

**PHASE 1 RISK ASSESSMENT: THE
SHAMROCK, 17 BENGAL STREET,
MANCHESTER**

3046/R01

VERSION 1

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Final

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This report has been prepared by GroundSolve Ltd with all reasonable care and diligence, within the best practice and guidance current at the time of issue within the proposed redline boundary and proposed Site end use as presented by the Client.

This report is confidential to the Client and GroundSolve Ltd accepts no responsibility whatsoever to third parties to whom this report is presented.

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EXECUTIVE SUMMARY

Introduction	The proposed development is for the existing and renovation of the existing public house on the site.
Proposed land use	The proposed land use is to remain as the current commercial use.
Site location and surrounding land uses	The site location is within the city of Manchester, on Bengal Street close to the city centre. The surrounding land use mostly comprises residential and commercial land use with some industrial land use.
Site history	The site has comprised commercial and residential land use from at least 1848. Circa 1953 a public house located in the south of the site ceases to exist, and instead a property in the north west of the site which once comprised three plots is shown to have a new public house present. The site configuration is not believed to have changed since this date. Substation present adjacent to east of the site since 1970s.
Geology, Hydrogeology and Hydrology	Published geology indicates the underlying site geology comprises superficial deposits of glacial till (clay) with bedrock geology consisting of Sandstone. Due to the historical land use on site, its likely that made ground will be encountered.
Ground Gases	No significant onsite ground gas source unless deep organic rich Made Ground is encountered, which may be possibility in any former backfilled basement in the southern part of the site. No significant offsite source within an influencing distance to the site.
Radon Requirements	<1% of properties effected, no protective measures required.
Potential contaminative features	Potential onsite contamination sources comprise made ground associated with historical buildings present on site. Potential for backfilled basement on site. Substation present adjacent to east of the site since 1970s. Low potential for migration of mobile contamination.
Mining and quarrying	No onsite mining or extraction is noted to have occurred; it is unlikely the site has been influenced by any activity.
Previous investigations	No previous investigations have been made available for review.
Preliminary Geotechnical Assessment	The new development will overlie the footprint from historical buildings and potentially backfilled basement. There is the potential for buried foundations and concrete slabs. Shallow foundations may not be suitable if deep Made Ground is encountered.
Further works or other issues potentially restricting work	A Phase II Ground Investigation will be necessary to further elucidate remaining geotechnical and environmental risks
UXO risk	A UXO Pre-Desk Study Assessment has been carried out by Zetica. After reviewing the available data for the area, it has been concluded that a detailed UXO risk assessment is not required for this site. The risk from UXO is therefore considered low and no further works are required.

1 INTRODUCTION

GroundSolve Ltd (GSL) were commissioned by John Dixon and Associates Ltd to undertake a Land Contamination Risk Management (LCRM) Preliminary Risk Assessment for an area of land referred to as The Shamrock (the “Site”).

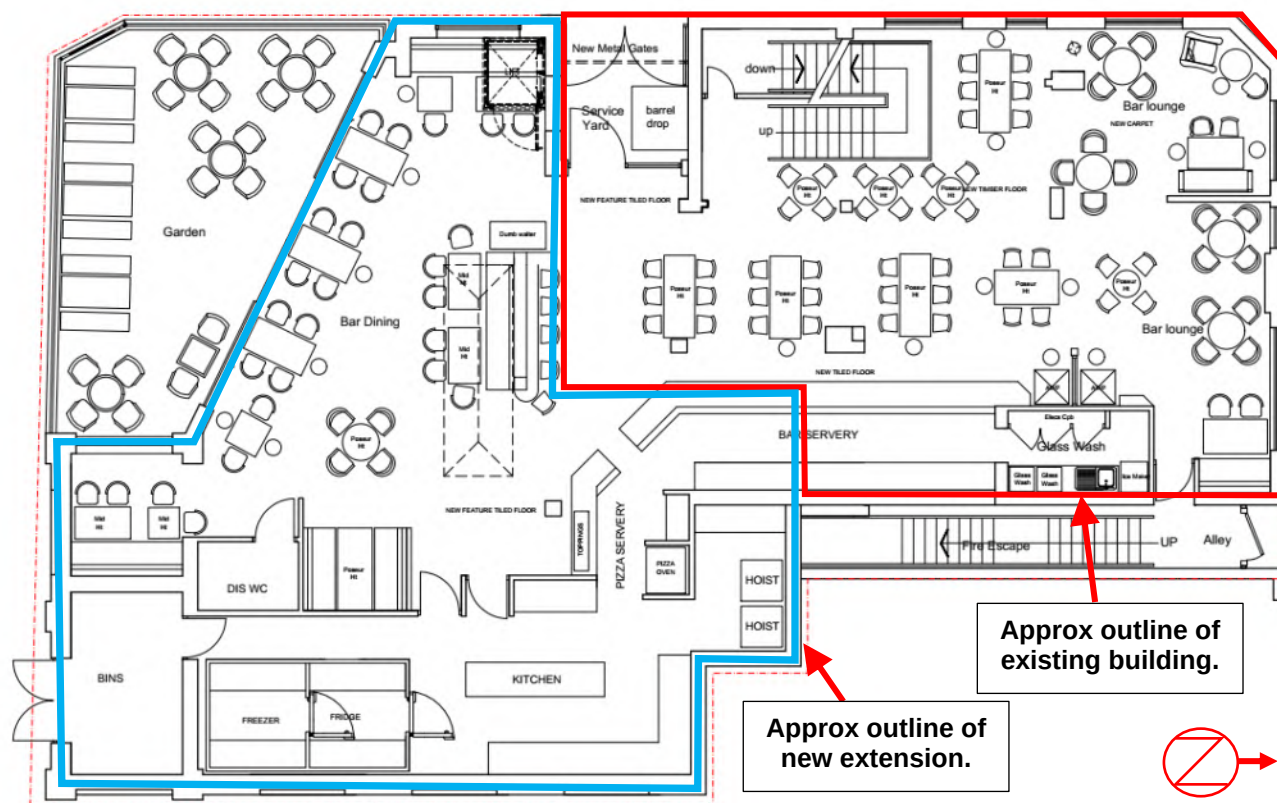
This report has been devised to generally comply with the relevant principles and requirements of a range of guidance including:

- Part IIA of the Environment Protection Act, 1990;
- BS5930:2015 +A1:2020 “Code of practice for site investigations”;
- BS10175: 2011 +A2:2017 “Investigation of Potentially Contaminated Sites - Code of Practice”;
- The Building Regulations 2010. Part C (HM Government 2013);
- Environment Agency: Land Contamination Risk Management (LCRM), Version 3, October 2020;
- Environment Agency (2017) “The Environment Agency’s Approach to Groundwater Protection” November 2018 Version 1.2;

1.1 PROPOSED DEVELOPMENT

The proposed development of the site is understood to comprise:

- Renovation of the existing public house
- the demolition of the existing covered beer garden;
- the removal from site or the treatment of any contaminated material encountered during development;
- the construction of two storey extension within the southern part of the site.



PROPOSED GROUND FLOOR PLAN scale 1:100

Figure 1 – Proposed Development Plan

The findings and conclusions of the risk assessments have been set out and recommendations given for the proposed commercial end use. If there is a subsequent change in the proposed land the risk assessments and conclusions should be reviewed to determine whether they are still applicable for the revised end use.

1.2 PLANNING STATUS & REQUIREMENTS

This report is designed to comply with the requirements of The National Planning Policy Framework (NPPF, 2019) and is intended to be used by the developer as part of the submission to gain planning for the works.

1.3 PREVIOUS REPORTS

No previous reports have been made available for review.

1.4 OBJECTIVES

Taking into account the proposed development of the Site, the objectives of this appraisal were:

1. To determine the historical and current land use.
2. To establish the environmental setting of the Site.
3. To evaluate whether past mining or other extractive industries could have an influence on the Site.
4. To review previous pertinent third party reports;
5. To determine likely ground and groundwater conditions.
6. To determine the potential risks to human health and the wider environment.
7. To determine potential risks posed to the Site from hazardous ground gases and / or vapours.
8. To derive a Preliminary Conceptual Site Model.

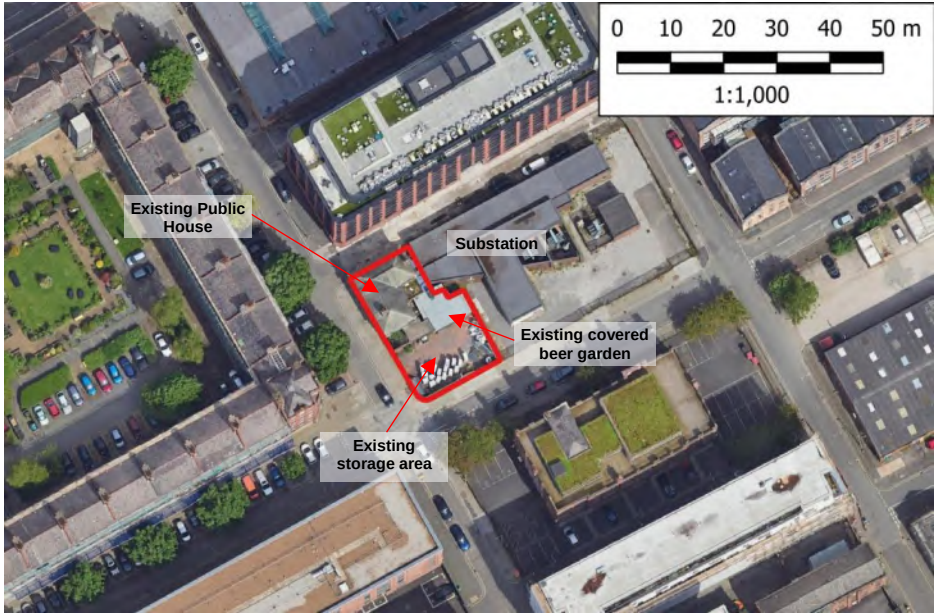
1.5 ASSUMPTIONS

The following assumptions are made in this report:

1. It is assumed that ground levels will not change significantly from those described in this report or as shown on proposed development drawings. If this is not the case, then amendments to the recommendations made in this report may be required.
2. Any references to observations of suspected asbestos-containing materials are for information only and should be verified by a suitably qualified asbestos specialist and/or confirmed by laboratory analysis.
3. The use of the term 'Topsoil' within this report is based on a visual identification only and that these materials have not necessarily been classified in accordance with BS3882:2015.
4. The comments and opinions presented in this report are based on the findings of the desk study performed by GroundSolve Ltd. There may be other conditions prevailing on the Site which have not been revealed by this investigation and which have not been taken into account by this report at this stage.
5. Responsibility cannot be accepted for any conditions not revealed by this investigation. Any diagram or opinion on the possible configuration of the findings is conjectural and given for guidance only. Confirmation of ground conditions should be undertaken if deemed necessary.
6. This report has been prepared for the sole use of the Client. No other third party may rely upon or reproduce the contents of this report without the written approval of GroundSolve Ltd. If any unauthorised third party comes into possession of this report, they rely on it entirely at their own risk.

2 SITE DETAILS AND DESCRIPTION

Table 2.1 – Current Site Overview

Site name	The Shamrock
Site address	The Shamrock, 17 Bengal Street, Manchester, M4 6AQ
National Grid Reference (NGR)	SJ 84990 98822 384990E, 398820N
Approximate Site area	415m ² 
Current land use on the Site	The site currently comprises The Shamrock public house (currently derelict) with a yard to the south used for building supplies.
Surrounding land uses	Silk Street to the northwest with commercial buildings beyond that. Electrical substation to the northeast. George Leigh Street to the southeast with commercial properties beyond that. Bengal street to the southwest with residential properties beyond that.
General topography and ground levels	Site is approximately level at roughly 55mAOD.

Relevant site photographs are presented in **Appendix B**.

3 SITE HISTORY

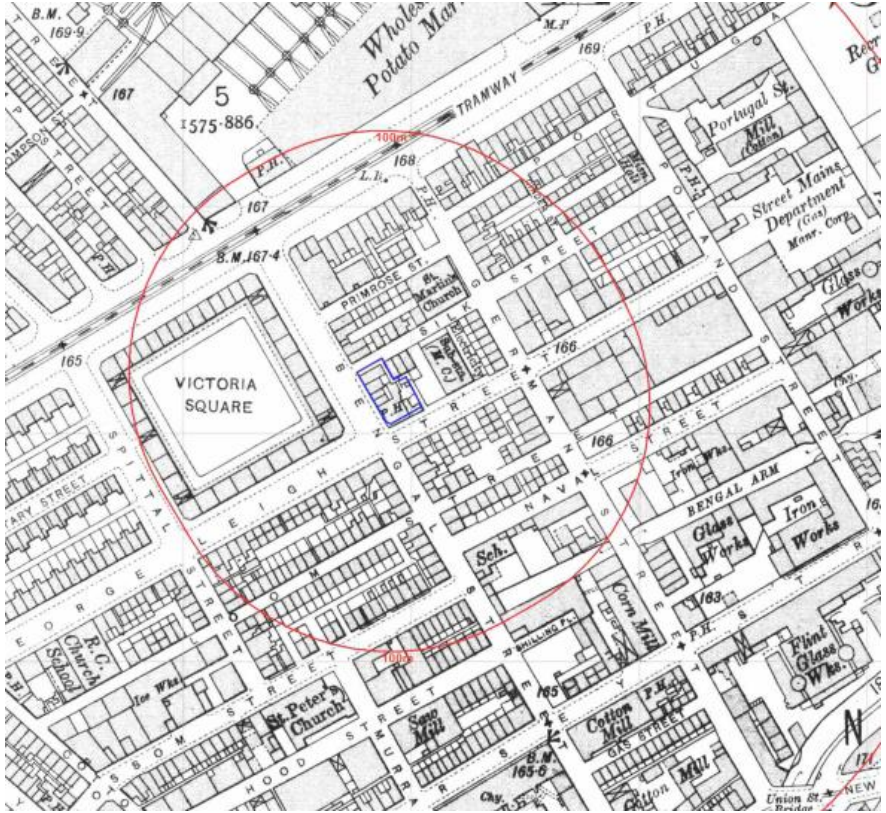
3.1 SITE HISTORY REVIEW

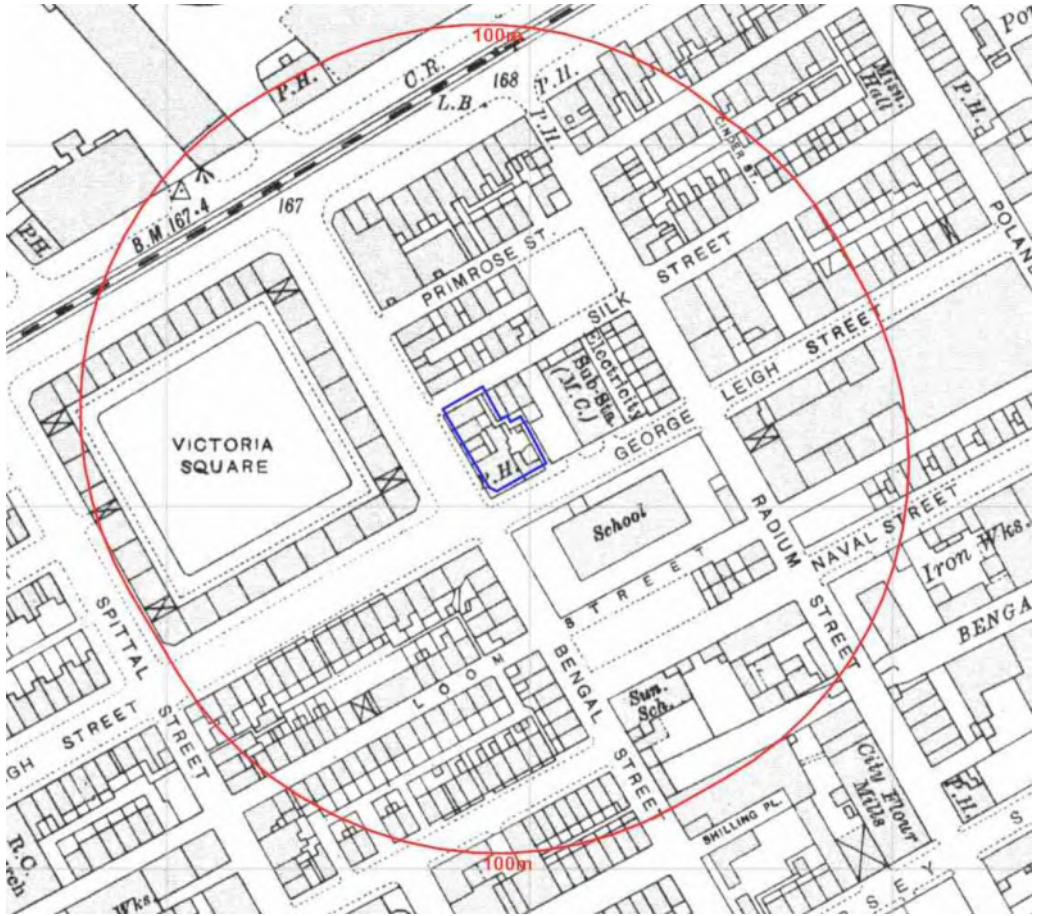
Extracts of Ordnance Survey (OS) plans dated from 1850 were reviewed. These were obtained as part of the Groundsure Report for the Site, which is presented in **Appendix C**.

Table 3.1 below presents a summary of the main aspects of the Site relevant to the current and proposed future end uses. It is not the intention of this report to describe in detail all of the changes that have occurred on or adjacent to the Site, where these are not relevant to the land use.

Table 3.1 - Site History

Time Period	On-Site features	Off-Site features
1850	 Plate 2 - 1850 OS Map (Scale 1:1,056) Onsite use comprised residential dwellings with a public house labelled as "The Lord Howes Fleet P.H"	- Surrounding land use around the site comprised a Coal Wharf ~80m south east of the site - A Smithy ~20m west of the site - An Iron Foundry and cotton mill ~75m east of the site

Time Period	On-Site features	Off-Site features
1908	 Plate 3 - 1908 OS Map (Scale 1:1,2500)	
	• No Significant onsite changes • Between 1850 – 1893 a potential water tap was noted as present onsite, and shown on the 1893 1:2,500 scale map in Appendix C	• Residential dwelling directly east of the site were replaced with a substation • Previously “Fieldings Court” and properties north of Primrose Street and north of George Leigh Street demolished and replaced by “Victoria square” • St Martins Square appears ~55m north east of the site • A School is constructed between 1850 and 1891 and is in place of the Coal Wharf noted in the 1850 OS Map. • Potato Market located ~110m North • Rail infrastructure located 120m North

Time Period	On-Site features	Off-Site features
1922	 Plate 4 - 1922 OS Map (Scale 1:2,500)	
	No significant onsite changes occurred	- The configuration of the rail infrastructure to the north of the site changed. - St Martins Church is absent. - Properties on "Pump Street", "Thompson Street", and "Foundry street" were replaced by an expansion of the rail infrastructure

1948

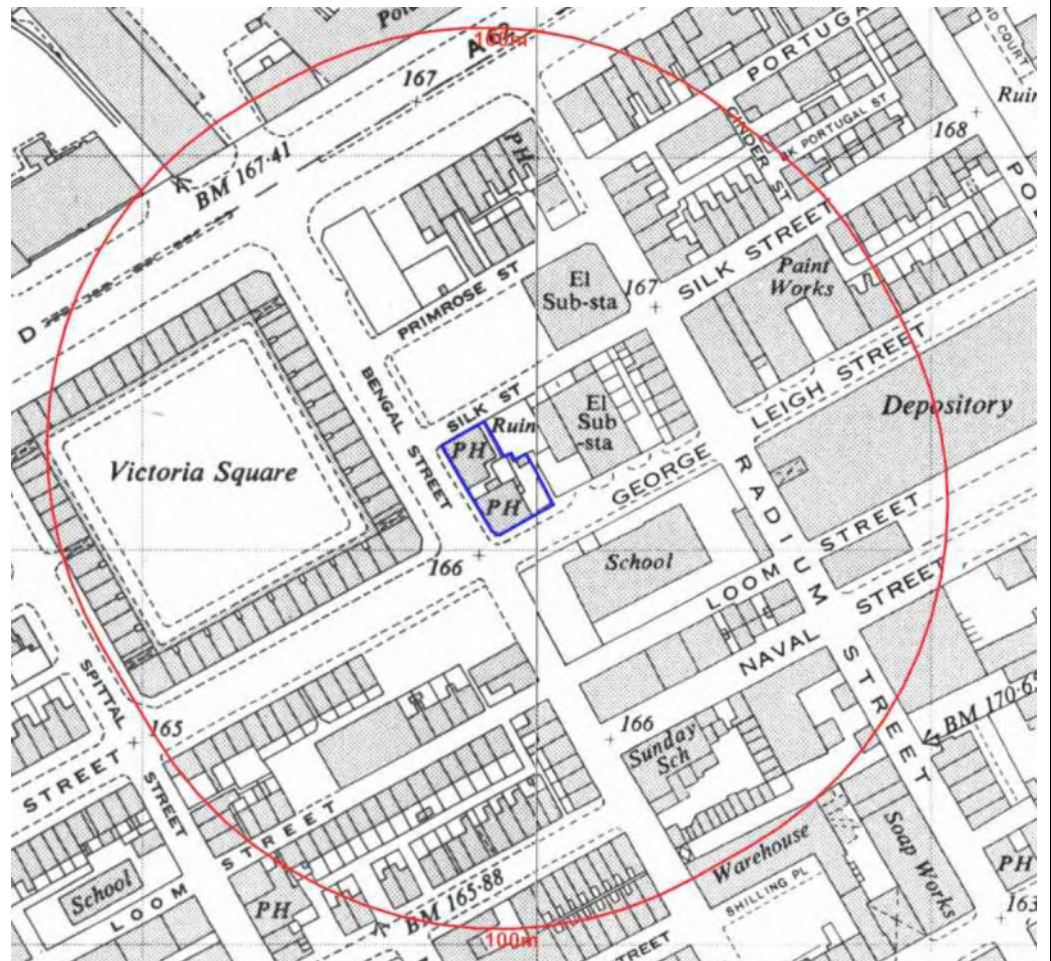


Plate 5 - 1948 OS Map (Scale 1:1,2500)

- Some of the structures in the SE corner of the site are no longer present.
- The separate buildings in the northern part of the site are now one building (public house).

- Properties directly north of the site, both north and south of "Primrose Street" have been demolished and lay as open disused land.
- The land northeast of the site where "St Martins" church once stood now forms a second substation.
- Configuration of the substation located northeast of the site boundary also changes.
- A paint works is located to the south of the site, beyond the neighbouring school, with garages labelled to the west of the paint works.
- A metal, building and paint works labels also appear around the same time, to the east of the site beyond the substation.
- An iron works is located 175m east of the site.

1958 – 1963

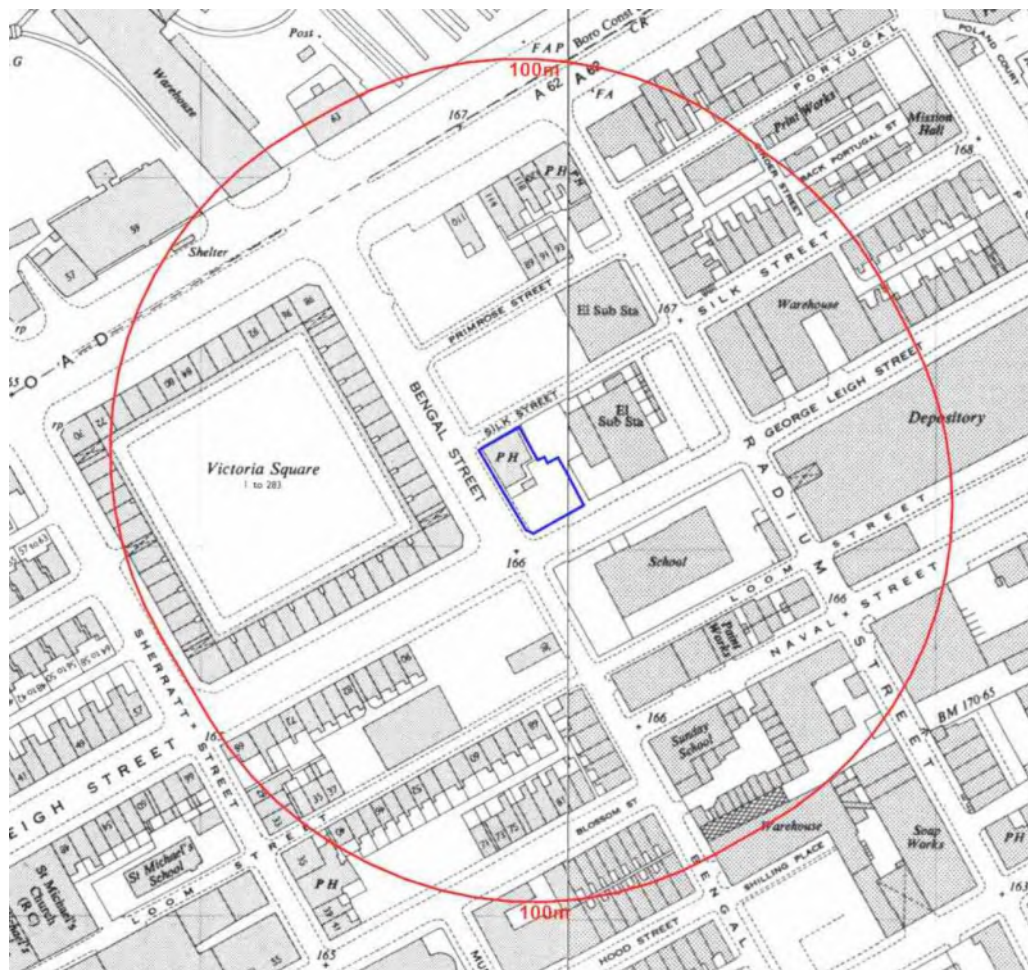


Plate 6 – 1963 OS Map (Scale 1:1,250)

- The previous buildings located along the southern boundary have been demolished.
- Vacant properties to the north and south of primrose street are newly labelled as “Warehouses” of unknown use.
- Properties ~90m southwest of the site have been demolished, with empty land replacing them. This includes properties south of loom street, and properties north of blossom street

1986 - 1989

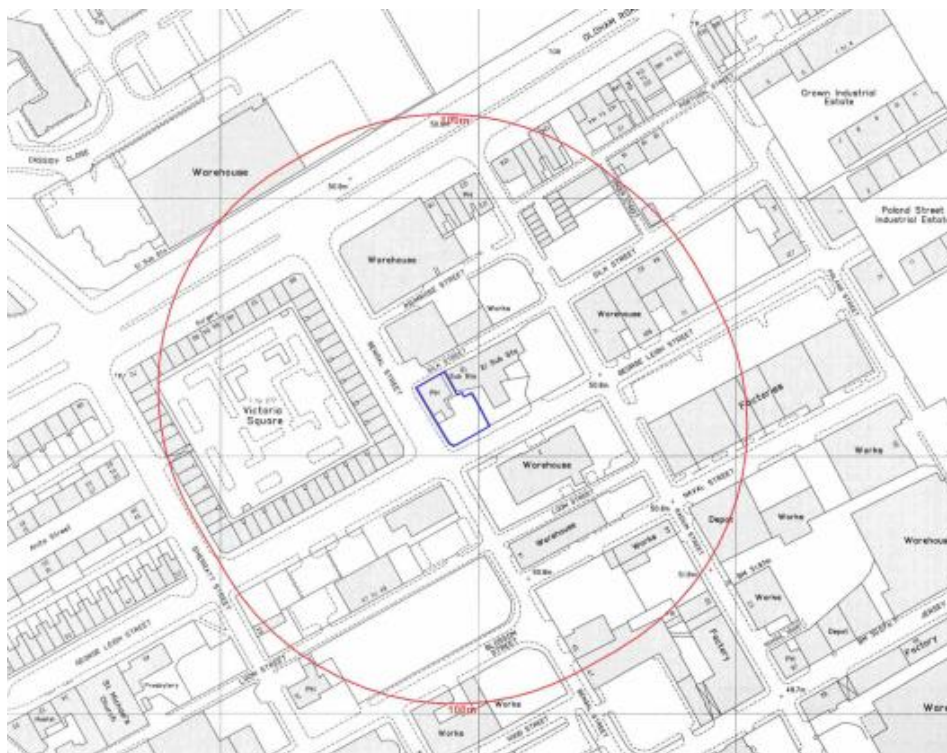


Plate 7 – 1989 OS Map (Scale 1:1,250)

- Slight change in the onsite building configuration occurred.
- The substation bounding the east of the site now extends to the site boundary, where historically open space existed.
- Between 1980 – 1984 minor changes to the courtyard of Victoria Square occurred, shown in the 1980 – 1984 1:1,250 scale map in Appendix C
- The primary school located south of the site appears labelled as a warehouse.
- Where rail infrastructure existed ~100m north of the site, consists of a Fire station, associated facilities and a Warehouse. The development of these included the addition of “Cassidy Close”
- Most residential properties directly north of “Loom Street” appear absent and open land exists in their stead. Numbers 47, 49 and 28 are still present.

1992 – 1995

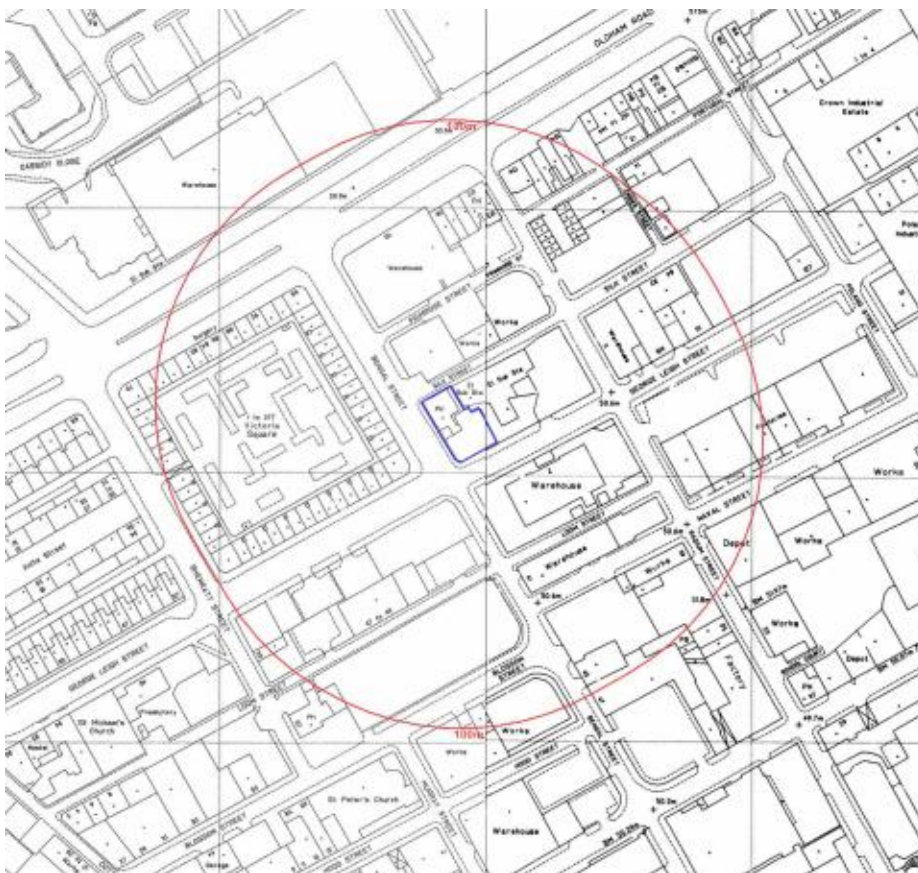


Plate 8 – 1995 OS Map (Scale 1:1,250)

- | | |
|--|--|
| <ul style="list-style-type: none"> No significant onsite changes. | <ul style="list-style-type: none"> No significant offsite changes |
|--|--|

2003



Plate 9 – 1995 OS Map (Scale 1:1,250)

- No significant onsite changes
- Covered Beer Garden located within the central east area of the site since at least 2015

No significant offsite changes

4 ENVIRONMENTAL SETTING

4.1 GEOLOGY

Table 4.1 - Geological Summary

Maps and publications referenced	British Geological Survey of England and Wales 1:50,000 Scale and 1:10,000 Scale.
Made ground / artificial ground	No made ground or infilled land was identified on the Groundsure report, however its likely as a result of on site development that there may be some made ground or infilled land present.
Drift geology	Glacial Till (Diamicton)
Solid geology	Sandstone (Chester Pebble Beds Formation)
Faults	The site does not lay atop a fault line, however multiple are noted as proximal notably 80m W, 272m NE and 408m N.
Coal seams	No coal seams are likely underlying the site.

4.2 MINING AND QUARRYING

Table 4.2 - Coal Mining Activities

	Yes/No	Comments
Is the Site in an area of potential shallow coal workings?	No	-
Is the Site in a high risk development area?	No	-
Are there any known shafts, adits, tips, lagoons, or opencast workings likely to affect the Site?	No	Great Mine Limestone seam (Hole High Limestone Group) runs approximately ~850m south east of the site, running south east to north west, however is limited in extent toward the site due an erosional unconformity. The site is likely not impacted by activity associated with historical working of the limestone.
Is exploratory work required to investigate the potential risk from shallow mining or quarrying?	No	No past underground mining recorded, there are no probable unrecorded shallow workings beneath the site.

Table 4.3 - Other Extractive Industries

	Yes/No	Comments
Superficial drift deposits		
Evidence of extraction on or within 250 m of the Site?	No	No evidence of extraction is evident from historical mapping,
Action required?	No	-
Solid Strata		
Any evidence of mineral extraction on or within 250 m of the Site?	No	No evidence of extraction or associated infrastructure is evident from historical mapping, or highlighted within the Groundsure report
Action required?	No	

4.3 HYDROGEOLOGY

Table 4.4 - Groundwater Occurrence and Abstraction

	Presence/location	Comments
Environment Agency aquifer designation – Superficial Deposits	Onsite	Secondary undifferentiated
Environment Agency aquifer designation – Bedrock	Onsite	Principal Aquifer
Anticipated groundwater depth(s)	Onsite	Onsite groundwater levels likely within the bedrock, due to the inherent low permeability of the overlying superficial glacial till.
Direction of flow	Onsite/Offsite	Unknown at this stage.
Current licensed abstractions – potable	Onsite/Offsite	No potable extractions within 1000m. Closest extraction is 1202m W.
Source Protection Zones	Onsite	The site does not lay within a source protection zone.
Springs	Onsite	No springs are believed to exist on site

4.4 HYDROLOGY

Table 4.5 - Surface Water Features

	Presence/location	Comments
Nearest surface water feature	Offsite	The nearest surface water feature is a Canal 260m south west of the site.
Other surface water features	Onsite/Offsite	All surface water features within 1000m of the site are limited to those associated with the canals.
Canals, ponds, lakes, etc.	Offsite	Offsite canal infrastructure located 230m south east of the site.
Water Framework Directive (WFD) Surface Water Bodies	Onsite	The site lays within a WFD Surface water body catchment boundary.
Licensed surface water abstractions	Onsite	No surface water extractions are located within 2000m

Environment Agency GQA assessments: A = very good to E = poor

4.5 ENVIRONMENTAL DESIGNATIONS

Table 4.6 - Summary of Environmental Designations

	Presence/location	Comments
Sites of Special Scientific Interest (SSSI)	Onsite/Offsite	None recorded within 2000m.
Conserved wetland sites (Ramsar sites)	Onsite/Offsite	None recorded within 2000m.
Special Areas of Conservation (SAC)	Onsite/Offsite	None recorded within 2000m.
Special Protection Areas (SPA)	Onsite/Offsite	None recorded within 2000m.
National Nature Reserves (NNR)	Onsite/Offsite	None recorded within 2000m.
Local Nature Reserves (LNR)	Onsite/Offsite	None recorded within 2000m.
Designated Ancient Woodland	Onsite/Offsite	None recorded within 2000m.
Biosphere Reserves	Onsite/Offsite	None recorded within 2000m.
Forest Parks	Onsite/Offsite	None recorded within 2000m.
Marine Conservation Zones	Onsite/Offsite	None recorded within 2000m.
Green Belt	Onsite/Offsite	None recorded within 2000m.
Proposed Ramsar sites	Onsite/Offsite	None recorded within 2000m.

	Presence/location	Comments
Possible Special Areas of Conservation (pSAC)	Onsite/Offsite	None recorded within 2000m.
Potential Special Protection Areas (pSPA)	Onsite/Offsite	None recorded within 2000m.
Nitrate Sensitive Areas	Onsite/Offsite	None recorded within 2000m.
Nitrate Vulnerable Zones	Onsite	Existing onsite vulnerable zone, part of the River Irk (Surface Water)
SSSI Units	Onsite/Offsite	None recorded within 2000m.

4.6 LANDFILL AND WASTE MANAGEMENT ACTIVITY

Table 4.7 - Waste Management Activities

	Presence/location	Comments
Active or recent landfill	Onsite/Offsite	None recorded within 500m
Historical landfill (BGS records)	Onsite/Offsite	None recorded within 500m
Historical landfill (LA/mapping records)	Onsite/Offsite	None recorded within 500m
Historical landfill (EA/NRW records)	Onsite/Offsite	None recorded within 500m
Historical waste sites	Offsite	147m NE (Scrap Metal Yard), 161m, 171m SE (Waste Paper Factory), 309m SE (Scrap Metal Yard) 325m SE (Scrap Yard Metal), 494m S (Waste Paper Mills)
Licensed waste sites	Offsite	205m W (Metal Recycling Site)
Waste exemptions	Offsite	67m N (Treating Waste Exemption), 159m E (Disposing of waste exemption, Storing waste exemption, Treating Waste Exemption, Using Waste Exemption), 173m NE (Treating Waste Exemption), 192m W, 249m SW, 277m SW (Using Waste Exemption, Treating Waste Exemption), 323m W, 353m SW (Using Waste Exemption), 353m (Treating Waste Exemption) 451m SE (Using Waste Exemption, Treating Waste Exemption), 499m W (Using Waste Exemption)
Evidence of other landfilling or potential infilling on or within 250m of Site	Offsite	Potential infilling associated with surrounding historical industrial land uses within the area, such as the historical Coal Wharf and disused Canals.
Walkover evidence of fly-tipping on Site?	Onsite	No fly tipping present.
Is a landfill/ground gas risk assessment required?	Onsite	Not needed in the context of the proposed development works.

4.7 LOCAL INDUSTRIAL LAND USES

Other potentially contaminative activities are shown in **Table 4.8** below with those features considered pertinent to the conceptual site model highlighted in **bold**. The entries relate to activities within *circa* 250 m of the Site, with the exception of COMAH facilities where the assessment is extended to a distance of *circa* 500m from the Site.

Table 4.8 - Other Potentially Contaminative Processes in the Locality

	Location	Comments
Recent industrial land uses	Offsite	18m NE (Electricity Sub Station), 52m (Recycling Services), 71m NE (Industrial Products), 84m NE (Locksmiths), 100m E (Unspecified Works), 115m NW (Electricity Sub Station) 117m NW (Foodstuffs) 117m E (Unspecified Works), 127m SE (Vehicle Hire), 151m E (Unspecified works), 158m S (Industrial Products), 169m, 174m NE (Industrial Features)m 194m E (Industrial Products), 196m SE (Moorings and Unloading Facilities). 202m NE (Industrial Products & Motoring). 209m SE (Chimneys), 220m SW (Textiles, Clothing), 221m NW (Fire Station) 224m S (Chimney), 235m S (Electricity Sub Station) 240m E (Industrial Products) 245m S (Consumer Products) , 245m NE (Vehicle service and repair)
Current or recent petrol stations	Onsite/Offsite	None recorded within 250m.
High Voltage Electricity cables	Onsite/Offsite	No high voltage cables recorded within 500m.
High Pressure dGas pipelines	Onsite/Offsite	No high pressure gas pipelines recorded within 500m
Sites determined as Contaminated Land	Onsite/Offsite	None recorded within 500m.
Control of Major Accident Hazards (COMAH)	Onsite/Offsite	None recorded within 500m.
Regulated explosive sites	Onsite/Offsite	None recorded within 500m.
Hazardous substance storage/usage	Onsite/Offsite	None recorded within 500m.
Historical licensed industrial activities (IPC)	Onsite/Offsite	None recorded within 500m.
Licensed industrial activities (Part A(1))	Onsite/Offsite	None recorded within 500m.
Licensed pollutant release (Part A(2)/B)	Offsite	157m E, 235m E (Non-ferrous Metal Foundry) 395m SW (Coating Processes)
Radioactive Substance Authorisations	Onsite/Offsite	None recorded within 500m.
Licensed Discharges to controlled waters	Onsite/Offsite	None recorded within 500m.

	Location	Comments
Pollutant release to surface waters (Red List)	Onsite/Offsite	None recorded within 500m.
Pollutant release to public sewer	Onsite/Offsite	None recorded within 500m.
List 1 Dangerous Substances	Onsite/Offsite	None recorded within 500m.
List 2 Dangerous Substances	Onsite/Offsite	None recorded within 500m.
Pollution Incidents (EA/NRW)	Offsite	82m NE (Commercial Waste), 315m S and 327m S (Other Contaminated Water)
Pollution inventory substances	Onsite/Offsite	None recorded within 500m.
Pollution inventory waste transfers	Onsite/Offsite	None recorded within 500m.
Pollution inventory radioactive waste	Onsite/Offsite	None recorded within 500m.

COMAH – Control of Major Accident Hazards (regulations); NIHHS – Notification of Installations Handling Hazardous Substances (regulations)

4.8 RADON RISK

Table 4.9 - Radon Risk Status

	Comments
Estimated properties affected	Less than 1%
Radon Protection Measures required?	None required.

4.9 WASTE CLASSIFICATION AND MATERIALS RE-USE

If the Site is to be redeveloped and materials are disposed off Site, the material exported from the Site to Landfill should be hauled by a register waste carrier in accordance with Duty of Care Regulations 1991 and the Hazardous Waste Regulations 2005.

Based on the history of the Site and the anticipated potential contaminants of concern, it is considered unlikely that hazardous waste soil materials may be present beneath the majority of the Site; however, this will be subject to confirmatory investigation, sampling, laboratory analysis and waste classification in accordance with the Guidance on the Classification and Assessment of Waste (WM3).

It will be necessary to register the Site in advance of the intended reclamation works with the Environment Agency before disposal to landfill can take place. There will be requirement for the waste producer to provide appropriate Waste Acceptance Criteria (WAC) testing of the Soils for disposal to ensure that the soils are appropriately classified and that the landfill is licensed to receive such soils. A consignment note shall be completed, signed and retained by all parties involved. The consignment note shall state the volume of waste, a physical description of the material and statement of its chemical composition. The waste consignment notes shall be kept by the contractor for a period of at least two years.

5 PRELIMINARY GEOTECHNICAL ASSESSMENT

5.1 GEOTECHNICAL HAZARDS

In addition to the environmental hazards, there are also geotechnical hazards associated with the stability of the ground (including load bearing capacity, slope stability and effects of ground (mining) cavities). Local Authorities follow NPPF (2019) which requires that “site is suitable for its new use taking account of ground conditions and land instability, including from natural hazards or former activities such as mining.” A summary of the geotechnical considerations is provided below:

Table 5.1– Summary of Geotechnical Hazards

Geohazards:	
Highly Compressible Ground	Negligible, compressible strata are not thought to occur.
Collapsible Soils	Very low, deposits with potential to collapse unlikely to be present. No special actions required.
Swelling Clay	Very low - ground conditions have low plasticity.
Running Sand	Very Low - running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.
Ground Dissolution	Negligible.
Landslip	Moderate (within 50m), consideration to adjacent areas should always be considered.
Mining & Quarrying (see Section 4.2)	None recorded within 500m.

5.2 ANTICIPATED GROUND CONDITIONS

Based on the site history, it is likely that there will be localised thin Made Ground on site from the construction of the existing building and the associated hardstanding surfaces. There is potential for made ground and buried structures to be present associated with the former building / basement on the site. It is anticipated that demolition material from the former building may have been used to backfill any underground structures, which potential could comprise asbestos containing materials.

Below the Made Ground, it is anticipated that Glacial Till (Diamicton) comprising firm to stiff clay, often with secondary constituents of sand and gravel and occasional cobbles. BGS information in the area have shown the deposits are a minimum of 12m deep. Below the drift deposits the solid geology has been indicated to be the Triassic Chester Pebble Beds Formation, comprising of Sandstone with quartzite pebbles towards the base.

5.3 PRELIMINARY FOUNDATION SOLUTION

No loading information has been provided for this report.

In areas of deep Made Ground/infilled basement, the foundations may require deeper foundations e.g. piles). Former structures (foundations and slabs) may still be present.

If no deep made ground is encountered, it is anticipated that shallow spread foundations will be suitable, designed following NHBC Standards (2018) to take into account of the presence of the trees. Need to confirm the volume change potential of the formation material.

5.4 PRELIMINARY FLOOR SLAB SOLUTION

Suspended floor slabs envisaged if deep Made Ground encountered and potential for former foundations to be still present. Ground bearing floor slabs may be achievable for the development if made ground encountered on site is removed. The exposed formation should be proof rolled with a heavy roller to detect any soft spots and if identified, these should be removed and the excavation filled with suitably engineered compacted granular material.

5.5 DRAINAGE

It is anticipated the new development will use existing infrastructure. The ground conditions are likely to comprise Glacial Till clays, indicating that soakaways are unlikely to be a suitable drainage solution for the site. An intrusive investigation will necessary to confirm ground conditions present on site.

5.6 UXO RISK

A UXO Pre-Desk Study Assessment has been carried out by Zetica. After reviewing the available data for the area, it has been concluded that a detailed UXO risk assessment is not required for this site. The risk from UXO is therefore considered low and no further works are required. A copy of the report is provided in Appendix E.

6 PRELIMINARY CONCEPTUAL SITE MODEL

6.1 INTRODUCTION

Based on the information provided in the previous sections of this report a combined preliminary conceptual site model and conceptual exposure model has been developed for the proposed future land use. This summarises the understanding of surface and sub-surface features, the potential contaminant sources, transport pathways and receptors. In assessing the likely contaminants of concern present at the Site, reference has also been made to Defra and Environment Agency supporting documentation. A preliminary qualitative risk assessment has also been made of the likelihood of the linkage operating and its potential significance in accordance with CIRIA C552.

The preliminary conceptual model is presented in schematic form in **Section 6.9**. The potential pollutant linkages identified and the qualitative risk assessment for these are presented in Conceptual Site Model.

The terms used in the preliminary qualitative risk assessment are defined in **Appendix D**.

The following sections discuss all the identified potential on and off-site sources, pathways, and receptors in the context of the proposed development and plausible pollutant linkages which may represent a risk to identified receptors such as human health and/or controlled waters from the data gained from the desk study. At this stage, the assessment is qualitative and aimed to determine all pollutant linkages, irrespective of significance or allowing for uncertainty.

Three impact potentials exist for any given site, these are:

- The site impacting upon itself;
- The site impacting on its surroundings; and
- The surroundings impacting on the site.

All three impacts need to be considered in a risk assessment.

- Sources; these are potential or known sources of contamination that may relate to a former land use or present site feature or process (e.g., Made Ground, infilled ground etc).
- Pathways; a pathway is defined as a mechanism or route by which a contaminant encounters, or otherwise affects a receptor. Pathways by which the identified receptors may be impacted upon in the context of the proposed development.
- Receptors; receptors are defined as people, living organisms, ecological systems, controlled waters, atmosphere, structures, and utilities that could be adversely affected by contaminant(s).

6.2 CONCEPTUAL SITE MODEL

Based on the data available the following Conceptual Site Model has been developed. The various components of the potential “source–pathway–receptor” pollutant linkages identified at the site.

6.3 HAZARDS IDENTIFIED WITH THE PROPOSED DEVELOPMENT

The hazard identification is based on the assumptions presented below:

- the new development will be a commercial development.
- the historical buildings present on site, and existing outbuildings are a source of contamination.
- drinking water will be from mains supply.

6.4 POTENTIAL SOURCES OF CONTAMINATION

For the purpose of this assessment the potential contaminants of concern have been considered according to whether they are likely to have originated from on-site or off-site sources.

Potential On-site Sources of Contamination

- Made Ground – Historic buildings and potential basement located within the southern part of the site. The infilled basement will likely to have been backfilled with demolition material from the former buildings. Potential for asbestos (ACMs), heavy metals, PAHs), low potential for ground gas.
- Service Yard – Limited potential for small scale hydrocarbon spillages from vehicle movements and storage of materials

Potential Off-site Sources of Contamination

- Substation(s) – The substation has been present adjacent to the eastern boundary identified on the 1978 historical mapping. PCBs were used as insulating oil within substations from the 1950s up to 1981. There is the potential that PCBs were used on the adjacent site. However, PCBs are typically not very mobile and the underlying ground conditions are likely to reduce migration on to the site. It is recommended that the fieldwork confirms ground conditions and absence of any impacted soils from adjacent substation.
- Historical Industrial landuses - The surrounding areas have had numerous industrial landuses dating back to the 1800s. Within 250m of the site there has been railway sidings and buildings, Garages, Mills and depots. There is no specific risks identified from the past industrial landuses to the study site.

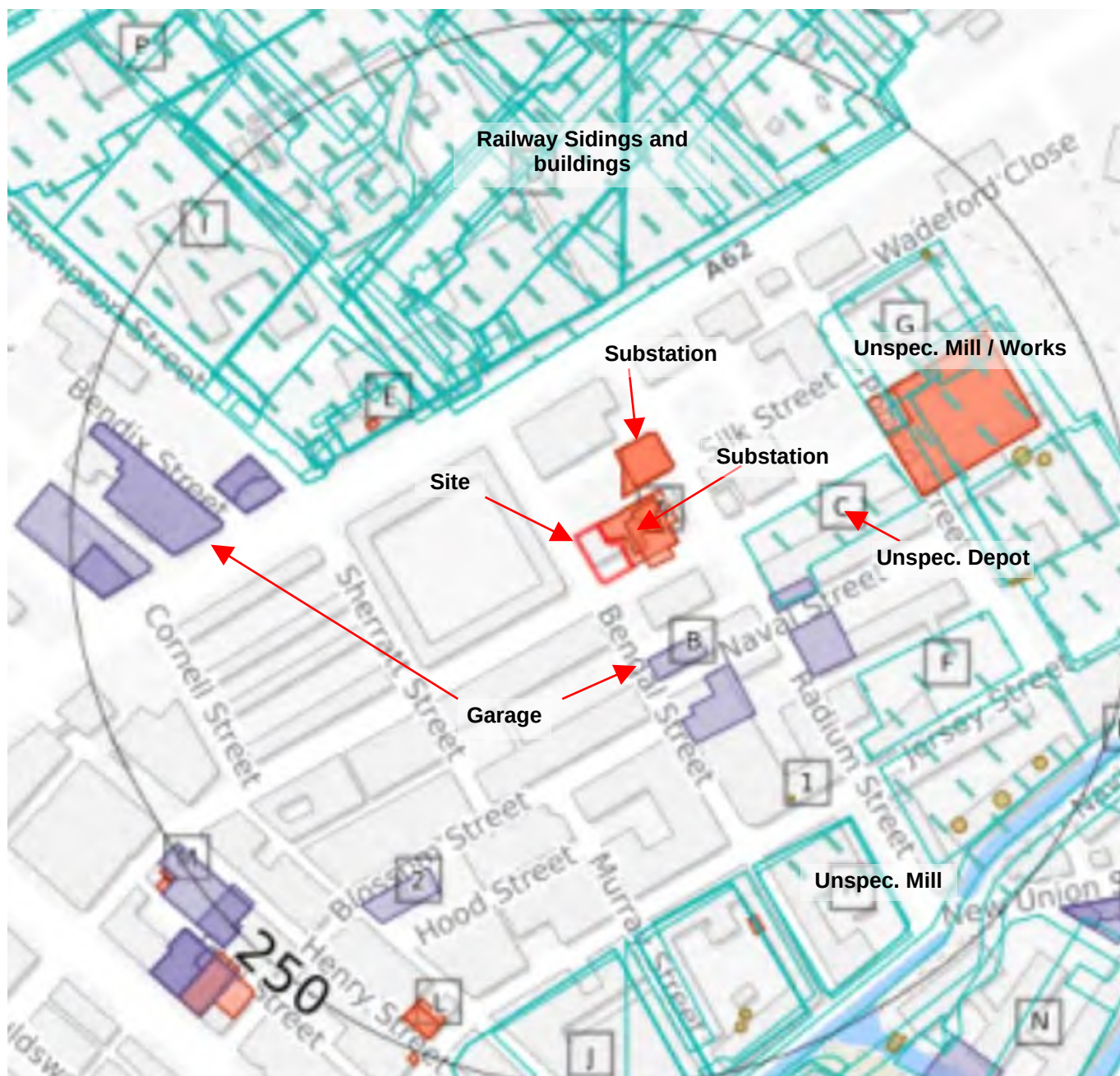


Figure 10 – Extract from Groundsure Report GS-MON-QDA-GV2-6BL showing historical landuses

6.5 POTENTIAL RECEPTORS OF CONTAMINATION

Based on the data previously discussed, the following potential receptors to contamination have been identified:

Table 6.1 - Identified Potential Receptors

Sensitive Receptors	
A	Humans – Predevelopment completion, i.e. working on site during demolition and construction.
B	Humans using the site post construction.
C	Controlled waters – Surface Waters (rivers and streams)
D	Groundwater in the principal bedrock aquifer.
E	Local flora and fauna during and post construction.
F	Building structure and services.

The possible contaminant linkages are discussed below. It should be noted not all may be formed between all sources and receptors.

The preliminary assessment of risks undertaken for the development considers potential risks to receptors A to F in **Table 7.1** above. The receptors A to F incorporate each of the receptors normally required by the Local Authority to be considered in their planning conditions relating to land contamination:

- Human Health (A & B)
- Property (including buildings, crops, livestock, pets, woodland, service lines) (E & F)
- Adjoining land (D & F)
- Groundwater and surface water (C & D)
- Ecological systems (E)
- Buildings and structures (F)

It should be noted that there are no archaeological sites or ancient monuments considered to be within the zone of influence of the site. They are therefore not considered in the risk assessment.

The closest of each of the above receptor categories to the site are considered to be:

On-site

Human Health, Property, Groundwater, Buildings & Structures

Off-site

Human health, groundwater and surface water, adjoining land

The possible contaminant linkages are discussed below. It should be noted not all may be formed between all sources and receptors.

6.6 IDENTIFICATION OF PATHWAYS

Pathways to Human Health

There are various routes by which a potential contaminant may reach a receptor. For example, in areas where contaminated material is exposed, dermal contact with the material, inhalation or ingestion of dust may occur.

Inhalation or ingestion of dust and water could occur during the construction and development phase at the site. Pathways from dermal contact with soil and groundwater may also arise. It is considered that the risk of short-term exposure for ground workers and other construction workers is low unless there are asbestos fibres are encountered.

Post construction, the surface of the development area will be occupied with buildings and hard standing, with smaller garden areas. This will effectively eliminate the persistence of potential pathways such as long-term direct contact and dust inhalation/ingestion as long as the soil in the garden areas has no significant concentrations of contaminants.

Ground Gas

There is no credible on site ground gas source unless deep organic rich Made Ground is encountered. There is the potential that a backfilled basement is present within the southern part of the site. The basement was likely infilled using demolition material from the previous building, therefore significant organic rich material is unlikely. However, an intrusive investigation is recommended to confirm ground conditions.

Pathways to Controlled Waters

Groundwater levels at the site are anticipated to be at a depth of more than 5 m within the bedrock. However, there is the likelihood that perched groundwater will be present within / at the base of the glacial deposits. Lateral migration of potentially contaminated groundwater offsite (either via permeable made ground or the underlying aquifer) must be considered.

The vertical leaching of contaminants from any potential Made Ground into the groundwater is a potential pathway for contaminants to impact upon groundwater. The made ground anticipated to be present on site is thought to be underlain by glacial till (Clay) and is very unlikely for contaminants to make their way into the groundwater within the sandstone bedrock. The site is not located within a groundwater source protection zone.

Surface run off from contaminated areas into surface watercourses must also be considered. Due to a lack of a soft standing site surface, this will be controlled prior to and during the groundworks phase as surface run off will migrate to surface water drains located in the road and on the site. Any areas where soft standing is present, this must be carefully managed.

Post construction the majority of the site and surface run-off will be limited and controlled through drains.

The nearest river source is 230m to the SE. There is limited viable overland migration pathways for surface run off to reach this receptors.

Other Pathways

Other potential pathways that are possibly less significant to the site but still require consideration are: potential phytotoxic effects on sensitive landscaping plants; chemical attack on foundations and services and permeation of contaminants through domestic water pipes. The risk to buildings from ground gases has been discussed under human health above.

6.7 CONTAMINANT LINKAGES

For each contamination source there are potential contaminant linkages with all receptors. However, in the context of this site, not all of the contaminant linkages are plausible, particularly those of potential groundwater contamination and lateral groundwater migration. The likelihood of the various pathways linking the contaminants to the receptors is presented in Table 6.2 below:

Table 6.2 - Matrix of Contaminant Linkages

Source/ Contaminated Medium	Pathway	Receptor					
		A – Humans using the site pre-development completion	B – Humans living on the site post construction assuming clean garden soils	C – Surface water	D – Groundwater	E – Flora & Fauna Post Construction	F – Building & Services
Soil	Ingestion	P	P	-	-	U	-
	Dermal Contact/Direct Contact	P	P	-	-	U	P
	Inhalation	P	P	-	-	U	-
	Infrastructure/Drainage	P	U	P	P	U	P
	Groundwater	U	U	U	U	U	P
	Surface Water	U	U	P	P	U	P
Groundwater	Ingestion	U	U	-	-	U	-
	Inhalation	U	U	-	-	U	-
	Dermal Contact	P	U	-	-	U	-
	Groundwater	P	U	P	P	U	P
	Surface Water	P	U	P	P	U	P
Radon	Migration	U	-	-	-	-	-
Gas (CH4 CO2)	Migration	P	P	-	-	U	U
Key to significance of contaminant linkages S = Significant Pathway P = Possible Pathway U = Unlikely Pathway - = Not Applicable Only Significant and Possible contaminant linkages are taken forwards to the next part of the risk assessment.							

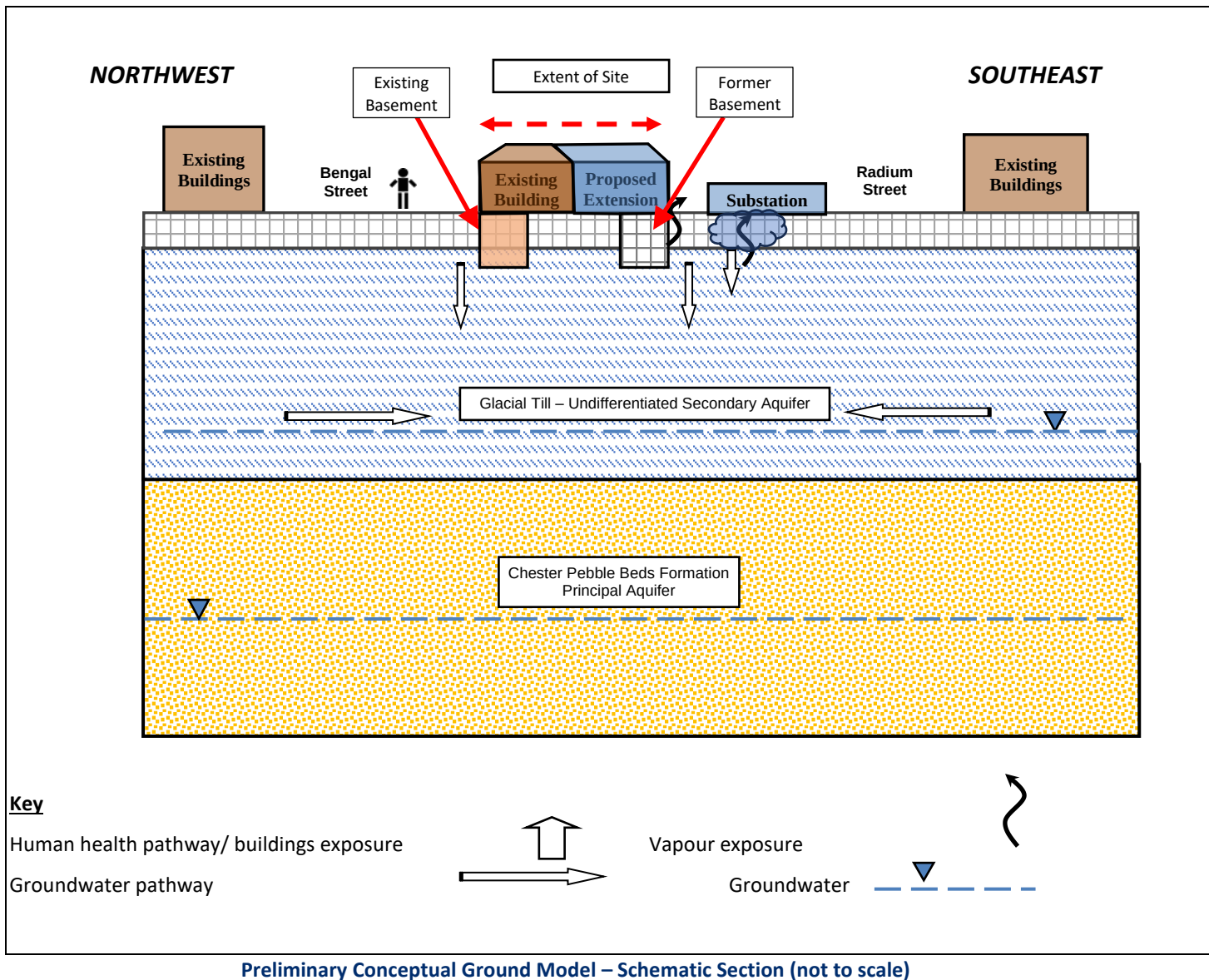
6.8 UNCERTAINTIES

The following uncertainties exist in the preliminary conceptual model:

- The presence of any features unrecorded by the historic maps.
- Any unrecorded geological features.
- Any unrecorded pollution events during the Site's history.

6.9 CONCEPTUAL SITE MODEL

In accordance with BS 10175, a schematic section has been developed for the site based on the previously presented data and contaminant linkage assessment:



The model shows the predicted geology and topography, the major on-site potential contamination sources and vulnerable receptors.

The information presented above represents the preliminary conceptual ground model that may need to be revised based on information obtained as part of any future intrusive investigation. A number of sensitive receptors and potential pathways and sources (in association with a list of likely contaminants) have been identified.

The ground model and proposed end use described above should be considered broadly representative of commercial land use as defined in SR3 "Updated Technical Model to the CLEA Model" (SC050021/SR3, 2011) for the purpose of this report.

6.10 PRELIMINARY CONTAMINATION HAZARD ASSESSMENT

The preliminary hazard assessment is based on current available guidance published by a number of sources. A preliminary conceptual site model for this site has been established using the desk study information and has been used as a basis for the preliminary hazard assessment. The significant and possible potential pathways are only considered for the hazard assessment.

The preliminary hazard assessment is a qualitative assessment of the risks posed by each viable pollution link identified. The hazard assessment leads to a recommended subsequent activity that could be:

- Action Required (AR) in the short term to break existing contaminant-pathway-receptor (CPR) link;
- Site Investigation Required (SIR) with objectives for risk estimation, or
- No Action Required (NAR) at this stage.

6.11 PRELIMINARY ASSESSMENT OF POTENTIAL POLLUTANT LINKAGES

Refer to PRA **Table 15** and **Appendix D**.

Table 6.3 - CSM Table

Source	Pathway	Receptor	Con	Prob	Risk	Mitigation/Investigation
Potential for Made Ground associated with existing structures & historical structures, extensive offsite historical industry landuse Metals, PAHs, ACMs Adjacent Substation Limited PCBs, TPHs	Dermal contact, ingestion, and inhalation.	Construction workers Future site users Off-site human receptors Construction Materials	MD	Li	M	SIR - Potential for made ground onsite that may come into contact with receptors. Limited investigation with total soil concentration of relevant contaminants for contractor's risk assessments. Construction workers should employ appropriate PPE and standard site safety measures during construction.
	Migration of contaminated groundwater (vertical/lateral).	Principle Aquifer (Bedrock Geology)	MD	LW	M/L	SIR – to confirm ground conditions. Min of 15m of Glacial Clay likely to present above Principal Aquifer. No significant thicknesses of Made Ground anticipated apart from potential backfilled basement. Likely to be backfilled using construction rubble. Groundwater sampling only required if significant mobile contamination identified during intrusive works.
Onsite service yard. TPHs	Dermal contact, ingestion, and inhalation.	Construction workers Future site users Off-site human receptors Construction Materials	MD	UI	L	SIR – to confirm ground conditions. Limited risk from hydrocarbons spillages etc may be present in the car parking area. Chemical testing required only if visual or olfactory evidence of contamination identified.

Source	Pathway	Receptor	Con	Prob	Risk	Mitigation/Investigation
	Migration of contaminated groundwater (vertical/lateral).	Principle A Aquifer (Bedrock Geology)	MD	UI	L	SIR – to confirm ground conditions. Limited spillages of hydrocarbons may be present in the car parking area. Groundwater sampling only required if significant mobile contamination identified during intrusive works.
Potential hazardous gases from Made Ground and backfilled basement present on site. .	Migration and accumulation of hazardous ground gasses and vapours (vertical/lateral) leading to asphyxiation (carbon dioxide) and explosion (methane, hydrocarbons).	Current and future site users	MD	Li	M	SIR – to confirm ground conditions. Potential for Made Ground present on site. Not considered likely to comprise significant volumes of organic material. Offsite sources not considered a significant source due to age, distance from site and intervening Glacial Till. Site investigation recommended to prove ground conditions.
Radon Gas	Migration and accumulation of hazardous ground gasses leading to chronic risk (Radon).	Future site users	MD	U	L	SIR – to confirm ground conditions. Radon risk is <1 % of estimated properties affected. No radon protective measures required.
Aggressive ground conditions	Direct contact with infrastructure.	Building structures	MI	LW	L	SIR – to confirm ground conditions. Limited investigation to ensure that aggressive ground conditions are not present within any strata that may come into contact with infrastructure.
KEY: Consequence: SV = Severe, MD = Medium, MI = Mild, MR = Minor Probability: HI = High, LI = Likely, LW = Low Likelihood, UI = Unlikely Risk: VH = Very High, H = High, M = Moderate, M/L = Moderate/Low, L = Low, VL = Very Low						
Pollutant Linkage Assessment Summary - The pollutant linkage assessment has indicated that the site represents a Moderate to Low risk to human health receptors, construction materials, controlled waters receptors, ecological receptors and archaeological remains in the context of the current site status.						

7 CONCLUSIONS AND RECOMMENDATIONS

7.1 ENVIRONMENTAL RISK ASSESSMENT

A preliminary risk assessment has been carried out based on the contaminant-pathway-receptor model as defined in Statutory Guidance to Part IIA of the Environment Protection Act, 1990, and in accordance with BS 10175: 2011 +A1 2013 “Investigation of Potentially Contaminated Sites – Code of Practice”. The characteristic ground conditions and elements of the surrounding environment and has been summarised and a risk assessment carried out.

The proposed development will require the construction of a new development in the southern part of the site. The existing building will structurally the same as the existing.

The site has historically been developed from at least circa 1850, whereby three residential properties and a public house were present until 1953. Thereafter the previous three residential properties were replaced with a new public house, with the previous one absent from 1953 onwards. There is the potential for deep Made Ground to be present on site, which may include metals, PAHs and asbestos. There is no evidence of any hydrocarbon storage or spills on the site but this cannot be ruled out, especially due to the present service yard located in the south of the site.

Historical off-site industrial and commercial land use is within an influencing distance, which can be expected due to the development of Manchester since the industrial revolution, and the associated industrial aspect of the city. There is a substation present along the eastern boundary. Due to the age of the substation, there is the potential for the use of PCBs on the adjacent site. Due to the anticipated ground conditions (Glacial Clay), horizontal migration of hydrocarbon/PCBs contamination is anticipated to be limited, however intrusive works should be undertaken to proven ground conditions.

The results of the risk assessments indicate that there is low to moderate potential source of contaminants present at the site and these present a low risk to receptors including humans, structures, controlled surface waters and ecological receptors.

In order to make a quantitative assessment of the potential risks and so any required remedial measures can be designed; we recommend that a ground investigation is carried out in accordance with BS 10175: 2011+A1 2013 with a suitably qualified geologist or engineer supervising all works. This should be combined with a geotechnical investigation carried out in accordance with BS 5930:2015 + A1:2020.

The objectives of the Ground Investigation will be:

- to determine shallow soil and groundwater (if encountered) conditions, including whether significant contamination has resulted from past or current land uses;
- to determine the risks posed by any ground contamination and provide recommendations on remedial measures to manage such risks;
- to determine the risks posed to the Site from hazardous ground gases;

- to determine the existence, and if applicable, the extent of contamination within local groundwater beneath the Site;
- to provide advice relating to geotechnical issues associated with the Site.

7.2 PROPOSED SCOPE OF WORKS

In order to make a quantitative assessment of the potential risks and so any required remedial measures can be designed; we recommend that a Main Investigation is carried out in accordance with BS 10175: 2011+A2:2017. This should be combined with a geotechnical investigation carried out in accordance with BS 5930:2015, if this is required to assist with the proposed development design. We recommend that this investigation comprises:

- Machine excavated trial pits within the area of the proposed new building.
- Geoenvironmental chemical testing on selected soil samples to include metals, pH, speciated PAH, speciated TPH, phenol, sulphate, TOC and asbestos screens in order to assess potential risks to human health based on historical land uses on and within close proximity to the Site and to assist with basic waste characterisation. The sampling and testing will be focused on any made ground encountered and the medium risk areas of the proposed development.
- If hydrocarbon impacted ground is encountered along the eastern boundary adjacent to the substation, additional TPH and PCB analysis will be carried out.
- For each contaminant identified, a quantified application of risk assessment models for each contaminant identified in accordance with DEFRA's CLEA guidelines;
- Geotechnical testing to assist with foundation design and recommendations.
- As most developments require a portion of excess soil to be sent to a landfill sites, we would make an assessment of the made ground and natural strata to classify them in accordance with Landfill Waste Acceptance Criteria.

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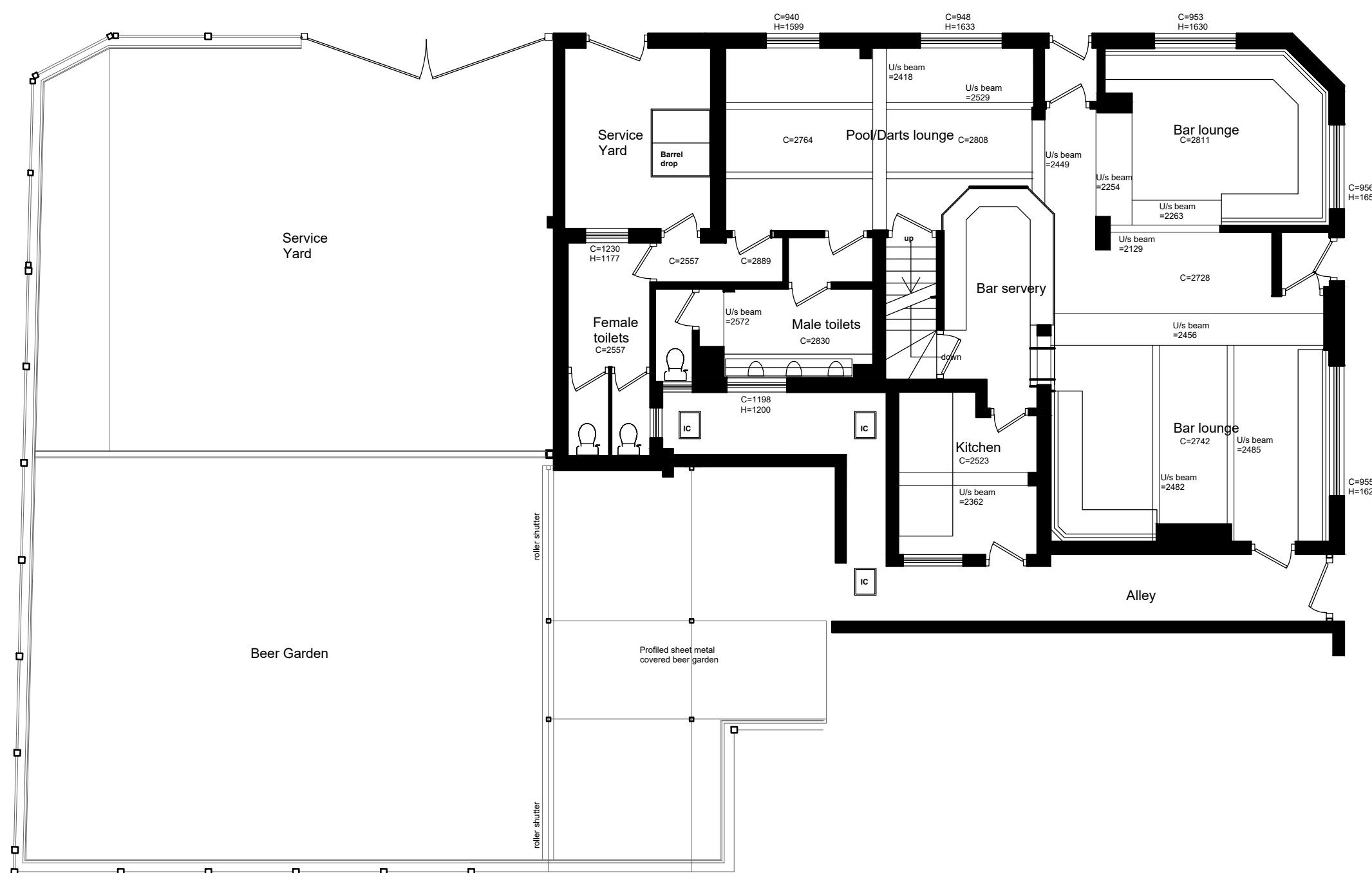
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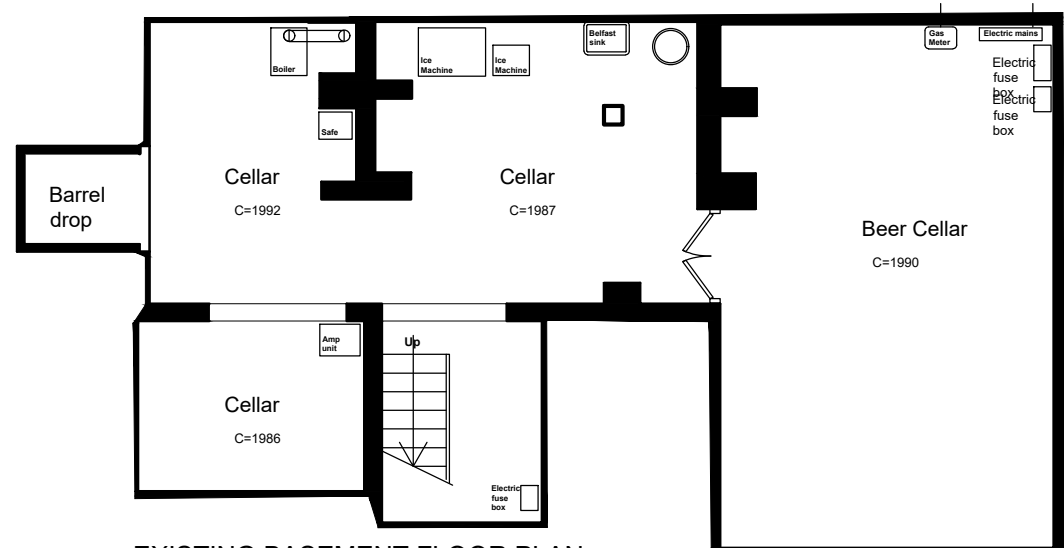
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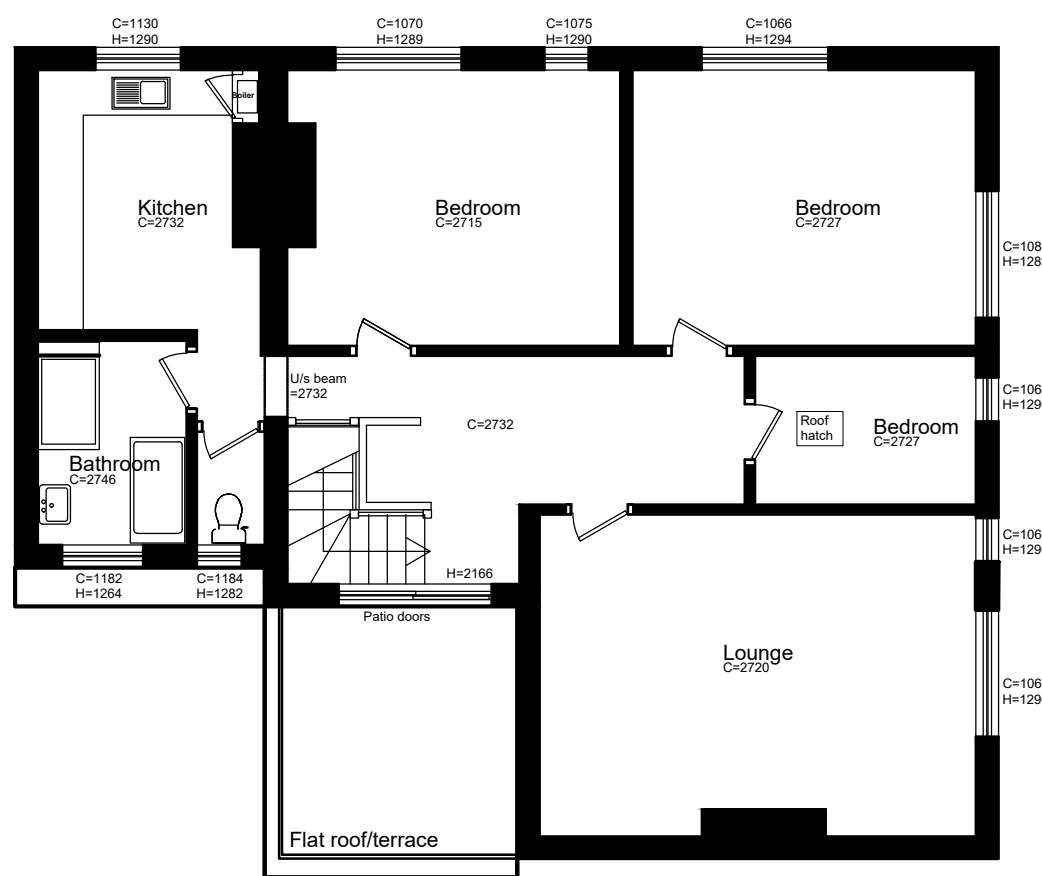
APPENDIX A: DRAWINGS



EXISTING GROUND FLOOR PLAN
Scale 1:100 @ A1



EXISTING BASEMENT FLOOR PLAN
Scale 1:100 @ A1



EXISTING FIRST FLOOR PLAN
Scale 1:100 @ A1

NOTES

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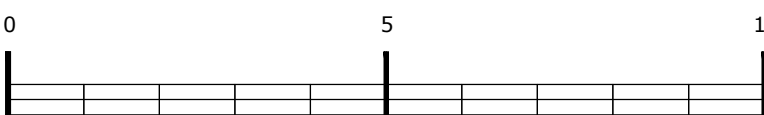
Do not scale off this drawing.

REVISIONS

DATE

FLOOR AREAS
BASEMENT = 75sq.m
GROUND FLOOR = 125sq.m
FIRST FLOOR = 101sq.m

LICENSED AREAS
GROUND FLOOR LOUNGE/ BAR AREA - 85 sq m



1-100 Scale Bar (metres)

EXISTING

DRAWING DESCRIPTION

EXISTING FLOOR PLANS

JOB TITLE

THE SHAMROCK,
17 BENGAL STREET,
MANCHESTER. M4 6AQ.

CLIENT

JOSEPH HOLT BREWERY

DRAWN BY M. Taylor

SCALE 1:100 @ A1

DATE JAN 2023

DRAWING NO.

2021 - 14

CHECKED

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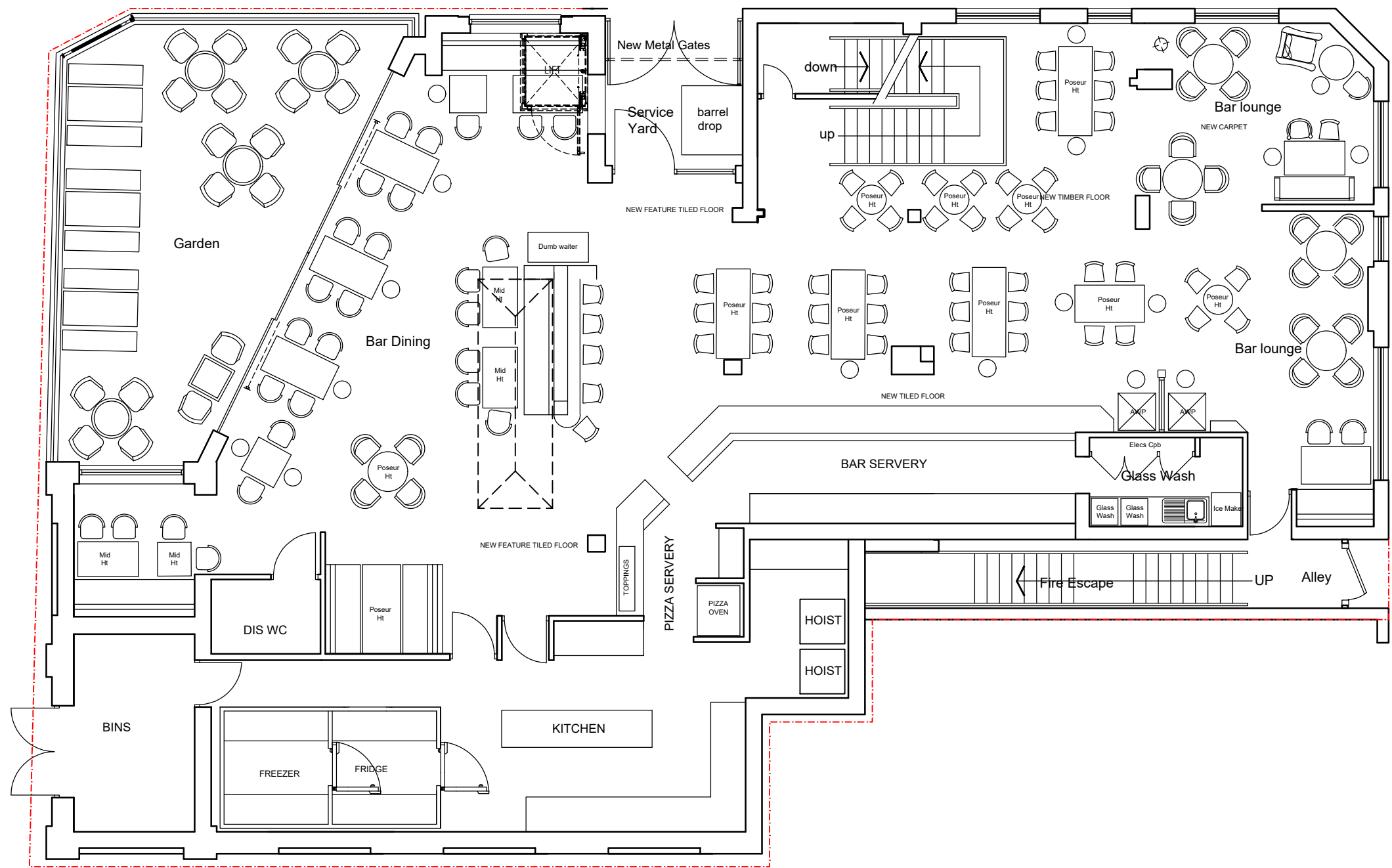
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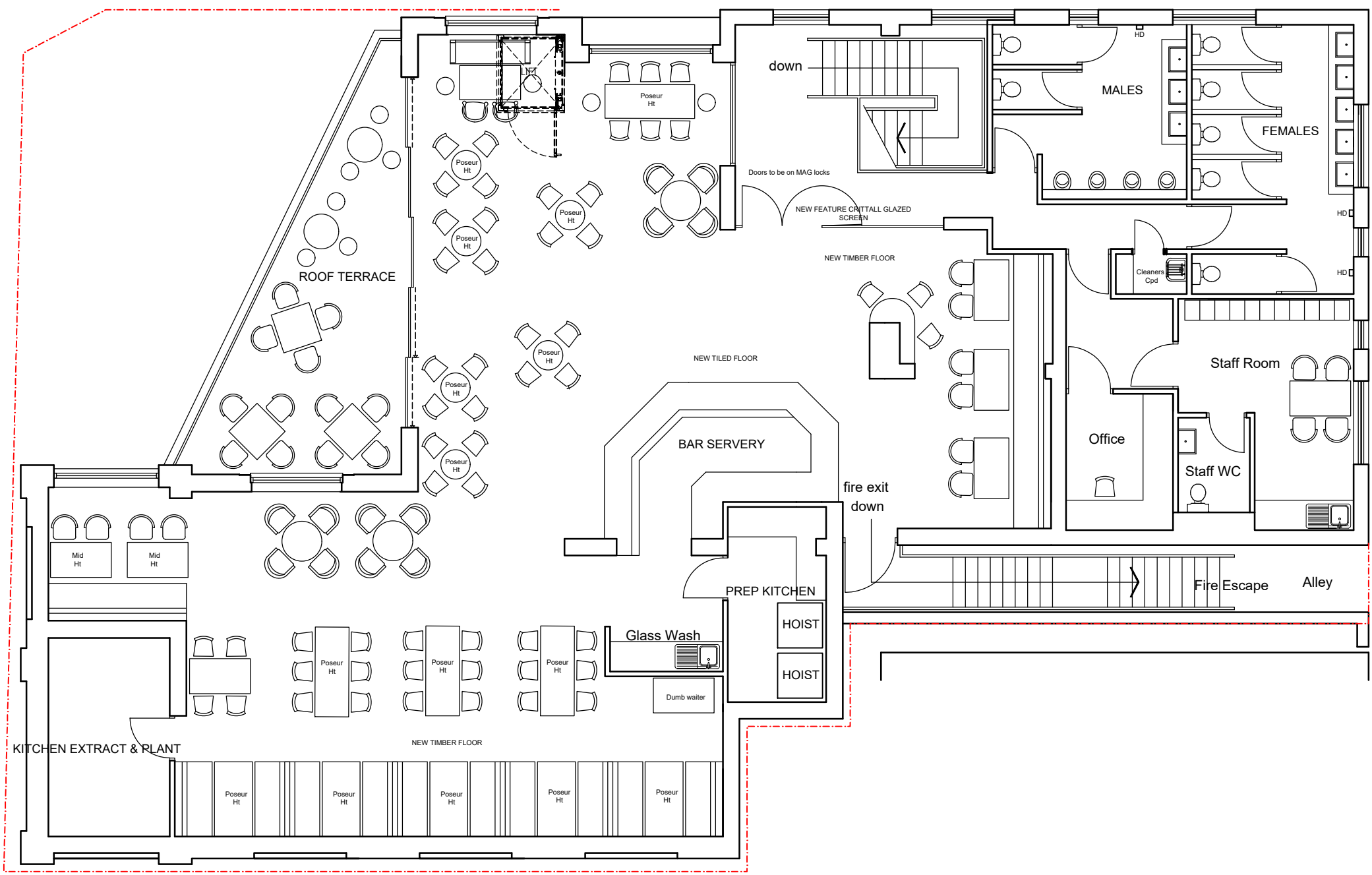
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Do not scale off this drawing.

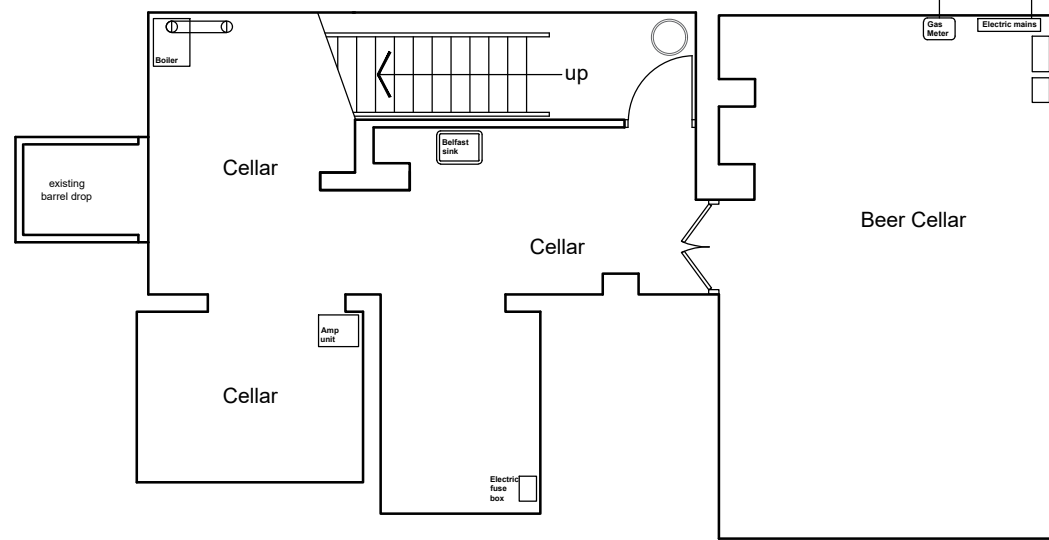
REVISIONS	DATE
REV A - MINOR AMENDMENT TO ROOF PLAN	23/01/23 MT



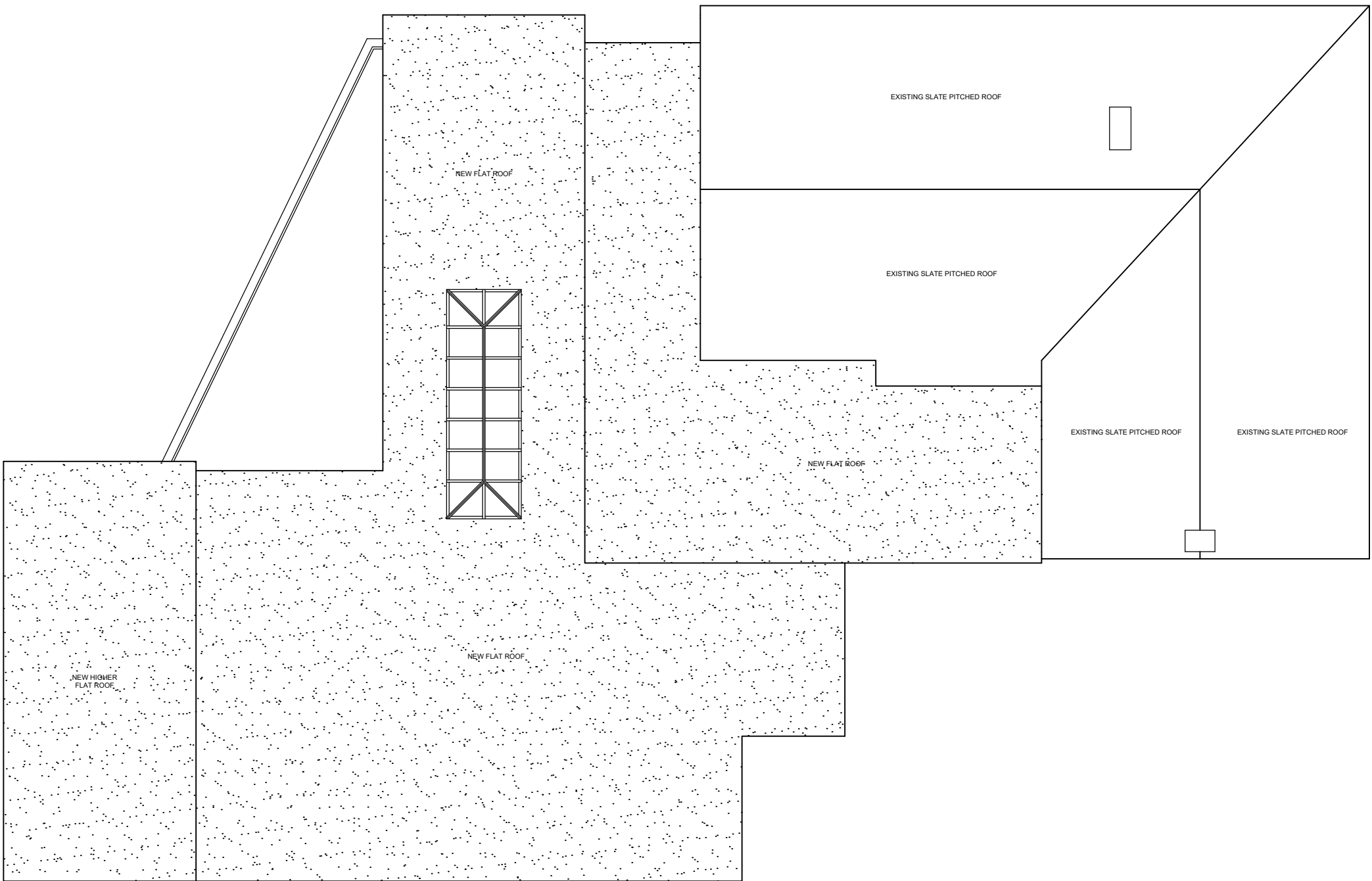
PROPOSED GROUND FLOOR PLAN scale 1:100



PROPOSED FIRST FLOOR PLAN scale 1:100



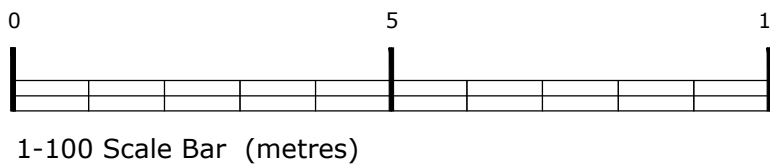
PROPOSED BASEMENT FLOOR PLAN
Scale 1:100



PROPOSED ROOF PLAN scale 1:100

FLOOR AREAS BASEMENT = 75sq.m GROUND FLOOR = 299sq.m FIRST FLOOR = 176sq.m
LICENSED AREAS GROUND FLOOR LOUNGE/ BAR AREA - 222 sq m (including bar service/wash-up corridor) GARDEN AREA - 49 sq m FIRST FLOOR (incl. bar service) - 176 sq m

	Indicates new new walls to be constructed
	Indicates existing walls to remain



SCHEME

DRAWING DESCRIPTION
PROPOSED FLOOR PLANS

JOB TITLE
THE SHAMROCK
17 BENGAL STREET
MANCHESTER

CLIENT
JOSEPH HOLTS

DRAWN BY M. Taylor	SCALE 1:100@A1
DATE NOV 2022	DRAWING NO. 2021 - 16
CHECKED	REVISION A

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jda
architecture
interior design
project management

APPENDIX B: SITE PHOTOGRAPHS



Satellite imagery indicating photo positions



Photo 1 – Streetview photo from northern boundary



Photo 2 – Looking south at the NW corner of the site



Photo 3 – Looking north along the western boundary



Photo 4 – Looking east into the southern part of site used for general storage



Photo 5 – Looking north along eastern boundary between study site and substation

APPENDIX C: GROUNDSURE REPORT

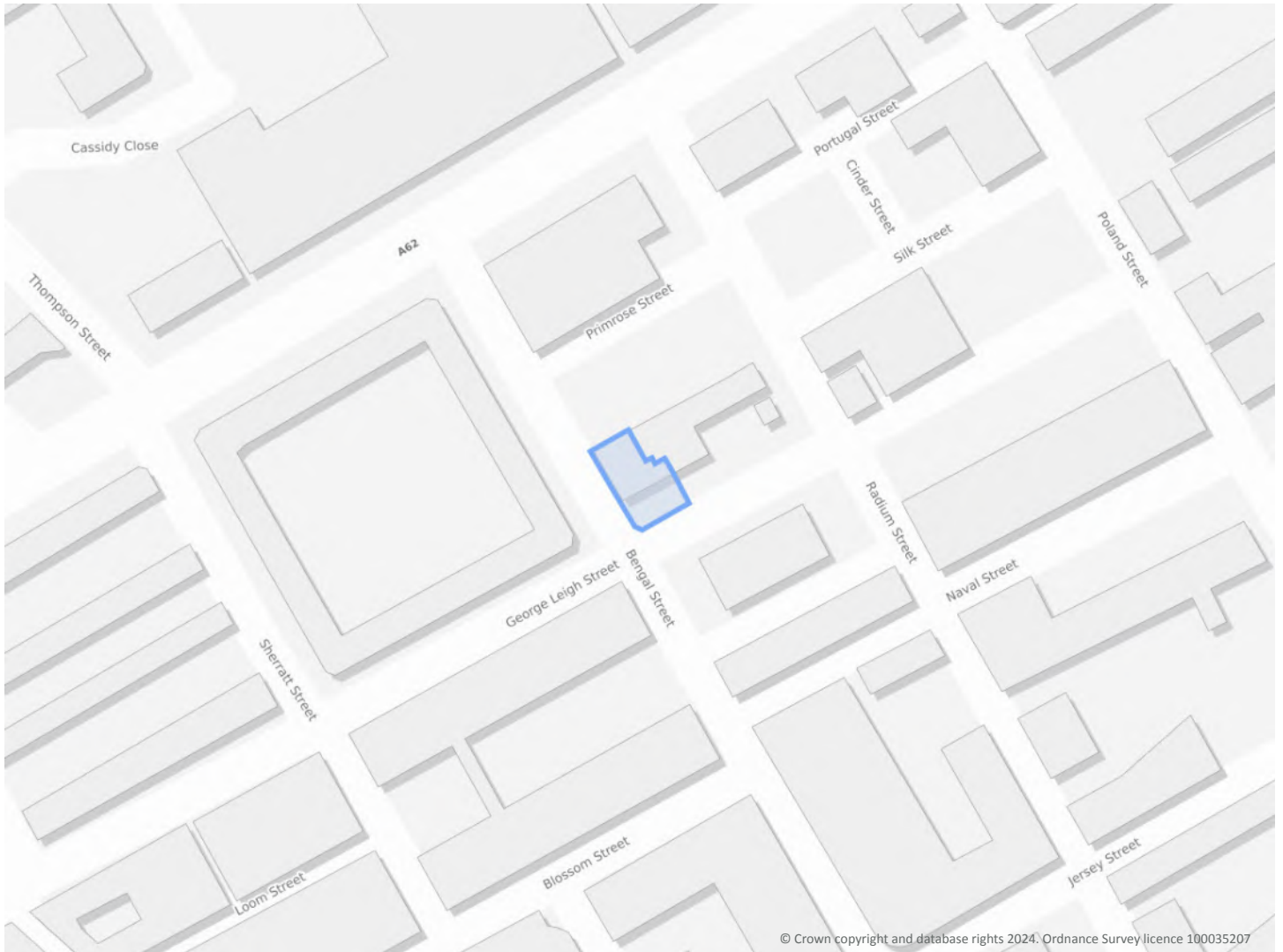
17 SHAMROCK INN, BENGAL STREET, MANCHESTER, M4 6AQ

Order Details

Date: 10/01/2024
Your ref: 3046_-_PO001613
Our Ref: GS-MON-QDA-GV2-6BL

Site Details

Location: 384991 398816
Area: 0.04 ha
Authority: [Manchester City Council](#) ↗



Summary of findings

[p. 2 >](#) **Aerial image**

[p. 9 >](#)

OS MasterMap site plan

[p.14 >](#) groundsure.com/insightuserguide ↗

Contact us with any questions at:

info@groundsure.com ↗

01273 257 755

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	68	67	-
20 >	1.2 >	Historical tanks >	0	0	11	20	-
22 >	1.3 >	Historical energy features >	1	8	6	27	-
24 >	1.4 >	Historical petrol stations >	0	0	0	1	-
24 >	1.5 >	Historical garages >	0	1	15	47	-
27	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
28 >	2.1 >	Historical industrial land uses >	0	0	89	82	-
35 >	2.2 >	Historical tanks >	0	0	18	33	-
37 >	2.3 >	Historical energy features >	1	19	14	64	-
40 >	2.4 >	Historical petrol stations >	0	0	0	1	-
41 >	2.5 >	Historical garages >	0	2	32	69	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
45	3.1	Active or recent landfill	0	0	0	0	-
45	3.2	Historical landfill (BGS records)	0	0	0	0	-
46	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
46	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
46 >	3.5 >	Historical waste sites >	0	0	7	3	-
48 >	3.6 >	Licensed waste sites >	0	0	1	0	-
48 >	3.7 >	Waste exemptions >	0	0	59	8	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
55 >	4.1 >	Recent industrial land uses >	0	1	32	-	-
58 >	4.2 >	Current or recent petrol stations >	0	0	0	3	-
58	4.3	Electricity cables	0	0	0	0	-
58	4.4	Gas pipelines	0	0	0	0	-
58	4.5	Sites determined as Contaminated Land	0	0	0	0	-



59	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
59	4.7	Regulated explosive sites	0	0	0	0	-
59	4.8	Hazardous substance storage/usage	0	0	0	0	-
59	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
59	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
60 >	4.11 >	<u>Licensed pollutant release (Part A(2)/B) ></u>	0	0	2	1	-
60	4.12	Radioactive Substance Authorisations	0	0	0	0	-
60	4.13	Licensed Discharges to controlled waters	0	0	0	0	-
61	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
61	4.15	Pollutant release to public sewer	0	0	0	0	-
61	4.16	List 1 Dangerous Substances	0	0	0	0	-
61	4.17	List 2 Dangerous Substances	0	0	0	0	-
61 >	4.18 >	<u>Pollution Incidents (EA/NRW) ></u>	0	0	1	3	-
62	4.19	Pollution inventory substances	0	0	0	0	-
62	4.20	Pollution inventory waste transfers	0	0	0	0	-
63	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
64 >	5.1 >	<u>Superficial aquifer ></u>	Identified (within 500m)				
66 >	5.2 >	<u>Bedrock aquifer ></u>	Identified (within 500m)				
68 >	5.3 >	<u>Groundwater vulnerability ></u>	Identified (within 50m)				
69 >	5.4 >	<u>Groundwater vulnerability- soluble rock risk ></u>	Identified (within 0m)				
70	5.5	Groundwater vulnerability- local information	None (within 0m)				
71 >	5.6 >	<u>Groundwater abstractions ></u>	0	0	0	0	42
82	5.7	Surface water abstractions	0	0	0	0	0
82 >	5.8 >	<u>Potable abstractions ></u>	0	0	0	0	10
85	5.9	Source Protection Zones	0	0	0	0	-
85	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
86 >	6.1 >	<u>Water Network (OS MasterMap) ></u>	0	0	3	-	-



87 >	6.2 >	Surface water features >	0	0	2	-	-
87 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
88 >	6.4 >	WFD Surface water bodies >	0	0	1	-	-
88 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-

Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
89	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
89	7.2	Historical Flood Events	0	0	0	-	-
89	7.3	Flood Defences	0	0	0	-	-
90	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
90	7.5	Flood Storage Areas	0	0	0	-	-
91	7.6	Flood Zone 2	None (within 50m)				
91	7.7	Flood Zone 3	None (within 50m)				

Page	Section	Surface water flooding >					
92 >	8.1 >	Surface water flooding >	1 in 100 year, 0.1m - 0.3m (within 50m)				

Page	Section	Groundwater flooding >					
94 >	9.1 >	Groundwater flooding >	Low (within 50m)				

Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
95	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
95	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
95	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
95	10.4	Special Protection Areas (SPA)	0	0	0	0	0
96	10.5	National Nature Reserves (NNR)	0	0	0	0	0
96	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
96	10.7	Designated Ancient Woodland	0	0	0	0	0
96	10.8	Biosphere Reserves	0	0	0	0	0
97	10.9	Forest Parks	0	0	0	0	0
97	10.10	Marine Conservation Zones	0	0	0	0	0
97	10.11	Green Belt	0	0	0	0	0
97	10.12	Proposed Ramsar sites	0	0	0	0	0



97	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
98	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
98	10.15	Nitrate Sensitive Areas	0	0	0	0	0
98 >	10.16 >	Nitrate Vulnerable Zones >	1	0	0	0	3
99 >	10.17 >	SSSI Impact Risk Zones >	1	-	-	-	-
100	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
101	11.1	World Heritage Sites	0	0	0	-	-
102	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
102	11.3	National Parks	0	0	0	-	-
102 >	11.4 >	Listed Buildings >	0	1	9	-	-
103 >	11.5 >	Conservation Areas >	1	0	0	-	-
103	11.6	Scheduled Ancient Monuments	0	0	0	-	-
104	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
105 >	12.1 >	Agricultural Land Classification >	Urban (within 250m)				
106	12.2	Open Access Land	0	0	0	-	-
106	12.3	Tree Felling Licences	0	0	0	-	-
106	12.4	Environmental Stewardship Schemes	0	0	0	-	-
106	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations >	On site	0-50m	50-250m	250-500m	500-2000m
107	13.1	Priority Habitat Inventory	0	0	0	-	-
107	13.2	Habitat Networks	0	0	0	-	-
108 >	13.3 >	Open Mosaic Habitat >	0	0	1	-	-
108	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
109 >	14.1 >	10k Availability >	Identified (within 500m)				
110 >	14.2 >	Artificial and made ground (10k) >	0	0	0	1	-
111 >	14.3 >	Superficial geology (10k) >	2	0	0	0	-



112	14.4	Landslip (10k)	0	0	0	0	-
113 >	14.5 >	Bedrock geology (10k) >	2	2	0	2	-
114 >	14.6 >	Bedrock faults and other linear features (10k) >	0	0	1	2	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
115 >	15.1 >	50k Availability >	Identified (within 500m)				
116 >	15.2 >	Artificial and made ground (50k) >	0	0	0	1	-
117	15.3	Artificial ground permeability (50k)	0	0	-	-	-
118 >	15.4 >	Superficial geology (50k) >	1	0	0	0	-
119 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
119	15.6	Landslip (50k)	0	0	0	0	-
119	15.7	Landslip permeability (50k)	None (within 50m)				
120 >	15.8 >	Bedrock geology (50k) >	1	1	0	2	-
121 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
121 >	15.10 >	Bedrock faults and other linear features (50k) >	0	0	1	1	-
Page	Section	Boreholes >	On site	0-50m	50-250m	250-500m	500-2000m
122 >	16.1 >	BGS Boreholes >	0	0	19	-	-
Page	Section	Natural ground subsidence >					
124 >	17.1 >	Shrink swell clays >	Very low (within 50m)				
125 >	17.2 >	Running sands >	Very low (within 50m)				
126 >	17.3 >	Compressible deposits >	Negligible (within 50m)				
127 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
128 >	17.5 >	Landslides >	Very low (within 50m)				
129 >	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
131	18.1	BritPits	0	0	0	0	-
132 >	18.2 >	Surface ground workings >	0	0	11	-	-
132 >	18.3 >	Underground workings >	0	0	0	0	10
133	18.4	Underground mining extents	0	0	0	0	-
133	18.5	Historical Mineral Planning Areas	0	0	0	0	-



133 >	18.6 >	Non-coal mining >	0	0	0	1	1
134 >	18.7 >	JPB mining areas >	Identified (within 0m)				
134	18.8	The Coal Authority non-coal mining	0	0	0	0	-
134	18.9	Researched mining	0	0	0	0	-
135	18.10	Mining record office plans	0	0	0	0	-
135	18.11	BGS mine plans	0	0	0	0	-
135 >	18.12 >	Coal mining >	Identified (within 0m)				
135	18.13	Brine areas	None (within 0m)				
136	18.14	Gypsum areas	None (within 0m)				
136	18.15	Tin mining	None (within 0m)				
136	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
137	19.1	Natural cavities	0	0	0	0	-
137	19.2	Mining cavities	0	0	0	0	0
137	19.3	Reported recent incidents	0	0	0	0	-
137	19.4	Historical incidents	0	0	0	0	-
138	19.5	National karst database	0	0	0	0	-
Page	Section	Radon >					
139 >	20.1 >	Radon >	Less than 1% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
141 >	21.1 >	BGS Estimated Background Soil Chemistry >	3	3	-	-	-
141 >	21.2 >	BGS Estimated Urban Soil Chemistry >	2	2	-	-	-
142	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
143	22.1	Underground railways (London)	0	0	0	-	-
143	22.2	Underground railways (Non-London)	0	0	0	-	-
144	22.3	Railway tunnels	0	0	0	-	-
144 >	22.4 >	Historical railway and tunnel features >	0	0	62	-	-
146	22.5	Royal Mail tunnels	0	0	0	-	-



<u>147</u> >	<u>22.6</u> >	<u>Historical railways</u> >	0	0	1	-	-
147	22.7	Railways	0	0	0	-	-
147	22.8	Crossrail 1	0	0	0	0	-
147	22.9	Crossrail 2	0	0	0	0	-
147	22.10	HS2	0	0	0	0	-

Recent aerial photograph



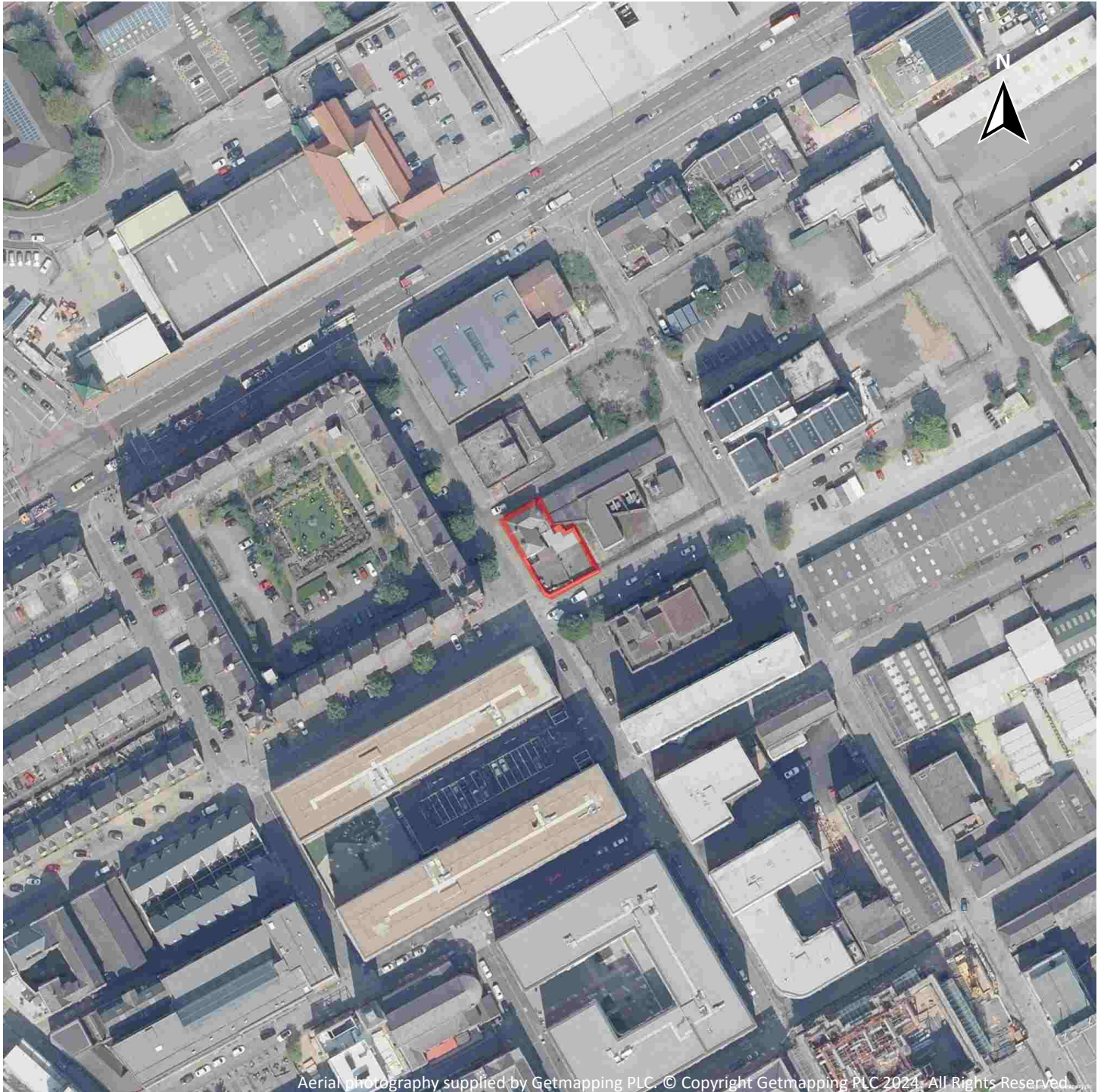
Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2024. All Rights Reserved.

Capture Date: 18/10/2022

Site Area: 0.04ha



Recent site history - 2019 aerial photograph

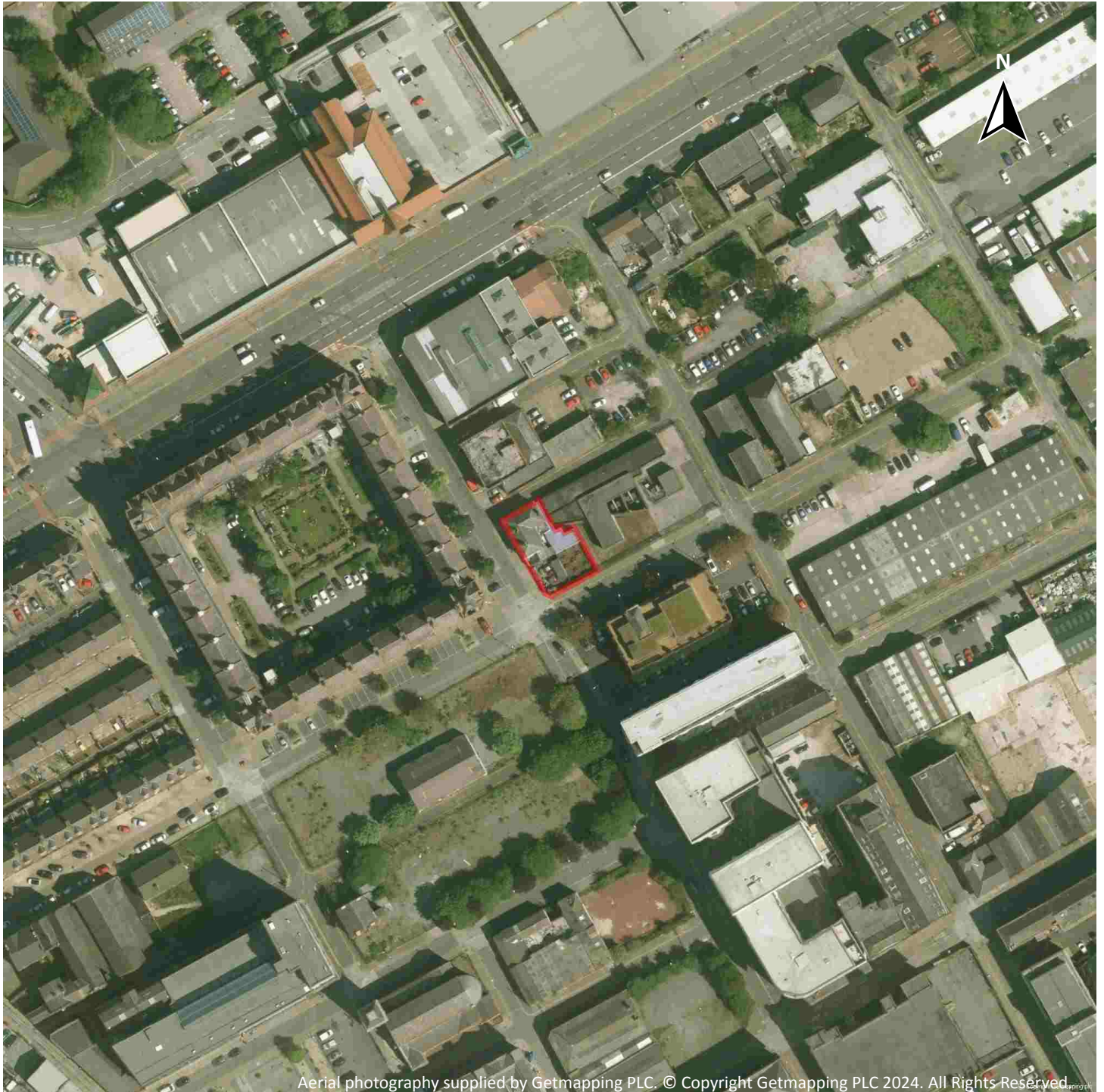


Capture Date: 22/04/2019

Site Area: 0.04ha



Recent site history - 2015 aerial photograph

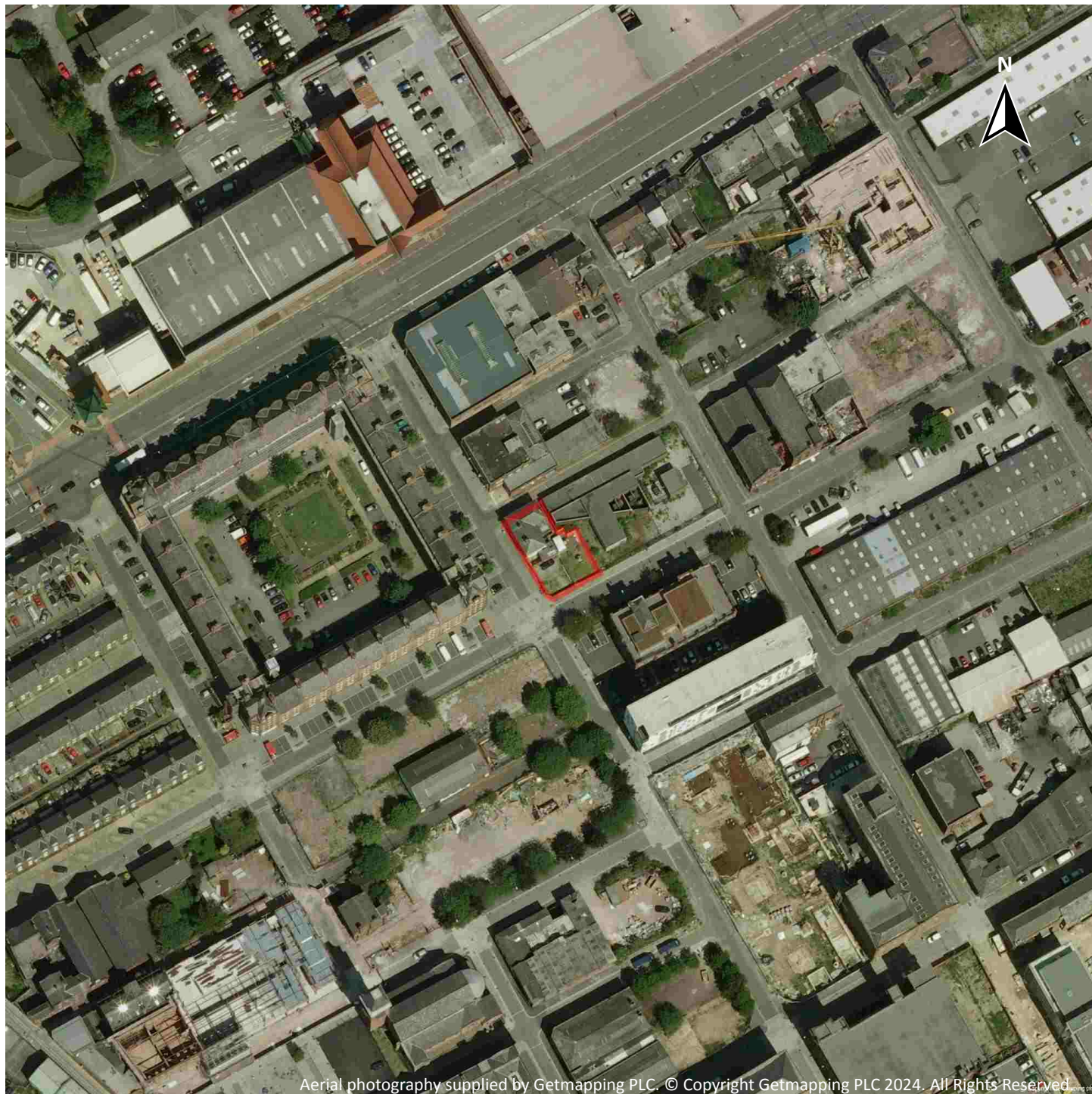


Capture Date: 11/06/2015

Site Area: 0.04ha



Recent site history - 2009 aerial photograph



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Capture Date: 02/06/2009

Site Area: 0.04ha



Recent site history - 2000 aerial photograph



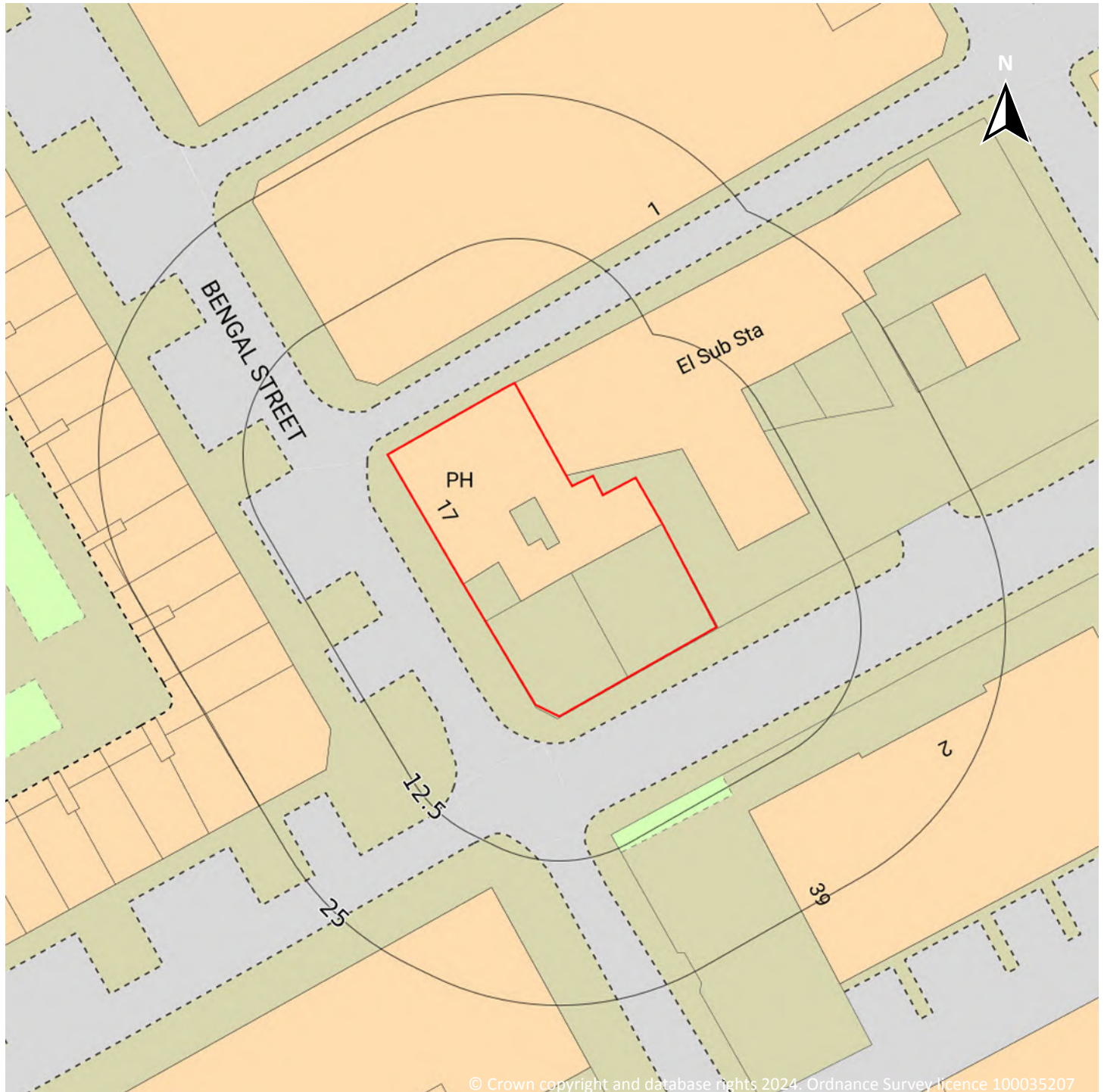
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Capture Date: 27/06/2000

Site Area: 0.04ha



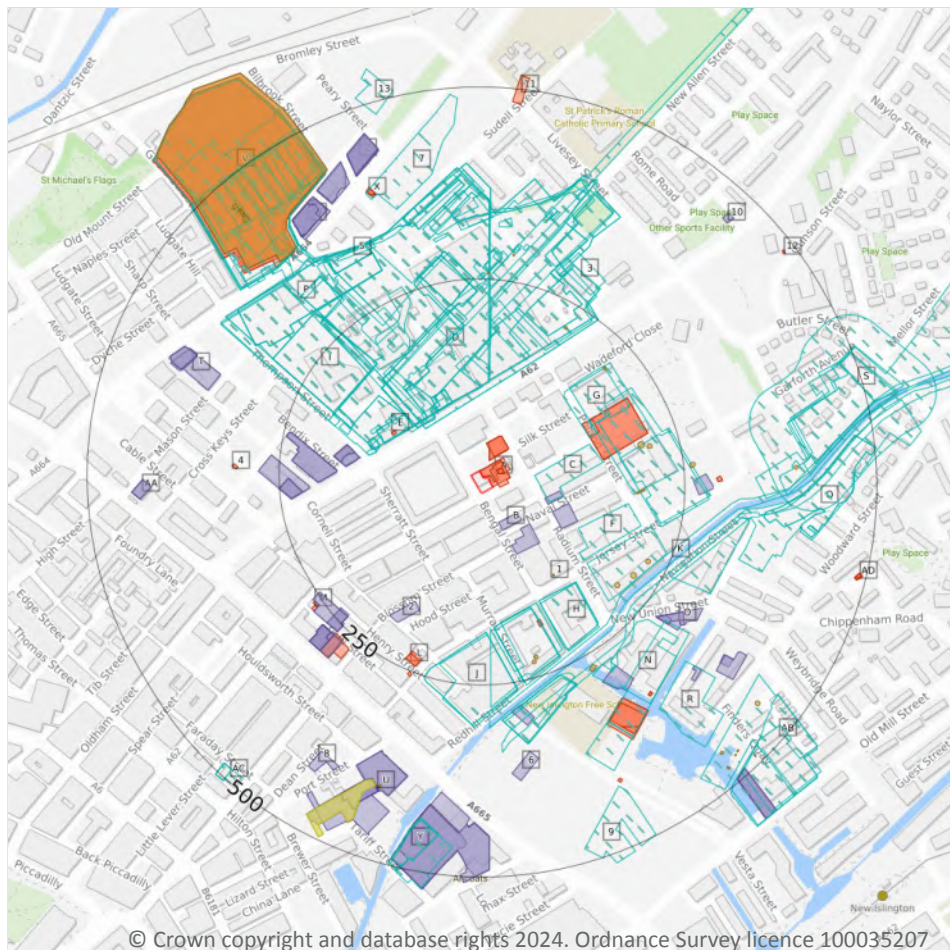
OS MasterMap site plan



Site Area: 0.04ha



1 Past land use



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

1.1 Historical industrial land uses

Records within 500m

135

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
C	57m E	Unspecified Depot	1968	818420



ID	Location	Land use	Dates present	Group ID
D	83m NW	Unspecified Commercial/Industrial	1891	848669
D	83m NW	Railway Sidings	1891	952502
D	88m NW	Unspecified Commercial/Industrial	1923	911009
D	88m NW	Railway Sidings	1906 - 1938	960473
D	90m NW	Unspecified Commercial/Industrial	1906 - 1921	945036
D	90m NW	Railway Building	1938	991355
D	94m NW	Railway Building	1956	965368
D	94m NW	Railway Sidings	1956	988070
D	94m NW	Railway Building	1978	873626
D	94m NW	Railway Building	1956 - 1971	887537
D	95m NW	Railway Building	1971	847949
D	95m NW	Railway Building	1978	862044
D	95m NW	Railway Building	1985	948508
D	95m NW	Unspecified Depot	1985	818411
D	96m NW	Railway Sidings	1971	893733
D	96m NW	Railway Sidings	1978 - 1985	962506
E	99m NW	Railway Building	1956 - 1971	924812
E	99m NW	Railway Building	1978	952803
E	99m NW	Railway Building	1985	967480
D	102m NW	Railway Station	1851	822944
D	118m N	Railway Sidings	1968	844444
D	118m N	Unspecified Commercial/Industrial	1956	939440
F	124m SE	Unspecified Works	1968	830454
E	125m W	Railway Building	1938 - 1956	940179
E	125m W	Railway Building	1978	962352
E	125m W	Railway Building	1985	985358
E	125m W	Railway Building	1971	992000
E	132m NW	Railway Building	1956	937629



ID	Location	Land use	Dates present	Group ID
D	140m NW	Railway Building	1985	966505
G	140m NE	Unspecified Mill	1923	810299
G	152m NE	Unspecified Works	1968	848216
D	157m N	Police Station	1851	832595
F	158m SE	Glass Works	1851	797986
H	158m SE	Unspecified Mills	1921	849304
H	158m SE	Unspecified Mills	1933 - 1938	900155
H	159m SE	Unspecified Works	1968	830441
G	161m NE	Unspecified Works	1985	849231
H	161m S	Unspecified Mill	1933 - 1938	910742
H	161m S	Unspecified Mill	1921	958771
H	162m SE	Unspecified Mills	1923	957445
H	163m S	Unspecified Mill	1923	960726
I	167m NW	Railway Building	1985	820394
I	167m NW	Goods Station	1956 - 1971	907126
I	167m NW	Goods Station	1978	910356
E	167m W	Railway Building	1938	820395
G	170m E	Unspecified Works	1991	974737
D	176m N	Railway Building	1985	987455
D	180m NW	Fire Station	1988 - 1994	925390
J	182m S	Unspecified Mills	1921	878606
J	182m S	Unspecified Mills	1933 - 1938	900882
D	184m NW	Railway Sidings	1851	929380
J	185m S	Unspecified Mills	1923	954294
I	185m NW	Goods Station	1933 - 1938	948848
I	187m NW	Goods Shed	1921 - 1923	856754
D	187m NE	Potato Shed	1968	802280
D	207m N	Goods Station	1906	821663



ID	Location	Land use	Dates present	Group ID
D	207m N	Goods Shed	1923 - 1938	923020
D	210m NW	Railway Building	1851	936143
D	211m N	Goods Shed	1921	912383
K	217m SE	Disused Canal	1985	2367192
D	219m N	Railway Building	1985	851516
D	219m N	Railway Building	1978	886595
D	219m N	Railway Building	1956 - 1971	991623
D	237m N	Railway Building	1923	820429
K	238m SE	Disused Canal	1991	849130
D	241m N	Railway Buildings	1891	833665
D	249m N	Railway Building	1923	862543
D	252m N	Railway Building	1938	946193
N	257m SE	Unspecified Works	1968	830440
H	257m S	Sawmill	1933 - 1938	905698
H	257m S	Sawmill	1921	903562
H	258m SE	Unspecified Mill	1968	810293
K	259m SE	Unspecified Works	1968	830462
D	260m N	Goods Station	1923	821664
D	261m N	Good Station	1921	797870
D	261m N	Railway Building	1933 - 1968	894084
H	262m S	Sawmill	1923	932999
3	271m NE	Glass Works	1851	797985
D	284m N	Unspecified Works	1968	830453
N	284m SE	Coal Wharf	1851	794093
D	287m N	Railway Building	1923	990168
P	289m NW	Railway Building	1978	863970
P	289m NW	Railway Building	1971	893090
P	289m NW	Railway Building	1985	964524



ID	Location	Land use	Dates present	Group ID
D	291m N	Railway Building	1938	969824
D	293m N	Railway Building	1891	820426
D	304m N	Railway Building	1923	820428
D	310m N	Railway Building	1923	925478
D	314m N	Railway Building	1923	844951
D	318m N	Railway Building	1956	952415
D	319m N	Railway Building	1956	820427
5	321m NW	Railway Building	1938	820396
Q	322m E	Sawmills	1923	938961
D	325m N	Railway Buildings	1971	890026
D	325m N	Railway Buildings	1978	904671
D	325m N	Railway Buildings	1985	976778
D	325m N	Railway Building	1978	856971
D	325m N	Railway Building	1971	978761
D	330m N	Railway Building	1956	820415
D	334m N	Railway Building	1923	965489
D	337m N	Railway Building	1938	927513
R	338m SE	Unspecified Works	1968	830474
N	339m SE	Unspecified Mill	1968	810292
D	339m N	Railway Building	1956	879339
D	340m N	Railway Building	1891	853512
S	342m E	Unspecified Commercial/Industrial	1956	886609
S	343m E	Unspecified Commercial/Industrial	1938	925844
Q	355m E	Sawmills	1933 - 1938	910990
Q	355m E	Sawmills	1921	964387
7	357m N	Bus Depot	1978	832317
V	369m NW	Unspecified Commercial/Industrial	1933 - 1938	855454
V	369m NW	Unspecified Commercial/Industrial	1891	900580



ID	Location	Land use	Dates present	Group ID
V	370m NW	Unspecified Commercial/Industrial	1923	852600
V	371m NW	Unspecified Commercial/Industrial	1921	899114
V	372m NW	Unspecified Commercial/Industrial	1956	893063
V	373m NW	Railway Sidings	1956	990431
S	373m E	Unspecified Mills	1921 - 1923	864010
D	375m N	Railway Building	1956	820414
S	394m E	Unspecified Commercial/Industrial	1933	990780
S	401m E	Unspecified Works	1968	830463
9	421m SE	Unspecified Mill	1968	810291
AB	424m SE	Glass Works	1921 - 1923	903107
Y	430m S	Sawmill	1921	895554
Y	430m S	Sawmill	1933 - 1938	936555
Y	433m S	Sawmills	1923	813168
V	433m NW	Unspecified Depot	1988 - 1994	943169
AB	459m SE	Unspecified Commercial/Industrial	1933	796758
AB	478m SE	Unspecified Works	1968	830476
S	480m E	Unspecified Mill	1968	810298
AB	480m SE	Bedstead and Safe Works	1921 - 1923	988994
13	484m N	Police Station	1985 - 1994	944528
AC	485m SW	Police Station	1985 - 1994	882735
AC	486m SW	Police Station	1971	967676
AC	486m SW	Police Station	1978	984168

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

31

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
1	138m SE	Unspecified Tank	1891	115972
G	187m E	Tanks	1951	132646
G	197m E	Unspecified Tank	1893 - 1908	124226
F	203m SE	Unspecified Tank	1893 - 1908	128641
G	206m NE	Unspecified Tank	1908	115994
G	208m E	Unspecified Tank	1893 - 1908	145581
F	213m SE	Unspecified Tank	1893 - 1908	132899
D	216m NE	Unspecified Tank	1993 - 1996	124477
F	221m SE	Unspecified Tank	1893 - 1908	148194
H	222m S	Unspecified Tank	1965	115971
H	228m S	Unspecified Tank	1908	115970
D	257m N	Unspecified Tank	1908	116003
G	258m E	Unspecified Tank	1891 - 1893	137832
N	265m SE	Unspecified Tank	1948	133167
D	274m N	Unspecified Tank	1891	116004
D	283m N	Unspecified Tank	1891	116001
D	337m N	Unspecified Tank	1891	116002
V	372m NW	Gas Works	1949 - 1952	147458
Q	393m E	Unspecified Tank	1893	115995
U	402m S	Unspecified Tank	1953 - 1965	148454
V	442m NW	Tanks	1949 - 1952	125888
AB	442m SE	Unspecified Tank	1893	115976
V	449m NW	Tanks	1949 - 1952	141887
V	450m NW	Tanks	1949 - 1952	124911
AB	455m SE	Unspecified Tank	1891	115979
V	456m NW	Tanks	1949 - 1952	127628



ID	Location	Land use	Dates present	Group ID
V	464m NW	Tanks	1949 - 1952	139306
AB	468m SE	Unspecified Tank	1891	115975
AB	470m SE	Unspecified Tank	1891	115980
AB	475m SE	Tanks	1891	106805
AB	487m SE	Tanks	1891	106804

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	42
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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
A	On site	Electricity Substation	1948 - 1988	69737
A	0m N	Electricity Substation	1994 - 1995	77530
A	7m NE	Electricity Substation	1908 - 1951	64523
A	15m NE	Electricity Substation	1983	68145
A	15m NE	Electricity Substation	1978	81137
A	15m NE	Electricity Substation	1991	84212
A	19m N	Electricity Substation	1951 - 1953	68562
A	19m N	Electricity Substation	1948	82960
A	27m NE	Electricity Substation	1967	85080
E	112m NW	Electricity Substation	1988 - 1995	66419
G	141m NE	Gas Maintenance Department	1908 - 1922	75842
G	142m NE	Gas Maintenance Department	1893	71565
H	181m SE	Electricity Substation	1983 - 1994	67631



ID	Location	Land use	Dates present	Group ID
L	225m S	Electricity Substation	1984 - 1995	66129
L	228m SW	Electricity Substation	1953	76304
L	251m S	Electricity Substation	1953	62191
M	256m SW	Electricity Substation	1988	62189
M	260m SW	Electricity Substation	1995	62190
M	263m SW	Electricity Substation	1953 - 1984	66121
M	266m SW	Electricity Substation	1988 - 1995	73444
M	266m SW	Electricity Substation	1953	79102
G	291m E	Electricity Substation	1967 - 1994	76474
4	304m W	Electricity Substation	1984 - 1995	79779
N	322m SE	Corporation Hydraulic Power Station	1948 - 1951	66629
N	322m SE	Hydraulic Power Station	1948 - 1951	65750
N	327m SE	Hydraulic Power Station	1908 - 1931	72594
N	336m SE	Electricity Substation	1978 - 1994	70177
N	336m SE	Electricity Substation	1987	64729
N	354m SE	Hydraulic Power Station	1948 - 1955	84311
V	370m NW	Corporation Gas Works	1891	81629
V	370m NW	Gas Work	1893 - 1922	64181
V	372m NW	Gas Works	1949 - 1952	78529
X	382m N	Electricity Substation	1952 - 1994	64598
X	385m N	Electricity Substation	1952	78153
N	412m SE	Electricity Substation	1988 - 1997	64799
11	480m N	Electricity Substation	1996	62195
12	483m NE	Electricity Substation	1993 - 1996	64242
AD	485m E	Electricity Substation	1987	78295
AD	486m E	Electricity Substation	1994	68754
AD	487m E	Electricity Substation	1978 - 1991	64036
V	494m NW	Electricity Substation	1984	67824



ID	Location	Land use	Dates present	Group ID
V	495m NW	Electricity Substation	1989 - 1994	84672

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m	1
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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'.

Features are displayed on the Past land use map on [page 15 >](#)

ID	Location	Land use	Dates present	Group ID
U	399m S	Service Garage	1948	1532

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m	63
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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
B	44m S	Garages	1948 - 1951	26623
B	65m SE	Garages	1948 - 1951	25993
C	69m E	Garage	1948 - 1951	27876
C	84m SE	Garage	1948 - 1951	26710
E	146m W	Garage	1953 - 1963	25431
E	148m W	Garage	1984	21085



ID	Location	Land use	Dates present	Group ID
E	154m W	Garage	1953 - 1967	26523
2	166m SW	Garage	1988 - 1995	25375
E	175m W	Garage	1953 - 1967	26994
E	175m W	Garage	1953 - 1963	27557
E	211m W	Garage	1965 - 1967	25022
E	220m W	Garage	1953	20729
E	221m W	Garage	1953 - 1963	25549
M	235m SW	Garage	1953 - 1984	27263
M	237m SW	Garage	1953 - 1988	27234
M	237m SW	Garage	1995	22436
G	261m E	Garage	1951	20321
M	266m SW	Garage	1965 - 1967	24701
M	266m SW	Garage	1953	26539
M	266m SW	Garage	1963	22668
M	267m SW	Garage	1995	21222
M	267m SW	Garage	1988	23595
O	271m SE	Garage	1967	22827
O	272m SE	Garage	1963	21004
O	272m SE	Garage	1965	23113
H	280m S	Garage	1951	20319
N	281m SE	Garage	1951	20322
6	342m S	Garage	1948	24546
R	351m SE	Garage	1951	20323
T	352m W	Garage	1995	22760
U	360m S	Garage	1971	23646
U	360m S	Garage	1971 - 1990	25753
R	372m SE	Garage	1963	22256
R	373m SE	Garage	1965	21074



ID	Location	Land use	Dates present	Group ID
W	376m NW	Garage	1984	22671
W	380m NW	Garage	1993 - 1994	27751
W	381m NW	Garage	1989	21025
W	381m NW	Garage	1970	21146
T	389m NW	Garage	1984	23099
T	391m NW	Garage	1953 - 1988	24669
Y	393m S	Garage	1990	22515
8	396m SW	Garage	1971	27030
X	397m NW	Garage	1989	23881
U	398m S	Garage	1971	26371
U	399m S	Garage	1953	23454
U	399m S	Garage	1965	21679
X	399m NW	Garage	1993 - 1994	25631
U	399m S	Service Garage	1948	20587
U	399m S	Garage	1960	23455
U	400m S	Garage	1990	23312
Y	411m S	Garage	1971	27725
Y	413m S	Garage	1996	22785
Z	416m N	Garage	1984	23898
Z	416m N	Garage	1958	25337
Z	416m N	Garage	1964 - 1989	26144
AA	417m W	Garage	1995	23135
AA	417m W	Garage	1963 - 1988	26869
Z	418m N	Garage	1993 - 1994	24556
U	433m SW	Garage	1971	27039
10	455m NE	Garage	1960	20324
AB	490m SE	Corporation Cleansing Department Garage	1948 - 1955	25856
AB	491m SE	Corporation Cleansing Department Garage	1948	21128



ID	Location	Land use	Dates present	Group ID
AB	491m SE	Garage	1965 - 1967	27438

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m

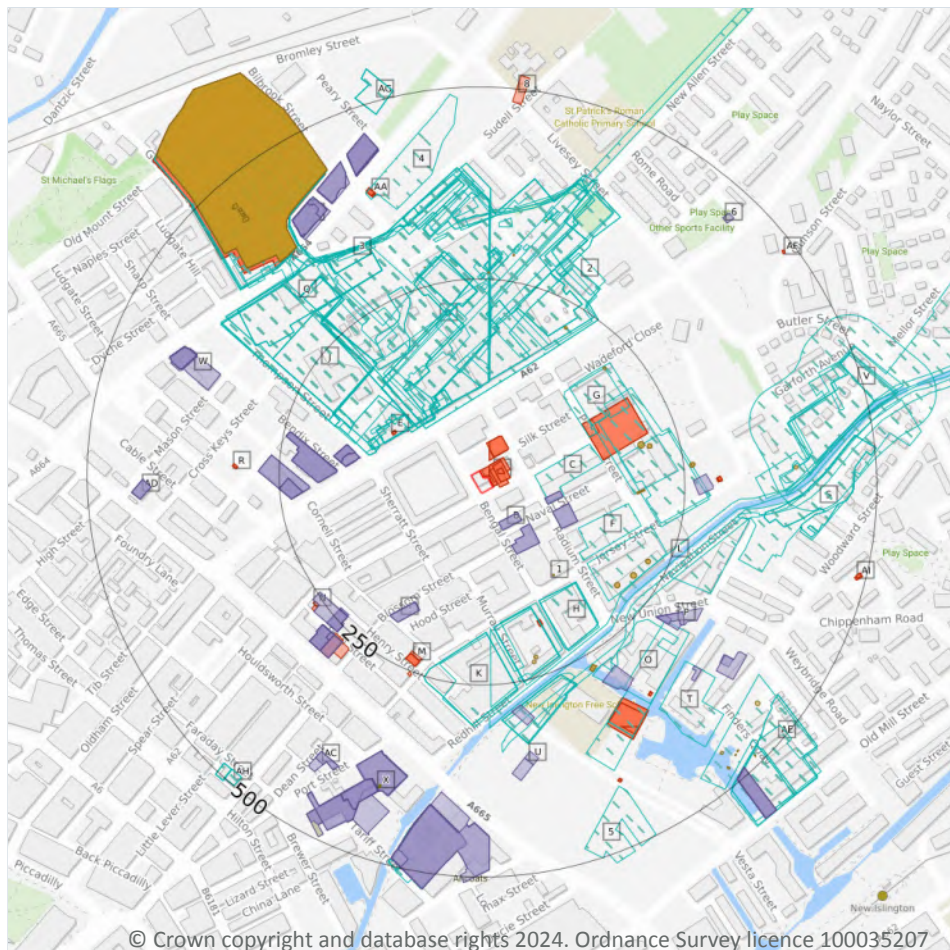
0

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 petrol stations
- Historical garages

2.1 Historical industrial land uses

Records within 500m

171

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 28](#) >

ID	Location	Land Use	Date	Group ID
C	57m E	Unspecified Depot	1968	818420
D	83m NW	Railway Sidings	1891	952502
D	83m NW	Unspecified Commercial/Industrial	1891	848669



ID	Location	Land Use	Date	Group ID
D	88m NW	Railway Sidings	1923	960473
D	88m NW	Unspecified Commercial/Industrial	1923	911009
D	90m NW	Railway Sidings	1938	960473
D	90m NW	Railway Sidings	1933	960473
D	90m NW	Railway Sidings	1921	960473
D	90m NW	Unspecified Commercial/Industrial	1921	945036
D	90m NW	Railway Sidings	1906	960473
D	90m NW	Unspecified Commercial/Industrial	1906	945036
D	90m NW	Railway Building	1938	991355
D	94m NW	Railway Building	1956	965368
D	94m NW	Railway Sidings	1956	988070
D	94m NW	Railway Building	1971	887537
D	94m NW	Railway Building	1956	887537
D	94m NW	Railway Building	1978	873626
D	95m NW	Railway Building	1971	847949
D	95m NW	Railway Building	1978	862044
D	95m NW	Railway Building	1985	948508
D	95m NW	Unspecified Depot	1985	818411
D	96m NW	Railway Sidings	1971	893733
D	96m NW	Railway Sidings	1978	962506
E	99m NW	Railway Building	1971	924812
E	99m NW	Railway Building	1956	924812
E	99m NW	Railway Building	1978	952803
E	99m NW	Railway Building	1985	967480
D	102m NW	Railway Station	1851	822944
D	118m N	Railway Sidings	1956	988070
D	118m N	Unspecified Commercial/Industrial	1956	939440
D	118m N	Railway Sidings	1968	844444



ID	Location	Land Use	Date	Group ID
F	124m SE	Unspecified Works	1968	830454
E	125m W	Railway Building	1971	992000
E	125m W	Railway Building	1956	940179
E	125m W	Railway Building	1978	962352
E	125m W	Railway Building	1985	985358
E	127m W	Railway Building	1938	940179
D	130m N	Railway Sidings	1985	962506
E	132m NW	Railway Building	1956	937629
D	140m NW	Railway Building	1985	966505
G	140m NE	Unspecified Mill	1923	810299
G	152m NE	Unspecified Works	1968	848216
D	157m N	Police Station	1851	832595
F	158m SE	Glass Works	1851	797986
H	158m SE	Unspecified Mills	1921	849304
H	158m SE	Unspecified Mills	1938	900155
H	158m SE	Unspecified Mills	1933	900155
H	159m SE	Unspecified Works	1968	830441
G	161m NE	Unspecified Works	1985	849231
H	161m S	Unspecified Mill	1921	958771
H	161m S	Unspecified Mill	1938	910742
H	161m S	Unspecified Mill	1933	910742
H	162m SE	Unspecified Mills	1923	957445
H	163m S	Unspecified Mill	1923	960726
J	167m NW	Goods Station	1971	907126
J	167m NW	Goods Station	1956	907126
J	167m NW	Goods Station	1978	910356
J	167m NW	Railway Building	1985	820394
E	167m W	Railway Building	1938	820395



ID	Location	Land Use	Date	Group ID
G	170m E	Unspecified Works	1991	974737
D	176m N	Railway Building	1985	987455
D	180m NW	Fire Station	1988	925390
D	180m NW	Fire Station	1994	925390
K	182m S	Unspecified Mills	1921	878606
K	182m S	Unspecified Mills	1938	900882
K	182m S	Unspecified Mills	1933	900882
D	184m NW	Railway Sidings	1851	929380
K	185m S	Unspecified Mills	1923	954294
J	185m NW	Goods Station	1938	948848
J	185m NW	Goods Station	1933	948848
J	187m NW	Goods Shed	1923	856754
D	187m NE	Potato Shed	1968	802280
J	187m NW	Goods Shed	1921	856754
D	192m N	Railway Sidings	1978	962506
D	207m N	Goods Station	1906	821663
D	207m N	Goods Shed	1938	923020
D	207m N	Goods Shed	1933	923020
D	207m N	Goods Shed	1923	923020
D	210m NW	Railway Building	1851	936143
D	211m N	Goods Shed	1921	912383
L	217m SE	Disused Canal	1985	2367192
D	219m N	Railway Building	1971	991623
D	219m N	Railway Building	1956	991623
D	219m N	Railway Building	1978	886595
D	219m N	Railway Building	1985	851516
D	237m N	Railway Building	1923	820429
L	238m SE	Disused Canal	1991	849130



ID	Location	Land Use	Date	Group ID
D	241m N	Railway Buildings	1891	833665
D	249m N	Railway Building	1923	862543
D	252m N	Railway Building	1938	946193
O	257m SE	Unspecified Works	1968	830440
H	257m S	Sawmill	1921	903562
H	257m S	Sawmill	1938	905698
H	257m S	Sawmill	1933	905698
H	258m SE	Unspecified Mill	1968	810293
L	259m SE	Unspecified Works	1968	830462
D	260m N	Goods Station	1923	821664
D	261m N	Good Station	1921	797870
D	261m N	Railway Building	1938	894084
D	261m N	Railway Building	1933	894084
H	262m S	Sawmill	1923	932999
D	265m N	Railway Building	1956	894084
D	265m N	Railway Building	1968	894084
2	271m NE	Glass Works	1851	797985
D	284m N	Unspecified Works	1968	830453
O	284m SE	Coal Wharf	1851	794093
D	287m N	Railway Building	1923	990168
Q	289m NW	Railway Building	1971	893090
Q	289m NW	Railway Building	1978	863970
Q	289m NW	Railway Building	1985	964524
D	291m N	Railway Building	1938	969824
D	293m N	Railway Building	1891	820426
D	304m N	Railway Building	1923	820428
D	310m N	Railway Building	1923	925478
D	314m N	Railway Building	1923	844951



ID	Location	Land Use	Date	Group ID
D	318m N	Railway Building	1956	952415
D	319m N	Railway Building	1956	820427
3	321m NW	Railway Building	1938	820396
S	322m E	Sawmills	1923	938961
D	325m N	Railway Buildings	1971	890026
D	325m N	Railway Buildings	1978	904671
D	325m N	Railway Buildings	1985	976778
D	325m N	Railway Building	1971	978761
D	325m N	Railway Building	1978	856971
D	330m N	Railway Building	1956	820415
D	334m N	Railway Building	1923	965489
D	337m N	Railway Building	1938	927513
T	338m SE	Unspecified Works	1968	830474
O	339m SE	Unspecified Mill	1968	810292
D	339m N	Railway Building	1956	879339
D	340m N	Railway Building	1891	853512
V	342m E	Unspecified Commercial/Industrial	1956	886609
V	343m E	Unspecified Commercial/Industrial	1938	925844
S	355m E	Sawmills	1921	964387
S	355m E	Sawmills	1938	910990
S	355m E	Sawmills	1933	910990
4	357m N	Bus Depot	1978	832317
Y	369m NW	Unspecified Commercial/Industrial	1891	900580
Y	369m NW	Unspecified Commercial/Industrial	1938	855454
Y	369m NW	Unspecified Commercial/Industrial	1933	855454
Y	370m NW	Unspecified Commercial/Industrial	1923	852600
Y	371m NW	Unspecified Commercial/Industrial	1921	899114
Y	372m NW	Unspecified Commercial/Industrial	1956	893063



ID	Location	Land Use	Date	Group ID
Y	373m NW	Railway Sidings	1956	990431
V	373m E	Unspecified Mills	1921	864010
V	374m E	Unspecified Mills	1923	864010
D	375m N	Railway Building	1956	820414
V	394m E	Unspecified Commercial/Industrial	1933	990780
V	401m E	Unspecified Works	1968	830463
5	421m SE	Unspecified Mill	1968	810291
AE	424m SE	Glass Works	1923	903107
AB	430m S	Sawmill	1921	895554
AB	430m S	Sawmill	1938	936555
AB	430m S	Sawmill	1933	936555
AB	433m S	Sawmills	1923	813168
Y	433m NW	Unspecified Depot	1988	943169
Y	433m NW	Unspecified Depot	1994	943169
AE	459m SE	Glass Works	1921	903107
AE	459m SE	Unspecified Commercial/Industrial	1933	796758
AE	478m SE	Unspecified Works	1968	830476
V	480m E	Unspecified Mill	1968	810298
AE	480m SE	Bedstead and Safe Works	1921	988994
AE	481m SE	Bedstead and Safe Works	1923	988994
AG	484m N	Police Station	1988	944528
AG	484m N	Police Station	1985	944528
AG	484m N	Police Station	1994	944528
AH	485m SW	Police Station	1988	882735
AH	485m SW	Police Station	1994	882735
AH	486m SW	Police Station	1971	967676
AH	486m SW	Police Station	1978	984168
AH	486m SW	Police Station	1985	882735

This data is sourced from Ordnance Survey / Groundsure.



2.2 Historical tanks

Records within 500m

51

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 28 >](#)

ID	Location	Land Use	Date	Group ID
1	138m SE	Unspecified Tank	1891	115972
G	187m E	Tanks	1951	132646
G	188m E	Tanks	1951	132646
G	197m E	Unspecified Tank	1893	124226
G	197m E	Unspecified Tank	1908	124226
F	203m SE	Unspecified Tank	1893	128641
F	203m SE	Unspecified Tank	1908	128641
G	206m NE	Unspecified Tank	1908	115994
G	208m E	Unspecified Tank	1893	145581
G	208m E	Unspecified Tank	1908	145581
F	213m SE	Unspecified Tank	1893	132899
F	213m SE	Unspecified Tank	1908	132899
D	216m NE	Unspecified Tank	1996	124477
D	216m NE	Unspecified Tank	1993	124477
F	221m SE	Unspecified Tank	1893	148194
F	221m SE	Unspecified Tank	1908	148194
H	222m S	Unspecified Tank	1965	115971
H	228m S	Unspecified Tank	1908	115970
D	257m N	Unspecified Tank	1908	116003
G	258m E	Unspecified Tank	1893	137832
G	260m E	Unspecified Tank	1891	137832
O	265m SE	Unspecified Tank	1948	133167
O	266m SE	Unspecified Tank	1948	133167



ID	Location	Land Use	Date	Group ID
D	274m N	Unspecified Tank	1891	116004
D	283m N	Unspecified Tank	1891	116001
D	337m N	Unspecified Tank	1891	116002
Y	372m NW	Gas Works	1952	147458
Y	372m NW	Gas Works	1949	147458
Y	373m NW	Gas Works	1952	147458
Y	373m NW	Gas Works	1949	147458
S	393m E	Unspecified Tank	1893	115995
X	402m S	Unspecified Tank	1953	148454
X	402m S	Unspecified Tank	1965	148454
X	402m S	Unspecified Tank	1953	148454
X	403m S	Unspecified Tank	1960	148454
Y	442m NW	Tanks	1952	125888
AE	442m SE	Unspecified Tank	1893	115976
Y	442m NW	Tanks	1949	125888
Y	449m NW	Tanks	1952	141887
Y	449m NW	Tanks	1949	141887
Y	450m NW	Tanks	1952	124911
Y	450m NW	Tanks	1949	124911
AE	455m SE	Unspecified Tank	1891	115979
Y	456m NW	Tanks	1952	127628
Y	456m NW	Tanks	1949	127628
Y	464m NW	Tanks	1952	139306
Y	464m NW	Tanks	1949	139306
AE	468m SE	Unspecified Tank	1891	115975
AE	470m SE	Unspecified Tank	1891	115980
AE	475m SE	Tanks	1891	106805
AE	487m SE	Tanks	1891	106804

This data is sourced from Ordnance Survey / Groundsure.



2.3 Historical energy features

Records within 500m

98

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 28 >](#)

ID	Location	Land Use	Date	Group ID
A	On site	Electricity Substation	1987	69737
A	0m N	Electricity Substation	1995	77530
A	0m N	Electricity Substation	1988	69737
A	2m NE	Electricity Substation	1984	69737
A	2m E	Electricity Substation	1951	69737
A	2m E	Electricity Substation	1948	69737
A	3m NE	Electricity Substation	1994	77530
A	7m NE	Electricity Substation	1908	64523
A	7m NE	Electricity Substation	1922	64523
A	12m E	Electricity Substation	1948	64523
A	12m E	Electricity Substation	1951	64523
A	15m NE	Electricity Substation	1978	81137
A	15m NE	Electricity Substation	1983	68145
A	15m NE	Electricity Substation	1991	84212
A	19m N	Electricity Substation	1951	68562
A	19m N	Electricity Substation	1948	82960
A	26m NE	Electricity Substation	1948	82960
A	26m NE	Electricity Substation	1951	68562
A	27m NE	Electricity Substation	1967	85080
A	31m N	Electricity Substation	1953	68562
E	112m NW	Electricity Substation	1995	66419
E	112m NW	Electricity Substation	1988	66419
G	141m NE	Gas Maintenance Department	1908	75842



ID	Location	Land Use	Date	Group ID
G	141m NE	Gas Maintenance Department	1922	75842
G	142m NE	Gas Maintenance Department	1893	71565
H	181m SE	Electricity Substation	1983	67631
H	181m SE	Electricity Substation	1991	67631
H	182m SE	Electricity Substation	1987	67631
H	183m SE	Electricity Substation	1994	67631
M	225m S	Electricity Substation	1984	66129
M	228m SW	Electricity Substation	1953	76304
M	228m SW	Electricity Substation	1953	76304
M	229m SW	Electricity Substation	1988	66129
M	229m SW	Electricity Substation	1995	66129
M	251m S	Electricity Substation	1953	62191
N	256m SW	Electricity Substation	1988	62189
N	260m SW	Electricity Substation	1995	62190
N	263m SW	Electricity Substation	1984	66121
N	266m SW	Electricity Substation	1953	66121
N	266m SW	Electricity Substation	1953	66121
N	266m SW	Electricity Substation	1988	73444
N	266m SW	Electricity Substation	1995	73444
N	266m SW	Electricity Substation	1953	79102
G	291m E	Electricity Substation	1978	76474
G	291m E	Electricity Substation	1983	76474
G	291m E	Electricity Substation	1991	76474
G	292m E	Electricity Substation	1994	76474
G	292m E	Electricity Substation	1987	76474
G	293m E	Electricity Substation	1967	76474
R	304m W	Electricity Substation	1995	79779
R	305m W	Electricity Substation	1988	79779



ID	Location	Land Use	Date	Group ID
R	305m W	Electricity Substation	1984	79779
O	322m SE	Corporation Hydraulic Power Station	1948	66629
O	322m SE	Corporation Hydraulic Power Station	1951	66629
O	322m SE	Hydraulic Power Station	1951	65750
O	322m SE	Hydraulic Power Station	1948	65750
O	327m SE	Hydraulic Power Station	1908	72594
O	327m SE	Hydraulic Power Station	1922	72594
O	327m SE	Hydraulic Power Station	1931	72594
O	336m SE	Electricity Substation	1978	70177
O	336m SE	Electricity Substation	1983	70177
O	336m SE	Electricity Substation	1991	70177
O	336m SE	Electricity Substation	1987	64729
O	337m SE	Electricity Substation	1994	70177
O	354m SE	Hydraulic Power Station	1955	84311
O	354m SE	Hydraulic Power Station	1948	84311
Y	370m NW	Corporation Gas Works	1891	81629
Y	370m NW	Gas Work	1893	64181
Y	370m NW	Gas Work	1908	64181
Y	370m NW	Gas Work	1922	64181
Y	372m NW	Gas Works	1952	78529
Y	372m NW	Gas Works	1949	78529
Y	373m NW	Gas Works	1952	78529
Y	373m NW	Gas Works	1949	78529
AA	382m N	Electricity Substation	1984	64598
AA	383m N	Electricity Substation	1989	64598
AA	383m N	Electricity Substation	1952	64598
AA	384m N	Electricity Substation	1994	64598
AA	384m N	Electricity Substation	1993	64598



ID	Location	Land Use	Date	Group ID
AA	385m N	Electricity Substation	1952	78153
O	412m SE	Electricity Substation	1997	64799
O	413m SE	Electricity Substation	1989	64799
O	413m SE	Electricity Substation	1988	64799
O	413m SE	Electricity Substation	1991	64799
O	413m SE	Electricity Substation	1992	64799
7	479m NW	Corporation Gas Works	1891	81629
8	480m N	Electricity Substation	1996	62195
AF	483m NE	Electricity Substation	1996	64242
AF	483m NE	Electricity Substation	1993	64242
AI	485m E	Electricity Substation	1987	78295
AI	486m E	Electricity Substation	1994	68754
AI	487m E	Electricity Substation	1978	64036
AI	487m E	Electricity Substation	1983	64036
AI	487m E	Electricity Substation	1991	64036
Y	494m NW	Electricity Substation	1984	67824
Y	495m NW	Electricity Substation	1989	84672
Y	495m NW	Electricity Substation	1994	84672
Y	495m NW	Electricity Substation	1993	84672

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m

1

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'.

Features are displayed on the Past land use - un-grouped map on [page 28 >](#)

ID	Location	Land Use	Date	Group ID
X	399m S	Service Garage	1948	1532



This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m	103
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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 28](#) >

ID	Location	Land Use	Date	Group ID
B	44m S	Garages	1948	26623
B	44m S	Garages	1951	26623
B	65m SE	Garages	1948	25993
B	65m SE	Garages	1951	25993
C	69m E	Garage	1948	27876
C	69m E	Garage	1951	27876
C	84m SE	Garage	1948	26710
C	84m SE	Garage	1951	26710
E	146m W	Garage	1963	25431
E	146m W	Garage	1953	25431
E	148m W	Garage	1984	21085
E	154m W	Garage	1953	26523
E	154m W	Garage	1965	26523
E	154m W	Garage	1967	26523
I	166m SW	Garage	1988	25375
I	167m SW	Garage	1995	25375
E	175m W	Garage	1953	26994
E	175m W	Garage	1965	26994
E	175m W	Garage	1967	26994
E	175m W	Garage	1963	27557
E	175m W	Garage	1953	27557



ID	Location	Land Use	Date	Group ID
E	211m W	Garage	1965	25022
E	211m W	Garage	1967	25022
E	220m W	Garage	1953	20729
E	221m W	Garage	1963	25549
E	221m W	Garage	1953	25549
N	235m SW	Garage	1984	27263
N	237m SW	Garage	1953	27263
N	237m SW	Garage	1965	27263
N	237m SW	Garage	1967	27263
N	237m SW	Garage	1988	27234
N	237m SW	Garage	1963	27234
N	237m SW	Garage	1953	27234
N	237m SW	Garage	1995	22436
G	261m E	Garage	1951	20321
N	266m SW	Garage	1965	24701
N	266m SW	Garage	1967	24701
N	266m SW	Garage	1953	26539
N	266m SW	Garage	1953	26539
N	266m SW	Garage	1963	22668
N	267m SW	Garage	1995	21222
N	267m SW	Garage	1988	23595
P	271m SE	Garage	1967	22827
P	272m SE	Garage	1963	21004
P	272m SE	Garage	1965	23113
H	280m S	Garage	1951	20319
O	281m SE	Garage	1951	20322
U	342m S	Garage	1948	24546
U	349m S	Garage	1948	24546



ID	Location	Land Use	Date	Group ID
T	351m SE	Garage	1951	20323
W	352m W	Garage	1995	22760
X	360m S	Garage	1971	23646
X	360m S	Garage	1971	25753
X	361m S	Garage	1990	25753
T	372m SE	Garage	1963	22256
T	373m SE	Garage	1965	21074
Z	376m NW	Garage	1984	22671
Z	380m NW	Garage	1994	27751
Z	380m NW	Garage	1993	27751
Z	381m NW	Garage	1989	21025
Z	381m NW	Garage	1970	21146
W	389m NW	Garage	1984	23099
W	391m NW	Garage	1953	24669
W	391m NW	Garage	1965	24669
W	391m NW	Garage	1967	24669
W	391m NW	Garage	1988	24669
W	391m NW	Garage	1963	24669
W	391m NW	Garage	1953	24669
AB	393m S	Garage	1990	22515
AC	396m SW	Garage	1971	27030
AC	396m SW	Garage	1971	27030
AA	397m NW	Garage	1989	23881
X	398m S	Garage	1971	26371
X	399m S	Garage	1953	23454
X	399m S	Garage	1965	21679
X	399m S	Garage	1971	26371
AA	399m NW	Garage	1994	25631

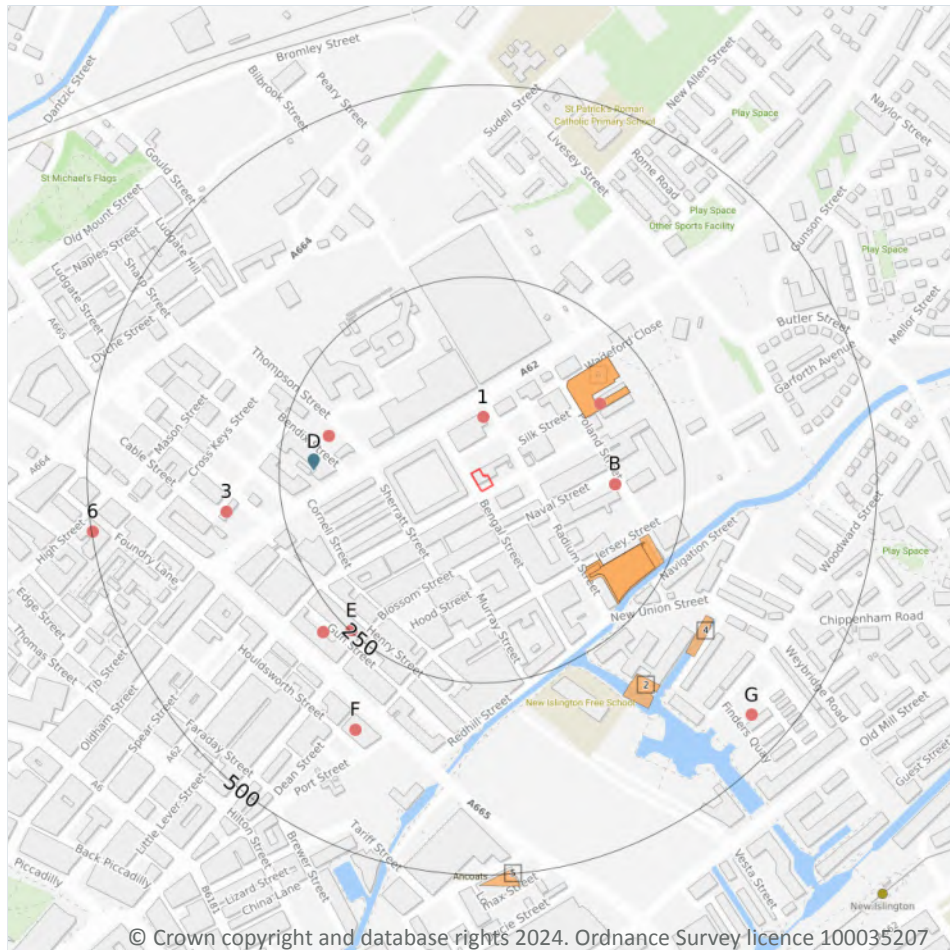


ID	Location	Land Use	Date	Group ID
AA	399m NW	Garage	1993	25631
X	399m S	Garage	1960	23455
X	399m S	Service Garage	1948	20587
X	400m S	Garage	1990	23312
AB	411m S	Garage	1971	27725
AB	412m S	Garage	1971	27725
AB	413m S	Garage	1996	22785
AA	416m N	Garage	1984	23898
AA	416m N	Garage	1958	25337
AA	416m N	Garage	1958	25337
AA	416m N	Garage	1989	26144
AA	416m N	Garage	1970	26144
AD	417m W	Garage	1995	23135
AA	417m N	Garage	1964	26144
AD	417m W	Garage	1988	26869
AD	417m W	Garage	1963	26869
AA	418m N	Garage	1994	24556
AA	418m N	Garage	1993	24556
X	433m SW	Garage	1971	27039
X	434m SW	Garage	1971	27039
6	455m NE	Garage	1960	20324
AE	490m SE	Corporation Cleansing Department Garage	1955	25856
AE	490m SE	Corporation Cleansing Department Garage	1948	25856
AE	491m SE	Garage	1965	27438
AE	491m SE	Garage	1967	27438
AE	491m SE	Corporation Cleansing Department Garage	1948	21128

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill



- Site Outline
- Search buffers in metres (m)
- Historical waste sites
- Licensed waste sites
- 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**10**

Waste site records derived from Local Authority planning records and high detail historical mapping.

Features are displayed on the Waste and landfill map on [page 45 >](#)

ID	Location	Address	Further Details	Date
A	147m NE	Site Address: N/A	Type of Site: Scrap Metal Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1967
A	147m NE	Site Address: N/A	Type of Site: Scrap Metal Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1967
C	161m SE	Site Address: N/A	Type of Site: Waste Paper Factory Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1951



ID	Location	Address	Further Details	Date
C	161m SE	Site Address: N/A	Type of Site: Waste Paper Factory Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1948
C	163m SE	Site Address: N/A	Type of Site: Waste Paper Factory Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1931
C	171m SE	Site Address: N/A	Type of Site: Waste Paper Factory Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1948
C	171m SE	Site Address: N/A	Type of Site: Waste Paper Factory Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1951
2	309m SE	Site Address: N/A	Type of Site: Scrap Metal Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1967
4	325m SE	Site Address: N/A	Type of Site: Scrap Metal Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1967
5	494m S	Site Address: N/A	Type of Site: Waste Paper Mills Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1931

This data is sourced from Ordnance Survey/Groundsure and Local Authority records.



3.6 Licensed waste sites

Records within 500m

1

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

Features are displayed on the Waste and landfill map on [page 45 >](#)

ID	Location	Details		
D	205m W	Site Name: French Parts Uk Site Address: 35 - 39, Oldham Road, Manchester, Manchester, M4 5FG Correspondence Address: -	Type of Site: Metal Recycling Site (Vehicle Dismantler) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 642958 EPR reference: EA/EPR/TP3494CL Operator: Brendan J Kershaw & Winston Brown Waste Management licence No: 50328 Annual Tonnage: 0	Issue Date: 10/08/2004 Effective Date: 10/08/2004 Modified: - Surrendered Date: 10/08/2004 Expiry Date: - Cancelled Date: - Status: Surrendered

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

3.7 Waste exemptions

Records within 500m

67

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 45 >](#)

ID	Location	Site	Reference	Category	Sub-Category	Description
1	67m N	110 Oldham Road MANCHESTER M4 6AG	EPR/WH0178G E/A001	Treating waste exemption	Non-Agricultural Waste Only	Manual treatment of waste
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Disposing of waste exemption	Non-Agricultural Waste Only	Deposit of waste from dredging of inland waters
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Disposing of waste exemption	Non-Agricultural Waste Only	Deposit of waste from a railway sanitary convenience



ID	Location	Site	Reference	Category	Sub-Category	Description
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Disposing of waste exemption	Non-Agricultural Waste Only	Deposit of waste from a portable sanitary convenience
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Disposing of waste exemption	Non-Agricultural Waste Only	Burning waste at a port under a Plant Health notice
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in secure containers
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of sludge
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Treating waste exemption	Non-Agricultural Waste Only	Cleaning, washing, spraying or coating relevant waste
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Treating waste exemption	Non-Agricultural Waste Only	Treatment of waste toner cartridges by sorting, dismantling, cleaning or refilling
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Treating waste exemption	Non-Agricultural Waste Only	Crushing waste fluorescent tubes
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Treating waste exemption	Non-Agricultural Waste Only	Dewatering using flocculants
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Treating waste exemption	Non-Agricultural Waste Only	Recovery of textiles



ID	Location	Site	Reference	Category	Sub-Category	Description
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Treating waste exemption	Non-Agricultural Waste Only	Treatment of waste at a water treatment works
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Treating waste exemption	Non-Agricultural Waste Only	Recovery of waste at a waste water treatment works
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Treating waste exemption	Non-Agricultural Waste Only	Aerobic composting and associated prior treatment
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Treating waste exemption	Non-Agricultural Waste Only	Anaerobic digestion at premises not used for agriculture and burning of resultant biogas
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Treating waste exemption	Non-Agricultural Waste Only	Sorting and de-naturing of controlled drugs for disposal
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Treating waste exemption	Non-Agricultural Waste Only	Recovery of silver
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Treating waste exemption	Non-Agricultural Waste Only	Recovery of monopropylene glycol from aircraft antifreeze fluids
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Treating waste exemption	Non-Agricultural Waste Only	Recovery of central heating oil by filtration
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Treating waste exemption	Non-Agricultural Waste Only	Preparatory treatments (baling, sorting, shredding etc)
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Treating waste exemption	Non-Agricultural Waste Only	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising



ID	Location	Site	Reference	Category	Sub-Category	Description
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Treating waste exemption	Non-Agricultural Waste Only	Mechanical treatment of end-of-life tyres
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Using waste exemption	Non-Agricultural Waste Only	Use of waste in construction
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Using waste exemption	Non-Agricultural Waste Only	Spreading waste on non-agricultural land to confer benefit
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Using waste exemption	Non-Agricultural Waste Only	Spreading of plant matter to confer benefit
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Using waste exemption	Non-Agricultural Waste Only	Incorporation of ash into soil
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Using waste exemption	Non-Agricultural Waste Only	Use of baled end-of-life tyres in construction
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Using waste exemption	Non-Agricultural Waste Only	Use of waste in the construction of entertainment or educational installations etc
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Using waste exemption	Non-Agricultural Waste Only	Burning of waste as a fuel in a small appliance
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Using waste exemption	Non-Agricultural Waste Only	Use of waste derived biodiesel as fuel
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Using waste exemption	Non-Agricultural Waste Only	Use of sludge for the purposes of re-seeding a waste water treatment plant



ID	Location	Site	Reference	Category	Sub-Category	Description
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Using waste exemption	Non-Agricultural Waste Only	Use of effluent to clean a highway gravel bed
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Using waste exemption	Non-Agricultural Waste Only	Use of waste for a specified purpose
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Disposing of waste exemption	Non-Agricultural Waste Only	Depositing samples of waste for the purposes of testing or analysing them
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Disposing of waste exemption	Non-Agricultural Waste Only	Disposal by incineration
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Disposing of waste exemption	Non-Agricultural Waste Only	Burning waste in the open
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Treating waste exemption	Non-Agricultural Waste Only	Sorting mixed waste
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Treating waste exemption	Non-Agricultural Waste Only	Manual treatment of waste
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Treating waste exemption	Non-Agricultural Waste Only	Treatment of waste food
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Treating waste exemption	Non-Agricultural Waste Only	Crushing and emptying waste vehicle oil filters
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Treating waste exemption	Non-Agricultural Waste Only	Treatment of waste aerosol cans



ID	Location	Site	Reference	Category	Sub-Category	Description
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Treating waste exemption	Non-Agricultural Waste Only	Physical treatment of waste edible oil and fat to produce biodiesel
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Treating waste exemption	Non-Agricultural Waste Only	Anaerobic digestion at premises used for agriculture and burning of resultant biogas
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Treating waste exemption	Non-Agricultural Waste Only	Treatment of kitchen waste in a wormery
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Treating waste exemption	Non-Agricultural Waste Only	Treatment of non-hazardous pesticide washings by carbon filtration for disposal
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Treating waste exemption	Non-Agricultural Waste Only	Treatment of waste in a biobed or biofilter
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Treating waste exemption	Non-Agricultural Waste Only	Screening and blending of waste
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Treating waste exemption	Non-Agricultural Waste Only	Recovery of scrap metal
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Using waste exemption	Non-Agricultural Waste Only	Spreading waste on agricultural land to confer benefit
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Using waste exemption	Non-Agricultural Waste Only	Use of mulch
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Using waste exemption	Non-Agricultural Waste Only	Use of depolluted end-of-life vehicles for vehicle parts

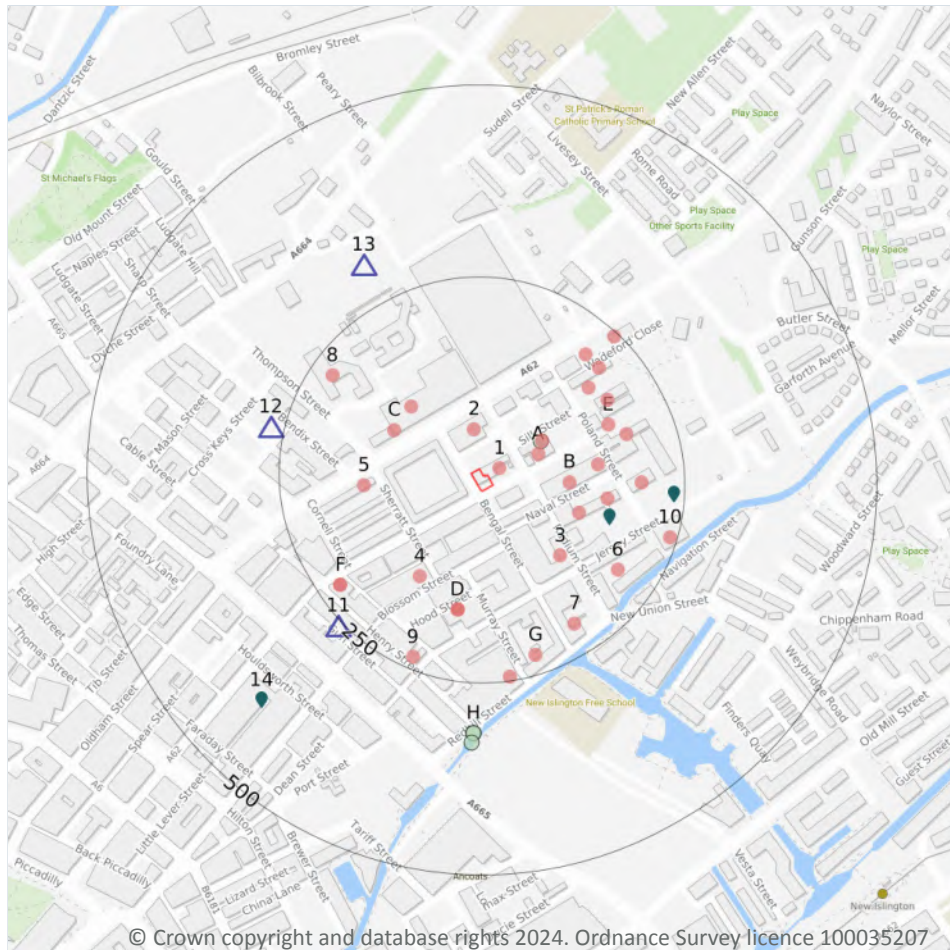


ID	Location	Site	Reference	Category	Sub-Category	Description
B	159m E	30a Poland Street M4 6BH	EPR/TE5580PZ /A001	Using waste exemption	Non-Agricultural Waste Only	Use of waste to manufacture finished goods
A	173m NE	30a Poland Street Ancoats Manchester M4 6BH	EA/EPR/VP374 0VW/A001	Treating waste exemption	Non-Agricultural Waste Only	Repair or refurbishment of WEEE
D	192m W	-	WEX280563	Using waste exemption	Not on a farm	Use of waste in construction
D	192m W	-	WEX280563	Treating waste exemption	Not on a farm	Screening and blending of waste
E	249m SW	11-13 Blossom Street, Blossom Street, Manchester, M4 5AF	WEX105958	Using waste exemption	Not on a farm	Use of waste in construction
E	249m SW	11-13 Blossom Street, Blossom Street, Manchester, M4 5AF	WEX105958	Treating waste exemption	Not on a farm	Screening and blending of waste
E	277m SW	41-45, GREAT ANCOATS STREET, MANCHESTER, M4 5AE	WEX105955	Using waste exemption	Not on a farm	Use of waste in construction
E	277m SW	41-45, GREAT ANCOATS STREET, MANCHESTER, M4 5AE	WEX105955	Treating waste exemption	Not on a farm	Screening and blending of waste
3	323m W	-	WEX263516	Using waste exemption	Not on a farm	Use of waste in construction
F	353m SW	-	WEX007769	Using waste exemption	Not on a farm	Use of waste in construction
F	353m SW	-	WEX007769	Treating waste exemption	Not on a farm	Screening and blending of waste
G	451m SE	-	WEX243781	Using waste exemption	Not on a farm	Use of waste in construction
G	451m SE	-	WEX243781	Treating waste exemption	Not on a farm	Screening and blending of waste
6	499m W	Smithfield Ph 6 Goadsby Street Manchester M4 1EH	EPR/EE5250VR /A001	Using waste exemption	Non-Agricultural Waste Only	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)
- Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m

33

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on [page 55 >](#)

ID	Location	Company	Address	Activity	Category
1	18m NE	Electricity Sub Station	Greater Manchester, M4	Electrical Features	Infrastructure and Facilities
2	52m N	The Mustard Tree	110, Oldham Road, Manchester, Greater Manchester, M4 6AG	Clearance and Salvage Dealers	Recycling Services



ID	Location	Company	Address	Activity	Category
A	71m NE	Gel Clear	1 Roper Court 109, George Leigh Street, Manchester, Greater Manchester, M4 6GG	Cooling and Refrigeration	Industrial Products
A	84m NE	247 Locksmiths	82, Silk Street, Manchester, Greater Manchester, M4 6BJ	Vehicle Repair, Testing and Servicing	Repair and Servicing
B	100m E	Factories	Greater Manchester, M4	Unspecified Works Or Factories	Industrial Features
C	115m NW	Electricity Sub Station	Greater Manchester, M4	Electrical Features	Infrastructure and Facilities
C	117m NW	Wing Yip	Wing Yip Business Centre, Oldham Road, Manchester, Greater Manchester, M4 5FY	Catering and Non Specific Food Products	Foodstuffs
B	117m E	Works	Greater Manchester, M4	Unspecified Works Or Factories	Industrial Features
3	127m SE	National Coach Network Ltd	Beehive Mill, 95, Jersey Street, Manchester, Greater Manchester, M4 6JG	Vehicle Hire and Rental	Hire Services
4	137m SW	Seven Brothers Bars Ltd	39, Blossom Street, Manchester, Greater Manchester, M4 6AP	Alcoholic Drinks	Foodstuffs
B	140m E	D M Miller Ltd	106-108, George Leigh Street, Manchester, Greater Manchester, M4 6BD	Carpets, Flooring, Rugs and Soft Furnishings	Consumer Products
5	140m W	Compass Development UK Ltd	64a, Oldham Road, Manchester, Greater Manchester, M4 5EE	Distribution and Haulage	Transport, Storage and Delivery
B	151m E	Works	Greater Manchester, M4	Unspecified Works Or Factories	Industrial Features
D	158m S	Uhoo	Jactin House, 24, Hood Street, Manchester, Greater Manchester, M4 6WX	Radar and Telecommunications Equipment	Industrial Products
D	158m S	Dev Des I T	Jactin House, 24, Hood Street, Manchester, Greater Manchester, M4 6WX	Electronic Equipment	Industrial Products
D	158m S	M A Quality Foods	Jactin House, 24, Hood Street, Manchester, Greater Manchester, M4 6WX	Catering and Non Specific Food Products	Foodstuffs
E	169m NE	Poland Street Industrial Estate	Greater Manchester, M4	Business Parks and Industrial Estates	Industrial Features
E	174m NE	Crown Industrial Estate	Greater Manchester, M4	Business Parks and Industrial Estates	Industrial Features



ID	Location	Company	Address	Activity	Category
E	185m NE	Vanillis	Units 8 Crown Industrial Estate, Poland Street, Manchester, Greater Manchester, M4 6BN	Baking and Confectionery	Foodstuffs
E	186m E	House Ethnic Foods	Unit 10 Poland Street Industrial Estate, Poland Street, Manchester, Greater Manchester, M4 6AZ	Catering and Non Specific Food Products	Foodstuffs
B	194m E	Scan-stick Ltd	Unit 12 City Court Trading Estate, Poland Street, Manchester, Greater Manchester, M4 6AL	Published Goods	Industrial Products
6	196m SE	Flint Glass Wharf	Greater Manchester, M4	Moorings and Unloading Facilities	Water
E	202m NE	Hedleys Foil Emboss Ltd	Unit 1-3 Crown Industrial Estate, Poland Street, Manchester, Greater Manchester, M4 6BN	Stationery, Stamps, Tags and Labels	Industrial Products
E	202m NE	Ancoats Car Sales Ltd	184, Oldham Road, Manchester, Greater Manchester, M4 6BQ	Secondhand Vehicles	Motoring
7	209m SE	Chimney	Greater Manchester, M4	Chimneys	Industrial Features
F	220m SW	Sam Knitwear Ltd	24-28, George Leigh Street, Manchester, Greater Manchester, M4 5DQ	Clothing, Components and Accessories	Consumer Products
F	220m SW	Best Knitwear Ltd	24-28, George Leigh Street, Manchester, Greater Manchester, M4 5DQ	Textiles, Fabrics, Silk and Machinery	Industrial Products
8	221m NW	Manchester Central Fire Station	G M C Fire Service Fire Station, Thompson Street, Manchester, Greater Manchester, M4 5FP	Fire Brigade Stations	Central and Local Government
G	224m S	Chimney	Greater Manchester, M4	Chimneys	Industrial Features
9	235m S	Electricity Sub Station	Greater Manchester, M4	Electrical Features	Infrastructure and Facilities
10	240m E	Easy Equipment	66, Jersey Street, Manchester, Greater Manchester, M4 6JW	Food and Beverage Industry Machinery	Industrial Products
G	245m S	Refuel Global Brands	Unit 12 17, Redhill Street, Manchester, Greater Manchester, M4 5BA	Clothing, Components and Accessories	Consumer Products
E	245m NE	B & C Motorcycles	198-200, Oldham Road, Manchester, Greater Manchester, M4 6BQ	Vehicle Repair, Testing and Servicing	Repair and Servicing

This data is sourced from Ordnance Survey.



4.2 Current or recent petrol stations

Records within 500m**3**

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on [page 55 >](#)

ID	Location	Company	Address	LPG	Status
11	256m SW	OBSOLETE	27, Gun Street, Ancoats, Manchester, Greater Manchester, M4 5DN	Not Applicable	Obsolete
12	268m W	UNBRANDED	12, Rochdale Road, Bendix Street, Collyhurst, Manchester, Greater Manchester, M24 6DP	Not Applicable	Obsolete
13	306m NW	OBSOLETE	95-109, Rochdale Road, Manchester, Greater Manchester, M4 4HZ	Not Applicable	Obsolete

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	3
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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 55 >](#)

ID	Location	Address	Details	
B	157m E	Bill Howarth Metals, 109 Jersey Street, Ancoats M12 6BF	Process: Non-ferrous Metal Foundry Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
B	235m E	Presbar Diecastings Ltd, Rear 62-64 Jersey St, Ancoats M4 6JW	Process: Non-ferrous Metal Foundry Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
14	395m SW	Express Printers Manchester Ltd, Hery Street, Ancoats, M60 4HB	Process: Coating Processes Status: Historical Permit 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
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Records of the storage, use, accumulation and disposal of radioactive substances regulated under the Radioactive Substances Act 1993.

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

4.13 Licensed Discharges to controlled waters

Records within 500m	0
----------------------------	----------

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

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

4.14 Pollutant release to surface waters (Red List)

Records within 500m**0**

Discharges of specified substances under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991.

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

4.15 Pollutant release to public sewer

Records within 500m**0**

Discharges of Special Category Effluents to the public sewer.

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

4.16 List 1 Dangerous Substances

Records within 500m**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**4**

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 55 >](#)



ID	Location	Details	
A	82m NE	Incident Date: 12/07/2001 Incident Identification: 15967 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)
H	315m S	Incident Date: 17/05/2001 Incident Identification: 5825 Pollutant: Contaminated Water Pollutant Description: Other Contaminated Water	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
H	315m S	Incident Date: 17/05/2001 Incident Identification: 5825 Pollutant: Contaminated Water Pollutant Description: Other Contaminated Water	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
H	327m S	Incident Date: 22/05/2001 Incident Identification: 6328 Pollutant: Contaminated Water Pollutant Description: Other Contaminated Water	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

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
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The pollution inventory (waste transfers) includes reporting on annual transfers and recovery/disposal of controlled wastes from a site. A reporting threshold for each waste type is also included. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.



4.21 Pollution inventory radioactive waste

Records within 500m

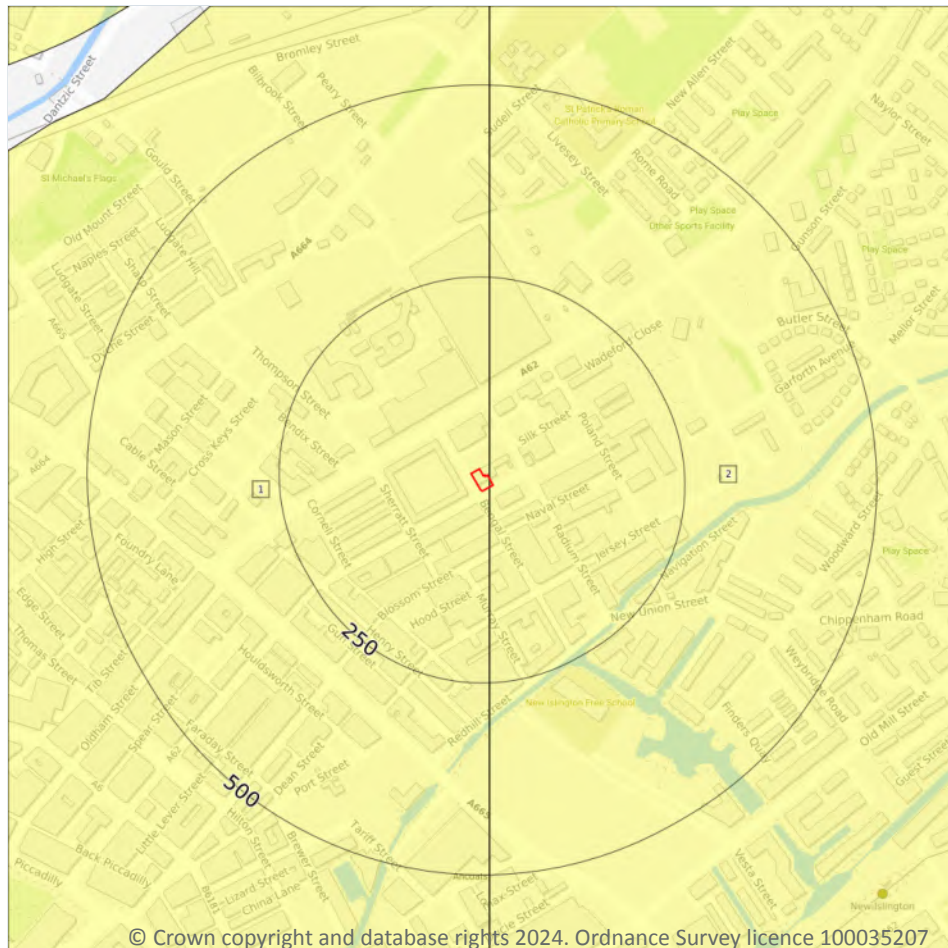
0

The pollution inventory (radioactive wastes) includes reporting on annual releases of radioactive substances from a site, including the means of release. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.



5 Hydrogeology - Superficial aquifer



- Site Outline**
- Search buffers in metres (m)
- Principal
 - Secondary A
 - Secondary B
 - Secondary Undifferentiated
 - Unproductive
 - Unknown

5.1 Superficial aquifer

Records within 500m

2

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on [page 64](#) >

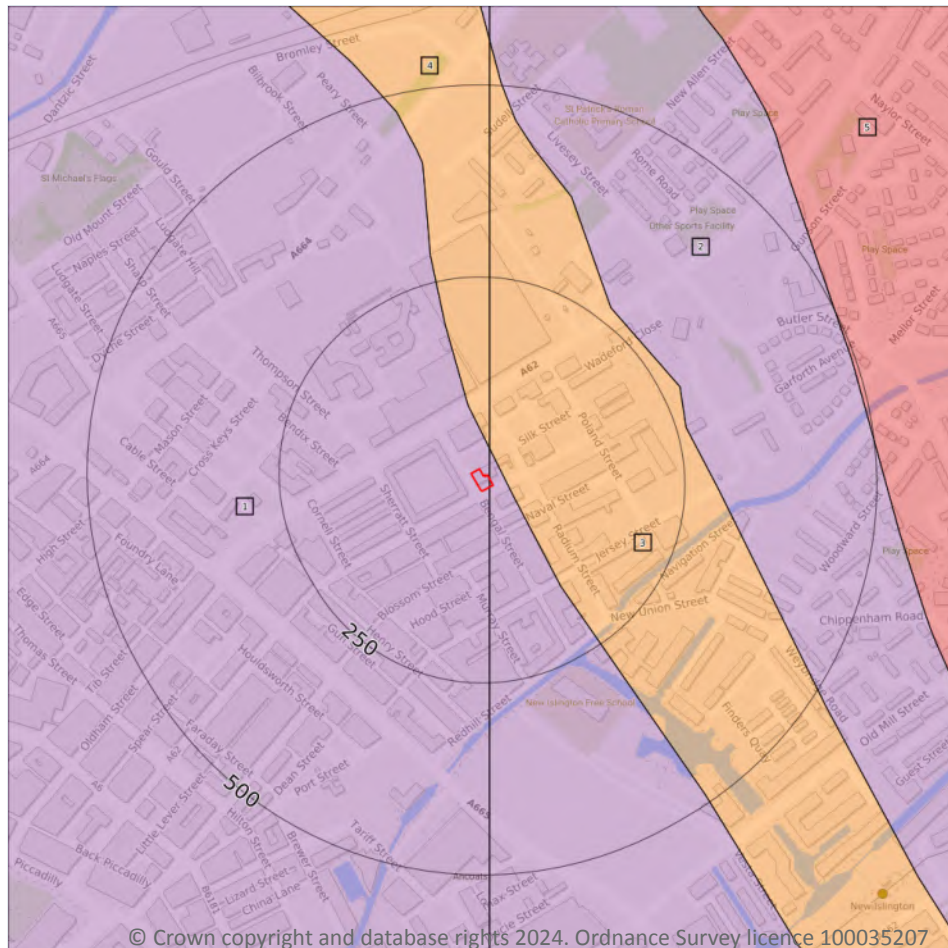
ID	Location	Designation	Description
1	On site	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
2	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

5

Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on [page 66](#) >

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	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

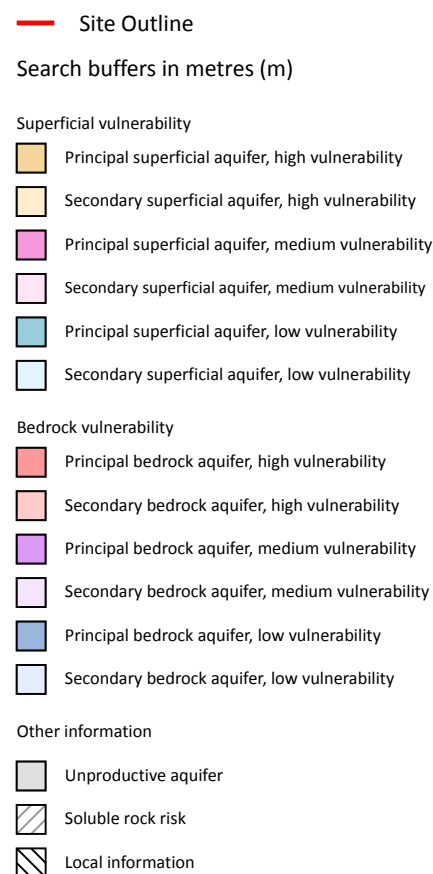
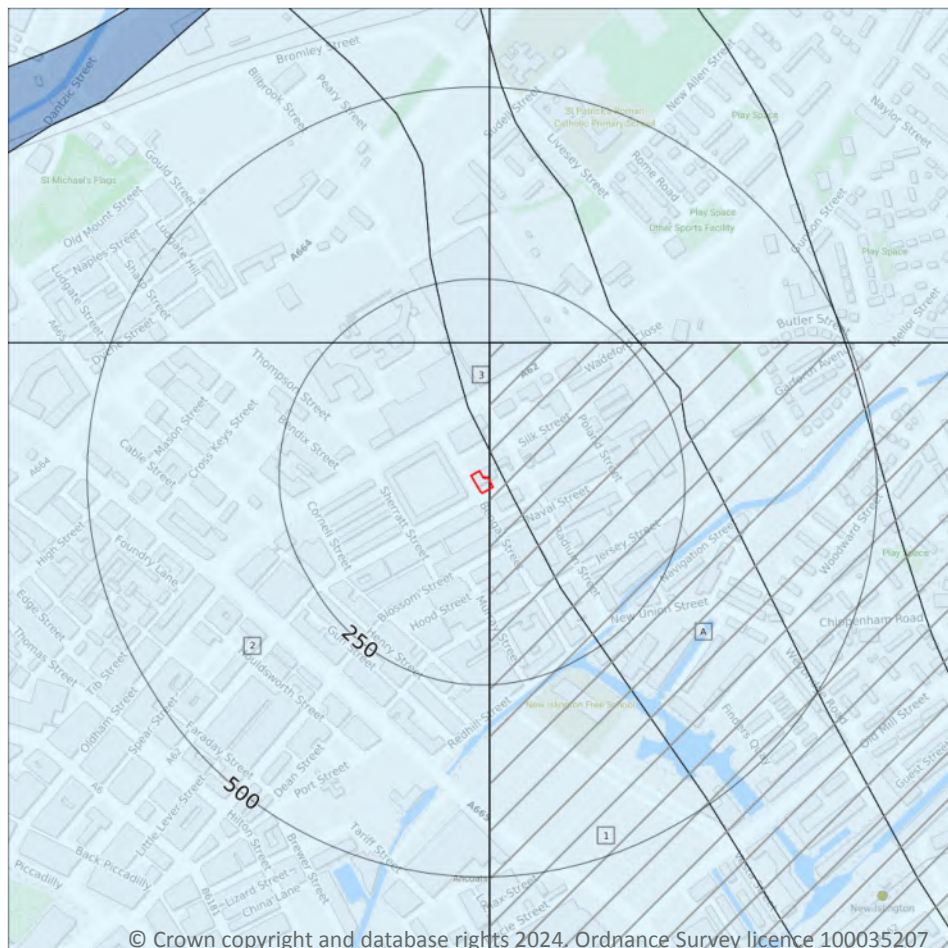


ID	Location	Designation	Description
3	18m E	Secondary B	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers
4	30m N	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
5	494m E	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

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



Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m

4

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 68](#) >



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: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Principal Flow mechanism: Well connected fractures
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: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Principal Flow mechanism: Well connected fractures
A	17m E	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: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Secondary Flow mechanism: Well connected fractures
3	29m N	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: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Secondary Flow mechanism: Well connected fractures

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

5.4 Groundwater vulnerability- soluble rock risk

Records on site

1

This dataset identifies areas where solution features that enable rapid movement of a pollutant may be present within a 1km grid square.

ID	Maximum soluble risk category	Percentage of grid square covered by maximum risk
A	Significant soluble rocks are likely to be present. Problems unlikely except with considerable surface or subsurface water flow.	2.0%

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

42

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 71](#) >



ID	Location	Details	
-	1199m SW	Status: Historical Licence No: 2569007069 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT GEORGE ST, MANCHESTER" Data Type: Point Name: BRITISH TELECOM Easting: 384100 Northing: 398000	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 27/01/1971 Expiry Date: - Issue No: 100 Version Start Date: 27/01/1971 Version End Date: -
-	1199m SW	Status: Historical Licence No: 2569007069 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT GEORGE ST, MANCHESTER Data Type: Point Name: BRITISH TELECOMMUNICATIONS PLC Easting: 384100 Northing: 398000	Annual Volume (m ³): 1100 Max Daily Volume (m ³): 860 Original Application No: - Original Start Date: 01/04/1984 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2007 Version End Date: -
-	1202m W	Status: Historical Licence No: 2569004023 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 1) AT PREMISES, STRANGWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -
-	1202m W	Status: Historical Licence No: 2569004023 Details: Process water Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 1) AT PREMISES, STRANGWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -



ID	Location	Details	
-	1202m W	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 1) AT PREMISES, STRANGWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1202m W	Status: Historical Licence No: 2569004023 Details: Process water Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 1) AT PREMISES, STRANGWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1202m W	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 1 AT PREMISES STRANGWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m ³): 500000 Max Daily Volume (m ³): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1202m W	Status: Historical Licence No: 2569004023 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 1 AT PREMISES STRANGWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m ³): 500000 Max Daily Volume (m ³): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -



ID	Location	Details	
-	1211m W	Status: Historical Licence No: 2569004023 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 3) AT PREMISES, STRANGWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -
-	1211m W	Status: Historical Licence No: 2569004023 Details: Process water Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 3) AT PREMISES, STRANGWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -
-	1211m W	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 3) AT PREMISES, STRANGWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1211m W	Status: Historical Licence No: 2569004023 Details: Process water Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 3) AT PREMISES, STRANGWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -



ID	Location	Details	
-	1211m W	Status: Historical Licence No: 2569004023 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 3 AT PREMISES STRANGWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m ³): 500000 Max Daily Volume (m ³): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1211m W	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 3 AT PREMISES STRANGWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m ³): 500000 Max Daily Volume (m ³): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1211m W	Status: Historical Licence No: 2569004023 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 2) AT PREMISES, STRANGWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -
-	1211m W	Status: Historical Licence No: 2569004023 Details: Process water Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 2) AT PREMISES, STRANGWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -



ID	Location	Details	
-	1211m W	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 2) AT PREMISES, STRANGWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1211m W	Status: Historical Licence No: 2569004023 Details: Process water Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 2) AT PREMISES, STRANGWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1211m W	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 2 AT PREMISES STRANGWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m ³): 500000 Max Daily Volume (m ³): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1211m W	Status: Historical Licence No: 2569004023 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 2 AT PREMISES STRANGWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m ³): 500000 Max Daily Volume (m ³): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -



ID	Location	Details	
-	1234m SW	Status: Historical Licence No: NW0690006001 Details: Non-Evaporative Cooling Direct Source: Ground Water - North West Region Point: BOREHOLES AT ORIGIN DEVELOPMENTS, MANCHESTER Data Type: Point Name: West Contracting Easting: 384378 Northing: 397733	Annual Volume (m ³): 139128 Max Daily Volume (m ³): 1010 Original Application No: - Original Start Date: 19/01/2009 Expiry Date: 31/03/2015 Issue No: 1 Version Start Date: 19/01/2009 Version End Date: -
-	1234m SW	Status: Historical Licence No: NW/069/0006/001 Details: Non-Evaporative Cooling Direct Source: Ground Water - North West Region Point: BOREHOLES AT ORIGIN DEVELOPMENTS, MANCHESTER Data Type: Point Name: West Contracting Easting: 384378 Northing: 397733	Annual Volume (m ³): 139128 Max Daily Volume (m ³): 1010 Original Application No: - Original Start Date: 19/01/2009 Expiry Date: 31/03/2015 Issue No: 1 Version Start Date: 19/01/2009 Version End Date: -
-	1236m NW	Status: Historical Licence No: 2569004011 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT DERBY BREWERY, CHEETHAM, MANCHESTER 3 Data Type: Point Name: JOSEPH HOLT LTD Easting: 384100 Northing: 399700	Annual Volume (m ³): 45460 Max Daily Volume (m ³): 181.84 Original Application No: 0423 Original Start Date: 17/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 17/02/1966 Version End Date: -
-	1236m NW	Status: Historical Licence No: 2569004011 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE AT DERBY BREWERY, CHEETHAM, MANCHESTER 3 Data Type: Point Name: JOSEPH HOLT LTD Easting: 384100 Northing: 399700	Annual Volume (m ³): 45460 Max Daily Volume (m ³): 181.84 Original Application No: 0423 Original Start Date: 17/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 17/02/1966 Version End Date: -



ID	Location	Details	
-	1236m NW	Status: Historical Licence No: 2569004011 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT DERBY BREWERY, CHEETHAM, MANCHESTER 3" Data Type: Point Name: JOSEPH HOLT LTD Easting: 384100 Northing: 399700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 17/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 17/02/1966 Version End Date: -
-	1236m NW	Status: Historical Licence No: 2569004011 Details: Process water Direct Source: Ground Water - North West Region Point: "BOREHOLE AT DERBY BREWERY, CHEETHAM, MANCHESTER 3" Data Type: Point Name: JOSEPH HOLT LTD Easting: 384100 Northing: 399700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 17/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 17/02/1966 Version End Date: -
-	1237m NW	Status: Active Licence No: 2569004011 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE AT DERBY BREWERY, CHEETHAM, MANCHESTER 3 Data Type: Point Name: JOSEPH HOLT LTD Easting: 384085 Northing: 399685	Annual Volume (m ³): 75000 Max Daily Volume (m ³): 300 Original Application No: NPS/WR/037017 Original Start Date: 17/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 29/06/2023 Version End Date: -
-	1267m N	Status: Active Licence No: 2569005015 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: B/HOLE, LITTLE GREEN WORKS, COLLYHURST RD, MANCHESTER 10 Data Type: Point Name: Packaging Products (Coatings) Ltd Easting: 385000 Northing: 400100	Annual Volume (m ³): 438689 Max Daily Volume (m ³): 1636.56 Original Application No: NPS/WR/006003 Original Start Date: 16/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/02/2011 Version End Date: -



ID	Location	Details	
-	1267m N	Status: Historical Licence No: 2569005015 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "B/HOLE, LITTLE GREEN WORKS, COLLYHURST RD, MANCHESTER 10" Data Type: Point Name: PACKAGING PRODUCTS LTD Easting: 385000 Northing: 400100	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 21/02/1995 Version End Date: -
-	1282m W	Status: Active Licence No: 2569007070 Details: General Cooling (Existing Licences Only) (High Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT DIAL HOUSE CHAPEL STREET SALFORD Data Type: Point Name: BRITISH TELECOMMUNICATIONS PLC Easting: 383700 Northing: 398700	Annual Volume (m ³): 45 Max Daily Volume (m ³): 30 Original Application No: 2333 Original Start Date: 27/01/1971 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2007 Version End Date: -
-	1282m W	Status: Historical Licence No: 2569007070 Details: General Cooling (Existing Licences Only) (High Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT DIAL HOUSE, CHAPEL ST, SALFORD" Data Type: Point Name: BRITISH TELECOM Easting: 383700 Northing: 398700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 27/01/1971 Expiry Date: - Issue No: 100 Version Start Date: 27/01/1971 Version End Date: -
-	1282m W	Status: Historical Licence No: 2569007070 Details: General Cooling (Existing Licences Only) (High Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT DIAL HOUSE, CHAPEL ST, SALFORD Data Type: Point Name: BRITISH TELECOMMUNICATIONS PLC Easting: 383700 Northing: 398700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 27/01/1971 Expiry Date: - Issue No: 101 Version Start Date: 01/04/1984 Version End Date: -



ID	Location	Details	
-	1288m S	Status: Historical Licence No: 2569006001 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, BROADIE ST, ARDWICK, MANCHESTER" Data Type: Point Name: MOSELEY RUBBER CO LTD Easting: 385240 Northing: 397540	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 08/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 08/02/1966 Version End Date: -
-	1288m S	Status: Historical Licence No: 2569006001 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, BROADIE ST, ARDWICK, MANCHESTER Data Type: Point Name: MOSELEY RUBBER CO LTD Easting: 385240 Northing: 397540	Annual Volume (m ³): 331858 Max Daily Volume (m ³): 909.2 Original Application No: - Original Start Date: 08/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 08/02/1966 Version End Date: -
-	1450m NW	Status: Historical Licence No: 2569004021 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, DERBY STREET, CHEETHAM, MANCHESTER Data Type: Point Name: LANCASHIRE DAIRIES LTD Easting: 383900 Northing: 399800	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 17/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1993 Version End Date: -
-	1450m NW	Status: Historical Licence No: 2569004021 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, DERBY STREET, CHEETHAM, MANCHESTER Data Type: Point Name: LANCASHIRE DAIRIES LTD Easting: 383900 Northing: 399800	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 17/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1993 Version End Date: -



ID	Location	Details	
-	1720m W	Status: Historical Licence No: 2569007089 Details: Non-Evaporative Cooling Direct Source: Ground Water - North West Region Point: 2 BOREHOLES AT GARTSIDE STREET MANCHESTER Data Type: Line Name: HER MAJESTY'S COURT SERVICE Easting: 383335 Northing: 398310	Annual Volume (m ³): 200000 Max Daily Volume (m ³): 1179 Original Application No: - Original Start Date: 26/01/2005 Expiry Date: 31/03/2011 Issue No: 2 Version Start Date: 10/07/2008 Version End Date: -
-	1828m NE	Status: Active Licence No: 2569005061 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT NORTON STREET, MILES PLATTING, MANCHESTER Data Type: Point Name: HANSON QUARRY PRODUCTS EUROPE LIMITED Easting: 386550 Northing: 399790	Annual Volume (m ³): 33000 Max Daily Volume (m ³): 125 Original Application No: NPS/WR/011609 Original Start Date: 08/02/2000 Expiry Date: - Issue No: 3 Version Start Date: 13/08/2012 Version End Date: -
-	1828m NE	Status: Historical Licence No: 2569005061 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT NORTON STREET, MILES PLATTING, MANCHESTER" Data Type: Point Name: HANSON QUARRY PRODUCTS EUROPE LTD Easting: 386550 Northing: 399790	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 08/02/2000 Expiry Date: - Issue No: 2 Version Start Date: 01/07/2000 Version End Date: -
-	1895m SW	Status: Active Licence No: NW/069/0006/003 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE 1 AT LOWER CHATHAM STREET Data Type: Point Name: Manchester Metropolitan University Easting: 384180 Northing: 397091	Annual Volume (m ³): 283240 Max Daily Volume (m ³): 1532 Original Application No: NPS/WR/015264 Original Start Date: 04/04/2014 Expiry Date: 31/03/2027 Issue No: 2 Version Start Date: 04/04/2014 Version End Date: -



ID	Location	Details	
-	1895m SW	Status: Active Licence No: NW/069/0006/003 Details: Heat Pump Direct Source: Ground Water - North West Region Point: BOREHOLE 1 AT LOWER CHATHAM STREET Data Type: Point Name: Manchester Metropolitan University Easting: 384180 Northing: 397091	Annual Volume (m ³): 283240 Max Daily Volume (m ³): 1532 Original Application No: NPS/WR/015264 Original Start Date: 04/04/2014 Expiry Date: 31/03/2027 Issue No: 2 Version Start Date: 04/04/2014 Version End Date: -
-	1969m W	Status: Historical Licence No: NW/069/0004/019 Details: Transfer Between Sources (Post Water Act 2003) Direct Source: Ground Water - North West Region Point: ST JOHNS MANCHESTER Data Type: Poly4 Name: Manchester Quays Development (MGY) Ltd Easting: 383094 Northing: 398099	Annual Volume (m ³): 543120 Max Daily Volume (m ³): 1488 Original Application No: - Original Start Date: 13/09/2019 Expiry Date: 31/12/2020 Issue No: 1 Version Start Date: 13/09/2019 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m	0
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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	10
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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.

Features are displayed on the Abstractions and Source Protection Zones map on [page 71](#) >



ID	Location	Details	
-	1202m W	Status: Historical Licence No: 2569004023 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 1) AT PREMISES, STRANGWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -
-	1202m W	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 1) AT PREMISES, STRANGWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1202m W	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 1 AT PREMISES STRANGWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m ³): 500000 Max Daily Volume (m ³): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1211m W	Status: Historical Licence No: 2569004023 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 3) AT PREMISES, STRANGWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -



ID	Location	Details	
-	1211m W	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 3) AT PREMISES, STRANGWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1211m W	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 3 AT PREMISES STRANGWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m ³): 500000 Max Daily Volume (m ³): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1211m W	Status: Historical Licence No: 2569004023 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 2) AT PREMISES, STRANGWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -
-	1211m W	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 2) AT PREMISES, STRANGWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -



ID	Location	Details	
-	1211m W	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 2 AT PREMISES STRANGWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m ³): 500000 Max Daily Volume (m ³): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1450m NW	Status: Historical Licence No: 2569004021 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, DERBY STREET, CHEETHAM, MANCHESTER Data Type: Point Name: LANCASHIRE DAIRIES LTD Easting: 383900 Northing: 399800	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 17/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1993 Version End Date: -

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

5.9 Source Protection Zones

Records within 500m	0
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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
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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

3

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 86 >](#)

ID	Location	Type of water feature	Ground level	Permanence	Name
A	227m SE	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Rochdale Canal



ID	Location	Type of water feature	Ground level	Permanence	Name
6	244m SE	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Rochdale Canal
7	244m SE	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	2
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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 86 >](#)

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site	1
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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 86 >](#)

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
1	On site	River	Irwell / Manchester Ship Canal (Irk to confluence with Upper Mers	GB112069061452	Croal Irwell	Irwell

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



6.4 WFD Surface water bodies

Records identified	2
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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 86 >](#)

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
4	231m SE	Canal	Rochdale Canal, western section	GB71210517 ↗	Moderate	Fail	Moderate	2019
-	1144m W	River	Irwell / Manchester Ship Canal (Irk to confluence with Upper Mers	GB112069061452 ↗	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
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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 86 >](#)

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

7.1 Risk of flooding from rivers and the sea

Records within 50m

0

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).

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

7.2 Historical Flood Events

Records within 250m

0

Records of historic flooding from rivers, the sea, groundwater and surface water. Records began in 1946 when predecessor bodies started collecting detailed information about flooding incidents, although limited details may be included on flooding incidents prior to this date. Takes into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding, and includes flood extents that may have been affected by overtopping, breaches or blockages.

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

7.3 Flood Defences

Records within 250m

0

Records of flood defences owned, managed or inspected by the Environment Agency and Natural Resources Wales. Flood defences can be structures, buildings or parts of buildings. Typically these are earth banks, stone and concrete walls, or sheet-piling that is used to prevent or control the extent of flooding.

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



7.4 Areas Benefiting from Flood Defences

Records within 250m

0

Areas that would benefit from the presence of flood defences in a 1 in 100 (1%) chance of flooding each year from rivers or 1 in 200 (0.5%) chance of flooding each year from the sea.

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

7.5 Flood Storage Areas

Records within 250m

0

Areas that act as a balancing reservoir, storage basin or balancing pond to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel or to delay the timing of a flood peak so that its volume is discharged over a longer period.

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



River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m

0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land between Flood Zone 3 (see next section) and the extent of the flooding from rivers or the sea with a 1 in 1000 (0.1%) chance of flooding each year.

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

7.7 Flood Zone 3

Records within 50m

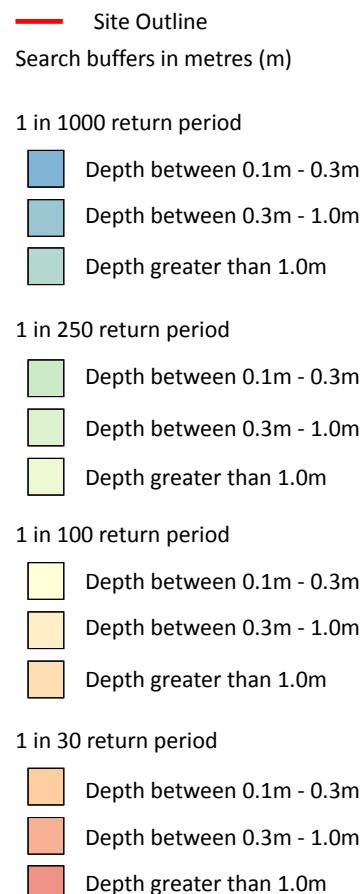
0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

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



8 Surface water flooding



8.1 Surface water flooding

Highest risk on site

Negligible

Highest risk within 50m

1 in 100 year, 0.1m - 0.3m

Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year rainfall events. Modern urban drainage systems are typically built to cope with rainfall events between 1 in 20 and 1 in 30 years, though some older ones may flood in a 1 in 5 year rainfall event.

Features are displayed on the Surface water flooding map on [page 92 >](#)

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.

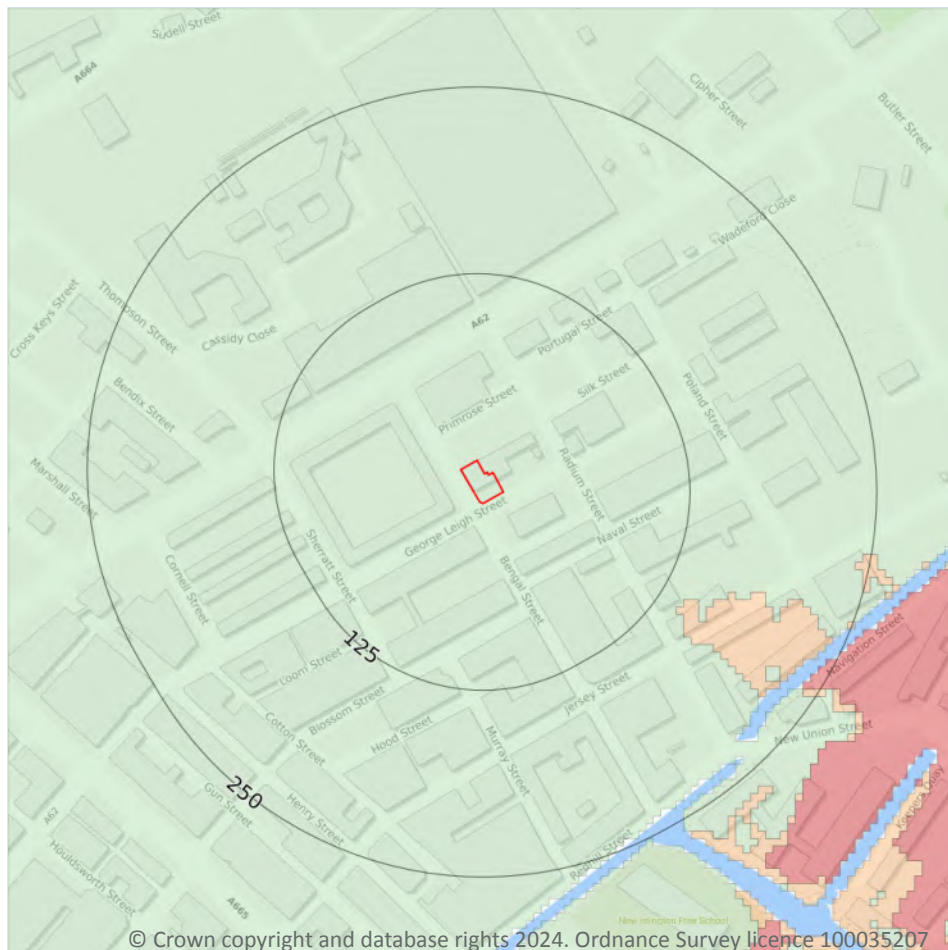
The table below shows the maximum flood depths for a range of return periods for the site.

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 Ambiantal Risk Analytics.



9 Groundwater flooding



— Site Outline
Search buffers in metres (m)

- High
- Moderate - High
- Moderate
- Low
- Negligible

9.1 Groundwater flooding

Highest risk on site

Low

Highest risk within 50m

Low

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 94 >](#)

This data is sourced from Ambiantal Risk Analytics.

10 Environmental designations

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

0

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.

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**4**

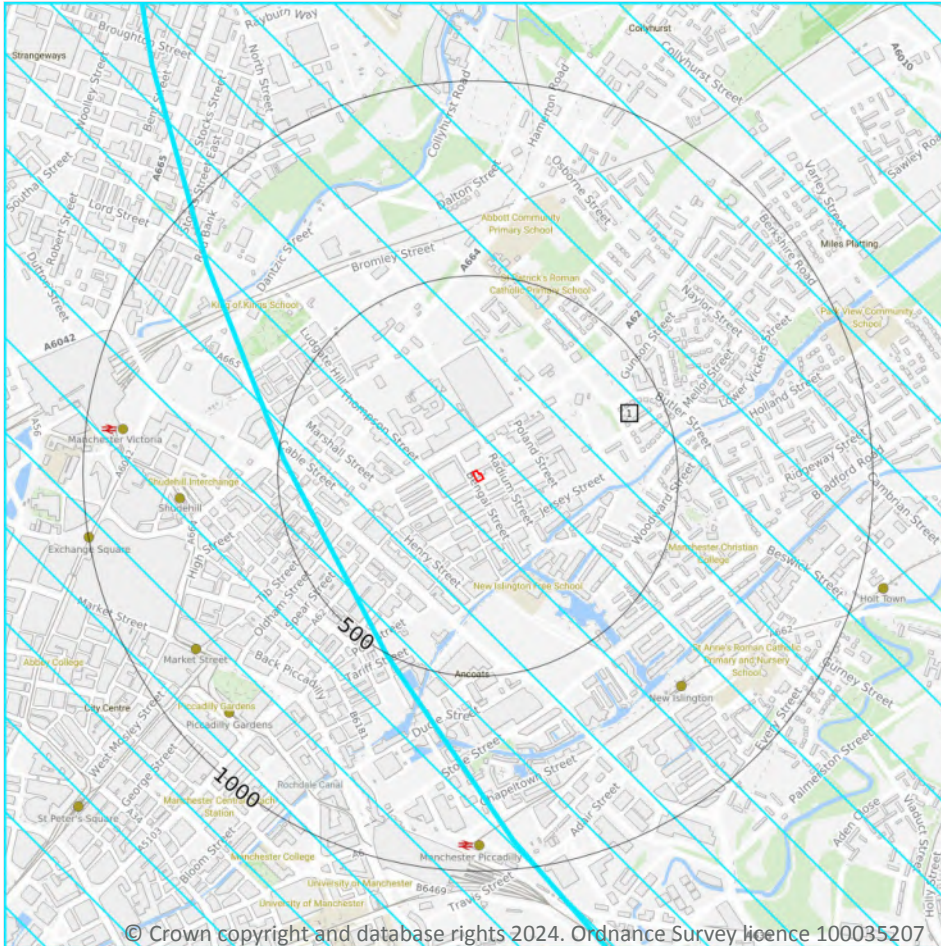
Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

Location	Name	Type	NVZ ID	Status
On site	River Irk (Moston Brook to River Irwell) NVZ	Surface Water	638	Existing
884m W	River Irk (Moston Brook to River Irwell) NVZ	Surface Water	638	Existing
1092m W	Irwell / Man. Ship Canal (Kearsley to Irlam Locks) NVZ	Surface Water	643	Existing
1166m NW	Irwell / Man. Ship Canal (Kearsley to Irlam Locks) NVZ	Surface Water	643	Existing

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



SSSI Impact Zones and Units



- Site Outline
- Search buffers in metres (m)
- SSSI Impact Risk Zones
- SSSI Units
- Not recorded
- Favourable
- Unfavourable - Recovering
- Unfavourable - No change
- Unfavourable - Declining
- Partially destroyed
- Destroyed

10.17 SSSI Impact Risk Zones

Records on site

1

Developed to allow rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

Features are displayed on the SSSI Impact Zones and Units map on [page 99](#) >



ID	Location	Type of developments requiring consultation
1	On site	Infrastructure - Airports, helipads and other aviation proposals. Air pollution - Any industrial/agricultural development that could cause AIR POLLUTION (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 750m², manure stores > 3500t). 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

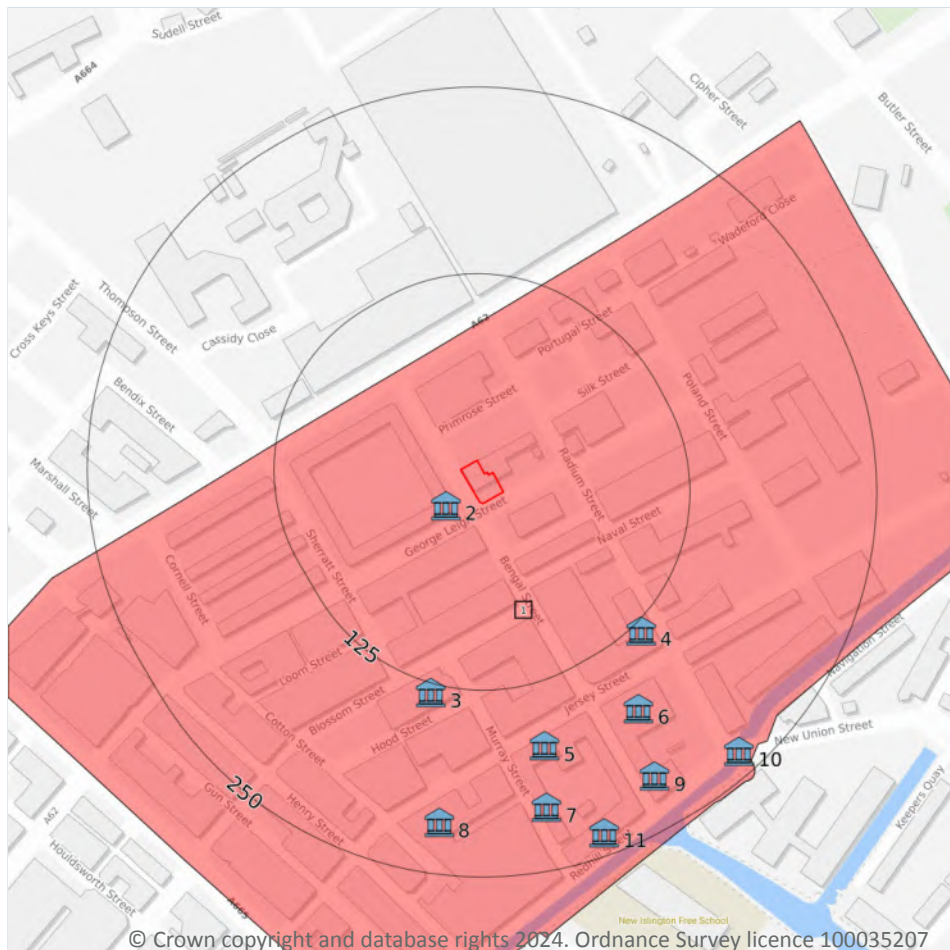
Records within 2000m	0
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Divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment, however, the size of units varies greatly depending on the types of management 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**10**

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 101 >](#)

ID	Location	Name	Grade	Reference Number	Listed date
2	21m SW	Victoria Square	II	1246277	20/06/1988
3	131m S	Former Church Of St Peter	II	1197806	03/10/1974
4	131m SE	Beehive Mill	II*	1291735	11/11/1988
5	167m S	New Mill	II*	1200821	20/06/1988
6	171m SE	Little Mill	II	1282961	06/06/1994



ID	Location	Name	Grade	Reference Number	Listed date
7	208m S	Former Warehouse And Offices Of Old Mill, Decker Mill, And New Mill	II	1220282	28/02/1975
8	215m S	Paragon Mill	II*	1219048	11/11/1988
9	215m SE	Doubling Mill Fireproof Mill	II*	1270855	20/06/1988
10	235m SE	Union Street Bridge	II	1247550	06/06/1994
11	235m S	Decker Mill Old Mill	II*	1247473	20/06/1988

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

11.5 Conservation Areas

Records within 250m

1

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.

Features are displayed on the Visual and cultural designations map on [page 101 >](#)

ID	Location	Name	District	Date of designation
1	On site	Ancoats	Manchester	01/06/1989

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

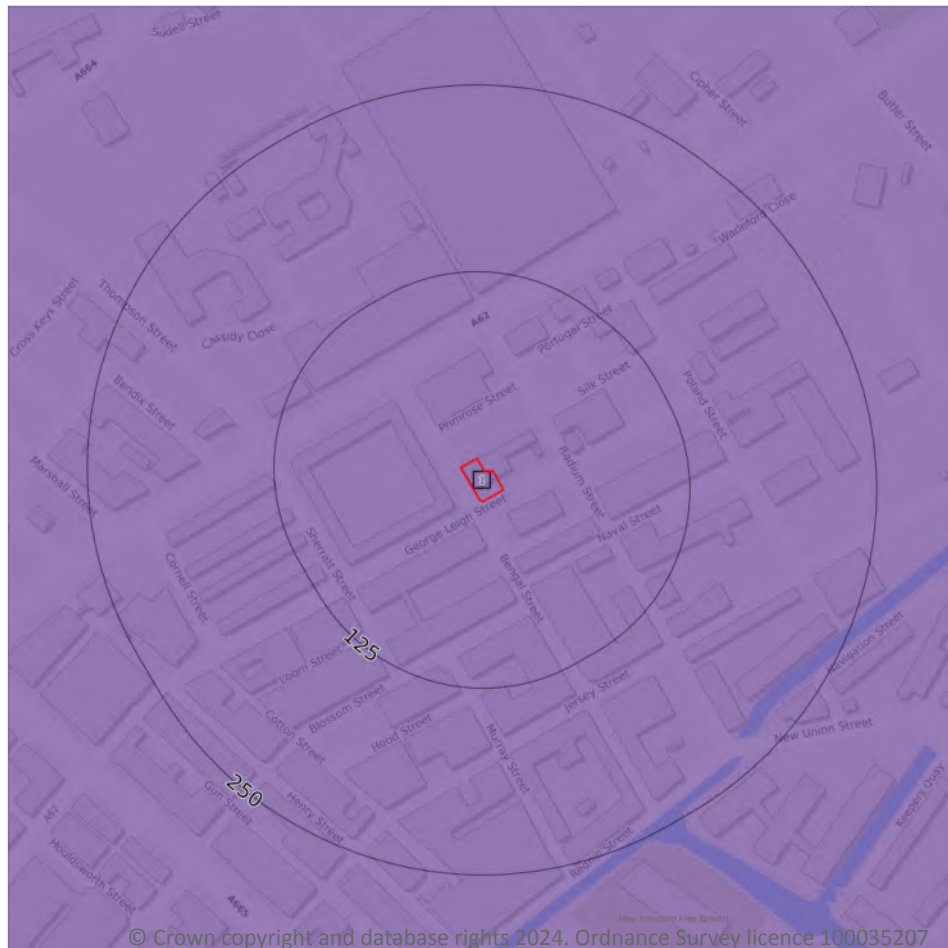
0

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 105](#) >

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



- Site Outline
- Search buffers in metres (m)
- Priority Habitat Inventory
- Open Mosaic Habitat
- Limestone Pavement Orders
- Habitat Networks
- Primary Habitat
- Restorable Habitat
- Associated Habitats
- Habitat Restoration-Creation
- Network Enhancement Zone 1
- Network Enhancement Zone 2

13.1 Priority Habitat Inventory

Records within 250m

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

1

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.

Features are displayed on the Habitat designations map on [page 107 >](#)

ID	Location	Site reference	Identification confidence	Primary source	Secondary source	Tertiary source
1	244m SE	NLUD Ref: 421501470	Low	National Land Use Database - Previously Developed Land	UK Perspectives Aerial Photography	-

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m

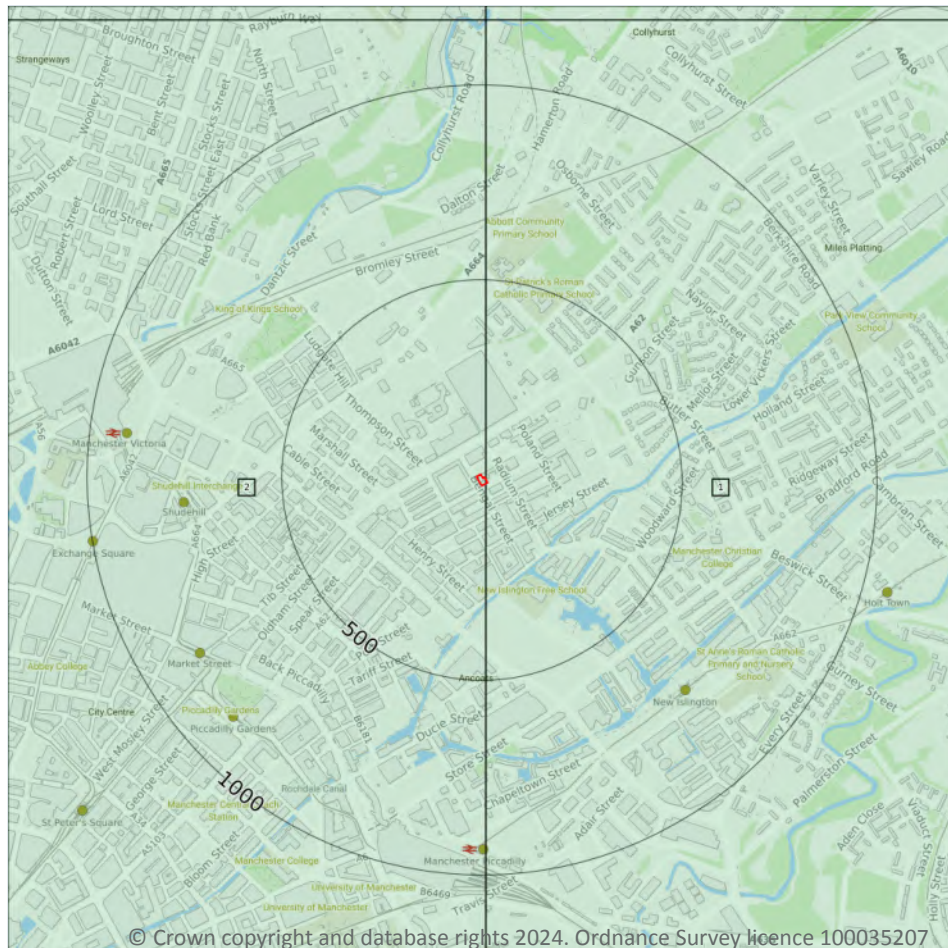
0

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

2

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.

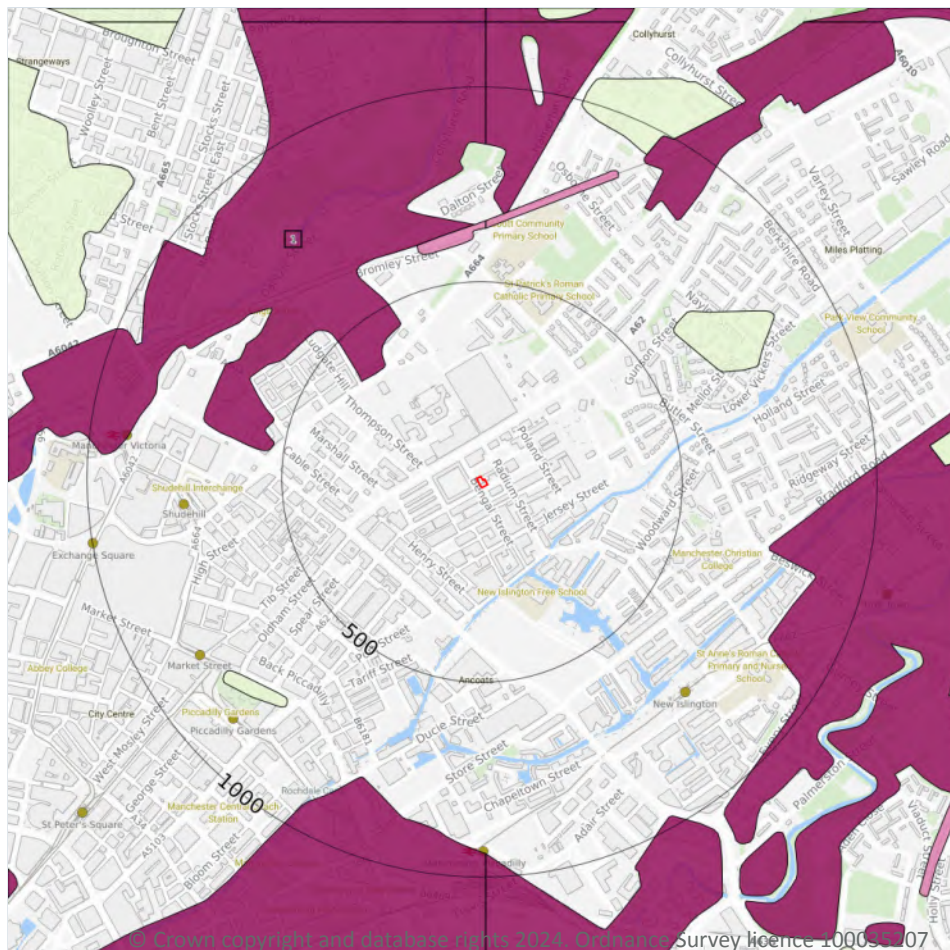
Features are displayed on the Geology 1:10,000 scale - Availability map on [page 109](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	SJ89NE
2	On site	Full	Full	Full	No coverage	SJ89NW

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

1

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 110](#) >

ID	Location	LEX Code	Description	Rock description
1	371m NW	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

2

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 111](#) >

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

This data is sourced from the British Geological Survey.



14.4 Landslip (10k)

Records within 500m

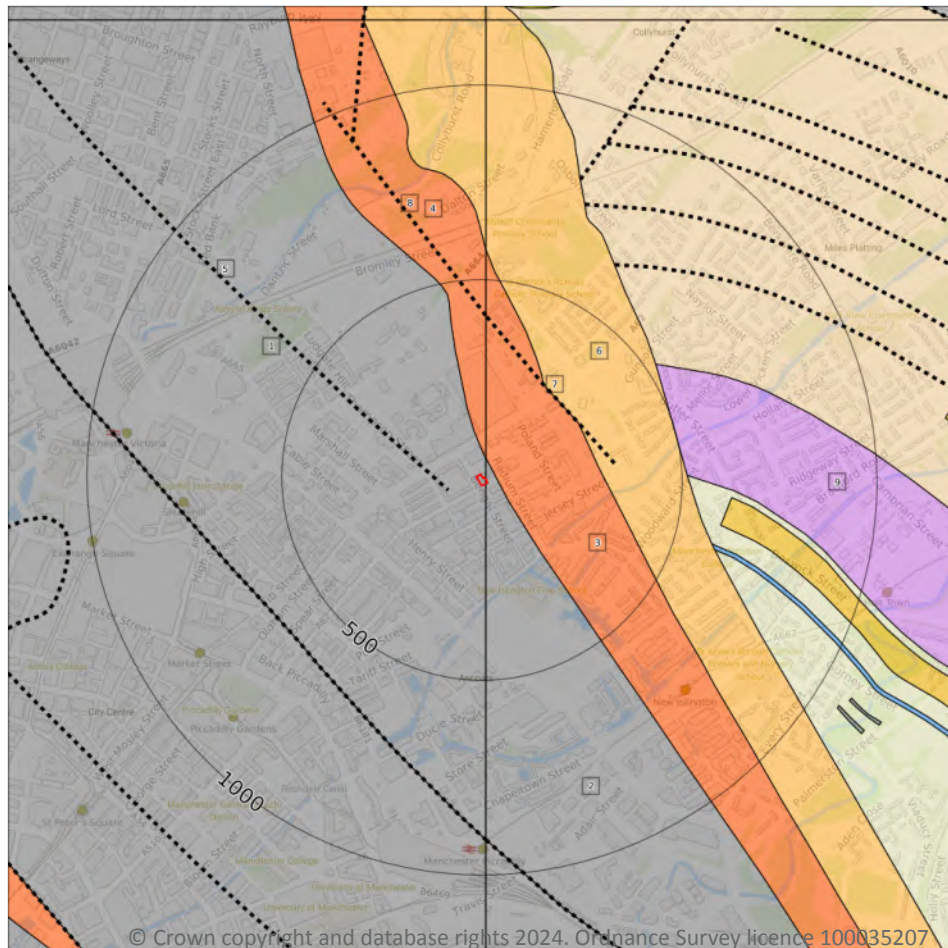
0

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

6

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 113](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	CPB-SDST	Chester Pebble Beds Formation - Sandstone	Early Triassic Epoch
2	On site	CPB-SDST	Chester Pebble Beds Formation - Sandstone	Early Triassic Epoch
3	26m NE	MM-MDST	Manchester Marls Formation - Mudstone	Late Permian Epoch [Obsolete name]



ID	Location	LEX Code	Description	Rock age
4	44m N	MM-MDST	Manchester Marls Formation - Mudstone	Late Permian Epoch [Obsolete name]
6	272m NE	CS-SDST	Collyhurst Sandstone Formation - Sandstone	Cisuralian Epoch
9	499m E	ETM-STMD	Etruria Formation - Sandstone And Mudstone	Westphalian Age

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m

3

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.

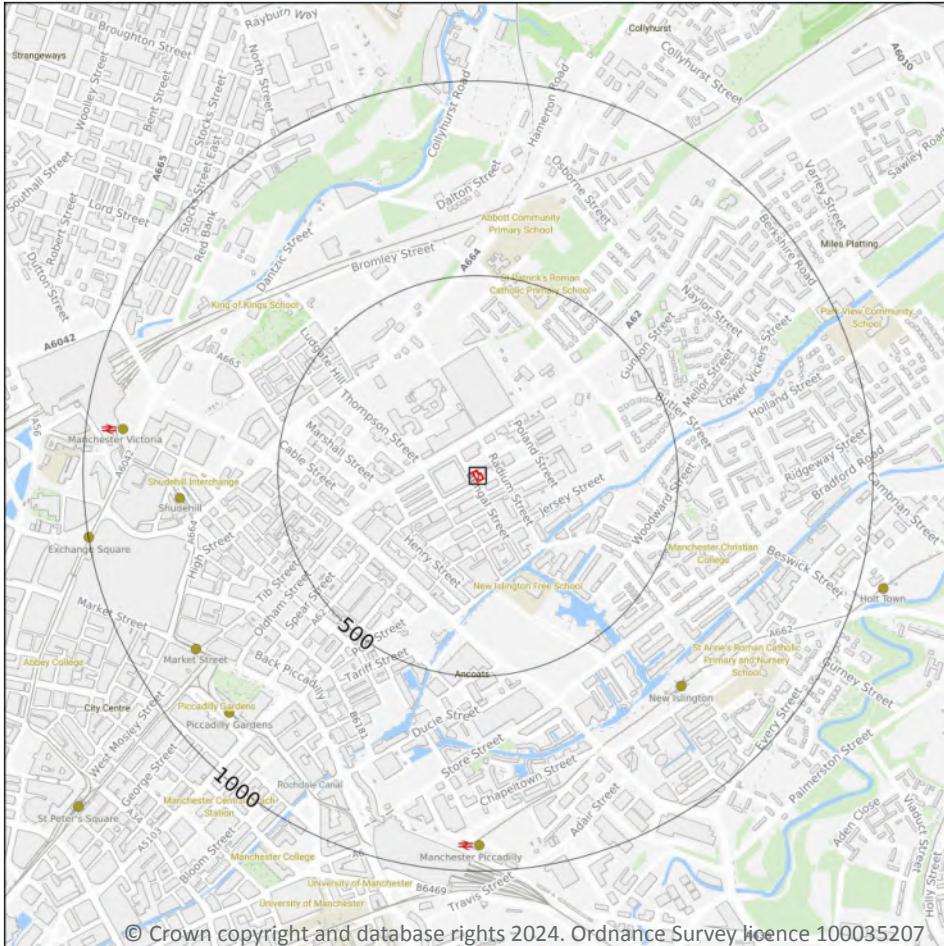
Features are displayed on the Geology 1:10,000 scale - Bedrock map on [page 113](#) >

ID	Location	Category	Description
5	80m W	FAULT	Normal fault, inferred; crossmarks on downthrow side
7	272m NE	FAULT	Normal fault, inferred; crossmarks on downthrow side
8	408m N	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.

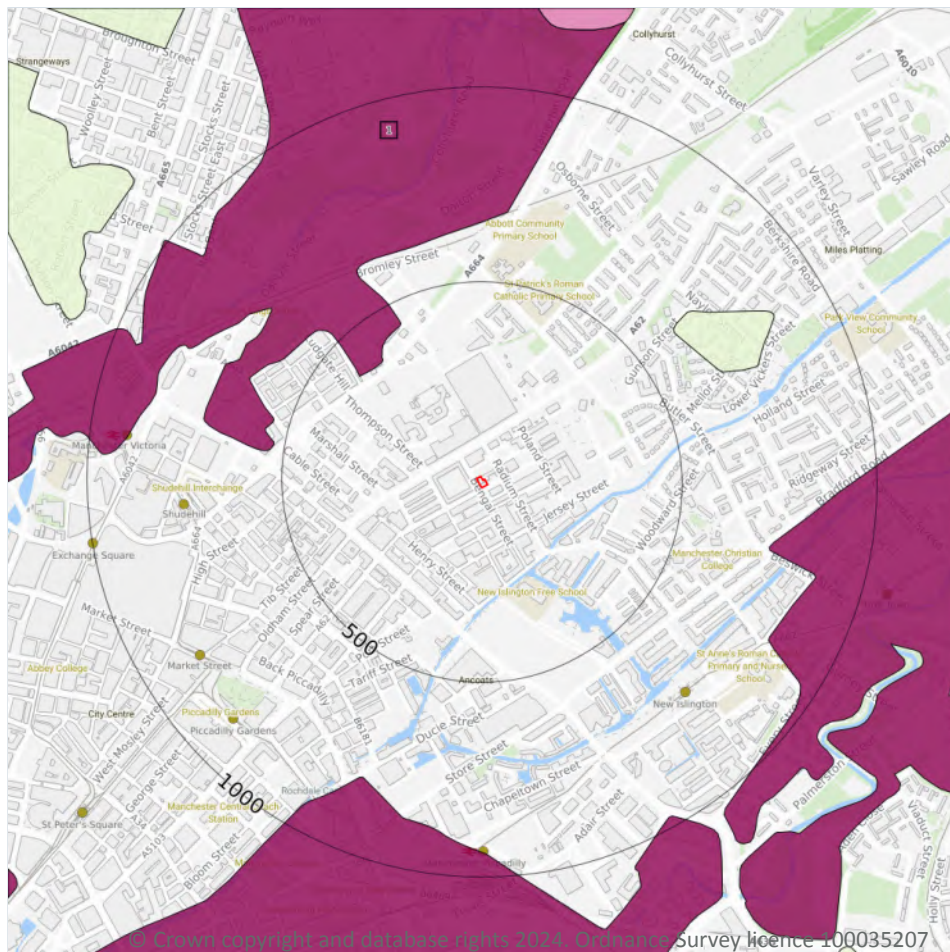
Features are displayed on the Geology 1:50,000 scale - Availability map on [page 115](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	Full	Full	No coverage	EW085_manchester_v4

This data is sourced from the British Geological Survey.



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



- Site Outline
- Search buffers in metres (m)
- Made ground
 - Worked ground
 - Infilled ground
 - Disturbed ground
 - Landscaped ground

15.2 Artificial and made ground (50k)

Records within 500m

1

Details of made, worked, infilled, disturbed and landscaped ground at 1:50,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

Features are displayed on the Geology 1:50,000 scale - Artificial and made ground map on [page 116](#) >

ID	Location	LEX Code	Description	Rock description
1	385m NW	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

This data is sourced from the British Geological Survey.



15.3 Artificial ground permeability (50k)

Records within 50m

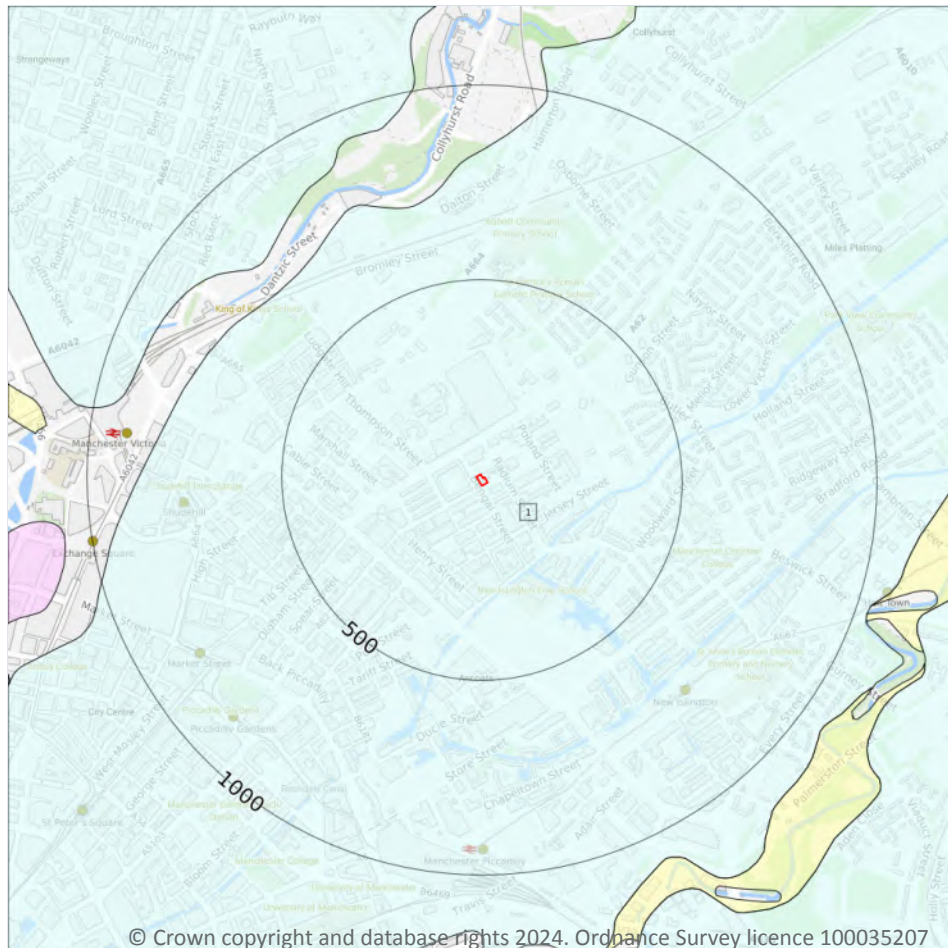
0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Superficial



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Site Outline
Search buffers in metres (m)

Landslip (50k)
Superficial geology (50k)
Please see table for more details.

15.4 Superficial geology (50k)

Records within 500m

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 118](#) >

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**2**

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any superficial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Mixed	High	Low
On site	Mixed	High	Low

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m**0**

Mass movement deposits on BGS geological maps at 1:50,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

15.7 Landslip permeability (50k)

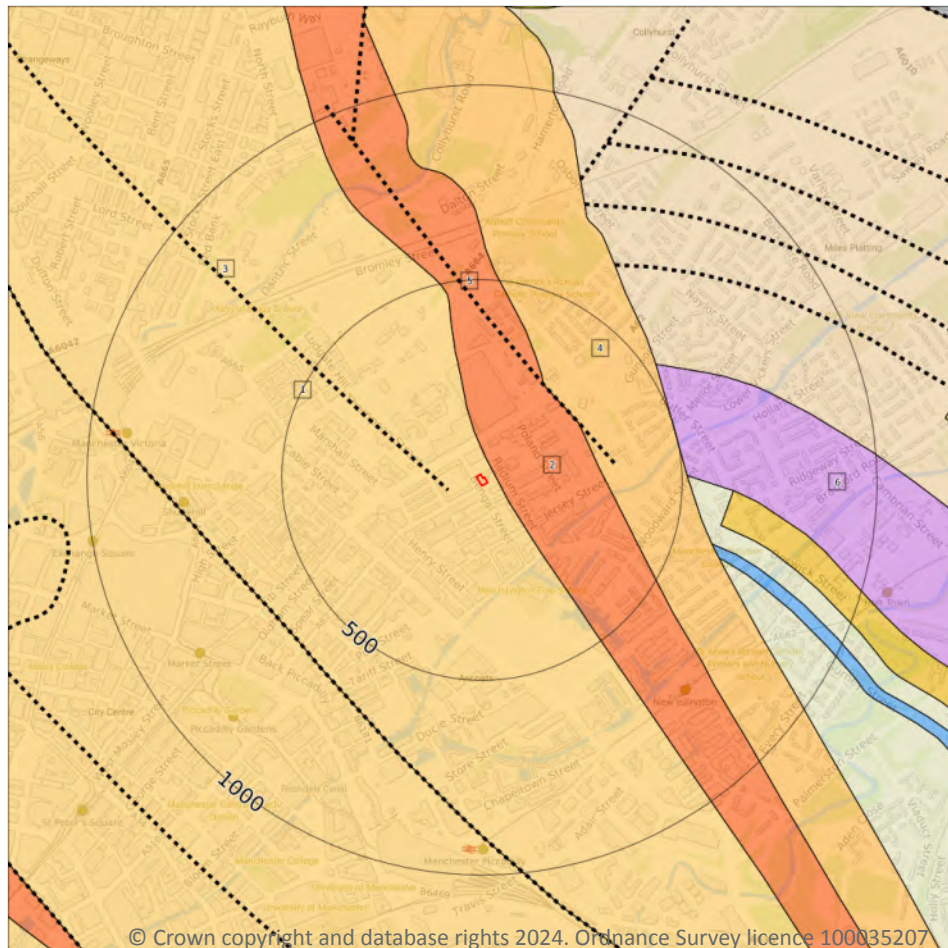
Records within 50m**0**

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any landslip deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Bedrock



— Site Outline

Search buffers in metres (m)

---- Bedrock faults and other linear features (50k)

Bedrock geology (50k)
Please see table for more details.

15.8 Bedrock geology (50k)

Records within 500m

4

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 120](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	CHES-SDST	CHESTER FORMATION - SANDSTONE	OLENEKIAN
2	26m E	MM-MDST	MANCHESTER MARLS FORMATION - MUDSTONE	-
4	273m NE	CS-SDST	COLLYHURST SANDSTONE FORMATION - SANDSTONE	-
6	499m E	ETM-STMD	ETRURIA FORMATION - SANDSTONE AND MUDSTONE	WESTPHALIAN



This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	4
---------------------------	----------

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
On site	Mixed	High	Moderate
26m E	Fracture	Low	Low
45m N	Fracture	Low	Low

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m	2
----------------------------	----------

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 120 >](#)

ID	Location	Category	Description
3	80m W	FAULT	Fault, inferred
5	273m NE	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

19

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 122 >](#)

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	68m NW	384950 398890	CLUSTER 12 OLDHAM ROAD MANCHESTER 3	-	Y	N/A
2	113m N	384950 398940	INNER RING ROAD SECTION 2 PHASE 1 MANCHESTER 22	8.07	N	1043550 ↗

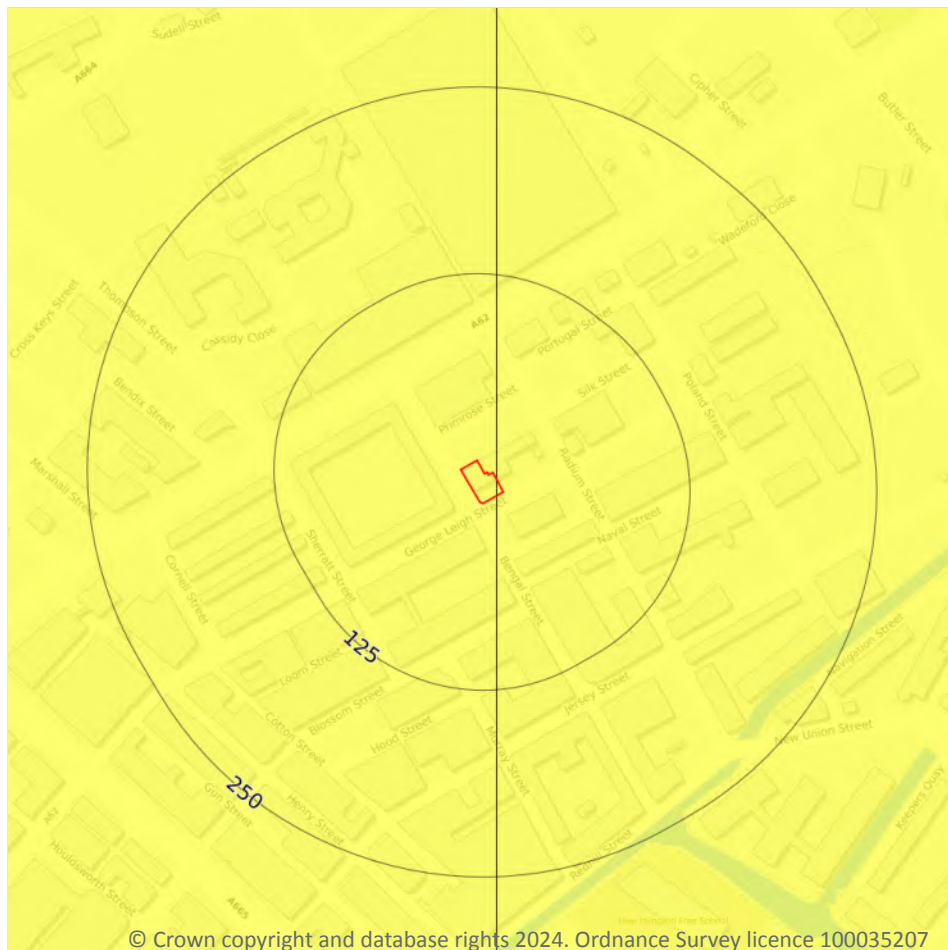


ID	Location	Grid reference	Name	Length	Confidential	Web link
3	118m SW	384890 398740	INNER RING ROAD SECTION 2 PHASE 1 MANCHESTER 13	25.59	N	1043542 ↗
4	125m SW	384870 398760	INNER RING ROAD SECTION 2 PHASE 1 MANCHESTER 14	29.5	N	1043543 ↗
5	126m W	384850 398820	CLUSTER 12 OLDHAM ROAD MANCHESTER 4	-	Y	N/A
A	135m S	385000 398670	INNER RING ROAD SECTION 2 PHASE 1 MANCHESTER 12	8.0	N	937120 ↗
6	138m NE	385060 398950	CLUSTER 12 OLDHAM ROAD MANCHESTER 2	12.0	N	937069 ↗
A	146m S	385010 398660	INNER RING ROAD SECTION 2 PHASE 1 MANCHESTER 11	8.22	N	937119 ↗
7	149m SW	384903 398683	MANCHESTER FISH & MEAT SALESMEN'S ICE CO LTD	122.99	N	1042348 ↗
8	156m W	384820 398820	INNER RING ROAD SECTION 2 PHASE 1 MANCHESTER 16	26.85	N	1043544 ↗
B	181m W	384800 398870	THOMPSON STREET MANCHESTER BH4	-	Y	N/A
9	199m W	384780 398790	INNER RING ROAD SECTION 2 PHASE 1 MANCHESTER 17	24.6	N	1043545 ↗
B	201m W	384780 398870	THOMPSON STREET MANCHESTER BH5	-	Y	N/A
10	227m N	385000 399060	INNER RING ROAD SECTION 2 PHASE 1 MANCHESTER 23	9.29	N	937121 ↗
11	232m NE	385150 399000	CLUSTER 12 OLDHAM ROAD MANCHESTER 1	12.0	N	937068 ↗
12	234m SE	385190 398670	ANCOATS ZONE 1 VICTORIA WORKS ANCOATS MANCHESTER 1	10.0	N	17722665 ↗
13	238m W	384750 398900	THOMPSON STREET MANCHESTER BH3	-	Y	N/A
14	241m SE	385120 398600	INNER RING ROAD SECTION 2 PHASE 1 MANCHESTER 10	8.0	N	937118 ↗
15	248m SE	385220 398690	ANCOATS ZONE 1 VICTORIA WORKS ANCOATS MANCHESTER TP38	3.0	N	17722671 ↗

This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☒ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

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).

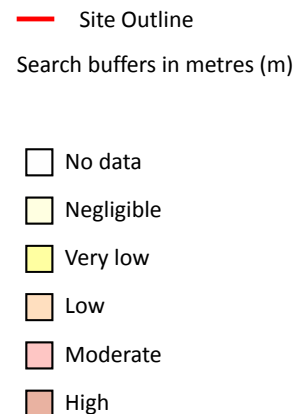
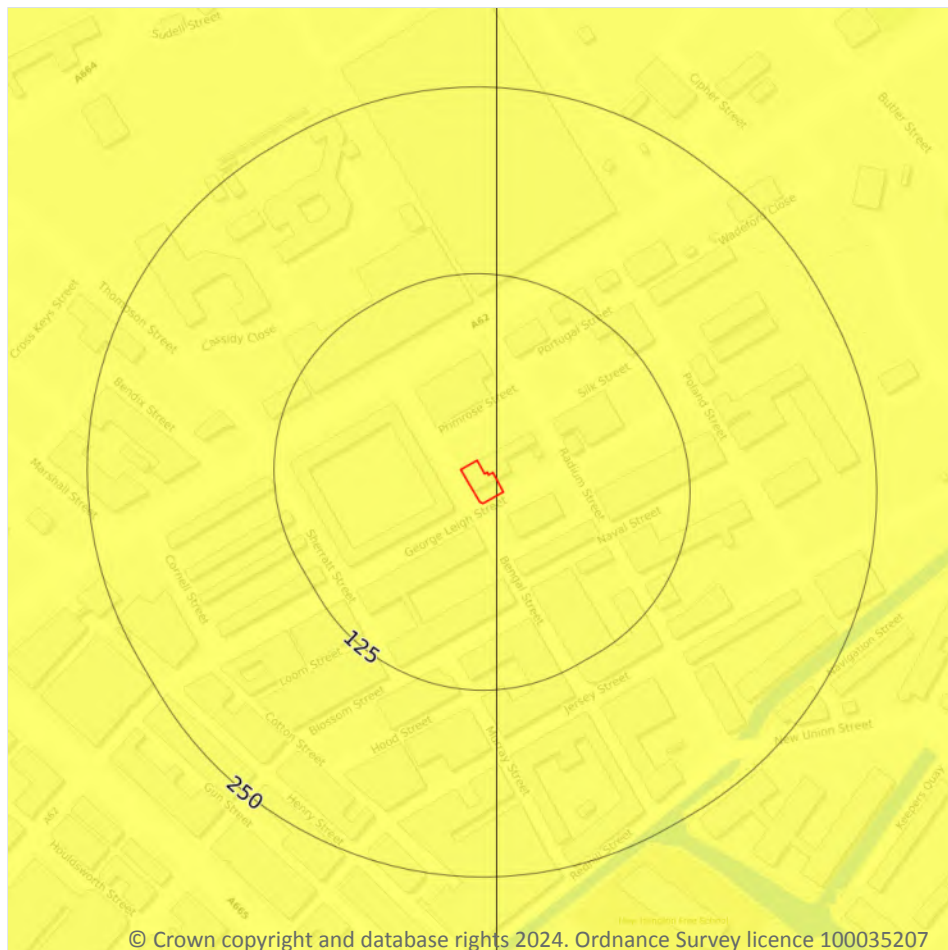
Features are displayed on the Natural ground subsidence - Shrink swell clays map on [page 124 >](#)

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.

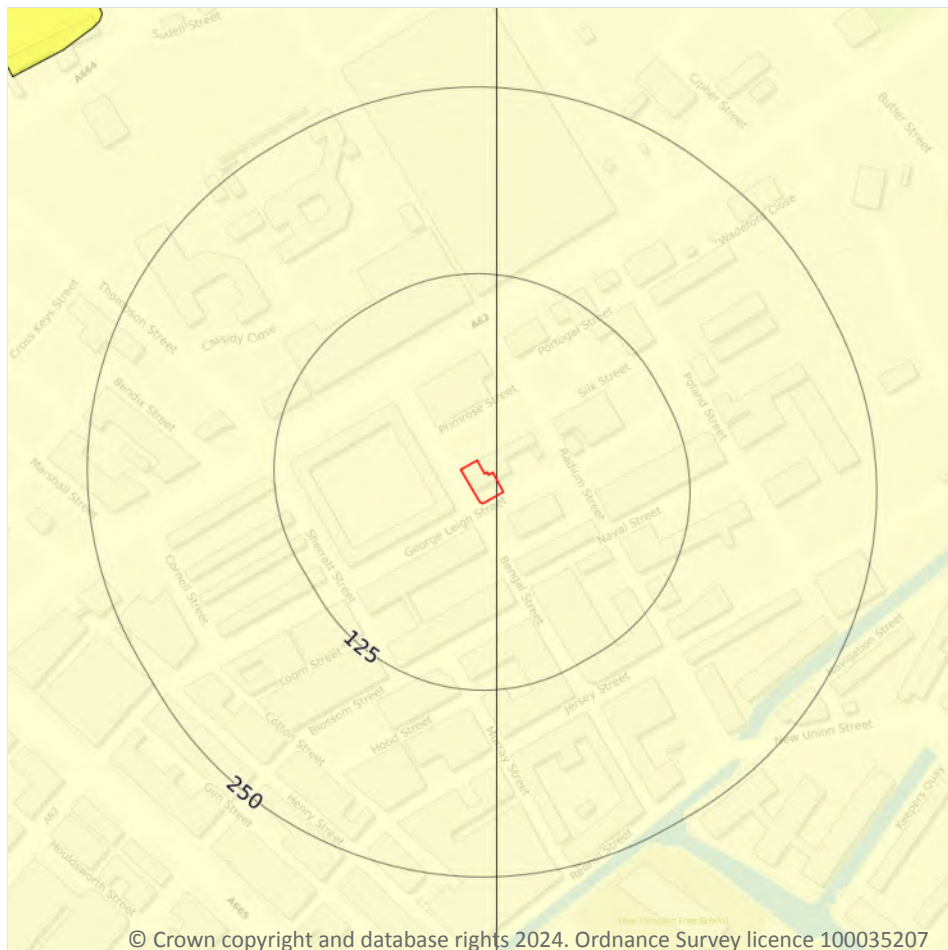
Features are displayed on the Natural ground subsidence - Running sands map on [page 125 >](#)

Location	Hazard rating	Details
On site	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Compressible deposits



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.3 Compressible deposits

Records within 50m

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.

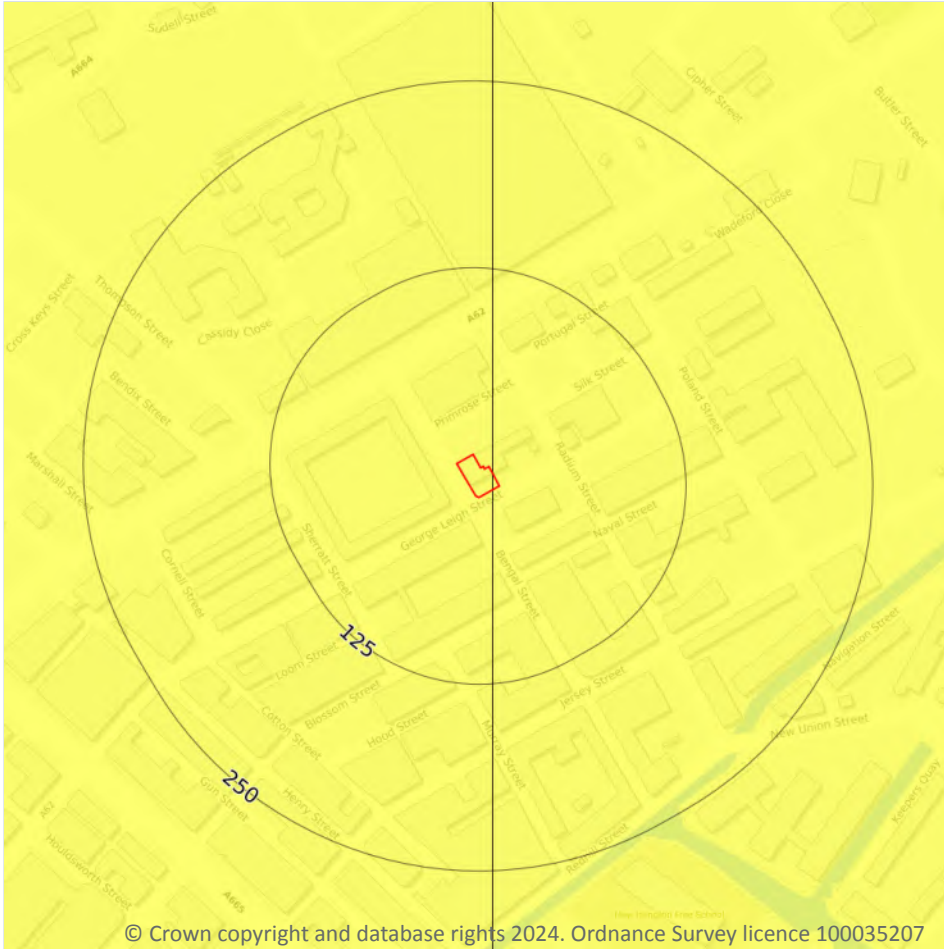
Features are displayed on the Natural ground subsidence - Compressible deposits map on [page 126 >](#)

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



— Site Outline
Search buffers in metres (m)

- ☐ No data
- ☐ Negligible
- ☐ Very low
- ☐ Low
- ☐ Moderate
- ☐ High

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.

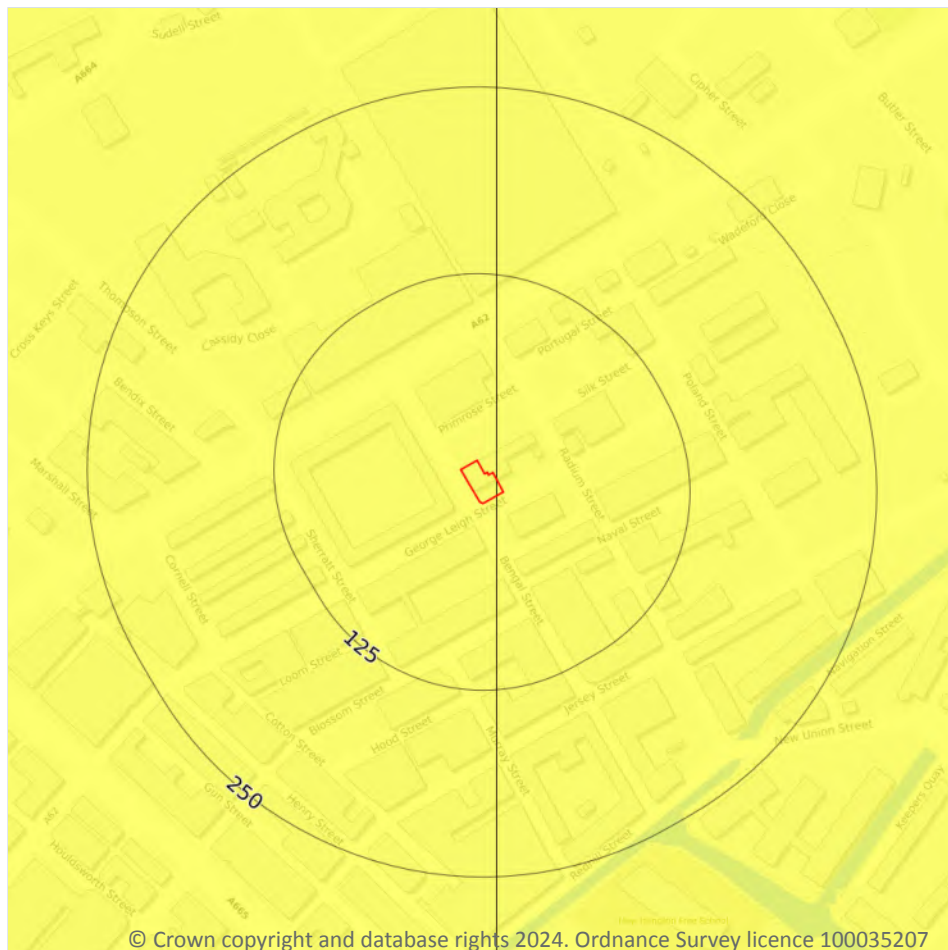
Features are displayed on the Natural ground subsidence - Collapsible deposits map on [page 127 >](#)

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



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☒ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.5 Landslides

Records within 50m

1

The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

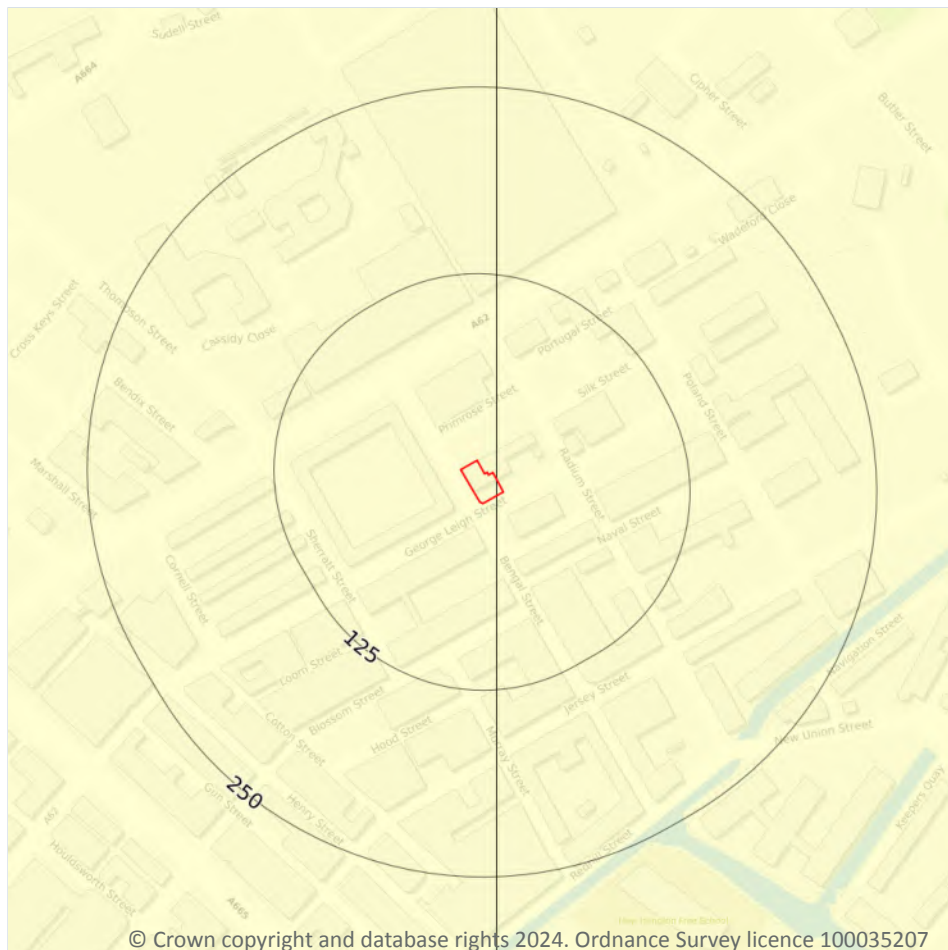
Features are displayed on the Natural ground subsidence - Landslides map on [page 128](#) >

Location	Hazard rating	Details
On site	Very low	Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Ground dissolution of soluble rocks



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☒ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.6 Ground dissolution of soluble rocks

Records within 50m

1

The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on [page 129](#) >

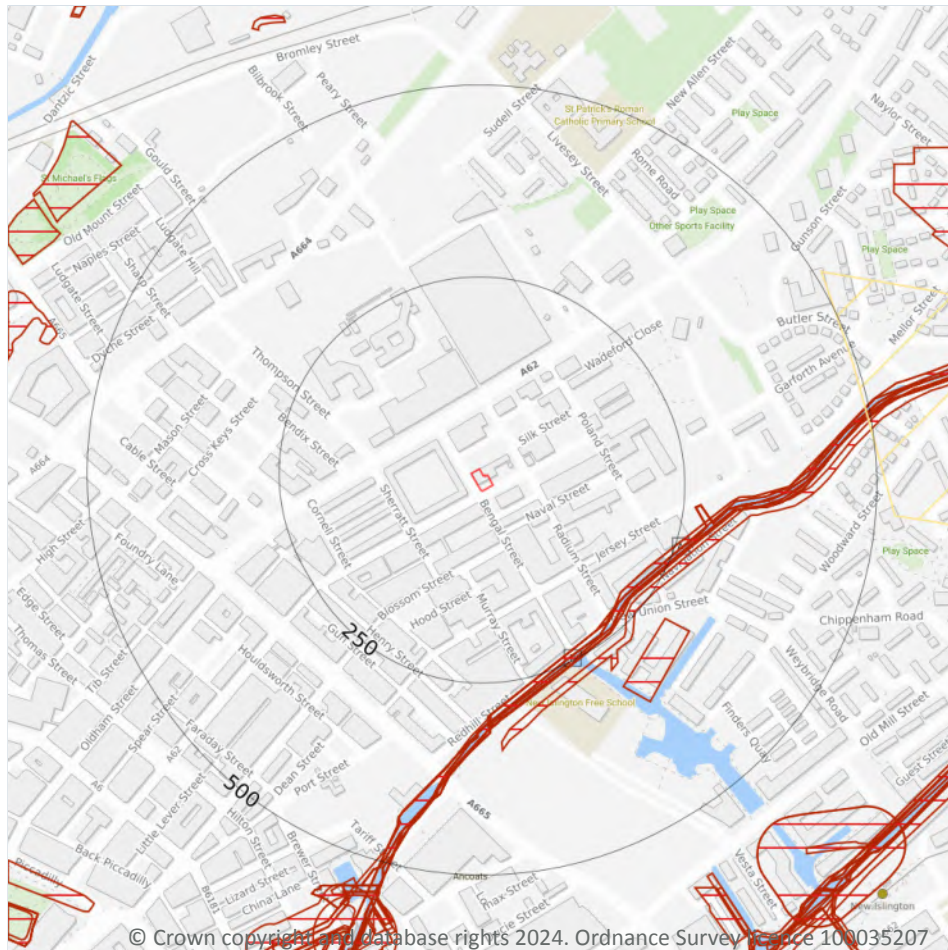
Location	Hazard rating	Details
On site	Negligible	Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.



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

11

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 131](#) >

ID	Location	Land Use	Year of mapping	Mapping scale
A	217m SE	Disused Canal	1985	1:10000
A	217m SE	Canal	1978	1:10000
B	224m SE	Canal	1938	1:10560
B	224m SE	Canal	1933	1:10560
B	224m SE	Canal	1921	1:10560
B	224m SE	Canal	1906	1:10560
B	224m SE	Canal	1891	1:10560
B	224m SE	Canal	1923	1:10560
A	224m SE	Canal	1968	1:10560
A	224m SE	Canal	1956	1:10560
A	238m SE	Disused Canal	1991	1:10000

This data is sourced from Ordnance Survey/Groundsure.

18.3 Underground workings

Records within 1000m

10

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

Features are displayed on the Mining and ground workings map on [page 131](#) >

ID	Location	Land Use	Year of mapping	Mapping scale
-	619m N	Tunnel	1956	1:10560
-	619m N	Tunnel	1978	1:10000
-	619m N	Tunnel	1968	1:10560
-	624m N	Tunnel	1985	1:10000



ID	Location	Land Use	Year of mapping	Mapping scale
-	624m N	Tunnel	1991	1:10000
-	679m N	Tunnel	1938	1:10560
-	679m N	Tunnel	1933	1:10560
-	679m N	Tunnel	1921	1:10560
-	679m N	Tunnel	1906	1:10560
-	679m N	Tunnel	1923	1:10560

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

2

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).

Features are displayed on the Mining and ground workings map on [page 131](#) >



ID	Location	Name	Commodity	Class	Likelihood
2	494m E	Not available	Vein Mineral	A	Underground mine workings are uncommon, although the geology is similar to that worked elsewhere. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
-	982m SE	Not available	Building stone (zone of influence)	NA	Zone of influence only

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	In addition to being located inside an area where The Coal Authority have information on coal mining activities, Johnson Poole & Bloomer (JPB) have information such as mining plans and maps held within their archive of mining activities that have occurred within 1km of this property which may supplement this information. 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

1

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

Location	Details
On site	The site is located within a coal mining area as defined by the Coal Authority. A Consultants Coal Mining Report is recommended to further assess coal mining issues at the site. This can be ordered directly through Groundsure or your preferred search provider.

This data is sourced from the Coal Authority.

18.13 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
-----------------	---

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

18.16 Clay mining

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

Generalised areas that may be affected by kaolin and ball clay extraction.

This data is sourced from the Kaolin and Ball Clay Association (UK).



19 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.

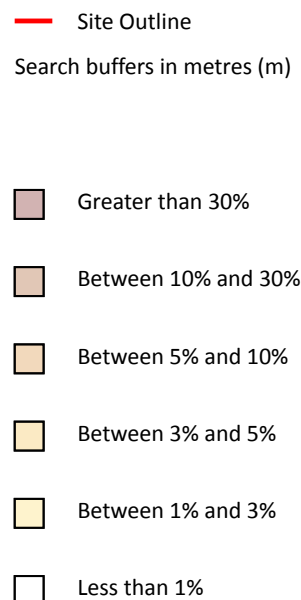
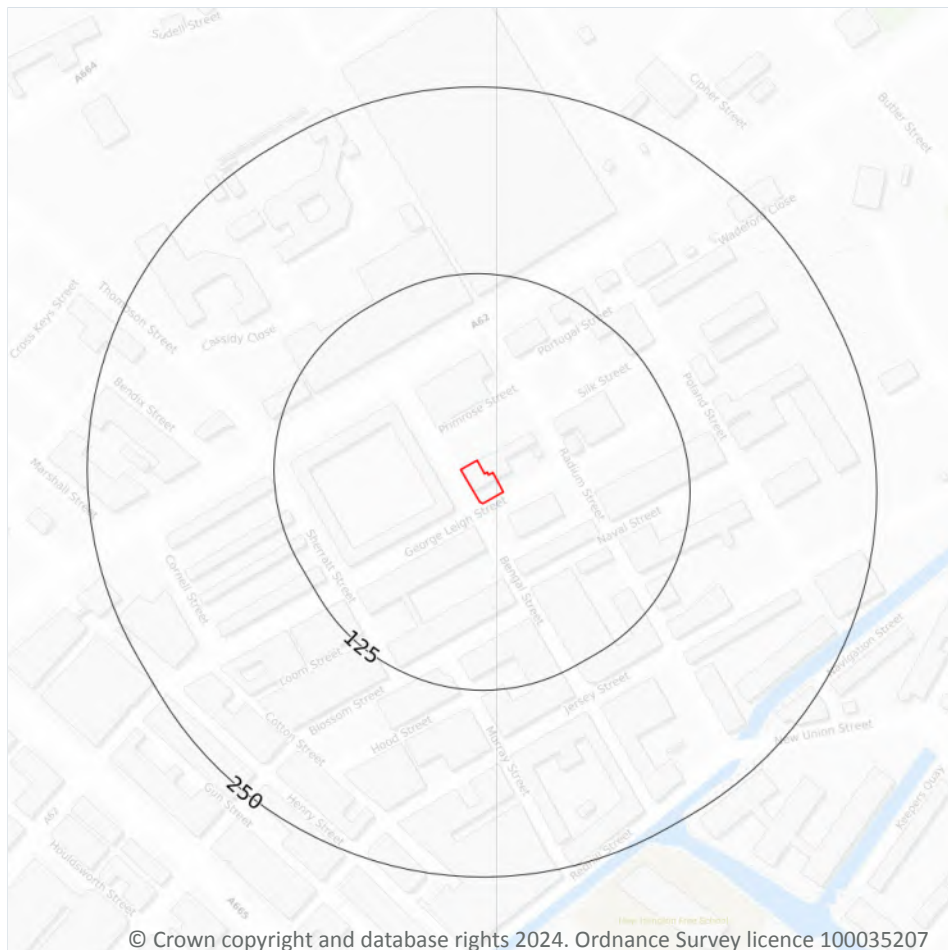
Since the database was set up in 2002 data covering most of the evaporite karst areas of the UK have now been added, along with data covering about 60% of the Chalk, and 35% of the Carboniferous Limestone outcrops. Many of the classic upland karst areas have yet to be included. Recorded so far are: Over 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 139](#) >

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.



21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m

6

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km². In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km²; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 - 25 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
18m E	25 - 35 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
30m N	25 - 35 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
30m N	25 - 35 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m

4

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km²).



Location	Arsenic (mg/kg)	Bioaccessible Arsenic (mg/kg)	Lead (mg/kg)	Bioaccessible Lead (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Tin (mg/kg)
On site	13	2.3	52	36	0.3	67	28	20	6
On site	15	2.6	52	36	0.3	69	28	21	6
4m S	14	2.5	50	34	0.3	68	28	20	6
8m SE	16	2.8	50	34	0.3	69	28	21	6

This data is sourced from the British Geological Survey.

21.3 BGS Measured Urban Soil Chemistry

Records within 50m

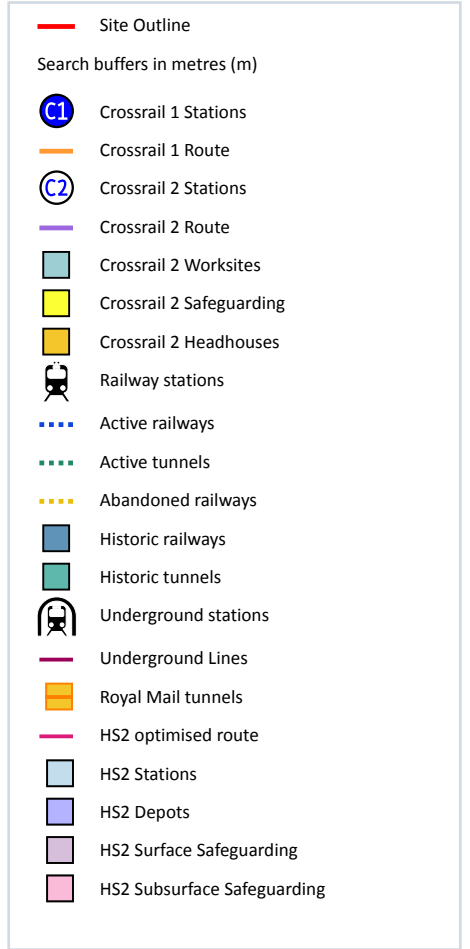
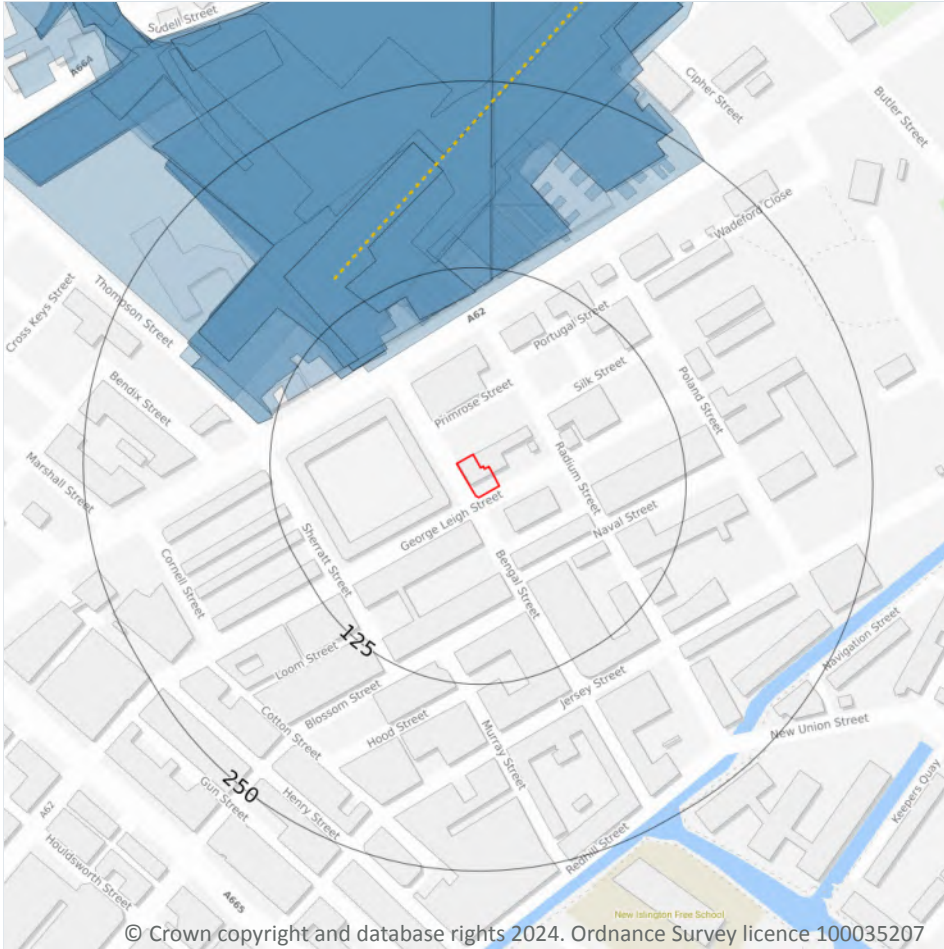
0

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km².

This data is sourced from the British Geological Survey.



22 Railway infrastructure and projects



22.1 Underground railways (London)

Records within 250m

0

Details of all active London Underground lines, including approximate tunnel roof depth and operational hours.

This data is sourced from publicly available information by Groundsure.

22.2 Underground railways (Non-London)

Records within 250m

0

Details of the Merseyrail system, the Tyne and Wear Metro and the Glasgow Subway. Not all parts of all systems are located underground. The data contains location information only and does not include a depth assessment.



This data is sourced from publicly available information by Groundsure.

22.3 Railway tunnels

Records within 250m

0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

22.4 Historical railway and tunnel features

Records within 250m

62

Railways and tunnels digitised from historical Ordnance Survey mapping as scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560.

Features are displayed on the Railway infrastructure and projects map on [page 143 >](#)

Location	Land Use	Year of mapping	Mapping scale
83m NW	Railway Sidings	1891	10560
88m NW	Railway Sidings	1923	10560
90m NW	Railway Sidings	1938	10560
90m NW	Railway Sidings	1933	10560
90m NW	Railway Sidings	1921	10560
90m NW	Railway Sidings	1906	10560
92m N	Railway Sidings	1891	500
94m NW	Railway Sidings	1956	10560
95m N	Railway Sidings	1953	2500
95m NW	Railway Sidings	1965	2500
96m NW	Railway Sidings	1971	10000
96m NW	Railway Sidings	1978	10000
96m N	Railway Sidings	1891	500
97m N	Railway Sidings	1953	1250
99m NW	Railway Sidings	1931	2500
99m N	Railway Sidings	1891	500
100m NW	Railway Sidings	1891	500



Location	Land Use	Year of mapping	Mapping scale
100m N	Railway Sidings	1967	2500
100m N	Railway Sidings	1891	500
101m N	Railway Sidings	1963	1250
109m N	Railway Sidings	1953	2500
113m NW	Railway Sidings	1908	2500
113m NW	Railway Sidings	1922	2500
115m NW	Railway Sidings	1953	2500
115m NW	Railway Sidings	1893	2500
118m N	Railway Sidings	1956	10560
118m N	Railway Sidings	1968	10560
124m N	Railway Sidings	1963	1250
124m N	Railway Sidings	1951	1250
125m N	Railway Sidings	1951	2500
130m N	Railway Sidings	1985	10000
130m NW	Railway Sidings	1891	500
132m N	Railway Sidings	1951	2500
132m N	Railway Sidings	1963	1250
132m N	Railway Sidings	1951	1250
139m N	Railway Sidings	1951	2500
139m N	Railway Sidings	1963	1250
139m N	Railway Sidings	1951	1250
149m NW	Railway	1922	-
149m N	Railway Sidings	1951	2500
150m N	Railway Sidings	1963	1250
150m N	Railway Sidings	1951	1250
156m N	Railway Sidings	1951	2500
156m N	Railway Sidings	1963	1250
156m N	Railway Sidings	1951	1250



Location	Land Use	Year of mapping	Mapping scale
160m N	Railway Sidings	1948	2500
166m N	Railway Sidings	1949	2500
166m N	Railway Sidings	1952	2500
166m N	Railway Sidings	1958	2500
167m N	Railway Sidings	1958	1250
167m N	Railway Sidings	1952	1250
167m N	Railway Sidings	1949	1250
167m N	Railway Sidings	1964	2500
168m N	Railway Sidings	1952	2500
168m N	Railway Sidings	1949	2500
169m N	Railway Sidings	1960	1250
171m N	Railway Sidings	1949	1250
171m N	Railway Sidings	1951	1250
171m N	Railway Sidings	1970	1250
184m NW	Railway Sidings	1851	10560
191m N	Railway Sidings	1970	1250
192m N	Railway Sidings	1978	10000

This data is sourced from Ordnance Survey/Groundsure.

22.5 Royal Mail tunnels

Records within 250m

0

The Post Office Railway, otherwise known as the Mail Rail, is an underground railway running through Central London from Paddington Head District Sorting Office to Whitechapel Eastern Head Sorting Office. The line is 10.5km long. The data includes details of the full extent of the tunnels, the depth of the tunnel, and the depth to track level.

This data is sourced from Groundsure/the Postal Museum.



22.6 Historical railways

Records within 250m**1**

Former railway lines, including dismantled lines, abandoned lines, disused lines, historic railways and razed lines.

Features are displayed on the Railway infrastructure and projects map on [page 143 >](#)

Location	Description
148m NW	Abandoned

This data is sourced from OpenStreetMap.

22.7 Railways

Records within 250m**0**

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways.

This data is sourced from Ordnance Survey and OpenStreetMap.

22.8 Crossrail 1

Records within 500m**0**

The Crossrail railway project links 41 stations over 100 kilometres from Reading and Heathrow in the west, through underground sections in central London, to Shenfield and Abbey Wood in the east.

This data is sourced from publicly available information by Groundsure.

22.9 Crossrail 2

Records within 500m**0**

Crossrail 2 is a proposed railway linking the national rail networks in Surrey and Hertfordshire via an underground tunnel through London.

This data is sourced from publicly available information by Groundsure.

22.10 HS2

Records within 500m**0**

HS2 is a proposed high speed rail network running from London to Manchester and Leeds via Birmingham. Main civils construction on Phase 1 (London to Birmingham) of the project began in 2019, and it is currently anticipated that this phase will be fully operational by 2026. Construction on Phase 2a (Birmingham to Crewe)



is anticipated to commence in 2021, with the service fully operational by 2027. Construction on Phase 2b (Crewe to Manchester and Birmingham to Leeds) is scheduled to begin in 2023 and be operational by 2033.

This data is sourced from HS2 Ltd.



Data providers

Groundsure works with respected data providers to bring you the most relevant and accurate information. To find out who they are and their areas of expertise see <https://www.groundsure.com/sources-reference> ↗.

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