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Phase 1 Geo-Environmental Investigation Report

For: Meredith Property Limited.

Job Number:		4127
Report Reference:		4127-02
Issue Status / Revision:	Draft for client review	
Date:	February 2024	
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CONTENTS

1.0 INTRODUCTION

- 1.1 Site Location & Description
- 1.2 Brief

2.0 SCOPE OF INVESTIGATION WORK

- 2.1 Walkover Survey
- 2.2 Documentation

3.0 FINDINGS

- 3.1 Walkover Survey
- 3.2 Site History
- 3.3 Geology
- 3.4 Mining
- 3.5 Hydrology and Hydrogeology
- 3.6 Hazardous Installations, Landfill and Waste
- 3.7 Radon
- 3.8 Services
- 3.9 Unexploded Ordnance (UXO)
- 3.10 Animal Burial Sites
- 3.11 Archaeology

4.0 CONCLUSIONS

- 4.1 General
- 4.2 Ground Conditions and Geotechnical Hazard Identification
- 4.3 Sources of Contamination and Probable Contaminants
- 4.4 Identified Receptors of Contamination
- 4.5 Conceptual Site Model
- 4.6 Preliminary Risk Assessment Summary
- 4.7 Scope of Phase 2 Intrusive Geo-Environmental Ground Investigation

5.0 RECOMMENDATIONS

APPENDICES

APPENDIX 1	LIMITATIONS OF INVESTIGATION WORK AND REPORT AND CONTAMINATED LAND LEGISLATIVE FRAMEWORK
APPENDIX 2	FIGURES AND DRAWINGS - INFO - 01 Proposed Development Plan - SI-01 Site Location Plan - S1-02 Site Layout Plan - SI-03 Site Features Plan - SI-04 Conceptual Site Model
APPENDIX 3	WALKOVER SURVEY PHOTOGRAPHS AND PHOTOGRAPH LOCATION PLAN
APPENDIX 4	GROUNDSURE COMBINED ENVIRO + GEO INSIGHT REPORT
APPENDIX 5	HISTORICAL ORDNANCE SURVEY MAPS
APPENDIX 6	BGS BOREHOLE LOGS
APPENDIX 7	ZETICA UXO RISK MAP

1.0 INTRODUCTION

This Phase 1 Geo-Environmental Investigation report has been prepared at the request of Meredith Property Limited. Instructions to proceed were received in January 2024. Phase 1 desk study work was undertaken in February 2024.

1.1 Site Location and Description

This report pertains to a c. 0.03 Ha site located c. 7km south of Manchester City Centre, at the approximate post code M14 6ST. The National Ordnance Survey Grid Reference for the centre of the site is 386018E, 393136N.

The site currently includes a disused two-storey garage in the southern site section and a basement extending beneath the residential property bound in the centre of the site. The northern section of the site pertains to a yard being used to store tyres, a disused car, wooden pallets and metal drums. The site is bound by residential properties to the south and west. Meredith Street and St. Georges Road line the northern and eastern boundary respectively. A residential property is bound to the centre of the site. An aerial photo and layout plan of the site is included below:

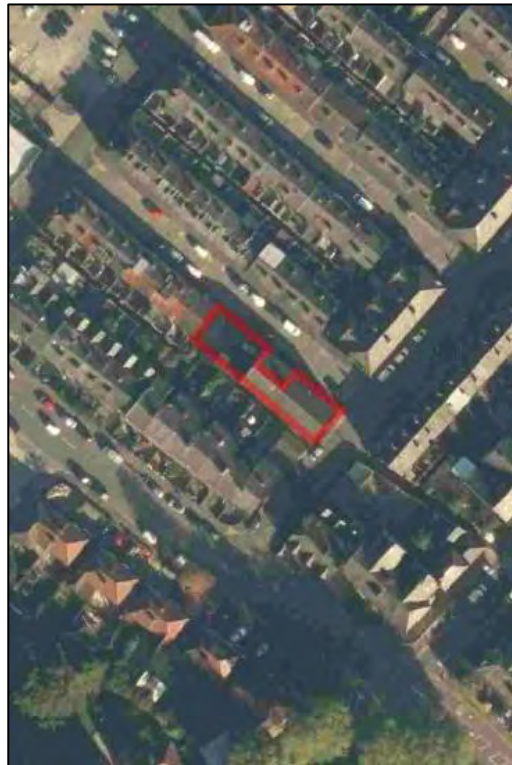


Figure 1: Aerial image of the site dated September 2022.

A site location plan is contained in Appendix 2.



Figure 2: Site Layout Plan indicating the extent of the basement.

Proposed Development

This Phase 1 Geo-Environmental Investigation is to be used for submission to the Local Authority as part of a planning application. It is the Client's intention to renovate the existing garage building into 4 No. residential apartments and construct 2 No. townhouses in the yard in the northern site section with associated soft landscaping, bin/bike storage and parking. The existing basement is proposed to be infilled.

A proposed development plan is contained in Appendix 2 with an extract below as Figure 3:



Figure 3: An extract of the proposed development plan.

1.2 Brief

The brief was to carry out a Phase 1 Geo-Environmental Investigation for the site based upon the proposed development outlined in Section 1.0. The site area is shown on the site location plan contained in Appendix 2.

The investigation was to include the following:

- a) Assess the probable ground conditions and contaminated land conditions on and below the site based on existing and historical site uses and relevant off-site activities, including a site walkover.
- b) Identify sources of contamination that may be present at the site using current contaminated land guidance and develop a conceptual site model for potential human health, ground gas and controlled waters receptors.
- c) Undertake a Preliminary Risk Assessment which will determine the requirement for further environmental (contaminated land) investigation and assessment.

- d) Design, on the basis of the anticipated ground conditions, appropriate ground investigation works and discuss potential development issues (i.e. sub-surface features – obstructions, infilling, compressible ground, faulting, mineral extraction, mining and land instability).

A report was to be provided to summarise findings and to provide recommendations.

The limitations of this investigation work and report are included in Appendix 1.

2.0 SCOPE OF INVESTIGATION WORKS

2.1 Walkover Survey

The site was visited on 1st February 2024 in clear weather conditions.

Photographs were taken of the site during the walkover survey and these photographs are contained in Appendix 3.

2.2 Documentation

A combined Enviro + Geo Insight report (Ref GS-SLB-E4H-B6I-C13) was obtained from Groundsure, an environmental database company, which provides a list of recorded past and present activities at or adjacent to the site which could have an impact on the levels of contamination in the soils and groundwater at the site. As part of the desk study works, the below documents were obtained and examined. Unless otherwise stated, the documents are contained within the Groundsure Enviro + Geo Insight Report in Appendix 4:

a) Groundsure maps, all dated 2024 as follows:

- Historical Land Use map;
- Environmental Permits, Incidents and Registers map;
- Landfill and other Waste Sites map;
- Current Land Use map;
- Hydrogeology and Hydrology maps;
- Environment Agency / Natural Resources Wales flood maps;
- Designated Environmentally Sensitive Sites map;
- Geological maps and Ground Working map;
- Mining, Extraction & Natural Cavities map;
- Natural Ground Subsidence maps;
- Borehole Records map; and

- Railways and Tunnels map.
- b) Aerial photographs of the site dated September 2022, April 2019, June 2015, June 2009 and June 2000.
- c) Historical Ordnance Survey maps dated between 1849 and 2024, at scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560.
- d) The following sources were obtained and examined from the British Geological Survey. All items were copied under licence: [C18/01] British Geological Survey ©UKRI. All rights reserved:
- The BGS 1:50,000 drift geological map (Sheet ref 98 dated 1971); and
 - The BGS 1:50,000 solid geological map (Sheet ref 98 dated 1977).
- e) A Zetica UXO Risk Map was obtained and is included in Appendix 7.

3.0 FINDINGS

3.1 Walkover Survey

The walkover survey was carried out on 1st February 2024 during overcast weather conditions. During the walkover survey the following features were noted.

The site currently exists as a disused two-storey garage in the southern site section with a basement extending beneath the residential property bound to the site in the centre. The northern section of the site is a yard being used to store tyres, a disused car, wooden pallets and metal drums. The ground underfoot is hardstanding throughout. The site is accessible from Meredith Street to the south.



Figure 4: Photographs of the yard in the northern section of the site.

The topography of the yard is relatively flat with a ramp towards the garage door. Inside the garage, there is a split level in the centre of the site, with the western section being raised c. 0.20m above the eastern section.

A sump was recorded in the southeastern corner of the basement with a grate leading to the pavement on the ground level on the northern site boundary. Given that the site was previously used as a garage, it is likely that services are present on site.



Figure 5: Photographs showing the sump in the basement leading to a grate on ground level

Contamination

Potential contaminative sources have been identified on site associated with the historical garage. The yard in the north eastern site section contained debris including wooden pallets, metal gate segments, plastic sheets, old tyres and a disused vehicle. There were also 4 No. 20L containers of screenwash with labelling of '*Polygard (Arctic) Concentrate (-20°C)*' with hazard labels of '*flammable, toxic and harmful to organs*'. Adjacent to this, there were 4. No steel drums containing engine oil with labelling of '*Trident Professional C3 5w30*'.



Figure 6: Photograph showing the containers of engine oil in and 20L screenwash bottles located in the yard.

Numerous old 20L tins of Floor Master Floor Paint were found in the basement with hazard labels of '*flammable and environmental hazard*'. Furthermore, a 20L container of engine coolant with a '*harmful*' hazardous label was identified within the basement. Anecdotal evidence and the presence of the sump suggests that the basement is

prone to flooding. Debris including numerous tyres, paper documents, plastic containers, bottles of bleach, metal storage boxes, wires, spanners, boots, car shampoo and jerry cans was found within the basement.



Figure 7: Photographs showing the debris in the basement.



Figure 8: Photographs showing the 'flammable' and 'harmful to the environment' hazard labels (left) and VOC content label (right) on eroded paint tins located in the basement.

3.2 Site History

The site development history has been researched by reference to historical maps, street plans and aerial photographs. The historical maps are included in Appendix 5 to this report and the principal observations, which are divided into on-site history and off-site history, are summarised below:

On-Site History

Date	Site Feature
1881 – 1894	On the earliest historical map, the site is recorded as part of a field with a pond extending into the northern site section.
1894 – 1907	The pond is no longer recorded and the remainder of the site remains as part of a field.
1907 – 1934	By the 1907 map, a hall has been constructed in the southeastern site section. In 1922, a glass feature appears in the northeastern site section.
1934 - 1957	In the 1934 map, the hall is no longer recorded as such and there are 4 No. features of unknown purpose in the northeastern section.
1957 - 2024	The historical hall building has been split into a garage in the southern site section and a residential property in the centre. The site remains relatively unchanged until present, except for in the 1979 map when 3 No. of the unknown features in the northern site section are no longer recorded.





Figure 9: Extracts of the OS historical maps dated 1881(a), 1907(b), 1957(c) and 2003(d).

Off-Site History

Date	Site Feature	Distance (m)	Direction
1881 - 1934	An abattoir is recorded in 1881, 87m north of the site. By the 1934 map, it is no longer recorded as such. In the 1957 map, it is recorded as a corporation yard until 1979 when it is replaced with residential housing	87	N
1907 - 1934	Allotment gardens are recorded in the 1907 map. By the 1934 map, they have been replaced by residential housing.	130	NE
1905 - Present	The 1905 map states the railway line is under construction 171m east of the site. By 1922, the railway line with associated sidings and a station has been constructed and remains unchanged until present.	171	E
1894 - 1922	A pond is recorded as part of a field, to the west of the site in the 1894 map. The 1907 map indicates it has decreased in size coinciding with the construction of the railway line. By the 1922 map, the pond is no longer recorded.	230	E
1892 - 2001	The Manchester Central Station Line runs east to west c. 600m north of the site. The railway line remains relatively unchanged until 2001 when it is recorded as disused.	c. 600m	N

3.3 Geology

3.3.1 BGS Geological Map

The BGS 1:50,000 Solid and 1:63360 Drift Geological Maps of the area (Sheet No: 98, dated 1977 and 1971 respectively) indicate that the site is underlain by superficial deposits comprising **Glacial Till** which typically comprises a heterogenous mixture of clays, sands and gravels. The site is underlain by bedrock of the **Chester Formation**,

comprising reddish brown, cross-bedded, pebbly sandstones with subordinate beds of red-brown mudstone. On older geological maps, the bedrock is listed as 'Chester Pebble Beds Formation'; this is an obsolete term replaced by the Chester Formation.



Figure 10: Extracts of the BGS 1:10,000 Drift (left) and Solid (right) Geological Maps. Light blue = Glacial Till, Light Grey = Chester Formation.

There are no recordings of Made Ground on the BGS geological maps on site. However, a historical pond is present on site on the earliest maps of 1881. This is no longer noted on the next map of 1894, therefore the possibility of Made Ground on site cannot be discounted. Made Ground has been recorded coinciding with the railway sidings 206m east of the site.

The solid geological map indicates that there are no bedrock faults on site. The nearest fault is located 98m east and is shown on the extract of the solid geological map above as a dashed black line.

3.3.2 BGS Borehole Logs

There were no available BGS boreholes on site or within close proximity to the site. There were 4 No. boreholes located c. 373m northwest of the site which are within the same geological setting, although given the distance from the site may not be reflective of the conditions onsite. The boreholes recorded a sequence of **Made Ground** underlain by **Glacial Till**, underlain in turn by the **Chester Formation** at depths between 5.10m and 6.00m bgl.

3.3.3 BGS Geohazards

Data Type	Details
Ground Stability Data	• The Potential for Shrinking or Swelling Clay Ground Stability Hazards is regarded as very low. • The Potential for Running Sand Ground Stability Hazards is regarded as very low. • The Potential for Compressible Ground Stability Hazards is regarded as negligible. • The Potential for Collapsible Ground Stability Hazards is regarded as very low. • The Potential for Landslide Ground Stability Hazards is regarded as very low. • The Potential for Dissolution Ground Stability Hazards is regarded as negligible.

3.3.4 BGS Estimated Soil Chemistry

The BGS have estimated that the superficial deposits across the site to naturally comprise the following determinands:

- Arsenic: 15 - 25mg/kg
- Cadmium: 1.8mg/kg
- Chromium: 60mg/kg – 90mg/kg
- Nickel: 15mg/kg – 45mg/kg
- Lead: 100 - 200mg/kg
- Bioaccessible Lead: 60 - 120mg/kg

3.4 Mining

3.4.1 Coal Mining

The Coal Authority Interactive Viewer indicates that site does not lie within a Coal Authority Coal Mining Reporting Area or within a Development High Risk Area.

3.4.2 Non-Coal Mining

The Groundsure Enviro + Geo Insight report indicates that non-coal mining activities have not taken place on-site.

3.4.3 Salt Mining / Brine Extraction

The site does not lie within the Cheshire Brine Subsidence Compensation Board Compensation District or within a Consultation Area.

3.4.4 Historical Surface Excavations

A historical pond is recorded on the earliest map in 1881 which is no longer present by the 1894 map. The presence of additional unrecorded historical excavations on site cannot be discounted.

3.4.5 Mineral Safeguarding

Where mineral resources are present the mineral planning authority may designate areas as Mineral Safeguarding Areas (MSA) and Mineral Consultation Areas (MCA). These are aimed to safeguard mineral resource areas from unnecessary sterilization by non-mineral development. The BGS Mineral Resources maps designate the areas of potential mineral resources and where active / lapsed planning permission was granted for mineral extraction.

The BGS Mineral Resources Map for Manchester indicates that the site does not lie within an area designated as containing mineral resources.

3.5 Hydrology and Hydrogeology

Environmental data relevant to the site and its immediately surrounding area has been obtained from sources available in the public domain. In addition, an environmental report was obtained from Groundsure. The Enviro + Geo Insight report and associated maps that have been inspected are presented in Appendix 4 and the principal observations in relation to waters and flooding can be summarised as follows:

Data Type	Details
Flooding	• With respect to rivers and seas, the site lies within Flood Zone 2. • There is a negligible risk of surface water flooding on site. • A BGS moderate groundwater flooding susceptibility area has been identified on site, however, given the presence of hardstanding, the risk remains low.
Surface Water Features	• There are no surface water features on site. • The nearest surface water feature is Cringle Brook, located 205m north of the site.
Surface Water Abstractions	• There are no licensed surface water abstractions located on site or within 250m of the site.

Superficial Aquifer	The site is underlain by superficial deposits classified as a Secondary Undifferentiated Aquifer. - <i>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 nonaquifer in different locations due to the variable characteristics of the rock type.</i>
Bedrock Aquifer	The underlying bedrock is classified as a Principal Aquifer - <i>Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers</i>
Groundwater Abstractions	- There are no recorded groundwater abstraction licenses located on site. - There are 6 No. groundwater abstraction licenses located within 2km of the site, the majority are historical. The nearest active groundwater abstraction is located 1592m southeast of the site and relates to the abstraction of groundwater from a borehole at Heaton Moor Golf Club for spray irrigation.
Source Protection Zones	There are no recorded Source Protection Zones recorded on site or within 500m of the site.
Nitrate Vulnerable Zones	There are no Nitrate Vulnerable Zones recorded on site or within 500m of the site.
Licensed Discharge Consents	There are 2 No. recorded licensed discharge consents to controlled waters located on site. Both were revoked in the 1990s and pertain to sewage discharge of storm overflow and final treated effluent to the River Medlock.
Pollution Incidents to Controlled Waters	- There are no recorded pollution incidents to controlled waters located on site. - There are 3 No. pollution incidents recorded within 500m of the site. The nearest is located 187m northwest of the site and entails an incident in April 2001 involving construction and demolition commercial waste. It was recorded as a Category 4 (No Impact) to controlled waters.

3.6 Hazardous Installations, Landfill and Waste

The following information relating to hazardous installations, landfill and waste obtained from the Groundsure Enviro + Geo Insight report, published information and the walkover survey can be summarised as follows:

Data Type	Details
Environment Agency Recorded Active Landfill Sites	There are no Environment Agency recorded landfill sites located on site or within 500m of the site.
Environment Agency Recorded Historical Landfill Sites	There are no Environment Agency recorded historical landfill sites located on site or within 500m of the site.
BGS Recorded Historical Landfill Sites	There are no BGS recorded landfill sites located on site or within 500m of the site.
Local Authority Recorded Landfill Sites	There are no Local Authority recorded landfill sites located on site or within 500m of the site.
Local Authority Pollution Prevention and Control (Part A(2) and Part B Activities and Enforcements)	- There is a single Local Authority Part A2 or Part B Activity located on site and pertains to a Part B permit for a waste oil burner within the garage in the southern site section. (An additional comment is included below) - There are 3 No. Local Authority Part A2 or Part B Activities or Enforcements located within 500m of the site, all entailing Part B permits for waste oil burners (413m and 450m north of the site) and unloading petrol into storage at a service station (299m east of site).

Registered Radioactive Substances	There are no Registered Radioactive Substances recorded on site or within 500m of the site.
Registered Waste Treatment, Transfer or Disposal Sites	- There are no waste exemptions recorded on site. - There is a single waste exemption recorded within 500m of the site, pertaining to the use of waste in construction at an unknown address 162m south of the site.
Industrial Land Use	- There is a single current industrial land use recorded on site. R & B Motors occupies the garage and yard for vehicle repair, servicing and testing. - There are 4 No. recent industrial uses recorded within 500m of the site, the nearest is located 39m southeast and pertains to a garage undertaking vehicle repair, testing and servicing. - There is a single petrol / fuel station recorded within 500m of the site, located 308m east. - There is a single historical industrial site use recorded on site relating to a garage operating since 1956. - There are an additional 5 No. historical industrial land uses recorded within 500m of the site, including an abattoir, railway station, railway sidings, railway buildings and unspecified heap. The abattoir is the closest historical industrial land use to the site, located 87m north.
Dangerous Substances	There are no recorded discharges of dangerous substances on site or within 500m of the site.
Hazardous Building Materials	Given that the hall was redeveloped into a garage in 1957, it is possible that asbestos may be present on site. An asbestos survey should be completed prior to any internal works, including strip-out and demolition activities.

Although a Part B permit for a waste oil burner is noted to be present on site for the Garage within the Groundsure records, it is not present on the environmental permit register on the Manchester City Council website. It is therefore recommended to ensure that a surrender notification form has been submitted to the local authority prior to any development occurring.

3.7 Radon

A site-specific radon map is included in the Groundsure Enviro + Geo Insight report which finds that the site lies within an area where less than 1% of homes are above the Action Level and consequently, no radon protection measures are required.

3.8 Services

No overhead power lines were noted during the site walkover. As the site was previously used as a garage, it is likely that utilities will be present across the site. Full service plans should be obtained prior to any development works.

3.9 Unexploded Ordnance (UXO)

The Zetica UXO risk map, contained in Appendix 7, indicates that the site lies within an area of moderate risk, however there are UXO finds within 1km of the site. The closest feature was a strategic target for the Luftwaffe located c. 1.30km east of the site.

A Pre Desk Study Assessment (PDSA) is recommended prior to development to determine if a more detailed assessment is required using regional bombing statistics, bomb census maps, bombing decoy lists and historical maps.

3.10 Animal Burial Sites

The Animal Health and Veterinary Laboratories Agency (AHVLA) no longer routinely respond to consultations relating to records of animal burial sites. Based upon a review of the site history it is considered unlikely that the site has been subject to recorded animal burials.

3.11 Archaeology

We do not anticipate that the site will be affected by archaeological issues, however consultation with the county archaeologist is recommended.

4.0 CONCLUSIONS

4.1 General

The site currently exists as a two-storey garage in the southern site section with a basement in the centre of the site and a yard in the northern site section. On the earliest maps, the site exists as part of a field with a pond along the northeastern site boundary until 1907 when a hall has been constructed occupying the majority of the site. By 1957, the building is being used as a garage. The site remains relatively unchanged until present. There are 4 No. unknown features in the northern site section which are first noted in the 1934 map and exist until 1979.

4.2 Ground Conditions and Geotechnical Hazard Identification

The anticipated typical ground conditions across the site are as follows:

- **Made Ground** of an unknown composition to an unknown depth, underlain by:
- **Glacial Till** comprising a heterogenous mixture of clays, sands and gravels to a depth between 13.00m and 32.00m bgl, underlain by:
- **Chester Formation** comprising reddish brown, cross-bedded, pebbly sandstone at a depth anticipated to be between 13.00m bgl and 32.00m bgl.

4.2.1 Geotechnical Hazard Identification

Potential geotechnical hazards based on the expected ground conditions that may require further consideration at the site are outlined below:

Factors	Remarks	Considerations	Hazard
Made Ground	Made Ground is anticipated to be present on site given the presence of a historical pond and previous historical unknown features on site.	Made Ground may settle variably, have highly inconsistent bearing capacity and may suffer significant movements that may be problematic for foundations, externals and infrastructure elements without treatment. The presence of Made Ground may be problematic for foundations as there may be loose / soft spots within the Made Ground and it may not be suitable to utilise traditional foundations.	Low
Aggressive Ground and Groundwater	While the risk posed from the natural strata is anticipated to be very low, the presence of Made Ground across the site suggests there is potential for aggressive	Acidic ground / groundwater and sulfate may attack the concrete and steel used in foundations and react with aggregates. The oxidation of pyrite and other sulfides can also occur due to geotechnical activities. This can lead to the generation of high	Low

	ground conditions to be present on-site, however, the risk remains low.	concentrations of sulfate and low pH that attacks construction materials and may lead to the precipitation of gypsum resulting in the heave of foundations and floor slabs. Pyrite oxidation can also be triggered by mixing susceptible materials with lime or cement resulting in high pH that can lead to the expansion of some sulfates that cause heave of stabilised soils.	
Shrink and Swell Clays	Moderate to high plasticity and low to moderate volume change potential Glacial Till deposits are anticipated to be present at shallow depth. However, only a few trees exist along the northeastern site boundary, therefore the risk of geotechnical hazards from shrink swell clays remains low.	Some types of ground (e.g., clay soils) can change volume due to fluctuations in moisture content that may be induced by weather variations (e.g., drought), vegetation (e.g., growth or removal of trees) or man-made activities (e.g., changes to local drainage). This shrink / swell behaviour typically causes ground movement to a depth of 19approx.. 3m potentially damaging building foundations, externals, pipes or services by differential movements.	Low
Compressible Deposits	Soft, organic clays may be present along the northeastern site boundary, coinciding with the historical pond. These deposits may be highly compressible.	May cause significant or differential settlement of foundations if placed on compressible ground	Low
Soft Spots	Soft spots may be present across the site associated with localised excavations i.e., previous site use and historical pond. Soft spots may be present surrounding the foundations of the existing basement.	Soft spots may cause differential settlement of foundations therefore there will be a requirement for localised deepening of foundations where soft spots are present.	Low to Moderate

4.3 Sources of Contamination and Probable Contaminants

Based on the desk study information the following potentially contaminative on-site sources have been identified:

Potentially Contaminative Source	Associated Determinands	Remarks
On-Site Made Ground	Unknown, anticipated to be metals, semi-metals, PAHs, TPH, asbestos. Ground Gas – carbon dioxide, methane, hydrogen sulfide, VOCs	Localised areas of Made Ground are anticipated to be present on site coinciding with the historical pond located in the northeastern site section, existing garage and the 4 No. unknown features in the northern site section.
On-Site Historical and Current Garage (1957 – Present)	Unknown, anticipated to be metals, semi-metals, PAHs, TPH, VOCs	The site was first noted as a garage in the 1957 map and has remained unchanged since. During the walkover, numerous weathered containers of paint, screen wash and engine coolant were recorded across the site including the basement which are likely to contain contaminants of unknown composition.
On-Site Historical Pond (1881 – 1894)	Ground Gas – carbon dioxide, methane, hydrogen sulfide, VOCs	Soft, organic clays may be present associated with the historical pond located in the northeastern site section. This was present on the earliest historical map until the 1894 map when it is no longer recorded. The nature of the infilled material is not known.

Off-site Historical Abattoir (1881 – 1934)	Ground Gas – carbon dioxide, methane, hydrogen sulfide, VOCs	Between 1881 and 1934, an abattoir was noted 87m north of the site which may pose a risk of ground gas migration onto site.
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It should be noted that potentially contaminative unrecorded historical activities may have occurred (e.g. the use or deposition of Made Ground from off-site during historical on-site developments) and in this event, further contaminative sources may be present.

4.3.1 Unknowns

Following the desk study, the areas of uncertainty are summarised as follows:

- Depth to bedrock;
- Depth and composition of Made Ground;
- Presence and extent of historical pond; and
- Use of historical features in northern site section.

4.4 Identified Pathways of Contamination

Human Health		Ground Gas		Controlled Waters	
A	Ingestion of dust and soil	A	Migration through fractures and fissures in bedrock	A	Vertical migration through coarse Made Ground and coarse soils
B	Dermal contact with dust and soil	B	Preferential migration along foundations & service ducts	B	Lateral migration along low permeability natural soils & pooling at relative low points
C	Inhalation (dust)	C	Migration without groundwater	C	Vertical migration along future foundations and pooling at base
D	Inhalation (vapours)	D	Ingress through cavity walls & floors	D	Migration through porous bedrock
E	Inhalation and oral backgrounds	E	Inhalation	E	Overland flow
				F	Lateral migration along historical drainage

4.5 Identified Receptors of Contamination

Human Health receptors include the following:

- End Users;
- Construction workers; and
- The general public and adjacent site users.

Controlled waters receptors include the following:

- Groundwater contained within the underlying Secondary Undifferentiated Aquifer and Principal Aquifer; and
- Surface Water – Off-site Cringle Brook 205m north of the site.

Other receptors include the following:

- Subsurface plastic (e.g. potable plastic water pipe); and
- Building fabric (e.g. concrete foundations, etc).

4.5 Conceptual Site Model

4.5.1 Conceptual Model for Human Health Risk Assessment

A site conceptual model in the form of a linkage table for the purposes of a preliminary risk assessment for the human health of site occupants has been produced as a result of the probable contaminants, pathways and receptors identified above. A diagram of the site conceptual model is included in Appendix 2.

Conceptual Model for Human Health Assessment					
Sources of Contamination	Pathway	Receptor	Hazard (severity)	Likelihood	Risk
On-site Made Ground On-site historical and current Garage (1957 - Present) On-site historical pond (1881 – 1894) Off-site historical abattoir (1881 – 1934)	A B C D E	End users	Effect on human health (Medium)	Low: Potentially contaminative sources have been identified on site associated with the most recent use of the site as a garage. Contaminants of unknown composition may be present across the site as a result of flooding/leakages of contaminants from debris remaining on site.	Low to Moderate
		General public		Made Ground is likely to be present across the whole site. However, there could be areas of deeper Made Ground in the vicinity of the historical pond which crossed the northeastern site boundary. Deep Made Ground may also be present in the vicinity of the existing basement. There were also 4 No. unknown features in the northern site section which may present associated Made Ground.	
				Ingestion, dermal and inhalation pathways will be reduced across the majority of the site given the presence of hardstanding i.e. roads and buildings. Small areas of soft landscaping are proposed as part of the redevelopment. These present an increased pathway for end users. However, sources of contamination associated with the existing garage are likely to be removed beforehand, therefore the risk remains low to moderate.	
	D	Construction workers		Low, reduced to unlikely with best practice: Construction workers will be at increased risk due to their acute interaction with soils, however, the appropriate use of PPE, Good Practice and Health and Safety Measures will significantly reduce the risk, therefore the risk remains low.	Low
				Unlikely: On-site localised sources of VOCs may be present, associated with the remaining debris from the garage. If localised contaminative hotspots of VOCs are present (i.e. from possible spillage and weathering of containers), given their relative mobility and volatility VOCs are unlikely to remain at significant concentrations and the source of contamination will be removed prior to development works commencing.	Low
		Construction workers		Low, reduced to unlikely with best practice: Construction workers at increased risk if any disturbance of soil occurs as this may generate a temporary increase in the release of soil vapours, however the risk remains low given the lack of a source of VOCs.	Low

4.5.2 Conceptual Model for Ground Gas Risk Assessment

A conceptual model in the form of a linkage table for the purposes of a preliminary risk assessment for ground gas has been produced as a result of the probable contaminants, pathways and targets identified above as follows:

Conceptual Model for Ground Gas Risk Assessment					
Source	Pathway	Receptor	Hazard (severity)	Likelihood	Risk
On-site Made Ground		Human occupants	Effect on human health (Mild to Severe*)	Unlikely: Made Ground deposits may be present across the site, particularly in the location of the historical pond and historical features in the northern section of the site. Any Made Ground is unlikely to contain significant organic rich or putrescible material. Consequently, the Made Ground is anticipated to be a very low ground gas generation source. If significant levels of PAH and TPH compounds are encountered during site works, this assessment should be revised.	Low
Historical use as a garage	A	Site Workers			
On-site historical pond (1881 – 1894)	B			Ground gas may be produced by the off-site abattoir located 87m north of the site, however, the risk of ground gas migration will be significantly reduced given the anticipated presence of cohesive Glacial Till superficial deposits and presence of hardstanding.	
	C				
	D				
Off-site Historical Abattoir (1881 – 1934)	E	Building and Structures	Damage to building (Mild)	Though sources of VOCs exist on site, it is not anticipated that these are present at levels sufficient to pose a risk from ground gas.	

*Due to the risk of explosion.

4.5.3 Conceptual Model for Controlled Waters Risk Assessment

A site conceptual model in the form of a linkage table for the purposes of a preliminary risk assessment for pollution of waters has been produced as a result of the probable contaminants, pathways and targets identified above as follows:

Conceptual Model for Controlled Waters Risk Assessment					
Source	Pathway	Receptor	Hazard (severity)	Likelihood of Occurrence	Risk
On-site Made Ground On-site historical and current Garage (1957 - Present)	A C D	Groundwater within the Secondary Undifferentiated and Principal Aquifers	Effects to controlled waters (Medium)	Unlikely: Made Ground is anticipated to be present on-site as a result of historical land use. Determinands within the containers and debris identified during the site walkover may present a risk of contamination to sensitive receptors such as the Principal Aquifer contained within the bedrock (Chester Formation). Although the presence of hardstanding will prevent significant vertical migration, scarring throughout the existing hardstanding and perimeter of the yard provides a potential pathway for determinands to contaminate groundwater. The anticipated presence of a significant thickness of cohesive Glacial Till will prevent vertical migration into the underlying Principal Aquifer. Furthermore, if any contamination is encountered, then remedial measures may be undertaken for human health purposes (i.e. possible removal of source) further reducing the risk to controlled waters.	Low
	B E F	Surface water courses (Off-site Cringle Brook 205m north)	Effects to controlled waters: (Mild)	Unlikely: Anecdotal evidence suggests that the basement is prone to periodic flooding and the pathway of the sump output is unknown. Therefore, during flood events, contaminants within the basement may laterally migrate to surface water courses, unless removed. Furthermore, the presence of Glacial Till will facilitate lateral migration. However, the presence of hardstanding across the site will reduce infiltration of contaminants from the on-site garage. In addition, given that Cringle Brook is 205m north of the site, there are insignificant pathways for contaminants to access the receptor, therefore the risk remains low.	Low
	E	Surface water courses (Off-site Cringle Brook 205m north)	Effects to controlled waters: (Mild)	Unlikely: Sources of contaminants from the garage on-site are anticipated to be above hardstanding which will facilitate overland flow of contaminants off site. However, the nearest surface water feature is located 205m north of the site, making it unlikely that contamination will access Cringle Brook.	Low

4.7 Preliminary Risk Assessment Summary

Human Health

Based on the human health conceptual model the risk to human health is deemed low to moderate to end users. Elevated concentrations of unknown contaminants may be present on site, associated with the previous use of the site as a garage. Despite the development including a limited amount of proposed soft landscaping areas, sources of contamination will be removed prior to construction, particularly within the basement. Although the risk to construction workers is increased due to their acute interaction with site soils, it is envisaged that with appropriate PPE and site management, risks to construction workers can be mitigated therefore the risk is low.

Ground Gas

Ground gas sources associated with the infilled pond in the north eastern site section and Made Ground as a result of the basement and historical land use are present on site, however, a lack of pathways identified ensures the risk is deemed low. It is not deemed necessary to install ground gas monitoring wells to confirm this assessment.

However, should gross visual and or olfactory contamination from the site's historical use as a garage be encountered (likely in the form of PAH or TPH compounds) this assessment should be revised and ground gas monitoring wells should be installed.

The length and frequency of any required ground gas monitoring and the sampling method, initial results and alterations to the conceptual model are subject to the findings of the ground investigation works and development constraints (i.e. development timescales and liaison with the local authority).

Controlled Waters

Sensitive receptors have been identified on-site (Principal Aquifer within Chester Formation). Debris in the yard and basement on site may be a source of contamination to controlled waters, however, the subsequent removal of this debris

following development and presence of Glacial Till beneath the site reduces the risk to low.

If unrecorded contaminative sources are noted, the above conceptual models may require re-assessment.

4.8 Scope of Phase 2 Intrusive Geo-Environmental Ground Investigation

As a result of the preliminary risk assessment, a Phase 2 intrusive geo-environmental ground investigation should be carried out to quantify the identified risks. This intrusive ground investigation works should include the collection of appropriate samples – solid and / or liquid, if deemed necessary, across the site for appropriate chemical testing as detailed above.

Furthermore, to determine the geotechnical and geological properties of the underlying ground conditions, appropriate intrusive works and associated testing should be undertaken. The rationale and aims for these Phase 2 environmental, geotechnical and geological investigative works are detailed below.

In order to provide adequate assessment in terms of both environmental and geotechnical site parameters, ground investigation works will be required on a spatial basis and targeting the unknown features in the yard and historical pond in the northern section of the site.

The proposed initial ground investigation works should comprise dynamic sampling boreholes.

The rationale for the exploratory holes is discussed below:

- To allow the collection of samples from the Made Ground and natural deposits for chemical laboratory testing (solid samples) for an appropriate suite of determinands and to determine the suitable concrete classification in associated with relevant guidance e.g. BRE Special Digest 1;
- To determine the extent, composition and depth of any Made Ground deposits;

- To determine the nature, thickness and extent of superficial deposits;
- Enable geotechnical testing, including density testing (SPTs), hand shear vane (HSV) testing and undrained shear strengths of the underlying Made Ground and natural deposits for the purposes of sub-structure design; and
- To allow for the installation of ground gas monitoring wells, if deemed necessary during the ground investigation.

Based on the findings of the initial ground investigation works, further works may be required for detailed design including California Bearing Ratio determinations, testing for earthworks information and deep round investigation to inform foundation design.

5.0 RECOMMENDATIONS

- As a result of the information gathered and the risks identified in this report, there is a low to moderate risk to human health on the basis that potential sources of contamination have been identified on site for end users and construction workers. The risk to controlled waters is deemed low given the lack of significant contaminative linkages.
- Despite potential contaminative sources being identified on site, a low ground gas risk has been identified based on insignificant pathways being identified. If gross contamination from hydrocarbons is encountered during the ground investigation, ground gas monitoring should take place. On the basis that the site lies within an area where between less than 1% of homes are above the action level no radon protection measures are necessary.
- Due to geotechnical requirements, ground investigation works should be undertaken in order to determine the ground conditions with a greater degree of certainty and allow design of the proposed development, drainage, services and immediate external areas to be undertaken. It is therefore recommended that exploratory holes are constructed where access is permitted across the site. The use of soakaways is unlikely to be suitable given the anticipated presence of low-permeability Glacial Till across the site.
- From the results of the Phase 2 ground investigation work – if this report identifies a potential risk and / or a requirement for further detailed site-specific assessment, a Phase 3 environmental investigation report and / or a Remedial Strategy (informing on potential remediation solutions) may be required.
- The nature and extent of the proposed targeted chemical and environmental testing should be confirmed, if time / commercial constraints allow, with the relevant Local Authority Environmental Health Officer and the Environment Agency prior to undertaking works on-site. Proceeding without agreement between regulatory authorities may result in further assessment being required.
- It should be noted that, if any visual or olfactory evidence of contamination is encountered during remediation or construction work, then the Local Authority

Environmental Health Officer and Environment Agency should be contacted immediately in order to agree any necessary remediation measures.

- Given the possibility of services on site, full service plans should be obtained prior to any intrusive ground investigation works.
- A Pre Desk Study Assessment should be obtained to further assess the risk of Unexploded Ordnance on site.
- It should be ensured that a surrender notification form has been submitted to Manchester City Council regarding the Part B permit for waste oil burners previously permitted on site.

APPENDIX 1

LIMITATIONS OF INVESTIGATION WORK AND REPORT AND CONTAMINATED LAND LEGISLATIVE FRAMEWORK

LIMITATIONS OF REPORT

This consultancy report was compiled and carried out by IGE Consulting Limited ('IGE') for the client, as defined in the main report (the 'client'), on the basis of a defined programme and scope of works and the terms of a contract between IGE and the client. IGE undertook this with all reasonable skill and care, taking into account the limits of the scope of works required by the client, the prevailing site conditions, the time scale involved and the resources, including financial and manpower resources, agreed between IGE and the client. IGE cannot accept responsibility to any parties whatsoever, following the issue of this report, for any matters arising which may be considered outwith the agreed scope of works.

Unless otherwise agreed this report has been prepared exclusively for the use and reliance of the client in accordance with generally accepted consulting practices. This report may not be relied upon, or transferred to, by any other party without the written agreement of its author. If a third party relies on this report, it does so wholly at its own and sole risk and IGE disclaims any liability to such parties.

It is IGE's understanding that this report is to be used for the purpose described in the 'Brief' section of this report. That purpose was a significant factor in determining the scope and the services to be provided. Should the purpose for which the report is used, or the proposed use of the site change, this report may no longer be valid and any further use of, or reliance upon the report in those circumstances by the client without IGE's review and advice shall be at the client's sole and own risk.

The information contained in this report is protected by disclosure under Part 3 of the Environmental Information Regulations 2004 pursuant to the provisions of Regulation 12(5) without the consent in writing of a Director of IGE.

This report is a function of the date it was written and should be read in light of any subsequent changes in legislation, statutory requirements and industry 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 IGE. In the absence of such written advice of IGE, reliance on the report in the future shall be at the client's own and sole risk. Should IGE be requested to review the report in the future, IGE shall be entitled to additional payment at the then existing rate or such other terms as may be agreed between IGE and the client.

The observations and conclusions described in this report are based solely upon the scope of works agreed between the client and IGE. IGE has not performed any observations, investigations, studies or testing not specifically set out or mentioned within this report. IGE is not liable for the existence of any condition, the discovery of which would require performance of services not otherwise contained in the agreed scope of works. For the avoidance of doubt, this report is strictly limited to the nature of contamination contained within the ground and groundwater at the site. The report does not cover environmental aspects such as air or noise pollution and ground vibrations and the like. In addition, ecological matters relating to wildlife, flora and fauna have not been investigated as part of this report. In particular, the site has not been inspected for the presence or otherwise of invasive species (e.g. Japanese Knotweed). It is recommended that the client appoints a specialist in this subject to carry out a detailed inspection / survey of the site if its presence is suspected. Where mention has been made to the suspected presence asbestos or asbestos-containing materials this is for indicative purposes only and does not constitute or replace full and proper surveys.

Throughout the report the term 'geotechnical' is used to describe aspects relating to the physical nature of the site (such as foundation requirements) and the term 'geo-environmental' is used to describe aspects relating to ground-related environmental issues (such as potential contamination). However, it should be appreciated that this is an integrated investigation and these two main aspects are inter-related. The geo-environmental sections are written in broad agreement with BS 10175:2011+A2 2017.

LIMITATIONS OF INVESTIGATION WORK

Desk Study References

This report is based upon IGE's observations of existing physical conditions at the site gained from a walkover survey of the site together with IGE's interpretation of information including documentation, obtained from third parties and from the client on the history and usage of the site. Reliance has been placed on this publicly available data obtained from the sources identified in the main report. When using the information, it has been assumed that it is correct. The findings and recommendations contained in this report are based in part upon information provided by third parties, and whilst IGE 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. IGE 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. IGE is not liable for any inaccurate information 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 IGE and including the doing of any independent investigation of the information provided to IGE except when otherwise provided in the terms of the contract between the client and IGE.

Historical Mapping

Historical Ordnance Survey maps do not provide a comprehensive description of a site history. They provide details of the site from a date prior to the publication of the map (i.e. a snapshot in time). The period between map editions can be substantial (i.e. several decades). Not all map series are available for every date range in many areas of the UK and therefore there will be gaps in this mapped record for some sites. Potentially contaminative land uses could have been present and removed during such periods and may therefore not form a part of this particular record. In addition, there will be potentially contaminative land uses which are not identified on the map records such as small scale storage / use of hazardous materials, illegal / unlicensed waste disposal activities etc. Different map series identify different features utilising different symbols which can result in features that remain on-site being removed from maps. Some features are also not mapped for security reasons (e.g. airfields and other military installations). These areas are mostly shown as blank areas on historical maps.

Site Walkover

During the site walkover reasonable effort has been made to obtain an overview of the site conditions. However, during the site walkover no attempt has been made to enter areas of the site that are unsafe or present a risk to health and safety, are locked, barricaded, overgrown, or the location of the area has not been made known or accessible.

Flooding

Flooding in this report is defined as flooding caused by the sea, ditches, rivers, streams, ponds, lakes, reservoirs and the like. It does not extend to flooding caused by surcharged piped drainage systems and investigations into flooding of this nature are excluded from this report.

Extent of Contamination Studies

Site sensitivity assessments have been made based on available information at the time of writing and are ultimately for the decision of the regulatory authorities. The conclusions and recommendations sections of the report provide an overview and guidance only and should not be specifically relied upon without considering the context of the reporting in full. The conclusions resulting from this study are not necessarily indicative of future conditions or operating practices at or adjacent to the site.

Intrusive Investigation

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 explored extent of the site 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, 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.

Exploratory Holes

Where exploratory holes have been carried out as part of this investigation, the spacing has been determined to provide a reasonable indication of the general ground conditions across the site, but the number has ultimately been limited by commercial constraints. The findings of the exploratory holes relate specifically to the exploratory hole locations and are no absolute guarantee of the ground conditions between such locations. Due allowance should be made for the possibility of variation in conditions between exploratory hole locations.

Extent of Contamination Testing

The extent of contaminated land testing carried out on samples obtained from the site has been determined in accordance with the latest legal guidance issued by the government to provide, with reasonable certainty, the probable general levels of contamination present on site that could pose a significant hazard to human health or waters. The extent of site investigation works including chemical testing has also been limited by reasonable commercial constraints. Although extensive testing of samples has been carried out, the volume of samples taken for testing are a minute fraction of the total volume of soils and groundwater present on site. Therefore, there is a residual risk that undetected pockets of contamination may be present on site, situated between testing locations.

When investigating or developing potentially contaminated land it is important to recognise that sub-surface conditions may vary spatially and temporally. The absence of certain ground, ground gas, contamination or groundwater conditions at the positions tested is not a guarantee that such conditions do not exist anywhere across the site. Site sensitivity assessments have been made based on available information at the time of writing and are ultimately for the decision of the regulatory authorities. The conclusions resulting from this study are not necessarily indicative of future conditions or operating practices at or adjacent to the site.

Extent of Geo-Environmental Studies

This report is strictly limited to the nature of contamination contained within the ground and groundwater at the site. The report does not cover environmental aspects such as air or noise pollution and ground vibrations and the like. In addition, ecological matters relating to wildlife, flora and fauna have not been investigated as part of this report. In particular, the site has not been inspected for the presence or otherwise of invasive species e.g. Japanese Knotweed. It is recommended that the Client appoints a specialist in this subject to carry out a detailed inspection / survey of the site if its presence is suspected. Where mention has been made to the identification asbestos or asbestos-containing materials this is for indicative purposes only and does not constitute or replace a full and proper survey. If an Unexploded Ordnance (UXO) report has been obtained within the report, it has been so on the basis of Health and Safety concerns and no assessment has been made other than transcribing the recommendations of the sub-contractor contained within the report. In terms of a potential contaminative source, unless ordnance has been manufactured / stored on site, UXOs will only be determined as a contaminative source following a positive identification on site.

PLANNING CONTEXT

The National Planning Policy Framework (NPPF, 2023) states that the purpose of the planning system is to contribute to the achievement of sustainable development. In order to do this the planning system has three overarching objectives, one of which directly relates to the potential for pollution and contaminated land:

- *'environmental objective - to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy'.*

In accordance with this environmental objective, Paragraph 124 clarifies that 'making effective use of land' includes to:

- *'give substantial weight to the value of using suitable brownfield land within settlements for homes and other identified needs, and support appropriate opportunities to remediate despoiled, degraded, derelict, contaminated or unstable land'.*

In accordance with this environmental objective, Paragraph 180 clarifies that 'conserving and enhancing the natural environment includes:

- *'preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability'; and*
- *'remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate'.*

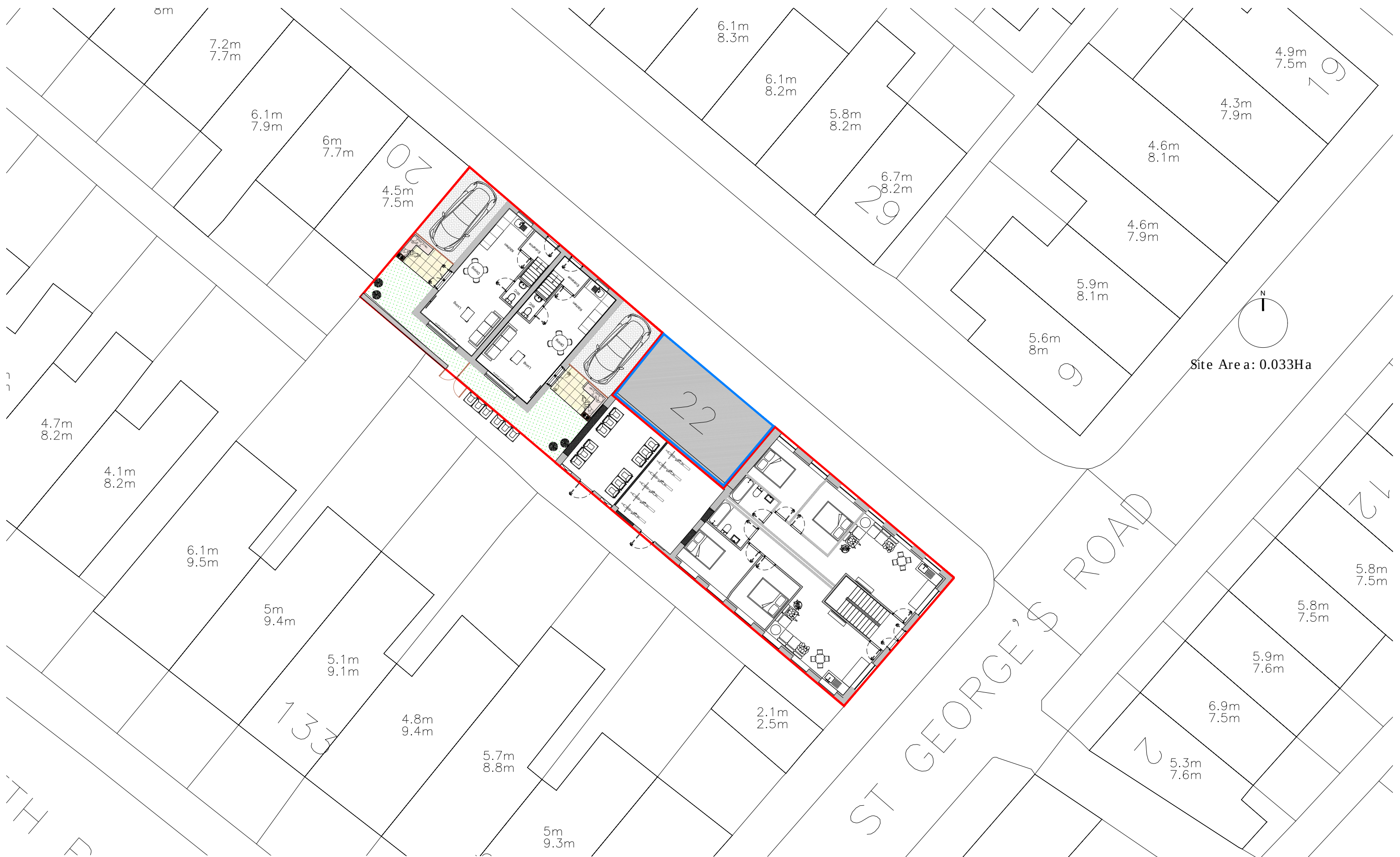
Paragraph 189 of the NPPF states that planning policies and decisions for developments should also ensure that:

- *'a site is suitable for its proposed use taking account of ground conditions and any risks arising from land instability and contamination. This includes risks arising from natural hazards or former activities such as mining, and any proposals for mitigation including land remediation (as well as potential impacts on the natural environment arising from that remediation)'; and,*
- *'after remediation, as a minimum, land should not be capable of being determined as contaminated land under Part IIA of the Environmental Protection Act 1990'; and*
- *'adequate site investigation information, prepared by a competent person, is available to inform these assessments'.*

This report has been prepared and authorised by staff that are competent as defined in the NPPF.

APPENDIX 2

FIGURES AND DRAWINGS



Notes:

SITE:

1 St George Road, M14 6SX

TITLE:

Proposed Site Layout

PL002

DRAWING NO.

1/200

SCALE AT A3.

TFE

DRAWN.

0552

PROJECT NO.

TFE

CHECKED.

07/02/24

DATE.

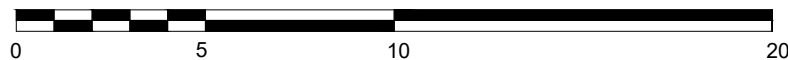
REVISION.



Crowstone Ltd

3 Elm Grove
Didsbury
Manchester
info@crowstone.co.uk

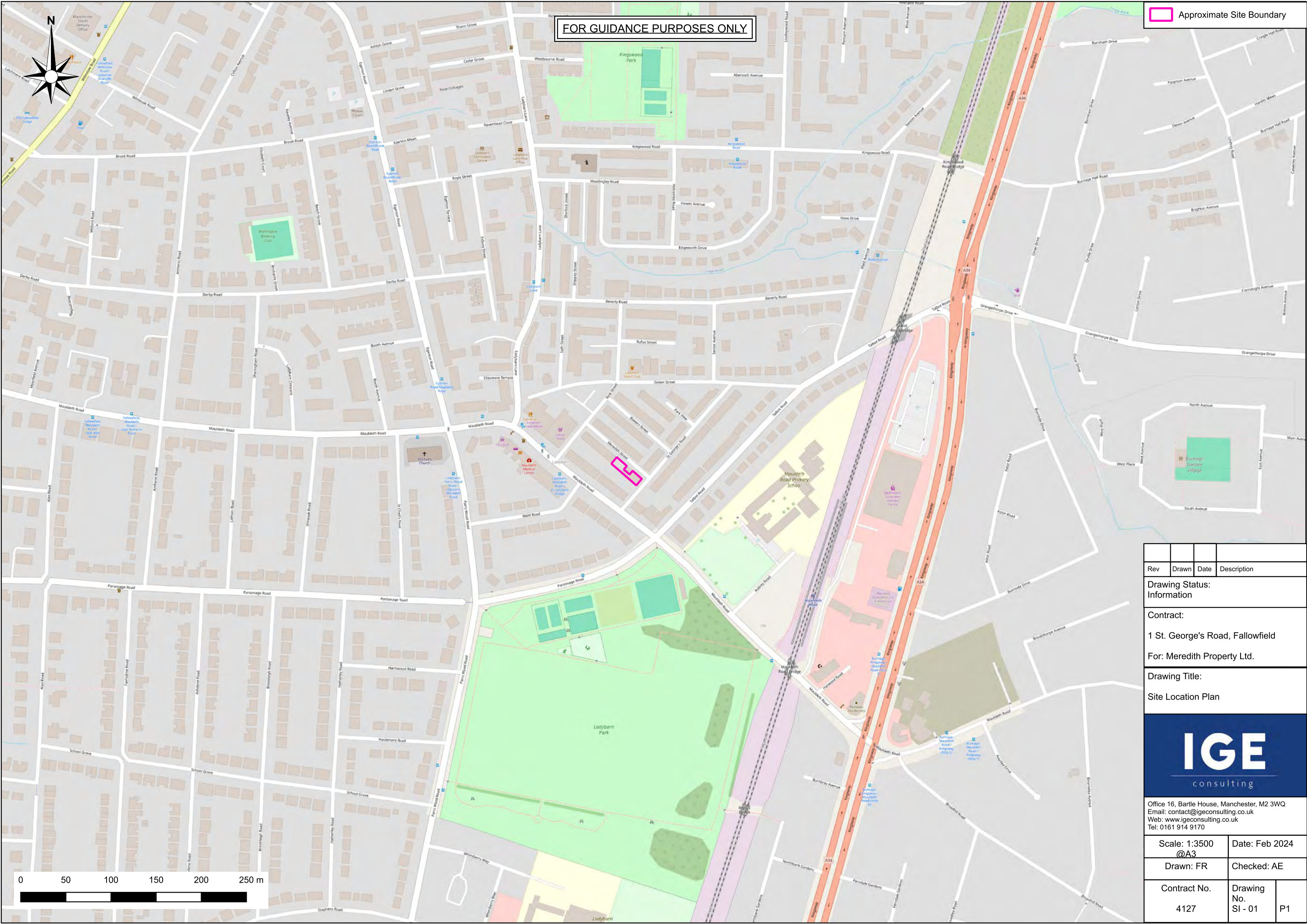
Scale 1:200



Approximate Site Boundary

FOR GUIDANCE PURPOSES ONLY

Rev	Drawn	Date	Description
Drawing Status: Information			
Contract: 1 St. George's Road, Fallowfield For: Meredith Property Ltd.			
Drawing Title: Site Location Plan			
IGE consulting			
Office 16, Bartle House, Manchester, M2 3WQ Email: contact@igeconsulting.co.uk Web: www.igeconsulting.co.uk Tel: 0161 914 9170			
Scale: 1:3500 @A3		Date: Feb 2024	
Drawn: FR		Checked: AE	
Contract No. 4127		Drawing No. SI - 01	P1





FOR GUIDANCE PURPOSES ONLY

Approximate Site Boundary

Historical and Current Garage (1957 - Present)

Approximate basement location

Hardstanding Yard



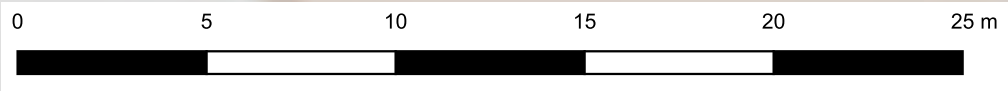
Yard

Basement extent

Garage building

The basement is accessed through the garage in the centre of the site and extends beneath the residential property (22 Meredith Street).

Rev	Drawn	Date	Description
Drawing Status: Information			
Contract: 1 St. George's Road, Fallowfield			
For: Meredith Property Ltd.			
Drawing Title: Site Layout Plan			
IGEconsulting			
Office 16, Bartle House, Manchester, M2 3WQ Email: contact@igeconsulting.co.uk Web: www.igeconsulting.co.uk Tel: 0161 914 9170			
Scale: 1:250 @A3		Date: Feb 2024	
Drawn: FR		Checked: AE	
Contract No. 4127	Drawing No. SI - 05	P1	



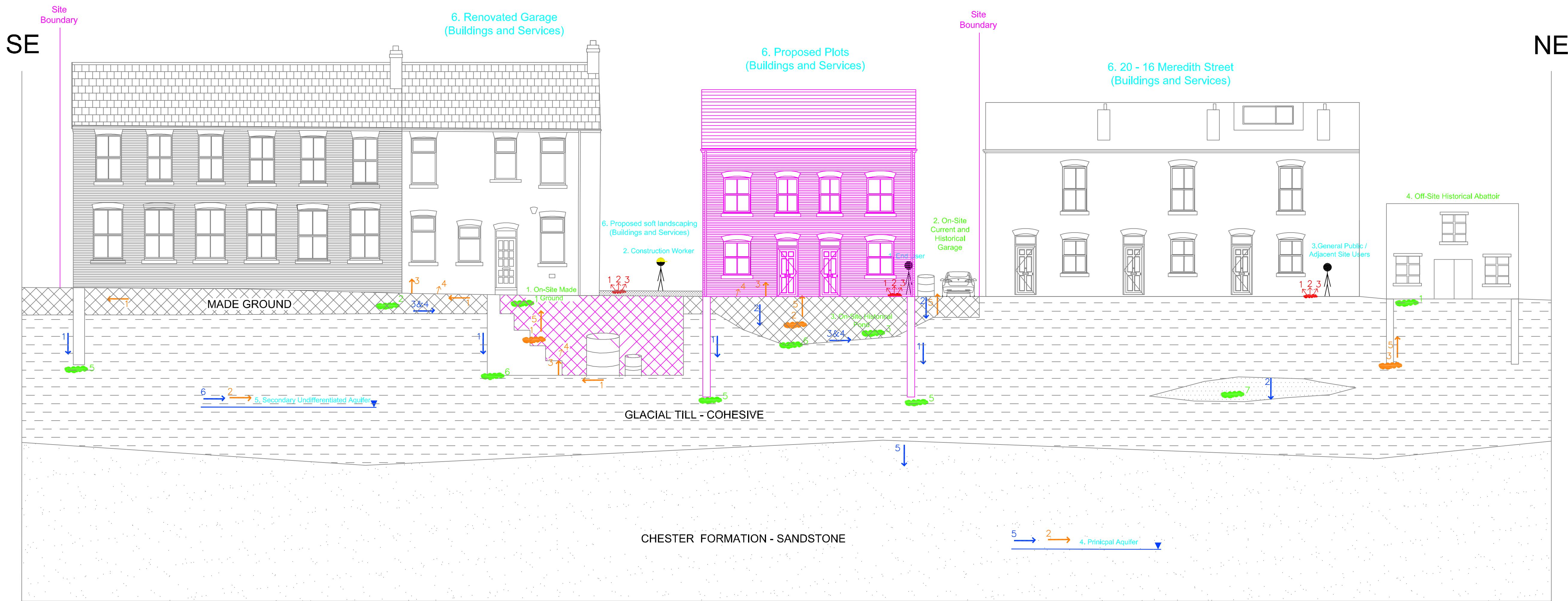
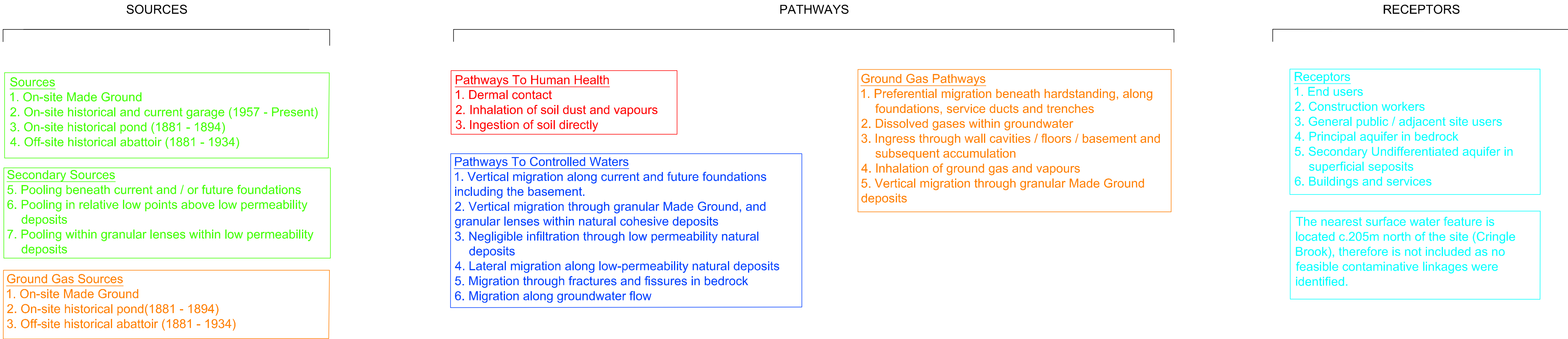


FOR GUIDANCE PURPOSES ONLY

- Approximate Site Boundary
- Proposed Development**
- Proposed Plots
- Historical Features**
- Approximate basement location
- Historical and Current Garage (1957 - Present)
- Historical Pond (1881 - 1894)
- Unknown Historical Features 1957 - 2003

Rev	Drawn	Date	Description
Drawing Status: Information			
Contract: 1 St. George's Road, Fallowfield For: Meredith Property Ltd.			
Drawing Title: Site Location Plan			
IGE consulting Office 16, Bartle House, Manchester, M2 3WQ Email: contact@igeconsulting.co.uk Web: www.igeconsulting.co.uk Tel: 0161 914 9170			
Scale: 1:250 @A3		Date: Feb 2024	
Drawn: FR		Checked: AE	
Contract No.	Drawing No.		
4127	SI - 03	P1	





- Notes
- 1

This drawings is indicative and not to scale.
- 2

This drawing is to be read in conjunction with all relevant Architects and Service Engineers drawings.

- Key
- Made Ground
- Glacial Till – Cohesive
- Glacial Till – Granular
- Chester Formation – Sandstone

Rev	Drawn	Date	Description
Drawing Status			
INFORMATION			
Contract			
1 ST. GEORGE'S STREET			
FOR: MEREDITH PROPERTY LIMITED			
Drawing Title			
CONCEPTUAL SITE MODEL			

IGE

consulting

Office 16, Barile House, Manchester, M2 3WQ

email: contact@lgeconsulting.co.uk

web: www.lgeconsulting.co.uk

tel: 0161 914 9170

Scale	NTS	Date	FEB 2024
Drawn	FR	Checked	AE
Contract No.	4127	Drawing No.	SI-04 P1

APPENDIX 3

WALKOVER SURVEY PHOTOGRAPHS AND PHOTOGRAPH LOCATION PLAN

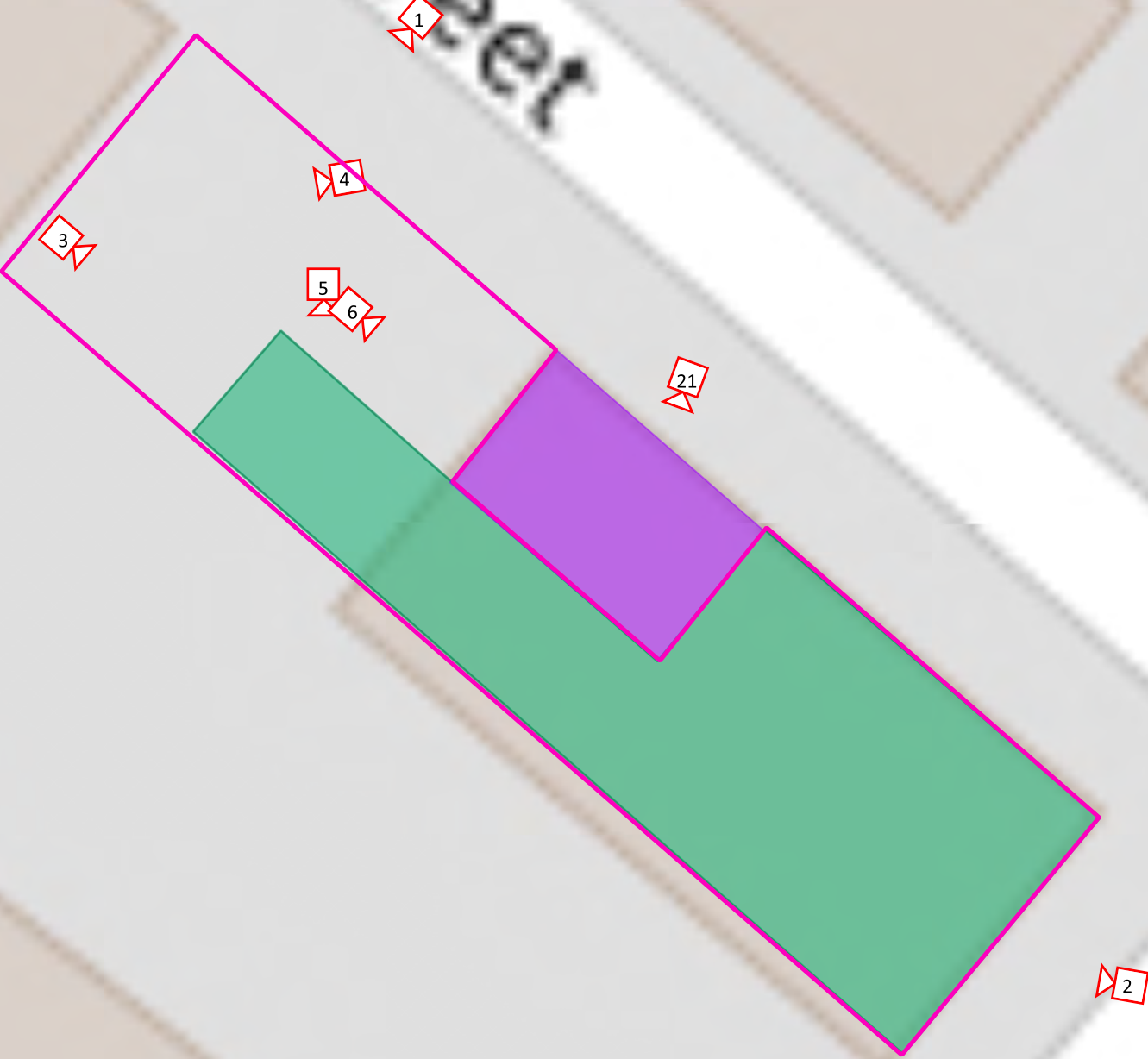


FOR GUIDANCE PURPOSES ONLY

- Approximate Site Boundary
- Historical and Current Garage (1957 - Present)
- Walkover Photograph Location
- Approximate basement location

The Walkover Photograph Locations noted on this plan are representative of the exterior features of the garage and the yard, due to the site containing multiple levels. Photographs taken within the garage and basement are included in Appendix 3.

Meredith Street



Rev	Drawn	Date	Description
Drawing Status: Information			
Contract: 22 Meredith Street, Fallowfield For: Meredith Property Ltd.			
Drawing Title: Site Walkover Photograph Location Plan			
IGEconsulting Office 16, Bartle House, Manchester, M2 3WQ Email: contact@igeconsulting.co.uk Web: www.igeconsulting.co.uk Tel: 0161 914 9170			
Scale: 1:200 @A3		Date: Feb 2024	
Drawn: FR		Checked: AE	
Contract No. 4127	Drawing No. SI - 05	P1	



SITE WALKOVER PHOTOGRAPHS – 1st February 2024



Figure 1 – Image of the site entrance on Meredith Street along the eastern site boundary.



Figure 2 – A second entrance to the site from St George's Road in the southern site section



Figure 3 – Entrance to the garage from the northern site section



Figure 4 – Storage of tyres in the northern site section



Figure 5 – Engine oil cannisters, screen wash fluid and plastic containers with metal and wood debris located in the yard



Figure 6 – Shows wooden pallets, fabric sheets and metal gate segments in the yard.

SITE WALKOVER PHOTOGRAPHS – 1st February 2024



Figure 7 – Scarring in the hardstanding in the yard area.



Figure 8 – Displays the garage section in the centre of the site. The centre of the floor is sunken 12cm below the rest of the garage level.



Figure 9 – Two sunken pits in the floor in the centre of the garage.



Figure 10 – Beneath the pits appear to be lined with concrete and bricks



Figure 11 – The centre of the garage area



Figure 12 – A section of the basement displaying waste of tyres, metal and plastic drums, papers and boots.

SITE WALKOVER PHOTOGRAPHS – 1st February 2024



Figure 13 – Debris of metal storage boxes, pipes, plastic bins and wires



Figure 14 – Displays more of the debris including a fire extinguisher, metal paint containers, shelving, bleach bottles, bottles of engine coolant and oil.



Figure 15 – Shows the contents of the shelves including oils, car cleaner, papers and bleach bottles.



Figure 16 –Labelling on a weathered tin of paint located within the basement dated 2010.



Figure 17 – An eroded 20L jerry can located in the basement.



Figure 18 – A weathered can of floor paint located in the basement.



Figure 19 – The sump located in the basement.



Figure 20 – Displays pipes leading from the sump onto the pavement level.



Figure 21 – The grate leading into the sump from ground level.



Figure 22 – A possible makeshift drainage solution within the basement.



Figure 23 – The southern section of the garage



Figure 24 – Debris build up in the southern section of the garage including a ladder, plastic pipes, sheets of foam, wooden panels and cardboard boxes.

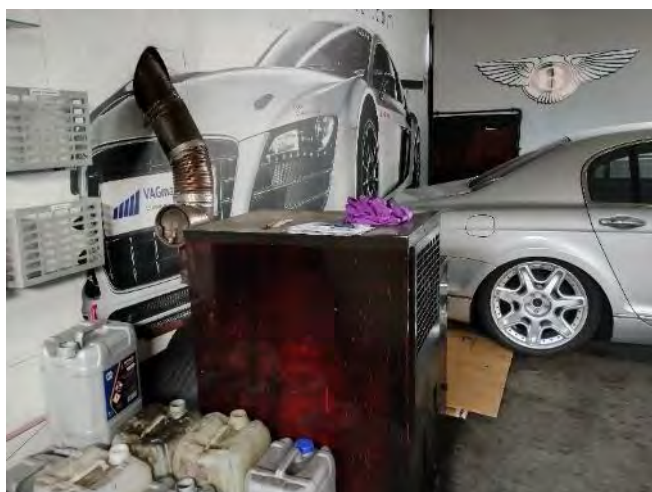


Figure 25 – A ___ in the southern section of the garage.



Figure 26 – Displays scarring in the concrete in the southern site section.



Figure 27 – Shows the hazard labels on the bottles of antifreeze and coolant.



Figure 28 – A boarded up pit in the southern section of the garage.



Figure 29 – Two sunken pits 30cm deep in the garage section



Figure 30 – Waste in the southern section of the garage including paper, a ladder, weathered paint tins and plastic packaging.



Figure 25 – Flammable and harmful to the environment hazard labels on weathered paint tins in the centre of the site.



Figure 26 – A safe located within the ground of the southern section of the garage.



Figure 27 – Access into the garage from the southern site entrance

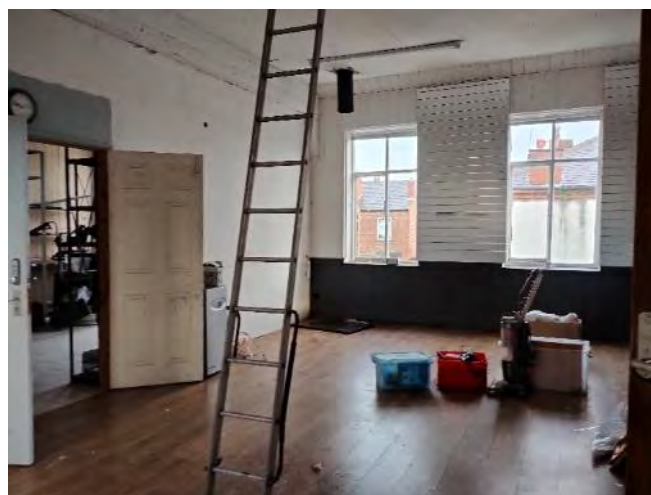


Figure 28 –The first floor of the garage.



Figure 29 –The first floor of the garage showing the poor condition of the paint on the walls and ceilings.



Figure 30 – Displays the flaking paint on the ceiling of the first floor in the southern section of the garage.



Figure 31 – Access into the loft area of the garage building in the southern site section.

APPENDIX 4

GROUNDSURE COMBINED ENVIRO + GEO INSIGHT REPORT

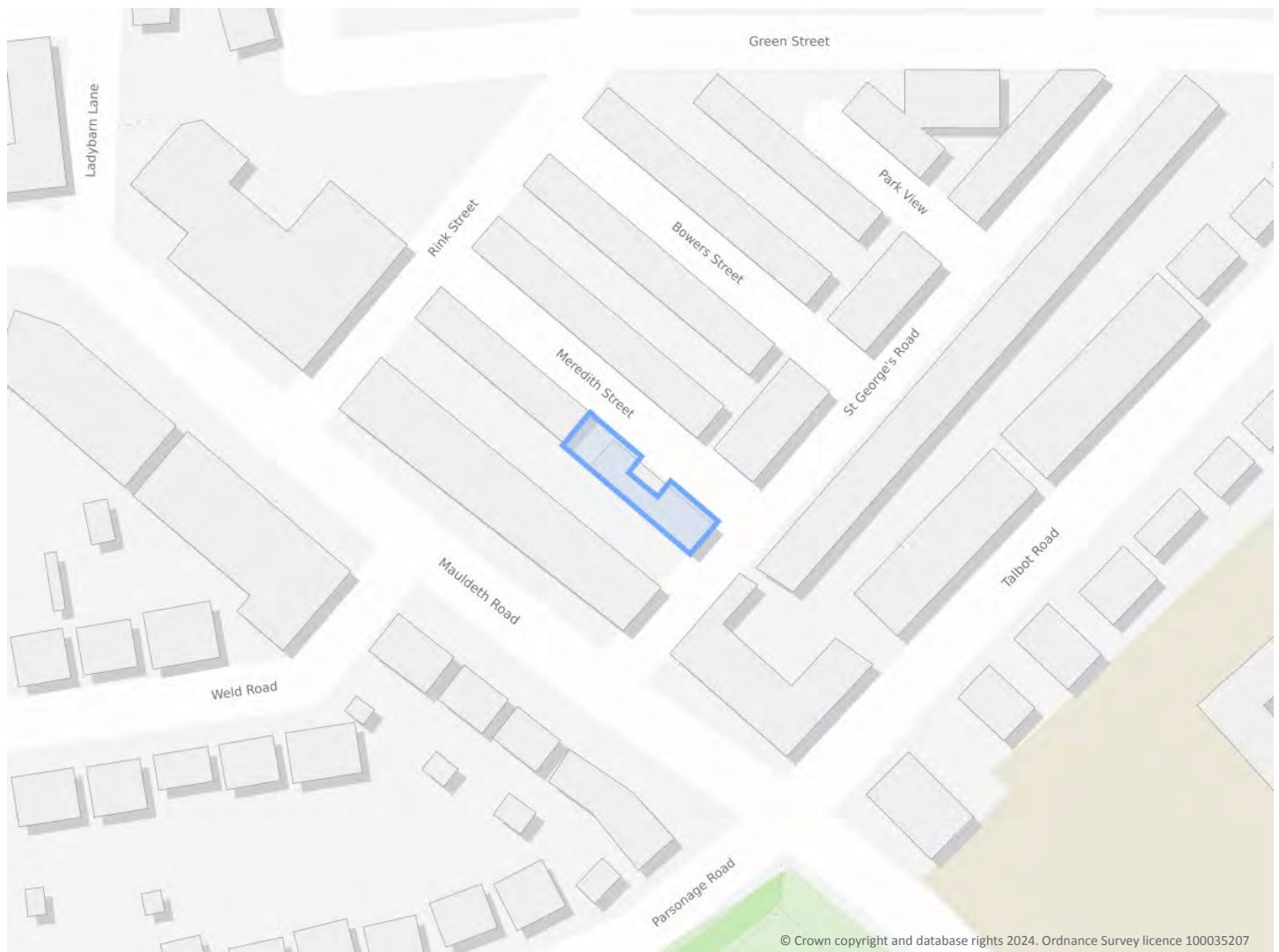
22, MEREDITH STREET, MANCHESTER, M14 6ST

Order Details

Date: 08/02/2024
Your ref: 4127
Our Ref: GS-SLB-E4H-B6I-C13

Site Details

Location: 386007 393142
Area: 0.03 ha
Authority: [Manchester City Council](#) ↗



Summary of findings

[p. 2](#) >

Aerial image

[p. 9](#) >

OS MasterMap site plan

[p.14](#) >

groundsure.com/insightuserguide ↗

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
15 >	1.1 >	Historical industrial land uses >	0	0	16	2	-
16 >	1.2 >	Historical tanks >	0	0	0	1	-
17 >	1.3 >	Historical energy features >	0	0	1	8	-
17	1.4	Historical petrol stations	0	0	0	0	-
18 >	1.5 >	Historical garages >	2	0	0	12	-
18	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
19 >	2.1 >	Historical industrial land uses >	0	0	25	3	-
21 >	2.2 >	Historical tanks >	0	0	0	1	-
21 >	2.3 >	Historical energy features >	0	0	2	17	-
22	2.4	Historical petrol stations	0	0	0	0	-
22 >	2.5 >	Historical garages >	5	0	0	22	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
24	3.1	Active or recent landfill	0	0	0	0	-
24	3.2	Historical landfill (BGS records)	0	0	0	0	-
25	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
25	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
25	3.5	Historical waste sites	0	0	0	0	-
25	3.6	Licensed waste sites	0	0	0	0	-
25 >	3.7 >	Waste exemptions >	0	0	1	0	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
27 >	4.1 >	Recent industrial land uses >	1	1	3	-	-
28 >	4.2 >	Current or recent petrol stations >	0	0	0	1	-
28	4.3	Electricity cables	0	0	0	0	-
28	4.4	Gas pipelines	0	0	0	0	-
29	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	-
30	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
30 >	4.11 >	<u>Licensed pollutant release (Part A(2)/B) ></u>	1	0	0	3	-
30	4.12	Radioactive Substance Authorisations	0	0	0	0	-
31 >	4.13 >	<u>Licensed Discharges to controlled waters ></u>	0	0	1	1	-
31	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
31	4.15	Pollutant release to public sewer	0	0	0	0	-
32	4.16	List 1 Dangerous Substances	0	0	0	0	-
32	4.17	List 2 Dangerous Substances	0	0	0	0	-
32 >	4.18 >	<u>Pollution Incidents (EA/NRW) ></u>	0	0	7	1	-
33	4.19	Pollution inventory substances	0	0	0	0	-
34	4.20	Pollution inventory waste transfers	0	0	0	0	-
34	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	<u>Hydrogeology ></u>	On site	0-50m	50-250m	250-500m	500-2000m
35 >	5.1 >	<u>Superficial aquifer ></u>	Identified (within 500m)				
36 >	5.2 >	<u>Bedrock aquifer ></u>	Identified (within 500m)				
38 >	5.3 >	<u>Groundwater vulnerability ></u>	Identified (within 50m)				
39	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
39	5.5	Groundwater vulnerability- local information	None (within 0m)				
40 >	5.6 >	<u>Groundwater abstractions ></u>	0	0	0	0	6
42	5.7	Surface water abstractions	0	0	0	0	0
42	5.8	Potable abstractions	0	0	0	0	0
43	5.9	Source Protection Zones	0	0	0	0	-
43	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	<u>Hydrology ></u>	On site	0-50m	50-250m	250-500m	500-2000m
44 >	6.1 >	<u>Water Network (OS MasterMap) ></u>	0	0	1	-	-



45 >	6.2 >	Surface water features >	0	0	1	-	-
45 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
45 >	6.4 >	WFD Surface water bodies >	0	0	1	-	-
46 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding >	On site	0-50m	50-250m	250-500m	500-2000m
47 >	7.1 >	Risk of flooding from rivers and the sea >	Low (within 50m)				
48	7.2	Historical Flood Events	0	0	0	-	-
48 >	7.3 >	Flood Defences >	0	0	7	-	-
49	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
49	7.5	Flood Storage Areas	0	0	0	-	-
50 >	7.6 >	Flood Zone 2 >	Identified (within 50m)				
51	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
52	8.1	Surface water flooding	Negligible (within 50m)				
Page	Section	Groundwater flooding >					
53 >	9.1 >	Groundwater flooding >	Moderate (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
54	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
55	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
55	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
55	10.4	Special Protection Areas (SPA)	0	0	0	0	0
55	10.5	National Nature Reserves (NNR)	0	0	0	0	0
56 >	10.6 >	Local Nature Reserves (LNR) >	0	0	0	0	2
56	10.7	Designated Ancient Woodland	0	0	0	0	0
56	10.8	Biosphere Reserves	0	0	0	0	0
56	10.9	Forest Parks	0	0	0	0	0
57	10.10	Marine Conservation Zones	0	0	0	0	0
57	10.11	Green Belt	0	0	0	0	0
57	10.12	Proposed Ramsar sites	0	0	0	0	0



57	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
57	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
58	10.15	Nitrate Sensitive Areas	0	0	0	0	0
58	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
59 >	10.17 >	SSSI Impact Risk Zones >	1	-	-	-	-
60	10.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
61	11.1	World Heritage Sites	0	0	0	-	-
62	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
62	11.3	National Parks	0	0	0	-	-
62 >	11.4 >	Listed Buildings >	0	0	3	-	-
63	11.5	Conservation Areas	0	0	0	-	-
63	11.6	Scheduled Ancient Monuments	0	0	0	-	-
63	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
64 >	12.1 >	Agricultural Land Classification >	Urban (within 250m)				
65	12.2	Open Access Land	0	0	0	-	-
65	12.3	Tree Felling Licences	0	0	0	-	-
65	12.4	Environmental Stewardship Schemes	0	0	0	-	-
65	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
66	13.1	Priority Habitat Inventory	0	0	0	-	-
66	13.2	Habitat Networks	0	0	0	-	-
66	13.3	Open Mosaic Habitat	0	0	0	-	-
66	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
67 >	14.1 >	10k Availability >	Identified (within 500m)				
68 >	14.2 >	Artificial and made ground (10k) >	0	0	2	3	-
70 >	14.3 >	Superficial geology (10k) >	1	0	0	0	-



71	14.4	Landslip (10k)	0	0	0	0	-
72 >	14.5 >	Bedrock geology (10k) >	1	0	0	1	-
73 >	14.6 >	Bedrock faults and other linear features (10k) >	0	0	1	0	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
74 >	15.1 >	50k Availability >	Identified (within 500m)				
75	15.2	Artificial and made ground (50k)	0	0	0	0	-
75	15.3	Artificial ground permeability (50k)	0	0	-	-	-
76 >	15.4 >	Superficial geology (50k) >	1	0	0	0	-
77 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
77	15.6	Landslip (50k)	0	0	0	0	-
77	15.7	Landslip permeability (50k)	None (within 50m)				
78 >	15.8 >	Bedrock geology (50k) >	1	0	0	1	-
79 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
79 >	15.10 >	Bedrock faults and other linear features (50k) >	0	0	1	0	-
Page	Section	Boreholes >	On site	0-50m	50-250m	250-500m	500-2000m
80 >	16.1 >	BGS Boreholes >	0	0	14	-	-
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 >	Negligible (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 and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m
89	18.1	BritPits	0	0	0	0	-
90 >	18.2 >	Surface ground workings >	0	0	2	-	-
90	18.3	Underground workings	0	0	0	0	0
90	18.4	Underground mining extents	0	0	0	0	-
90	18.5	Historical Mineral Planning Areas	0	0	0	0	-



91	18.6	Non-coal mining	0	0	0	0	0
91 >	18.7 >	JPB mining areas >	Identified (within 0m)				
91	18.8	The Coal Authority non-coal mining	0	0	0	0	-
91	18.9	Researched mining	0	0	0	0	-
92	18.10	Mining record office plans	0	0	0	0	-
92	18.11	BGS mine plans	0	0	0	0	-
92	18.12	Coal mining	None (within 0m)				
92	18.13	Brine areas	None (within 0m)				
92	18.14	Gypsum areas	None (within 0m)				
93	18.15	Tin mining	None (within 0m)				
93	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
94	19.1	Natural cavities	0	0	0	0	-
94	19.2	Mining cavities	0	0	0	0	0
94	19.3	Reported recent incidents	0	0	0	0	-
94	19.4	Historical incidents	0	0	0	0	-
95	19.5	National karst database	0	0	0	0	-
Page	Section	Radon >					
96 >	20.1 >	Radon >	Less than 1% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
98 >	21.1 >	BGS Estimated Background Soil Chemistry >	2	0	-	-	-
98	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
98	21.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects >	On site	0-50m	50-250m	250-500m	500-2000m
99	22.1	Underground railways (London)	0	0	0	-	-
99	22.2	Underground railways (Non-London)	0	0	0	-	-
100	22.3	Railway tunnels	0	0	0	-	-
100 >	22.4 >	Historical railway and tunnel features >	0	0	13	-	-
101	22.5	Royal Mail tunnels	0	0	0	-	-



101	22.6	Historical railways	0	0	0	-	-
101 >	22.7 >	Railways >	0	0	4	-	-
101	22.8	Crossrail 1	0	0	0	0	-
102	22.9	Crossrail 2	0	0	0	0	-
102 >	22.10 >	HS2 >	0	0	2	0	-

Recent aerial photograph



Capture Date: 28/09/2022

Site Area: 0.03ha



Recent site history - 2019 aerial photograph



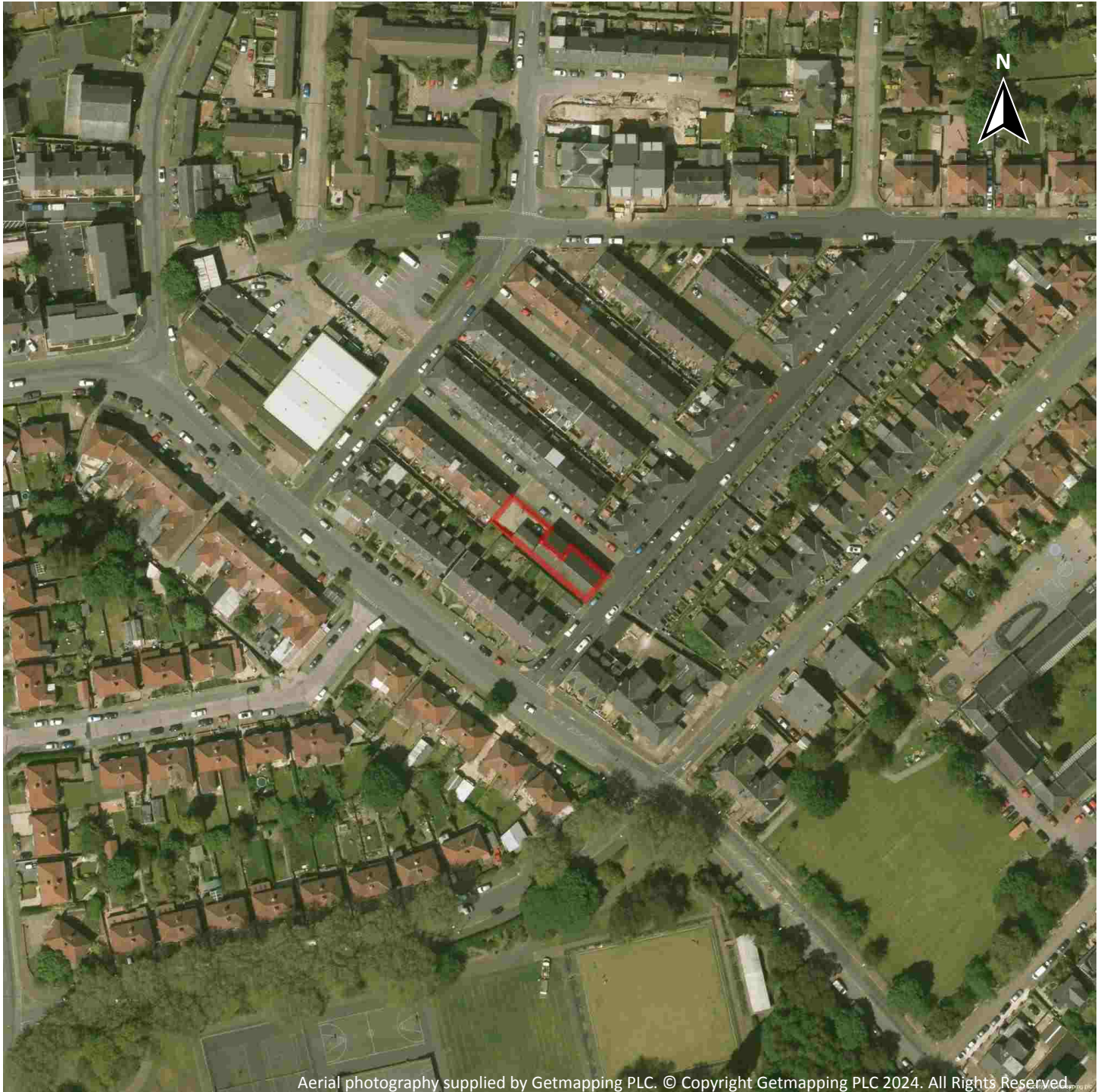
Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2024. All Rights Reserved.

Capture Date: 22/04/2019

Site Area: 0.03ha



Recent site history - 2015 aerial photograph



Capture Date: 11/06/2015

Site Area: 0.03ha



Recent site history - 2009 aerial photograph



Capture Date: 02/06/2009

Site Area: 0.03ha



Recent site history - 2000 aerial photograph



Capture Date: 19/06/2000

Site Area: 0.03ha



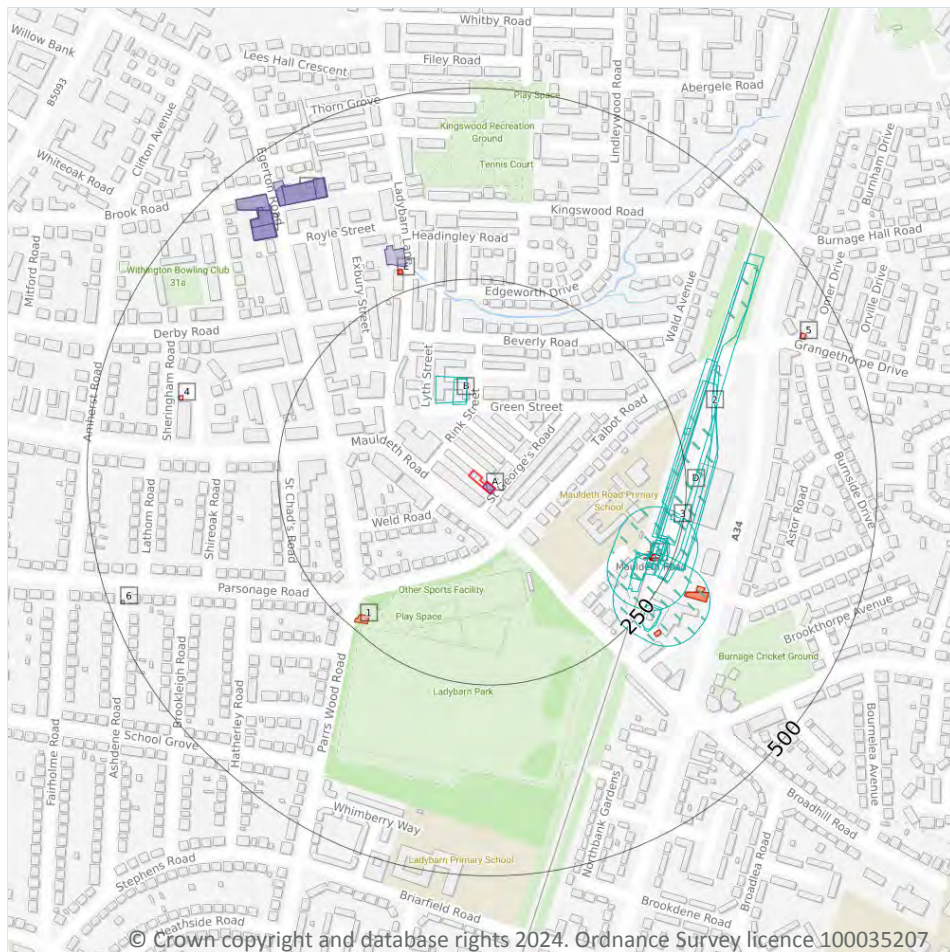
OS MasterMap site plan



Site Area: 0.03ha



1 Past land use



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses
- Historical tanks
- Historical energy features
- Historical garages

1.1 Historical industrial land uses

Records within 500m

18

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 15 >](#)

ID	Location	Land use	Dates present	Group ID
B	87m N	Abattoir	1892	876361



ID	Location	Land use	Dates present	Group ID
B	90m N	Abattoir	1905 - 1923	871629
C	171m E	Railway Station	1934 - 1938	968130
C	198m SE	Railway Station	1989	969076
C	204m SE	Railway Station	1983	904442
C	204m SE	Railway Station	1974	906003
C	207m SE	Railway Station	1916 - 1923	864564
D	215m E	Railway Sidings	1934 - 1938	934072
D	218m E	Railway Sidings	1955 - 1974	937836
C	219m E	Railway Building	1965	820593
C	219m E	Railway Station	1955	901582
D	219m E	Railway Sidings	1916	860937
D	223m E	Railway Sidings	1923	956332
2	227m E	Railway Sidings	1983 - 1989	912478
3	233m E	Railway Building	1916 - 1923	976716
C	248m SE	Unspecified Heap	1955	949862
C	251m SE	Unspecified Heap	1934 - 1938	957765
D	258m E	Railway Building	1923	820594

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

1

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 ungrouped 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 15 >](#)

ID	Location	Land use	Dates present	Group ID
6	480m W	Unspecified Tank	1934	116908



This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m

9

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 ungrouped 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 15 >](#)

ID	Location	Land use	Dates present	Group ID
1	225m SW	Electricity Substation	1988 - 1992	77311
E	273m N	Electricity Substation	1979 - 1987	70848
E	273m N	Electricity Substation	1992	73515
C	281m SE	Electricity Substation	1989 - 1992	81059
C	284m SE	Electricity Substation	1989	78337
C	286m SE	Electricity Substation	1992	68142
C	294m SE	Electricity Substation	1988 - 1990	71442
4	388m W	Electricity Substation	1987 - 1992	70816
5	444m NE	Electricity Substation	1988 - 1990	69852

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 ungrouped 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

14

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 ungrouped 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 15 >](#)

ID	Location	Land use	Dates present	Group ID
A	On site	Garage	1956	26032
A	On site	Garage	1988 - 1990	26556
E	280m N	Garage	1957	26920
F	399m NW	Garage	1979 - 1982	27126
F	399m NW	Garage	1957	20832
F	400m NW	Garage	1981 - 1995	25661
F	400m NW	Garage	1957	27829
G	405m NW	Garage	1957	22064
G	406m NW	Garage	1981 - 1988	27200
G	407m NW	Garage	1994	22117
G	410m NW	Garage	1957 - 1971	26644
F	416m NW	Garage	1992	23760
F	432m NW	Garage	1996	21068
F	438m NW	Garage	1971	24054

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m

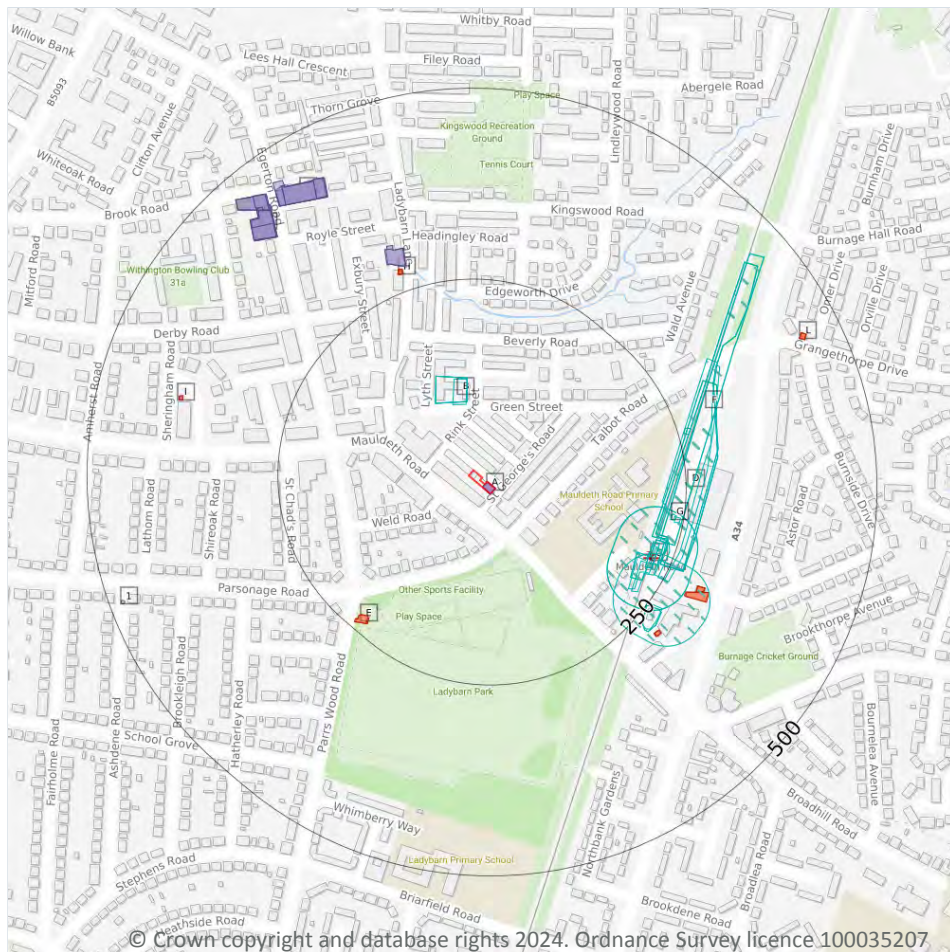
0

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
- Historical garages

2.1 Historical industrial land uses

Records within 500m

28

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 19](#) >

ID	Location	Land Use	Date	Group ID
B	87m N	Abattoir	1892	876361
B	90m N	Abattoir	1916	871629
B	90m N	Abattoir	1905	871629



ID	Location	Land Use	Date	Group ID
B	90m N	Abattoir	1923	871629
C	171m E	Railway Station	1938	968130
C	171m E	Railway Station	1934	968130
C	198m SE	Railway Station	1989	969076
C	204m SE	Railway Station	1974	906003
C	204m SE	Railway Station	1983	904442
C	207m SE	Railway Station	1916	864564
C	213m SE	Railway Station	1923	864564
D	215m E	Railway Sidings	1938	934072
D	215m E	Railway Sidings	1934	934072
D	218m E	Railway Sidings	1974	937836
D	218m E	Railway Sidings	1955	937836
D	218m E	Railway Sidings	1965	937836
C	219m E	Railway Station	1955	901582
C	219m E	Railway Building	1965	820593
D	219m E	Railway Sidings	1916	860937
D	223m E	Railway Sidings	1923	956332
F	227m E	Railway Sidings	1983	912478
F	227m E	Railway Sidings	1989	912478
G	233m E	Railway Building	1916	976716
G	238m E	Railway Building	1923	976716
C	248m SE	Unspecified Heap	1955	949862
C	251m SE	Unspecified Heap	1938	957765
C	251m SE	Unspecified Heap	1934	957765
D	258m E	Railway Building	1923	820594

This data is sourced from Ordnance Survey / Groundsure.



2.2 Historical tanks

Records within 500m

1

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 19 >](#)

ID	Location	Land Use	Date	Group ID
1	480m W	Unspecified Tank	1934	116908

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m

19

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 19 >](#)

ID	Location	Land Use	Date	Group ID
E	225m SW	Electricity Substation	1992	77311
E	226m SW	Electricity Substation	1988	77311
H	273m N	Electricity Substation	1987	70848
H	273m N	Electricity Substation	1979	70848
H	273m N	Electricity Substation	1979	70848
H	273m N	Electricity Substation	1982	70848
H	273m N	Electricity Substation	1992	73515
C	281m SE	Electricity Substation	1989	81059
C	282m SE	Electricity Substation	1992	81059
C	284m SE	Electricity Substation	1989	78337
C	286m SE	Electricity Substation	1992	68142
C	294m SE	Electricity Substation	1990	71442
C	294m SE	Electricity Substation	1988	71442



ID	Location	Land Use	Date	Group ID
C	294m SE	Electricity Substation	1990	71442
I	388m W	Electricity Substation	1992	70816
I	388m W	Electricity Substation	1987	70816
L	444m NE	Electricity Substation	1990	69852
L	444m NE	Electricity Substation	1988	69852
L	444m NE	Electricity Substation	1990	69852

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	27
----------------------------	-----------

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'.

Features are displayed on the Past land use - un-grouped map on [page 19](#) >

ID	Location	Land Use	Date	Group ID
A	On site	Garage	1990	26556
A	On site	Garage	1988	26556
A	On site	Garage	1990	26556
A	On site	Garage	1956	26032
A	On site	Garage	1956	26032
H	280m N	Garage	1957	26920
H	282m N	Garage	1957	26920



ID	Location	Land Use	Date	Group ID
J	399m NW	Garage	1979	27126
J	399m NW	Garage	1979	27126
J	399m NW	Garage	1982	27126
J	399m NW	Garage	1957	20832
J	400m NW	Garage	1957	27829
J	400m NW	Garage	1987	25661
K	405m NW	Garage	1957	22064
K	406m NW	Garage	1981	27200
K	406m NW	Garage	1988	27200
K	407m NW	Garage	1994	22117
K	410m NW	Garage	1957	26644
K	410m NW	Garage	1971	26644
J	416m NW	Garage	1992	23760
J	431m NW	Garage	1981	25661
J	432m NW	Garage	1996	21068
J	432m NW	Garage	1995	25661
J	432m NW	Garage	1994	25661
J	433m NW	Garage	1988	25661
J	438m NW	Garage	1957	27829
J	438m NW	Garage	1971	24054

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill



- Site Outline
- Search buffers in metres (m)
- Waste exemptions

3.1 Active or recent landfill

Records within 500m

0

Active or recently closed landfill sites under Environment Agency/Natural Resources Wales regulation.

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**0**

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.

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**0**

Active or recently closed waste sites under Environment Agency/Natural Resources Wales regulation.

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 24](#) >

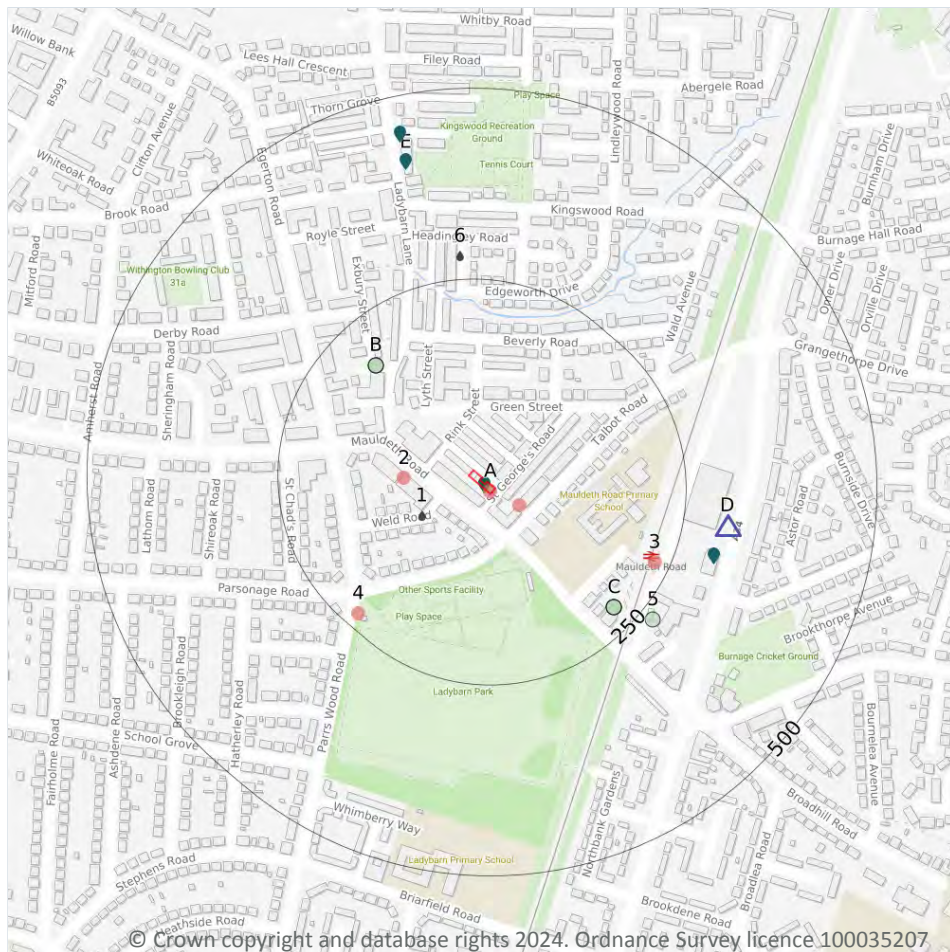
ID	Location	Site	Reference	Category	Sub-Category	Description
1	162m S	-	WEX365140	Using waste exemption	Not on a farm	Use of waste in construction



This data is sourced from the Environment Agency and Natural Resources Wales.



4 Current industrial land use



- Site Outline
- Search buffers in metres (m)
- Recent industrial land uses
- △ Current or recent petrol stations
- Licensed pollutant release (Part A(2)/B)
- Licensed Discharges to controlled waters
- Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m

5

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on [page 27 >](#)

ID	Location	Company	Address	Activity	Category
A	On site	R & B Motors	1, St Georges Road, Manchester, Greater Manchester, M14 6SX	Vehicle Repair, Testing and Servicing	Repair and Servicing
A	39m SE	Just Rubbers	Workshop Next to 1, Talbot Road, Manchester, Greater Manchester, M14 6TA	Vehicle Repair, Testing and Servicing	Repair and Servicing



ID	Location	Company	Address	Activity	Category
2	85m W	Specsavers Hearcare	114, Mauldeth Road, Manchester, Greater Manchester, M14 6SQ	Disability and Mobility Equipment	Consumer Products
3	230m SE	Mauldeth Road Rail Station	Greater Manchester, M14	Railway Stations, Junctions and Halts	Public Transport, Stations and Infrastructure
4	231m SW	Electricity Sub Station	Greater Manchester, M20	Electrical Features	Infrastructure and Facilities

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m

1

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on [page 27 >](#)

ID	Location	Company	Address	LPG	Status
D	308m E	TEXACO	138, Kingsway, Burnage, Manchester, Greater Manchester, M19 1BB	No	Open

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

4

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.

Features are displayed on the Current industrial land use map on [page 27 >](#)

ID	Location	Address	Details	
A	On site	R & B Motors, St George's Road, Fallowfield, M14 6RW	Process: Waste Oil Burner 0.4 MW Status: New Legislation Applies Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
D	299m E	Kingsway Service Station, 138 Kingsway, Burnage, M19 1WB	Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
E	413m N	Regalead Ltd, 65-67 Ladybarn Lane, Fallowfield M14 6YL	Process: Waste Oil Burner 0.4 MW Status: New Legislation Applies Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
E	450m N	S. Marshall Motor Engineers, 65-67 Ladybarn Lane, Fallowfield, M14 6YL	Process: Waste Oil Burner 0.4 MW Status: New Legislation Applies Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified

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

2

Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991.

Features are displayed on the Current industrial land use map on [page 27 >](#)

ID	Location	Address	Details	
1	80m SW	PALMERSTON STREET, MANCHESTER, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0196 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 01/01/1995 Revocation Date: 13/10/1999
6	280m N	HOLLAND ST/BUTLER ST, SSO, MANCHESTER, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: 01MAN0036 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 15/09/1993 Revocation Date: 15/09/1993

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

0

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.

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

8

Records of substantiated pollution incidents. Since 2006 this data has only included category 1 (major) and 2 (significant) pollution incidents.

Features are displayed on the Current industrial land use map on [page 27 >](#)

ID	Location	Details	
B	187m NW	Incident Date: 02/04/2001 Incident Identification: 1310 Pollutant: Inert Materials and Wastes Pollutant Description: Construction and Demolition Materials and Wastes	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
B	187m NW	Incident Date: 02/04/2001 Incident Identification: 1310 Pollutant: Inert Materials and Wastes:Specific Waste Materials Pollutant Description: Construction and Demolition Materials and Wastes:Commercial Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
B	187m NW	Incident Date: 02/04/2001 Incident Identification: 1310 Pollutant: Specific Waste Materials Pollutant Description: Commercial Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)



ID	Location	Details	
C	219m SE	Incident Date: 10/07/2002 Incident Identification: 90954 Pollutant: Inert Materials and Wastes:General Biodegradable Materials and Wastes:Pollutant Not Identified Pollutant Description: Construction and Demolition Materials and Wastes:Vegetable Cuttings and Deposits:Not Identified	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
C	219m SE	Incident Date: 10/07/2002 Incident Identification: 90954 Pollutant: Inert Materials and Wastes Pollutant Description: Construction and Demolition Materials and Wastes	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
C	219m SE	Incident Date: 10/07/2002 Incident Identification: 90954 Pollutant: General Biodegradable Materials and Wastes Pollutant Description: Vegetable Cuttings and Deposits	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
C	219m SE	Incident Date: 10/07/2002 Incident Identification: 90954 Pollutant: Pollutant Not Identified Pollutant Description: Not Identified	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
5	268m SE	Incident Date: 21/01/2003 Incident Identification: 132323 Pollutant: Pollutant Not Identified Pollutant Description: Not Identified	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)

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

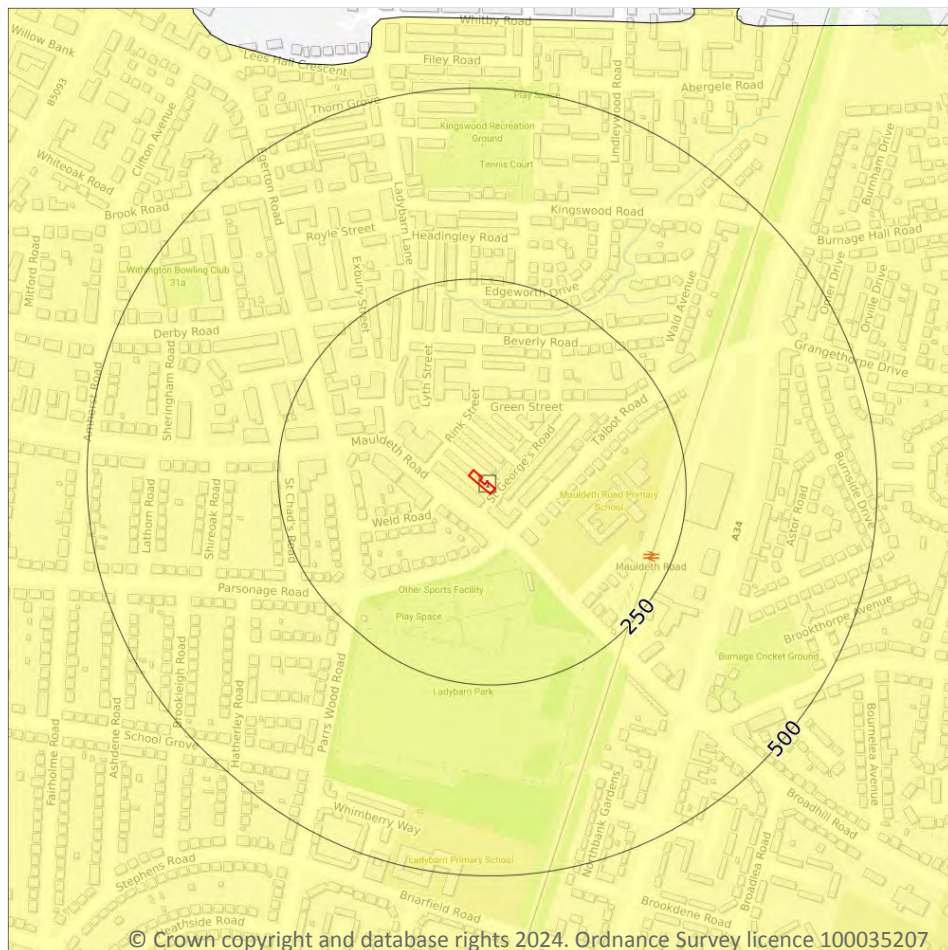
0

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

1

Aquifer status of groundwater held within superficial geology.

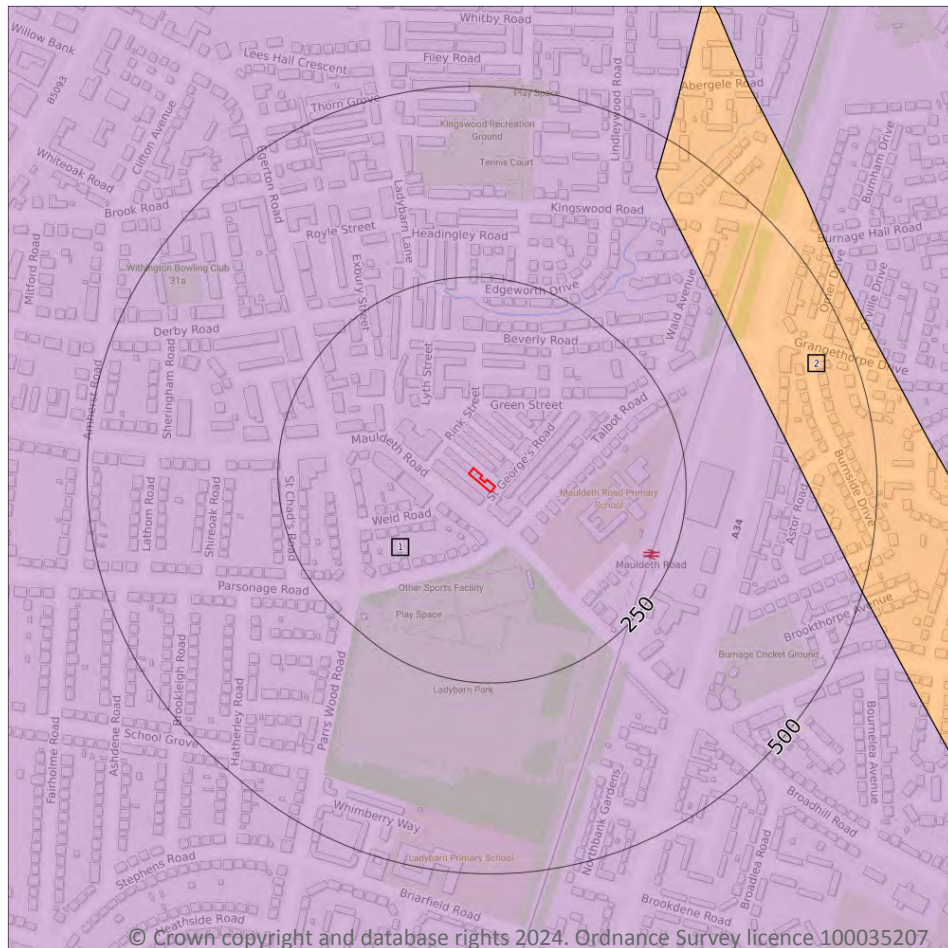
Features are displayed on the Hydrogeology map on [page 35 >](#)

ID	Location	Designation	Description
1	On site	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

2

Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on [page 36](#) >

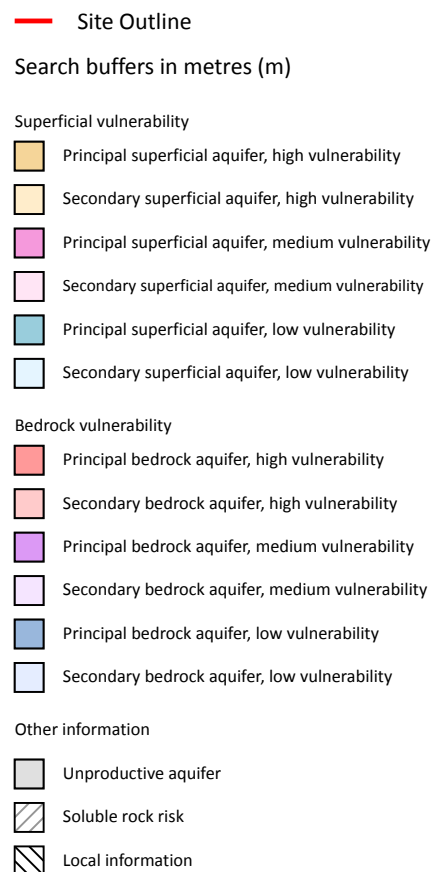
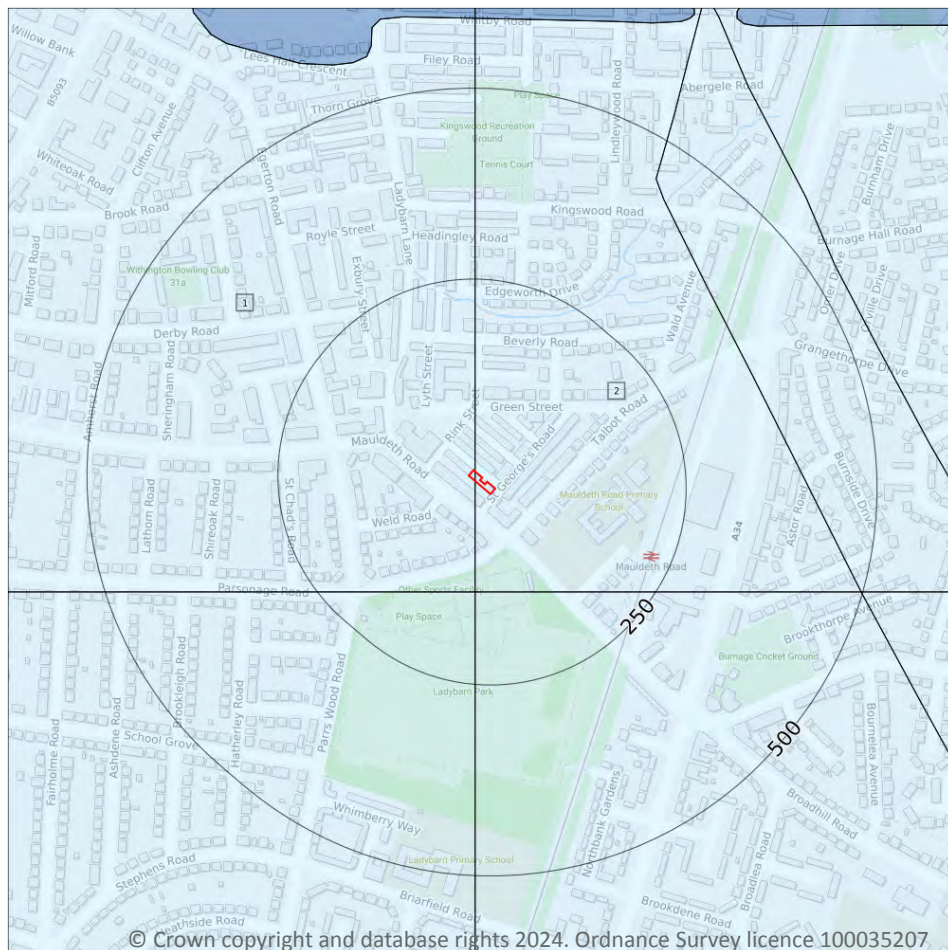
ID	Location	Designation	Description
1	On site	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
2	367m NE	Secondary B	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers



This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.



Groundwater vulnerability



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 38 >](#)



ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: 300- 550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: 3-10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Principal Flow mechanism: Mixed
2	On site	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: 300- 550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: 3-10m Patchiness value: >90% Recharge potential: High	Vulnerability: Low Aquifer type: Principal 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

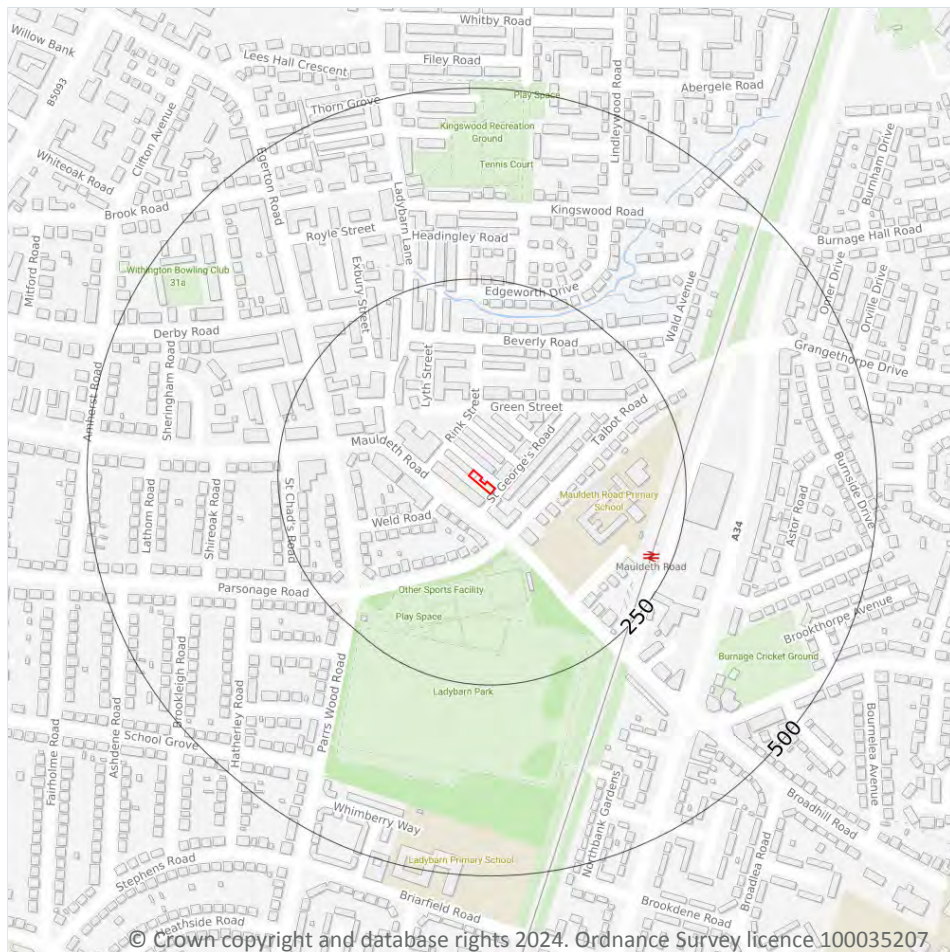
Records on site	0
------------------------	----------

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



- Site Outline
- Search buffers in metres (m)**
- Source Protection Zone 1
Inner catchment
- Source Protection Zone 2
Outer catchment
- Source Protection Zone 3
Total catchment
- Source Protection Zone 4
Zone of Special Interest
- Source Protection Zone 1c
Inner catchment - confined aquifer
- Source Protection Zone 2c
Outer catchment - confined aquifer
- Source Protection Zone 3c
Total catchment - confined aquifer
- Drinking water abstraction licences
Polygon features
- Drinking water abstraction licences
Linear features
- Groundwater abstraction licence (point)
- Groundwater abstraction licence (area)
- Groundwater abstraction licence (linear)
- Surface Water Abstractions (point)
- Surface Water Abstractions (area)
- Surface Water Abstractions (linear)

5.6 Groundwater abstractions

Records within 2000m

6

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.

Features are displayed on the Abstractions and Source Protection Zones map on [page 40](#) >



ID	Location	Details	
-	757m SE	Status: Historical Licence No: 2569013021 Details: Laundry Use Direct Source: Ground Water - North West Region Point: BURNAGE LANE, LEVENSHULME, MANCHESTER Data Type: Point Name: OCS GROUP UK LTD T/A CANNON Easting: 386720 Northing: 392830	Annual Volume (m ³): 91000 Max Daily Volume (m ³): 350 Original Application No: - Original Start Date: 19/03/2004 Expiry Date: 31/03/2014 Issue No: 2 Version Start Date: 17/01/2008 Version End Date: -
-	1591m SE	Status: Historical Licence No: 2569013020 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: "BOREHOLE AT HEATON MOOR GOLF CLUB, STOCKPORT" Data Type: Point Name: HEATON MOOR GOLF CLUB Easting: 387260 Northing: 392130	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/03/1997 Expiry Date: - Issue No: 100 Version Start Date: 18/03/1997 Version End Date: -
-	1591m SE	Status: Historical Licence No: 2569013020 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: BOREHOLE AT HEATON MOOR GOLF CLUB, STOCKPORT Data Type: Point Name: Brian McCrae Easting: 387260 Northing: 392130	Annual Volume (m ³): 8000 Max Daily Volume (m ³): 50 Original Application No: - Original Start Date: 18/03/1997 Expiry Date: - Issue No: 102 Version Start Date: 08/04/2009 Version End Date: -
-	1592m SE	Status: Active Licence No: 2569013020 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: BOREHOLE AT HEATON MOOR GOLF CLUB, STOCKPORT Data Type: Point Name: Heaton Moor Golf Club Limited Easting: 387258 Northing: 392126	Annual Volume (m ³): 8000 Max Daily Volume (m ³): 50 Original Application No: NPS/WR/029279 Original Start Date: 18/03/1997 Expiry Date: - Issue No: 104 Version Start Date: 09/08/2018 Version End Date: -



ID	Location	Details	
-	1956m E	Status: Historical Licence No: 2569011037 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT CROSSLEY RD LEVENSHULME Data Type: Point Name: UNITED BISCUITS (UK) LIMITED Easting: 387960 Northing: 392840	Annual Volume (m ³): 170000 Max Daily Volume (m ³): 700 Original Application No: - Original Start Date: 16/03/1998 Expiry Date: 16/03/2008 Issue No: 101 Version Start Date: 01/01/2006 Version End Date: -
-	1956m E	Status: Historical Licence No: 2569011040 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT CROSSLEY RD LEVENSHULME Data Type: Point Name: UNITED BISCUITS (UK) LIMITED Easting: 387960 Northing: 392840	Annual Volume (m ³): 132046 Max Daily Volume (m ³): 498 Original Application No: - Original Start Date: 03/10/2008 Expiry Date: 31/03/2017 Issue No: 1 Version Start Date: 03/10/2008 Version End Date: -

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

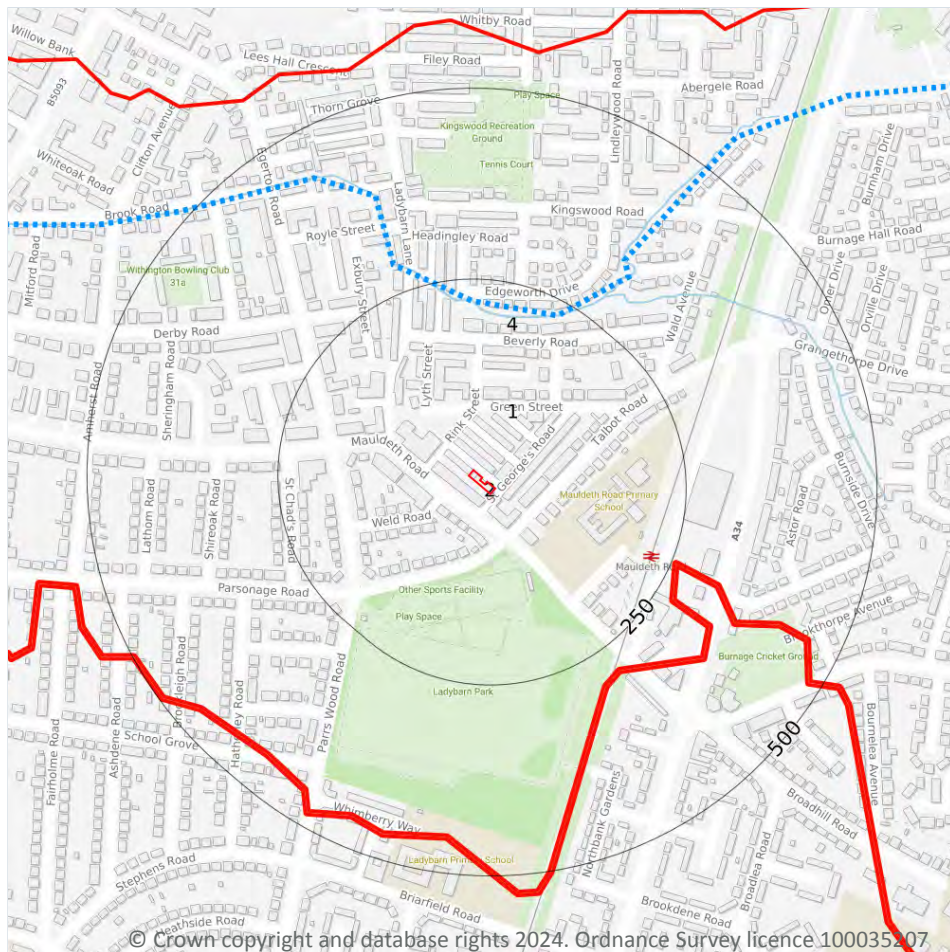
0

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



- Site Outline
- Search buffers in metres (m)
- Water Network (OS MasterMap)
- Surface water features (wider than 5m)
- Surface water features (narrower than 5m)
- ⋯ WFD River, canal and surface water transfer water bodies
- WFD Lake water bodies
- WFD Transitional and coastal water bodies
- WFD Surface water body catchments boundaries
- WFD Groundwater body boundaries

6.1 Water Network (OS MasterMap)

Records within 250m

1

Detailed water network of Great Britain showing the flow and precise central course of every river, stream, lake and canal.

Features are displayed on the Hydrology map on [page 44](#) >

ID	Location	Type of water feature	Ground level	Permanence	Name
4	205m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Cringle Brook

This data is sourced from the Ordnance Survey.



6.2 Surface water features

Records within 250m

1

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.

Features are displayed on the Hydrology map on [page 44 >](#)

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 44 >](#)

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
1	On site	River	Fallowfield Brook	GB112069061410	Bollin Dean Mersey Upper	Mersey Upper

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 44 >](#)

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
5	218m N	River	Fallowfield Brook	GB112069061410 ↗	Moderate	Fail	Moderate	2019

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.

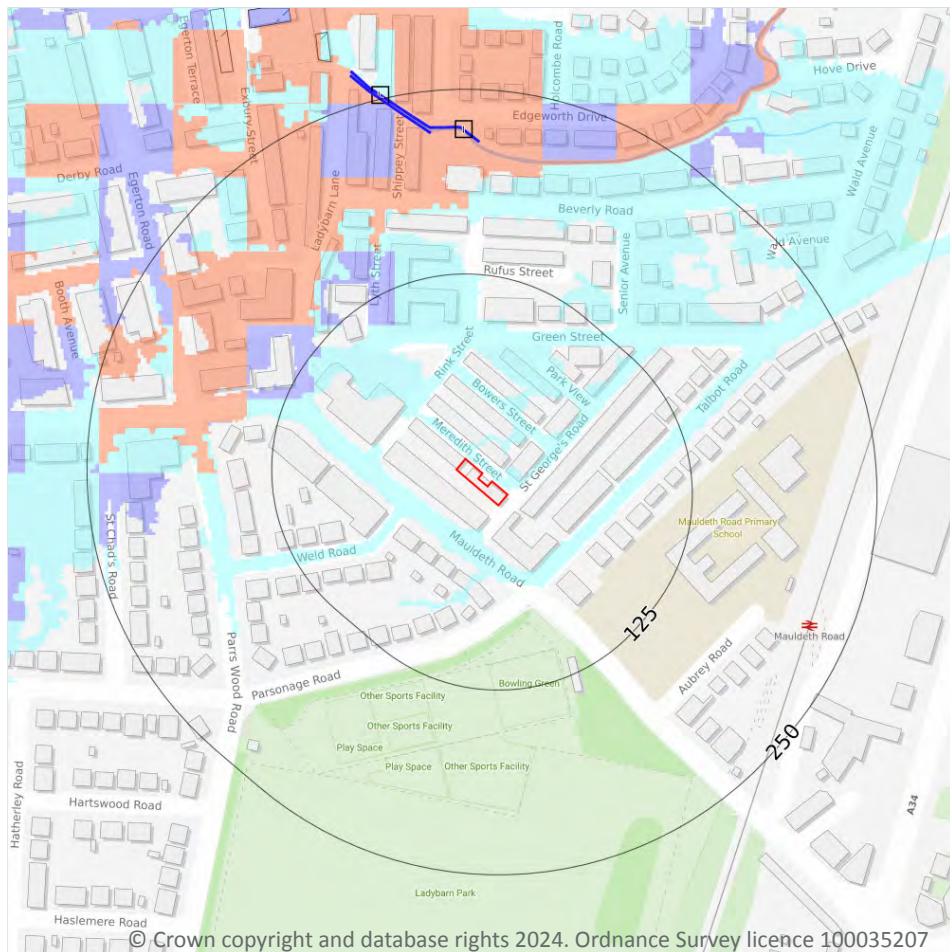
Features are displayed on the Hydrology map on [page 44](#) >

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
2	On site	Manchester and East Cheshire Permo-Triassic Sandstone Aquifers	GB41201G101100 ↗	Poor	Poor	Poor	2019

This data is sourced from the Environment Agency and Natural Resources Wales.



7 River and coastal flooding



— Site Outline
Search buffers in metres (m)

River and coastal flooding:

- High
- Medium
- Low
- Very Low
- Historical Flood Events
- Areas Used for Flood Storage
- Areas Benefiting from Flood Defences
- Flood Defences

7.1 Risk of flooding from rivers and the sea

Records within 50m

7

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m within the Risk of Flooding from Rivers and Sea (RoFRaS)/Flood Risk Assessment Wales (FRAW) models. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition. The risk categories for RoFRaS for rivers and the sea and FRAW for rivers are; 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). The risk categories for FRAW for the sea are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 200 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 200 chance) or High (greater than or equal to 1 in 30 chance).

Features are displayed on the River and coastal flooding map on [page 47 >](#)

Distance	Flood risk category
On site	Low
0 - 50m	Low

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	7
----------------------------	----------

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.

Features are displayed on the River and coastal flooding map on [page 47 >](#)

ID	Location	Update
I	215m N	08/11/2022
I	222m N	08/11/2022
I	225m N	08/11/2022
I	227m N	08/11/2022
I	229m N	08/11/2022
L	235m N	08/11/2022
L	236m N	08/11/2022

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

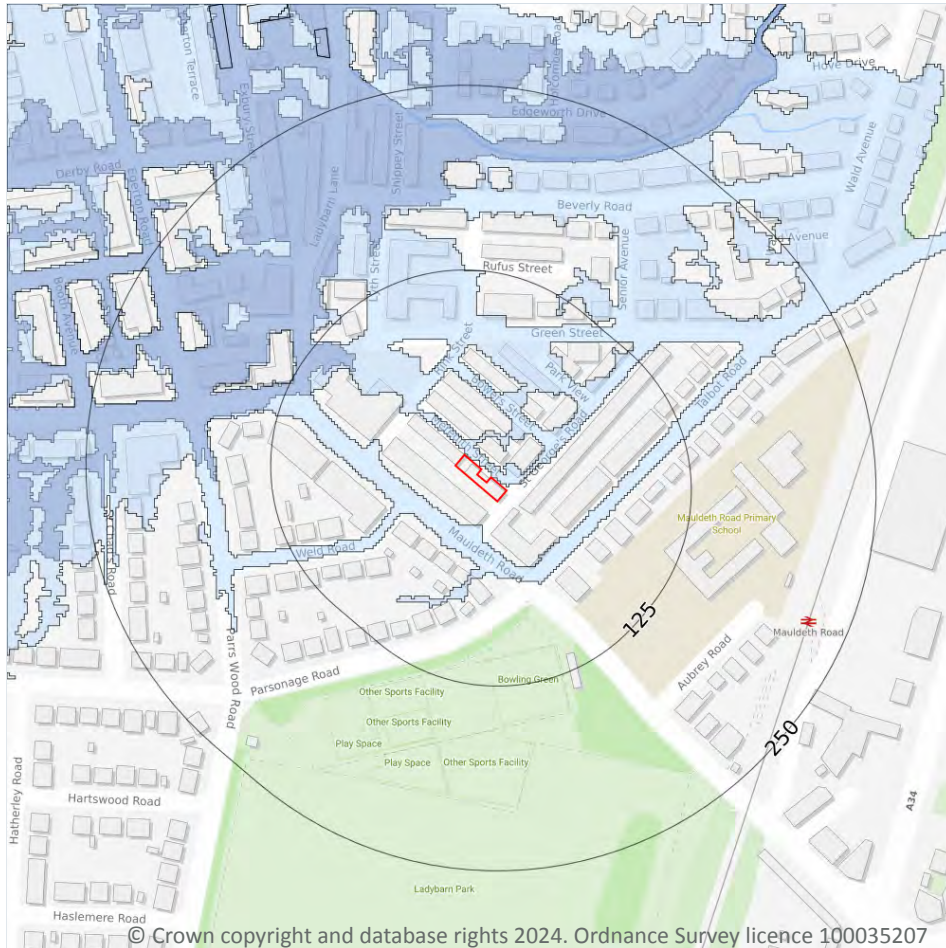
0

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



- Site Outline
- Search buffers in metres (m)
- Flood zone 2
- Flood zone 3

7.6 Flood Zone 2

Records within 50m

1

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.

Features are displayed on the River and coastal flooding map on [page 47 >](#)

Location	Type
On site	Zone 2 - (Fluvial /Tidal Models)

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

Negligible

Highest risk within 50m

Negligible

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.

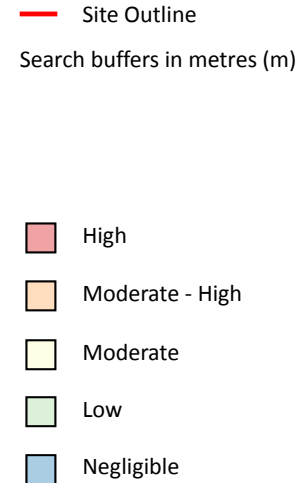
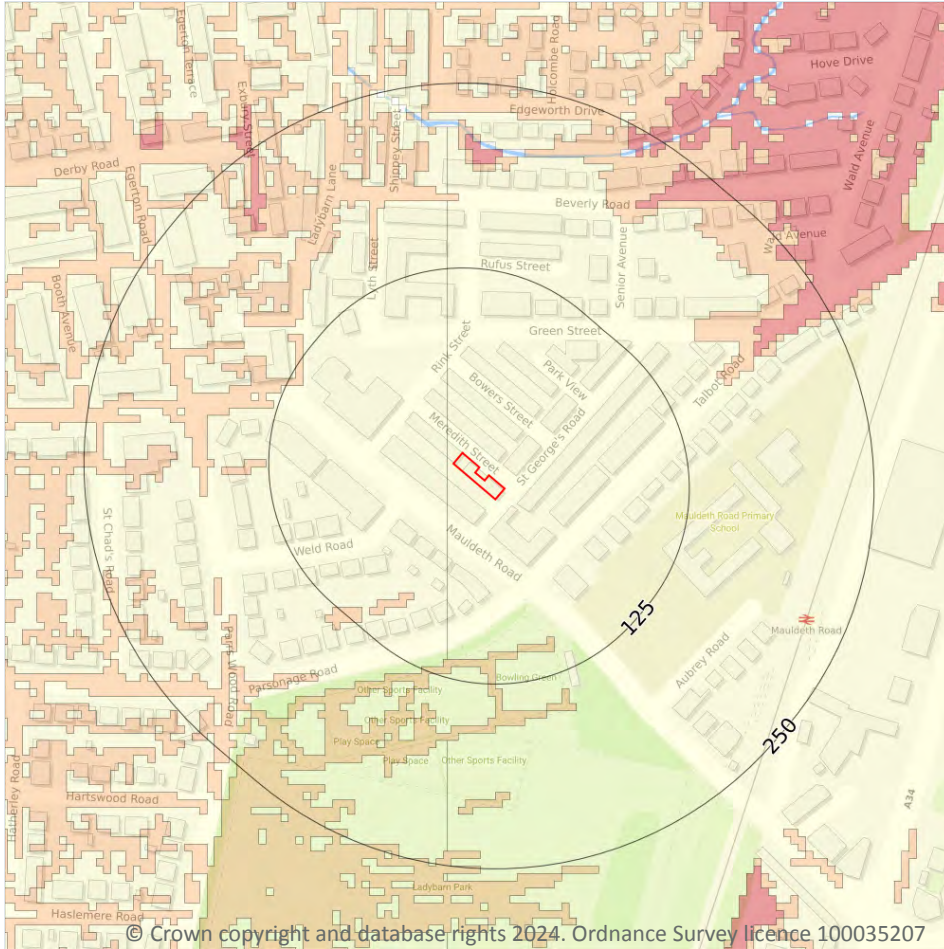
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site. The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Negligible
1 in 250 year	Negligible
1 in 100 year	Negligible
1 in 30 year	Negligible

This data is sourced from Ambiental Risk Analytics.



9 Groundwater flooding



9.1 Groundwater flooding

Highest risk on site

Moderate

Highest risk within 50m

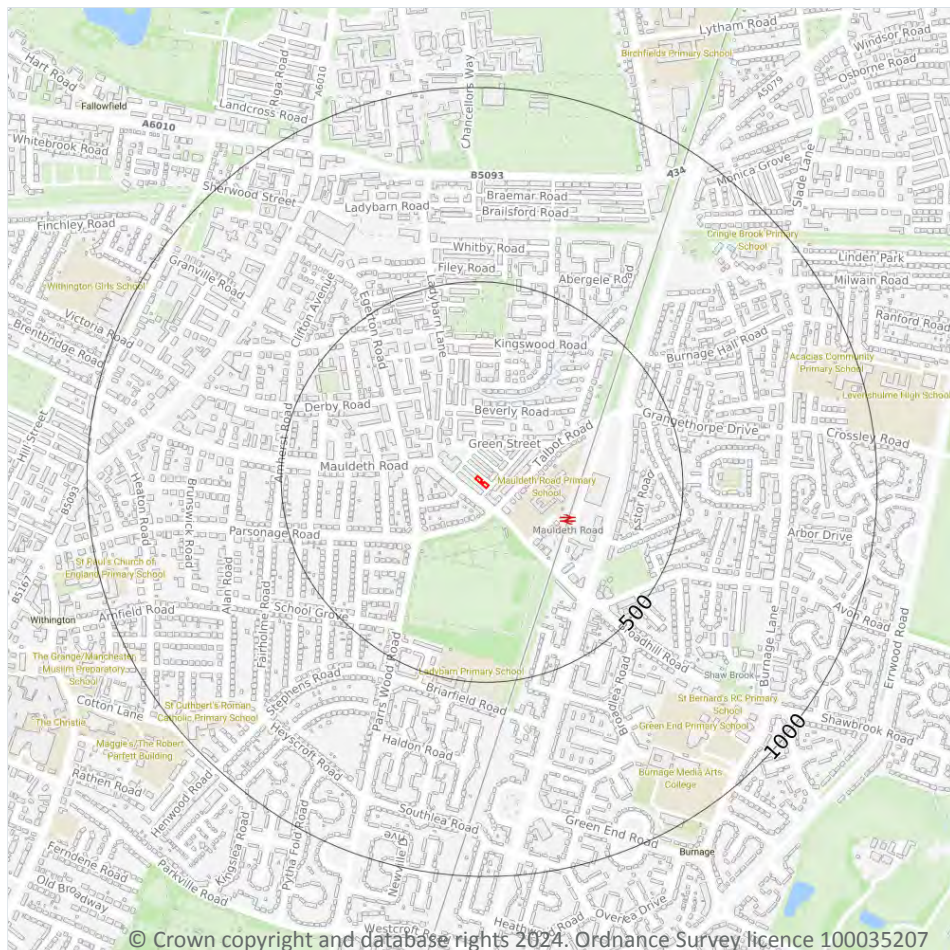
Moderate

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 53 >](#)

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- + Local Nature Reserves (LNR)

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

0

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.

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**0**

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.

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 54 >](#)

ID	Location	Name	Data source
-	1922m S	Heaton Mersey Common	Natural England
-	1999m E	Highfield Country Park	Natural England

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.7 Designated Ancient Woodland

Records within 2000m

0

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.

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

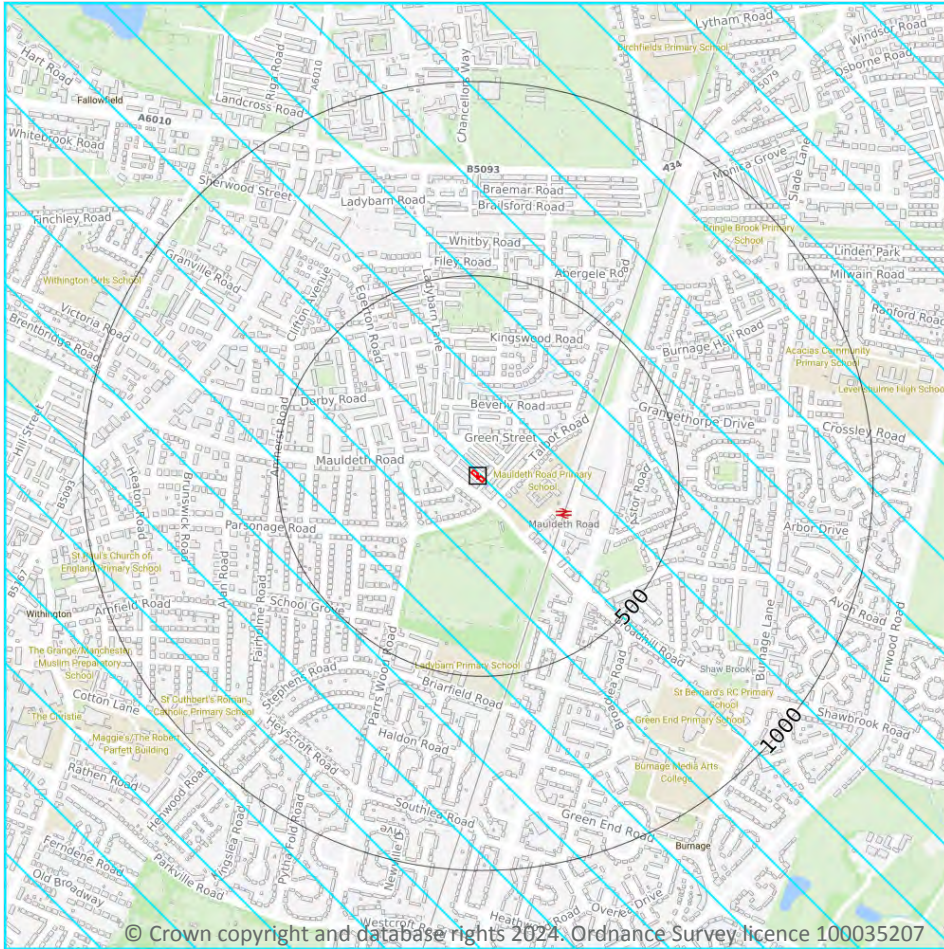
Records within 2000m

0

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.

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 59 >](#)

ID	Location	Type of developments requiring consultation
1	On site	Air pollution - Livestock & poultry units with floorspace > 500m ² , slurry lagoons & digestate stores > 4000m ² . Combustion - General combustion processes >50MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.



This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m

0

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.

This data is sourced from Natural England and Natural Resources Wales.



11 Visual and cultural designations



- Site Outline
- Search buffers in metres (m)
- Listed buildings
- Conservation areas
- Conservation areas - no data
- National Parks
- Areas of Outstanding Natural Beauty
- Registered parks and gardens
- Scheduled Monuments
- World Heritage Sites

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

3

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.

Features are displayed on the Visual and cultural designations map on [page 61 >](#)

ID	Location	Name	Grade	Reference Number	Listed date
1	178m NW	188, Ladybarn Lane	II	1219314	21/07/1972
A	184m NW	180, Ladybarn Lane	II	1197943	21/07/1972
A	200m NW	174-178, Ladybarn Lane	II	1291533	21/07/1972

This data is sourced from Historic England, 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 Historic England, 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 Historic England, Cadw and Historic Environment Scotland.

11.7 Registered Parks and Gardens

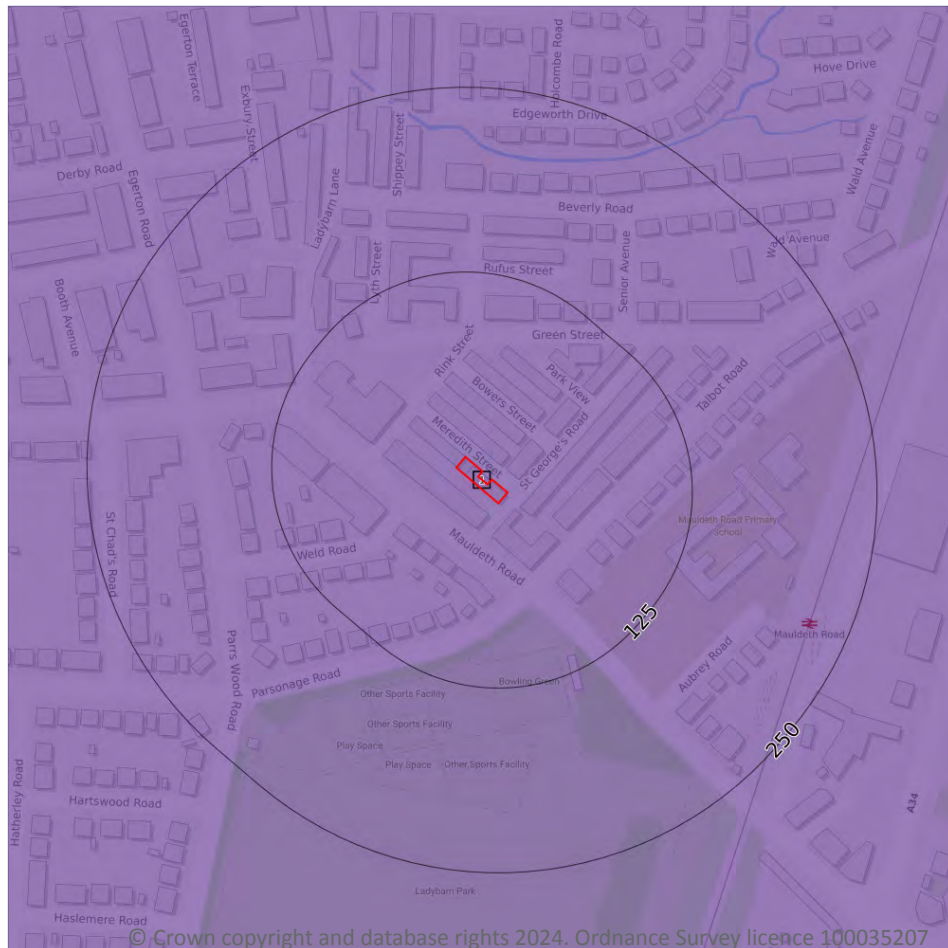
Records within 250m**0**

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 Historic England, 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 64](#) >

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. The schemes identified may be historical schemes that have now expired, or may still be active.

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

13.1 Priority Habitat Inventory

Records within 250m

0

Habitats of principal importance as named under Natural Environment and Rural Communities Act (2006) Section 41.

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

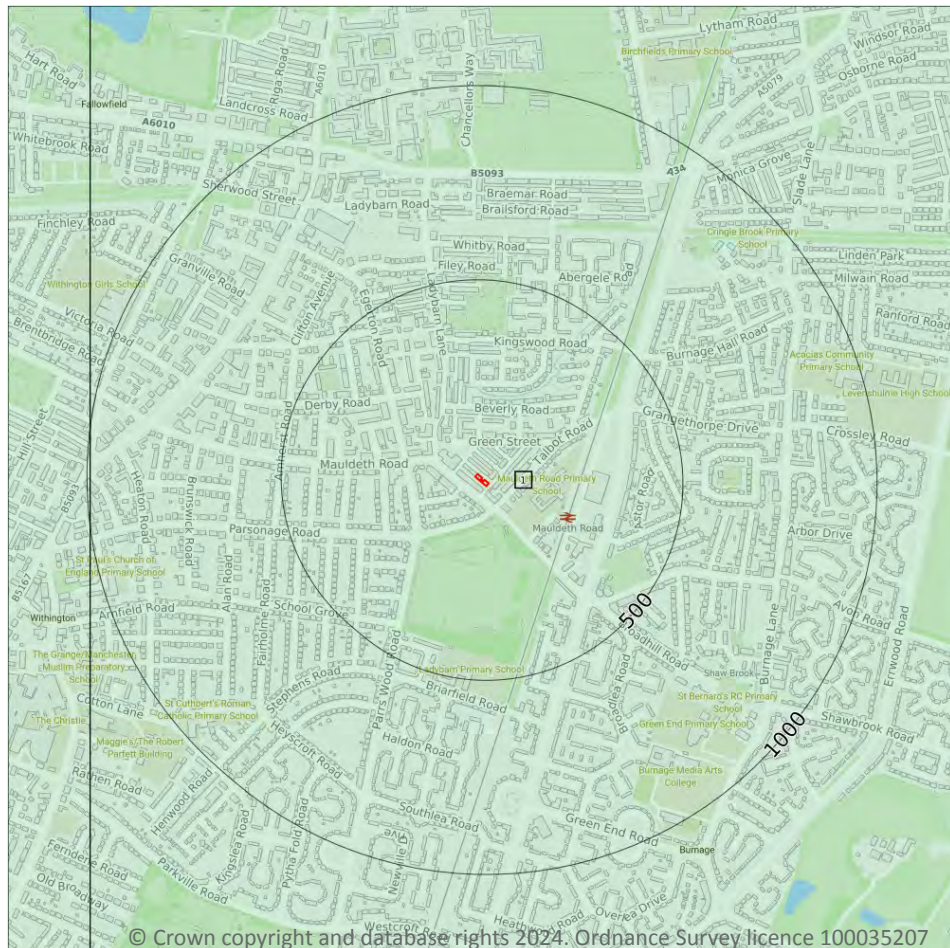
0

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



— 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.

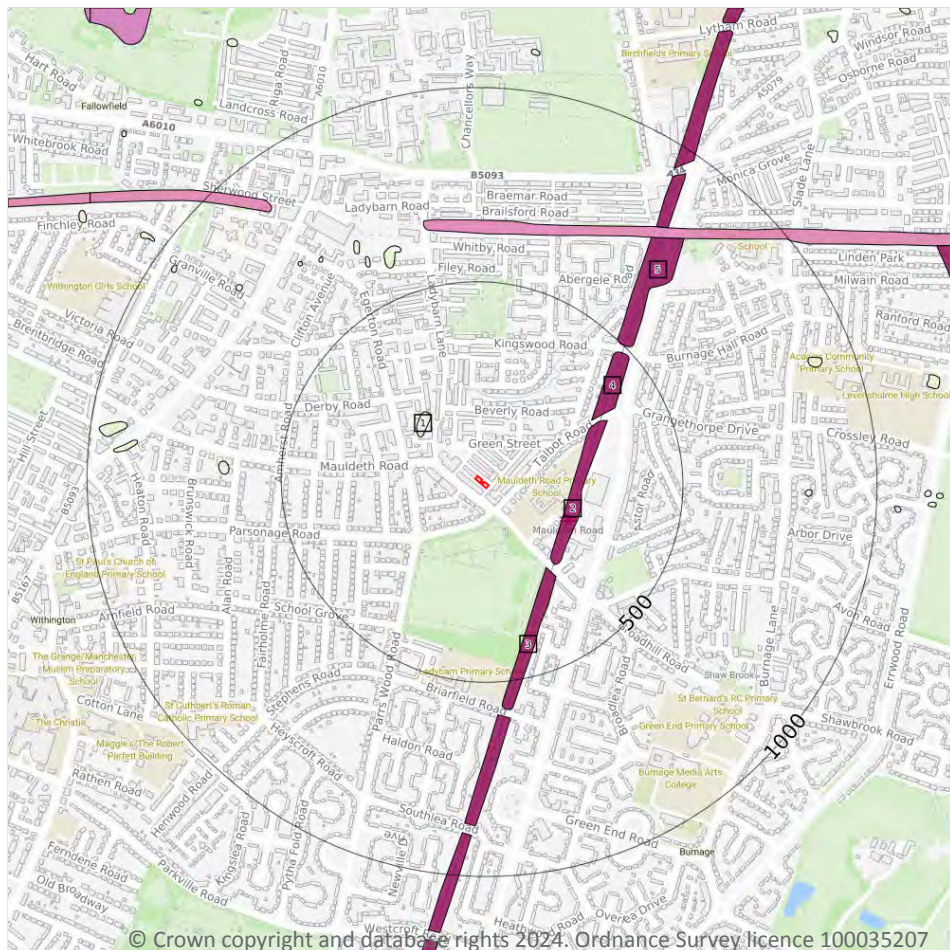
Features are displayed on the Geology 1:10,000 scale - Availability map on [page 67](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	No coverage	SJ89SE

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Artificial and made ground



— 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 68](#) >

ID	Location	LEX Code	Description	Rock description
1	175m NW	WMGR-ARTDP	Infilled Ground	Artificial Deposit
2	206m E	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
3	256m SE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
4	314m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit



ID	Location	LEX Code	Description	Rock description
5	498m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Superficial



- 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

1

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 70](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	TILLD-DMTN	Till, Devensian - Diamicton	Diamicton

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

2

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 72 >](#)

ID	Location	LEX Code	Description	Rock age
1	On site	CPB-SDST	Chester Pebble Beds Formation - Sandstone	Early Triassic Epoch
3	355m NE	MM-MDST	Manchester Marls Formation - Mudstone	Late Permian Epoch [Obsolete name]

This data is sourced from the British Geological Survey.



14.6 Bedrock faults and other linear features (10k)

Records within 500m

1

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.

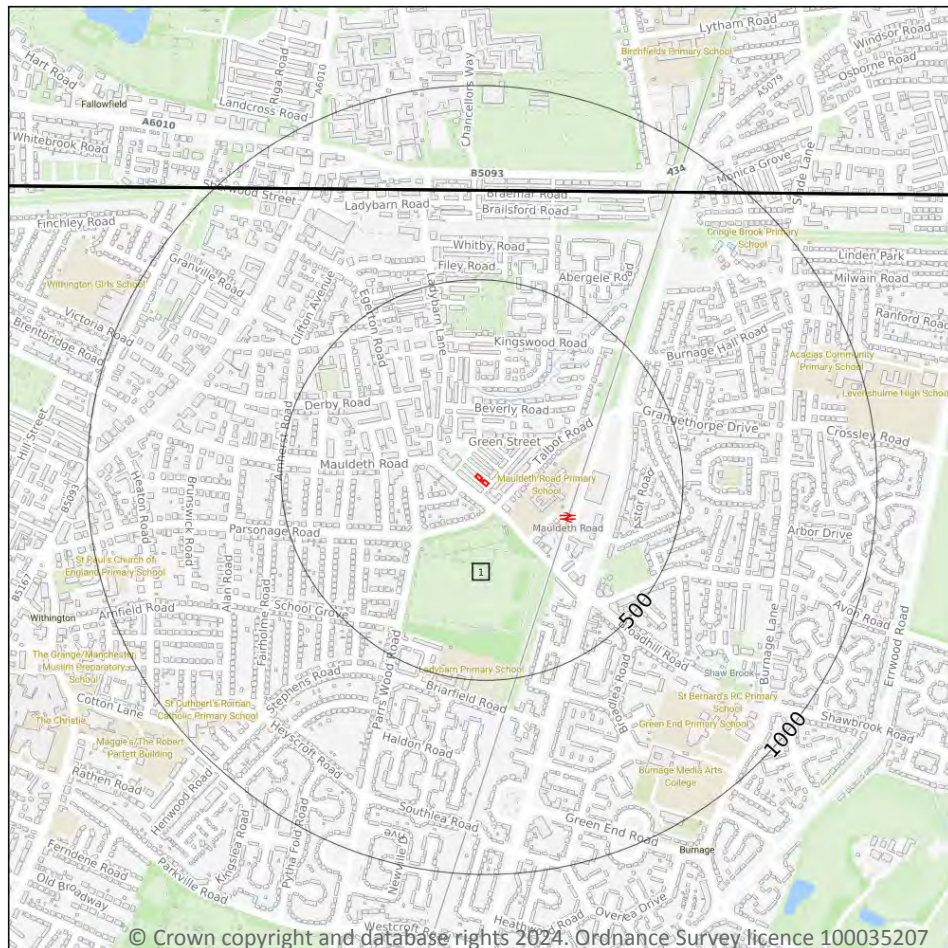
Features are displayed on the Geology 1:10,000 scale - Bedrock map on [page 72 >](#)

ID	Location	Category	Description
2	98m E	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 74](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	Full	Full	Full	EW098_stockport_v4

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Artificial and made ground

15.2 Artificial and made ground (50k)

Records within 500m

0

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.

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



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

1

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 76 >](#)

ID	Location	LEX Code	Description	Rock description
1	On site	TILLD-DMTN	TILL, DEVANSIAN	DIAMICTON

This data is sourced from the British Geological Survey.



15.5 Superficial 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 any superficial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
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)

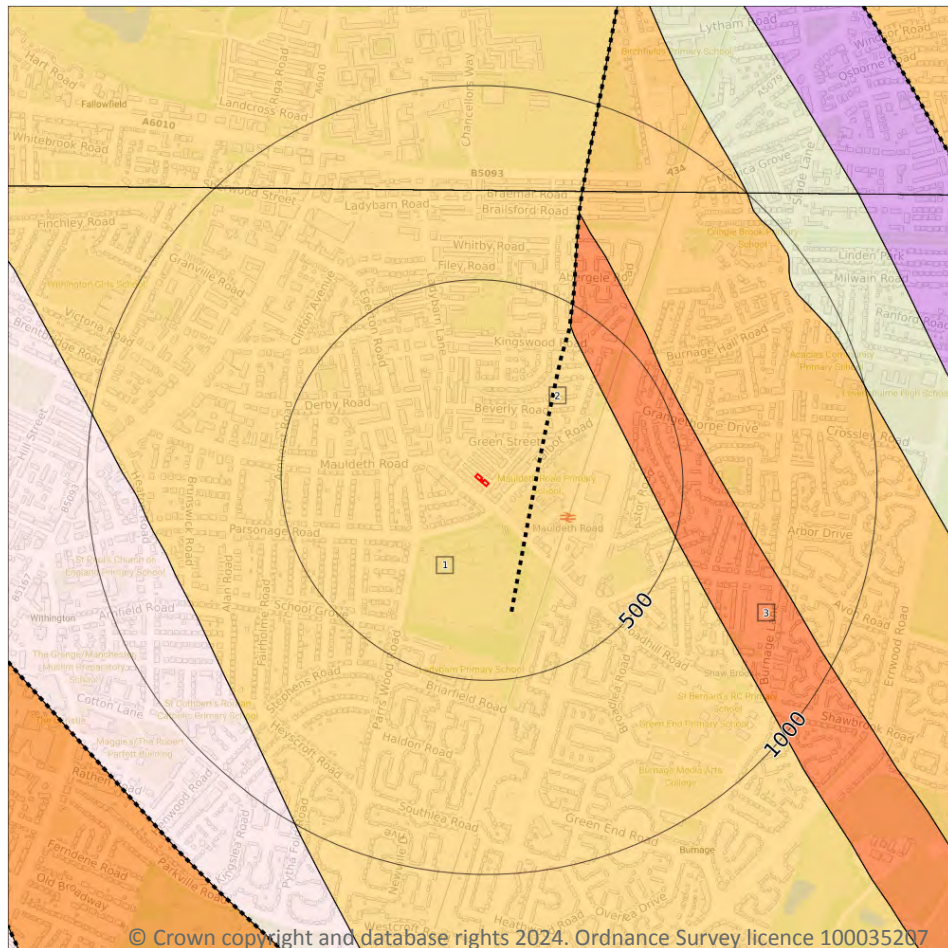
Records within 50m**0**

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

2

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 78 >](#)

ID	Location	LEX Code	Description	Rock age
1	On site	CHES-SDST	CHESTER FORMATION - SANDSTONE	OLENEKIAN
3	367m NE	MM-MDST	MANCHESTER MARLS FORMATION - MUDSTONE	-

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	Mixed	High	Moderate

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m

1

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 78 >](#)

ID	Location	Category	Description
2	118m E	FAULT	Fault, inferred

This data is sourced from the British Geological Survey.



16 Boreholes



- Site Outline**
- Search buffers in metres (m)**
- Confidential
 - 0 - 10m
 - 10 - 30m
 - 30m+
 - Unknown

16.1 BGS Boreholes

Records within 250m

14

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 80](#) >

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	59m SE	386044 393074	MR. P. KENDALL, LEVENSHULME RAILWAY STATION	6.4	N	865689 ↗
A	186m E	386200 393070	MAULDETH ROAD C P SCHOOL 6	-	Y	N/A

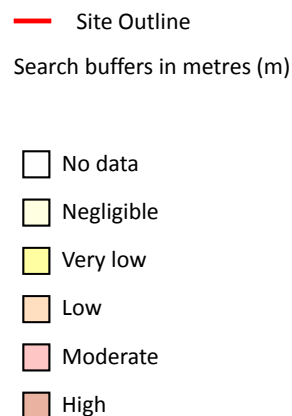
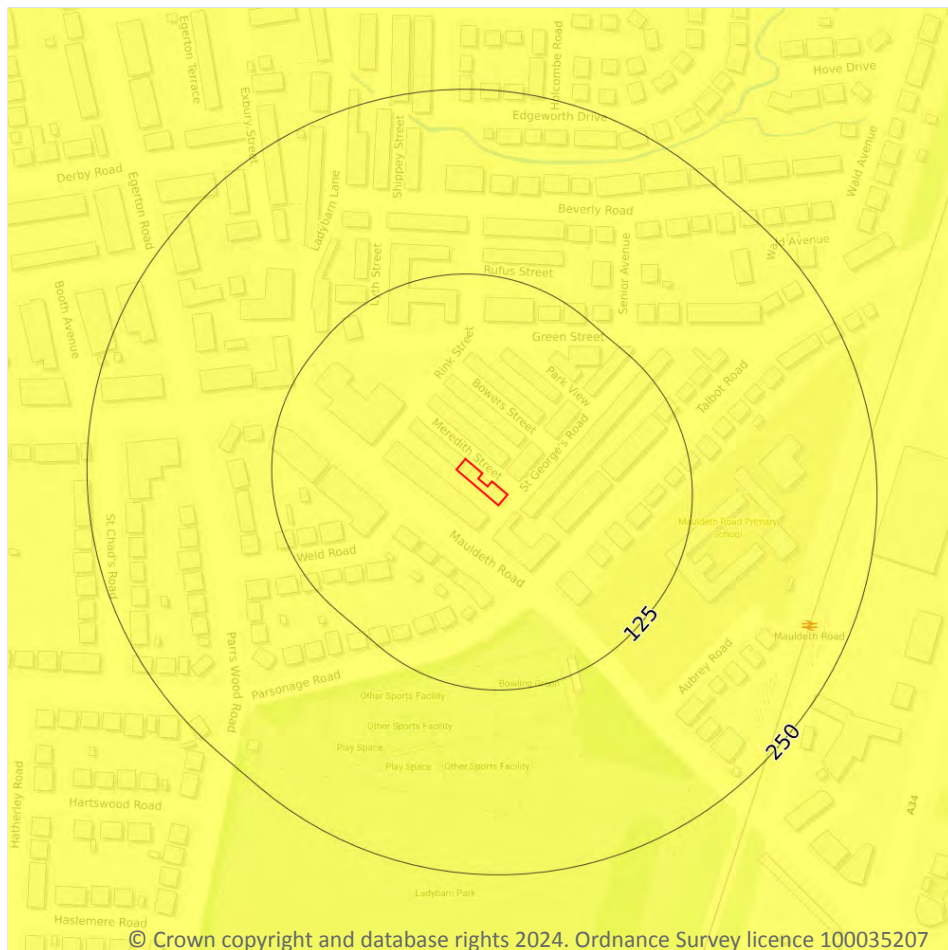


ID	Location	Grid reference	Name	Length	Confidential	Web link
A	186m E	386200 393070	MAULDETH ROAD C P SCHOOL 7	-	Y	N/A
A	186m E	386200 393070	MAULDETH ROAD C P SCHOOL 8	-	Y	N/A
A	186m E	386200 393070	MAULDETH ROAD C P SCHOOL 10	-	Y	N/A
A	186m E	386200 393070	MAULDETH ROAD C P SCHOOL 3	-	Y	N/A
A	186m E	386200 393070	MAULDETH ROAD C P SCHOOL 1	-	Y	N/A
A	186m E	386200 393070	MAULDETH ROAD C P SCHOOL 5	-	Y	N/A
A	186m E	386200 393070	MAULDETH ROAD C P SCHOOL 9	-	Y	N/A
A	186m E	386200 393070	MAULDETH ROAD C P SCHOOL 11	-	Y	N/A
A	186m E	386200 393070	MAULDETH ROAD C P SCHOOL 2	-	Y	N/A
A	186m E	386200 393070	MAULDETH ROAD C P SCHOOL 4	-	Y	N/A
A	186m E	386200 393070	MAULDETH ROAD C P SCHOOL 12	-	Y	N/A
2	221m N	385980 393380	CHORLTON BROOK TP 206	1.2	N	866150 ↗

This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



17.1 Shrink swell clays

Records within 50m

1

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).

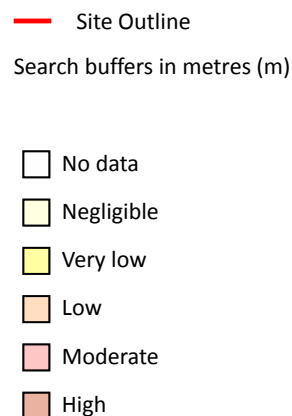
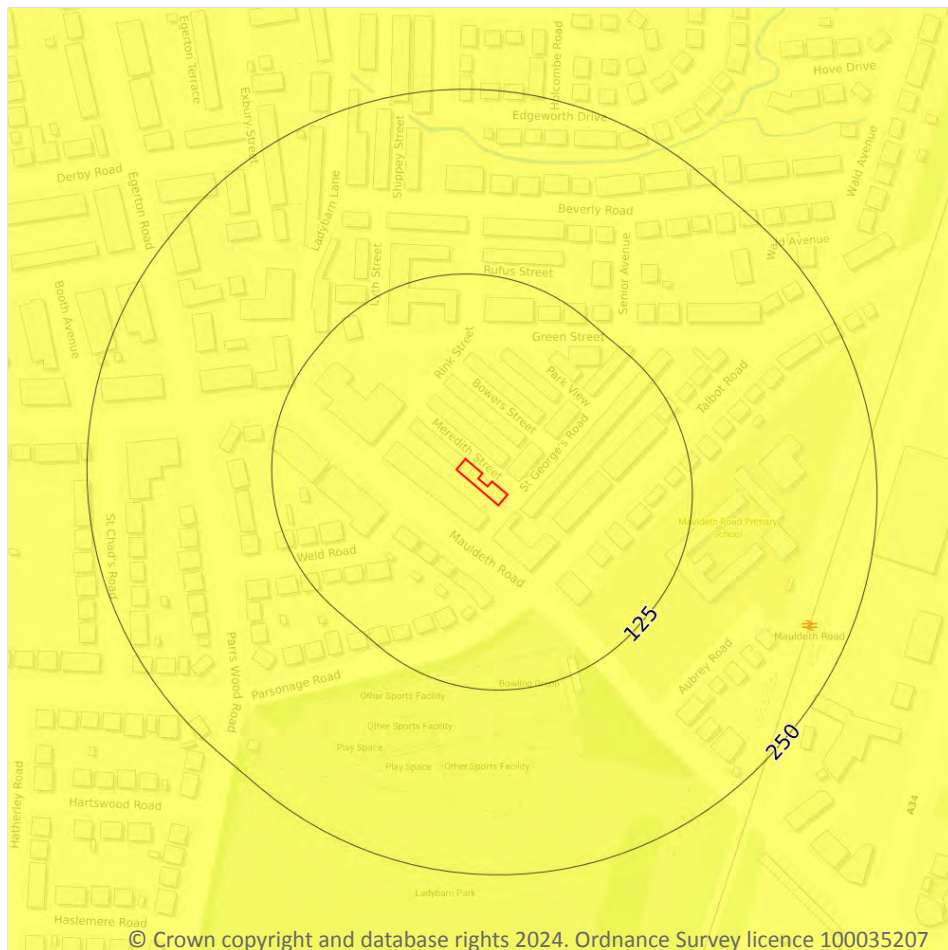
Features are displayed on the Natural ground subsidence - Shrink swell clays map on [page 82 >](#)

Location	Hazard rating	Details
On site	Very low	Ground conditions predominantly low plasticity.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Running sands



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.

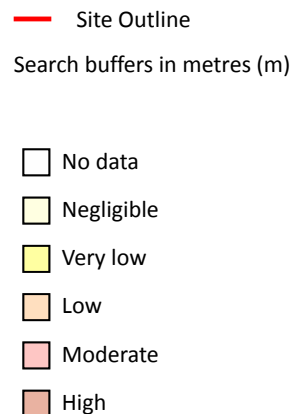
Features are displayed on the Natural ground subsidence - Running sands map on [page 83 >](#)

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



17.3 Compressible deposits

Records within 50m

1

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.

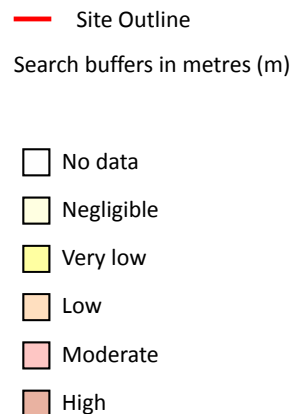
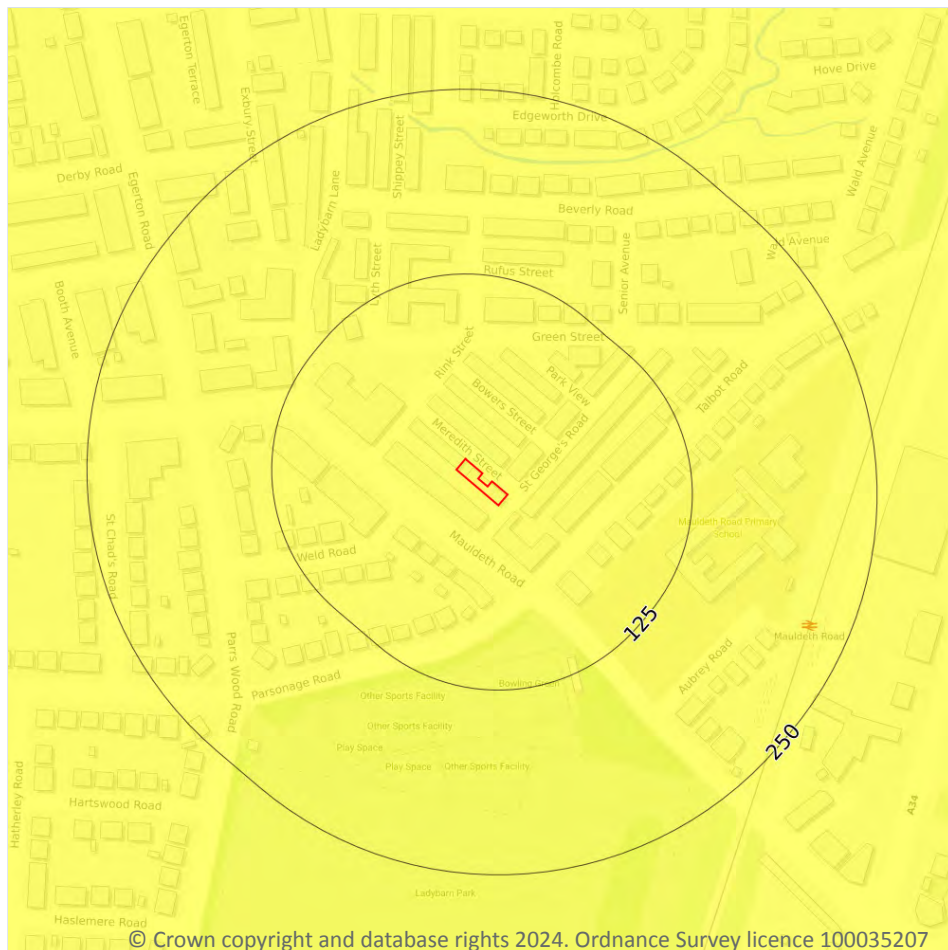
Features are displayed on the Natural ground subsidence - Compressible deposits map on [page 84 >](#)

Location	Hazard rating	Details
On site	Negligible	Compressible strata are not thought to occur.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Collapsible deposits



17.4 Collapsible deposits

Records within 50m

1

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.

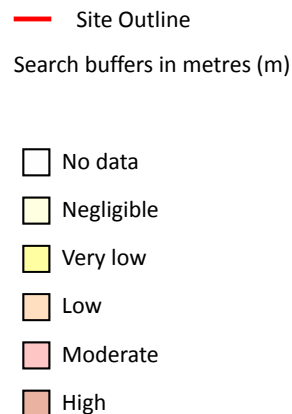
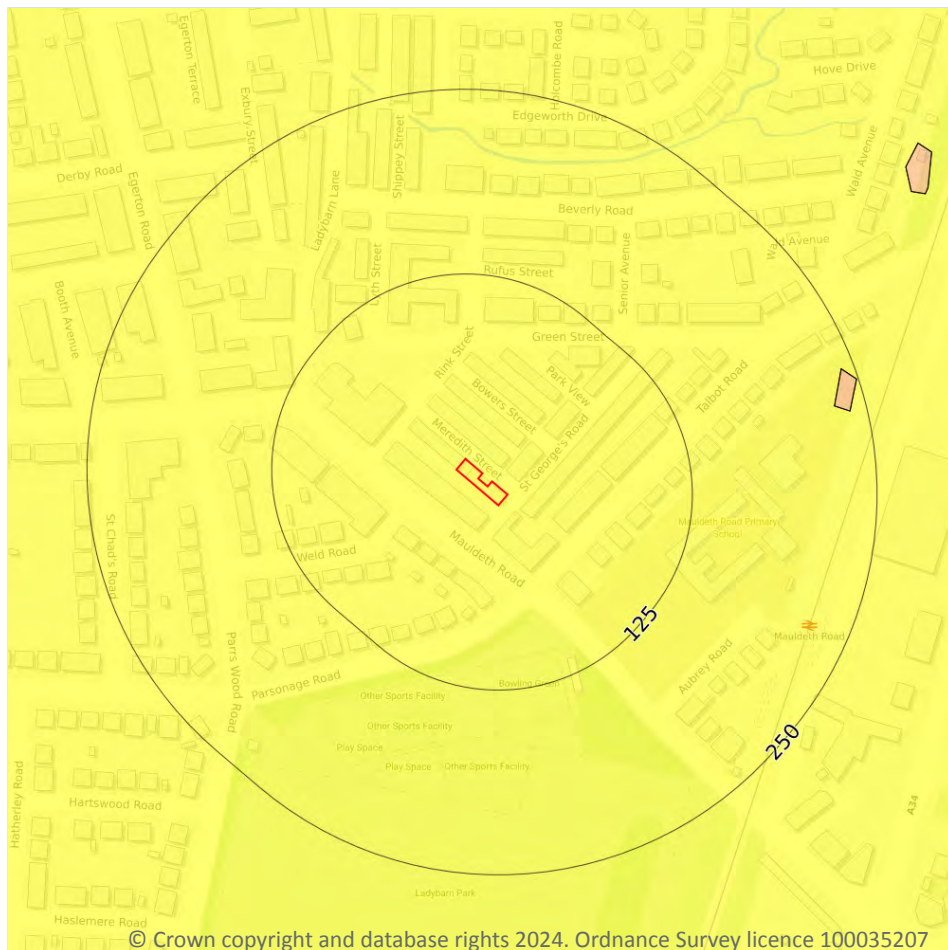
Features are displayed on the Natural ground subsidence - Collapsible deposits map on [page 85](#) >

Location	Hazard rating	Details
On site	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



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.

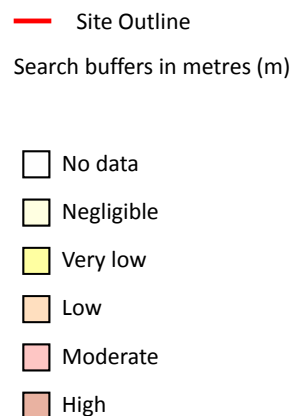
Features are displayed on the Natural ground subsidence - Landslides map on [page 86](#) >

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



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 and ground workings



- Site Outline
- Search buffers in metres (m)
- BritPits
- Surface ground workings
- Underground workings
- Underground mining extents
- Historical mineral planning areas
- TCA non-coal mining
- 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 BritPits

Records within 500m

0

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.

This data is sourced from the British Geological Survey.



18.2 Surface ground workings

Records within 250m**2**

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 and ground workings map on [page 89 >](#)

ID	Location	Land Use	Year of mapping	Mapping scale
1	170m NW	Ponds	1851	1:10560
A	248m SE	Unspecified Heap	1955	1:10560

This data is sourced from Ordnance Survey/Groundsure.

18.3 Underground workings

Records within 1000m**0**

Historical land uses identified from Ordnance Survey mapping that indicate the presence of underground workings e.g. mine shafts.

This data is sourced from Ordnance Survey/Groundsure.

18.4 Underground mining extents

Records within 500m**0**

This data identifies underground mine workings that could present a potential risk, including adits and seam workings. These features have been identified from BGS Geological mapping and mine plans sourced from the BGS and various collections and sources.

This data is sourced from Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m**0**

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.

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 JPB mining areas

Records on site

1

Areas which could be affected by former coal and other mining. This data includes some mine plans unavailable to the Coal Authority.

Location	Details
On site	Whilst outside of an area where The Coal Authority have information on coal mining activities, Johnson Poole & Bloomer (JPB) may have information such as mining plans and maps held within their archive that have occurred within 1km of this property. Please note, the plans held by JPB may also relate to non-mining records. Further details and a quote for services (if appropriate) can be obtained by emailing this report to enquiries.gs@jpb.co.uk ↗.

This data is sourced from Johnson Poole and Bloomer.

18.8 The Coal Authority non-coal mining

Records within 500m

0

This data provides an indication of the potential zone of influence of recorded underground non-coal mining workings. Any and all analysis and interpretation of Coal Authority Data in this report is made by Groundsure, and is in no way supported, endorsed or authorised by the Coal Authority. The use of the data is restricted to the terms and provisions contained in this report. Data reproduced in this report may be the copyright of the Coal Authority and permission should be sought from Groundsure prior to any re-use.

This data is sourced from The Coal Authority.

18.9 Researched mining

Records within 500m

0

This data indicates areas of potential mining identified from alternative or archival sources, including; BGS Geological paper maps, Lidar data, aerial photographs (from World War II onwards), archaeological data services, websites, Tithe maps, and various text/plans from collected books and reports. Some of this data is approximate and Groundsure have interpreted the resultant risk area and, where possible, specific areas of



risk have been captured.

This data is sourced from Groundsure.

18.10 Mining record office plans

Records within 500m

0

This dataset is representative of Mining Record Office and/or plan extents held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.11 BGS mine plans

Records within 500m

0

This dataset is representative of BGS mine plans held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.12 Coal mining

Records on site

0

Areas which could be affected by past, current or future coal mining.

This data is sourced from the Coal Authority.

18.13 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.

18.14 Gypsum areas

Records on site

0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.



18.15 Tin mining

Records on site	0
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Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

18.16 Clay mining

Records on site	0
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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 Ground cavities and sinkholes

19.1 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 Stantec UK Ltd.

19.2 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 Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m

0

This data identifies sinkhole information gathered from media reports and Groundsure's own records. This data goes back to 2014 and includes relative accuracy ratings for each event and links to the original data sources. The data is updated on a regular basis and should not be considered a comprehensive catalogue of all sinkhole events. The absence of data in this database does not mean a sinkhole definitely has not occurred during this time.

This data is sourced from Groundsure.

19.4 Historical incidents

Records within 500m

0

This dataset comprises an extract of 1:10,560, 1:10,000, 1:2,500 and 1:1,250 scale historical Ordnance Survey maps held by Groundsure, dating back to the 1840s. It shows shakeholes, deneholes and other 'holes' as noted on these maps. Dene holes are medieval chalk extraction pits, usually comprising a narrow shaft with a number of chambers at the base of the shaft. Shakeholes are an alternative name for suffusion sinkholes, most commonly found in the limestone landscapes of North Yorkshire but also extensively noted around the Brecon Beacons National Park.

Not all 'holes' noted on Ordnance Survey mapping will necessarily be present within this dataset.



This data is sourced from Groundsure.

19.5 National karst database

Records within 500m

0

This is a comprehensive database of national karst information gathered from a wide range of sources. BGS have collected data on five main types of karst feature: Sinkholes, stream links, caves, springs, and incidences of associated damage to buildings, roads, bridges and other engineered works.

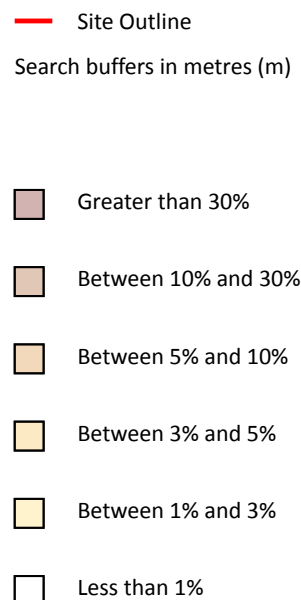
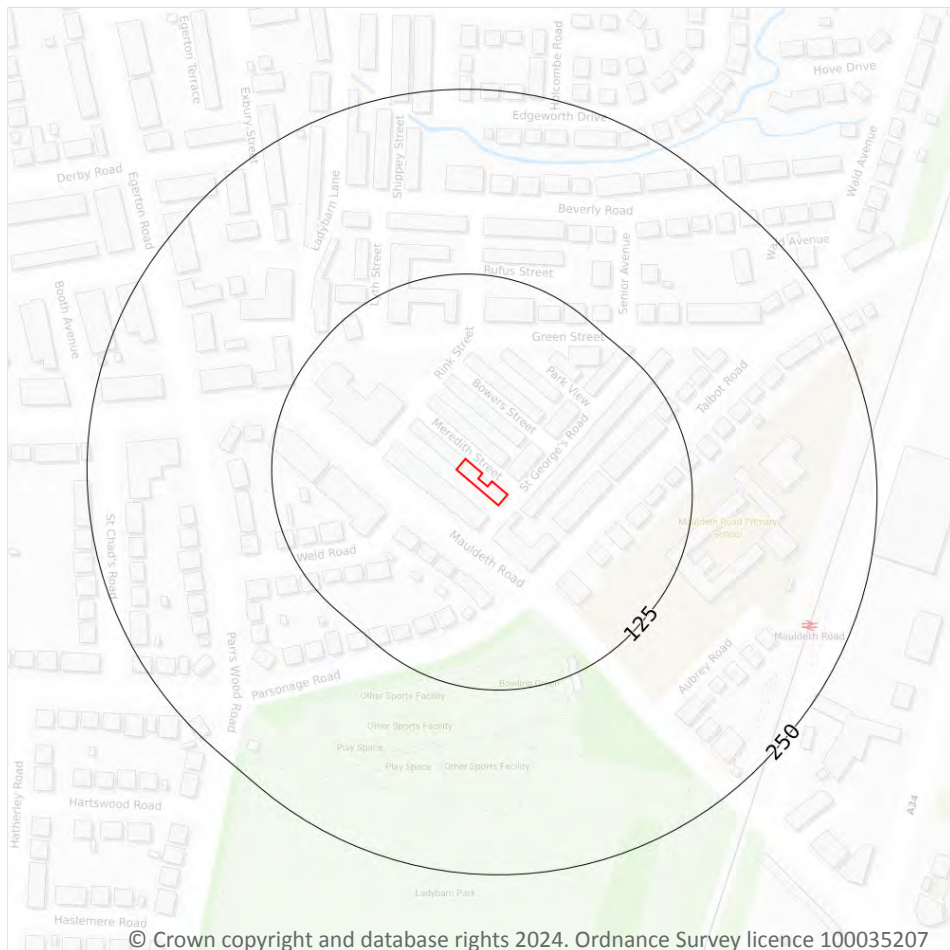
Since the database was set up in 2002 data covering most of the evaporite karst areas of the UK have now been added, along with data covering about 60% of the Chalk, and 35% of the Carboniferous Limestone outcrops. Many of the classic upland karst areas have yet to be included. Recorded so far are: Over 800 caves, 1300 stream sinks, 5600 springs, 10,000 sinkholes.

The database is not yet complete, and not all records have been verified. The absence of data does not mean that karst features are not present at a site. A reliability rating is included with each record.

This data is sourced from the British Geological Survey.



20 Radon



20.1 Radon

Records on site

1

The Radon Potential data classifies areas based on their likelihood of a property having a radon level at or above the Action Level in Great Britain. The dataset is intended for use at 1:50,000 scale and was derived from both geological assessments and indoor radon measurements (more than 560,000 records). A minimum 50m buffer should be considered when searching the maps, as the smallest detectable feature at this scale is 50m. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain (1:100,000 scale).

Features are displayed on the Radon map on [page 96](#) >

Location	Estimated properties affected	Radon Protection Measures required
On site	Less than 1%	None



This data is sourced from the British Geological Survey and UK Health Security Agency.

