Principal superficial aquifer, low vulnerability
- Secondary superficial aquifer, low vulnerability

Bedrock vulnerability
- Principal bedrock aquifer, high vulnerability
- Secondary bedrock aquifer, high vulnerability
- Principal bedrock aquifer, medium vulnerability
- Secondary bedrock aquifer, medium vulnerability
- Principal bedrock aquifer, low vulnerability
- Secondary bedrock aquifer, low vulnerability

Other information
- Unproductive aquifer
- Soluble rock risk
- Local information

5.3 Groundwater vulnerability

Records within 50m	2

An assessment of the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a one kilometre square grid. Groundwater vulnerability is described as High, Medium or Low as follows:

- High - Areas able to easily transmit pollution to groundwater. They are likely to be characterised by high leaching soils and the absence of low permeability superficial deposits.
- Medium - Intermediate between high and low vulnerability.
- Low - Areas that provide the greatest protection from pollution. They are likely to be characterised by low leaching soils and/or the presence of superficial deposits characterised by a low permeability.

Features are displayed on the Groundwater vulnerability map on **page 35**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	**On site**	**Summary Classification: Secondary bedrock aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Unproductive Superficial Aquifer**	**Leaching class: Low Infiltration value: <40% Dilution value: >550mm/year**	**Vulnerability: Unproductive Aquifer type: Unproductive Thickness: >10m Patchiness value: >90% Recharge potential: Low**	**Vulnerability: Low Aquifer type: Secondary Flow mechanism: Well connected fractures**
2	16m SE	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: >550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Secondary Flow mechanism: Well connected fractures

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

5.4 Groundwater vulnerability- soluble rock risk

Records on site	**0**

This dataset identifies areas where solution features that enable rapid movement of a pollutant may be present within a 1km grid square.

This data is sourced from the British Geological Survey and the Environment Agency.

5.5 Groundwater vulnerability- local information

Records on site	**0**

This dataset identifies areas where additional local information affecting vulnerability is held by the Environment Agency. Further information can be obtained by contacting the Environment Agency local Area groundwater team through the Environment Agency National Customer Call Centre on 03798 506 506 or by email on enquiries@environment-agency.gov.uk.

This data is sourced from the British Geological Survey and the Environment Agency.

Abstractions and Source Protection Zones

5.6 Groundwater abstractions

Records within 2000m	0

Licensed groundwater abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, between two points (line data) or a larger area.

This data is sourced from the Environment Agency and Natural Resources Wales.

5.7 Surface water abstractions

Records within 2000m	0

Licensed surface water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

This data is sourced from the Environment Agency and Natural Resources Wales.

5.8 Potable abstractions

Records within 2000m	0

Licensed potable water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

This data is sourced from the Environment Agency and Natural Resources Wales.

5.9 Source Protection Zones

Records within 500m	0

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination.

This data is sourced from the Environment Agency and Natural Resources Wales.

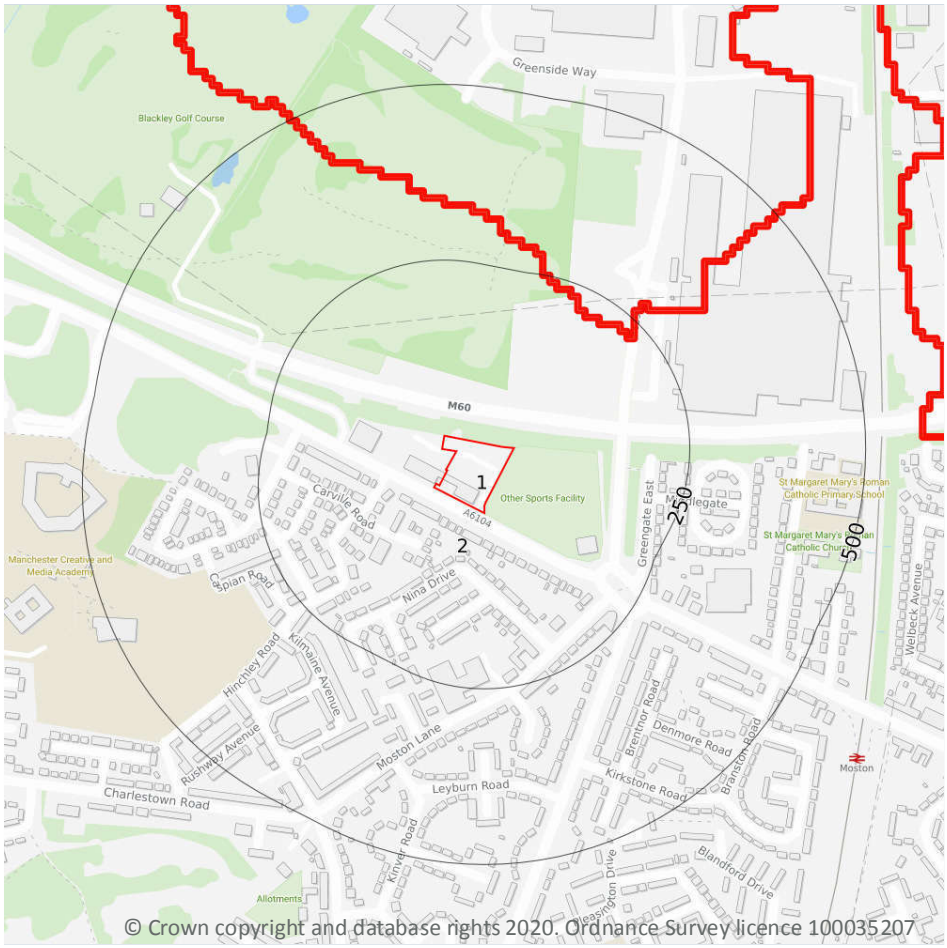
5.10 Source Protection Zones (confined aquifer)

Records within 500m	0

Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only considered a sensitive resource if deep excavation/drilling is taking place.

This data is sourced from the Environment Agency and Natural Resources Wales.

6 Hydrology



6.1 Water Network (OS MasterMap)

Records within 250m	0

Detailed water network of Great Britain showing the flow and precise central course of every river, stream, lake and canal.

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	0

Covering rivers, streams and lakes (some overlap with OS MasterMap Water Network data in previous section) but additionally covers smaller features such as ponds. Rivers and streams narrower than 5m are represented as a single line. Lakes, ponds and rivers or streams wider than 5m are represented as polygons.

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site	1

The Water Framework Directive is an EU-led framework for the protection of inland surface waters, estuaries, coastal waters and groundwater through river basin-level management planning. In terms of surface water, these basins are broken down into smaller units known as management, operational and water body catchments.

Features are displayed on the Hydrology map on **page 39**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
2	**On site**	**River WB catchment**	**Irk (Wince to Irwell)**	**GB112069061131**	**Roch Irk Medlock**	**Irwell**

This data is sourced from the Environment Agency and Natural Resources Wales.

6.4 WFD Surface water bodies

Records identified	1

Surface water bodies under the Directive may be rivers, lakes, estuary or coastal. To achieve the purpose of the Directive, environmental objectives have been set and are reported on for each water body. The progress towards delivery of the objectives is then reported on by the relevant competent authorities at the end of each six-year cycle. The river water body directly associated with the catchment listed in the previous section is detailed below, along with any lake, canal, coastal or artificial water body within 250m of the site. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each water body listed.

Features are displayed on the Hydrology map on **page 39**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	1571m S	River	Irk (Wince to Irwell)	GB112069061131	Moderate	Good	Moderate	2016

This data is sourced from the Environment Agency and Natural Resources Wales.

6.5 WFD Groundwater bodies

Records on site	1

Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

Features are displayed on the Hydrology map on **page 39**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
1	**On site**	**Northern Manchester Carboniferous Aquifers**	**GB41202G101800**	**Poor**	**Poor**	**Good**	**2015**

This data is sourced from the Environment Agency and Natural Resources Wales.

7 River and coastal flooding

7.1 Risk of Flooding from Rivers and Sea (RoFRaS)

Records within 50m	0

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 100 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 100 chance) or High (greater than or equal to 1 in 30 chance).

This data is sourced from the Environment Agency and Natural Resources Wales.

7.2 Historical Flood Events

Records within 250m	0

Records of historic flooding from rivers, the sea, groundwater and surface water. Records began in 1946 when predecessor bodies started collecting detailed information about flooding incidents, although limited details may be included on flooding incidents prior to this date. Takes into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding, and includes flood extents that may have been affected by overtopping, breaches or blockages.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.3 Flood Defences

Records within 250m	0

Records of flood defences owned, managed or inspected by the Environment Agency and Natural Resources Wales. Flood defences can be structures, buildings or parts of buildings. Typically these are earth banks, stone and concrete walls, or sheet-piling that is used to prevent or control the extent of flooding.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.4 Areas Benefiting from Flood Defences

Records within 250m	0

Areas that would benefit from the presence of flood defences in a 1 in 100 (1%) chance of flooding each year from rivers or 1 in 200 (0.5%) chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.5 Flood Storage Areas

Records within 250m	0

Areas that act as a balancing reservoir, storage basin or balancing pond to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel or to delay the timing of a flood peak so that its volume is discharged over a longer period.

This data is sourced from the Environment Agency and Natural Resources Wales.

River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m	0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land between Flood Zone 3 (see next section) and the extent of the flooding from rivers or the sea with a 1 in 1000 (0.1%) chance of flooding each year.

This data is sourced from the Environment Agency and Natural Resources Wales.

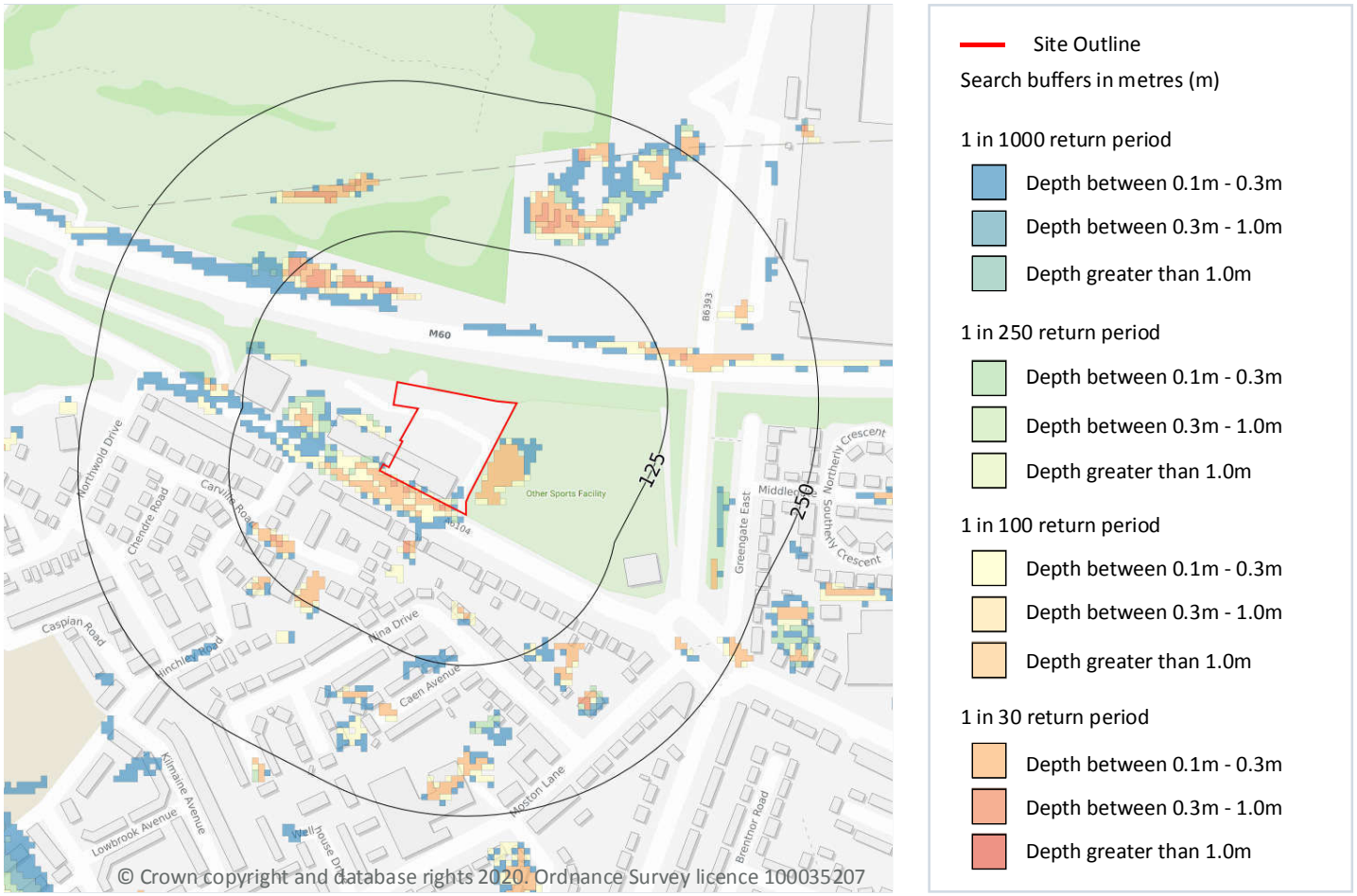
7.7 Flood Zone 3

Records within 50m	0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.

8 Surface water flooding



8.1 Surface water flooding

Highest risk on site	**1 in 30 year, 0.1m - 0.3m**
Highest risk within 50m	**1 in 30 year, 0.3m - 1.0m**

Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year rainfall events. Modern urban drainage systems are typically built to cope with rainfall events between 1 in 20 and 1 in 30 years, though some older ones may flood in a 1 in 5 year rainfall event.

Features are displayed on the Surface water flooding map on **page 45**

The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Between 0.3m and 1.0m
1 in 250 year	Between 0.3m and 1.0m
1 in 100 year	Between 0.3m and 1.0m
1 in 30 year	Between 0.1m and 0.3m

This data is sourced from Ambiental Risk Analytics.

9 Groundwater flooding



Site Outline

Search buffers in metres (m)

High

Moderate - High

Moderate

Low

Negligible

9.1 Groundwater flooding

Highest risk on site	**Moderate**
Highest risk within 50m	**Moderate**

Groundwater flooding is caused by unusually high groundwater levels. It occurs when the water table rises above the ground surface or within underground structures such as basements or cellars. Groundwater flooding tends to exhibit a longer duration than surface water flooding, possibly lasting for weeks or months, and as a result it can cause significant damage to property. This risk assessment is based on a 1 in 100 year return period and a 5m Digital Terrain Model (DTM).

Features are displayed on the Groundwater flooding map on **page 47**

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations



Site Outline

Search buffers in metres (m)

Sites of Special Scientific Interest (SSSI)

Special Areas of Conservation (SAC)

Local Nature Reserves (LNR)

Designated Ancient Woodland

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m	3

Sites providing statutory protection for the best examples of UK flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs were re-notified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and (in Scotland) by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2010.

Features are displayed on the Environmental designations map on **page 48**

ID	Location	Name	Data source
A	1015m NE	Rochdale Canal	Natural England

ID	Location	Name	Data source
-	1218m E	Rochdale Canal	Natural England
-	1466m E	Rochdale Canal	Natural England

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m	**0**

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. They cover all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities. These sites cover a broad definition of wetland; marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, and even some marine areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.3 Special Areas of Conservation (SAC)

Records within 2000m	**3**

Areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive.

Features are displayed on the Environmental designations map on **page 48**

ID	Location	Name	Features of interest	Habitat description	Data source
A	1015m NE	Rochdale Canal	Floating water-plantain.	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites); Inland water bodies (Standing water, Running water)	Natural England
-	1219m E	Rochdale Canal	Floating water-plantain.	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites); Inland water bodies (Standing water, Running water)	Natural England
-	1466m E	Rochdale Canal	Floating water-plantain.	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites); Inland water bodies (Standing water, Running water)	Natural England

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.4 Special Protection Areas (SPA)

Records within 2000m	0

Sites classified by the UK Government under the EC Birds Directive, SPAs are areas of the most important habitat for rare (listed on Annex I to the Directive) and migratory birds within the European Union.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.5 National Nature Reserves (NNR)

Records within 2000m	0

Sites containing examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats, provide special opportunities for scientific study or to provide public recreation compatible with natural heritage interests.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.6 Local Nature Reserves (LNR)

Records within 2000m	2

Sites managed for nature conservation, and to provide opportunities for research and education, or simply enjoying and having contact with nature. They are declared by local authorities under the National Parks and Access to the Countryside Act 1949 after consultation with the relevant statutory nature conservation agency.

Features are displayed on the Environmental designations map on **page 48**

ID	Location	Name	Data source
2	1105m SW	Boggart Hole Clough	Natural England
-	1940m NW	Alkrington Woods	Natural England

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.7 Designated Ancient Woodland

Records within 2000m	2

Ancient woodlands are classified as areas which have been wooded continuously since at least 1600 AD. This includes semi-natural woodland and plantations on ancient woodland sites. 'Wooded continuously' does not mean there is or has previously been continuous tree cover across the whole site, and not all trees within the woodland have to be old.

Features are displayed on the Environmental designations map on **page 48**

ID	Location	Name	Woodland Type
1	827m SW	BOGGART HOLE CLOUGH	Ancient & Semi-Natural Woodland
-	1408m W	Unknown	Ancient & Semi-Natural Woodland

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.8 Biosphere Reserves

Records within 2000m	0

Biosphere Reserves are internationally recognised by UNESCO as sites of excellence to balance conservation and socioeconomic development between nature and people. They are recognised under the Man and the Biosphere (MAB) Programme with the aim of promoting sustainable development founded on the work of the local community.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.9 Forest Parks

Records within 2000m	0

These are areas managed by the Forestry Commission designated on the basis of recreational, conservation or scenic interest.

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m	0

A type of marine nature reserve in UK waters established under the Marine and Coastal Access Act (2009). They are designated with the aim to protect nationally important, rare or threatened habitats and species.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.11 Green Belt

Records within 2000m	0

Areas designated to prevent urban sprawl by keeping land permanently open.

This data is sourced from the Ministry of Housing, Communities and Local Government.

10.12 Proposed Ramsar sites

Records within 2000m	0

Ramsar sites are areas listed as a Wetland of International Importance under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention) 1971. The sites here supplied have a status of 'Proposed' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m	0

Special Areas of Conservation are areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive. Those sites supplied here are those with a status of 'Possible' having been identified for potential adoption under the framework.

This data is sourced from Natural England and Natural Resources Wales.

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m	0

Special Protection Areas (SPAs) are areas designated (or 'classified') under the European Union Wild Birds Directive for the protection of nationally and internationally important populations of wild birds. Those sites supplied here are those with a status of 'Potential' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m	0

Areas where nitrate concentrations in drinking water sources exceeded or was at risk of exceeding the limit of 50 mg/l set by the 1980 EC Drinking Water Directive. Voluntary agricultural measures as a means of reducing the levels of nitrate were introduced by DEFRA as MAFF, with payments being made to farmers who complied. The scheme was started as a pilot in 1990 in ten areas, later implemented within 32 areas. The scheme was closed to further new entrants in 1998, although existing agreements continued for their full term. All Nitrate Sensitive Areas fell within the areas designated as Nitrate Vulnerable Zones (NVZs) in 1996 under the EC Nitrate Directive (91/676/EEC).

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

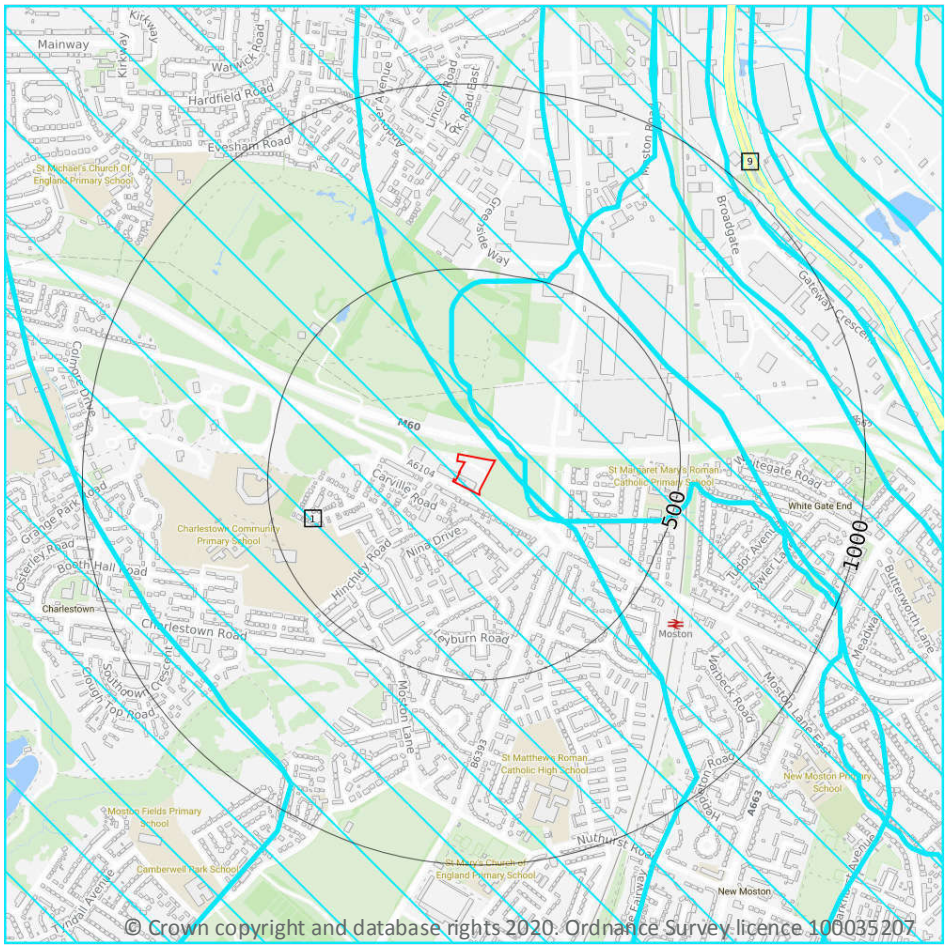
Records within 2000m	1

Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

Location	Name	Type	NVZ ID	Status
On site	**River Irk (Moston Brook to River Irwell) NVZ**	**Surface Water**	**S638**	**Existing**

This data is sourced from Natural England and Natural Resources Wales.

SSSI Impact Zones and Units



Site Outline

Search buffers in metres (m)

SSSI Impact Risk Zones

SSSI Units

- Not recorded
- Favourable
- Unfavourable - Recovering
- Unfavourable - No change
- Unfavourable - Declining
- Partially destroyed
- Destroyed

10.17 SSSI Impact Risk Zones

Records on site	1

Developed to allow rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

Features are displayed on the SSSI Impact Zones and Units map on **page 54**

ID	Location	Type of developments requiring consultation
1	On site	**Infrastructure - Pipelines, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction. Air pollution - Any industrial/agricultural development that could cause AIR POLLUTION (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons > 200m² & manure stores > 250t). Combustion - General combustion processes >20MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion. Waste - Landfill. Incl: inert landfill, non-hazardous landfill, hazardous landfill. Composting - Any composting proposal with more than 75000 tonnes maximum annual operational throughput. Incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management. Water supply - Large infrastructure such as warehousing / industry where total net additional gross internal floorspace following development is 1,000m² or more.**

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	**3**

Divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment, however, the size of units varies greatly depending on the types of management and the conservation interest.

Features are displayed on the SSSI Impact Zones and Units map on **page 54**

ID: 9
Location: 1015m NE
SSSI name: Rochdale Canal
Unit name: Failsworth
Broad habitat: Standing Open Water And Canals
Condition: Unfavourable - Recovering
Reportable features:

Feature name	Feature condition	Date of assessment
Population of Schedule 8 plant - Luronium natans, Floating Water-plantain	Unfavourable - Recovering	25/11/2010

ID: -
Location: 1218m E
SSSI name: Rochdale Canal
Unit name: Failsworth
Broad habitat: Standing Open Water And Canals
Condition: Unfavourable - Recovering
Reportable features:

Feature name	Feature condition	Date of assessment
Population of Schedule 8 plant - Luronium natans, Floating Water-plantain	Unfavourable - Recovering	25/11/2010

ID: -
Location: 1466m E
SSSI name: Rochdale Canal
Unit name: Failsworth
Broad habitat: Standing Open Water And Canals
Condition: Unfavourable - Recovering
Reportable features:

Feature name	Feature condition	Date of assessment
Population of Schedule 8 plant - Luronium natans, Floating Water-plantain	Unfavourable - Recovering	25/11/2010

This data is sourced from Natural England and Natural Resources Wales.

11 Visual and cultural designations

11.1 World Heritage Sites

Records within 250m	0

Sites designated for their globally important cultural or natural interest requiring appropriate management and protection measures. World Heritage Sites are designated to meet the UK's commitments under the World Heritage Convention.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.2 Area of Outstanding Natural Beauty

Records within 250m	0

Areas of Outstanding Natural Beauty (AONB) are conservation areas, chosen because they represent 18% of the finest countryside. Each AONB has been designated for special attention because of the quality of their flora, fauna, historical and cultural associations, and/or scenic views. The National Parks and Access to the Countryside Act of 1949 created AONBs and the Countryside and Rights of Way Act, 2000 added further regulation and protection. There are likely to be restrictions to some developments within these areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.3 National Parks

Records within 250m	0

In England and Wales, the purpose of National Parks is to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic well-being of those living within them. In Scotland National Parks have the additional purpose of promoting the sustainable use of the natural resources of the area and the sustainable social and economic development of its communities. The National Parks and Access to the Countryside Act 1949 established the National Park designation in England and Wales, and The National Parks (Scotland) Act 2000 in Scotland.

This data is sourced from Natural England, Natural Resources Wales and the Scottish Government.

11.4 Listed Buildings

Records within 250m	0

Buildings listed for their special architectural or historical interest. Building control in the form of 'listed building consent' is required in order to make any changes to that building which might affect its special interest. Listed buildings are graded to indicate their relative importance, however building controls apply to all buildings equally, irrespective of their grade, and apply to the interior and exterior of the building in its entirety, together with any curtilage structures.

This data is sourced from English Heritage, Cadw and Historic Environment Scotland.

11.5 Conservation Areas

Records within 250m	0

Local planning authorities are obliged to designate as conservation areas any parts of their own area that are of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance. Designation of a conservation area gives broader protection than the listing of individual buildings. All the features within the area, listed or otherwise, are recognised as part of its character. Conservation area designation is the means of recognising the importance of all factors and of ensuring that planning decisions address the quality of the landscape in its broadest sense.

This data is sourced from English Heritage, Cadw and Historic Environment Scotland.

11.6 Scheduled Ancient Monuments

Records within 250m	0

A scheduled monument is an historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Digital, Culture, Media and Sport. The regime is set out in the Ancient Monuments and Archaeological Areas Act 1979. The Schedule of Monuments has c.20,000 entries and includes sites such as Roman remains, burial mounds, castles, bridges, earthworks, the remains of deserted villages and industrial sites. Monuments are not graded, but all are, by definition, considered to be of national importance.

This data is sourced from English Heritage, Cadw and Historic Environment Scotland.

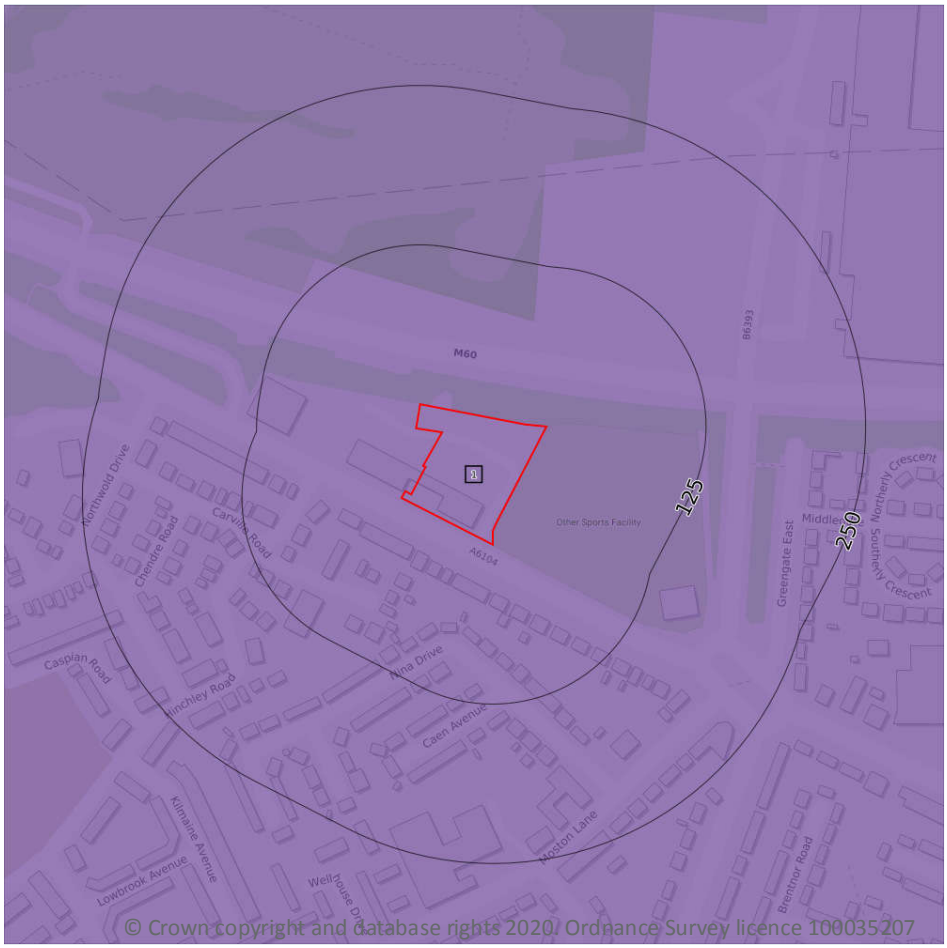
11.7 Registered Parks and Gardens

Records within 250m	0

Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the impact of any proposed development on the special character of the landscape.

This data is sourced from English Heritage, Cadw and Historic Environment Scotland.

12 Agricultural designations



Site Outline

Search buffers in metres (m)

- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3 - good to moderate quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Non-agricultural land
- Urban land
- Exclusion land
- Tree felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m	1

Classification of the quality of agricultural land taking into consideration multiple factors including climate, physical geography and soil properties. It should be noted that the categories for the grading of agricultural land are not consistent across England, Wales and Scotland.

Features are displayed on the Agricultural designations map on **page 59**

ID	Location	Classification	Description
1	**On site**	**Urban**	-

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m	0

The Countryside and Rights of Way Act 2000 (CROW Act) gives a public right of access to land without having to use paths. Access land includes mountains, moors, heaths and downs that are privately owned. It also includes common land registered with the local council and some land around the England Coast Path. Generally permitted activities on access land are walking, running, watching wildlife and climbing.

This data is sourced from Natural England and Natural Resources Wales.

12.3 Tree Felling Licences

Records within 250m	0

Felling Licence Application (FLA) areas approved by Forestry Commission England. Anyone wishing to fell trees must ensure that a licence or permission under a grant scheme has been issued by the Forestry Commission before any felling is carried out or that one of the exceptions apply.

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m	0

Environmental Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment.

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m	0

Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

This data is sourced from Natural England.

13 Habitat designations



Site Outline

Search buffers in metres (m)

Priority Habitat Inventory
Open Mosaic Habitat
Limestone Pavement Orders

Habitat Networks
Primary Habitat
Restorable Habitat
Associated Habitats
Habitat Restoration-Creation
Network Enhancement Zone 1
Network Enhancement Zone 2

13.1 Priority Habitat Inventory

Records within 250m	1

Habitats of principal importance as named under Natural Environment and Rural Communities Act (2006) Section 41.

Features are displayed on the Habitat designations map on **page 61**

ID	Location	Main Habitat	Other habitats
1	215m W	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m	0

Habitat networks for 18 priority habitat networks (based primarily, but not exclusively, on the priority habitat inventory) and areas suitable for the expansion of networks through restoration and habitat creation.

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m	0

Sites verified as Open Mosaic Habitat. Mosaic habitats are brownfield sites that are identified under the UK Biodiversity Action Plan as a priority habitat due to the habitat variation within a single site, supporting an array of invertebrates.

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m	0

Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable habitats for wildlife. These habitats are threatened due to their removal for use in gardens and water features. Many limestone pavements have been designated as SSSIs which affords them some protection. In addition, Section 34 of the Wildlife and Countryside Act 1981 gave them additional protection via the creation of Limestone Pavement Orders, which made it a criminal offence to remove any part of the outcrop. The associated Limestone Pavement Priority Habitat is part of the UK Biodiversity Action Plan priority habitat in England.

This data is sourced from Natural England.

14 Geology 1:10,000 scale - Availability



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Site Outline

Search buffers in metres (m)

Full coverage

Partial coverage

No coverage

14.1 10k Availability

Records within 500m	1

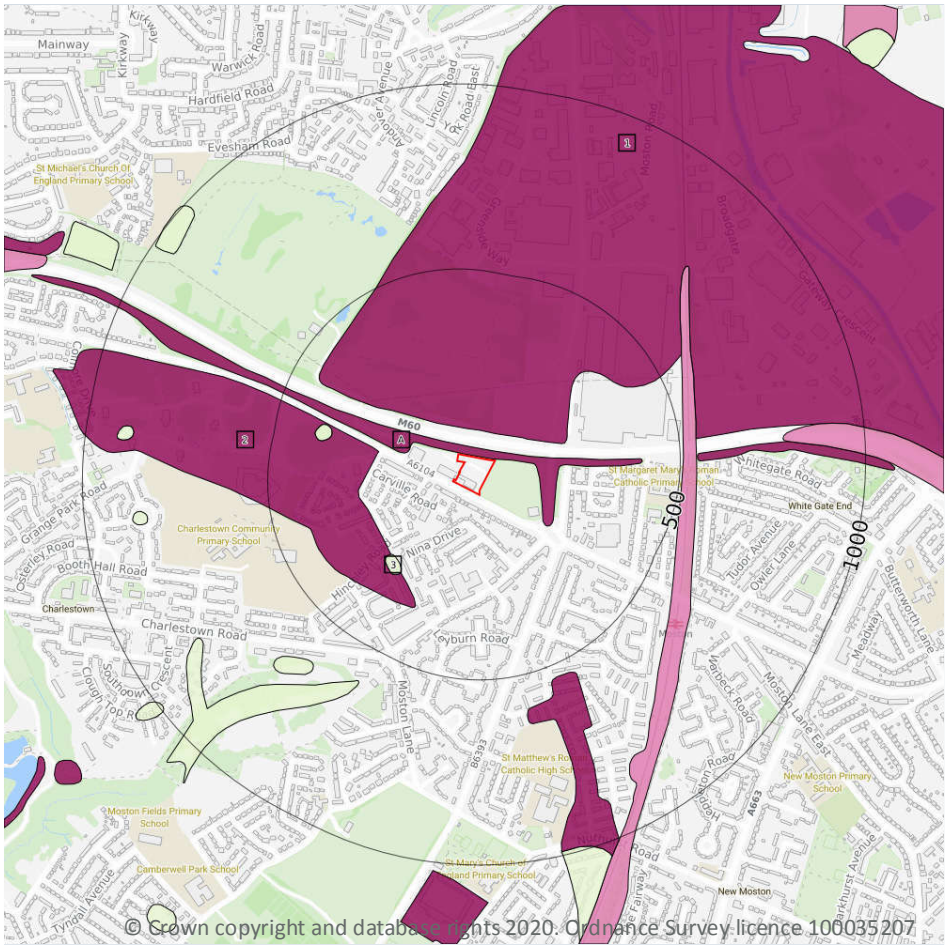
An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 63**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**Full**	**SD80SE**

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Artificial and made ground



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Site Outline

Search buffers in metres (m)

- Reclaimed ground
- Made ground
- Worked ground
- Infilled ground
- Disturbed ground
- Landscaped ground

14.2 Artificial and made ground (10k)

Records within 500m	5

Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

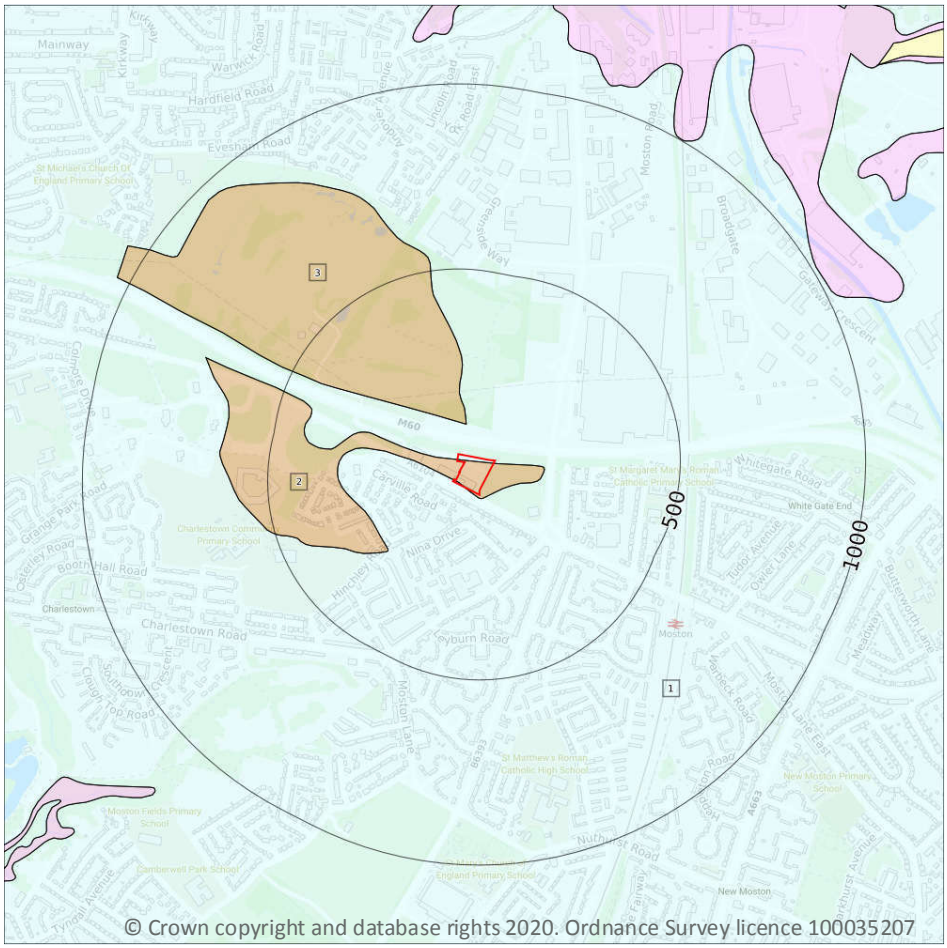
Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on **page 64**

ID	Location	LEX Code	Description	Rock description
A	3m N	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
1	72m N	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
2	213m W	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
3	256m SW	WMGR-ARTDP	Infilled Ground	Artificial Deposit

ID	Location	LEX Code	Description	Rock description
A	346m W	WMGR-ARTDP	Infilled Ground	Artificial Deposit

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial



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Site Outline

Search buffers in metres (m)

Landslip (10k)

Superficial geology (10k)
Please see table for more details.

14.3 Superficial geology (10k)

Records within 500m	3

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:10,000 scale - Superficial map on **page 66**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**TILLD-DMTN**	**Till, Devensian - Diamicton**	**Diamicton**
2	**On site**	**PEAT-P**	**Peat - Peat**	**Peat**
3	83m N	PEAT-P	Peat - Peat	Peat

This data is sourced from the British Geological Survey.

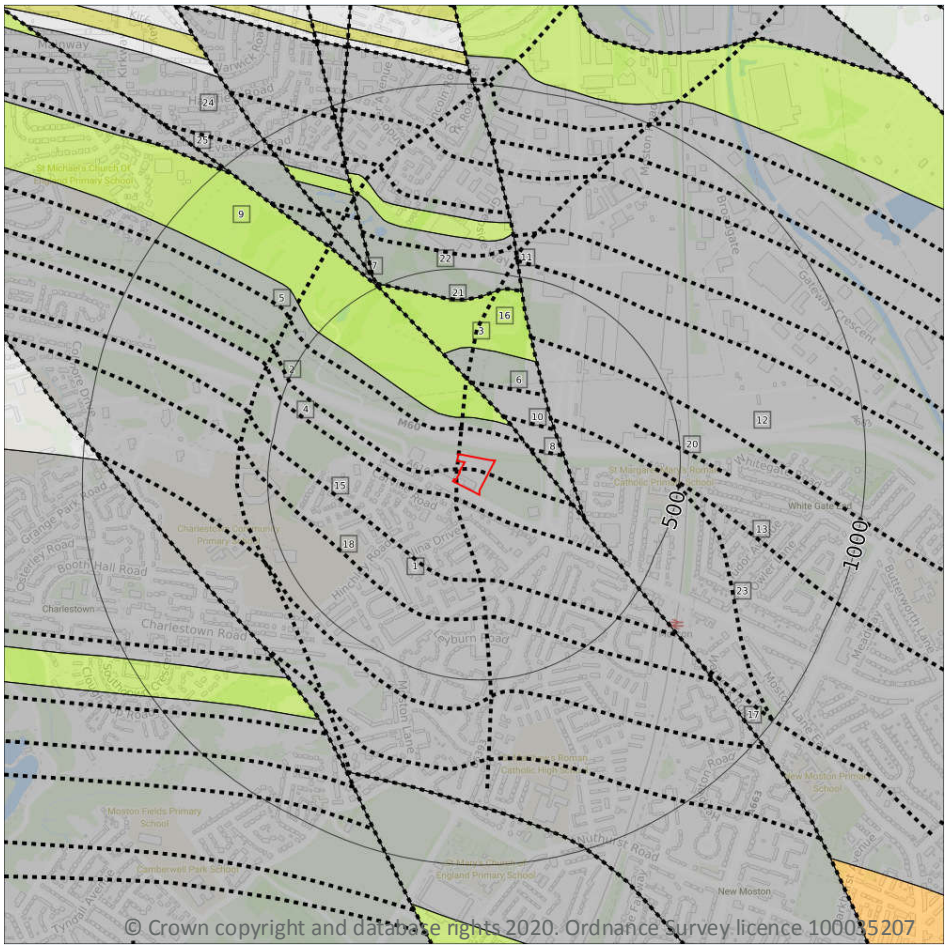
14.4 Landslip (10k)

Records within 500m	0

Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (10k)

Bedrock geology (10k)
Please see table for more details.

14.5 Bedrock geology (10k)

Records within 500m **7**

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 68**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**PMCM-MDSS**	**Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone**	**Bolsovian Sub-age - Duckmantian Sub-age**
6	93m NE	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
9	99m N	BAR-SDST	Bardsley Rock - Sandstone	Duckmantian Sub-age

ID	Location	LEX Code	Description	Rock age
12	179m E	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
16	273m N	BAR-SDST	Bardsley Rock - Sandstone	Duckmantian Sub-age
22	417m N	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
24	497m NW	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m **18**

Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

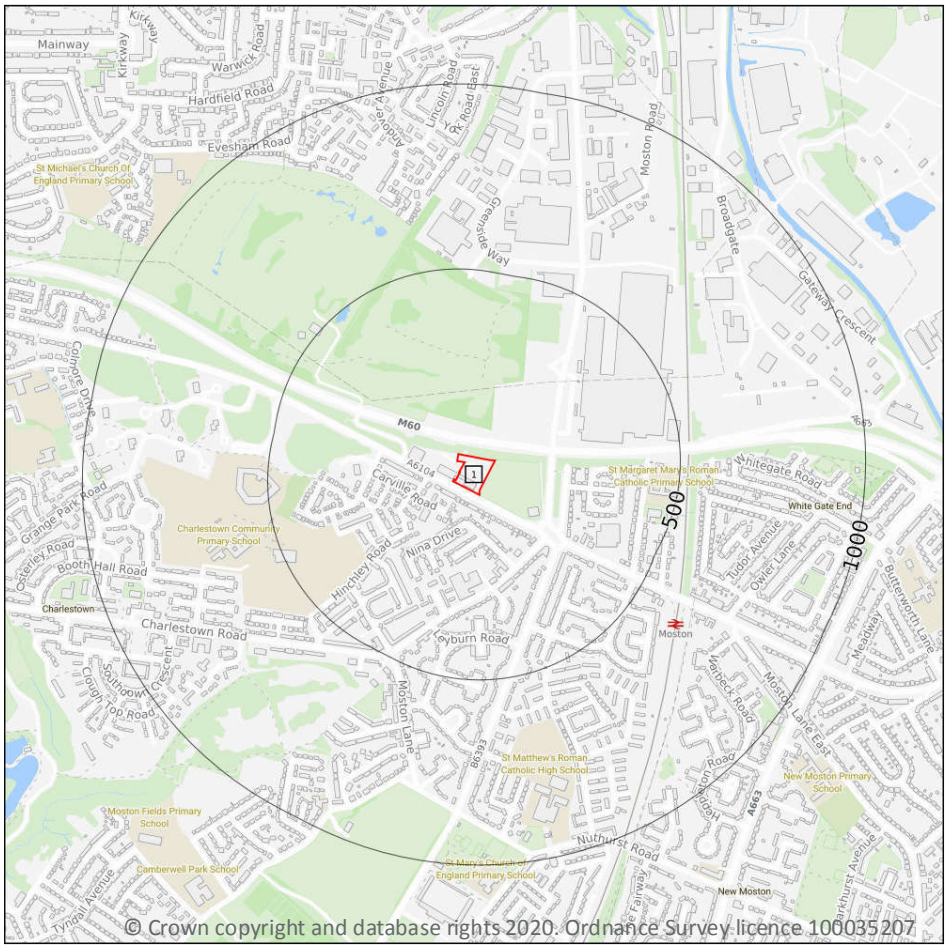
Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 68**

ID	Location	Category	Description
2	**On site**	**ROCK**	**Coal seam, inferred**
3	**On site**	**LANDFORM**	**Buried channel or valley margin**
4	35m SW	ROCK	Coal seam, inferred
5	69m N	ROCK	Coal seam, inferred
7	93m NE	FAULT	Normal fault, inferred; crossmarks on downthrow side
8	99m E	ROCK	Coal seam, inferred
10	122m N	ROCK	Coal seam, inferred
11	179m E	FAULT	Normal fault, inferred; crossmarks on downthrow side
13	188m NE	FOSSIL_HORIZON	Fossil horizon, marine band
14	197m N	ROCK	Coal seam, inferred
15	227m SW	ROCK	Coal seam, inferred
17	290m SE	FAULT	Normal fault, inferred; crossmarks on downthrow side
18	331m S	ROCK	Coal seam, inferred
19	347m N	ROCK	Coal seam, inferred

ID	Location	Category	Description
20	389m E	ROCK	Coal seam, inferred
21	417m N	ROCK	Coal seam, inferred coincident with bedrock geology boundary
23	496m E	FAULT	Normal fault, inferred; crossmarks on downthrow side
25	497m NW	FAULT	Normal fault, inferred; crossmarks on downthrow side

This data is sourced from the British Geological Survey.

15 Geology 1:50,000 scale - Availability



Site Outline

Search buffers in metres (m)

Geological map tile

15.1 50k Availability

Records within 500m	1

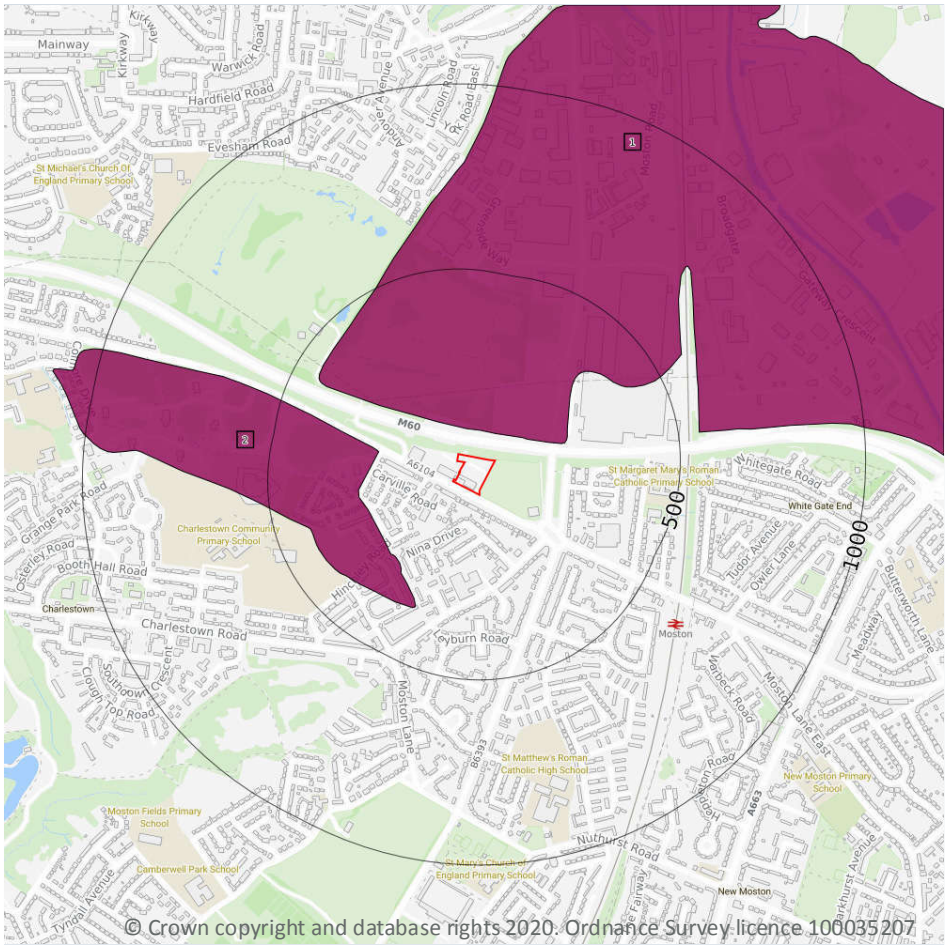
An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 71**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**No coverage**	**Full**	**Full**	**No coverage**	**EW085_manchester_v4**

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Artificial and made ground



Site Outline

Search buffers in metres (m)

- Made ground
- Worked ground
- Infilled ground
- Disturbed ground
- Landscaped ground

15.2 Artificial and made ground (50k)

Records within 500m	2

Details of made, worked, infilled, disturbed and landscaped ground at 1:50,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

Features are displayed on the Geology 1:50,000 scale - Artificial and made ground map on **page 72**

ID	Location	LEX Code	Description	Rock description
1	72m N	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
2	213m W	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

This data is sourced from the British Geological Survey.

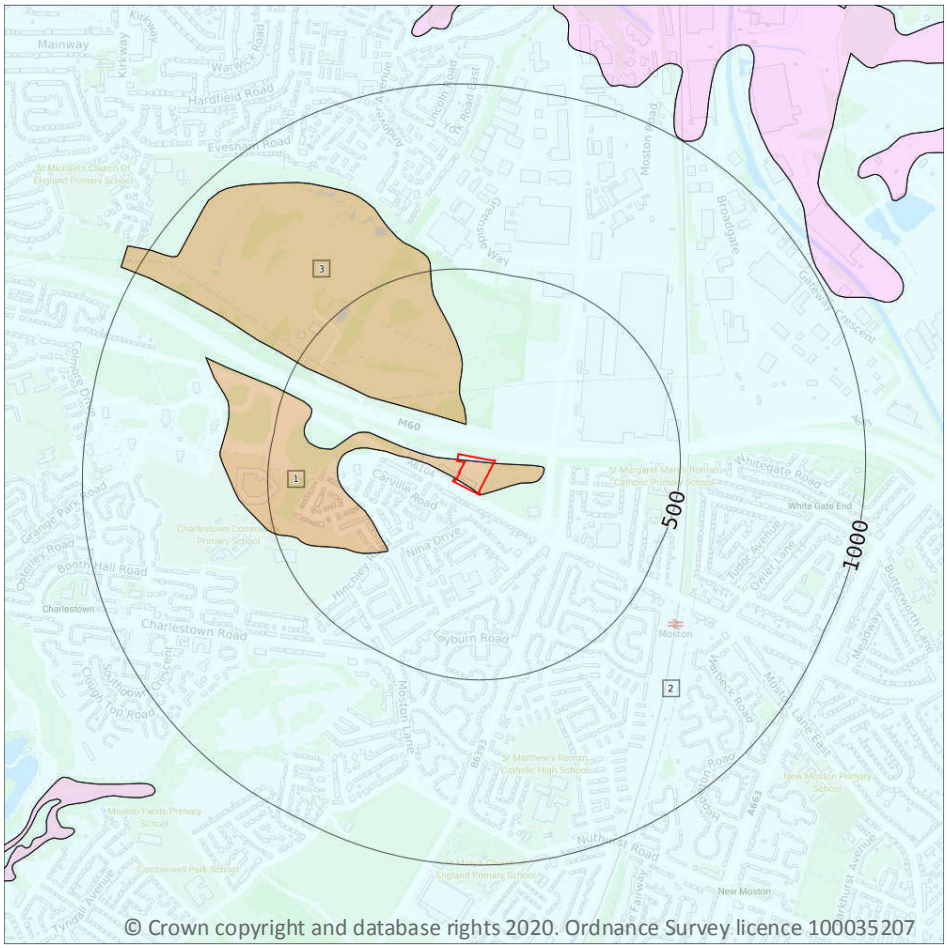
15.3 Artificial ground permeability (50k)

Records within 50m	0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Superficial



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Site Outline

Search buffers in metres (m)

Landslip (50k)

Superficial geology (50k)
Please see table for more details.

15.4 Superficial geology (50k)

Records within 500m	3

Superficial geological deposits at 1:50,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:50,000 scale - Superficial map on **page 74**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**PEAT-P**	**PEAT**	**PEAT**
2	**On site**	**TILLD-DMTN**	**TILL, DEVENSIAN**	**DIAMICTON**
3	83m N	PEAT-P	PEAT	PEAT

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	2

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any superficial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Mixed**	**Low**	**Very Low**
On site	**Mixed**	**High**	**Low**

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m	0

Mass movement deposits on BGS geological maps at 1:50,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

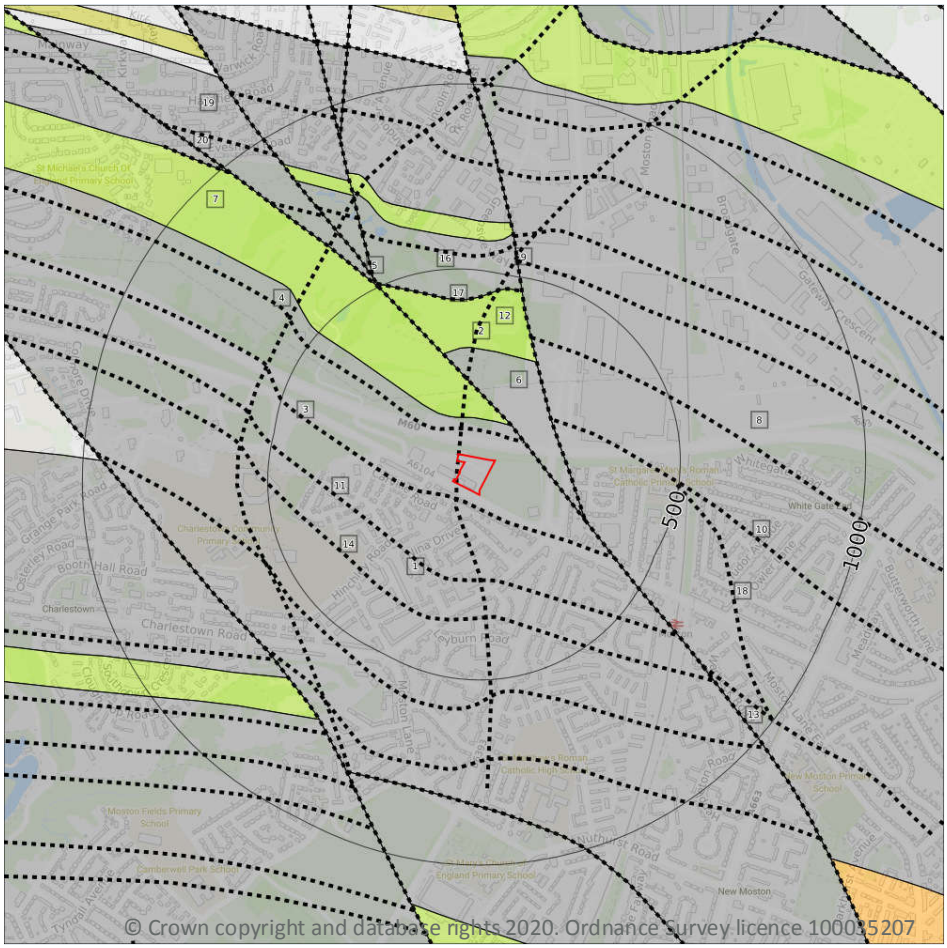
15.7 Landslip permeability (50k)

Records within 50m	0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any landslip deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (50k)

Bedrock geology (50k)
Please see table for more details.

15.8 Bedrock geology (50k)

Records within 500m **7**

Bedrock geology at 1:50,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 76**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**PMCM-MDSS**	**PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE**	**WESTPHALIAN**
6	93m NE	PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
7	99m N	BAR-SDST	BARDSLEY ROCK - SANDSTONE	WESTPHALIAN

ID	Location	LEX Code	Description	Rock age
8	179m E	PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
12	273m N	BAR-SDST	BARDSLEY ROCK - SANDSTONE	WESTPHALIAN
16	417m N	PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
19	497m NW	PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m **1**

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of bedrock (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Fracture**	**Moderate**	**Low**

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m **13**

Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

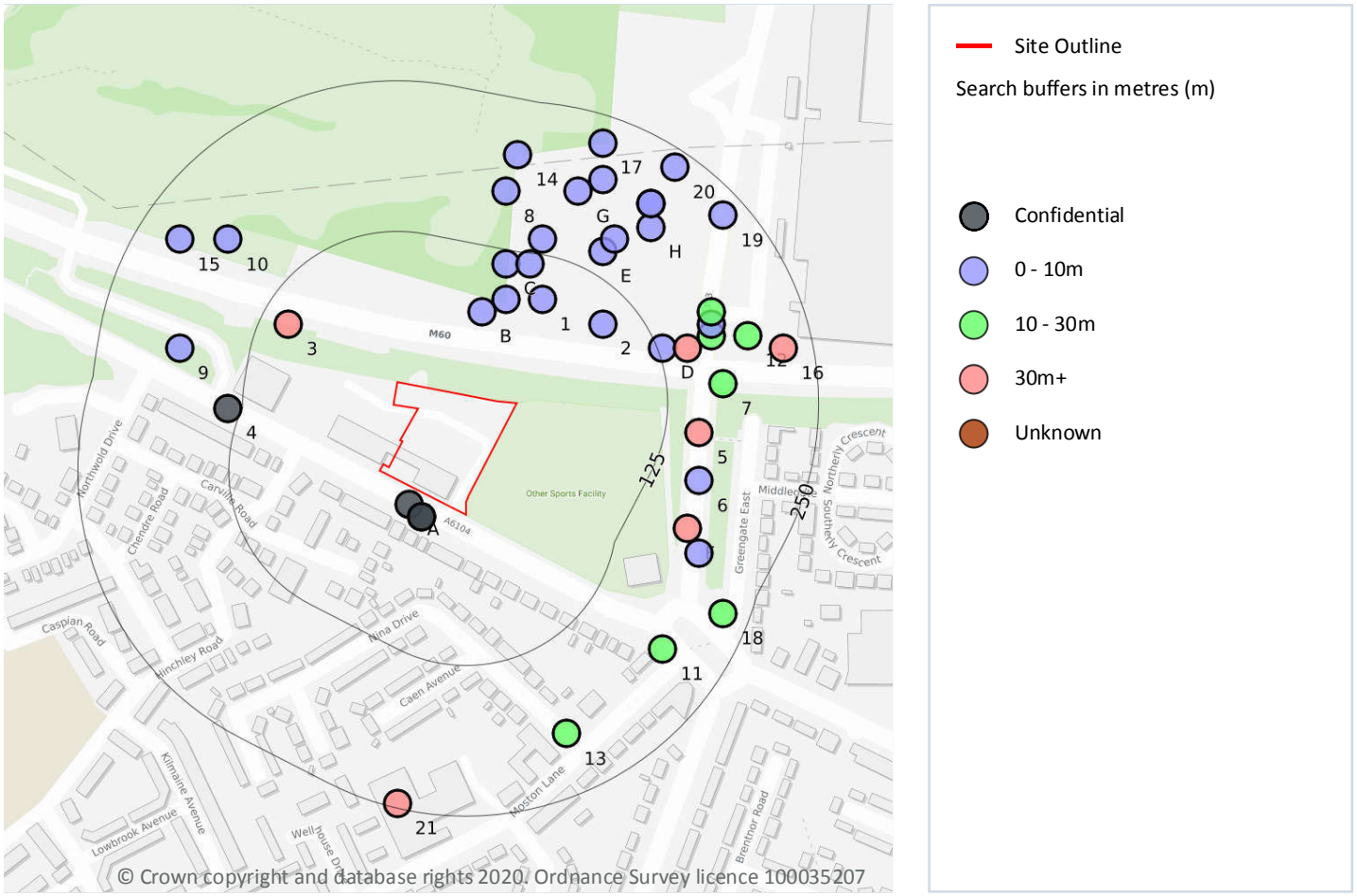
Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 76**

ID	Location	Category	Description
2	**On site**	**LANDFORM**	**Approximate margin of buried (superficial deposit-filled) channel or valley**
3	35m SW	ROCK	Coal seam, inferred
4	69m N	ROCK	Coal seam, inferred
5	93m NE	FAULT	Fault, inferred
9	179m E	FAULT	Fault, inferred
10	188m NE	FOSSIL_HORIZON	Marine band

ID	Location	Category	Description
11	226m SW	ROCK	Coal seam, inferred
13	290m SE	FAULT	Fault, inferred
14	331m S	ROCK	Coal seam, inferred
15	346m N	ROCK	Coal seam, inferred
17	417m N	ROCK	Coal seam, inferred
18	495m E	FAULT	Fault, inferred
20	497m NW	FAULT	Fault, inferred

This data is sourced from the British Geological Survey.

16 Boreholes



16.1 BGS Boreholes

Records within 250m	43

The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several thousand metres deep.

Features are displayed on the Boreholes map on **page 79**

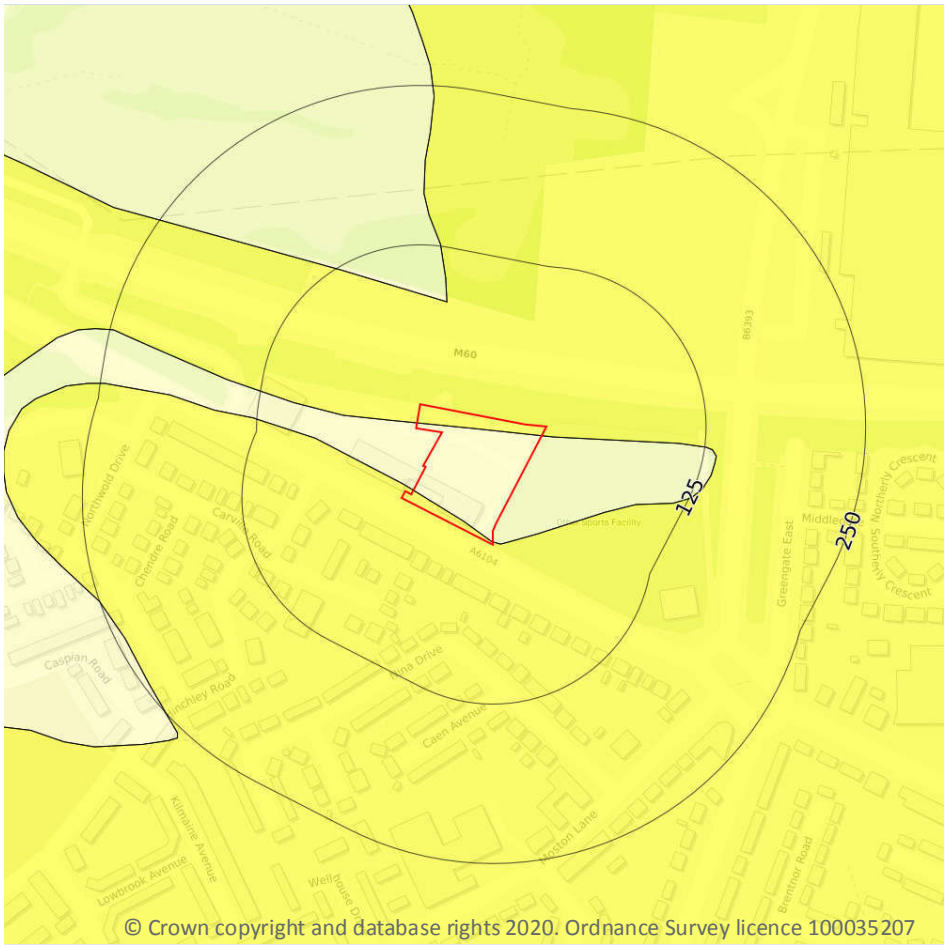
ID	Location	Grid reference	Name	Length	Confidential	Web link
A	14m SW	388180 403330	VICTORIA AVENUE EAST 6	-	Y	N/A
A	18m SW	388190 403320	VICTORIA AVENUE EAST 7	-	Y	N/A
A	18m SW	388190 403320	VICTORIA AVENUE EAST 8	-	Y	N/A

ID	Location	Grid reference	Name	Length	Confidential	Web link
B	71m N	388240 403490	M66 MHR OUTER R/RD BHF46	10.0	N	27972
B	84m N	388260 403500	BRITISH AEROSPACE CHADDERTON 6	10.0	N	28161
1	88m N	388290 403500	BRITISH AEROSPACE CHADDERTON 1	10.0	N	28156
2	97m NE	388340 403480	BRITISH AEROSPACE CHADDERTON TP7	3.0	N	28177
3	102m NW	388080 403480	M66 MANCHESTER OUTER RING ROAD. 850	88.4	N	27714
C	114m N	388260 403530	BRITISH AEROSPACE CHADDERTON 7	10.0	N	28162
C	116m N	388280 403530	BRITISH AEROSPACE CHADDERTON TP1	2.0	N	28171
D	129m E	388390 403460	BRITISH AEROSPACE CHADDERTON TP6	4.0	N	28176
4	136m W	388030 403410	VICTORIA AVENUE EAST 5	-	Y	N/A
C	137m N	388290 403550	BRITISH AEROSPACE CHADDERTON 2	10.0	N	28157
E	145m NE	388340 403540	BRITISH AEROSPACE CHADDERTON 3	10.0	N	28158
D	148m E	388410 403460	M66 MANCHESTER OUTER RING ROAD. 842	86.5	N	27712
5	153m E	388420 403390	M66 MANCHESTER OUTER RING ROAD. 844	93.4	N	27713
E	158m NE	388350 403550	BRITISH AEROSPACE CHADDERTON TP2	1.0	N	28172
6	164m SE	388420 403350	M66 MANCHESTER OUTER RING ROAD. TP.508	3.0	N	27781
D	170m E	388430 403470	M66 MANCHESTER OUTER RING ROAD. 505	20.0	N	27779
7	172m E	388440 403430	M66 MANCHESTER OUTER RING ROAD. 504	21.5	N	27778
8	173m N	388260 403590	BRITISH AEROSPACE CHADDERTON TP8	3.0	N	28178
F	173m SE	388410 403310	M66 MANCHESTER OUTER RING ROAD. 841	87.9	N	27711
D	174m E	388430 403480	M66 MHR OUTER R/RD BHF84	10.0	N	27996
D	178m NE	388430 403490	M66 MHR OUTER R/RD BHF83	25.0	N	27995
9	182m W	387990 403460	M66 MANCHESTER OUTER RING ROAD. 512	8.0	N	27784
G	183m N	388320 403590	BRITISH AEROSPACE CHADDERTON 15	10.0	N	28170
H	183m NE	388380 403560	BRITISH AEROSPACE CHADDERTON 4	10.0	N	28159
10	183m NW	388030 403550	M66 MHR OUTER R/RD BHF45	10.0	N	27971
F	191m SE	388420 403290	M66 MANCHESTER OUTER RING ROAD. TP.503	3.2	N	27777
11	198m SE	388390 403210	NORTH MANCHESTER RELIEF SEWER 21	10.05	N	28525
G	199m N	388340 403600	BRITISH AEROSPACE CHADDERTON TP3	2.0	N	28173

ID	Location	Grid reference	Name	Length	Confidential	Web link
12	199m E	388460 403470	M66 MHR OUTER R/RD BHF85	20.0	N	27997
H	200m NE	388380 403580	M66 MANCHESTER OUTER RING ROAD. TP.509	3.0	N	27782
H	200m NE	388380 403580	BRITISH AEROSPACE CHADDERTON 14	10.0	N	28169
13	200m SE	388310 403140	NORTH MANCHESTER RELIEF SEWER 20	10.1	N	28524
14	204m N	388270 403620	BRITISH AEROSPACE CHADDERTON 8	10.0	N	28163
15	216m NW	387990 403550	M66 MANCHESTER OUTER RING ROAD. 511	8.0	N	27783
16	226m E	388490 403460	M66 MANCHESTER OUTER RING ROAD. 838	71.6	N	27710
17	227m N	388340 403630	BRITISH AEROSPACE CHADDERTON 9	10.0	N	28164
18	228m E	388440 403240	NORTH MANCHESTER REFLIEF SEWER CONNECTION FROM CHADDERTON UDC 5	12.95	N	719818
19	231m NE	388440 403570	M66 MANCHESTER OUTER RING ROAD. TP.506	3.2	N	27780
20	236m NE	388400 403610	BRITISH AEROSPACE CHADDERTON 5	10.0	N	28160
21	246m S	388170 403082	CHAIN BAR MILL MOSTON LANE	77.72	N	27642

This data is sourced from the British Geological Survey.

17 Natural ground subsidence - Shrink swell clays



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17.1 Shrink swell clays

Records within 50m	2

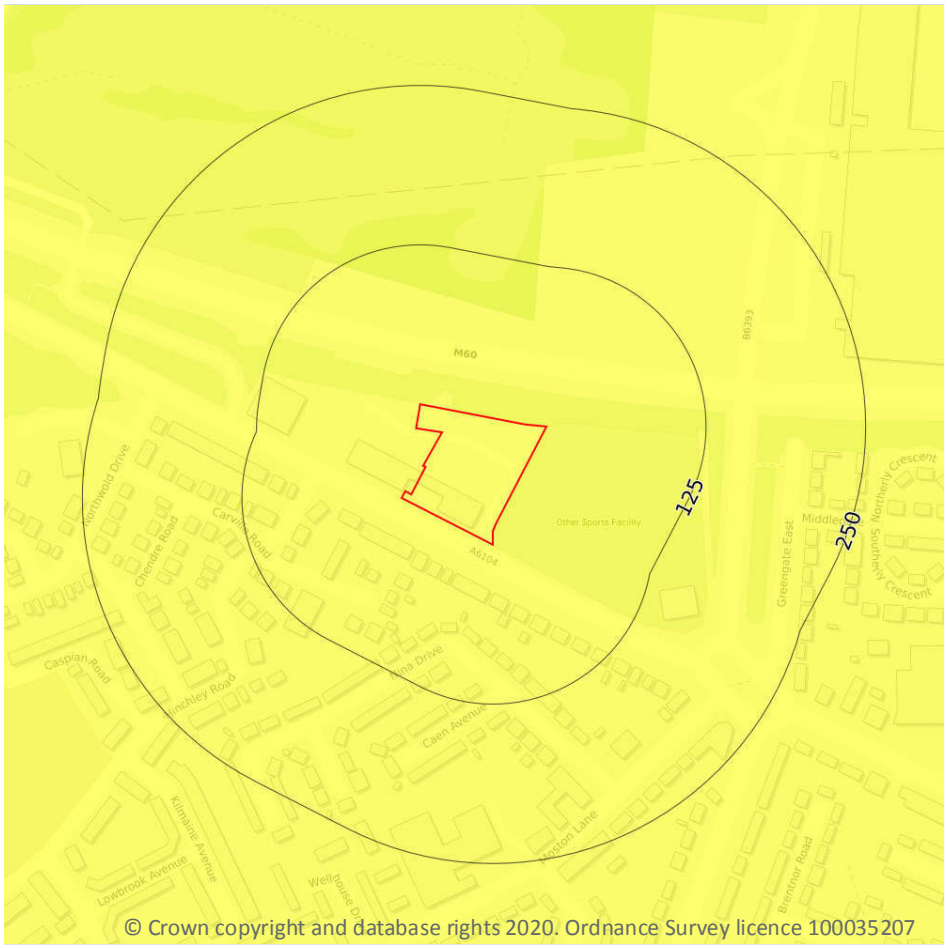
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and local drainage).

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 82**

Location	Hazard rating	Details
On site	**Negligible**	**Ground conditions predominantly non-plastic.**
On site	**Very low**	**Ground conditions predominantly low plasticity.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.2 Running sands

Records within 50m	1

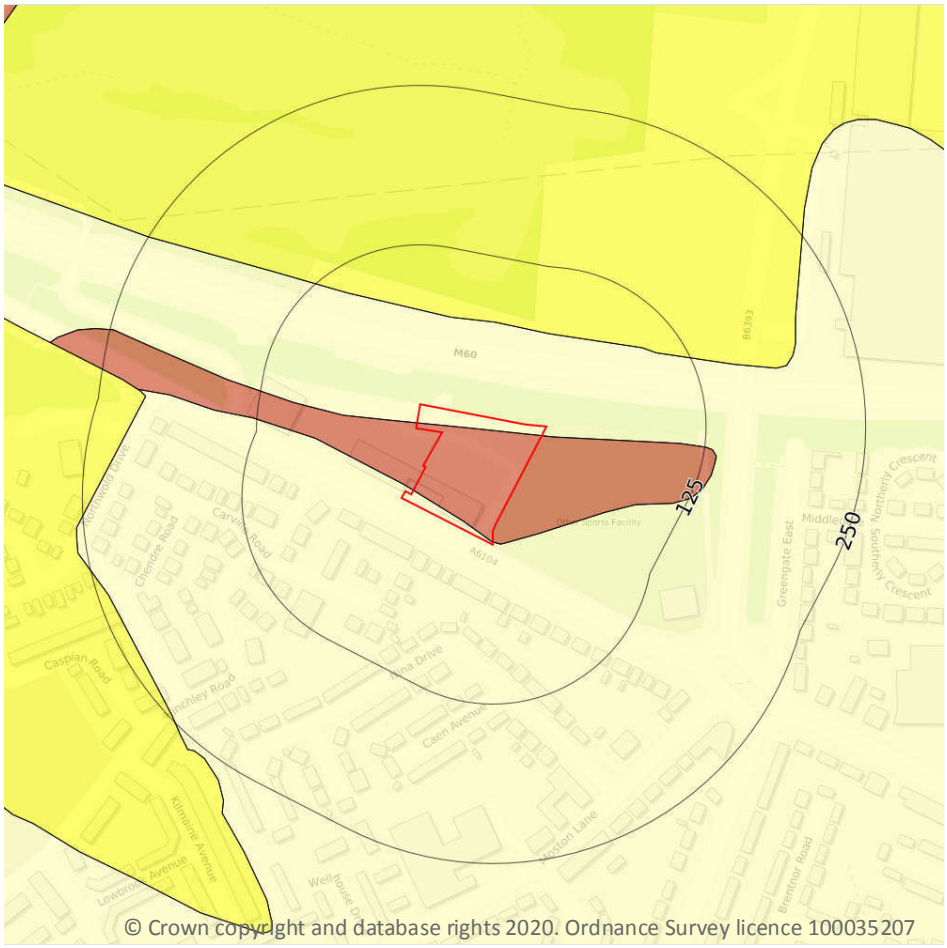
The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

Features are displayed on the Natural ground subsidence - Running sands map on **page 83**

Location	Hazard rating	Details
On site	**Very low**	**Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.3 Compressible deposits

Records within 50m	2

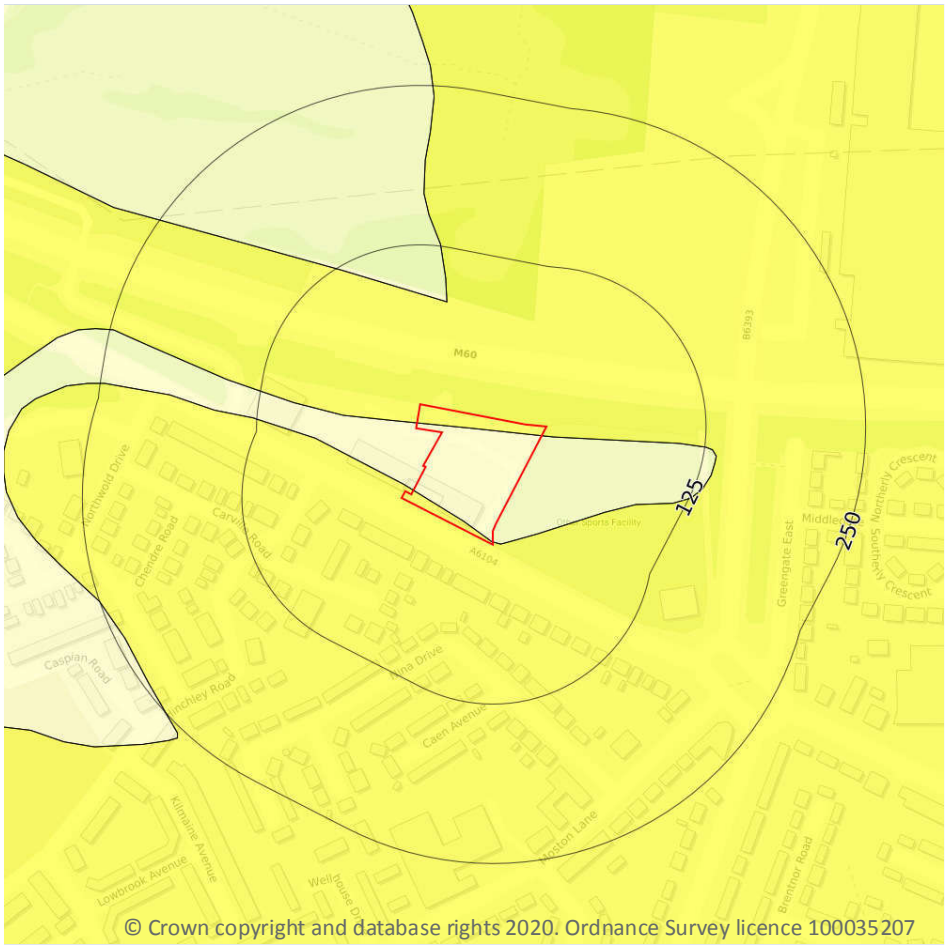
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 84**

Location	Hazard rating	Details
On site	**Negligible**	**Compressible strata are not thought to occur.**
On site	**High**	**Highly compressible strata present. Significant constraint on land use depending on thickness.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Collapsible deposits



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17.4 Collapsible deposits

Records within 50m	2

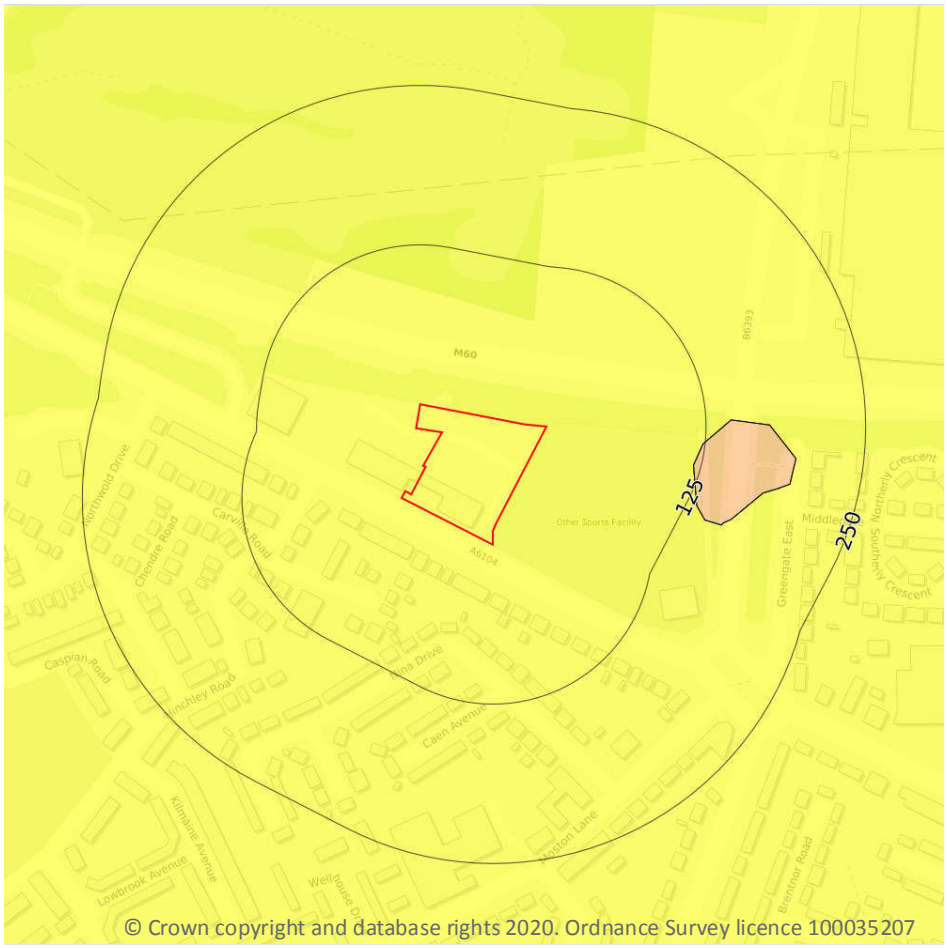
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 85**

Location	Hazard rating	Details
On site	**Negligible**	**Deposits with potential to collapse when loaded and saturated are believed not to be present.**
On site	**Very low**	**Deposits with potential to collapse when loaded and saturated are unlikely to be present.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.5 Landslides

Records within 50m	1

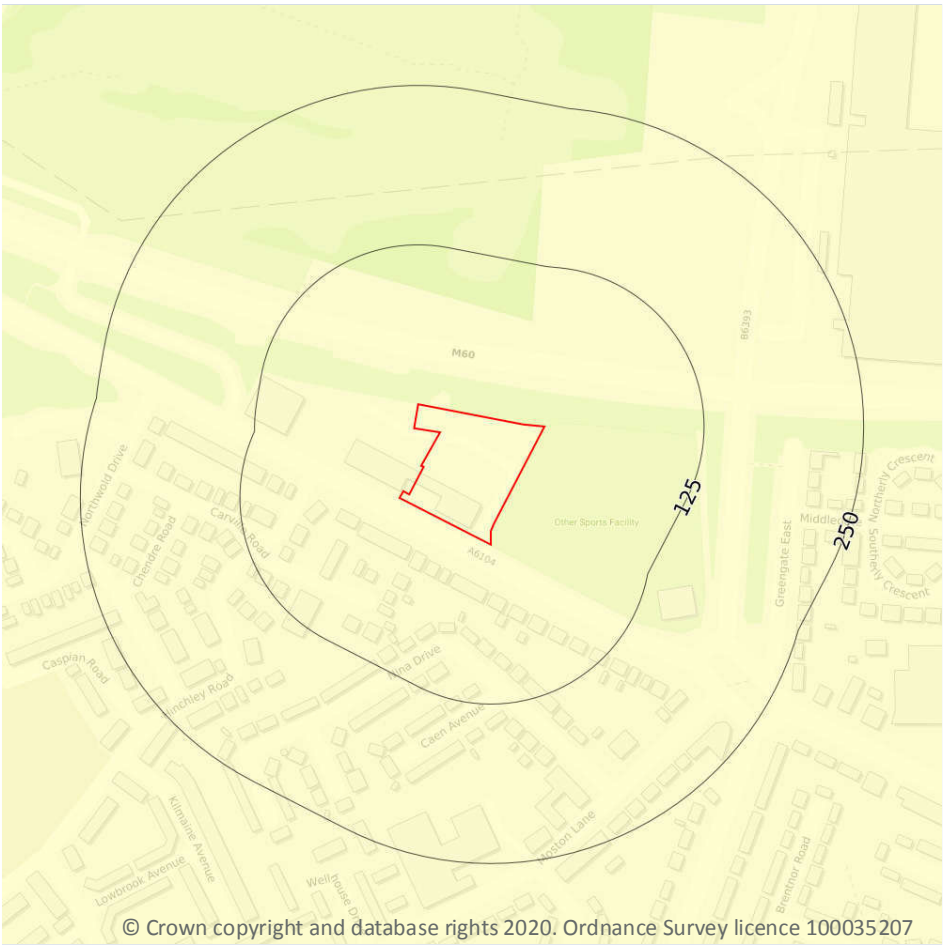
The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on **page 86**

Location	Hazard rating	Details
On site	**Very low**	**Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Ground dissolution of soluble rocks



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.6 Ground dissolution of soluble rocks

Records within 50m	1

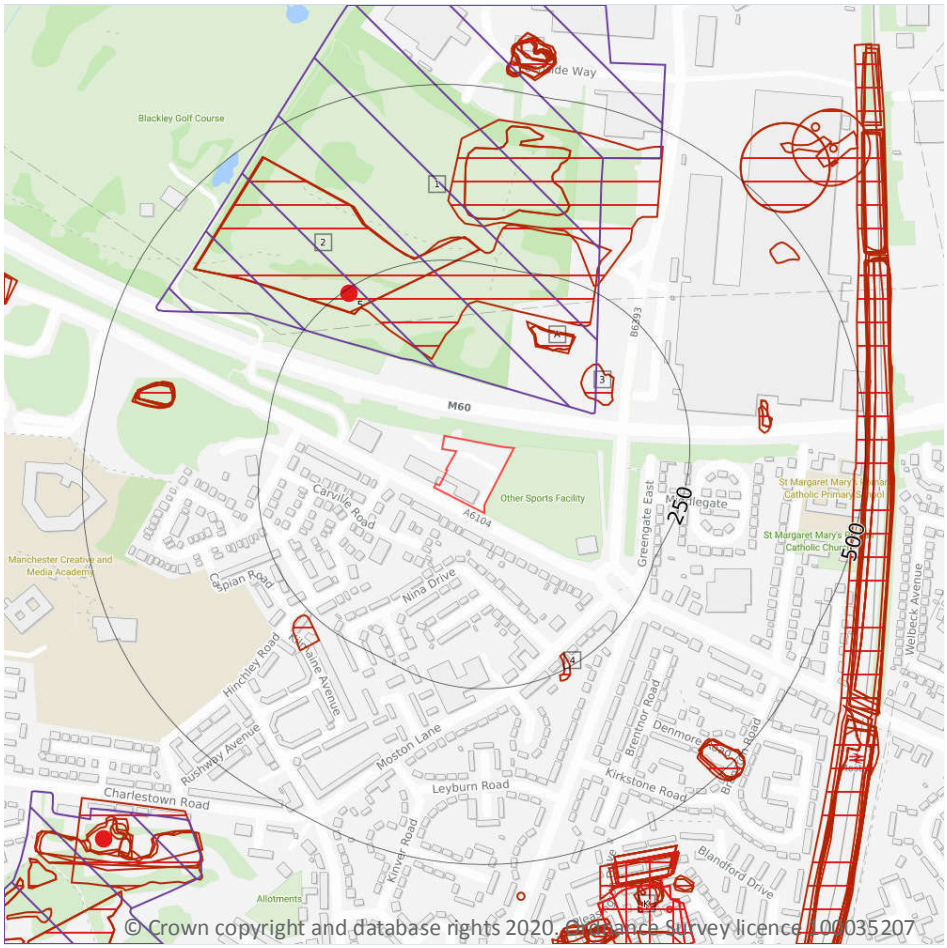
The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 87**

Location	Hazard rating	Details
On site	**Negligible**	**Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.**

This data is sourced from the British Geological Survey.

18 Mining, ground workings and natural cavities



Site Outline

Search buffers in metres (m)

- Natural cavities (Area)
- Natural cavities (Point)
- BritPits
- Surface ground workings
- Underground workings
- Historical Mineral Planning Areas
- Mining Cavities

Non Coal Mining

- Sporadic underground mining of restricted extent possible
- Localised small scale underground mining possible
- Small scale mining possible
- Underground mining known or likely within or in close proximity
- Underground mining known within or in very close proximity

18.1 Natural cavities

Records within 500m	0

Industry recognised national database of natural cavities. Sinkholes and caves are formed by the dissolution of soluble rock, such as chalk and limestone, gulls and fissures by cambering. Ground instability can result from movement of loose material contained within these cavities, often triggered by water.

This data is sourced from Peter Brett Associates (PBA).

18.2 BritPits

Records within 500m	1

BritPits (an abbreviation of British Pits) is a database maintained by the British Geological Survey of currently active and closed surface and underground mineral workings. Details of major mineral handling sites, such as wharfs and rail depots are also held in the database.

Features are displayed on the Mining, ground workings and natural cavities map on **page 88**

ID	Location	Details	Description
5	244m NW	Name: Greengate Brickworks Address: Chadderton, OLDHAM, Lancashire Commodity: Clay & Shale Status: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Type: Ceased Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

18.3 Surface ground workings

Records within 250m	8

Historical land uses identified from Ordnance Survey mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled.

Features are displayed on the Mining, ground workings and natural cavities map on **page 88**

ID	Location	Land Use	Year of mapping	Mapping scale
2	111m N	Unspecified Disused Pit	1988	1:10000
3	127m NE	Unspecified Pit	1956	1:10560
A	148m N	Pond	1988	1:10000
A	149m N	Pond	1980	1:10000
A	149m N	Pond	1975	1:10000
B	215m NW	Unspecified Disused Pit	1980	1:10000
B	215m NW	Unspecified Disused Pit	1975	1:10000
4	229m SE	Unspecified Ground Workings	1906	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground workings

Records within 1000m	9

Historical land uses identified from Ordnance Survey mapping that indicate the presence of underground workings e.g. mine shafts.

Features are displayed on the Mining, ground workings and natural cavities map on **page 88**

ID	Location	Land Use	Year of mapping	Mapping scale
L	532m S	Collieries	1906	1:10560
L	572m S	Collieries	1891	1:10560
K	602m S	Unspecified Old Shaft	1938	1:10560
K	619m SE	Unspecified Old Shaft	1933	1:10560
-	973m S	Collieries	1933	1:10560
-	973m S	Collieries	1915	1:10560
-	973m S	Collieries	1923	1:10560
-	980m S	Unspecified Mines	1966	1:10560
-	980m S	Collieries	1956	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m	1

Boundaries of mineral planning permissions for England and Wales. This data was collated between the 1940s (and retrospectively to the 1930s) and the mid 1980s. The data includes permitted, withdrawn and refused permissions.

Features are displayed on the Mining, ground workings and natural cavities map on **page 88**

ID	Location	Site Name	Mineral	Type	Planning Status	Planning Status Date
1	79m N	Chadderton	Clay, bricks	Surface mineral working	Valid	11/6/47

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m	0

The potential for historical non-coal mining to have affected an area. The assessment is drawn from expert knowledge and literature in addition to the digital geological map of Britain. Mineral commodities may be divided into seven general categories - vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and 'other' commodities (including ball clay, jet, black marble, graphite and chert).

This data is sourced from the British Geological Survey.

18.7 Mining cavities

Records within 1000m	0

Industry recognised national database of mining cavities. Degraded mines may result in hazardous subsidence (crown holes). Climatic conditions and water escape can also trigger subsidence over mine entrances and workings.

This data is sourced from Peter Brett Associates (PBA).

18.8 JPB mining areas

Records on site	0

Areas which could be affected by former coal mining. This data includes some mine plans unavailable to the Coal Authority.

This data is sourced from Johnson Poole and Bloomer.

18.9 Coal mining

Records on site	1

Areas which could be affected by past, current or future coal mining.

Location	Details
On site	**The site is located within a coal mining area as defined by the Coal Authority. A Consultants Coal Mining Report is recommended to further assess coal mining issues at the site. This can be ordered directly through Groundsure or your preferred search provider.**

This data is sourced from the Coal Authority.

18.10 Brine areas

Records on site	0

The Cheshire Brine Compensation District indicates areas that may be affected by salt and brine extraction in Cheshire and where compensation would be available where damage from this mining has occurred. Damage from salt and brine mining can still occur outside this district, but no compensation will be available.

This data is sourced from the Cheshire Brine Subsidence Compensation Board.

18.11 Gypsum areas

Records on site	0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.12 Tin mining

Records on site	0

Generalised areas that may be affected by historical tin mining.

This data is sourced from Mining Searches UK.

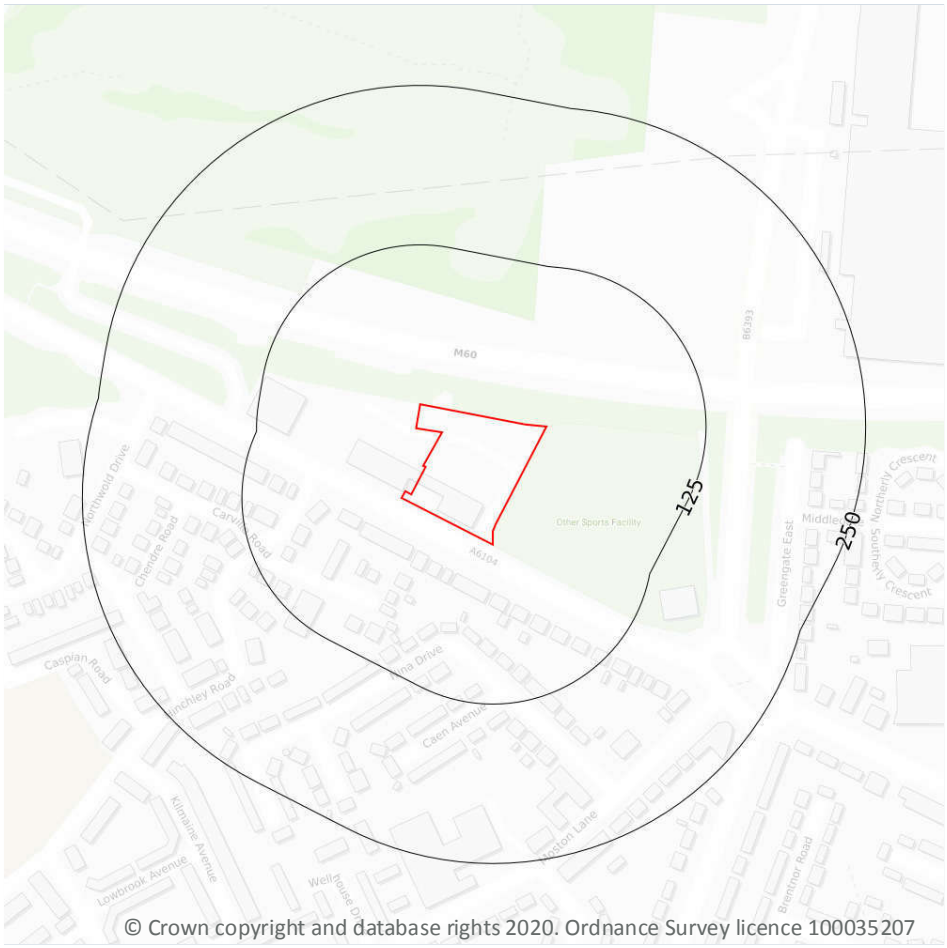
18.13 Clay mining

Records on site	0

Generalised areas that may be affected by kaolin and ball clay extraction.

This data is sourced from the Kaolin and Ball Clay Association (UK).

19 Radon



Site Outline

Search buffers in metres (m)

- Greater than 30%
- Between 10% and 30%
- Between 5% and 10%
- Between 3% and 5%
- Between 1% and 3%
- Less than 1%

19.1 Radon

Records on site	1

Estimated percentage of dwellings exceeding the Radon Action Level. This data is the highest resolution radon dataset available for the UK and is produced to a 75m level of accuracy to allow for geological data accuracy and a 'residential property' buffer. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain. The data was derived from both geological assessments and long term measurements of radon in more than 479,000 households.

Features are displayed on the Radon map on **page 93**

Location	Estimated properties affected	Radon Protection Measures required
On site	**Less than 1%**	**None****

This data is sourced from the British Geological Survey and Public Health England.

20 Soil chemistry

20.1 BGS Estimated Background Soil Chemistry

Records within 50m	3

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km^2. In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km^2; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	**15 - 25 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
16m S	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg

This data is sourced from the British Geological Survey.

20.2 BGS Estimated Urban Soil Chemistry

Records within 50m	0

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km^2).

This data is sourced from the British Geological Survey.

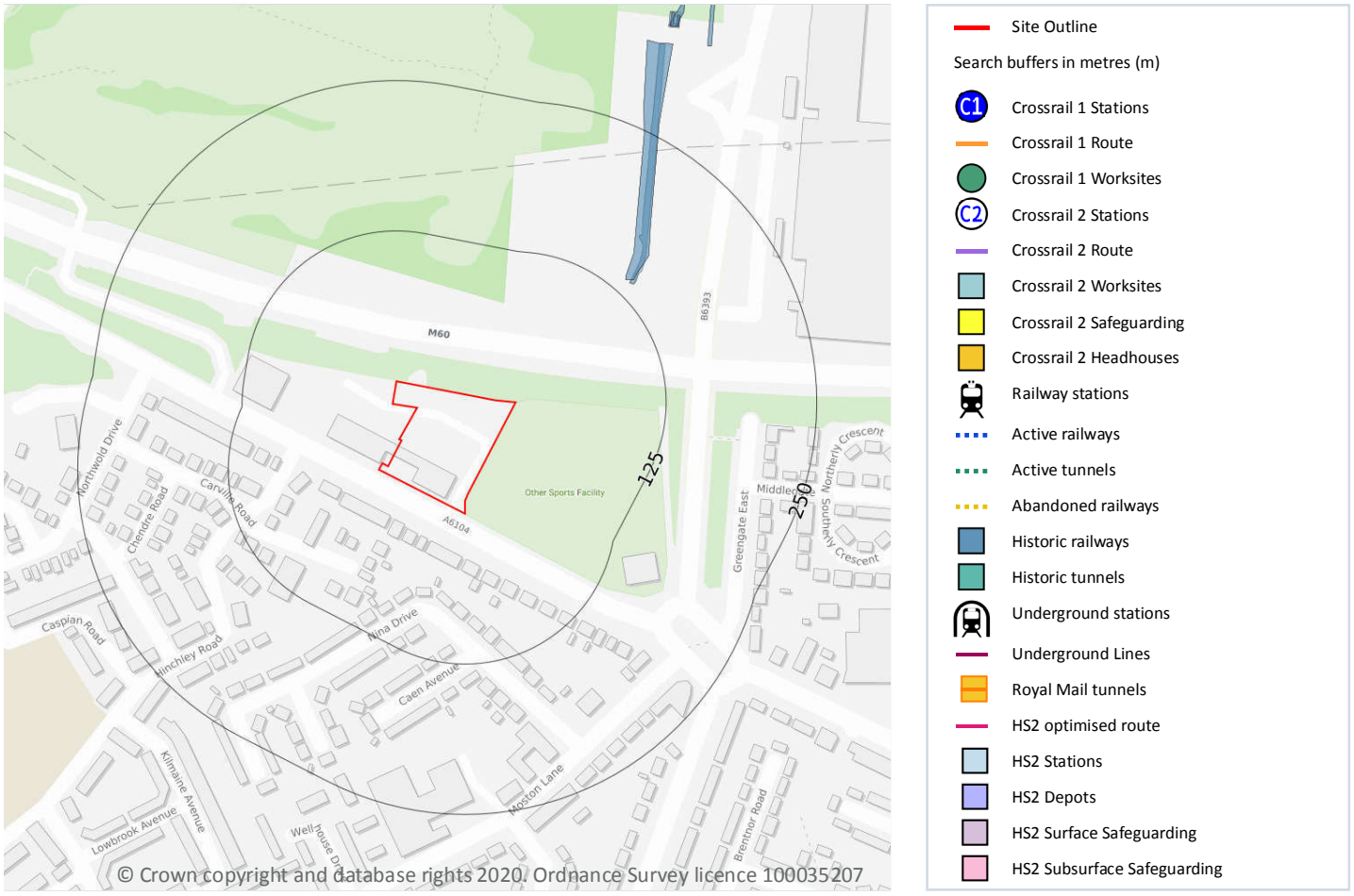
20.3 BGS Measured Urban Soil Chemistry

Records within 50m	0

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km^2.

This data is sourced from the British Geological Survey.

21 Railway infrastructure and projects



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21.1 Underground railways (London)

Records within 250m	0

Details of all active London Underground lines, including approximate tunnel roof depth and operational hours.

This data is sourced from publicly available information by Groundsure.

21.2 Underground railways (Non-London)

Records within 250m	0

Details of the Merseyrail system, the Tyne and Wear Metro and the Glasgow Subway. Not all parts of all systems are located underground. The data contains location information only and does not include a depth assessment.

This data is sourced from publicly available information by Groundsure.

21.3 Railway tunnels

Records within 250m	0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

21.4 Historical railway and tunnel features

Records within 250m	4

Railways and tunnels digitised from historical Ordnance Survey mapping as scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560.

Features are displayed on the Railway infrastructure and projects map on **page 95**

Location	Land Use	Year of mapping	Mapping scale
137m NE	Railway Sidings	1966	10560
137m NE	Railway Sidings	1956	10560
137m NE	Railway Sidings	1951	2500
138m NE	Railway Sidings	1950	1250

This data is sourced from Ordnance Survey/Groundsure.

21.5 Royal Mail tunnels

Records within 250m	0

The Post Office Railway, otherwise known as the Mail Rail, is an underground railway running through Central London from Paddington Head District Sorting Office to Whitechapel Eastern Head Sorting Office. The line is 10.5km long. The data includes details of the full extent of the tunnels, the depth of the tunnel, and the depth to track level.

This data is sourced from Groundsure/the Postal Museum.

21.6 Historical railways

Records within 250m	0

Former railway lines, including dismantled lines, abandoned lines, disused lines, historic railways and razed lines.

This data is sourced from OpenStreetMap.

21.7 Railways

Records within 250m	0

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways.

This data is sourced from Ordnance Survey and OpenStreetMap.

21.8 Crossrail 1

Records within 500m	0

The Crossrail railway project links 41 stations over 100 kilometres from Reading and Heathrow in the west, through underground sections in central London, to Shenfield and Abbey Wood in the east.

This data is sourced from publicly available information by Groundsure.

21.9 Crossrail 2

Records within 500m	0

Crossrail 2 is a proposed railway linking the national rail networks in Surrey and Hertfordshire via an underground tunnel through London.

This data is sourced from publicly available information by Groundsure.

21.10 HS2

Records within 500m	0

HS2 is a proposed high speed rail network running from London to Manchester and Leeds via Birmingham. Main civils construction on Phase 1 (London to Birmingham) of the project began in 2019, and it is currently anticipated that this phase will be fully operational by 2026. Construction on Phase 2a (Birmingham to Crewe) is anticipated to commence in 2021, with the service fully operational by 2027. Construction on Phase 2b (Crewe to Manchester and Birmingham to Leeds) is scheduled to begin in 2023 and be operational by 2033.

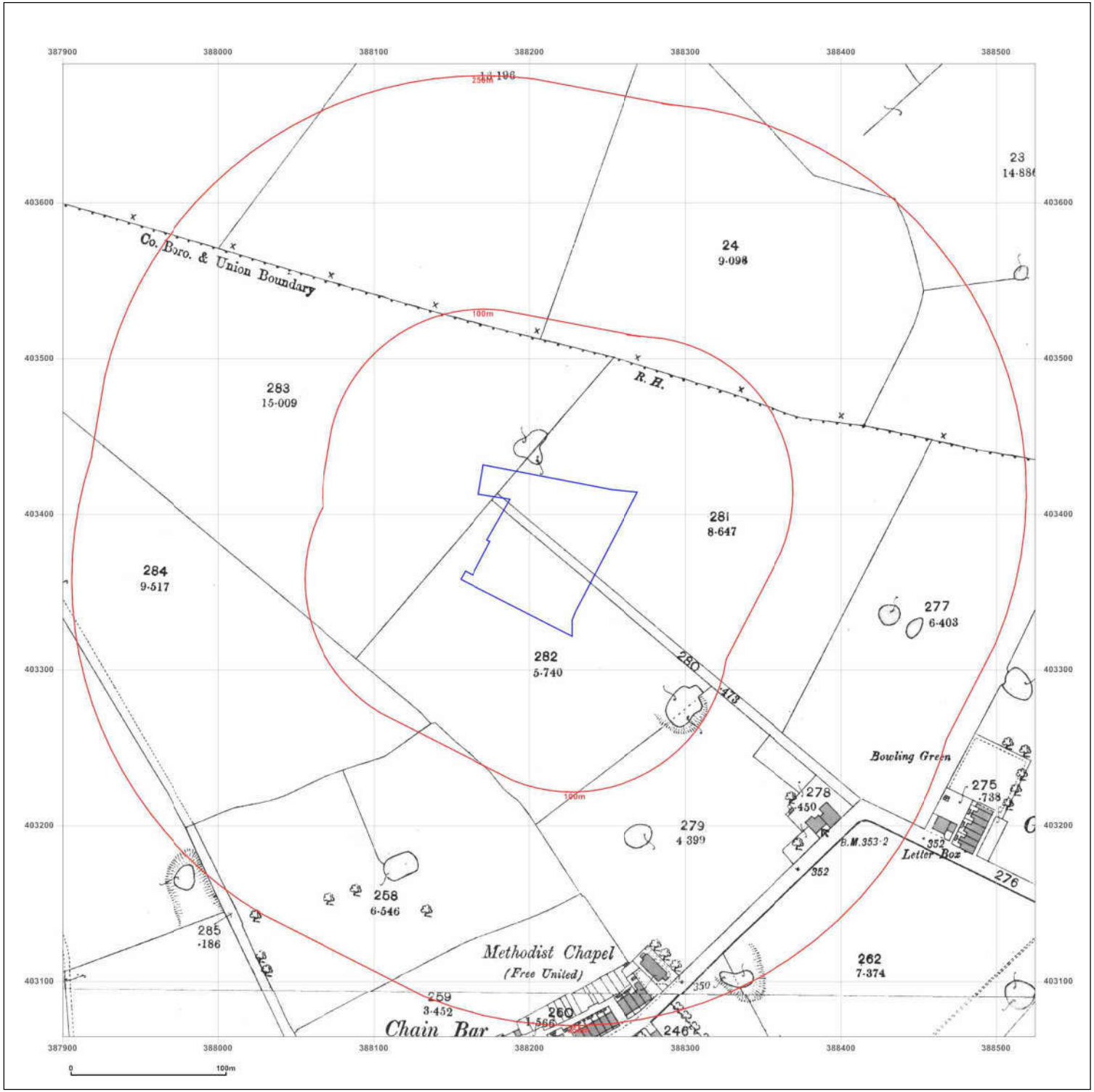
This data is sourced from HS2 ltd.

Data providers

Groundsure works with respected data providers to bring you the most relevant and accurate information. To find out who they are and their areas of expertise see https://www.groundsure.com/sources-reference.

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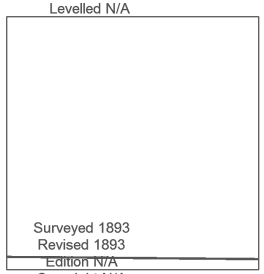
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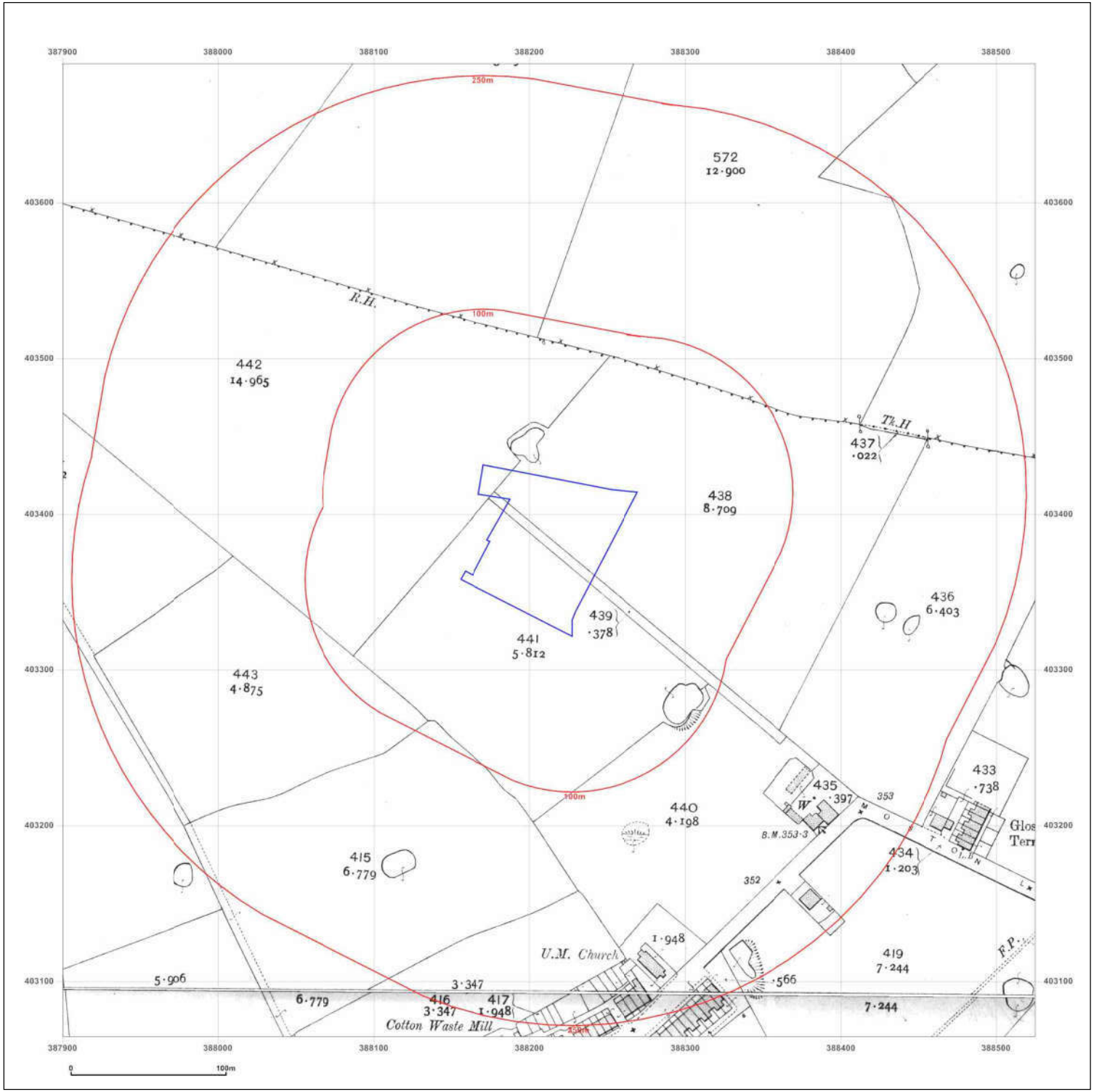
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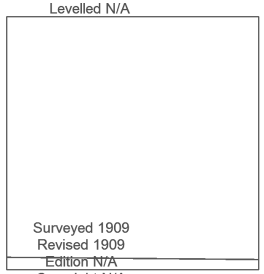
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Map Name: County Series
Map date: 1909
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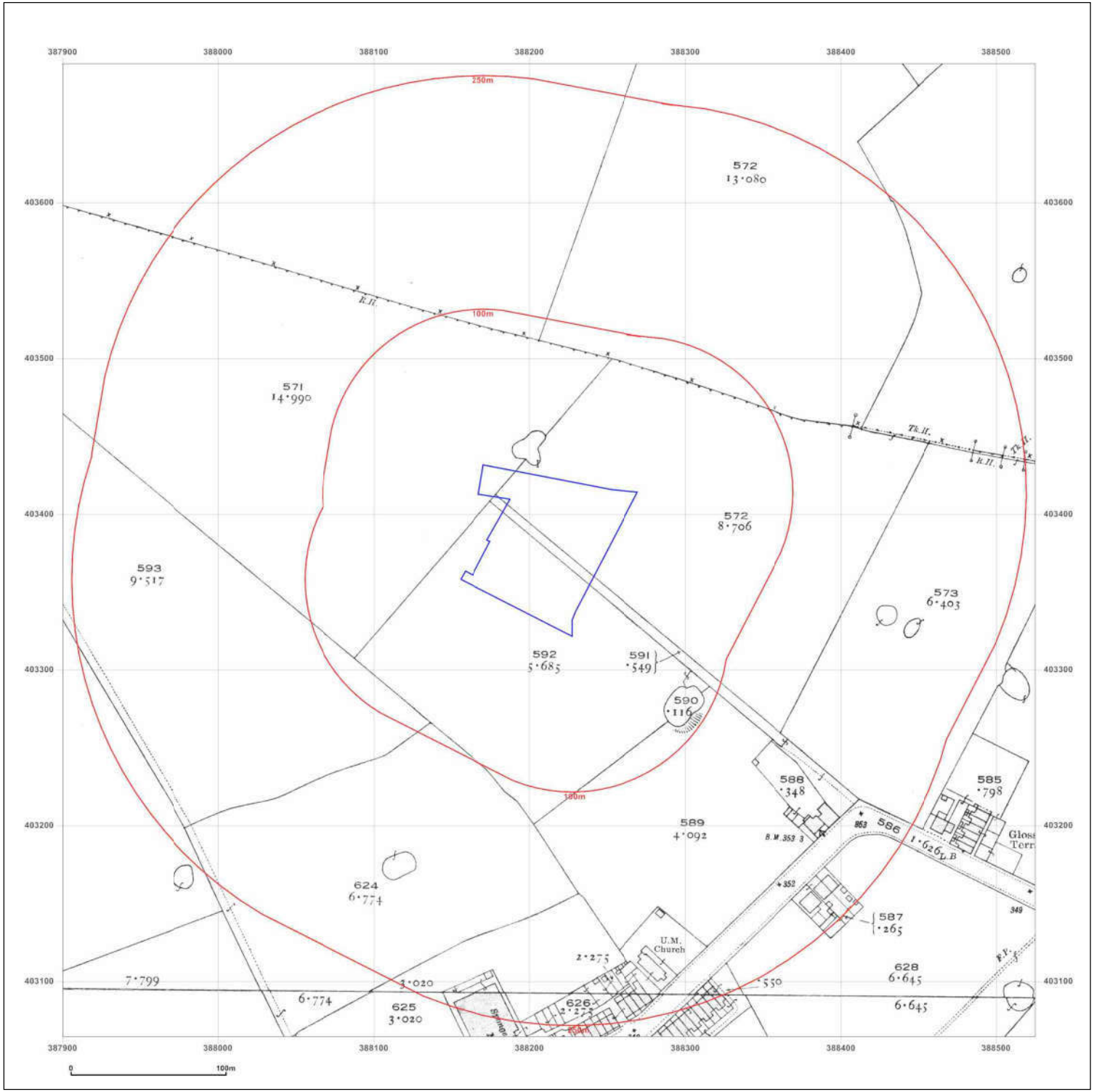
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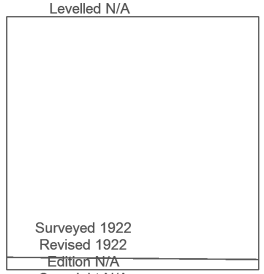
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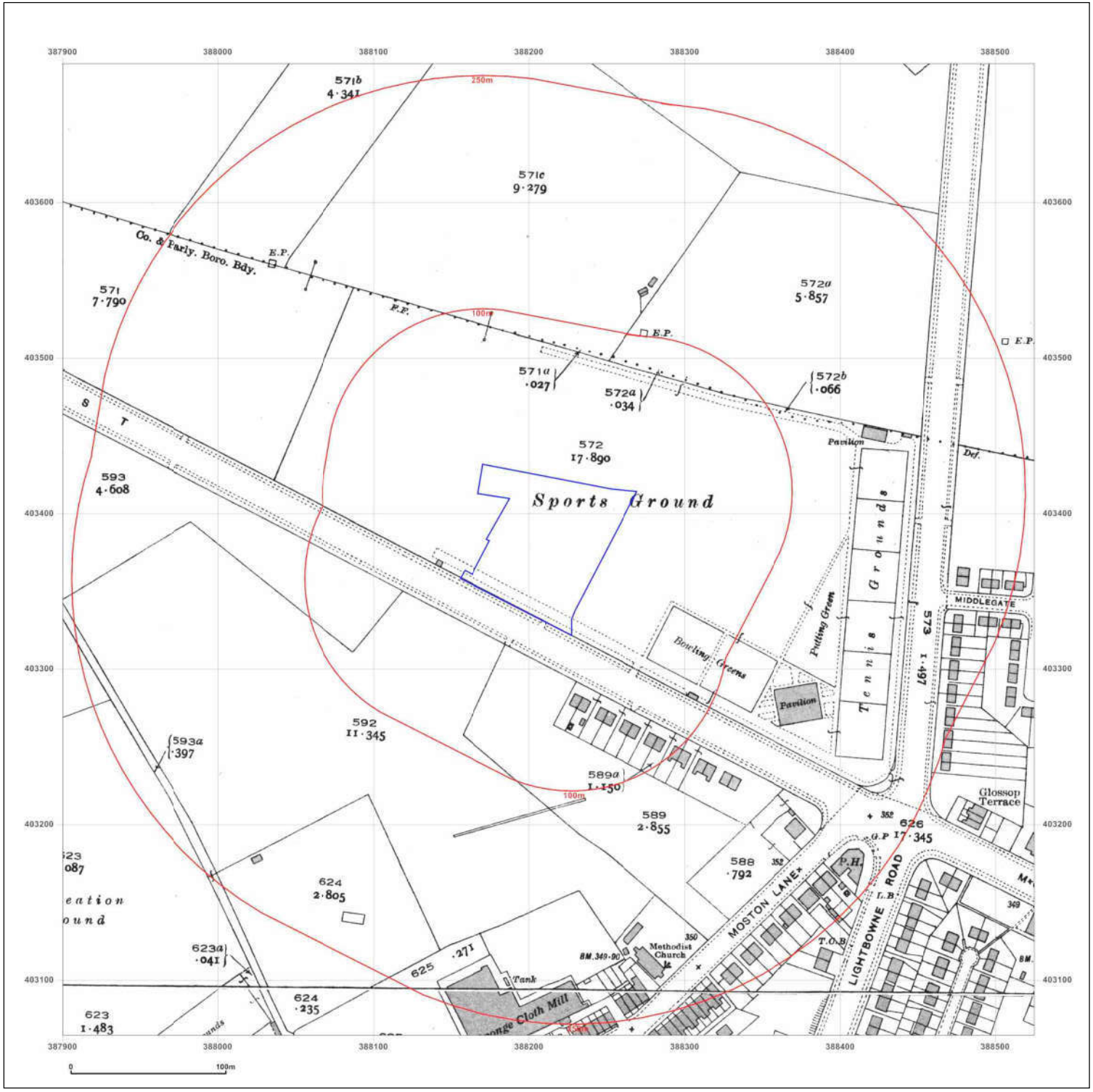
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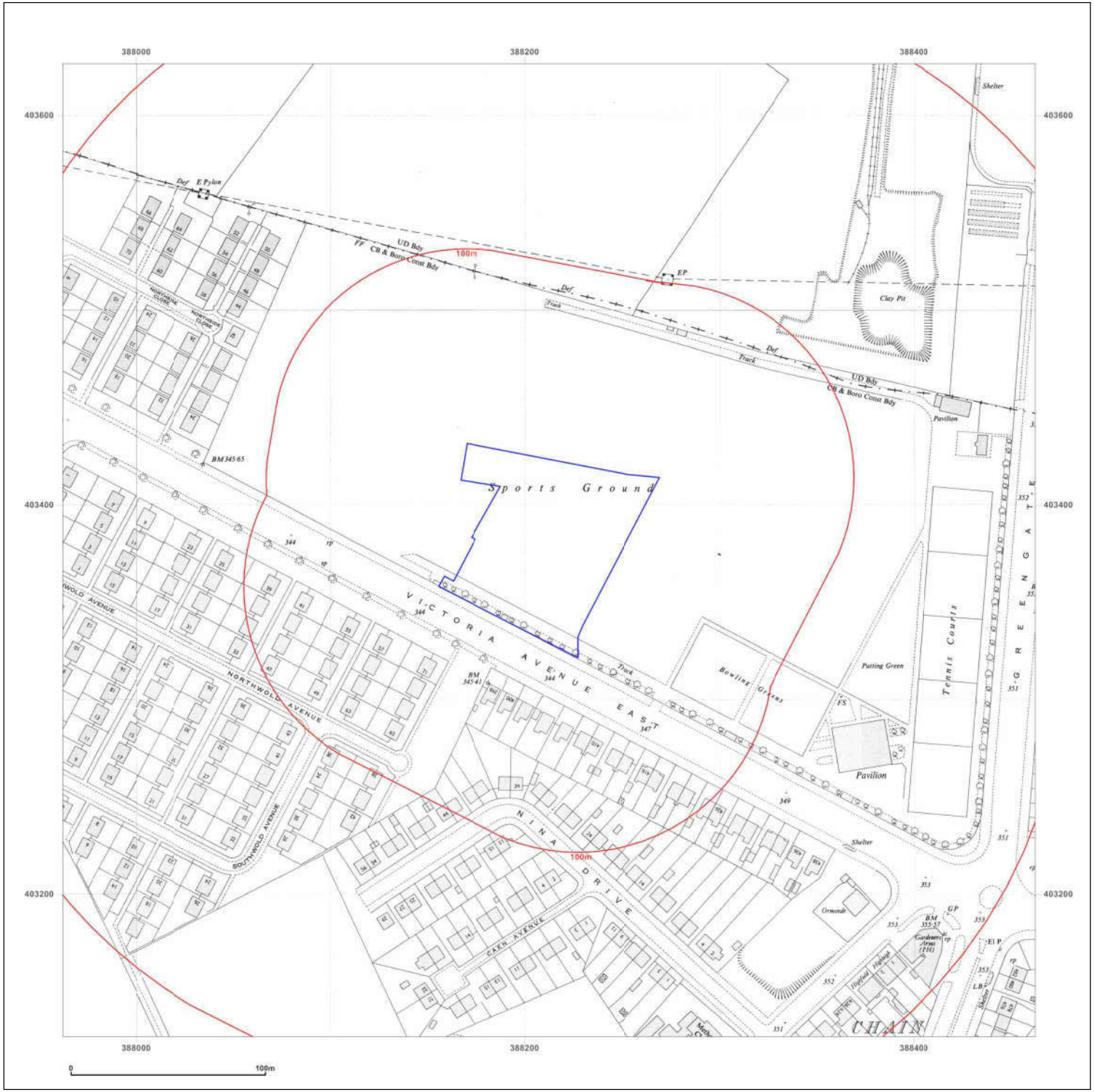
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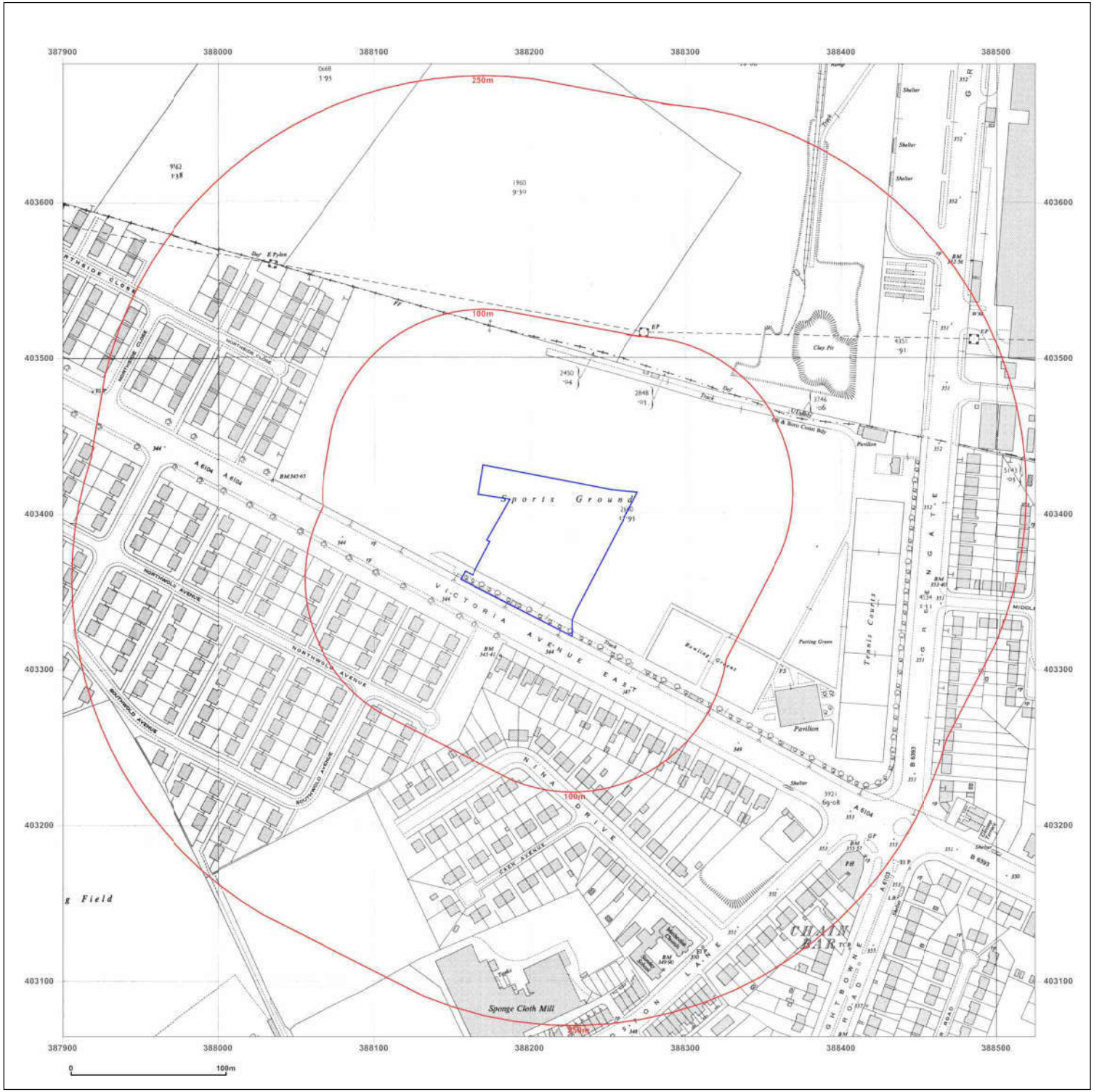
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Grid Ref: 388212, 403377

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Map date: 1951
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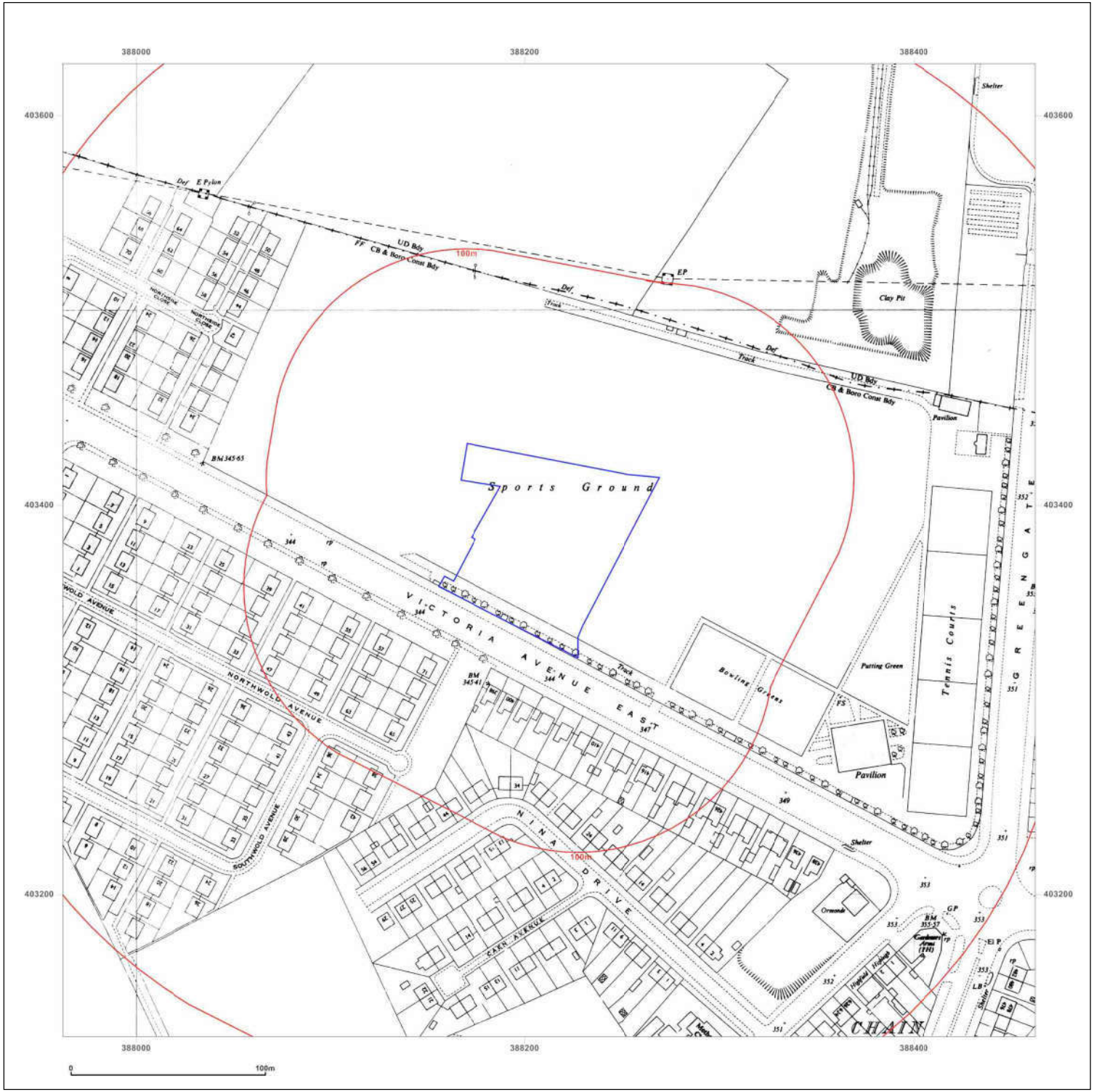
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Surveyed 1950 Revised N/A Edition N/A Copyright 1952 Levelled 1948	Surveyed 1950 Revised N/A Edition N/A Copyright 1952 Levelled 1948
Surveyed 1950 Revised N/A Edition N/A Copyright 1952 Levelled 1948	Surveyed 1951 Revised N/A Edition N/A Copyright 1952 Levelled 1948

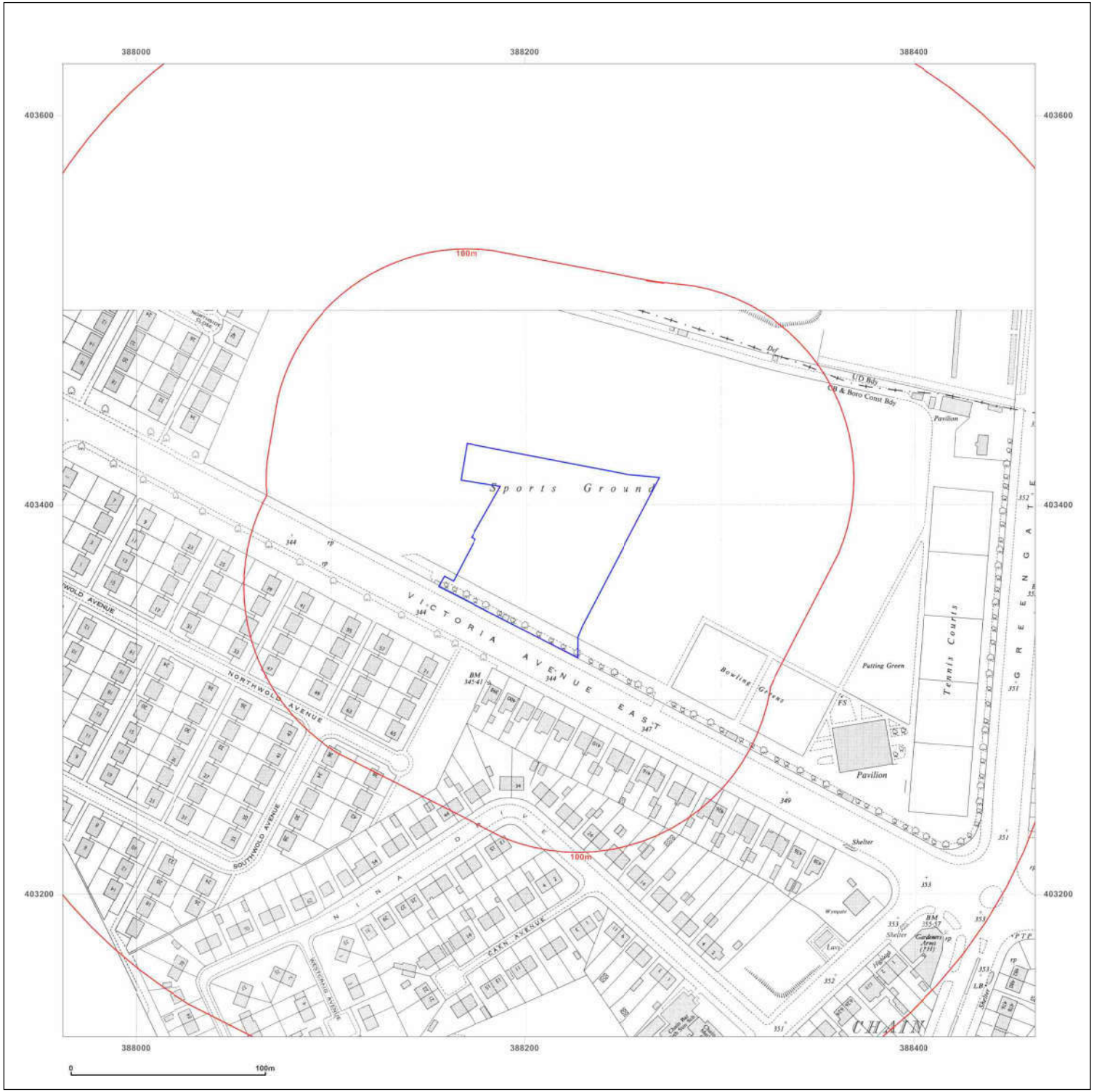
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Site Details:

FLAT 1, 261, VICTORIA AVENUE EAST, MANCHESTER, M9 7GH

Client Ref: A3469_Moston
Report Ref: GS-6669461
Grid Ref: 388212, 403377

Map Name: National Grid
Map date: **1953-1958**
Scale: 1:1,250
Printed at: 1:2,000

N
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Surveyed 1950
Revised 1953
Edition N/A
Copyright N/A
Levelled 1948

Surveyed 1951
Revised 1958
Edition N/A
Copyright 1958
Levelled 1948

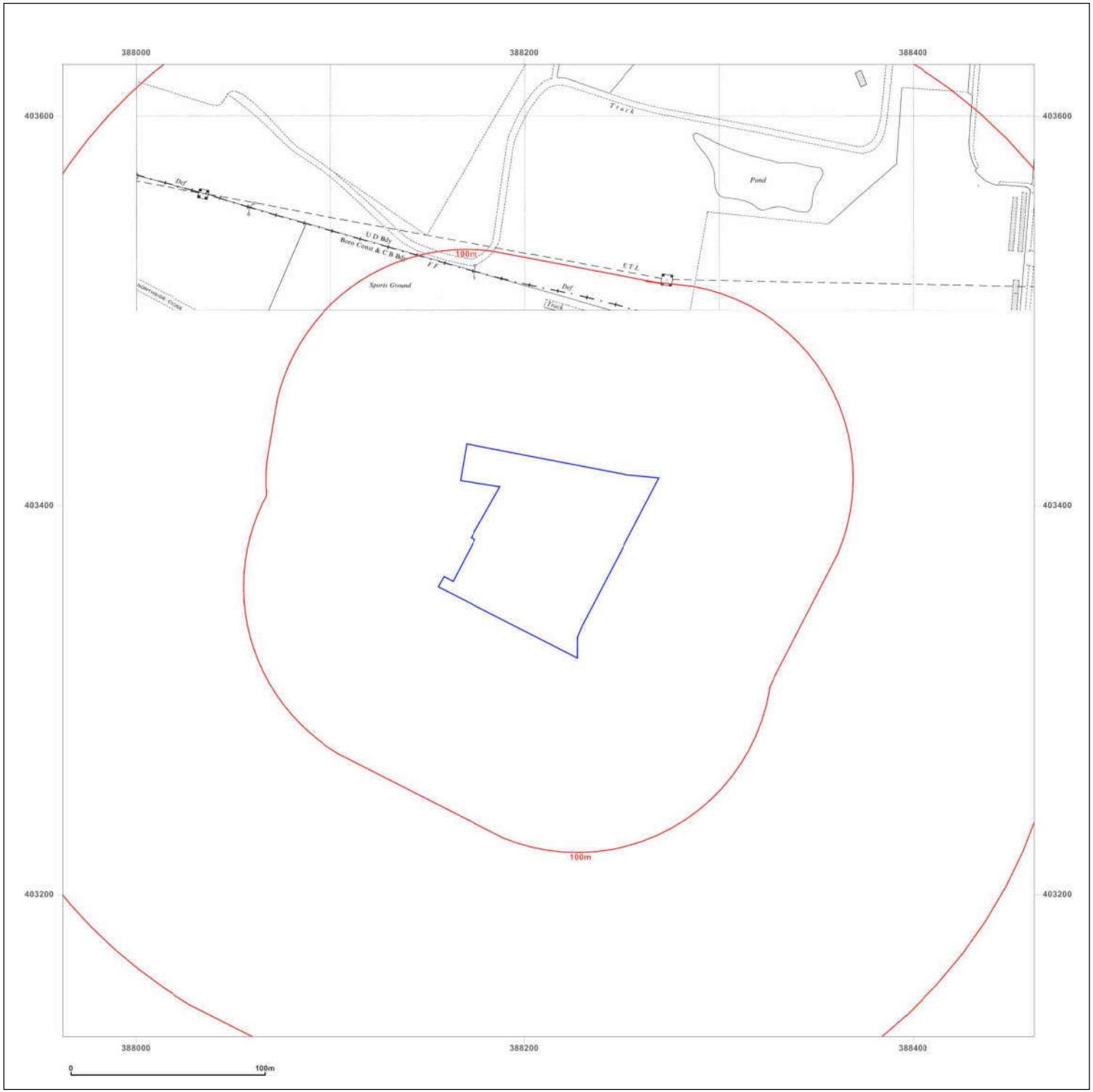
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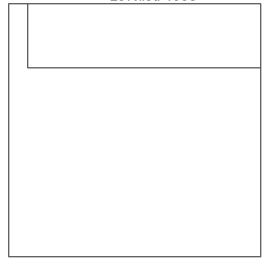
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Client Ref: A3469_Moston
Report Ref: GS-6669461
Grid Ref: 388212, 403377

Map Name: National Grid
Map date: 1967
Scale: 1:1,250
Printed at: 1:2,000

N
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Surveyed 1967
Revised 1967
Edition N/A
Copyright 1967
Levelled 1958



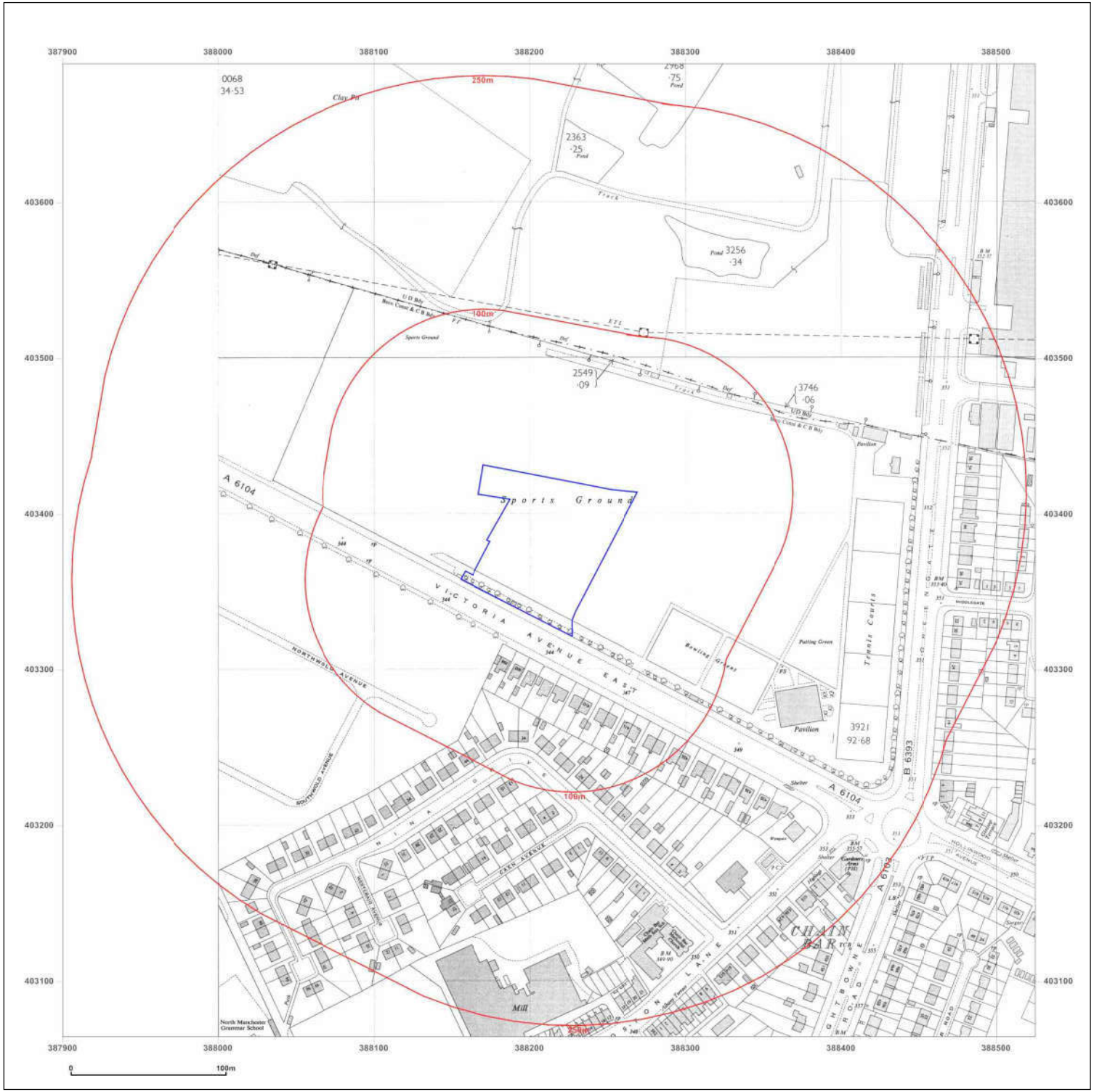
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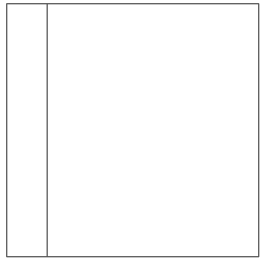
Site Details:

FLAT 1, 261, VICTORIA AVENUE EAST, MANCHESTER, M9 7GH

Client Ref: A3469_Moston
Report Ref: GS-6669461
Grid Ref: 388212, 403377

Map Name: National Grid
Map date: 1969
Scale: 1:2,500
Printed at: 1:2,500

N
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Surveyed 1969
Revised 1969
Edition N/A
Copyright 1970
Levelled 1964

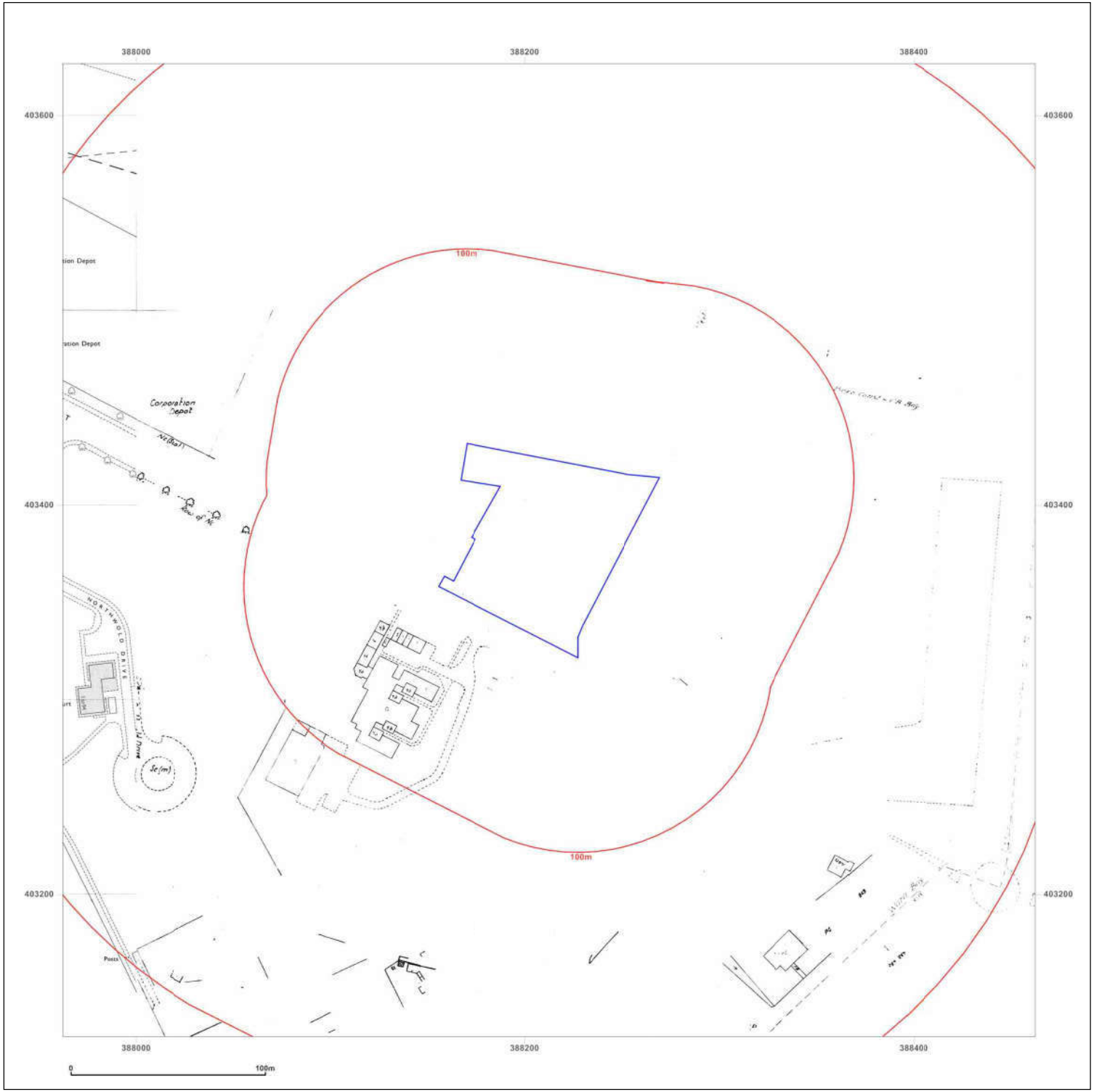
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Site Details:

FLAT 1, 261, VICTORIA AVENUE EAST, MANCHESTER, M9 7GH

Client Ref: A3469_Moston
Report Ref: GS-6669461
Grid Ref: 388212, 403377

Map Name: National Grid
Map date: **1974-1975**
Scale: 1:1,250
Printed at: 1:2,000

N
W E
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Surveyed 1950
Revised 1974
Edition N/A
Copyright 1974
Levelled 1958

Surveyed 1950
Revised 1974
Edition N/A
Copyright 1974
Levelled 1958

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1975
Levelled N/A

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Site Details:

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Client Ref: A3469_Moston
Report Ref: GS-6669461
Grid Ref: 388212, 403377

Map Name: National Grid
Map date: **1975-1976**
Scale: 1:1,250
Printed at: 1:2,000

N
W E
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Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1975
Levelled N/A

Surveyed 1951
Revised 1975
Edition N/A
Copyright 1976
Levelled 1964

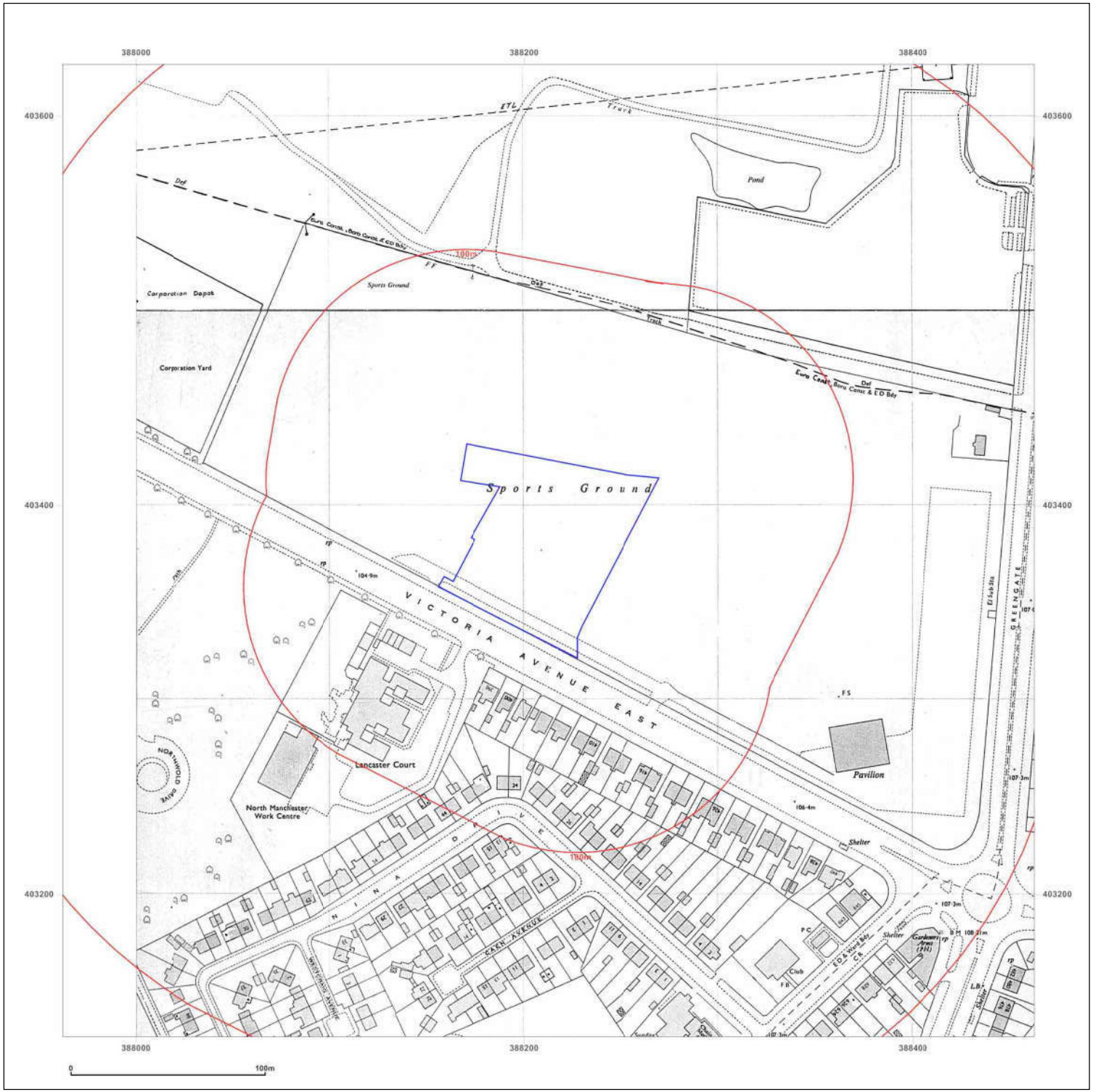
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Site Details:

FLAT 1, 261, VICTORIA AVENUE EAST, MANCHESTER, M9 7GH

Client Ref: A3469_Moston
Report Ref: GS-6669461
Grid Ref: 388212, 403377

Map Name: National Grid
Map date: 1980-1985
Scale: 1:1,250
Printed at: 1:2,000

N
W E
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Surveyed 1958
Revised 1985
Edition N/A
Copyright 1985
Levelled 1958

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1980
Levelled 1964

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Site Details:

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Client Ref: A3469_Moston
Report Ref: GS-6669461
Grid Ref: 388212, 403377

Map Name: National Grid
Map date: **1990-1992**
Scale: 1:1,250
Printed at: 1:2,000

N
W E
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Surveyed 1992 Revised N/A Edition N/A Copyright 1992 Levelled N/A	Surveyed 1958 Revised 1990 Edition N/A Copyright 1990 Levelled 1958
Surveyed 1992 Revised N/A Edition N/A Copyright 1992 Levelled N/A	Surveyed 1992 Revised N/A Edition N/A Copyright 1992 Levelled N/A

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Site Details:

FLAT 1, 261, VICTORIA AVENUE EAST, MANCHESTER, M9 7GH

Client Ref: A3469_Moston
Report Ref: GS-6669461
Grid Ref: 388212, 403377

Map Name: National Grid
Map date: **1992-1993**
Scale: 1:1,250
Printed at: 1:2,000

N
W E
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Surveyed 1992
Revised N/A
Edition N/A
Copyright 1992
Levelled N/A

Surveyed 1993
Revised N/A
Edition N/A
Copyright 1993
Levelled N/A

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Site Details:

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Client Ref: A3469_Moston
Report Ref: GS-6669461
Grid Ref: 388212, 403377

Map Name: LandLine
Map date: 2003
Scale: 1:1,250
Printed at: 1:1,250

N
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2003

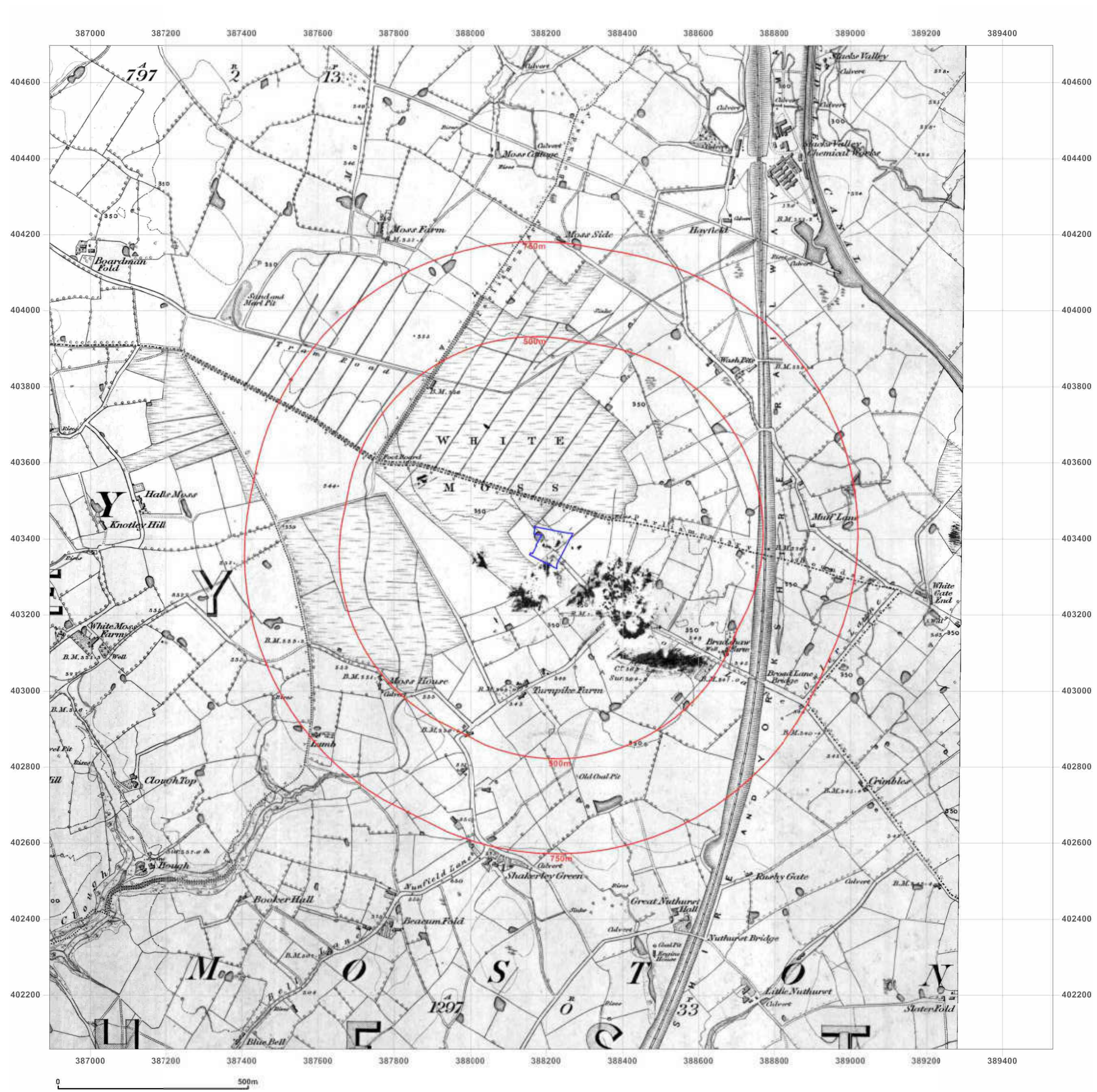
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Site Details:

FLAT 1, 261, VICTORIA AVENUE EAST, MANCHESTER, M9 7GH

Client Ref: A3469_Moston
Report Ref: GS-6669461
Grid Ref: 388212, 403377

Map Name: County Series

Map date: **1848**

Scale: 1:10,560

Printed at: 1:10,560

N E S W

Surveyed 1845
Revised N/A
Edition 1848
Copyright N/A
Levelled N/A

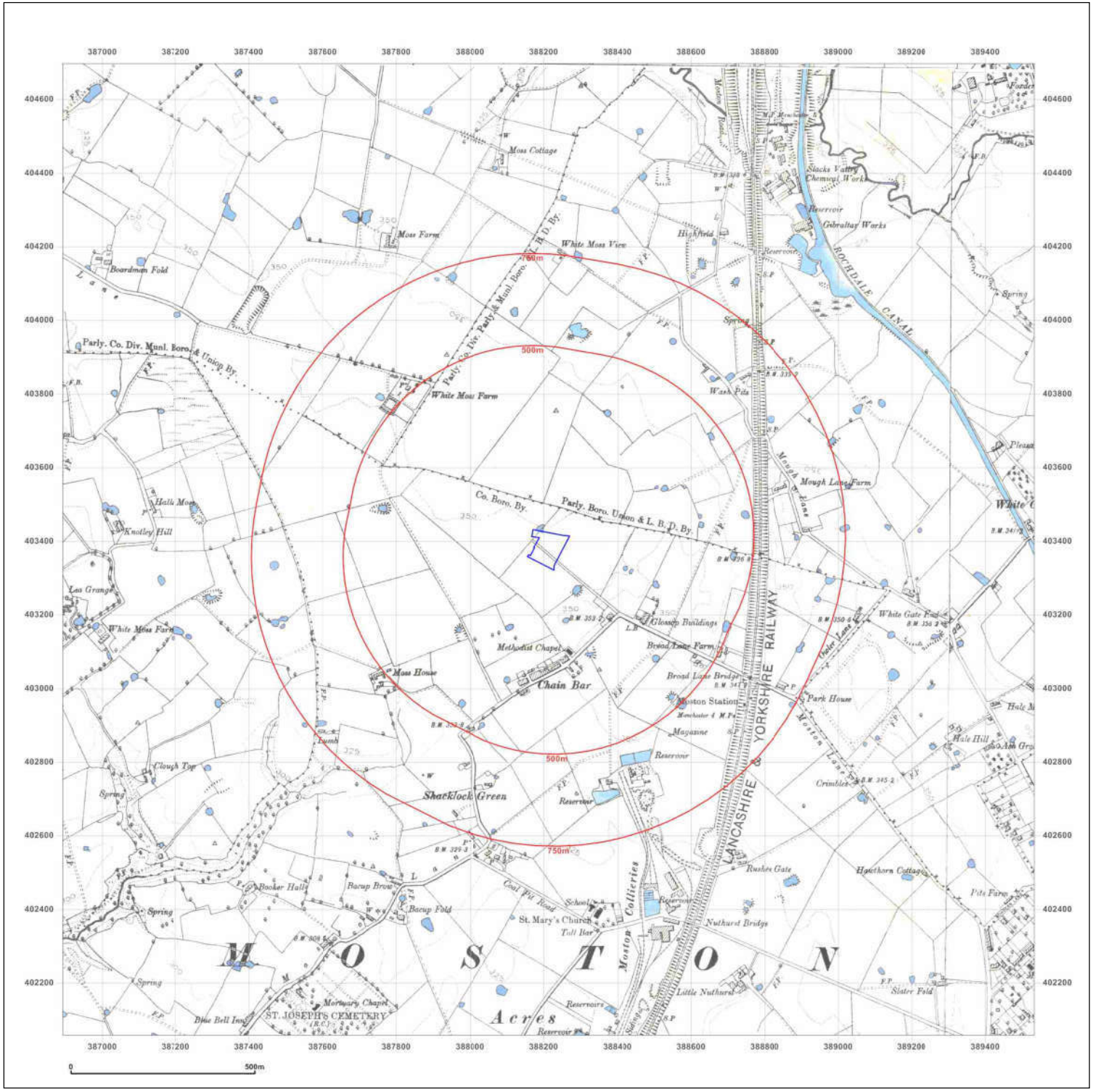
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Site Details:

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Client Ref: A3469_Moston
Report Ref: GS-6669461
Grid Ref: 388212, 403377

Map Name: County Series
Map date: 1891
Scale: 1:10,560
Printed at: 1:10,560

N
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Surveyed 1891
Revised 1891
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1891
Revised 1891
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1891
Revised 1891
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1891
Revised 1891
Edition N/A
Copyright N/A
Levelled N/A

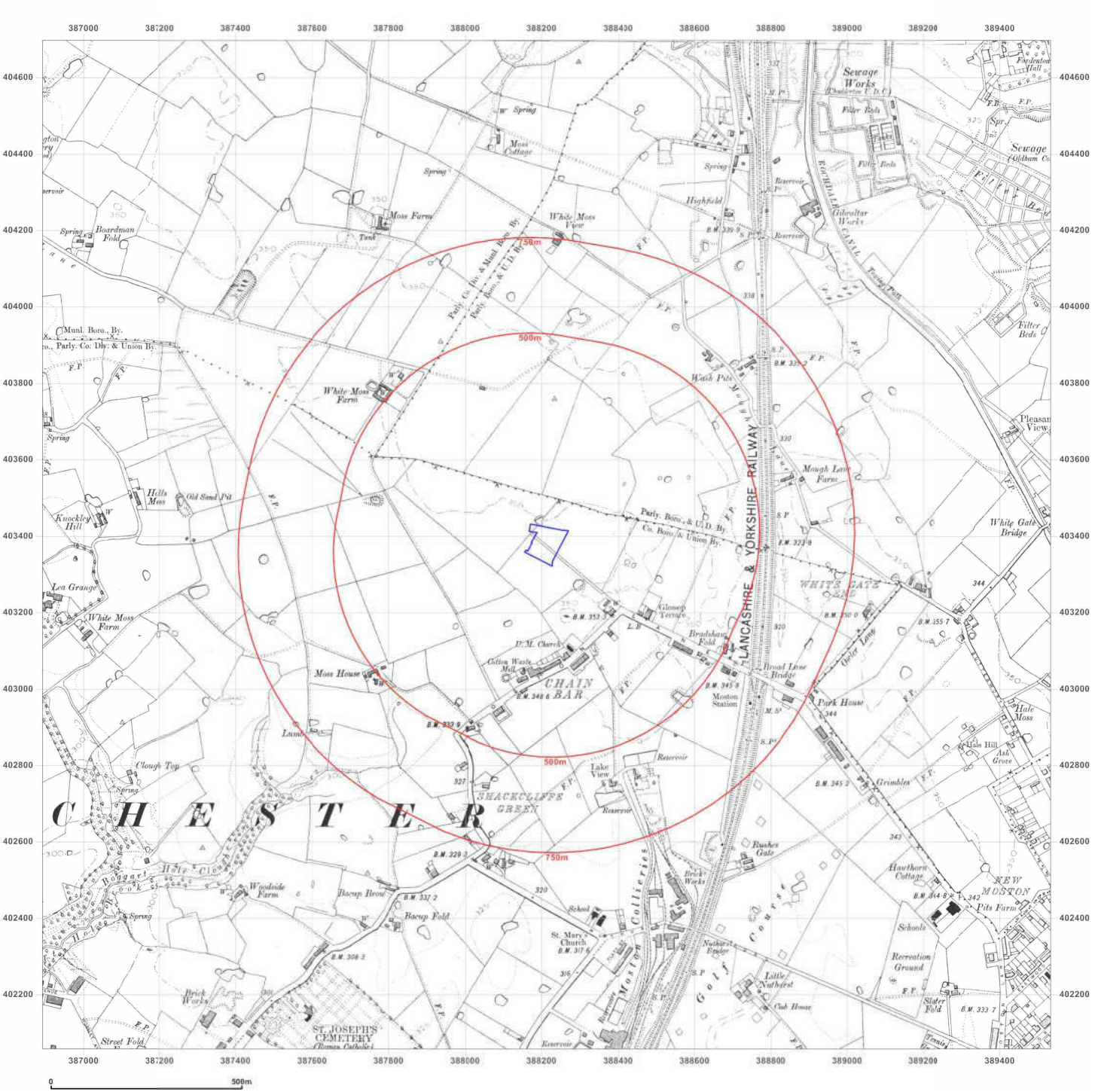
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Site Details:

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Client Ref: A3469_Moston
Report Ref: GS-6669461
Grid Ref: 388212, 403377

Map Name: County Series
Map date: 1906-1907
Scale: 1:10,560
Printed at: 1:10,560

N
W E
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Surveyed 1844
Revised 1907
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1844
Revised 1907
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1844
Revised 1906
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1844
Revised 1906
Edition N/A
Copyright N/A
Levelled N/A

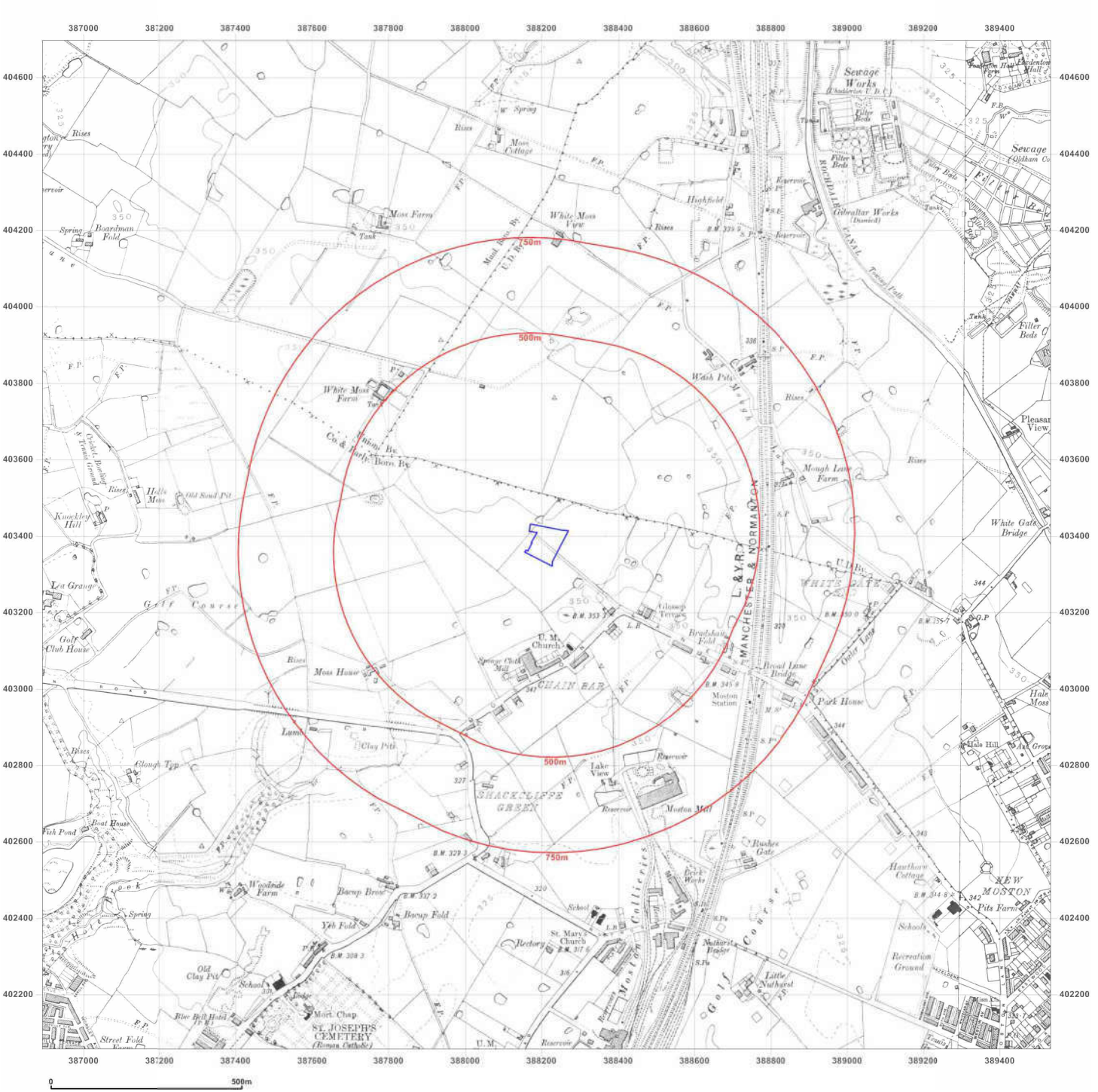
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Site Details:

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Client Ref: A3469_Moston
Report Ref: GS-6669461
Grid Ref: 388212, 403377

Map Name: County Series
Map date: 1915-1916
Scale: 1:10,560
Printed at: 1:10,560

N
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Surveyed 1844
Revised 1915
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1844
Revised 1916
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1844
Revised 1915
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1844
Revised 1916
Edition N/A
Copyright N/A
Levelled N/A

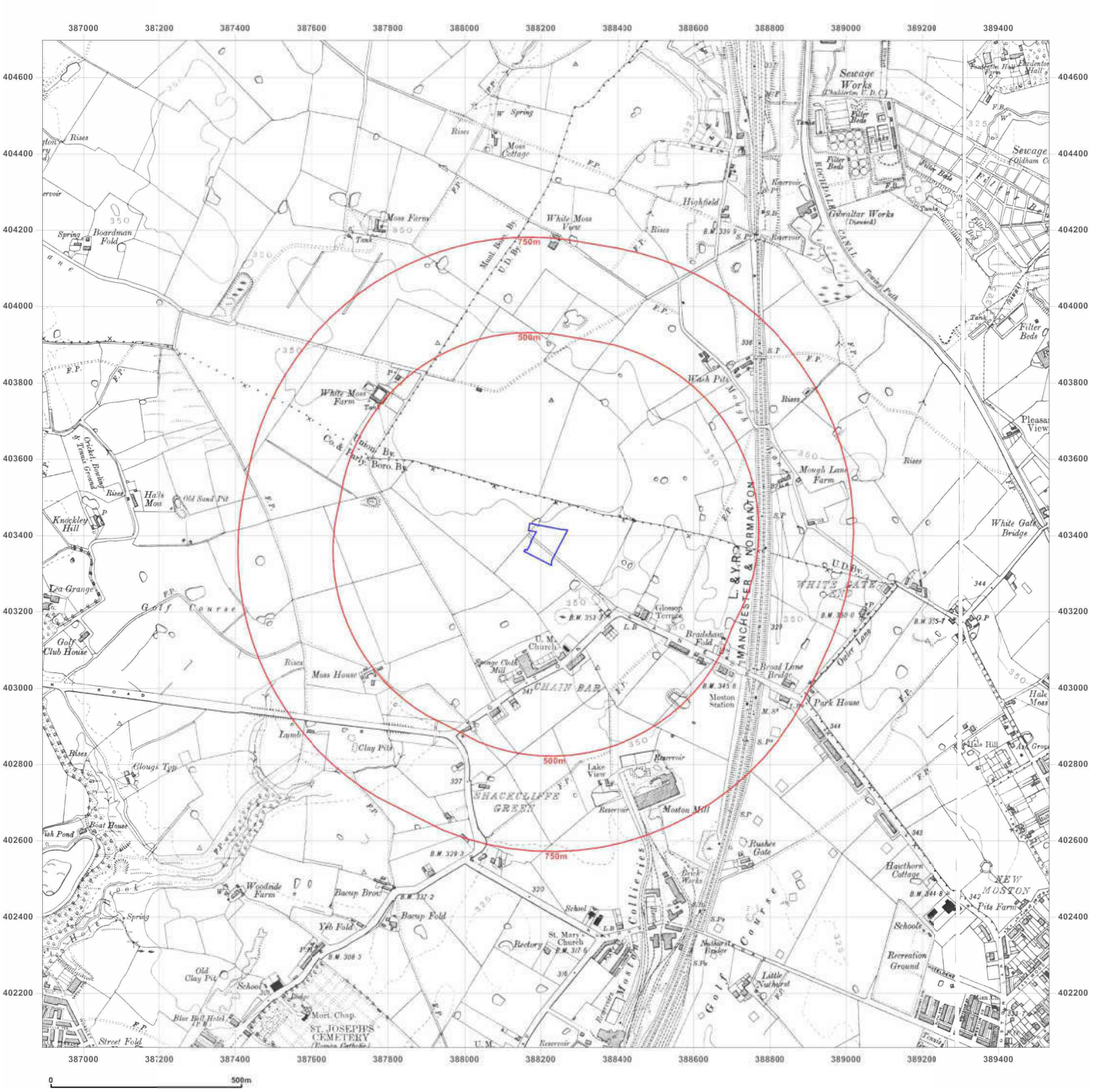
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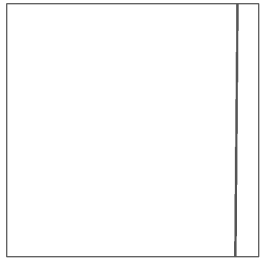
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Client Ref: A3469_Moston
Report Ref: GS-6669461
Grid Ref: 388212, 403377

Map Name: County Series
Map date: 1923
Scale: 1:10,560
Printed at: 1:10,560

N
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Surveyed 1844
Revised 1923
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1844
Revised 1923
Edition N/A
Copyright N/A
Levelled N/A

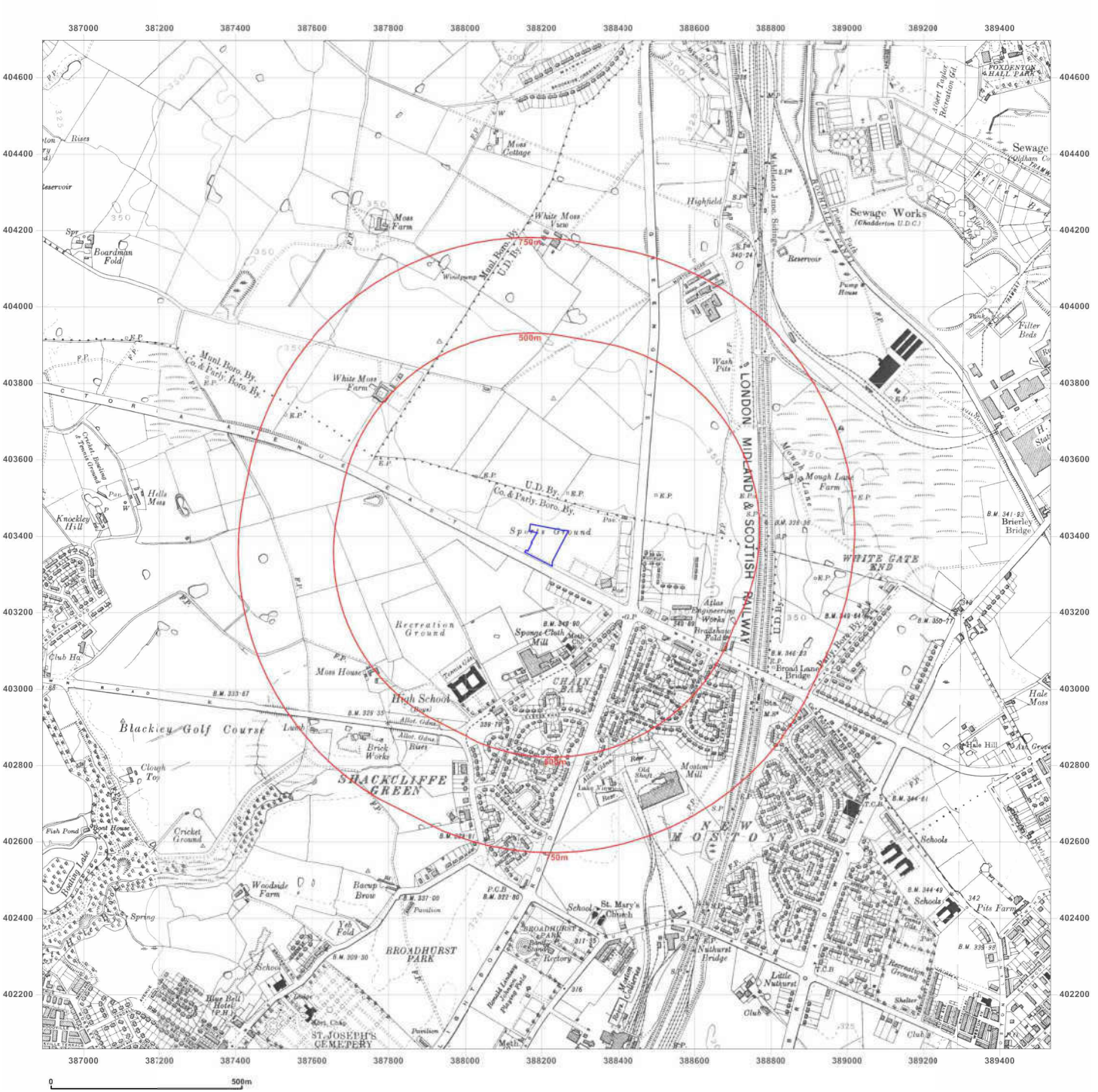
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Site Details:

FLAT 1, 261, VICTORIA AVENUE EAST, MANCHESTER, M9 7GH

Client Ref: A3469_Moston
Report Ref: GS-6669461
Grid Ref: 388212, 403377

Map Name: County Series
Map date: **1932-1933**
Scale: 1:10,560
Printed at: 1:10,560

N
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Surveyed 1844
Revised 1932
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1844
Revised 1932
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1844
Revised 1933
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1844
Revised 1933
Edition N/A
Copyright N/A
Levelled N/A

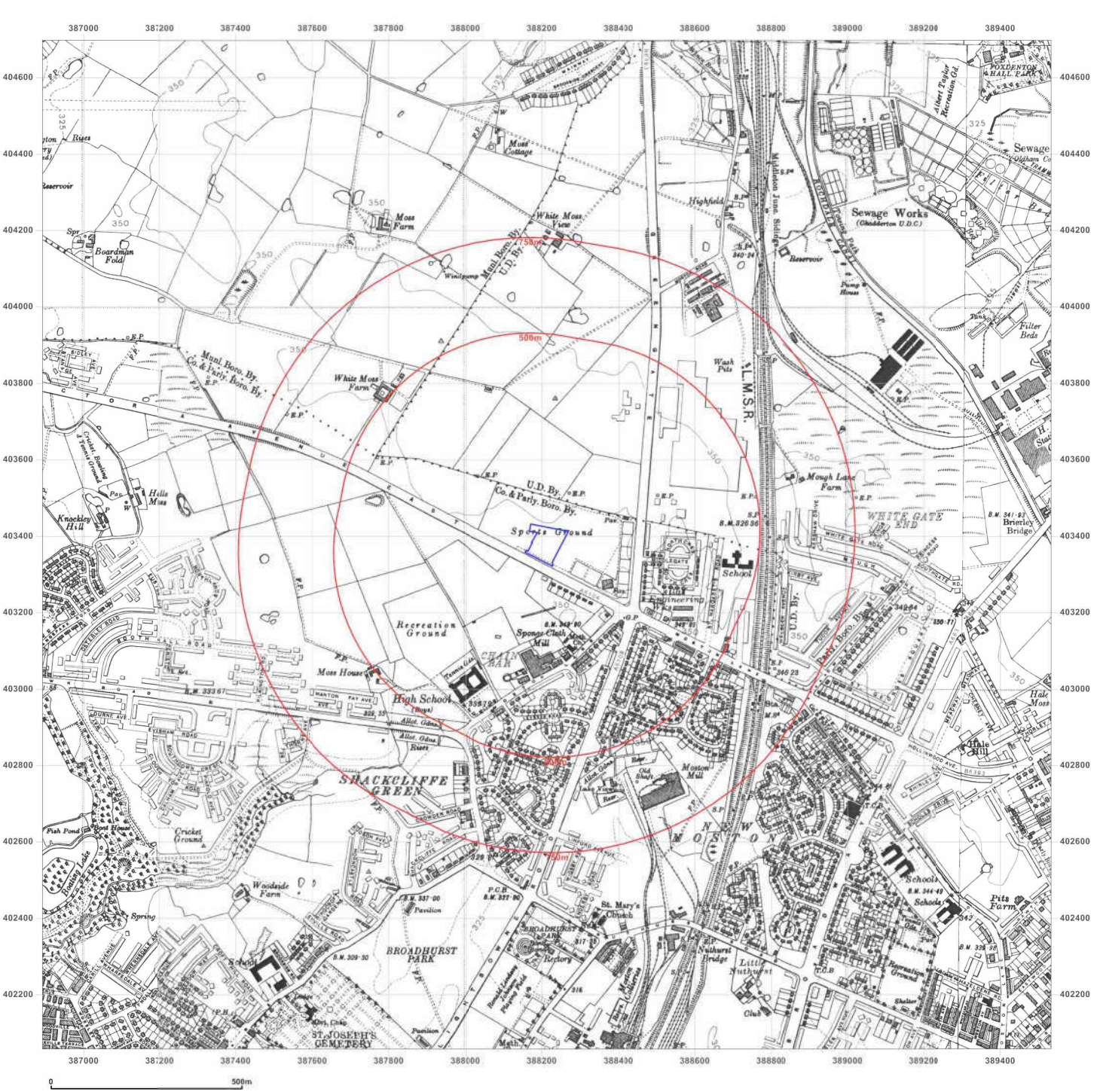
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Site Details:

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Client Ref: A3469_Moston
Report Ref: GS-6669461
Grid Ref: 388212, 403377

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1844
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1844
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1844
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1844
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

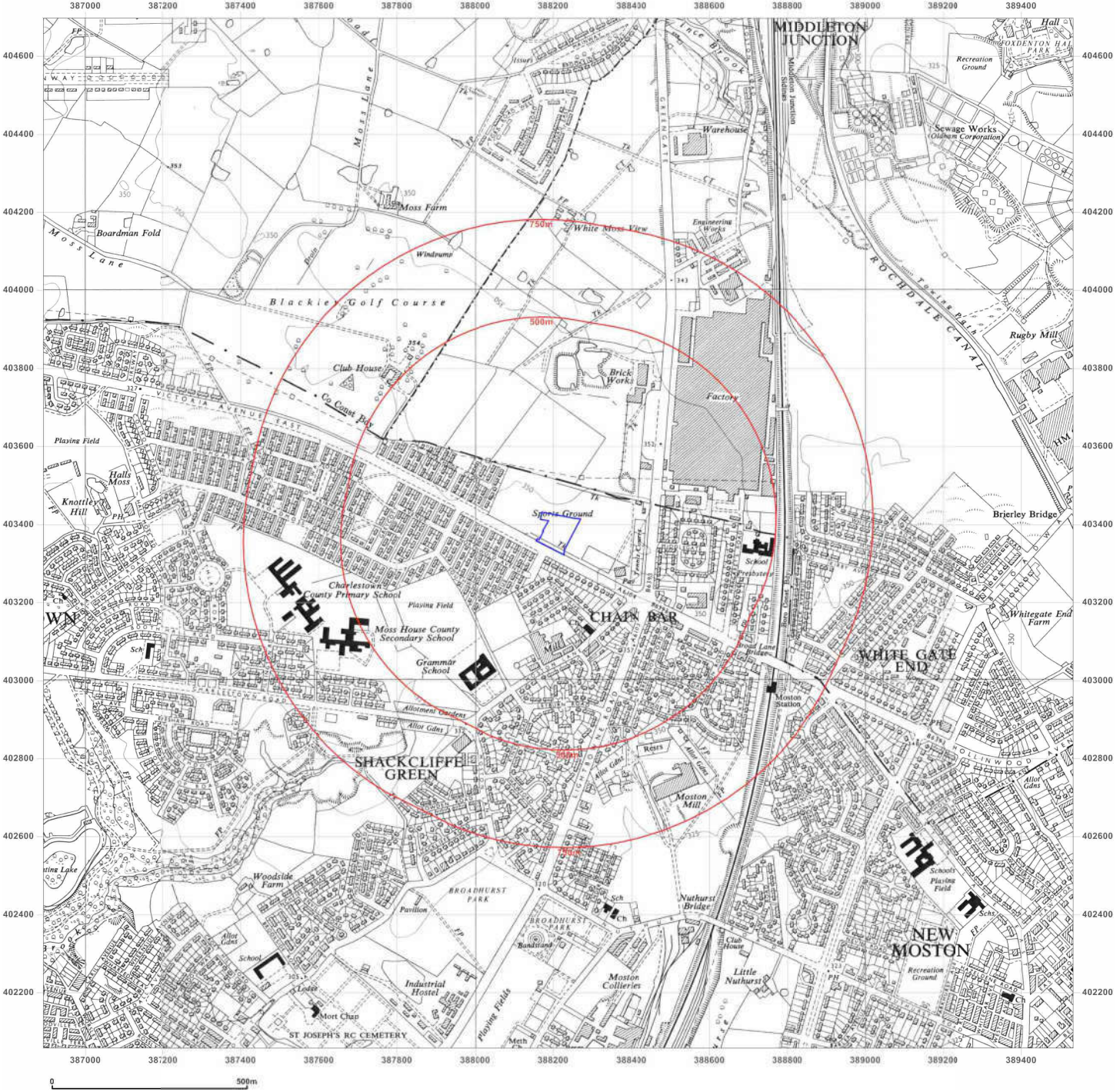
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Groundsure INSIGHTS

Site Details:

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Client Ref: A3469_Moston
Report Ref: GS-6669461
Grid Ref: 388212, 403377

Map Name: Provisional
Map date: 1956
Scale: 1:10,560
Printed at: 1:10,560

N
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Surveyed 1956
Revised 1956
Edition N/A
Copyright N/A
Levelled N/A

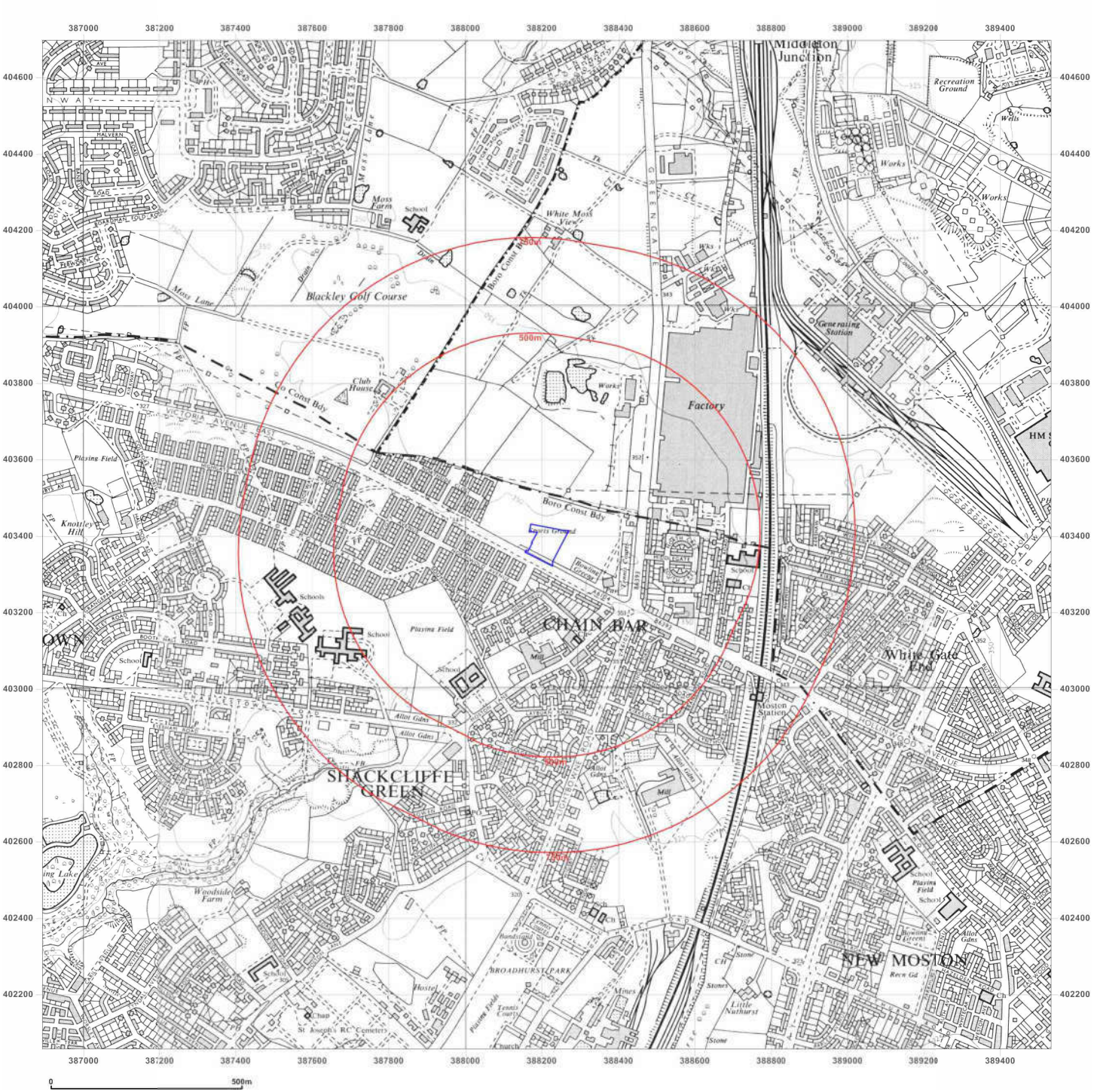
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Groundsure INSIGHTS

Site Details:

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Client Ref: A3469_Moston
Report Ref: GS-6669461
Grid Ref: 388212, 403377

Map Name: Provisional
Map date: 1966
Scale: 1:10,560
Printed at: 1:10,560

N
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Surveyed 1966
Revised 1966
Edition N/A
Copyright N/A
Levelled N/A

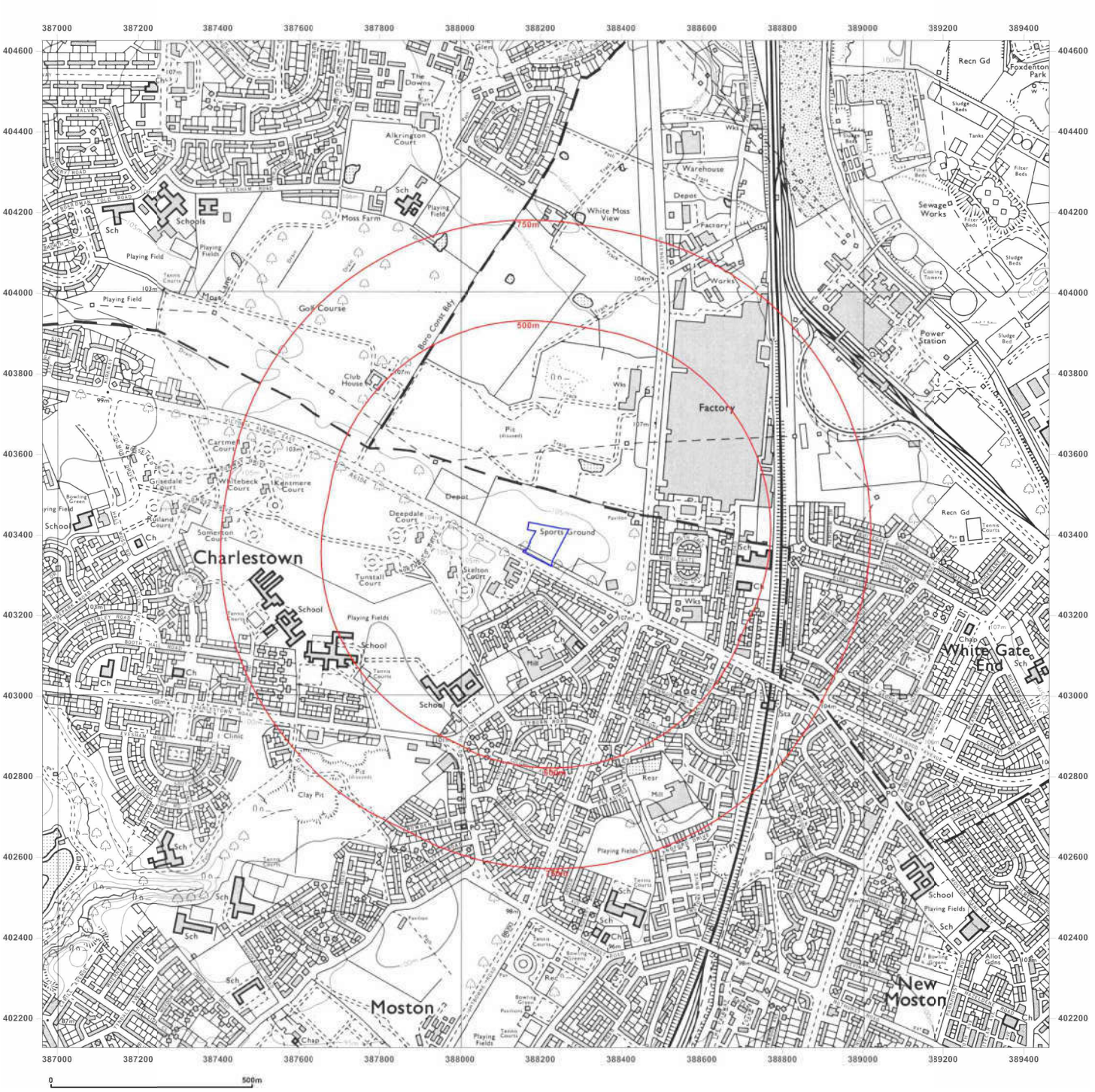
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Groundsure INSIGHTS

Site Details:

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Client Ref: A3469_Moston
Report Ref: GS-6669461
Grid Ref: 388212, 403377

Map Name: National Grid
Map date: 1975
Scale: 1:10,000
Printed at: 1:10,000

N
W E
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Surveyed 1975
Revised 1975
Edition N/A
Copyright N/A
Levelled N/A

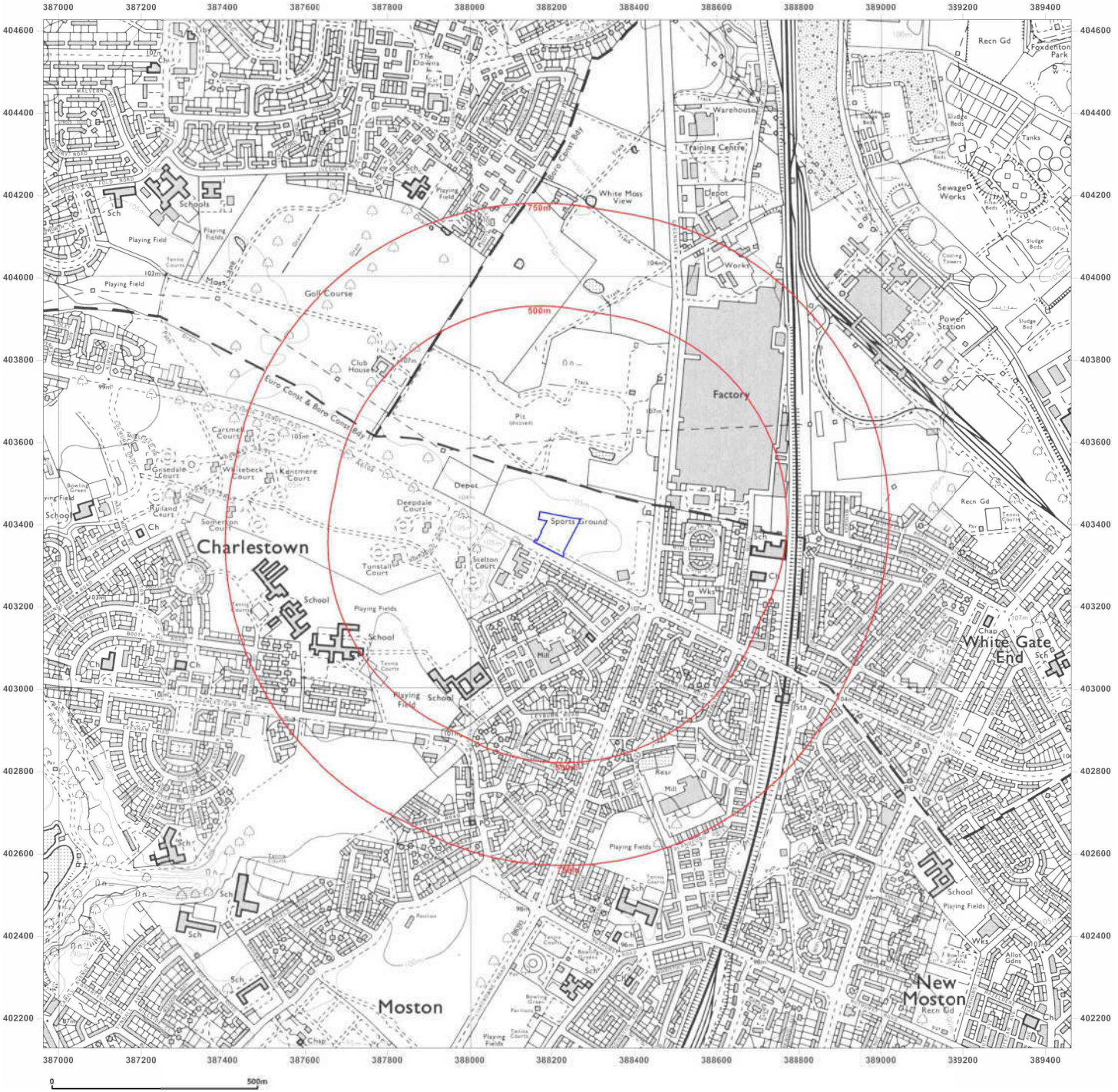
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Site Details:

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Client Ref: A3469_Moston
Report Ref: GS-6669461
Grid Ref: 388212, 403377

Map Name: National Grid
Map date: 1980
Scale: 1:10,000
Printed at: 1:10,000

N
W E
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Surveyed 1980
Revised 1980
Edition N/A
Copyright N/A
Levelled N/A

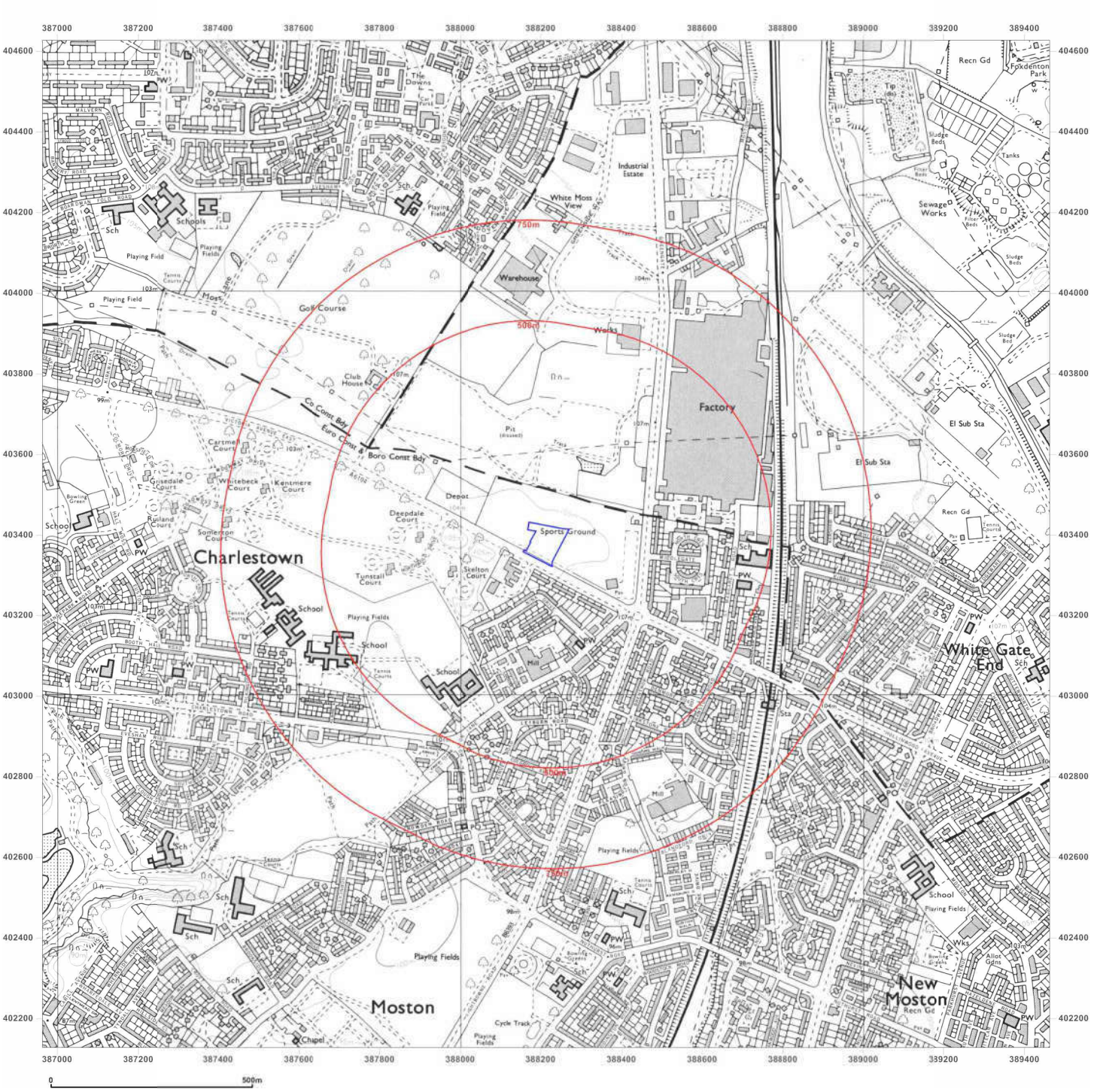
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Site Details:

FLAT 1, 261, VICTORIA AVENUE EAST, MANCHESTER, M9 7GH

Client Ref: A3469_Moston
Report Ref: GS-6669461
Grid Ref: 388212, 403377

Map Name: National Grid
Map date: 1988
Scale: 1:10,000
Printed at: 1:10,000

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Surveyed 1987
Revised 1988
Edition N/A
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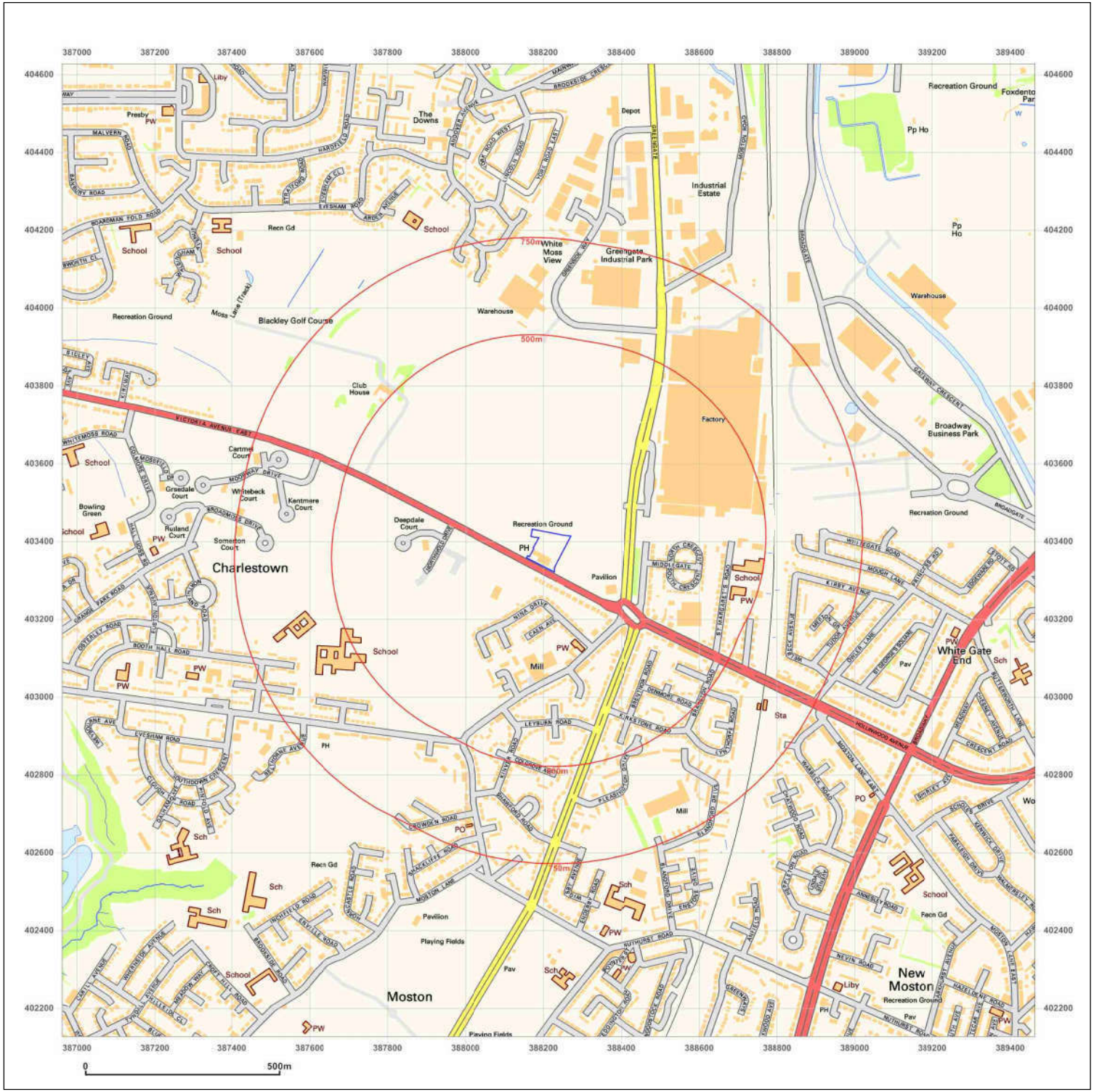
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Site Details:

FLAT 1, 261, VICTORIA AVENUE EAST, MANCHESTER, M9 7GH

Client Ref: A3469_Moston
Report Ref: GS-6669461
Grid Ref: 388212, 403377

Map Name: National Grid
Map date: 2001
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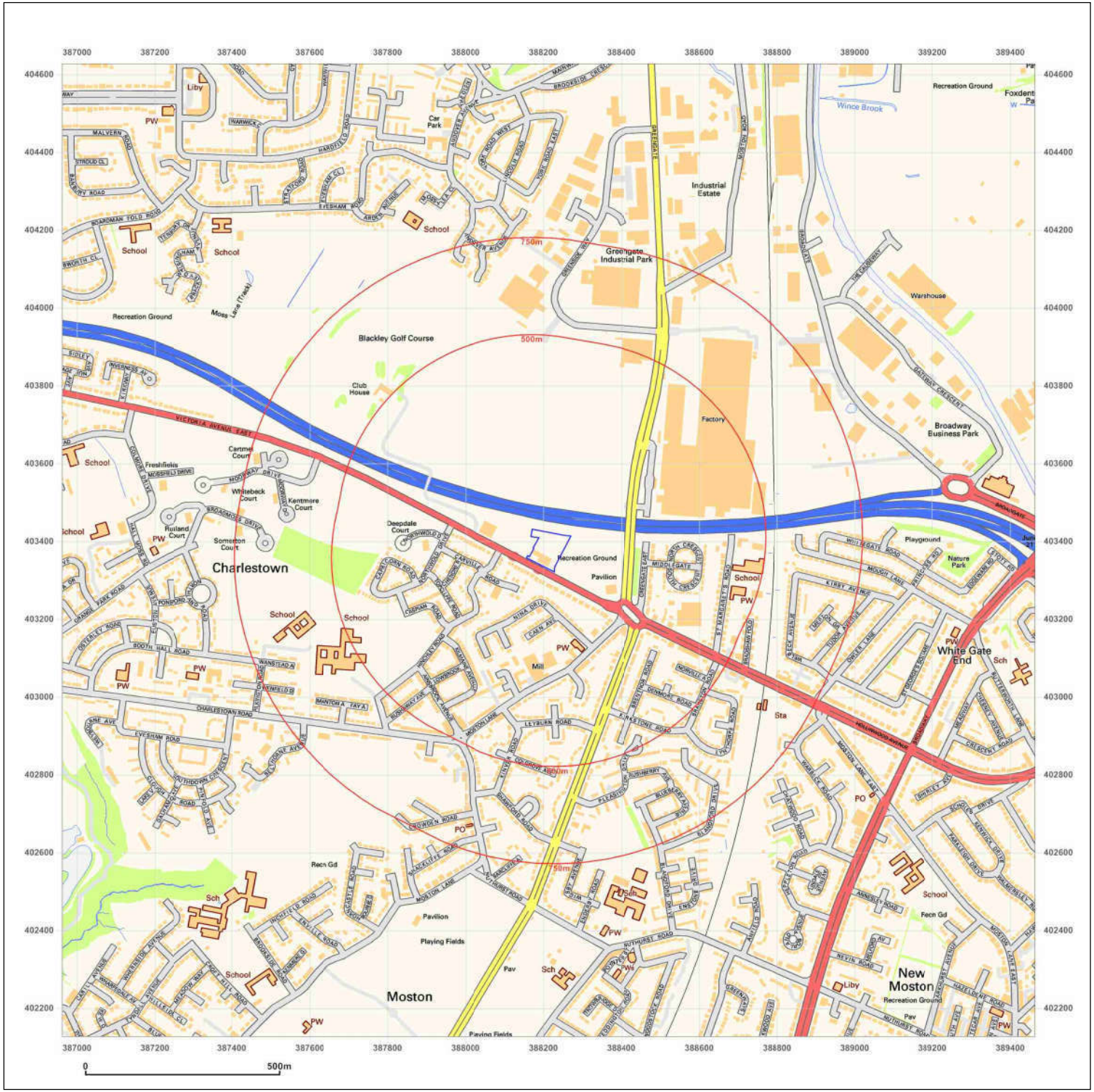
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Groundsure INSIGHTS

Site Details:

FLAT 1, 261, VICTORIA AVENUE EAST, MANCHESTER, M9 7GH

Client Ref: A3469_Moston
Report Ref: GS-6669461
Grid Ref: 388212, 403377

Map Name: National Grid
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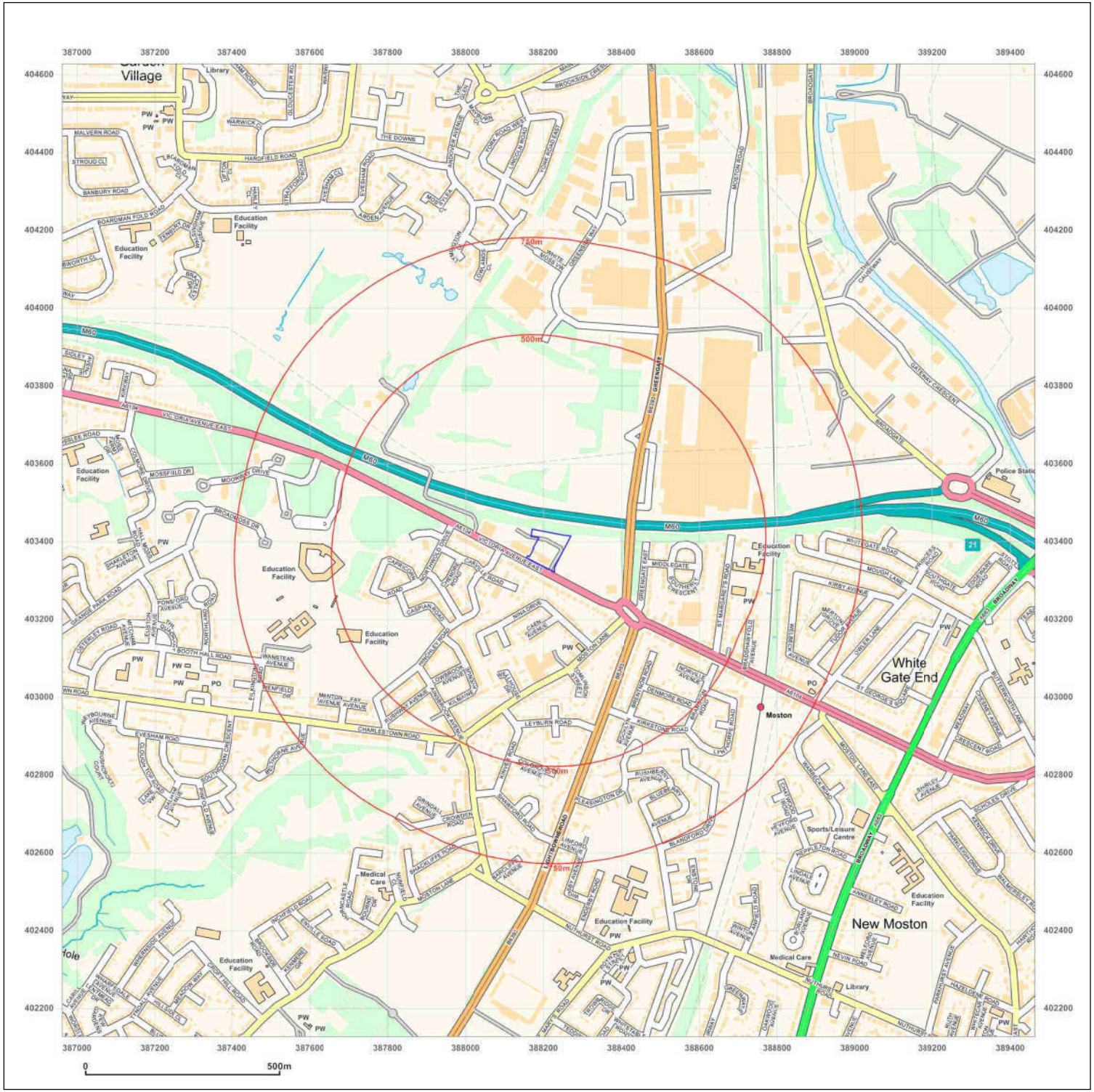
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Groundsure INSIGHTS

Site Details:

FLAT 1, 261, VICTORIA AVENUE EAST, MANCHESTER, M9 7GH

Client Ref: A3469_Moston
Report Ref: GS-6669461
Grid Ref: 388212, 403377

Map Name: National Grid
Map date: 2020
Scale: 1:10,000
Printed at: 1:10,000

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2020

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APPENDIX 2

SITE PHOTOGRAPHS

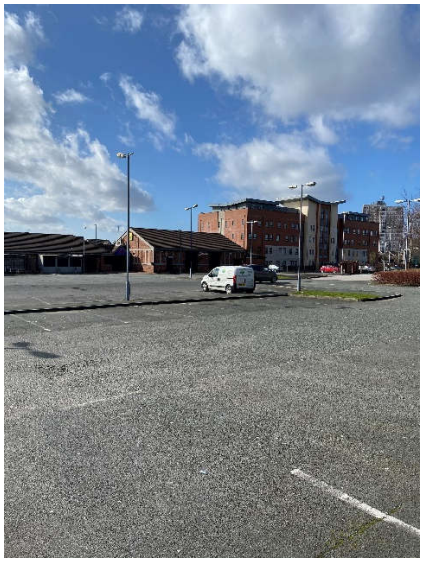
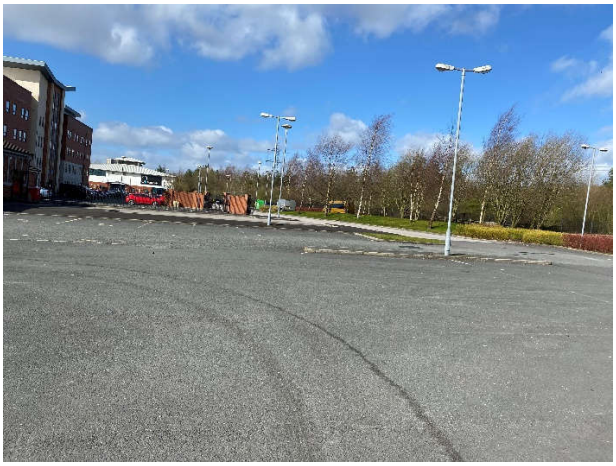
Earth Environmental & Geotechnical Ltd **Tel:** 0161 975 6088 **Email:** info@earthenvironmental.co.uk **Web:** www.earthenvironmental.co.uk	**SITE PHOTOGRAPHS**
Job No.: A3469	**Site: Victoria Avenue, Moston**
Plate 1 View across site, looking SE	**Plate 2 View across site, looking SW**
	
Date: 12th March 2020	**Date:** 12th March 2020
Plate 3 View of southern site boundary looking E	**Plate 4 View across site looking W**
	
Date: 12th March 2020	**Date:** 12th March 2020

Figure 9 Site Walkover Photo Locations



APPENDIX 3

SITE WALKOVER NOTES

EARTH ENVIRONMENTAL & GEOTECHNICAL

WALK OVER SURVEY REPORT

Site: Victoria Avenue, Moston **Date:** 12th March 2020

Job No: A3469/20 **Undertaken By:** Alice Barrington

Purpose of Site Walkover:
1) Provide further information for the Desk Study Report;
2) Identify potential contamination sources, pathways and receptors;
3) Identify geotechnical features and potential geohazards;
4) Determine locations for exploratory boreholes.

Desk Study features checked during site visit	Feature and Information required	Present	Description / Comments
Site Setting	Description required for: Town/Country/Suburb Setting Industrial/Residential/Retail Usage Current Site use (if undertaking security and access to the site)		 Suburb Residential and retail Restaurant along southern boundary. Car park in northern area
Evidence of Past Activities	Are there: Any relevant street names in area? Features or relics which indicate past history?	 Yes/~~No~~ ~~Yes~~/No	 Victoria Avenue East runs directly south of the site. Only current use visible
Geographic Setting	Description required for: Low lying flood plain/dry valley/rolling hills etc.		Flat and level
Ground Conditions	Is there any evidence of: Mining, Mine entries Subsidence Landslip/slope erosion Former investigation works	 ~~Yes~~/No ~~Yes~~/No ~~Yes~~/No	

Desk Study features checked during site visit	Feature and Information required	Present	Description / Comments
Topography	Description required for: Are there apparent differences between site and surrounding area? (If yes describe the presence of retaining walls, and slopes). Is there evidence of Made Ground / Fill on site?	~~Yes~~/No Yes/~~No~~	The area of soft cover in the north west is slightly raised – potentially fill.
Site Boundaries and Neighbours	Description required for: Type of boundary demarcation (if any) on each side of site, usage of adjacent land and name of industrial/commercial occupiers. Note any adjacent features such as water course and other potentially environmentally sensitive uses (residential, school, infirmary, SSSI etc)		Northern and eastern boundaries are made of black metal fencing. The southern boundary is made up of the building. The western boundary is made up of the building, some black metal fencing and some of it is open. To the north is the M60. East is a playing field. South and west are residential properties. Residential areas to the south and west.
Vegetation	Are there any vegetation/trees on or close to site (if yes describe locations, type, maturity, etc) Is there any evidence of poor health / distress?	Yes/~~No~~ ~~Yes~~/No	The north west corner is covered in grass and medium sized birch trees. There is grass along the northern and eastern boundaries. Some small hedges in the centre of the site.
Ground Surface	Are there areas of hardstanding and estimate the split between hard and soft cover? (If yes describe locations, types and conditions). Is the any evidence of any spillages or staining?	Yes/~~No~~ ~~Yes~~/No	95:5 hard to soft standing. The hardstanding is macadam. The soft standing is the aforementioned grassy area in the north west corner of the site.

Desk Study features checked during site visit	Feature and Information required	Present	Description / Comments
Site Drainage	Are there any drain covers / soakaways (if yes describe locations) Are there any outfalls/water courses on site (note the condition of water courses in open water courses. discolouration, odour, eutrophication, oily sheen, gas bubbling water, clear or cloudy) Where a watercourse runs alongside or crosses a site are there any differences in visible water quality upstream and downstream of the site?	Yes/~~No~~ ~~Yes/~~No ~~Yes~~/No	Dotted across the site. Usually found on or near paths and buildings. Lots found near the site entrance.
Electrical Equipment	Are there any electricity sub stations on or adjacent to the site? Are there any electrical transformers, capacitors, pylons etc on site?	~~Yes~~/No	No, but lots of streetlights across the site.
Buildings	Is there any evidence of asbestos construction materials e.g. roofing, insulation materials. Do any buildings have basements? Do any buildings have a boiler room (if yes, describe fuel type and storage arrangements)?	Yes/No Yes/No Yes/No	Cannot get access to the building but is new so would assume not present. Unknown Unknown

Desk Study features checked during site visit	Feature and Information required	Present	Description / Comments
Landfilling	Is there any evidence of gas protection measures (gas membrane, gravel-filled trenches, venting pipes, etc)?	~~Yes~~/No	
Process Air Emissions	Point Source: Are there any stacks / vents / cooling towers / abatement equipment? Fugitive Source: is there any stockpiled material / windblown dust / vapour process?	~~Yes~~/No ~~Yes~~/No	
Storage of fuels & Chemicals	Are there any drums / containers (if yes, describe quantity, full /empty, stored on hard standing / soft landscaping, bunding)? Are there any above ground fuel tanks (if yes, describe locations, volumes, how many, bunding, used / disused, condition?) Is there any evidence of underground fuel tanks (fuel pumps, covers, vent pipes, how many and how large, fill point, used / disused, and condition)?	Yes/~~No~~ ~~Yes~~/No ~~Yes~~/No	Present but only small oil and gas ones. Cannot get access to check if full. Associated with the restaurants on site.
Accidents	In the event of a large spillage would runoff affect any vulnerable watercourse/culverts? Are emergency procedures / equipment in place?	~~Yes~~/No ~~Yes~~/No	

Desk Study features checked during site visit	Feature and Information required	Present	Description / Comments
Waste	Are there any waste skips present on site?	~~Yes~~/No	
	Are waste storage facilities adequate?	~~Yes~~/No	
	Is there any litter/fly tipped material?	Yes/No	Household waste along northern boundary.
Atmospheric	Are there any fumes, odours originating from site or affecting site from neighbouring sites?	~~Yes~~/No	
Access / Further Investigations	If a Phase 2 Investigation is likely to be required, describe any access problems including headroom where relevant, services, overhead cables, restricted access areas, confined spaces, trafficked areas, etc that are likely to affect investigation scope/techniques.		None
	Identify possible site office and storage locations.		None
	Identify possible water supply		Potentially from the buildings onsite.
Site Environs	Are there any local features that could have a harmful influence e.g. landfill, industrial processes, railway land?	~~Yes~~/No	There is an industrial concrete block with access hatches and vents just north of the site. Use is unknown.
	Are there any sensitive water features/courses near to the site?	~~Yes~~/No	
Local Knowledge / Anecdotal Evidence			
Site Dimensions	Describe shape of Site in plan and measure dimensions.		

APPENDIX 4

REPORT LIMITATIONS

LIMITATIONS

This contract was completed by Earth Environmental & Geotechnical Ltd on the basis of a defined programme and scope of works and terms and conditions agreed with the client. This report was compiled with all reasonable skill, and care, bearing in mind the project objectives, the agreed scope of works, the prevailing site conditions, the budget and staff resources allocated to the project.

Other than that, expressly contained in the above paragraph, Earth Environmental & Geotechnical Ltd provides no other representation or warranty whether express or implied, is made in relation to the services. Unless otherwise agreed this report has been prepared exclusively for the use and reliance of the client in accordance with generally accepted consulting practices and for the intended purposes as stated in the agreement under which this work was completed. This report may not be relied upon, or transferred to, by any other party without the written agreement of a Director of Earth Environmental & Geotechnical Ltd.

If a third party relies on this report, it does so wholly at its own and sole risk and Earth Environmental & Geotechnical Ltd disclaims any liability to such parties.

It is Earth Environmental & Geotechnical Ltd understanding that this report is to be used for the purpose described in the introduction to the report. That purpose was an important factor in determining the scope and level of the services. Should the purpose for which the report is used, or the proposed use of the site change, this report will no longer be valid and any further use of, or reliance upon the report in those circumstances by the client without Earth Environmental & Geotechnical Ltd review and advice shall be at the client's sole and own risk.

The report was written in 2020 and should be read in light of any subsequent changes in legislation, statutory requirements and industry best practices. Ground conditions can also change over time and further investigations or assessment should be made if there is any significant delay in acting on the findings of this report. The passage of time may result in changes in site conditions, regulatory or other legal provisions, technology or economic conditions which could render the report inaccurate or unreliable. The information and conclusions contained in this report should not be relied upon in the future without the written advice of Earth Environmental & Geotechnical Ltd. In the absence of such written advice of Earth Environmental & Geotechnical Ltd, reliance on the report in the future shall be at the client's own and sole risk. Should Earth Environmental & Geotechnical Ltd be requested to review the report in the future, Earth Environmental & Geotechnical Ltd shall be entitled to additional payment at the then existing rate or such other terms as may be agreed between Earth Environmental & Geotechnical Ltd and the client.

The observations and conclusions described in this report are based solely upon the services that were provided pursuant to the agreement between the client and Earth Environmental & Geotechnical Ltd. Earth Environmental & Geotechnical Ltd has not performed any observations, investigations, studies or testing not specifically set out or mentioned within this report.

Earth Environmental & Geotechnical Ltd is not liable for the existence of any condition, the discovery of which would require performance of services not otherwise contained in the services. For the avoidance of doubt, unless otherwise expressly referred to in the introduction to this report, Earth Environmental & Geotechnical Ltd did not seek to evaluate the presence on or off the site of electromagnetic fields, lead paint, radon gas or other radioactive materials.

The services are based upon Earth Environmental & Geotechnical Ltd observations of existing physical conditions at the site gained from a walkover survey of the site together with Earth Environmental & Geotechnical Ltd interpretation of information including documentation, obtained from third parties and from the client on the history and usage of the site. The findings and recommendations contained in this report are based in part upon information provided by third parties, and whilst Earth Environmental & Geotechnical Ltd have no reason to doubt the accuracy and that it has been provided in full from those it was requested from, the items relied on have not been verified.

No responsibility can be accepted for errors within third party items presented in this report. Further Earth Environmental & Geotechnical Ltd was not authorised and did not attempt to independently verify the accuracy or completeness of information, documentation or materials received from the client or third parties, including laboratories and information services, during the performance of the services. Earth Environmental & Geotechnical Ltd is not liable for any inaccurate information, misrepresentation of data or conclusions, the discovery of which inaccuracies required the doing of any act including the gathering of any information which was not reasonably available to Earth Environmental & Geotechnical Ltd and including the doing of any independent investigation of the information provided to Earth Environmental & Geotechnical Ltd save as otherwise provided in the terms of the contract between the client and Earth Environmental & Geotechnical Ltd.

Where field investigations have been carried out these have been restricted to a level of detail required to achieve the stated objectives of the work. Ground conditions can also be variable and as investigation excavations only allow examination of the ground at discrete locations. The potential exists for ground conditions to be encountered which are different to those considered in this report. The extent of the limited area depends on the soil and groundwater conditions, together with the position of any current structures and underground facilities and natural and other activities on site. In addition, chemical analysis was carried out for a limited number of parameters [as stipulated in the contract between the client and Earth Environmental & Geotechnical Ltd] based on an understanding of the available operational and historical information, and it should not be inferred that other chemical species are not present.

The groundwater conditions entered on the exploratory hole records are those observed at the time of investigation. The normal speed of investigation usually does not permit the recording of an equilibrium water level for any one water strike. Moreover, groundwater levels are subject to seasonal variation or changes in local drainage conditions and higher groundwater levels may occur at other times of the year than were recorded during this investigation.

Any site drawing(s) provided in this report is (are) not meant to be an accurate base plan but is (are) used to present the general relative locations of features on, and surrounding, the site.