Bridge College, Manchester

Phase 1 Desk Study

19 November 2024

Prepared For The Together Trust, Bridge College



Civic Earth

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Phase 1 Desk Study

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Introduction

Civic Earth Limited was appointed by Civic Engineers on behalf of The Together Trust, Bridge College (the Client) to undertake a Phase 1 Desk Study, Data Review and Preliminary Risk Assessment for the proposed redevelopment of Bridge College in Openshaw, Manchester (herein referred to as “the site”).

The aim of this report is to evaluate potential human health, environmental and geotechnical risks and constraints associated with the proposed development, including:

- Information obtained from a review of available historical mapping and environmental disclosure report for the site;
- A summary of the anticipated ground conditions and associated geotechnical and geoenvironmental constraints based on review of available published and unpublished records and previous reports provided to Civic Earth;
- A preliminary qualitative contamination source-pathway-receptor risk assessment based on the available desk study information and the current proposed redevelopment plans; and
- Recommendations for ground investigation and further assessment, if required.

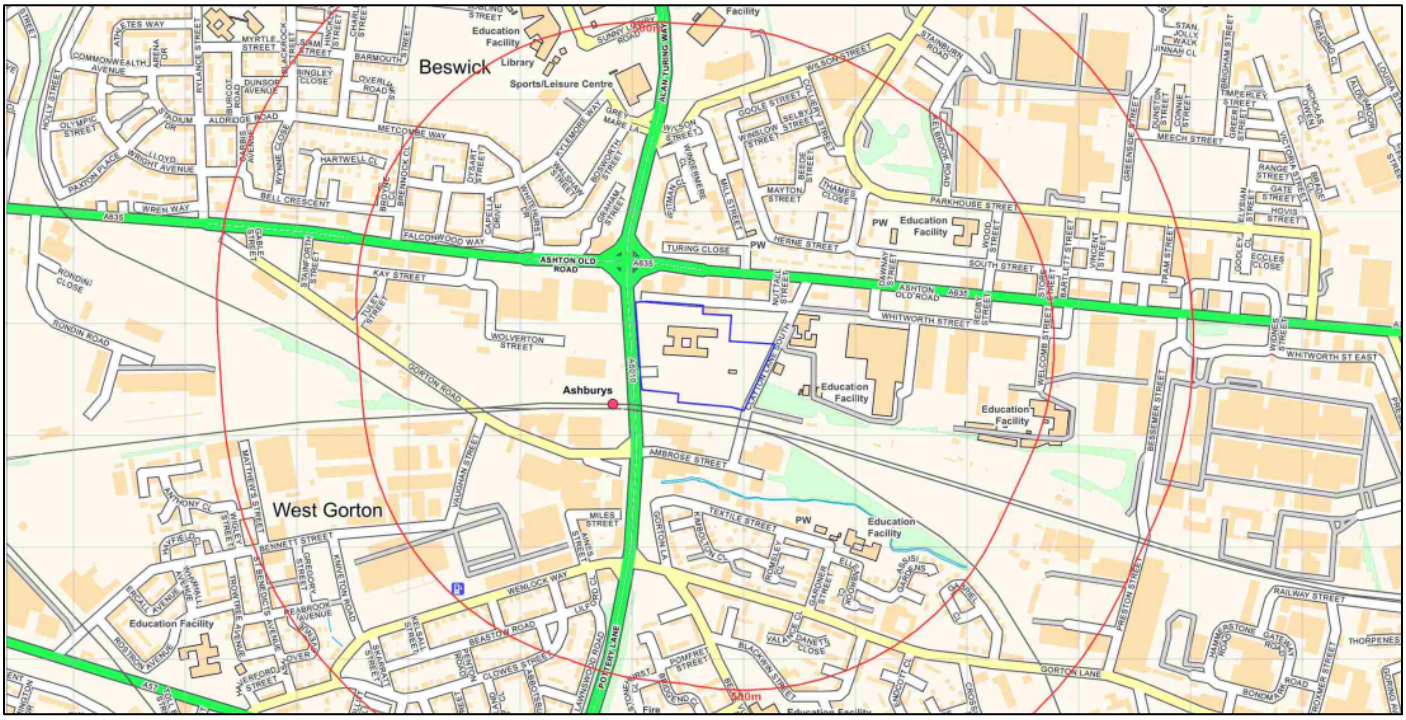
This document is intended to support the planning application for the development and to inform the scope for further site investigation, if required. It is assumed that ecological, flooding and archaeological desk studies/assessments will be undertaken by others and fall outside the scope of this report.

1. Site Context

1.1. Site Location

The site is bound to the North by Whitworth Street, to the Southeast by Clayton Lane South, to the West by Pottery Lane and by railway lines to the South. The site is located in Openshaw, approximately 5km east of Manchester City Centre. The postcode for the site is M11 2GR. The National Grid coordinates for the approximate centre of the site are 387320E, 397343N and the site is approximately 3.34 ha in size. The site location is illustrated with a blueline boundary in Plate 1.

Plate 1: Approximate Site Location Plan (©OpenStreetMap Contributors)



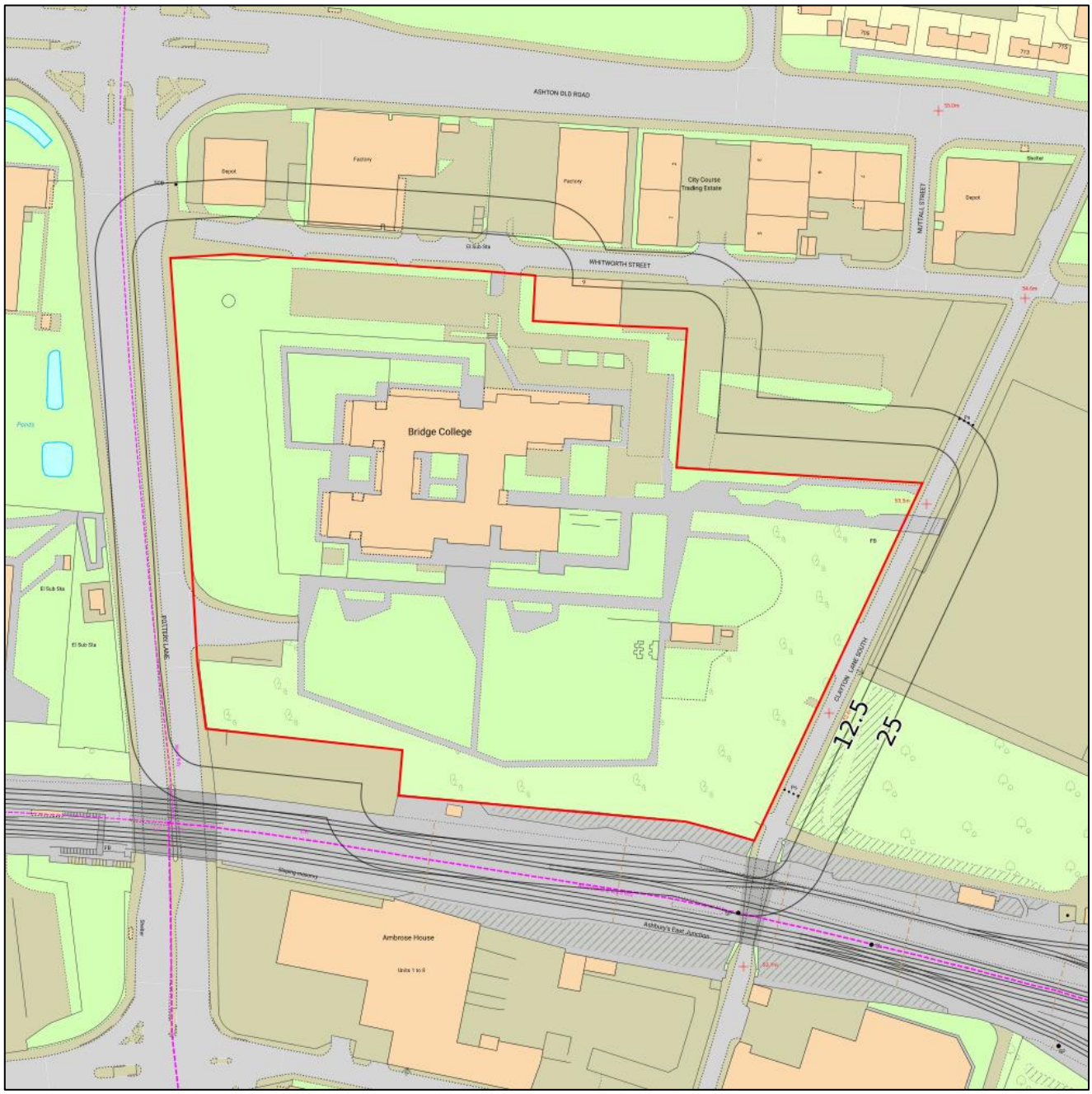
1.2. Site Description

A site walkover was carried out on the 27th of September 2024 by an engineer from Civic Earth and full details of the site walkover are included in the site walkover record and photographs included in Appendix A and Appendix B, respectfully.

The site is roughly rectangular in shape and predominantly comprises of open space with soft landscaping, an asphalt car park to the north of the site, the open space is partially covered in hardstanding on several walkway paths around the site, this layout is illustrated in Plate 2. The site currently comprises of a special education school. It is understood that prior to the site being a school it was occupied by a Rolls Royce factory, known as Crossley Works.

The site is bounded to the North by Whitworth Street, to the Southeast by Clayton Lane South, to the West by Pottery Lane and by railway lines to the South. The site is predominantly flat with ground levels range with a slight sloping north to south between +60m above Ordnance Datum (mOD) at Whitworth Street and 56mOD at Clayton Lane South. The site is bounded by metal fencing to the north, east and south of the site, with a brick wall with metal fencing bounding the western portion of the site where the A-road runs along.

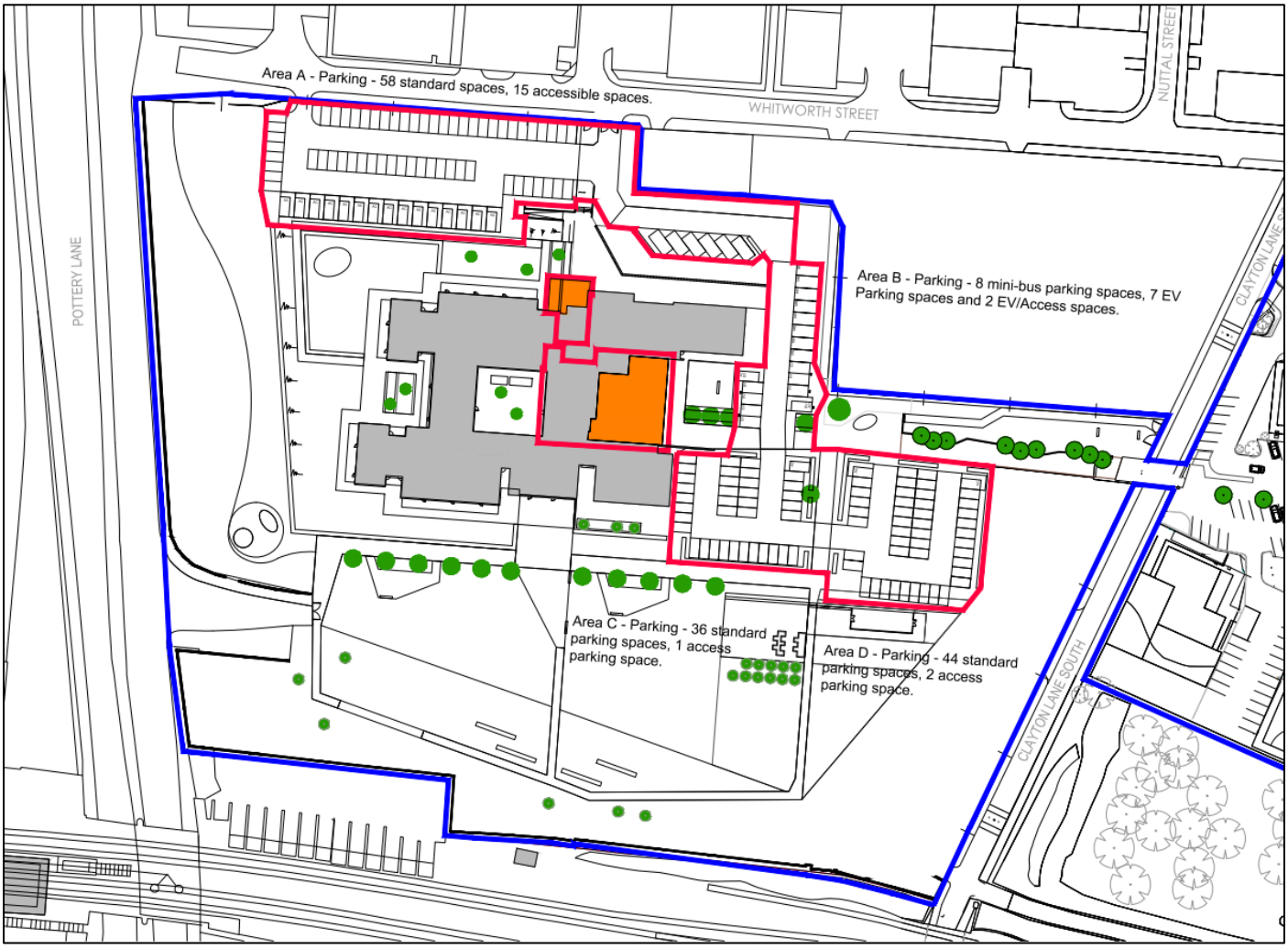
Plate 2: OS MasterMap Site Plan (excerpt from Enviro + Geo Insight Report)



1.3. Proposed Development

A sketch of the proposed development is shown in Plate 3. The current proposals for the site include new school rooms, offices and accommodation in the same style as the existing building, shown in orange in Plate 3. Additionally, four new areas labelled Area A, B, C & D will accommodate new parking spaces including standard, Electric Vehicle (EV), mini-bus and access parking spaces.

Plate 3: Proposed development plans - OS MasterMap Site Plan (excerpt from Envrio + Geo Insight Report) overlain with proposed development areas in colour.



2. Historical Development

2.1. Sources of Information

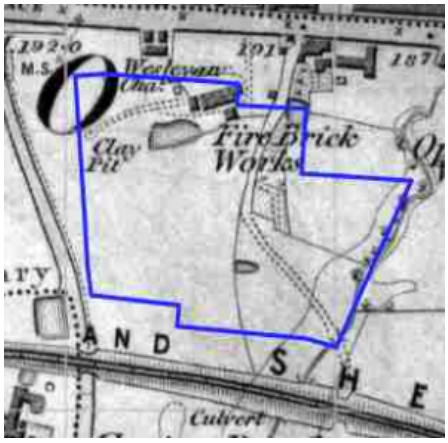
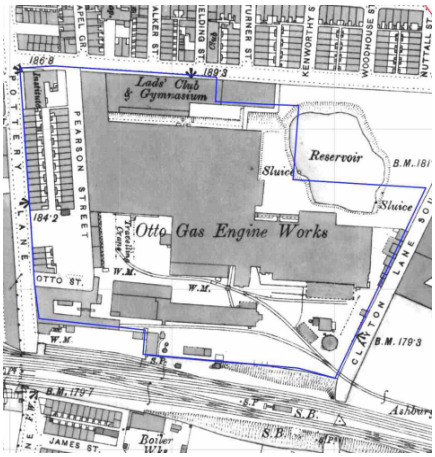
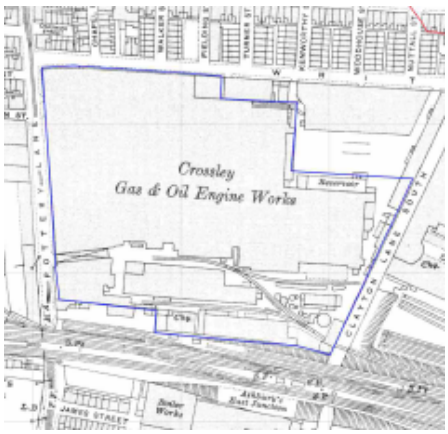
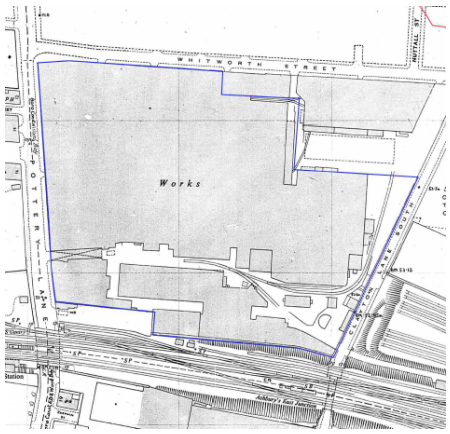
The historical development of the site has been traced from Ordnance Survey mapping (included in Appendix C) and historical satellite mapping included in the Groundsure Enviro + Geo Insight report (included in Appendix D).

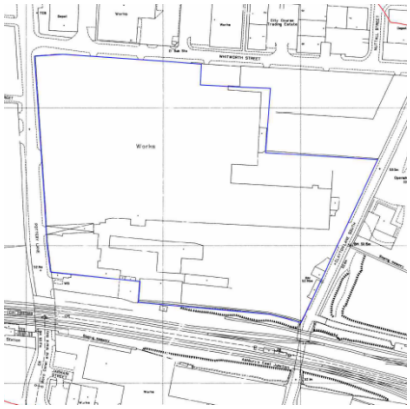
2.2. Site History

2.2.1. On-Site

The pertinent history of the site is summarised in Table 1 along with relevant excerpts from historical maps and aerial photographs.

Table 1: Summary of Site History

1848 – 1:10,560	1893 – 1:2,500	1908 – 1:2,500
		
Earliest available mapping indicates the site to be primarily empty with a *Clay Pit* and a *Fire Brick Works* to the north of the site. There are several pathways passing through the site to the south where the railway is situated along the southern boundary of the site.	The earliest specific site use shows it to be occupied by an *Otto Gas Engine Works* alongside a *Lads' Club &* Gymnasium in the north portion of the site, and several rows of possible residential housing to the west with *Pearson Street* and *Otto Street.* Railway tracks/sidings and a travelling crane are shown along with a circular feature that could be a tank. There is a large reservoir with two sluices partially on site at the northeast. Whitworth Street bounds the north, Clayton Lane south bounds the east and Pottery Lane the west of the site. A railway line runs along the south side of the site from west to east	Changes on the 1908 OS plan include the clearance of housing on Pearson Street and Otto Street in the west of the site and the extension of the works buildings to the west in this area, as well as in the northern, western and southern areas. Two new works buildings are also shown in the south of the site, a chimney is indicated towards the southern boundary, and a number of features, likely storage tanks, in the southeast corner.
1922 – 1:2,500	**1977 – 1:1,250**	**1986 – 1:1,250**
		
By 1922, the Institute building is no longer shown in the NW corner of the site and the works is shown covering that area. The site is now indicated as *Crossley Gas & Oil Engine Works.* The reservoir which had been present partially within the NE part of the site has changed to a rectangular feature, shown within the site boundary.	By 1977, tanks which had been present in the SE of the site, and the chimney which had been present in the south of the site are no longer shown. The reservoir which had been labelled in the NE is no longer shown.	By 1986, works buildings in the SE of the site had been cleared and railway lines have been removed.

1993-1994 – 1:1,250	June 2000 – Aerial Imagery	June 2015 – Aerial Imagery
		
By 1993/4, there had been further removal of works buildings in the SE of the site.	By 2000, works buildings along the western boundary had been removed and replaced with landscaped open space.	By 2015, the works has been entirely removed from the site and the Bridge school is shown. There are no significant changes shown between now and present day.

2.2.2. Off-Site

The earliest available mapping dated 1893 indicates that the area was in a mixed residential, industrial and commercial area. There was terraced housing to the north of the site on Whitworth Street and a tramway further north on Ashton Old Road. Straddling the northern boundary there was a *reservoir* which likely served the Otto Gas Engine Works. To the west, over Pottery Road, a *carriage works* was located. Within 100m of the southern boundary, *Ashbury's Station*, *railway lines*, *Royal Iron Works* and *Boiler Works* were located. *Gorton Brook Pottery* was sited adjacent to Ashbury's Station further to the southwest. To the east of the site, an *engineering works* containing *railway sidings* is mapped. A summary of the later developments in land surrounding the site is provided below:

- 1908 the *pottery* to the southwest of the site is labelled as disused, however a *shaft* (considered likely to supply clay or water to the pottery) is shown within its grounds, around 100m from the southwest corner of the site.
- 1922 the *reservoir* outside the NE corner of the site has been developed over with a new *works building* and presumably filled.
- 1933 the *carriage works* to the west of the site had been demolished and a school had been built adjacent to *Ashbury's Station* on land formerly occupied by the pottery.
- 1948 the *tramway* on Ashton Old Road had been removed. Housing to the south of the site on James Street, Ambrose Street and Pineapple Street had been cleared. The *engineering works* to the east of the site had been demolished and a *refuse heap* is mapped where the engineering works had been, approximately 100m east of the site.
- 1977 the housing along Whitworth Street to the north of the site and Peterson Street, Huddleston Street and Jarold Street close to the northwestern corner of the site had been demolished. A small *industrial estate* had been developed off Huddleston Street on land formerly occupied by the housing. On land to the east of the site, within the plot formerly occupied by an engineering works and a refuse heap, Openshaw Technical College is now mapped.
- 1986 an *industrial estate* labelled as City Course Trading Estate is shown partially developed to the north of the site.
- 1990 *sidings* present to the east of the site are no longer shown.
- 1993 there had been further development of the *City Course Trading estate* to the north of the site, and demolition of the small *industrial estate* off Huddleston Street.

2.3. Planning History

A brief review of Manchester City Council planning portal[1] includes the following planning application for the site:

- **101537/FO/2013/N2 04/2013 – Bridge College, Openshaw**: *Installation of 10m high steel sculpture within the college grounds at the corner of Whitworth Street and Pottery Lane, with associated pathway, seating and landscaping. (Northwest corner of site). Decision – previously approved on 24/05/2013.*

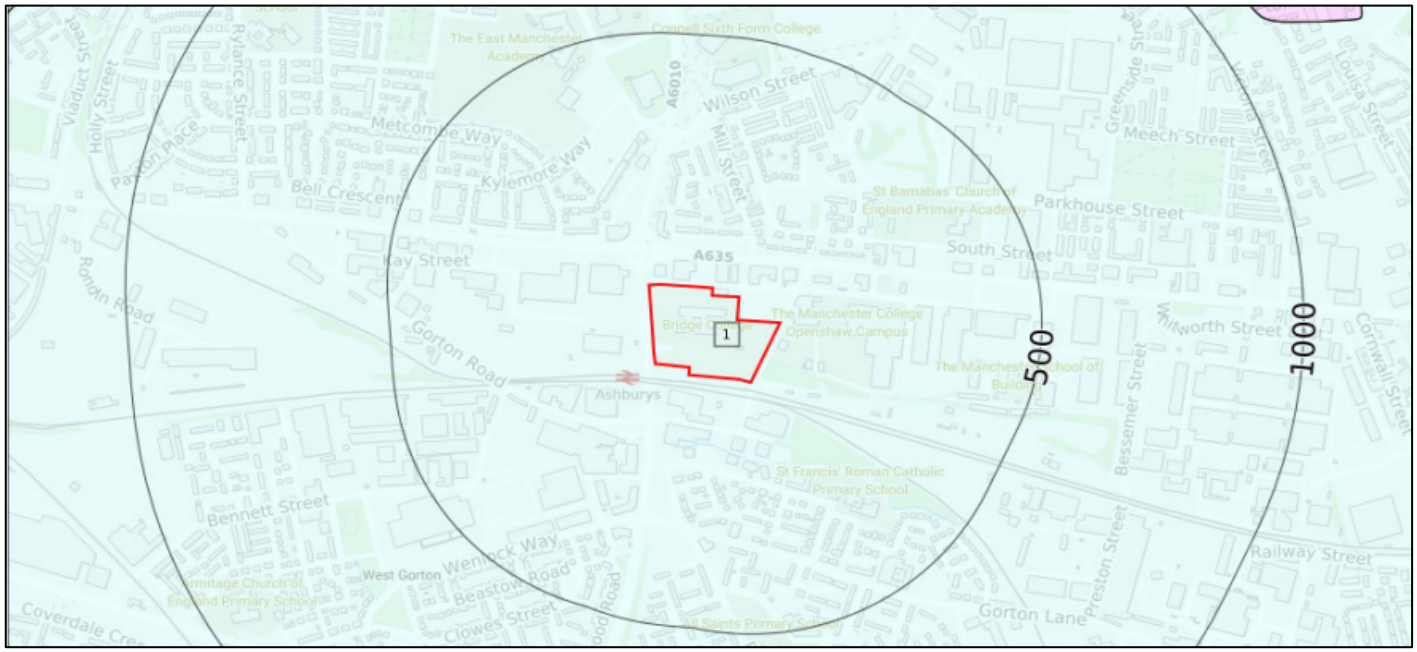
[1] Simple Search (manchester.gov.uk) (Accessed September 2024)

3. Anticipated Ground Conditions

3.1. Published Geology

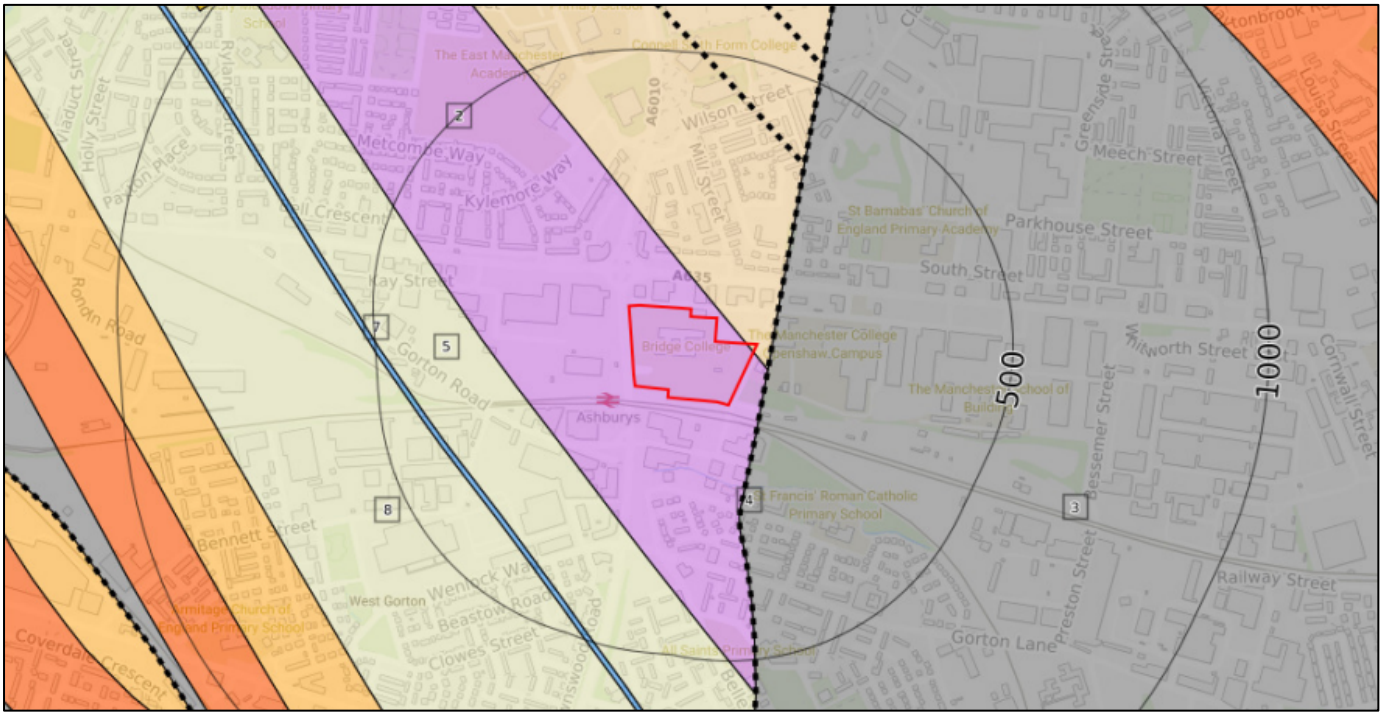
With reference to the British Geological Survey (BGS) website[2], BGS Sheet 85[3] and the Groundsure Enviro + Geo Insight report obtained for the site (included in Appendix D), the site is anticipated to be underlain by Devensian Till Deposits. The distribution of the superficial deposits is illustrated in Plate 4.

Plate 4: Superficial Deposits (based on excerpt from Groundsure Enviro + Geo Insight Report)



The superficial deposits on the site are underlain primarily by the Etruria Formation (Sandstone and mudstone), with a small portion in the northeast of the site being underlain by Pennine Upper Coal Measures Formation (Mudstone, siltstone and sandstone) (see Plate 5). With reference to BGS Lexicon[2] the sandstone and mudstone of the Etruria Formation is described as red, purple, brown, ochreous, green, grey and commonly mottled mudstone, with lenticular sandstones and conglomerates referred to as 'espleys'. A north south trending fault is mapped as being located approximately 30m east of the site boundary.

Plate 5: Bedrock Geology (based on excerpt from Groundsure Enviro + Geo Insight Report)

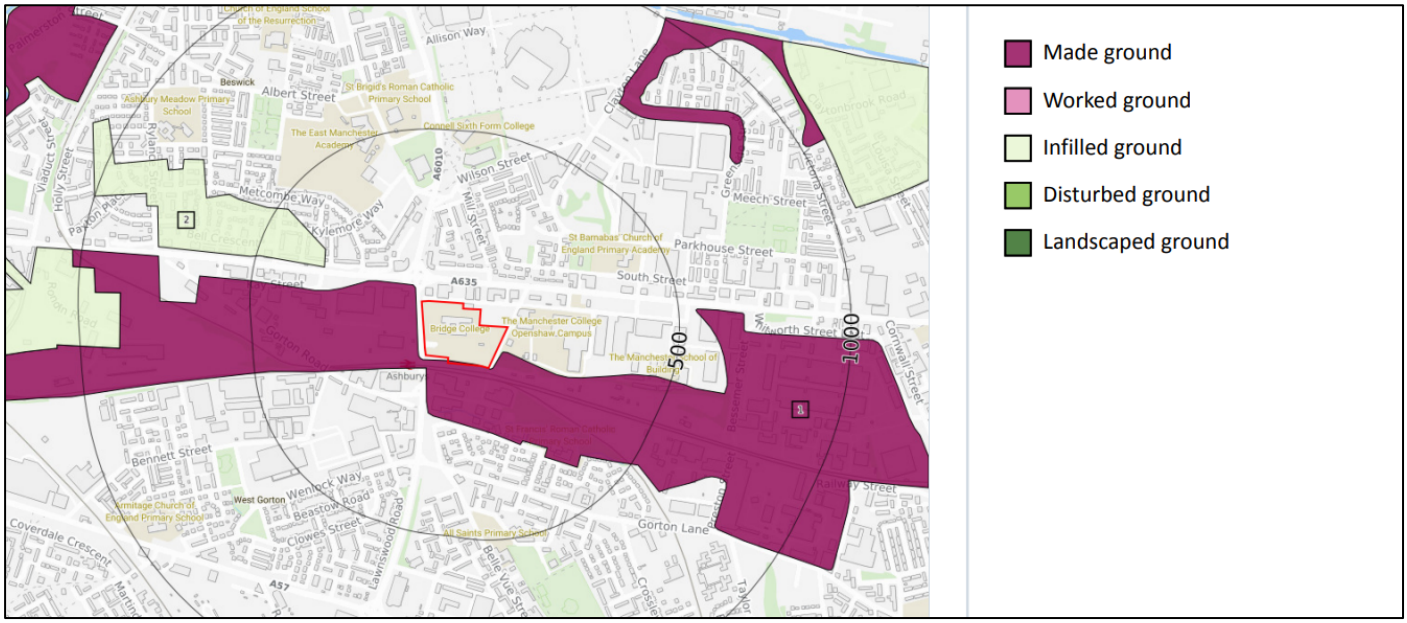


[2] British Geological Survey (BGS), www.bgs.ac.uk (Accessed September 2024)

[3] BGS (2012) Wolverhampton, Sheet 85. Solid and Drift. 1:50,000.

With reference to the Groundsure Enviro + Geo Insight report, deposits of artificial Made Ground (undivided) are indicated to be present in far southern portion of the site (see Plate 6), although Made Ground is anticipated across the site given the history of development of the site. There are large portions of Made Ground illustrated to border the southern, western and part of the eastern parts of the site. Infilled ground is illustrated to be present approximately 350m northwest of the site.

Plate 6: Excerpt from Groundsure Enviro + Geo Insight Report illustrating Worked Ground / Made Ground



3.2. Unpublished BGS Geology

There are 8 historical BGS records available for review c.40m to the north and northwest of the site, as illustrated in Section 16 of the Groundsure Envrio + Geo Insight report. The ground conditions typically encountered a variable thickness of Made Ground (between 0.9 and 2.7m) overlaying superficial deposits (noted as '*Boulder Clay*') of firm to very stiff silty clay with coal inclusions and bands of sand and silt. The base of the superficial deposits appears to have been encountered in one borehole at 8.9m the geology changes to very clayey slightly gravelly fine sand. Copies of the BGS records are included in Appendix E.

3.3. Surface Mining and Ground Workings

There are 6 records for historical surface ground workings within the site relating to fire brick works, a pond and a reservoir. An additional 9 records of historical ground workings are present within 250m of the site relating to a refuse heap, clay pit, reservoirs and ponds. There are no records of underground workings on or within 250m of the site.

3.4. Coal Mining

3.4.1. Consultant's Coal Mining Report

The site is located within a Coal Mining Reporting Area as defined by the Coal Authority (CA). However, mapping available from the CA indicates that the site is not within a Development High Risk Area[4].

A Consultants Coal Mining Report has been obtained for the site and is included in Appendix F. The report concludes that:

- There are 6 reports of past underground mining related to the Roger coal stream (last mined 1957).
- There are 2 reports of past underground mining related to the Parker coal stream (last mined 1935).
- There are 9 reports of past underground mining related to the Crombouk coal stream (last mined 1957).
- There is 1 report of past underground mining related to the Bradford Four Feet coal seam (last mined 1880) and 1 report for Yard coal stream (last mined 1880).
- There are 3 mine entries recorded within 500m of the site relating to coal mining with shaft.
- No Outcrops recorded within 500m of the site boundary.
- A geological fault recorded in close proximity to the site boundary to the east of the site.
- No probable unrecorded shallow workings.
- No spine roadways at shallow depths.
- No opencast mines recorded within 500m of site boundary.
- No Coal Authority managed tips within 500m of site boundary.
- There are 7 records of abandoned mine plan catalogue that intersect with the site boundary.
- No records of mine gas and mine water treatment within 500m of the site boundary.

3.4.2. Abandonment Plans

The CA has listed 7 abandonment plans being available that intersect with some or all the site boundaries. However, they have not been obtained as they are related to mine workings that are at depths below the zone of influence.

3.4.3. Mine Shaft Records

According to the CA Consultant's Coal Mining Report, there are 3 mine entries present within 100m of the site boundary. The details are listed in Table 2.

Table 2: Summary of Coal Mine Entries Recorded by the CA

Reference	Grid reference	Location	Treatment Description
387397-007	387319 397453	Off site (c. 20m north)	No records of treatment.
387397-008	387172 397194	Off site (c. 50 southwest)	No records of treatment.
387397-012	387173 397241	Off site (c. 70 southwest)	No records of treatment.

3.4.4. Shallow Workings

Based on the available data, it is unlikely that there will be shallow workings beneath the site as there are no known shallow coal seams mapped in the area.

3.4.5. Mine Water

Based on the available site-specific data, it is unlikely that there will be a risk of mine water, due to the low probability of shallow workings, shallow groundwater or springs on site. Additionally, the CA Consultant's Coal Mining Report, the CA do not have recorded cases of mine water treatment works within 500m of the site boundary.

[4] https://mapapps2.bgs.ac.uk/coalauthority/home.html accessed June 2024

3.4.6. Mine Gas

Potential for generation of mine gas is low as there is a low probability of shallow workings. Furthermore, the site is underlain by impermeable mudstone and glacial till, as such the potential for mine gas to migrate to the surface is considered low. Additionally, the CA Consultant's Coal Mining Report, the CA do not have recorded cases of mine gas within 500m of the site boundary.

3.4.7. Mining Risk Summary

Overall, based on the evidence provided by the Coal Authority and the BGS, the site is considered to be at low risk from historical mining activities, as such, in accordance with CA guidance[5], further coal mining risk assessment and intrusive coal mining specific site investigation is not considered necessary.

3.5. Hydrology and Hydrogeology

The Environment Agency (EA) has produced an aquifer designation system consistent with the requirements of the Water Framework Directive. The designations have been set for superficial and bedrock geologies and are based on the importance of aquifers for potable water supply and their role in supporting surface water bodies and wetland ecosystems.

The superficial deposits of Devensian Till Deposits are designated as a Secondary Undifferentiated aquifer. The underlying Etruria Formation and Pennine Upper Coal Measures Formation are designated as a Secondary A aquifer.

The site is not located within a groundwater Source Protection Zone (SPZ). There is one abstraction reported within 1,000m of the site, located approximately 720m southeast of the site for process water. There are a further three historical abstractions within 1,000m of the site approximately 680m northeast, 750m northeast and 990m northeast relating to a range of categories including general cooling, process water, spray irrigation, horticultural watering and general use relating to secondary category (medium loss).

There is one record of a surface water feature within 250m of the site, approximately 130m south of the site is an inland river not influenced by normal tidal action, Corn Brook. This waterbody is a culverted river, first emerging from Openshaw from two brick pipes, travelling around 750m above ground before dropping into a 5.5km culvert that travels to the south of Manchester centre, finally arriving at the Manchester Ship Canal. Given the location of Corn Brook and the general site topography the groundwater flow direction is anticipated to be from east to west.

3.6. Ground Hazards

The risks associated with potential geological hazards at the site have been assessed using the Enviro + Geo Insight report and are summarised in Table 3.

Table 3: Geological Hazards

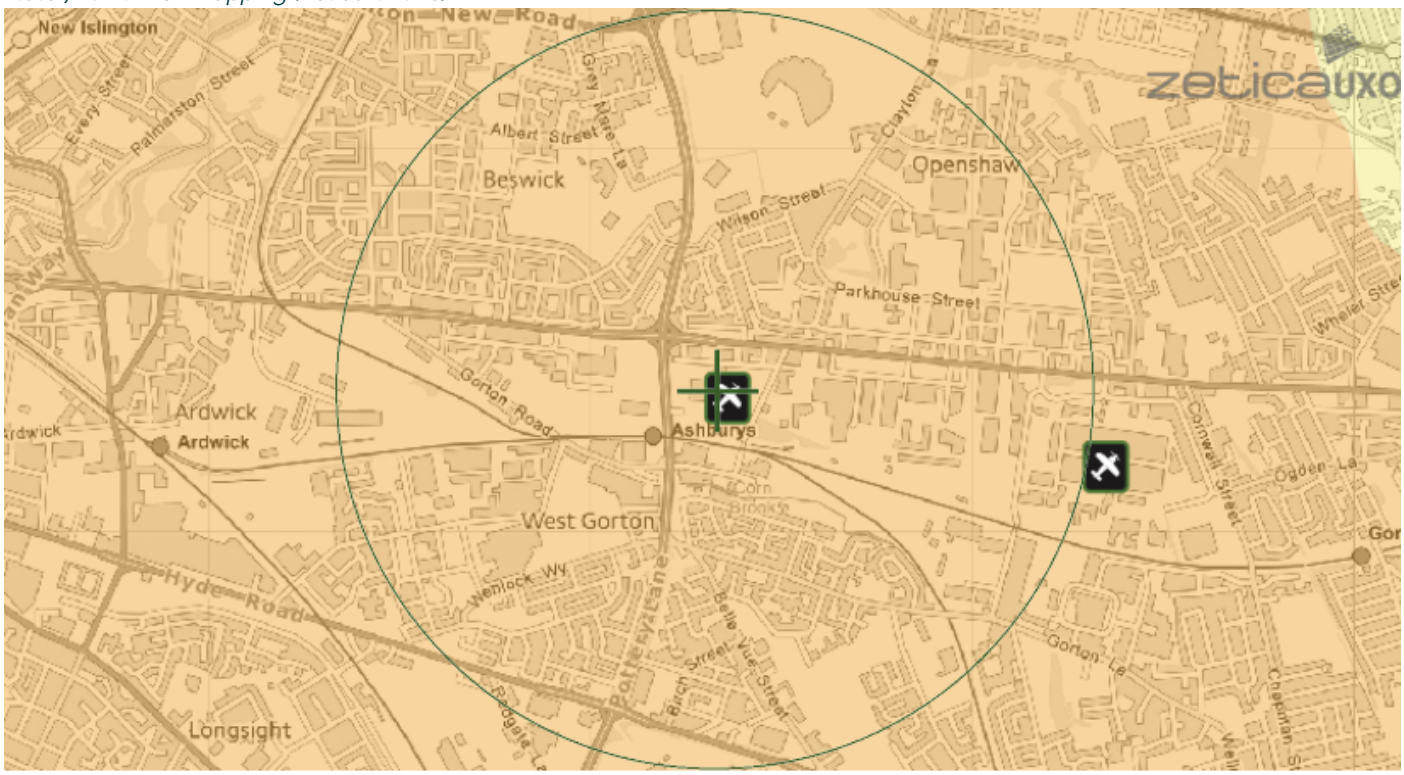
Hazard	Risk
Shrink-swell clays	Very low
Running Sands	Very low
Compressive Deposits	Negligible
Collapsible Deposits	Very low
Landslides	Very low
Ground Dissolution	Negligible

3.7. Unexploded Ordnance (UXO)

A review of publicly available risk mapping indicates that the site is located within an area of moderate risk from unexploded ordnance (UXO) with a target on site, as illustrated in Plate 7. Zetica define a moderate risk as an area that is indicated to having a bombing density of 15 to 49 bombs per 1000 acres dropped. It is therefore recommended that further UXO Assessment be undertaken for the site.

[5] The Coal Authority (2017). Guidance for Developers. A Risk Based Approach to Development Management. Version 4.

Plate 7: UXO Risk Mapping (Zetica Online)



LEGEND

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

Miltary | **Industry** | **UXO find** | **Other**
Transport | **Docks** | **Luftwaffe targets**
Utilities | **Bombing decoy** | **Airfields**

4. Environmental Setting

4.1. Environmental Disclosure Report

The Groundsure Enviro + Geo Insights report (included in Appendix C) has been used to provide information on the environmental setting of the site, to assist in identifying possible sources of ground contamination. A summary of the pertinent records generally within 250m from the site is provided below in Table 4. For full details the Groundsure Enviro + Geo Insights reports should be referred to. The records generally reflect the key pertinent features identified on the historical mapping. It is noted that the distances stated are approximate.

Table 4: Summary of Pertinent Information from the Environmental Disclosure Report

Environmental Record	Record Details	Distance from Site
Historical Industrial Land Uses	32 records including railway sidings, unspecified commercial/industrial land use, unspecified tanks, gas engine works, unspecified works, goods depot, engineering works, unspecified foundry, fire brick works, gas engine works and gas and oil engine works. 85 records within 250m including the land uses mentioned on site above with additional uses including iron/steel works, potteries, clay pit, starch works, chemical works, dry works, refuse heap and a corn mill.	On site Various within 250m
Historical Tanks	9 records of tanks and 6 records of unspecified ranks. 3 records of tanks and 19 records of unspecified tanks.	On site Various within 250m
Historical Energy Features	3 records of gas and oil engine works. 9 records of an electricity substation.	On site Various within 250m
Historical Garages	7 records for historical garages.	Various within 250m
Historical or Active Landfills	1 record of a historical landfill last recorded 1994.	177m southeast
Historical Waste Sites	1 record of a historical waste site recycling centre in 2010. 1 record of a scrap yard present in 1990.	North, on site 15m NW off site
Licensed Waste Sites	1 record of a metal recycling site present in 2004.	167m south of site
Waste Exemptions	19 records of waste exemptions from subcategories *not on a farm* and *non-agricultural waste.*	Various within 250m
Recent Industrial Land Uses	35 records of industrial land uses relating to infrastructure and facilities, hire services, industrial features, industrial products, public transport, stations and infrastructure, foodstuffs, repair and servicing, personal and consumer services, hire services, farming and recycling services.	Various within 250m
Current or Recent Petrol Stations	No records identified within 250m of the site.	-
Licensed Pollutant Releases	2 records of licensed pollutant relating to respraying of road vehicles, use of bulk cement and coating processes.	Various within 250m
Radioactive Substance Authorisations	No records identified within 250m of the site.	-
Licensed Discharge Consent to Controlled Waters	1 record on site of trade discharges – cooling water. 5 records off site of sewage discharges, storm overflow.	On site Various within 250m
Pollution Incidents to Controlled Waters	1 record of pollution incident in 2003 of diesel. Water impact (minor), land impact (none) and air impact (minor).	135m south
Environmental Designations	The site is located within an SSSI Impact Risk Zone – further details are included within the Groundsure Enviro + Geo Insights report.	-

4.2. Radon

The environmental disclosure report has identified that site does not lie within a Radon Affected Area as less than 1% of properties are estimated to have a radon level at or above the action level. No radon protective measures are therefore considered necessary. It is noted however that if new basements are proposed which shall be occupied or part occupied, current guidance requires monitoring for radon, irrespective of the initial risk assessment. This should be considered in terms of the lower ground floor levels and whether they constitute basements.

5. Previous Reports

The following reports have been provided by Civic Engineers and contain information relevant to the ground conditions, potential contamination and the development history at the site.

5.1. Curtins Phase 1 Report, January 2009

This desktop study[6] was carried out to assess the site's geo-environmental setting and potential risks, while also evaluating the need for ground investigations to derive a conceptual site model. The report concluded that the site posed moderate risks to human health due to potential soil contamination from industrial use. Off-site contamination risks were generally considered to be low, while a nearby landfill to the east was considered to pose a high to moderate hazard.

An investigation plan was developed to evaluate soil contamination and landfill gas risks for the proposed school development. The scope of recommended investigations including rotary, cable percussive and window sample boreholes, soil and groundwater analysis and gas monitoring.

5.2. Curtins Geo-Environmental Appraisal April 2009

Curtins geo-environmental appraisal[7] followed on from their desk study. Fieldwork included 7 light cable percussion boreholes holes and 15 window sample boreholes. Boreholes BH1 and BH6 were extended by rotary drilling to 30m depth. Chemical analysis and geotechnical testing were also undertaken.

Made ground was identified in all exploratory holes to varying depths ranging from 0.7m to 4.7m below ground level. Below the hard surfaces, the Made Ground consisted of a sandy, clayey gravel mix with debris of brick, ash, and metal. Underlying the Made Ground were firm to very stiff clays, typically at depths of up to 10.3m to 15.9m, with some window sample holes encountering granular and silty layers beneath. Weathered mudstone or sandstone was found beneath the clay, except in BH1, where a gravel horizon was encountered. Depth to bedrock was typically 10m – 16m. A coal seam was observed in BH6, but the risk to surface stability from workings in the seam was considered low.

Chemical analysis of 33 soil samples revealed elevated concentrations of sulphate, hydrocarbons, and semi-volatile organic compounds (SVOCs) in several locations. The recommendations included a clean, inert capping layer of at least 450mm in soft landscaped areas with a coloured geotextile layer.

Gas monitoring did not detect methane but recorded slightly elevated carbon dioxide concentrations. A gas-resistant membrane was recommended and given the presence of SVOCs, it was further recommended that school buildings in affected areas should be provided with venting media and a hydrocarbon resistant membrane.

Ground water monitoring revealed that although leachable assessment suggests that some propensity for mobility is present the analysis results for groundwater and natural soils along with the protection afforded by the natural clays indicates that the risk to controlled waters is low.

The report recommended shallow spread foundations for some parts of the site and piled foundations or vibrocompaction for others, depending on the depth of Made Ground.

5.3. GEA Desk Study and Ground Investigation Report January 2011

The purpose of the GEA investigation[8] was to assess the ground conditions following the demolition and enabling works package for the proposed school development, which had been carried out to remove obstructions to a depth of approximately 2m and cover the site with a capping layer of crushed brick and concrete.

This investigation generally confirmed the expected ground conditions, indicating that the site had been covered with a 0.2m to 0.9m thick layer of crushed brick and concrete with high fines content, the degree of compaction varying significantly across the site. Below this capping layer, Made Ground consisting mainly of firm and stiff sandy clay with brick and concrete fragments, as well as occasional gravel and coal fragments, was encountered to depths of between 0.70m and 1.55m. This material was reported to be free of volatile organic compounds but contained large boulder sized concrete fragments.

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[6] Curtins Report ref 50412/GN/0018 Phase 1 Detailed Desk Top Study Rolls Royce Crossley, Pottery Lane, Openshaw, Manchester 7 January 2009

[7] Curtins Report ref 50412/DM/0107 Geo-Environmental Appraisal Rolls Royce Crossley Works, Pottery Lane, Openshaw, Manchester 14 April 2009

[8] GEA Report ref J10145 Desk Study and Ground Investigation Report Manchester College Co-Location Project Pottery Lane Manchester January 2011.

Natural Glacial Till was found beneath the Made Ground in most areas except the southeastern corner, where trial pits revealed brick rubble in a matrix of clayey, gravelly sand containing ash, clinker, slag, concrete boulders, timbers, and metal fragments, along with a 'coal tar' odour. This fill material extended to depths of 2.2m to 3.5m. In the southwestern corner, loose to medium-dense sandy gravel of crushed concrete, with pockets of firm sandy clay, was encountered to a depth of 4.1m. Groundwater was found as perched seepages in some areas but was absent in other boreholes and trial pits.

Chemical analysis from this and previous investigations indicated that while the capping layer contained elevated total sulphate concentrations and high pH values, it lacked elevated levels of metals, TPH, or PAH. However, the fines from the demolition material contained elevated concentrations of lead, PAH, and sulphate. Below the capping layer, the cohesive Made Ground did not generally record elevated concentrations of contaminants, except in pockets of ash where arsenic, PAH, and sulphate were detected and in the southeastern part of the site, where deep ash and clinker contained elevated concentrations of arsenic, lead, PAH, and sulphate, along with potentially leachable chromium, copper, lead, nickel, zinc, and TPH.

5.4. Stockley Remediation Strategy August 2011

Stockley was appointed to provide civil and structural engineering advice for the development of the College and associated landscaping. As part of this scope, Stockley prepared a remediation strategy[9].

The strategy included for the provision of a capping layer; the remediation of a "Hot Spot" in the southeast of the site and for the re-use of site won materials as a development platform.

In areas intended for planting or horticulture, a minimum depth of 600mm for the growing medium was recommended, with the addition of a geotextile membrane or root barrier to form a visual separation from potentially contaminated material. All soft landscape treatments were designed to provide a minimum of 450mm of clean material. Contractors were required to certify the importation of clean material, and document all material movements in a Materials Management Plan.

With regard to the "Hot Spot" in the southeastern area of the site. The strategy required Contractors to excavate and screen 300m³ of potentially contaminated material and treat 86m³ to reduce contaminant mobility. Validation testing was required for all treated material before reuse on-site.

The strategy included for approximately 6,000m³ of site-won material to be reused to provide a stable development platform. This material was to be managed in accordance with the CL:AIRE Definition of Waste: Development Industry Code of Practice (March 2011), with testing undertaken to ensure that it could be placed at suitable depths, based on geotechnical and geochemical properties. If hazardous material was identified, it was to be either disposed of at a suitable facility or treated and validated according to an agreed methodology.

5.5. Stockley Report on additional ground contamination April 2012

An additional ground investigation[10] was carried out when piling works revealed oil contamination in the Made Ground beneath a portion of the building footprint. The investigation undertaken on behalf of the main contractor, Wates, when construction of the primary structure (foundation, walls, ground floor, and roof) had already been completed, and internal fit out was ongoing.

Oil contamination was found in Boreholes 3, 4, and 4A. Borehole 3 revealed liquid oil at depths of 2.56m to 2.86m below ground level, in a matrix of Made Ground. Boreholes 4 and 4A also encountered oil within Made Ground, primarily consisting of broken bricks and clay.

Despite the presence of oil, the residual risks associated with the contamination were considered low and further remedial action was not deemed to be necessary. The presence of contamination was recorded in the Health and Safety file for future reference during any further development or works at the site.

[9] Stockley Report ref 465-01 Manchester College Co-Location Project. Manchester Remediation Strategy15 August 2011
[10] Stockley Report ref 465-01 The Manchester College and Bridge College Co-Location Project: Review of risks associated with additional ground contamination (oil) found under the building dated 24/04/12

5.6. Stockley Earthworks Testing and Validation Note September 2012

This Testing and Validation Note[11] was provided by Stockley as a record of remediation work completed by September 2012. With regard to the site won material reused to form the development platform, the note states that:

- A total of 5,800m³ of site-won material was excavated, with 20 samples tested, yielding a testing rate of approximately 1 test per 290m³.
- This testing rate was slightly below the required standard of 1 test per 250m³.
- Validation testing was ongoing, with additional confirmation needed from Wates regarding specific materials with elevated contamination levels.
- Confirmation from the contractor was required to ensure proper placement according to Stockley drawings and specifications.
- Imported topsoil and subsoil had been tested according to the Stockley Materials Management Plan.
- An additional 747m³ of clean 6F5 material had been imported, pending contractor confirmation of its cleanliness.

The validation note records that the oil contamination encountered beneath the new school building remained on site. Remediation of the Hot Spot Area had been completed, with Stockley visiting the site to witness the process. The note also records that further information was awaited from Wates with regard to a number of issues including:

- Test results for approximately 1,200m³ of excess material generated during site works were still pending.
- Confirmation that all materials had been placed in accordance with project specifications, including relevant Stockley specifications and drawings.
- Confirmation that specific materials with elevated contamination levels had been placed at suitable depths.
- Confirmation that all imported materials were 'clean.'
- Confirmation regarding the treatment of the oil tank.

[11] Stockley Report ref 465-01 The Manchester College and Bridge College Co-Location Project: Earthworks Testing and Validation – Stockley Notes 10th September 2012

6. Preliminary Risk Assessment

6.1. Introduction

Historical contamination of land may present harm to human health and the environment. Current UK legislation stipulates that the risk associated with potential land contamination is assessed and remediated, if necessary. Under the Town and Country Planning Act 1990 (as amended), potential land contamination is a "material planning consideration" together with the National Planning Policy Framework[12] (revised in July 2023), which means that a planning authority must consider contamination when they prepare development plans or consider individual applications for planning permission. It is the responsibility of the developer to carry out the remediation where it is required and satisfy the Local Authority that the remediation has been carried out as agreed.

Additionally, Part 2A of the Environmental Protection Act 1990 requires that a significant source-pathway-receptor linkage exists to determine a site as contaminated land. This means that there has to be a contaminant present, a receptor that could be harmed by this contaminant, and a pathway linking the two. Part 2A deals with the contamination risk from a site in its current use, however, the planning system requires that the proposed use is considered. Where remediation is carried out under the planning system, it should be ensured that the site is in such a condition that it would still not meet the definition of contaminated land under Part 2A.

6.2. Preliminary Conceptual Site Model

A preliminary conceptual model has been compiled for the site with respect to the proposed development to identify the potential sources of contamination and the associated potential contaminant linkages. This model also informs the potential need for further investigation at the site.

6.2.1. Potential Sources

Potential contamination sources can include both current and historical activities on-site and off-site in the surrounding area. The potential sources outlined in Table 5 have been identified at the site.

Table 5: Potential Sources

Hazard	Description
Historical and current land uses – On-site	Historical industrial land uses including; industrial and commercial works. These historical industries could be potential sources of a wide range of contaminants including heavy metals, asbestos, chlorinated solvents and hydrocarbons. Whilst remediation was undertaken as part of the previous development, there is the potential for residual contamination to be present in the proposed areas of development.
Historical and current land uses – Off-site	Historical industrial uses including potteries, tramways, engineering works, railways, refuse heap, a landfill and an industrial estate. These historical industries and uses could be potential sources of a wide range of contaminants including heavy metals, hydrocarbons, chlorinated solvents, ground gases and PCBs.
Made Ground – Site and Off-site	Potential for Made Ground to be present due to historical development on and off-site, which could be a potential source of a wide range of contaminants including heavy metals, hydrocarbons and asbestos.
Ground gases / vapour	Made Ground can be a source of ground gas where an appreciable organic content is present. In addition, there is an off-site historical landfill. If present, degradation of hydrocarbons/organic chemicals can also produce organic vapours and ground gases. Previous investigation indicated ground gas and vapour protection measures to be required.
Groundwater	Perched water in the Made Ground, and Secondary Undifferentiated in the Devensian Till Deposits may be a source of contamination resulting from impacts from the previous on and off-site sources. Potential contaminants in water would be similar to those potentially present in the soils, as discussed above.

[12] Ministry of Housing, Communities and Local Government (2023). National Planning Policy Framework

6.2.2. Potential Pathways

The potential migration pathways that may be present are outlined in Table 6, considering a proposed mix use end use including residential.

Table 6: Potential Pathways

Hazard	Description
Ingestion and inhalation	Contamination within the Made Ground and/or shallow natural soils can result in the ingestion or inhalation of contaminated soils (and asbestos fibres if present) where soil is exposed and inhalation of ground gases/vapours.
Direct / dermal contact	Direct/dermal contact with contaminated soils or shallow groundwater can result in the uptake of contaminants through the skin (where soil is exposed) or permeation of contaminants through structures.
Root uptake	Uptake of phytotoxic contaminants by plants and vegetation within areas of soft landscaping.
Lateral and vertical migration	Leaching from potential contamination in the soils may impact the water in the Made Ground, underlying Secondary Undifferentiated aquifer (Devensian Till Deposits) and underlying Secondary A aquifer (Etruria Formation and Pennine Upper Coal Measures Formation). It is noted that the nearest identified surface water receptor is the Corn Brook some 130m to the south of the site. Cohesive superficial deposits are likely to limit vertical and shallow lateral migration of contaminants.
Ground gas / vapour migration	Lateral migration of ground gases and/or vapours through the soil matrix could lead to accumulation within buildings, posing a risk of asphyxiation or explosion.
Drainage and services	Could provide a preferential pathway for dissolved phase contaminant migration and/or ground gases/vapour transport.
Foundations (shallow, piled)	Could provide a preferential pathway for dissolved phase contaminant migration and/or ground gases/vapour transport.

6.2.3. Potential Receptors

The potential receptors have been identified based on the proposed hotel and residential end use of the site and are outlined in Table 7.

Table 7: Potential Receptors

Hazard	Description
Future site users	Users and occupiers are considered to be at risk from possible contamination associated within shallow soils and groundwater, if source and pathway are present.
Construction workers	Considered to be at risk from potential contamination within soils and groundwater during groundworks. Such persons are likely to be in close contact with potentially contaminated materials on site associated with the current and historical uses of the site and surrounding area.
Off-site residents	Potentially at risk from potential contaminants in wind-blown dust and potential odours/vapours generated during development works.
Controlled waters	The surrounding aquifer (Secondary Undifferentiated of the Devensian Till Deposits) and Secondary A aquifer of the Etruria Formation and Pennine Upper Coal Measures Formation Groups) are potentially at risk from the leaching of contaminants from potentially contaminated soils and groundwater. Although the closest identified surface water receptor is located 130m south of the site, it is determined that the cohesive superficial deposits are likely to limit vertical and shallow lateral migration of contaminants. The previous site investigation by Cutin's concluded that the risks to surface water receptors are considered to be low
Buildings / Infrastructure / services	Potentially at risk from ground gas migration, aggressive ground conditions and contaminants that may permeate through underground services such as water supply pipes.
Plants and vegetation	Primarily at risk from phototoxic contaminants such as boron, copper, nickel and zinc.

6.2.4. Preliminary Risk Assessment

A preliminary qualitative risk assessment has been undertaken for the site based on the findings of the conceptual site model and the potential contaminant linkages that may exist at the site in accordance with the October 2020 Land Contamination Risk Management Guidance (LCRM)[13]. The magnitude of the risks associated with potential contaminant linkages has been assessed using criteria broadly based on those presented in CIRIA Report C552[14], and are summarised in Table 8. The risk assessment methodology is presented in Appendix G.

[13] Environment Agency (2020). Land Contamination Risk Management (LCRM).

[14] CIRIA (2001) Contaminated Land Risk Assessment. A guide to good practice. C552

Table 8. Preliminary Qualitative Risk Assessment

Potential Source/Medium	Potential Exposure Route	Potential Receptor	Severity	Probability	Risk Rating	Comments
Explosive/ asphyxiating gases/vapours from underlying soils (Made Ground) and potential on and off-site sources	Migration of gases and vapours through the surface via permeable soils and drainage & services	Internal building spaces & future occupiers	Medium	Likely	Moderate	Variable thicknesses of Made Ground anticipated to be present from previous phases of development. Previous investigation indicated that ground gad and vapour protection measures were required for the previous development. *Further assessment of underlying geology and ground gas monitoring recommended to assess current ground gas regime.*
Organic/ inorganic contaminants within underlying soils and perched groundwater within the Made Ground associated with historical on-site land uses including residential, commercial, light industry works, foundry and cinema/theatre.	Direct/indirect ingestion of soil and dust, inhalation of particle vapours and asbestos fibres and dermal contact	Construction workers	Medium	Likely	Moderate	Potential for shallow soils to be impacted with asbestos and/or contaminants due to past use and past ground investigations discovery of contaminants. Anticipated that risk could be mitigated by appropriate site practices including the use of appropriate PPE. *Further chemical analysis and assessment of shallow soils required to assess risk.*
		Future site users	Medium	Likely	Moderate	Potential for shallow soils to be impacted with asbestos and/or contaminants due to past use and past ground investigations discovery of contaminants. *Chemical analysis and assessment of shallow soils required to assess risk.*
		Off-site residents/users	Medium	Low likelihood	Moderate/low	Potential for shallow soils to be impacted with asbestos and/or contaminants due to past use and past ground investigations discovery of contaminants. Anticipated that appropriate practices can be adopted to prevent dust generation during construction e.g., dampening down and covering stockpiles etc.
	Direct contact with underground structures and services	Buildings and structures, buried services	Mild	Likely	Moderate/low	Buried concrete to be designed as appropriate for ground conditions. Potential for contamination within Made Ground where new buried water supply pipes will be laid. *Chemical assessment of soils required to assess risk.*
	Root uptake	Plants and vegetation	Minor	Likely	Low	Potential for shallow soils to be impacted with asbestos and/or contaminants. It is assumed that a suitable growth medium will be required for new areas of soft landscaping to mitigate risks to receptors. *Chemical analysis and assessment of shallow soils required to assess risk.*
	Vertical and lateral migration pathways created during construction activities	Shallow Secondary Undifferentiated aquifer (*Devensian Till Deposits*)	Medium	Unlikely	Low	Potential for contaminants within the soil to leach to the underlying aquifer within superficial deposits. Proposed buildings and hardstanding across areas of the site will limit leaching potential. In addition, cohesive horizons within Made Ground/superficial deposits are likely to mitigate migration of contaminants.
		Secondary A aquifer *(Etruria Formation and Pennine Upper Coal Measures Formation)*	Medium	Likely	Moderate	Potential for contaminants within the soil to leach to the underlying aquifer within bedrock. Proposed buildings and hardstanding across large areas of the site will limit leaching potential. In addition, potential cohesive horizons within the Made Ground/superficial deposits are likely to mitigate migration of contaminants. *Analysis and assessment of soils and groundwater required to assess risk.*

Potential Source/Medium	Potential Exposure Route	Potential Receptor	Severity	Probability	Risk Rating	Comments
		Local surface water bodies (*Corn Brook)*	Medium	Low likelihood	Moderate	Potential for shallow soils and perched water to be impacted with contaminants. The nearest identified surface water receptor (the Corn Brook) is located some 130m to the south of the site. In addition, the proposed buildings and hardstanding across proposed development areas of the site will limit leaching potential and potential cohesive horizons within Made Ground/superficial deposits is likely to mitigate migration of contaminants. *Analysis and assessment of soils and groundwater required to assess risk.*
Organic / inorganic contaminants within shallow groundwater aquifers *(Devensian Till Deposits)*	Direct contact and ingestion of contaminated groundwater	Future site users	Medium	Unlikely	Low	Hardstanding, buildings and formal landscaping is proposed across the site which will limit the direct exposure to future site users. Construction workers may come into contact with shallow water during excavation works; however, contact between future site users/off-site residents and shallow aquifer considered unlikely. *Assessment of groundwater profile and contamination is required to assess risk.*
		Construction workers	Medium	Low likelihood	Moderate/low	
		Off-site residents	Medium	Unlikely	Low	
	Inhalation of vapours	Future site users	Medium	Low likelihood	Moderate/low	Potential for elevated hydrocarbon concentrations in shallow groundwater from historical site uses and identified during previous ground investigations. *Assessment of groundwater profile and contamination is required to assess risk.*
	Lateral migration	Local surface water bodies (*Corn Brook*)	Medium	Unlikely	Low	Potential for shallow water to be impacted with contaminants. The nearest identified surface water receptor (the Corn Brook) is located some 130m to the south of the site. In addition, the proposed buildings and hardstanding across proposed development areas of the site will limit leaching potential and potential cohesive horizons within Made Ground/superficial deposits is likely to mitigate migration of contaminants. *Analysis and assessment of soils and groundwater required to assess risk.*
	Vertical migration pathways created during construction activities	Secondary Undifferentiated aquifer *(Devensian Till Deposits)*	Medium	Low likelihood	Moderate/low	Potential for contaminants within the shallow groundwater to migrate to underlying bedrock aquifer. However, proposed buildings and hardstanding across large areas of the site will limit leaching potential. In addition, potential cohesive horizons within Made Ground/superficial deposits are likely to mitigate migration of contaminants. *Assessment of groundwater profile and contamination is required to assess risk, piling works risk assessment recommended to assess risk.*
	Direct contact with underground services	Buildings and structures	Mild	Likely	Moderate/low	Buried concrete to be designed as appropriate for ground conditions. *Assessment of groundwater profile and contamination is required to assess risk.*

7. Geotechnical Preliminary Risk Assessment

Based on the desk study review of the ground model for the proposed development of the site, the potential geotechnical risks are outlined in Table 9.

Table 9. Preliminary Geotechnical Risk Assessment

Geotechnical Hazard	Consequence and Impacted Parties	Risk Rating	Description
Historical and existing buildings and structures, retaining walls, voids	Access restrictions for ground investigation, and below ground obstructions including existing and historical foundations and retaining structures.	Moderate	Existing and historical structures and foundations including the current structure along with its foundations. Whilst it was advised during previous remediation of the site to remove obstructions, there is no documentation to confirm this. If still present, obstructions may affect activities such as piling, excavations and earthworks as well as the design and construction of the additional structures. Hard material could potentially be processed and reused as engineered fill. In addition, the existing and historical structures and foundations provide a constraint for ground investigation. Depending on the findings and proposed development plans with respect to formation levels, further analysis/assessment may be required.
Variable thickness of Made Ground and superficial deposits	Damage to proposed structures through settlement, insufficient bearing capacity, potential for differential settlement	Moderate	Various construction and demolition of buildings and possible below ground infrastructure with land reprofiling has historically taken place within the site and there is therefore the potential for a variable thickness of Made Ground that will need to be considered in terms of foundation and pavement design as well as compression / heave associated with the cohesive deposits. Potential for variable thickness and composition of *Devensian Till Deposits* and *weathered Etruria Formation and Pennine Upper Coal Measures Formation bedrock* (if encountered) that will need to be considered. Investigation required to obtain geotechnical data on underlying ground conditions to determine geotechnical design parameters for proposed structures, pavements, car parks and roads.
Aggressive ground conditions	Structural damage to foundations	Moderate	Investigation recommended to obtain soil and groundwater samples for sulphate and pH analysis, to allow concrete design assessment to be undertaken.
Site gradient / topography	Design of site redevelopment / cut and fill strategy, earthworks design, retaining structures, potential for differential settlement, material re-use strategy.	Moderate	The current site gradient with respect to proposed designs will need consideration with respect to the cut and fill strategy / re-profiling of the site. Consideration will need to be given to the design of foundations, floor slabs and pavement design depending on the final redevelopment design and potential adjacent buildings/structures. Site levels and earthworks design to consider options to minimise off-site disposal through material re-use on site subject to appropriate waste management regulations and procedures.
Unknown ground and groundwater conditions	Damage to infrastructure, unsafe or uneconomic design, reduced bearing capacity of shallow foundations / piled foundations.	Moderate / Low	Based on the previous SI undertaken and additional nearby BGS borehole records, the superficial deposits are anticipated to be potentially variable beyond 8.9m depth. Based on the previous SI undertaken, the groundwater level is expected between 2.0m and 14.0m below ground level and groundwater flow direction anticipated to be towards the west based on the location of the Corn Brook and general topography. Investigation of shallow and deep soils and groundwater level required to obtain information for geotechnical design.
Shallow groundwater	Dewatering possibly required during construction if encountering a shallow water table.	Moderate / Low	Based on the previous SI undertaken, groundwater, if encountered, is expected between 2.0m and 14.0m below ground level. Groundwater flow direction is anticipated to be towards the west based on the location of the Corn Brook and the general topography of the site and surrounding area. Therefore, excavations may extend into shallow water table which may require dewatering during construction. Investigation of shallow groundwater conditions required to confirm groundwater profile.
Unexploded Ordnance	Damage to infrastructure, utilities and loss of life.	Moderate	With reference to the detailed UXO risk assessment, the site is indicated to be within an area at moderate risk from UXO. It is therefore recommended that a UXO assessment be undertaken.

8. Conclusions and Recommendations

8.1. Conclusions

This Phase 1 Desk Study Report has been produced to evaluate the potential risks to human health and the environment, and to identify potential geotechnical constraints associated with the proposed development.

The preliminary qualitative risk assessment indicates there is a low to moderate risk to identified receptors from potential contaminants associated with the current and former uses of the site and surrounding area and potential Made Ground associated with the former development of the site. Whilst it is understood that remediation was undertaken as part of the previous development, there is the potential for residual contamination to be present. In addition, the assessment has identified a number of potential geotechnical constraints associated with the potential for below ground obstructions, contamination in soils due to past use, existing basement structures and foundations, variable thickness of Made Ground associated with the development history of the site and potential variability of the underlying superficial deposits.

8.2. Recommendations

Based on the findings of this report, it is recommended that an intrusive ground investigation is undertaken to assess the identified contaminants of concern, which will include geotechnical and contamination testing in the area of development.

This investigation should include laboratory analysis of soil and groundwater samples for the identified contaminants of concern and to confirm ground conditions in areas of development. In addition, the ground investigation can be used to obtain information to evaluate the potential geotechnical risks and inform the geotechnical design of the project.

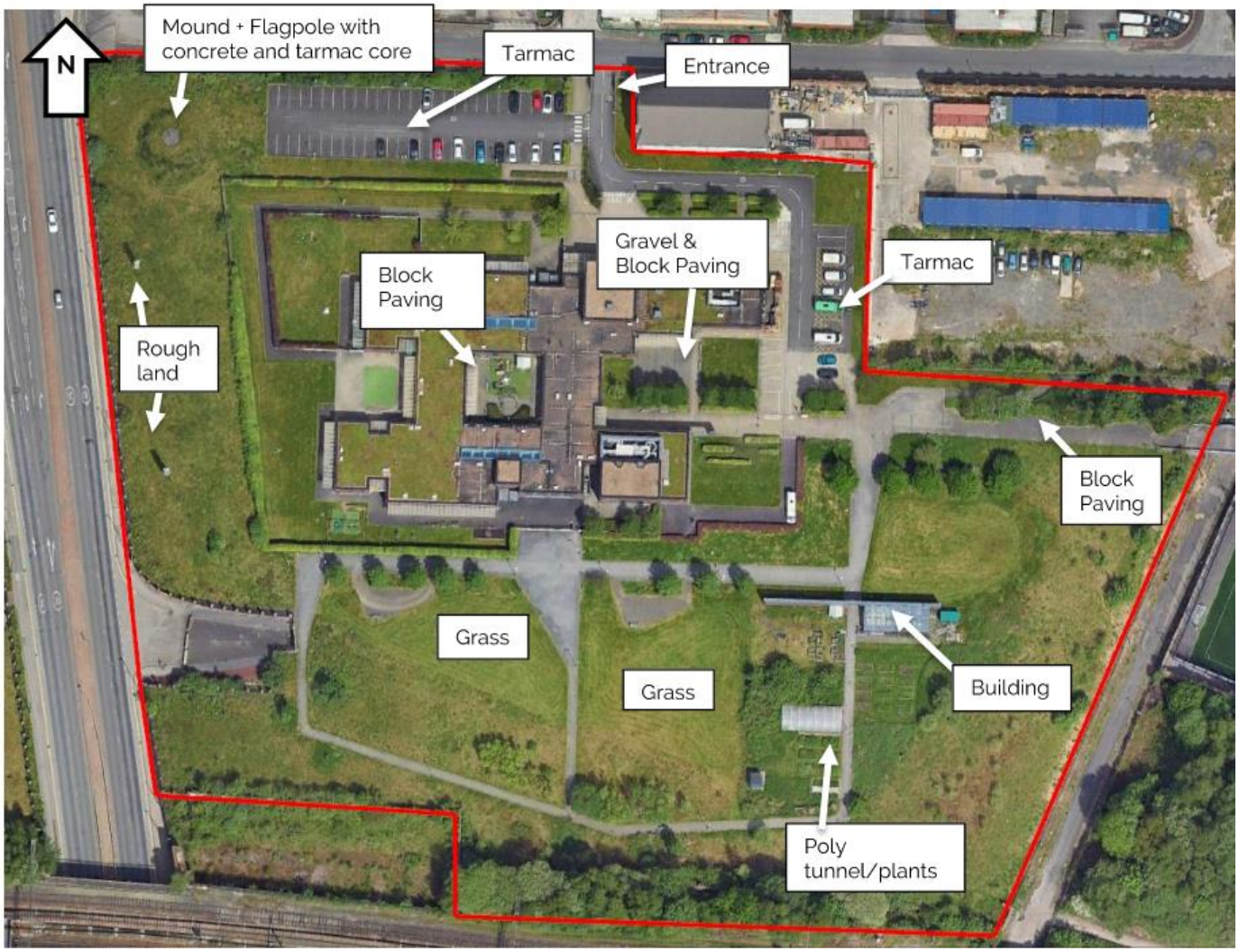
Publicly available online risk mapping indicates that the site is located within an area of moderate risk from UXO therefore it is recommended that a UXO Assessment be undertaken for the site.

Appendix A

Site Walkover Report

Project Name:	**Bridge College, Openshaw**		
Address:	49 Whitworth Street, Manchester, M11 2GR	**Job Number:**	51121
Date:	27/09/2024	**Engineer:**	Alex Petts
Weather:	Cloudy skies, dry, bright		

Site Layout Plan



Site Access

Pedestrian Access	The site is accessible to vehicles via a northern road entrance marked on the above layout plan on Whitworth Street. This is a gated dual entrance for both vehicles and pedestrians.
Vehicular Access	Same as pedestrian.
Parking Arrangements	Several parking areas to both the north and east of the site, accessible by the same access road that runs from the entrance gate to the two parking locations.

Restrictions	Minimal restrictions noted on site.
Access for Site Investigation (Drilling Rigs, Excavators etc.)	Good access – no height restrictions in access roads and several parking locations
Surface Covering	
Type of Cover	A variation of hard and soft landscaping, including two tarmac carparks in the north and northeast. Several pathways around the soft landscaping areas of concrete and brick pathways around the site.
Quality of Cover	The site excising surface cover is good quality with minimal damage.
Evidence of Existing Boreholes	No evidence noted.
Topography	
Flat / Sloping / Stepped etc.	Predominantly flat with ground levels range slight sloping north to south between +60mOD at Whitworth Street and 56mOD at Clayton Lane South.
Evidence of Subsistence	There is a minor sinking of soil around planted trees south of the school. The above ground structure appears unaffected.
Significant Slopes	Generally, the site is relatively flat with a marginal slope down to the south. The southwest of the site is retained by brick retaining walls (c. 1.5 – 2m tall). The eastern boundary is formed by a bank down to Clayton Lane South. The northern and southern boundaries tie into the surrounding topography. To the west of the car park a 2-3m tall mound with tarmacked core is present.
Local Depressions	None noted.
Vegetation	
Trees (Type & Estimated Height)	Along the southern boundary are mature trees and generally across the site is a mixture of and mature trees ranging from 8-10m.
Other Vegetation	Vegetation noted (shrubbery) sporadically across the site ranging from small to medium in size. Part of the school roof is grassed.
Japanese Knotweed	No obvious evidence noted.
Giant Hogweed	No obvious evidence noted.
Himalayan Balsam	No obvious evidence noted.
Signs of Stressed Vegetation / Poor Growth / Disease	No obvious evidence noted – generally good growth observed.
Services	
Location and Details of Manhole Covers, Wells, Marker Pegs	Manhole covers and surface drain covers noted in the northern and eastern carparking areas, likely private sewers

Utility Scar Features	None observed.
Overhead Services	No overhead services noted on the site.
Water Supply	An assumed private water supply – set location unknown.
Buildings and Structures	
Number, Height, Construction Material, Roof Construction Material	One complete structure with a courtyard in the centre. The structure is predominantly single storey with the main central entrance in the north spanning over two stories.
Current Uses	Specialist education school for students with learning difficulties.
Evidence of Subsistence / Cracking / Water Damage	The main structure appears to be in good condition with minimal signs of subsistence / cracking / water damage.
Presence of Potential Asbestos Containing Material (ACM)	None observed.
Existing Foundations	Unknown.
Existing Basements / Cellars	None observed.
Surface Water and Groundwater	
Evidence of Flooding	None observed.
Evidence of High Water Table	None observed.
Rivers, Springs, Wells, Ponds, Ditches, Streams (incl. Flow Direction and Size)	None observed.
Potential Sources of Contamination	
Fly Tipped Material	Anecdotal evidence of fly tipping material in the junction off Pottery Lane, this has since been cleared by the school and council with concrete blocks placed to deter future fly tipping.
Evidence of Filled Ground	None observed.
Evidence of Tanks (USTs, ASTs, Interceptors, Pipework) incl. Fuel Spillages	None observed.
Stored Substances	None noted.
Electricity Substations	None noted.
Other Identified Potential Sources	None noted.

Surrounding Land Use	
Residential / Commercial / Industrial incl. Type of Industry / Commercial Activity	Mixed use in the surrounding areas with both Residential / Industrial and commercial activities with railway depots, commercial warehouses and storage facilities.
Railways / Viaducts / Bridges	Railway line directly to the south of the site that is active. Railway line is elevated on earth embankment with brick retaining walls.
Tunnels	None noted.
Other Identified Pertinent Uses	None noted.
Anecdotal Information	
Tenants / Landowners / Client	None.
Neighbours / Locals	None.
Other Comments	
None.	

Appendix B

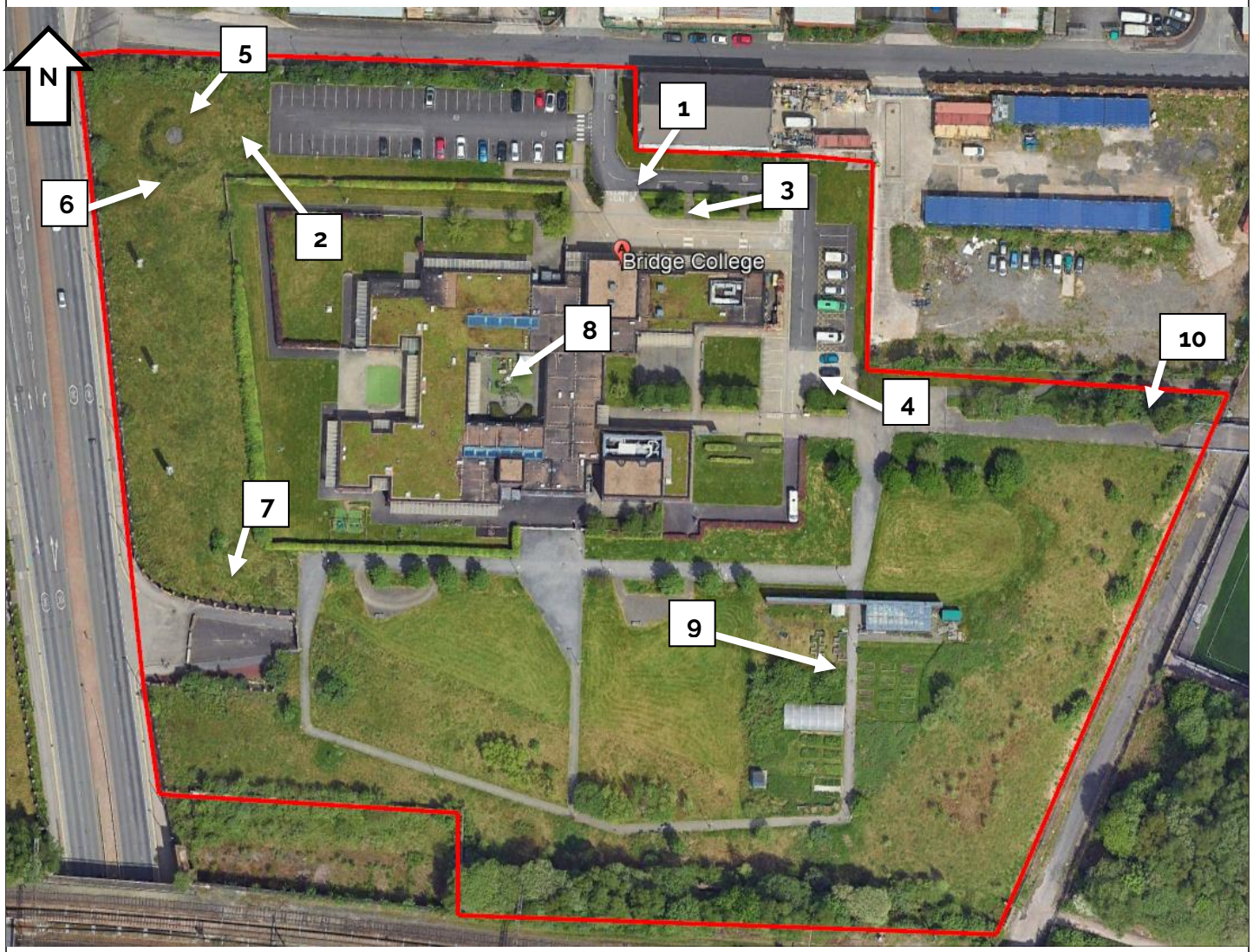
Site Photographs Sheet

CIVIC EARTH

Site Walkover Record

Project Name:	**Bridge College**		
Address:	49 Whitworth Street, Manchester M11 2GR	Job Number:	51121
Date:	27/09/24	Engineer:	Alex Petts
Weather:	Cloudy skies, dry, bright		

Photo Location Plan



Site Photos



1. View looking north at the pedestrian and vehicular entrance north of the school main entrance. Carparking to the west (left).



2. View looking northeast from the western site boundary showing the raised topography and rough grassland.



3. View looking south at the school entrance with the elevated second floor and current bus stop location.



4. View looking west at the hardstanding car park with soft landscaping at the eastern (main) entrance of the school.



5. View looking northeast at the mound with flagpole and concrete with tarmac core.



6. View looking south along the mound along the eastern boundary including the flagpoles and the rough land.

Site Photos



7. View looking southwest at the site boundary with brick pillars and metal fencing.



8. View looking west at the internal courtyard in the middle of the structures.



9. View looking southeast of the planting area southeast of the main school building.



10. View looking east at the pathway leading to the neighbouring sports facility of Manchester College, access is restricted by metal fencing.

Appendix C

Ordnance Survey Historical Maps



Groundsure INSIGHTS

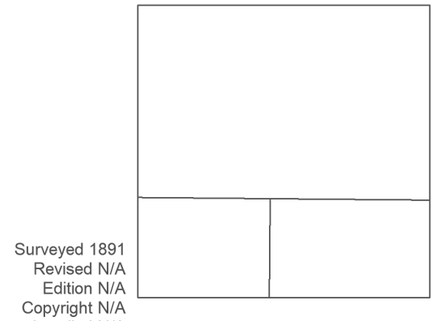
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Bridge College, Manchester

Client Ref: 51121 - Bridge College, Manchester
Report Ref: GS-8P7-DKI-UQC-XWB
Grid Ref: 387331, 397341

Map Name: County Series Town Plan
Map date: **1891**
Scale: 1:500
Printed at: 1:1,000

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Surveyed 1891
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1891
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

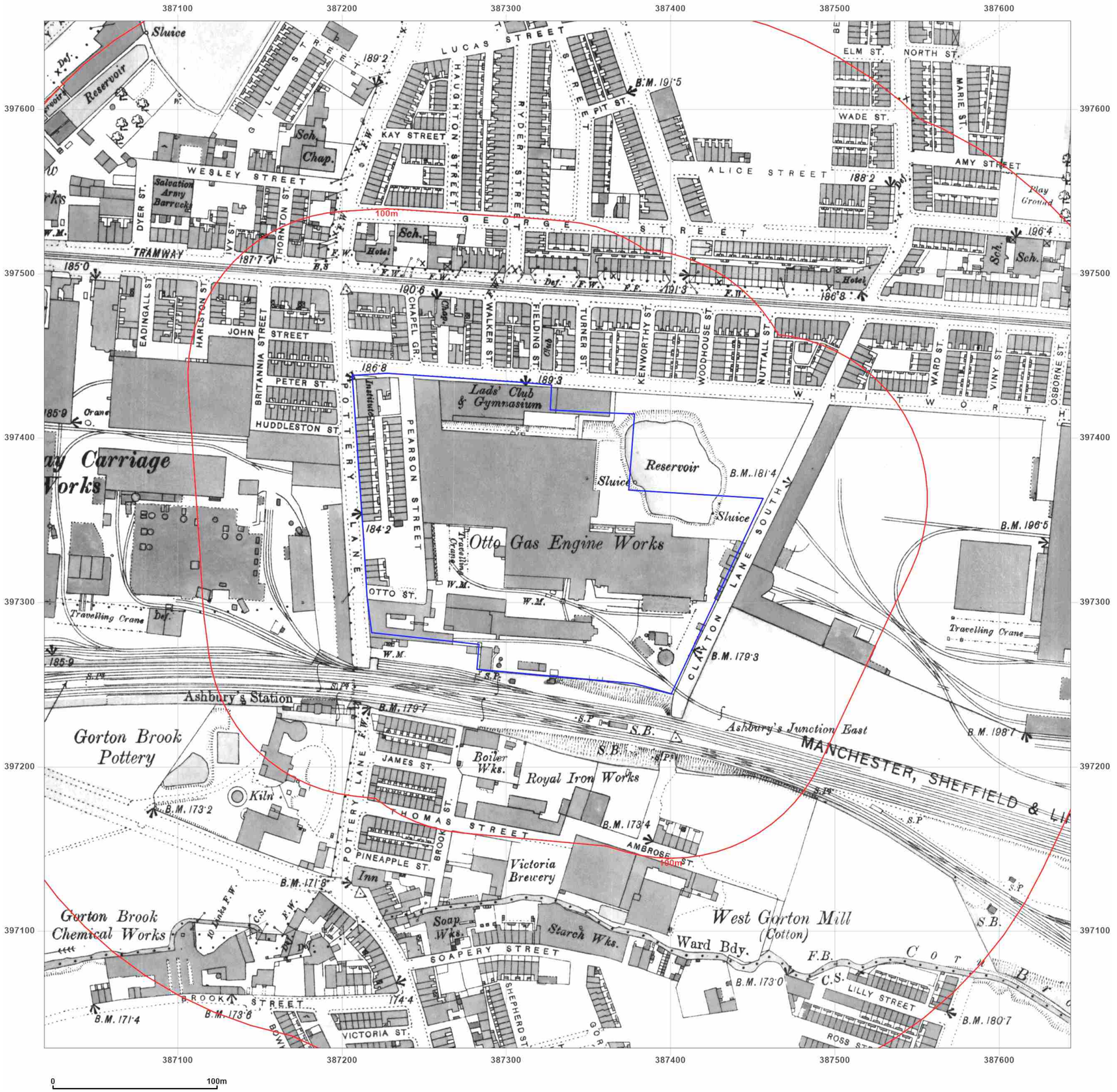
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Groundsure INSIGHTS

Site Details:

Bridge College, Manchester

Client Ref: 51121 - Bridge College, Manchester
Report Ref: GS-8P7-DKI-UQC-XWB
Grid Ref: 387331, 397341

Map Name: County Series

Map date: **1893**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1893
Revised 1893
Edition N/A
Copyright N/A
Levelled N/A

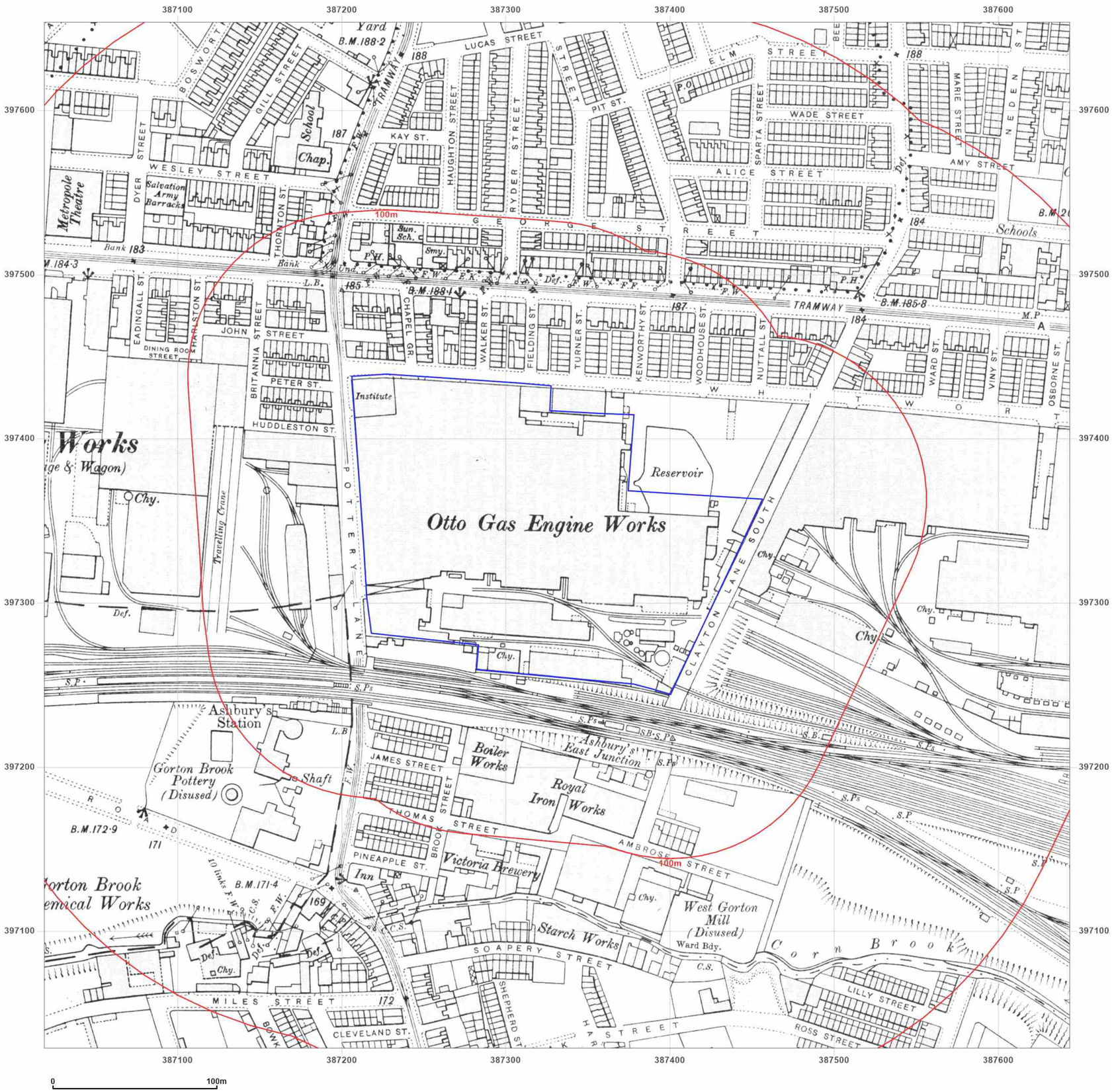
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Site Details:

Bridge College, Manchester

Client Ref: 51121 - Bridge College, Manchester
Report Ref: GS-8P7-DKI-UQC-XWB
Grid Ref: 387331, 397341

Map Name: County Series

Map date: **1908**

Scale: 1:2,500

Printed at: 1:2,500

N W E S

Surveyed 1908
Revised 1908
Edition N/A
Copyright N/A
Levelled N/A

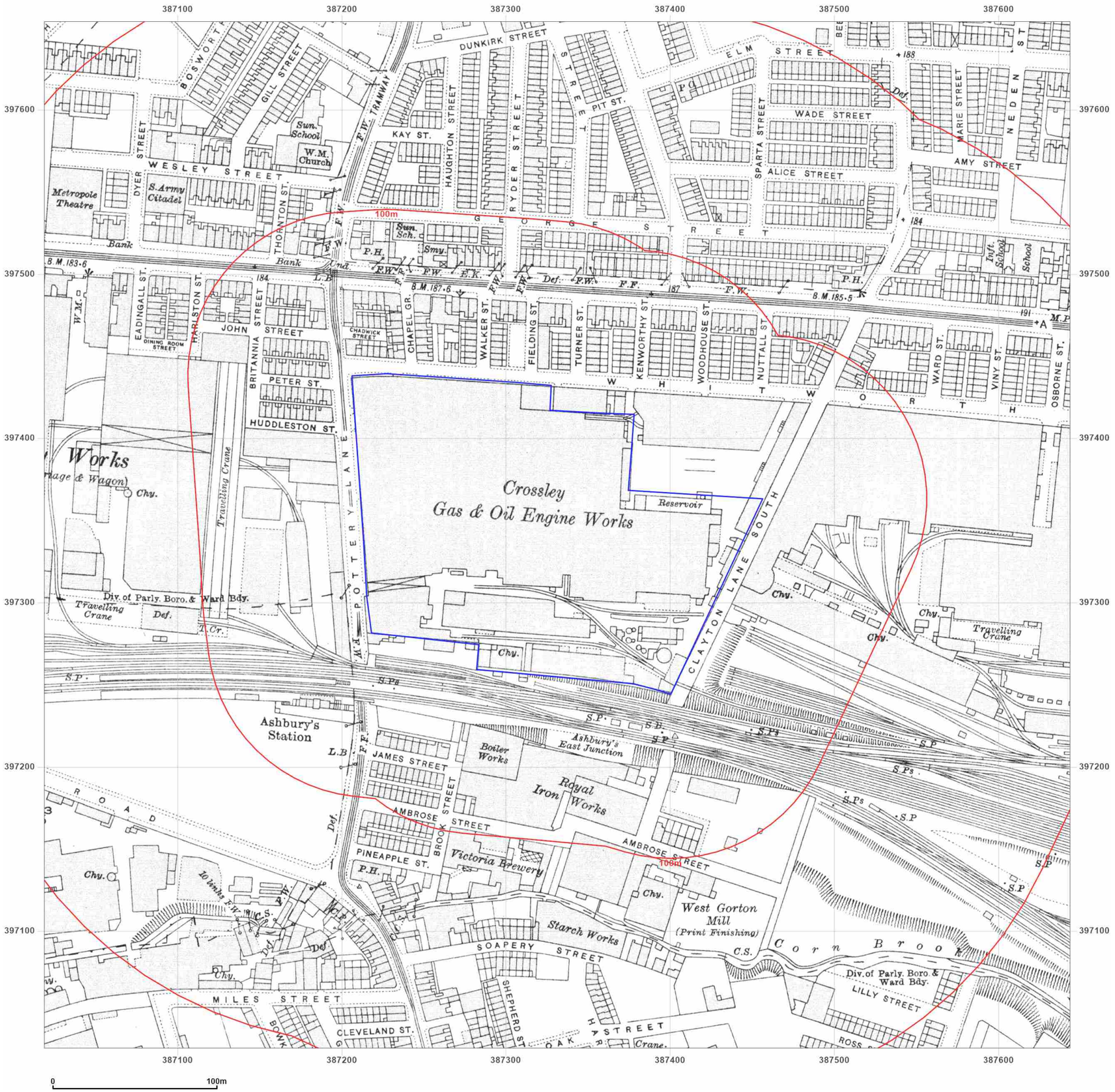
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Site Details:

Bridge College, Manchester

Client Ref: 51121 - Bridge College, Manchester
Report Ref: GS-8P7-DKI-UQC-XWB
Grid Ref: 387331, 397341

Map Name: County Series

Map date: **1922**

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Printed at: 1:2,500

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Surveyed 1922
Revised 1922
Edition N/A
Copyright N/A
Levelled N/A

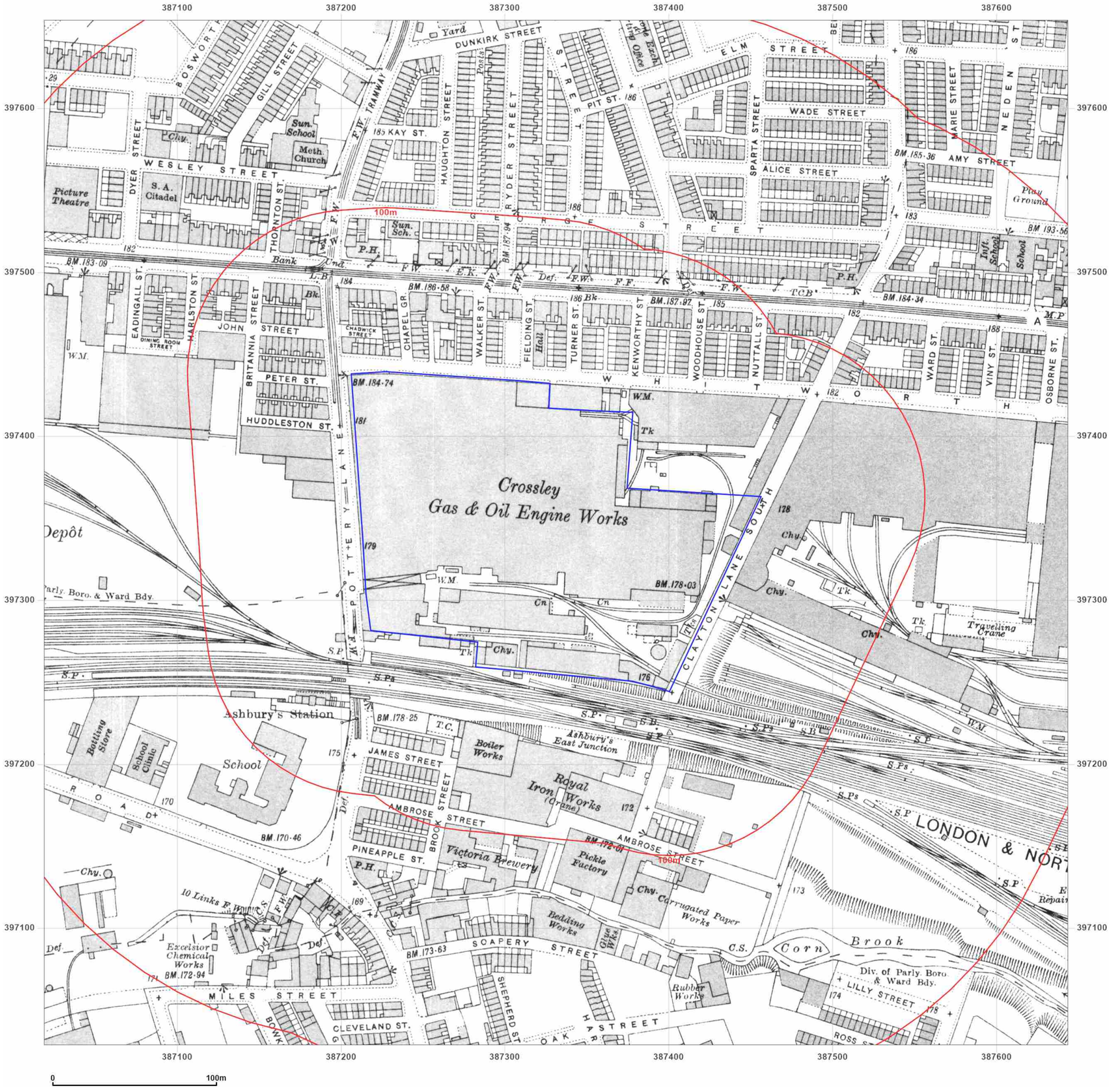
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Site Details:

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Client Ref: 51121 - Bridge College, Manchester
Report Ref: GS-8P7-DKI-UQC-XWB
Grid Ref: 387331, 397341

Map Name: County Series

Map date: **1933**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1933
Revised 1933
Edition N/A
Copyright N/A
Levelled N/A

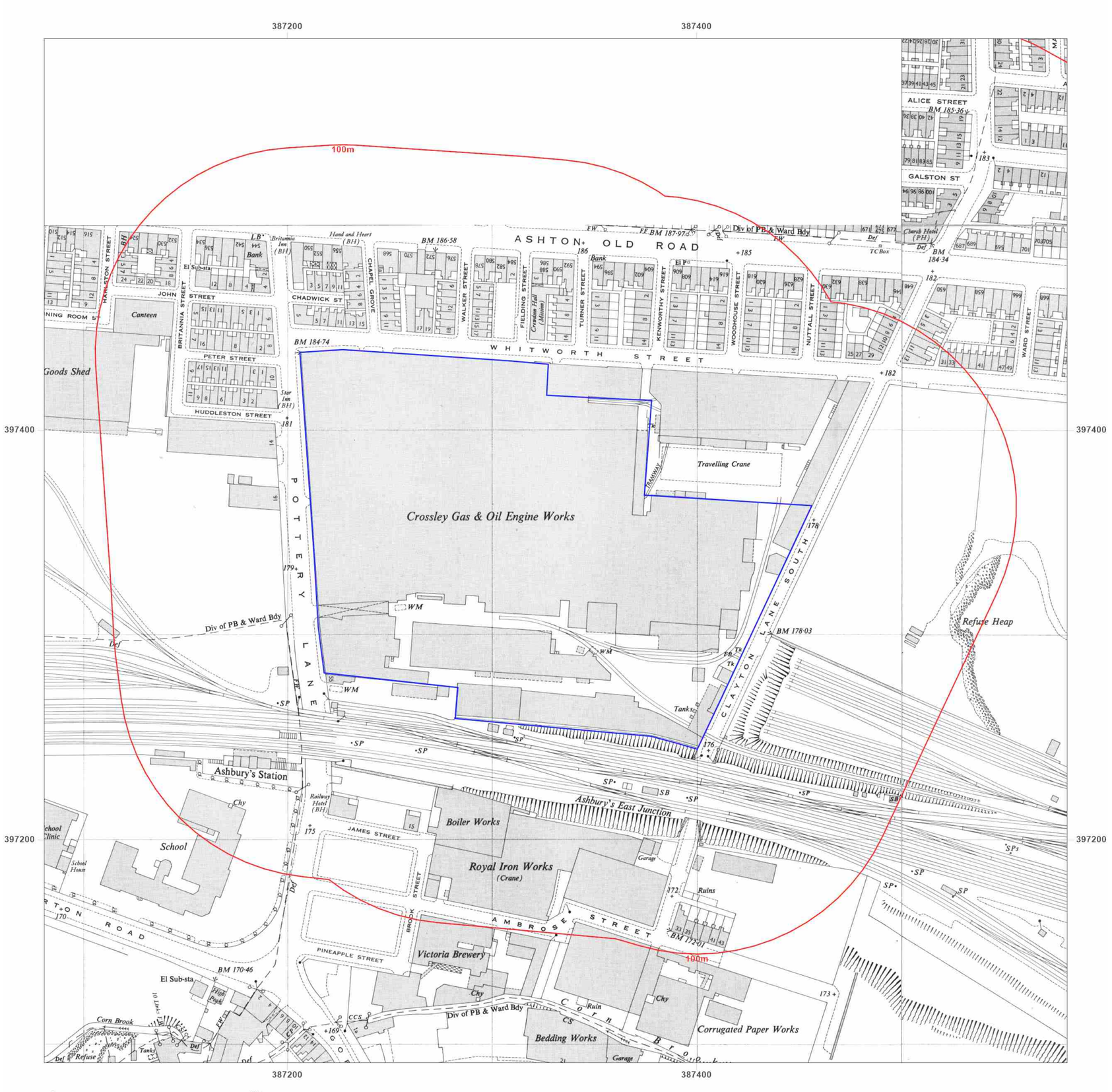
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Site Details:

Bridge College, Manchester

Client Ref: 51121 - Bridge College, Manchester
Report Ref: GS-8P7-DKI-UQC-XWB
Grid Ref: 387331, 397341

Map Name: National Grid

Map date: **1948-1949**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed 1948
Revised 1948
Edition N/A
Copyright N/A
Levelled 1929

Surveyed 1948 Revised 1948 Edition N/A Copyright N/A Levelled 1929	Surveyed 1949 Revised 1949 Edition N/A Copyright N/A Levelled 1929

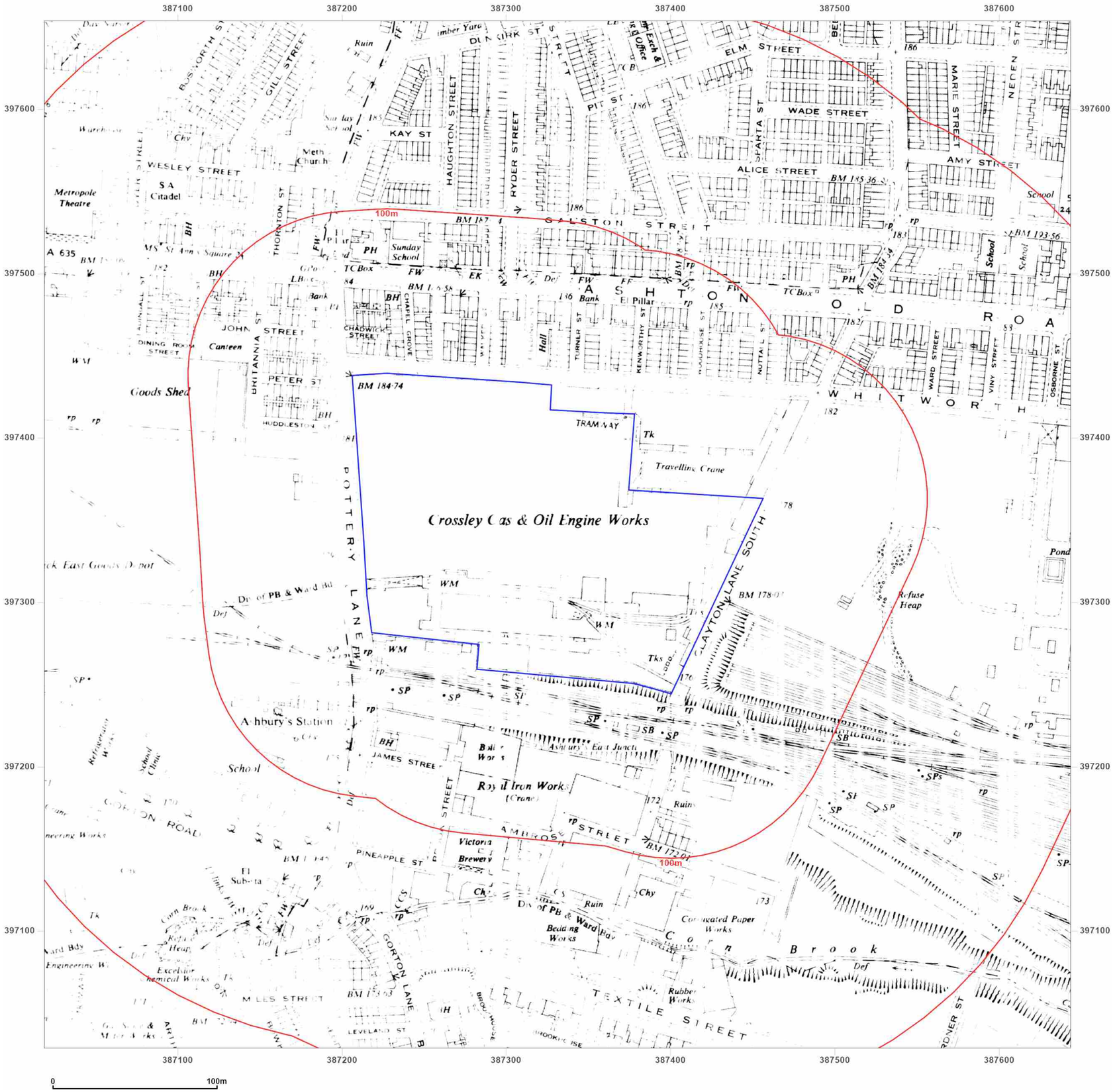
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Client Ref: 51121 - Bridge College, Manchester
Report Ref: GS-8P7-DKI-UQC-XWB
Grid Ref: 387331, 397341

Map Name: National Grid

Map date: **1951**

Scale: 1:2,500

Printed at: 1:2,500

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Edition N/A
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Report Ref: GS-8P7-DKI-UQC-XWB
Grid Ref: 387331, 397341

Map Name: National Grid

Map date: **1955-1956**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed 1948
Revised 1956
Edition N/A
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Revised N/A
Edition N/A
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Grid Ref: 387331, 397341

Map Name: National Grid

Map date: **1957**

Scale: 1:1,250

Printed at: 1:2,000

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Grid Ref: 387331, 397341

Map Name: National Grid

Map date: **1967**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1963
Revised 1963
Edition N/A
Copyright 1967
Levelled 1959

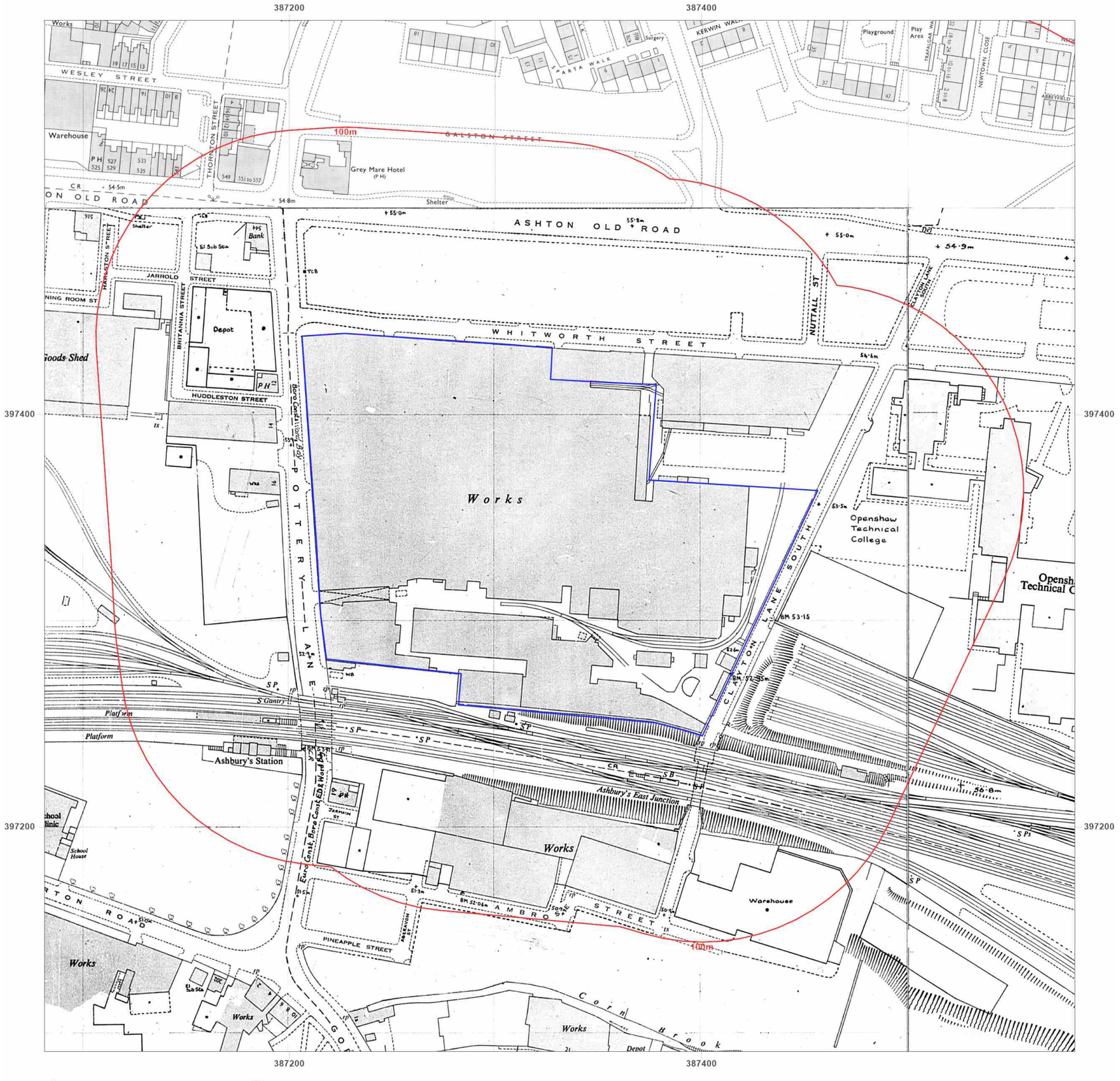
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Grid Ref: 387331, 397341

Map Name: National Grid

Map date: **1977-1981**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed 1949 Revised 1976 Edition N/A Copyright 1977 Levelled 1964	Surveyed 1948 Revised 1981 Edition N/A Copyright 1981 Levelled 1964
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Grid Ref: 387331, 397341

Map Name: National Grid

Map date: **1986-1991**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed 1964 Revised 1988 Edition N/A Copyright 1988 Levelled 1964	Surveyed 1964 Revised 1989 Edition N/A Copyright 1989 Levelled 1964
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Report Ref: GS-8P7-DKI-UQC-XWB
Grid Ref: 387331, 397341

Map Name: National Grid

Map date: **1990-1992**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed N/A
Revised N/A
Edition N/A
Copyright 1992
Levelled N/A

Surveyed 1948
Revised 1981
Edition N/A
Copyright 1990
Levelled N/A

Surveyed 1990
Revised 1990
Edition N/A
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Grid Ref: 387331, 397341

Map Name: National Grid

Map date: **1992-1994**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed N/A
Revised N/A
Edition N/A
Copyright 1994
Levelled N/A

Surveyed N/A
Revised N/A
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Report Ref: GS-8P7-DKI-UQC-XWB
Grid Ref: 387331, 397341

Map Name: National Grid

Map date: **1993-1994**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed 1994
Revised 1994
Edition N/A
Copyright 1994
Levelled N/A

Surveyed N/A
Revised N/A
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Client Ref: 51121 - Bridge College, Manchester
Report Ref: GS-8P7-DKI-UQC-XWB
Grid Ref: 387331, 397341

Map Name: National Grid

Map date: **1993-1995**

Scale: 1:1,250

Printed at: 1:2,000

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Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

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Revised 1994
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Site Details:

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Client Ref: 51121 - Bridge College, Manchester
Report Ref: GS-8P7-DKI-UQC-XWB
Grid Ref: 387331, 397341

Map Name: National Grid

Map date: **1994-1995**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed N/A
Revised N/A
Edition N/A
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Client Ref: 51121 - Bridge College, Manchester
Report Ref: GS-8P7-DKI-UQC-XWB
Grid Ref: 387331, 397341

Map Name: National Grid

Map date: **1994-1995**

Scale: 1:1,250

Printed at: 1:2,000

N
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Revised 1994
Edition N/A
Copyright 1994
Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
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Site Details:

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Client Ref: 51121 - Bridge College, Manchester
Report Ref: GS-8P7-DKI-UQC-XWB
Grid Ref: 387331, 397341

Map Name: LandLine
Map date: **2003**
Scale: 1:1,250
Printed at: 1:1,250

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2003

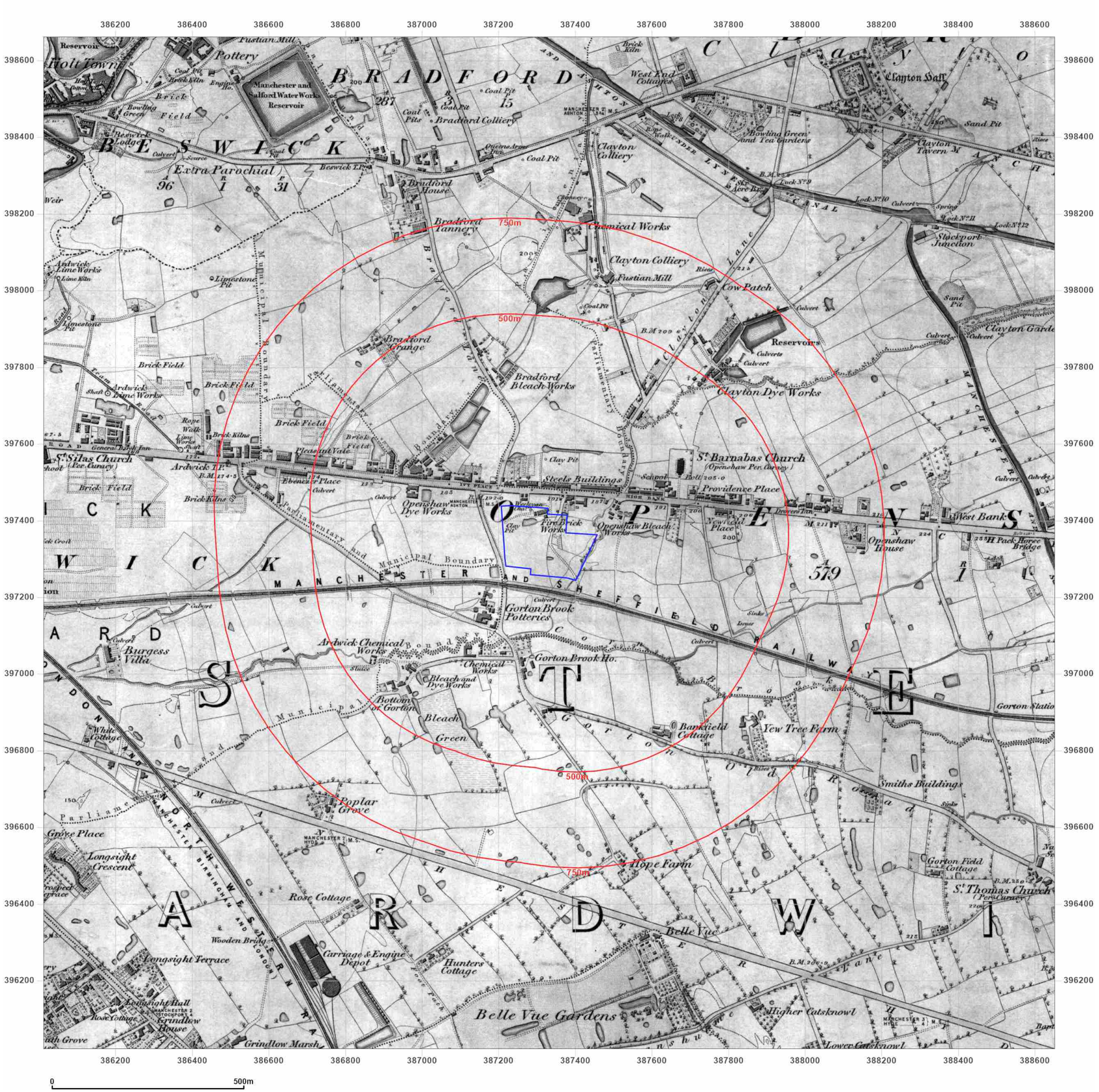
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Site Details:

Bridge College, Manchester

Client Ref: 51121 - Bridge College, Manchester
Report Ref: GS-8P7-DKI-UQC-XWB
Grid Ref: 387331, 397341

Map Name: County Series

Map date: **1848**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1845
Revised N/A
Edition 1848
Copyright N/A
Levelled N/A

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Site Details:

Bridge College, Manchester

Client Ref: 51121 - Bridge College, Manchester
Report Ref: GS-8P7-DKI-UQC-XWB
Grid Ref: 387331, 397341

Map Name: County Series

Map date: **1890-1891**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1891
Revised 1891
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1890
Revised 1890
Edition N/A
Copyright N/A
Levelled N/A

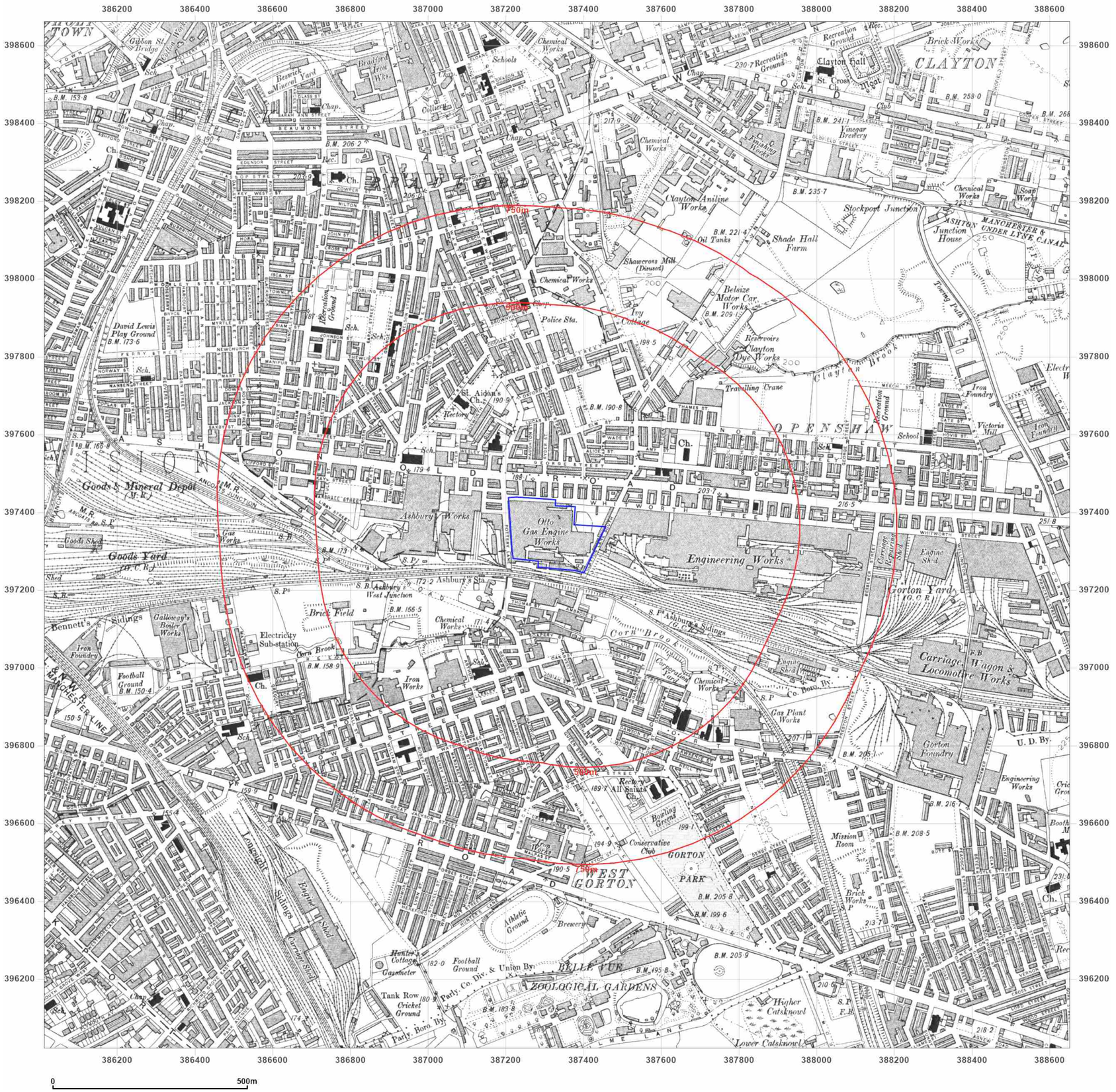
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Site Details:

Bridge College, Manchester

Client Ref: 51121 - Bridge College, Manchester
Report Ref: GS-8P7-DKI-UQC-XWB
Grid Ref: 387331, 397341

Map Name: County Series

Map date: **1905-1906**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1844
Revised 1906
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1844
Revised 1905
Edition N/A
Copyright N/A
Levelled N/A

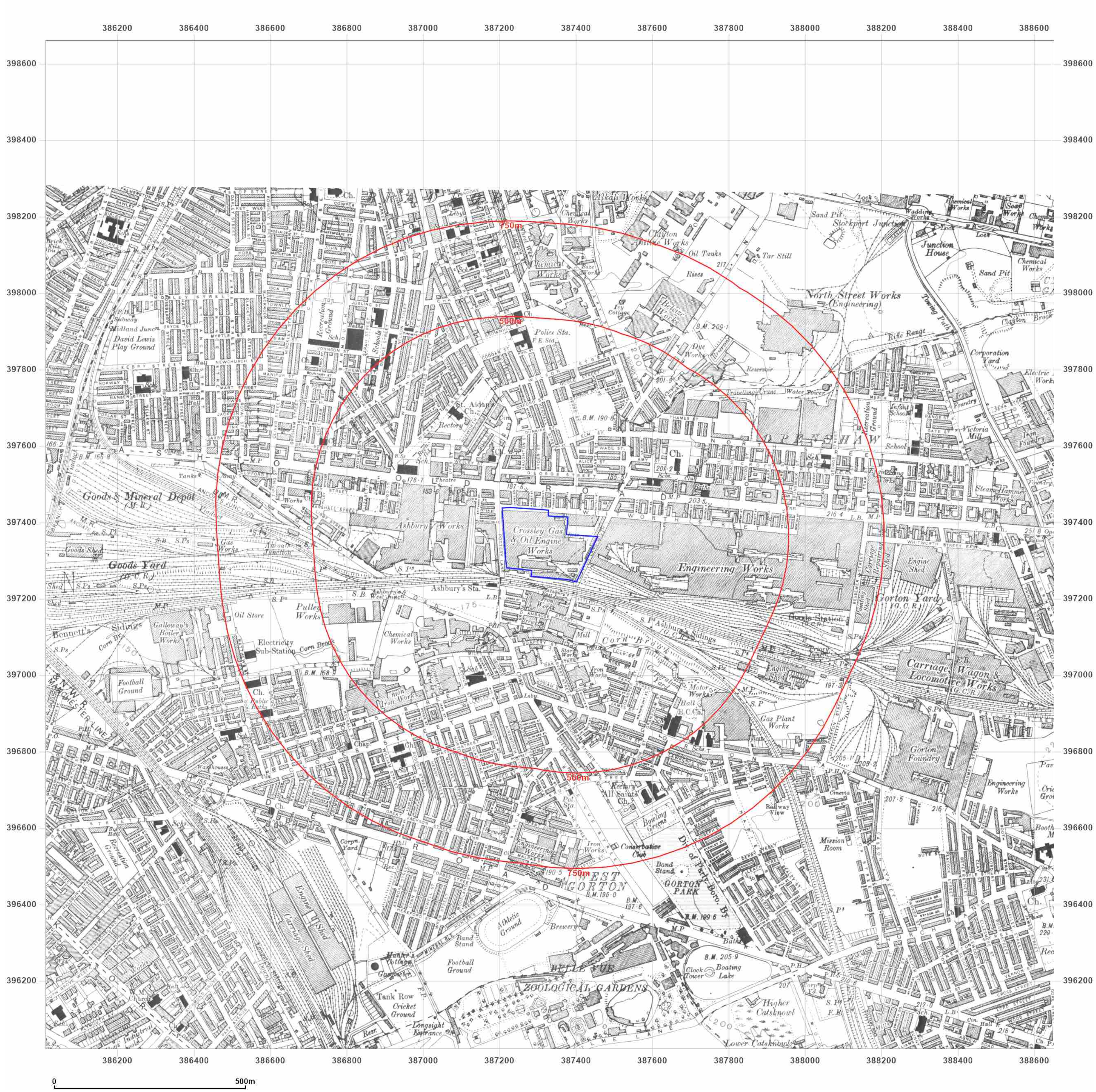
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Site Details:

Bridge College, Manchester

Client Ref: 51121 - Bridge College, Manchester
Report Ref: GS-8P7-DKI-UQC-XWB
Grid Ref: 387331, 397341

Map Name: County Series

Map date: **1915**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1844
Revised 1915
Edition N/A
Copyright N/A
Levelled N/A

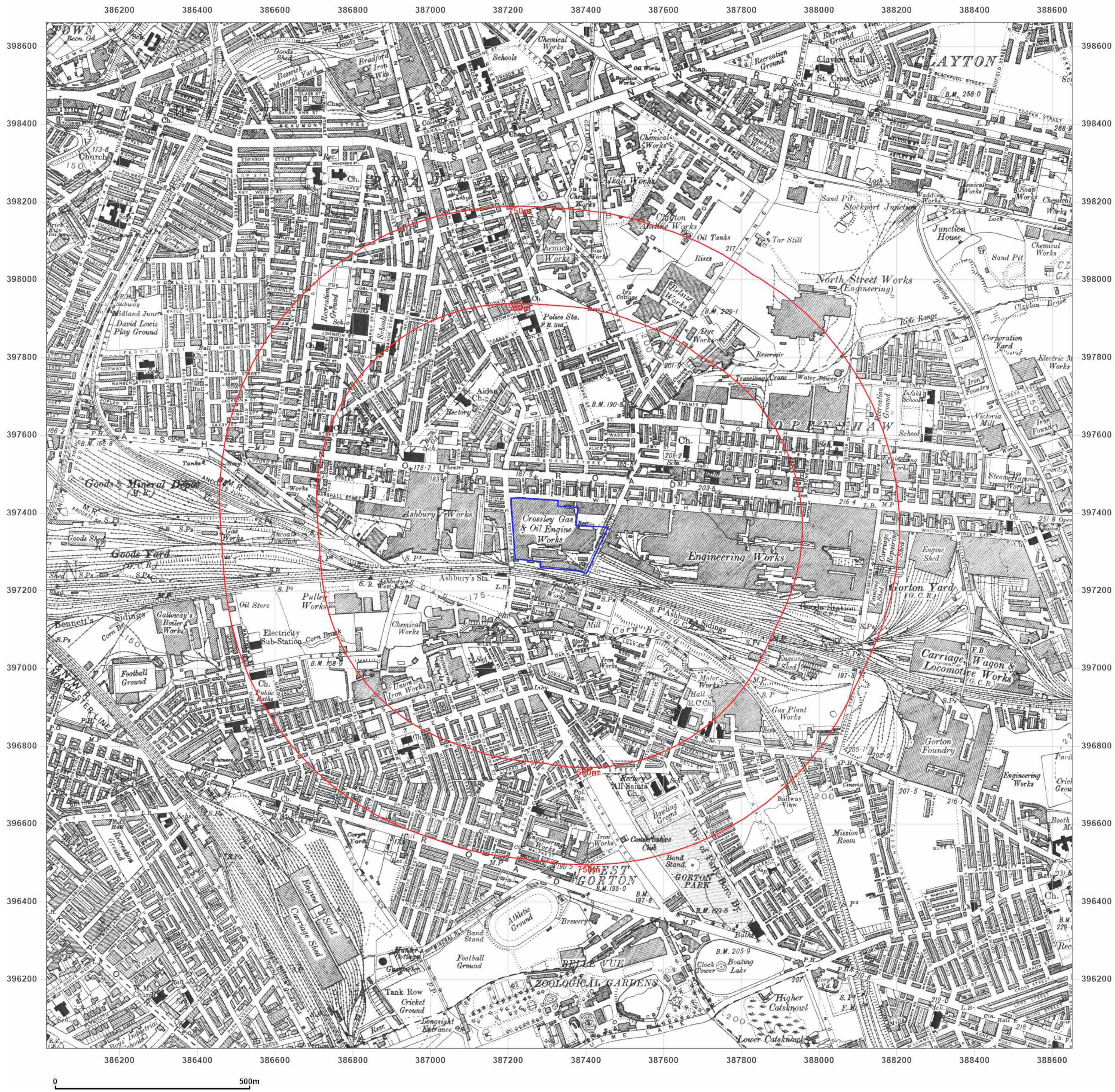
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Site Details:

Bridge College, Manchester

Client Ref: 51121 - Bridge College, Manchester
Report Ref: GS-8P7-DKI-UQC-XWB
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Map Name: County Series

Map date: **1923**

Scale: 1:10,560

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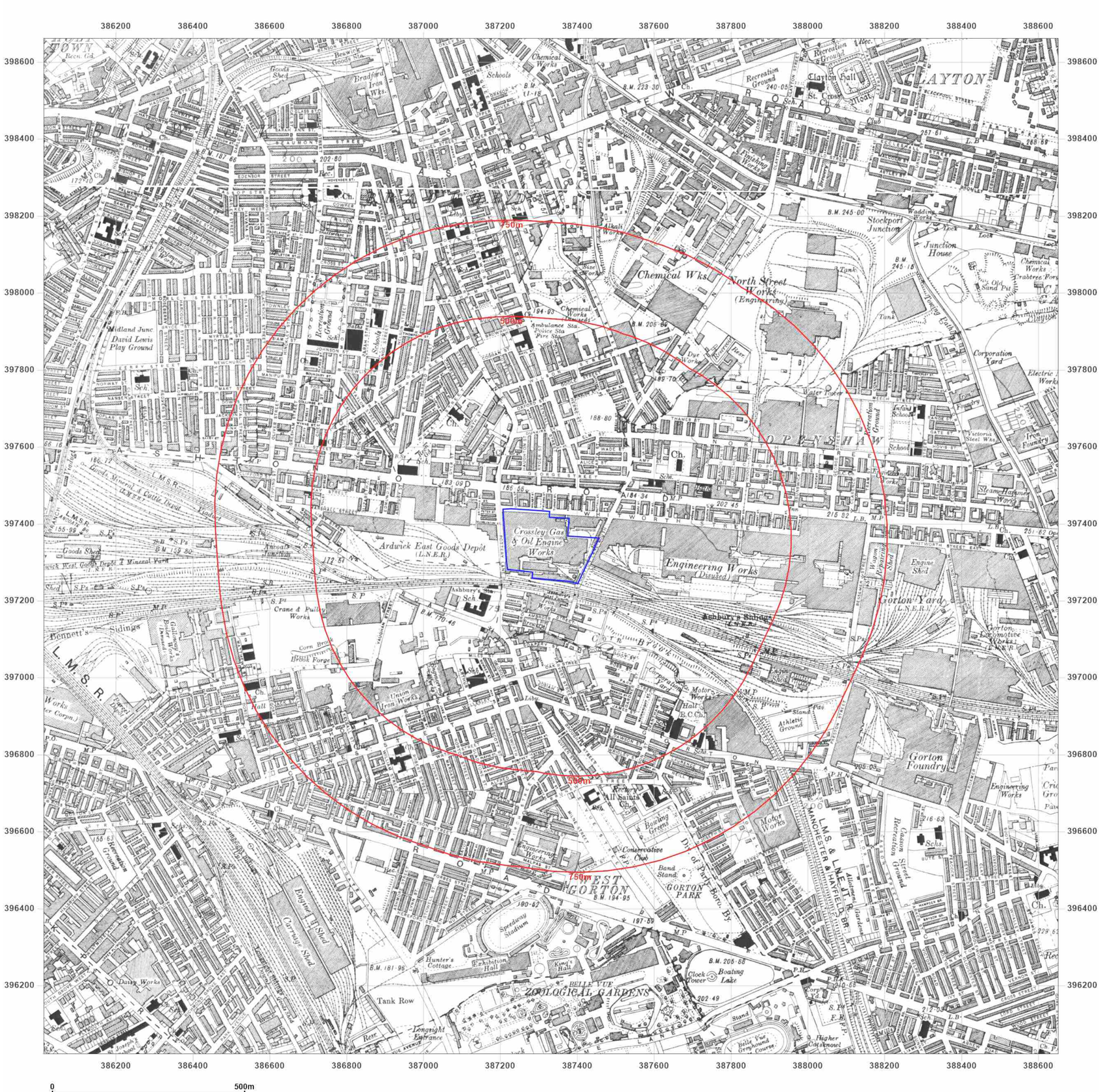
Surveyed 1844
Revised 1923
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Report Ref: GS-8P7-DKI-UQC-XWB
Grid Ref: 387331, 397341

Map Name: County Series

Map date: **1933-1934**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1844
Revised 1933
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1844
Revised 1934
Edition N/A
Copyright N/A
Levelled N/A

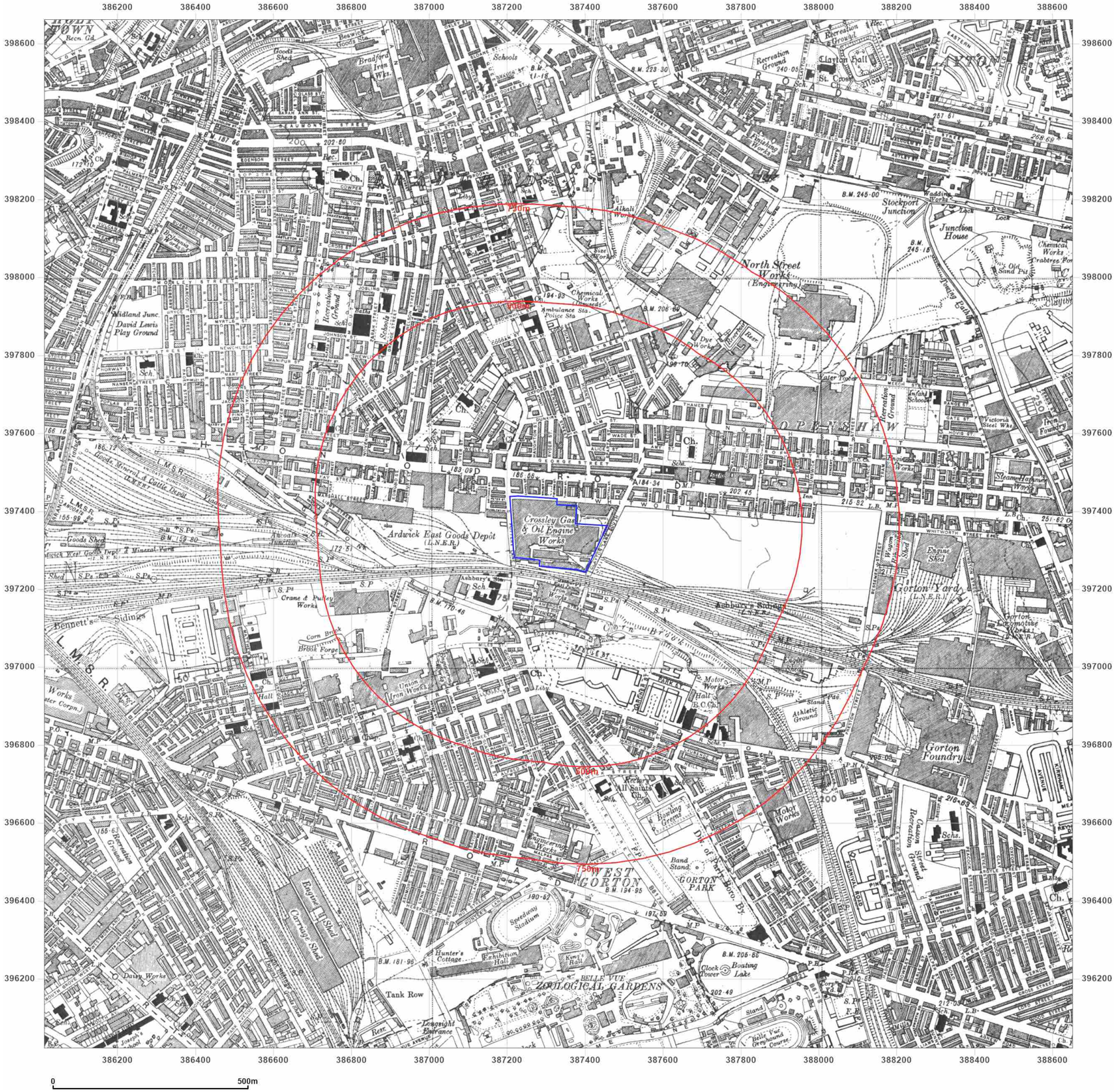
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Groundsure INSIGHTS

Site Details:

Bridge College, Manchester

Client Ref: 51121 - Bridge College, Manchester
Report Ref: GS-8P7-DKI-UQC-XWB
Grid Ref: 387331, 397341

Map Name: County Series

Map date: **1938**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1844
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1844
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

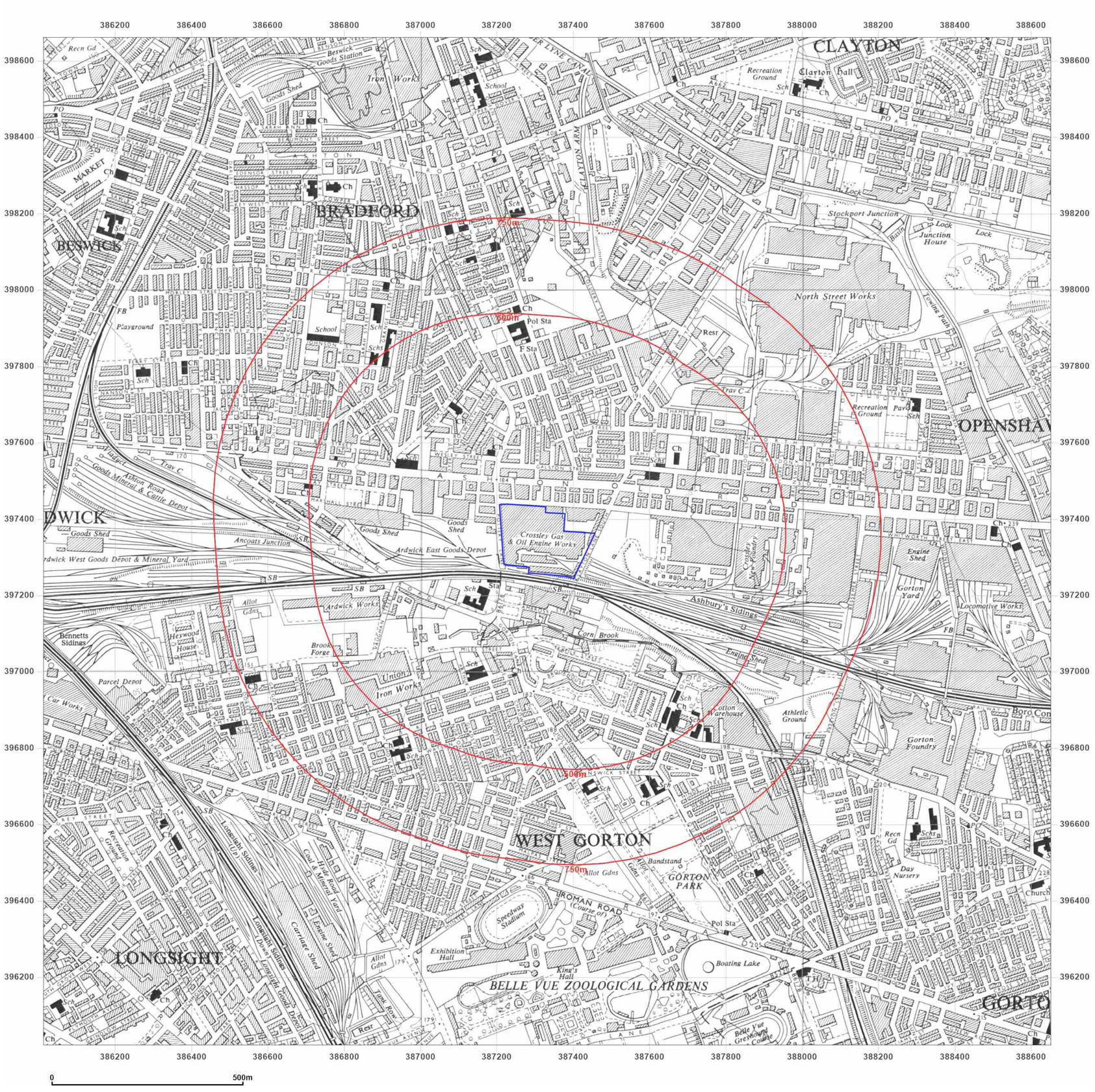
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Groundsure INSIGHTS

Site Details:

Bridge College, Manchester

Client Ref: 51121 - Bridge College, Manchester
Report Ref: GS-8P7-DKI-UQC-XWB
Grid Ref: 387331, 397341

Map Name: Provisional

Map date: **1956**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1956
Revised 1956
Edition N/A
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Groundsure INSIGHTS

Site Details:

Bridge College, Manchester

Client Ref: 51121 - Bridge College, Manchester
Report Ref: GS-8P7-DKI-UQC-XWB
Grid Ref: 387331, 397341

Map Name: Provisional

Map date: **1968**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1968
Revised 1968
Edition N/A
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Levelled N/A

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Groundsure INSIGHTS

Site Details:

Bridge College, Manchester

Client Ref: 51121 - Bridge College, Manchester
Report Ref: GS-8P7-DKI-UQC-XWB
Grid Ref: 387331, 397341

Map Name: National Grid

Map date: **1981**

Scale: 1:10,000

Printed at: 1:10,000

N
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Surveyed 1976
Revised 1980
Edition N/A
Copyright 1981
Levelled 1976

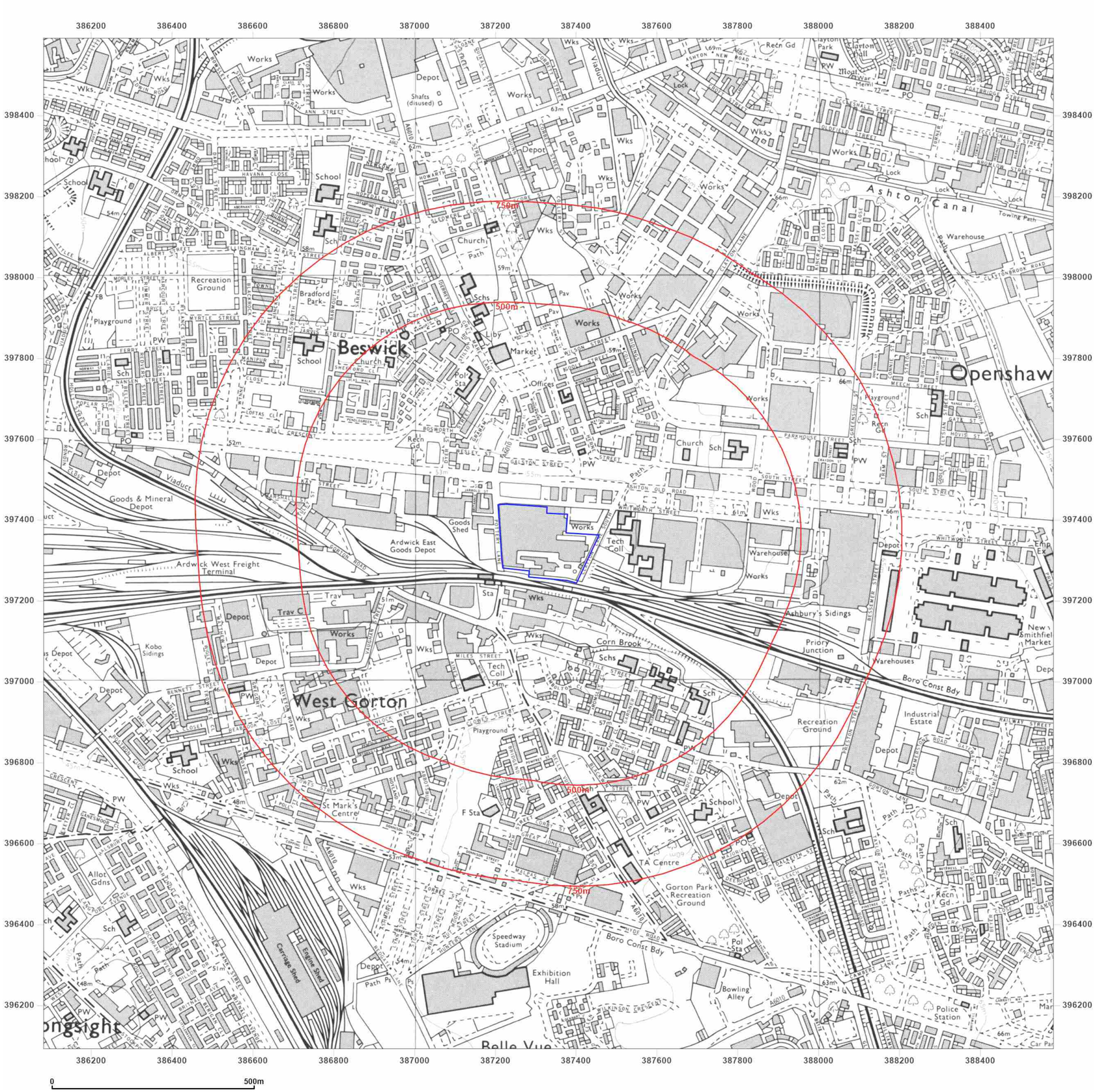
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Groundsure INSIGHTS

Site Details:

Bridge College, Manchester

Client Ref: 51121 - Bridge College, Manchester
Report Ref: GS-8P7-DKI-UQC-XWB
Grid Ref: 387331, 397341

Map Name: National Grid

Map date: **1985**

Scale: 1:10,000

Printed at: 1:10,000

N
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Surveyed 1985
Revised 1985
Edition N/A
Copyright N/A
Levelled N/A

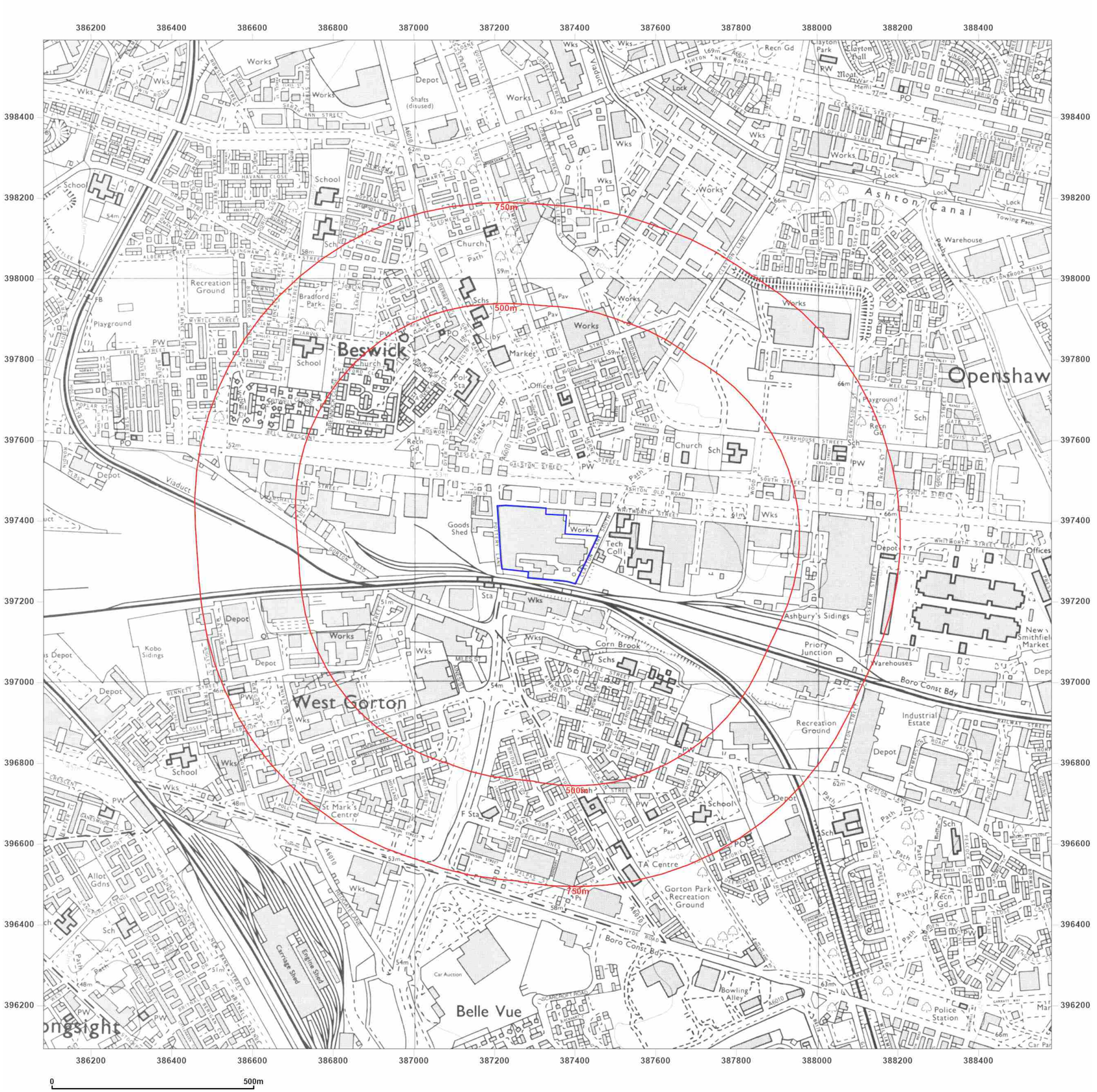
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Groundsure INSIGHTS

Site Details:

Bridge College, Manchester

Client Ref: 51121 - Bridge College, Manchester
Report Ref: GS-8P7-DKI-UQC-XWB
Grid Ref: 387331, 397341

Map Name: National Grid

Map date: **1991**

Scale: 1:10,000

Printed at: 1:10,000

N
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Surveyed 1985
Revised 1991
Edition N/A
Copyright N/A
Levelled N/A

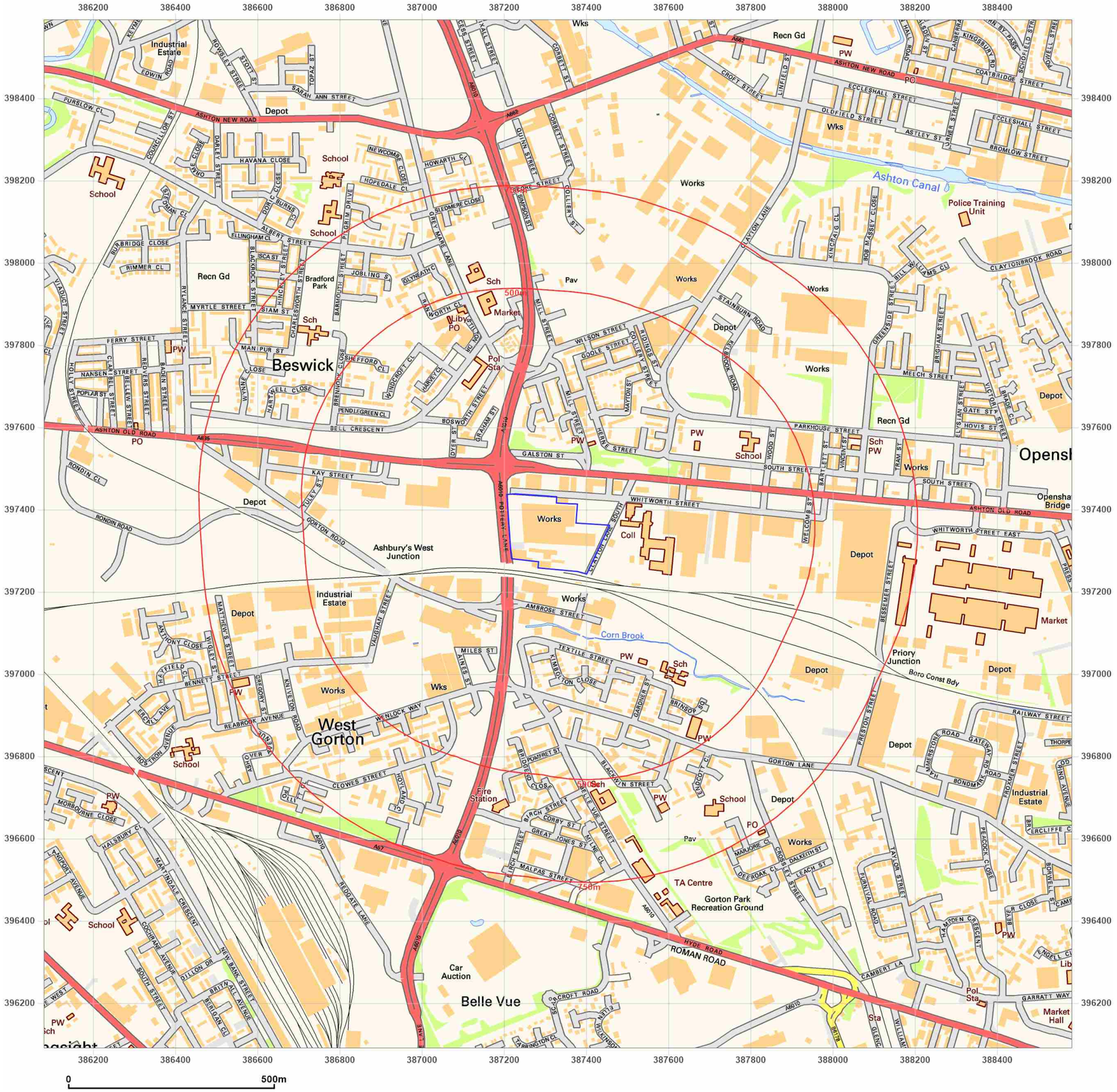
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Groundsure INSIGHTS

Site Details:

Bridge College, Manchester

Client Ref: 51121 - Bridge College, Manchester
Report Ref: GS-8P7-DKI-UQC-XWB
Grid Ref: 387331, 397341

Map Name: National Grid

Map date: **2001**

Scale: 1:10,000

Printed at: 1:10,000

N W E S

2001

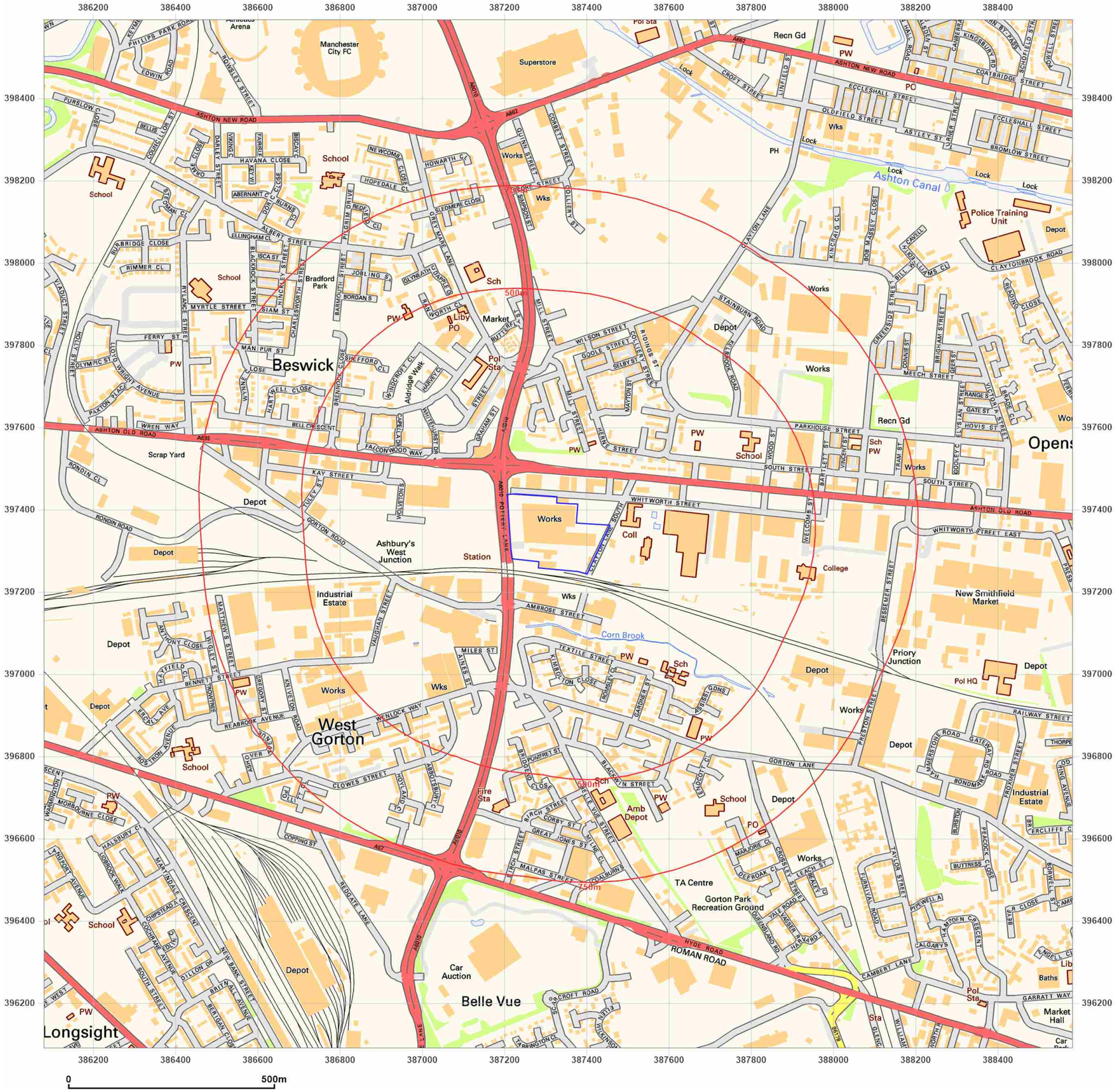
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Groundsure INSIGHTS

Site Details:

Bridge College, Manchester

Client Ref: 51121 - Bridge College, Manchester
Report Ref: GS-8P7-DKI-UQC-XWB
Grid Ref: 387331, 397341

Map Name: National Grid

Map date: **2010**

Scale: 1:10,000

Printed at: 1:10,000

N W E S

2010

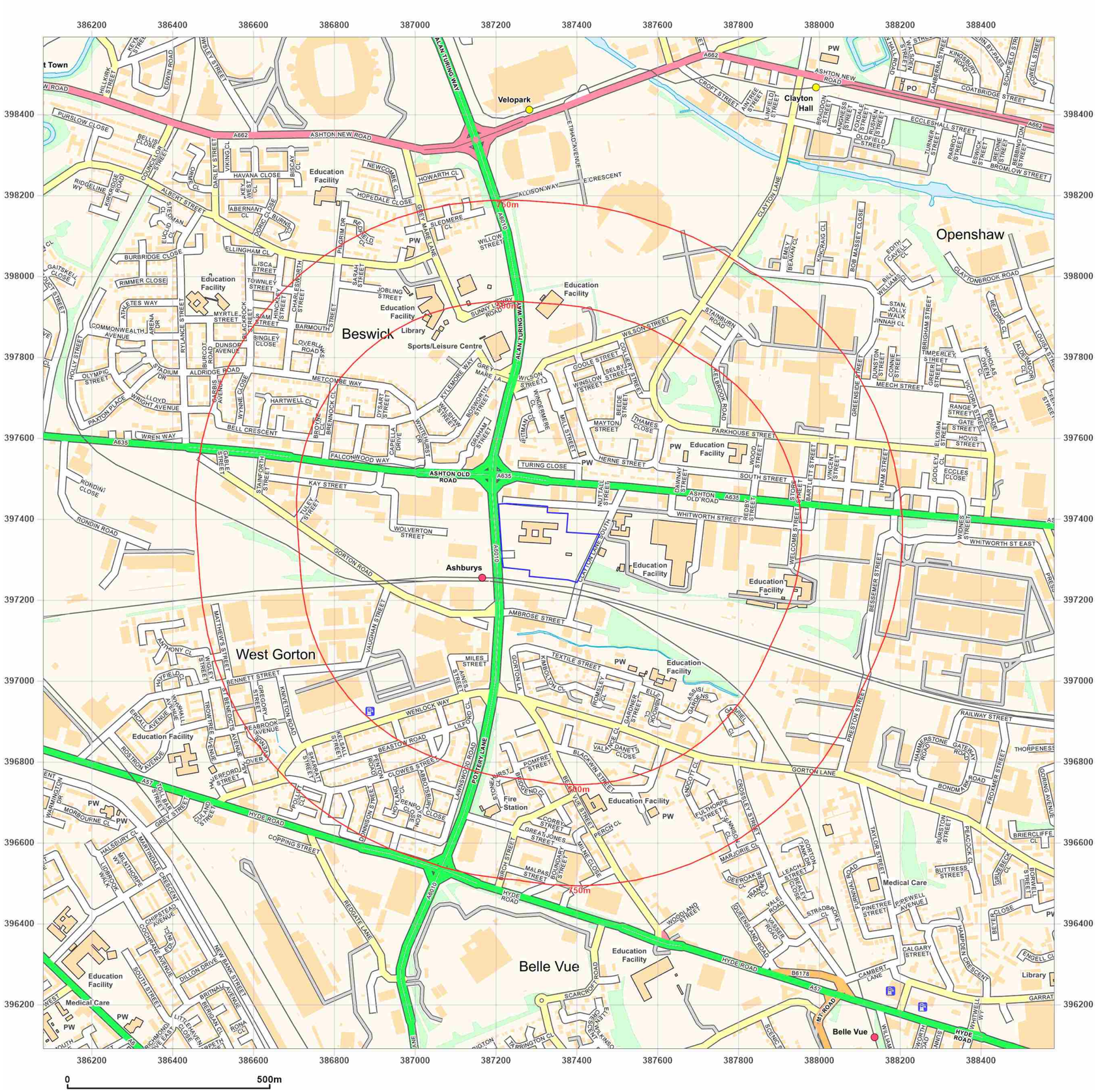
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Groundsure INSIGHTS

Site Details:

Bridge College, Manchester

Client Ref: 51121 - Bridge College, Manchester
Report Ref: GS-8P7-DKI-UQC-XWB
Grid Ref: 387331, 397341

Map Name: National Grid

Map date: **2024**

Scale: 1:10,000

Printed at: 1:10,000

N W E S

2024

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Production date: 17 September 2024

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Appendix D

Groundsure Enviro + Geo Insight Report

Groundsure
LOCATION INTELLIGENCE

Enviro+Geo Insight

Bridge College, Manchester

Order Details

Date: 17/09/2024

Your ref: 51121 - Bridge College, Manchester

Our Ref: GS-5KB-XOP-IOF-4H4

Site Details

Location: 387315 397342

Area: 3.35 ha

Authority: Manchester City Council ↗



Summary of findings p. 2 >

OS MasterMap site plan p.14 >

Aerial image p. 9 >

Insight User Guide ↗

Contact us with any questions at:
info@groundsure.com ↗
01273 257 755

Certified B Corporation

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 >	26	32	51	125	-
24 >	1.2 >	Historical tanks >	17	4	18	39	-
27 >	1.3 >	Historical energy features >	3	1	8	19	-
29	1.4	Historical petrol stations	0	0	0	0	-
29 >	1.5 >	Historical garages >	0	1	6	7	-
30 >	1.6 >	Historical military land >	0	0	1	0	-
Page	Section	Past land use - un-grouped >	On site	0-50m	50-250m	250-500m	500-2000m
31 >	2.1 >	Historical industrial land uses >	29	41	57	158	-
42 >	2.2 >	Historical tanks >	23	4	18	59	-
46 >	2.3 >	Historical energy features >	5	3	17	47	-
49	2.4	Historical petrol stations	0	0	0	0	-
49 >	2.5 >	Historical garages >	0	1	7	10	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
51	3.1	Active or recent landfill	0	0	0	0	-
51	3.2	Historical landfill (BGS records)	0	0	0	0	-
52	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
52 >	3.4 >	Historical landfill (EA/NRW records) >	0	0	1	0	-
52 >	3.5 >	Historical waste sites >	1	1	0	2	-
53 >	3.6 >	Licensed waste sites >	0	0	1	20	-
59 >	3.7 >	Waste exemptions >	0	1	18	36	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
65 >	4.1 >	Recent industrial land uses >	0	5	24	-	-
67	4.2	Current or recent petrol stations	0	0	0	0	-
67	4.3	Electricity cables	0	0	0	0	-
68	4.4	Gas pipelines	0	0	0	0	-
68	4.5	Sites determined as Contaminated Land	0	0	0	0	-

68 >	4.6 >	Control of Major Accident Hazards (COMAH) >	0	0	0	1	-
68	4.7	Regulated explosive sites	0	0	0	0	-
69	4.8	Hazardous substance storage/usage	0	0	0	0	-
69	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
69 >	4.10 >	Licensed industrial activities (Part A(1)) >	0	0	0	2	-
70 >	4.11 >	Licensed pollutant release (Part A(2)/B) >	0	0	2	7	-
71	4.12	Radioactive Substance Authorisations	0	0	0	0	-
71 >	4.13 >	Licensed Discharges to controlled waters >	1	0	5	6	-
73	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
73	4.15	Pollutant release to public sewer	0	0	0	0	-
73	4.16	List 1 Dangerous Substances	0	0	0	0	-
74	4.17	List 2 Dangerous Substances	0	0	0	0	-
74 >	4.18 >	Pollution Incidents (EA/NRW) >	0	0	1	2	-
74	4.19	Pollution inventory substances	0	0	0	0	-
75	4.20	Pollution inventory waste transfers	0	0	0	0	-
75	4.21	Pollution inventory radioactive waste	0	0	0	0	-

Page	Section	Hydrogeology >	On site	0-50m	50-250m	250-500m	500-2000m
76 >	5.1 >	Superficial aquifer >	Identified (within 500m)				
77 >	5.2 >	Bedrock aquifer >	Identified (within 500m)				
79 >	5.3 >	Groundwater vulnerability >	Identified (within 50m)				
80	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
80	5.5	Groundwater vulnerability- local information	None (within 0m)				
81 >	5.6 >	Groundwater abstractions >	0	0	0	0	30
89 >	5.7 >	Surface water abstractions >	0	0	0	0	6
91	5.8	Potable abstractions	0	0	0	0	0
91	5.9	Source Protection Zones	0	0	0	0	-
91	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-

Page	Section	Hydrology >	On site	0-50m	50-250m	250-500m	500-2000m
92 >	6.1 >	Water Network (OS MasterMap) >	0	0	2	-	-

93 >	6.2 >	Surface water features >	0	0	1	-	-
93 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
93 >	6.4 >	WFD Surface water bodies >	0	0	0	-	-
94 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding >	On site	0-50m	50-250m	250-500m	500-2000m
95 >	7.1 >	Risk of flooding from rivers and the sea >	Medium (within 50m)				
96	7.2	Historical Flood Events	0	0	0	-	-
96	7.3	Flood Defences	0	0	0	-	-
96	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
96	7.5	Flood Storage Areas	0	0	0	-	-
97 >	7.6 >	Flood Zone 2 >	Identified (within 50m)				
98 >	7.7 >	Flood Zone 3 >	Identified (within 50m)				
Page	Section	Surface water flooding >					
99 >	8.1 >	Surface water flooding >	1 in 30 year, Greater than 1.0m (within 50m)				
Page	Section	Groundwater flooding >					
101 >	9.1 >	Groundwater flooding >	High (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
102	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
103	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
103	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
103	10.4	Special Protection Areas (SPA)	0	0	0	0	0
103	10.5	National Nature Reserves (NNR)	0	0	0	0	0
104 >	10.6 >	Local Nature Reserves (LNR) >	0	0	0	0	1
104	10.7	Designated Ancient Woodland	0	0	0	0	0
104	10.8	Biosphere Reserves	0	0	0	0	0
104	10.9	Forest Parks	0	0	0	0	0
105	10.10	Marine Conservation Zones	0	0	0	0	0
105 >	10.11 >	Green Belt >	0	0	0	0	1
105	10.12	Proposed Ramsar sites	0	0	0	0	0

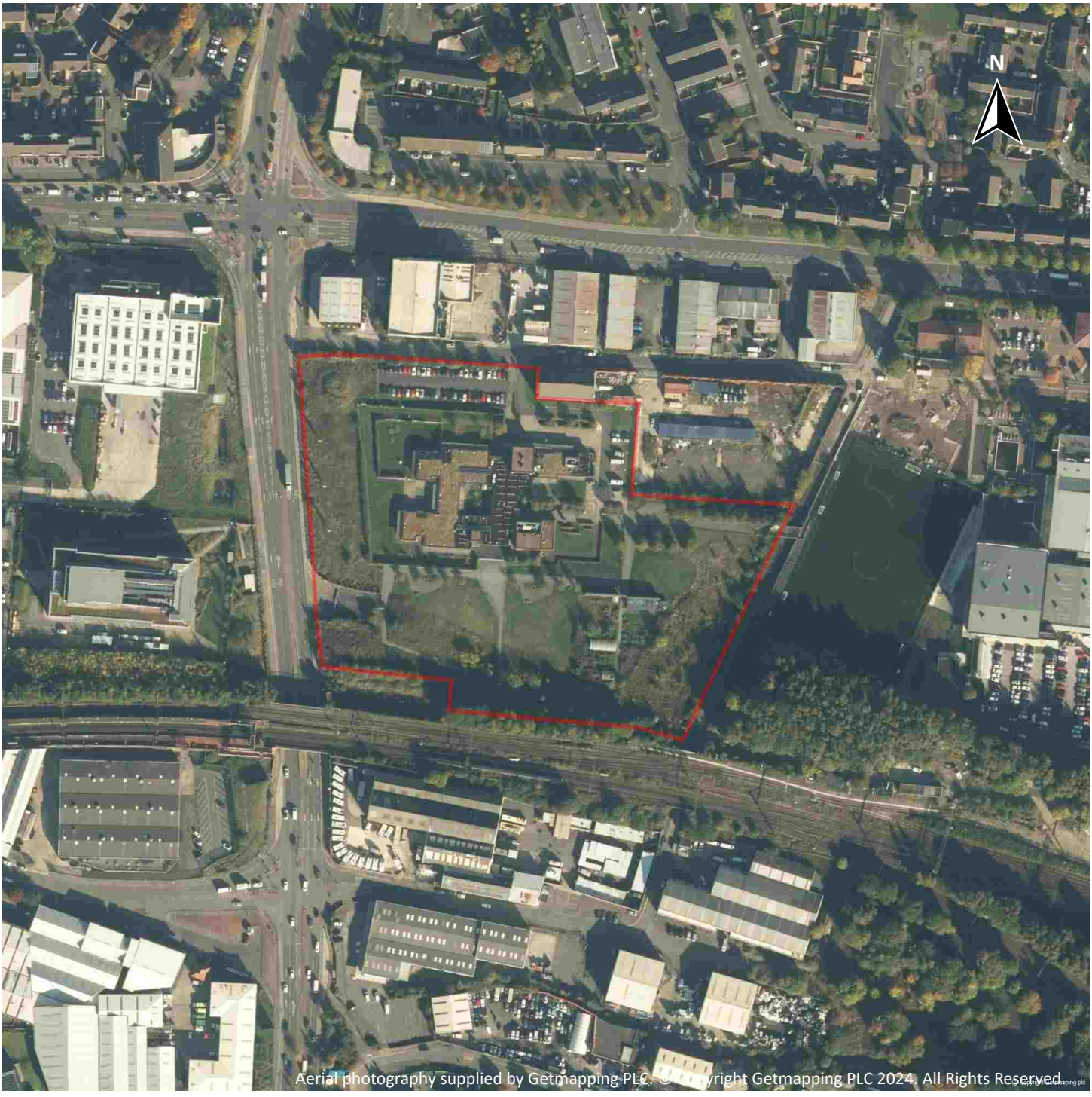
105	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
106	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
106	10.15	Nitrate Sensitive Areas	0	0	0	0	0
106	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
107 >	**10.17 >**	**SSSI Impact Risk Zones >**	1	-	-	-	-
108	10.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
109	11.1	World Heritage Sites	0	0	0	-	-
109	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
109	11.3	National Parks	0	0	0	-	-
109	11.4	Listed Buildings	0	0	0	-	-
110	11.5	Conservation Areas	0	0	0	-	-
110	11.6	Scheduled Ancient Monuments	0	0	0	-	-
110	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	**Agricultural designations >**	On site	0-50m	50-250m	250-500m	500-2000m
111 >	**12.1 >**	**Agricultural Land Classification >**	Urban (within 250m)				
112	12.2	Open Access Land	0	0	0	-	-
112	12.3	Tree Felling Licences	0	0	0	-	-
112	12.4	Environmental Stewardship Schemes	0	0	0	-	-
112	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	**Habitat designations >**	On site	0-50m	50-250m	250-500m	500-2000m
113	13.1	Priority Habitat Inventory	0	0	0	-	-
113	13.2	Habitat Networks	0	0	0	-	-
114 >	**13.3 >**	**Open Mosaic Habitat >**	0	3	1	-	-
114	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
115 >	**14.1 >**	**10k Availability >**	Identified (within 500m)				
116 >	**14.2 >**	**Artificial and made ground (10k) >**	1	1	2	10	-
118 >	**14.3 >**	**Superficial geology (10k) >**	1	0	0	0	-

119	14.4	Landslip (10k)	0	0	0	0	-
120 >	14.5 >	Bedrock geology (10k) >	2	1	1	2	-
121 >	14.6 >	Bedrock faults and other linear features (10k) >	0	1	0	1	-
Page	Section	**Geology 1:50,000 scale** >	On site	0-50m	50-250m	250-500m	500-2000m
122 >	15.1 >	50k Availability >	Identified (within 500m)				
123 >	15.2 >	Artificial and made ground (50k) >	1	0	0	1	-
124 >	15.3 >	Artificial ground permeability (50k) >	1	0	-	-	-
125 >	15.4 >	Superficial geology (50k) >	1	0	0	0	-
126 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
126	15.6	Landslip (50k)	0	0	0	0	-
126	15.7	Landslip permeability (50k)	None (within 50m)				
127 >	15.8 >	Bedrock geology (50k) >	2	1	1	2	-
128 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
128 >	15.10 >	Bedrock faults and other linear features (50k) >	0	1	0	1	-
Page	Section	**Boreholes** >	On site	0-50m	50-250m	250-500m	500-2000m
129 >	16.1 >	BGS Boreholes >	1	14	77	-	-
Page	Section	**Natural ground subsidence** >					
134 >	17.1 >	Shrink swell clays >	Very low (within 50m)				
135 >	17.2 >	Running sands >	Very low (within 50m)				
136 >	17.3 >	Compressible deposits >	Very low (within 50m)				
138 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
139 >	17.5 >	Landslides >	Very low (within 50m)				
140 >	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
142 >	18.1 >	BritPits >	1	0	1	2	-
143 >	18.2 >	Surface ground workings >	6	0	10	-	-
144 >	18.3 >	Underground workings >	0	0	0	0	5
145	18.4	Underground mining extents	0	0	0	0	-
145	18.5	Historical Mineral Planning Areas	0	0	0	0	-

145 >	18.6 >	Non-coal mining >	1	0	0	0	4
146 >	18.7 >	JPB mining areas >	Identified (within 0m)				
146	18.8	The Coal Authority non-coal mining	0	0	0	0	-
146 >	18.9 >	Researched mining >	0	0	0	3	-
147	18.10	Mining record office plans	0	0	0	0	-
147	18.11	BGS mine plans	0	0	0	0	-
147 >	18.12 >	Coal mining >	Identified (within 0m)				
148	18.13	Brine areas	None (within 0m)				
148	18.14	Gypsum areas	None (within 0m)				
148	18.15	Tin mining	None (within 0m)				
148	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes >	On site	0-50m	50-250m	250-500m	500-2000m
149	19.1	Natural cavities	0	0	0	0	-
150 >	19.2 >	Mining cavities >	0	0	0	0	1
150	19.3	Reported recent incidents	0	0	0	0	-
150	19.4	Historical incidents	0	0	0	0	-
151	19.5	National karst database	0	0	0	0	-
Page	Section	Radon >					
152 >	20.1 >	Radon >	Less than 1% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
154 >	21.1 >	BGS Estimated Background Soil Chemistry >	2	2	-	-	-
154 >	21.2 >	BGS Estimated Urban Soil Chemistry >	8	7	-	-	-
155 >	21.3 >	BGS Measured Urban Soil Chemistry >	1	0	-	-	-
Page	Section	Railway infrastructure and projects >	On site	0-50m	50-250m	250-500m	500-2000m
156	22.1	Underground railways (London)	0	0	0	-	-
156	22.2	Underground railways (Non-London)	0	0	0	-	-
157	22.3	Railway tunnels	0	0	0	-	-
157 >	22.4 >	Historical railway and tunnel features >	22	29	42	-	-
160	22.5	Royal Mail tunnels	0	0	0	-	-

161	22.6	Historical railways	0	0	0	-	-
161 >	**22.7 >**	**Railways >**	0	28	21	-	-
163	22.8	Crossrail 1	0	0	0	0	-
163	22.9	Crossrail 2	0	0	0	0	-
163	22.10	HS2	0	0	0	0	-

Recent aerial photograph



Capture Date: 18/10/2022

Site Area: 3.35ha

Recent site history - 2019 aerial photograph



Capture Date: 22/04/2019

Site Area: 3.35ha

Recent site history - 2015 aerial photograph



Capture Date: 11/06/2015

Site Area: 3.35ha

Recent site history - 2009 aerial photograph



Capture Date: 02/06/2009

Site Area: 3.35ha

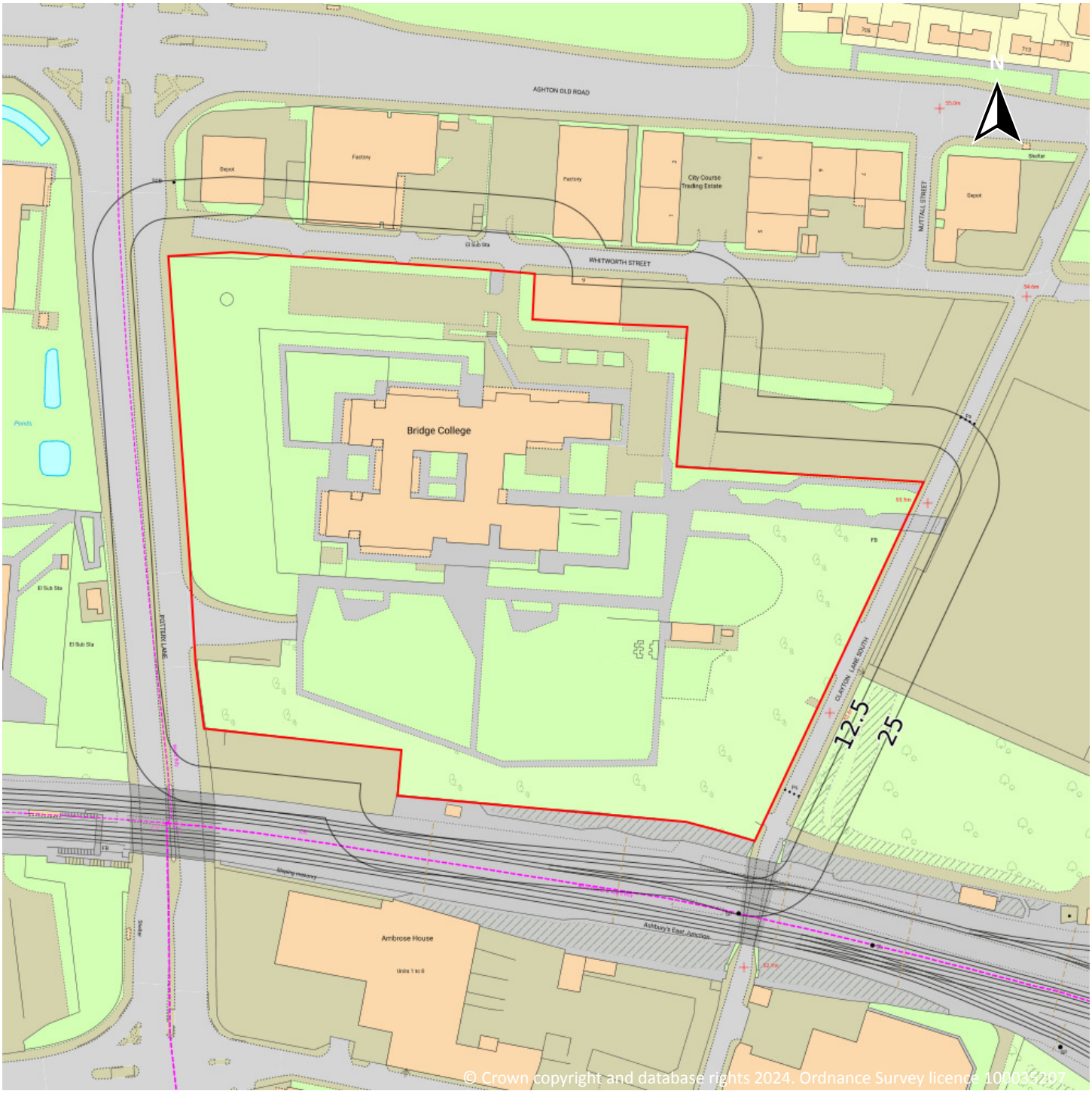
Recent site history - 2000 aerial photograph



Capture Date: 19/06/2000

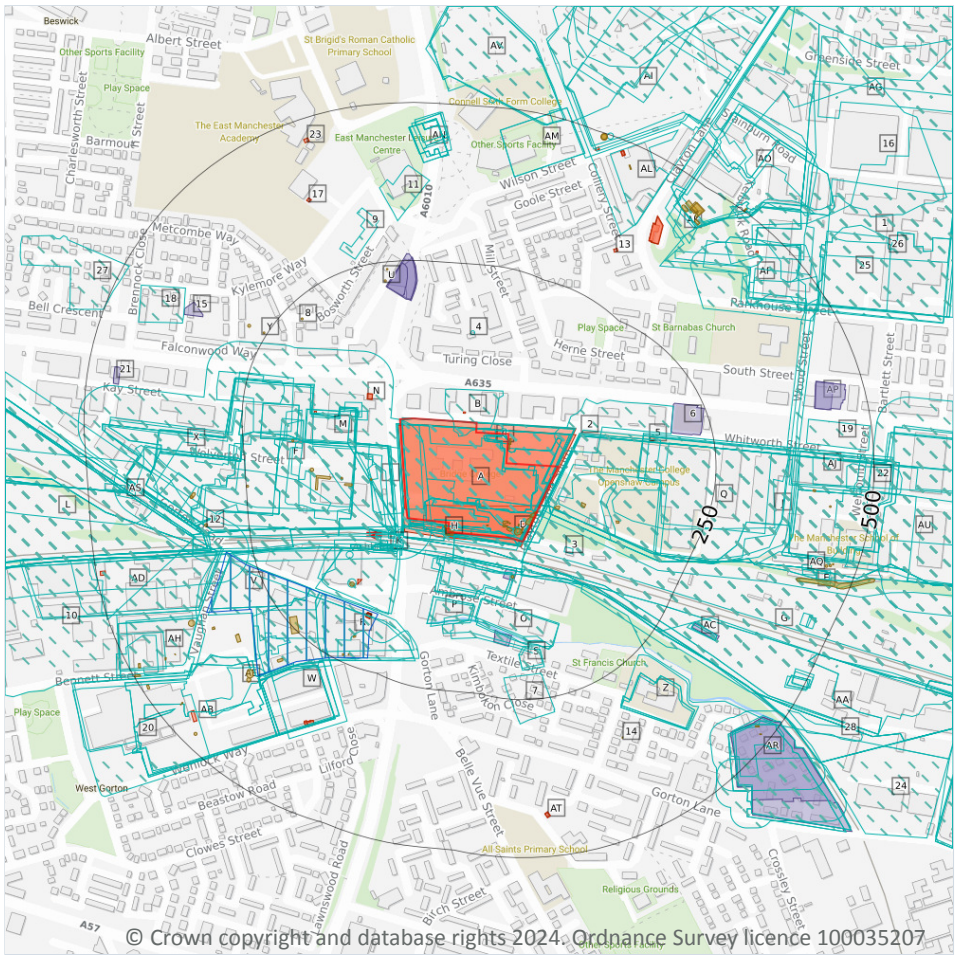
Site Area: 3.35ha

OS MasterMap site plan



Site Area: 3.35ha

1 Past land use



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Site Outline

Search buffers in metres (m)

- Historical industrial land uses
- Historical tanks
- Historical energy features
- Historical garages
- Historical military land

1.1 Historical industrial land uses

Records within 500m	234

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
A	**On site**	**Gas Engine Works**	**1905**	**821738**

ID	Location	Land use	Dates present	Group ID
A	**On site**	**Unspecified Commercial/Industrial**	**1890**	**822333**
A	**On site**	**Gas and Oil Engine Works**	**1915**	**864360**
A	**On site**	**Gas and Oil Engine Works**	**1934 - 1938**	**886582**
A	**On site**	**Unspecified Works**	**1985 - 1991**	**896896**
A	**On site**	**Gas and Oil Engine Works**	**1923**	**907311**
A	**On site**	**Unspecified Works**	**1968 - 1981**	**917014**
A	**On site**	**Gas and Oil Engine Works**	**1956**	**943764**
B	**On site**	**Fire Brick Works**	**1848**	**855627**
C	**On site**	**Railway Sidings**	**1923**	**866331**
D	**On site**	**Unspecified Tank**	**1934**	**868031**
D	**On site**	**Unspecified Tank**	**1915**	**919753**
D	**On site**	**Gasometer**	**1905**	**936290**
D	**On site**	**Gasometer**	**1923**	**958713**
D	**On site**	**Railway Sidings**	**1956**	**1008289**
E	**On site**	**Railway Sidings**	**1905**	**891028**
E	**On site**	**Railway Sidings**	**1890**	**905056**
E	**On site**	**Railway Sidings**	**1915**	**916798**
E	**On site**	**Railway Sidings**	**1915**	**936419**
E	**On site**	**Railway Sidings**	**1985**	**957888**
E	**On site**	**Railway Sidings**	**1934**	**964798**
E	**On site**	**Railway Sidings**	**1991**	**977841**
E	**On site**	**Railway Sidings**	**1938**	**1005550**
E	**On site**	**Railway Sidings**	**1923**	**1007451**
F	**On site**	**Goods Depot**	**1956**	**951165**
G	**On site**	**Railway Sidings**	**1981**	**979208**
I	3m NW	Goods Shed	1991	818300
E	6m SE	Engineering Works	1890 - 1905	980445
J	8m E	Engineering Works	1934	926109

ID	Location	Land use	Dates present	Group ID
J	8m E	Engineering Works	1915	994809
J	9m SE	Engineering Works	1923	945457
J	11m SE	Unspecified Foundry	1956	826693
1	12m SE	Steel Works	1956	852897
E	12m SE	Railway Sidings	1968	933265
F	14m SW	Railway Sidings	1890	874398
I	16m W	Unspecified Commercial/Industrial	1923	862627
F	18m NW	Unspecified Commercial/Industrial	1890	863976
F	19m W	Unspecified Works	1905	958699
F	20m W	Unspecified Works	1915	937864
F	20m W	Unspecified Works	1934	955617
F	20m W	Goods Depot	1934 - 1938	1001909
F	20m SW	Railway Sidings	1985 - 1991	908301
F	20m SW	Railway Sidings	1956 - 1968	980648
K	21m SW	Railway Station	1956	905341
2	27m E	Bleach Works	1848	838118
F	28m SW	Railway Sidings	1915	1000418
K	28m SW	Railway Station	1991	908236
K	28m SW	Railway Station	1985	956545
F	28m SW	Railway Sidings	1934 - 1938	950587
L	30m SW	Railway Sidings	1905	931277
L	32m W	Railway Sidings	1923	928296
G	33m S	Unspecified Works	1968 - 1981	881393
K	36m SW	Railway Station	1968 - 1981	899884
G	39m S	Unspecified Works	1985 - 1991	993078
G	40m S	Iron Works	1934 - 1938	876053
G	40m S	Iron Works	1915	1005469
G	44m S	Iron Works	1923	971991

ID	Location	Land use	Dates present	Group ID
K	45m SW	Potteries	1848	848505
K	50m SW	Railway Station	1938	939105
K	50m SW	Railway Station	1890	940408
K	50m SW	Railway Station	1934	1008489
K	50m SW	Railway Station	1915	1008729
M	52m NW	Goods Shed	1985	952906
K	52m SW	Railway Station	1923	914676
K	53m SW	Railway Building	1905	853766
K	56m SW	Pottery	1890	812048
M	61m NW	Goods Shed	1968 - 1981	892052
3	65m SE	Railway Building	1981	854268
M	65m NW	Goods Shed	1956	920845
F	67m NW	Unspecified Works	1923	1004036
D	84m E	Refuse Heap	1956	809435
K	85m SW	Railway Building	1905	960519
K	85m SW	Railway Building	1934	871035
K	85m SW	Railway Building	1915	964181
O	99m S	Corn Mill	1890	811827
O	101m S	Unspecified Mill	1915 - 1923	895402
K	103m SW	Railway Station	1905	818691
P	104m S	Brewery	1915	1000809
P	104m S	Brewery	1934 - 1938	1006892
P	108m S	Brewery	1923	1000374
K	115m SW	Unspecified Pit	1905	828496
J	126m E	Unspecified Works	1981	963626
O	128m S	Unspecified Works	1981	953944
K	129m SW	Unspecified Tank	1905	849352
Q	129m E	Unspecified Works	1968	977705

ID	Location	Land use	Dates present	Group ID
O	136m S	Unspecified Works	1985 - 1991	903646
Q	138m E	Unspecified Commercial/Industrial	1985	822334
4	139m N	Clay Pit	1848	832039
R	155m SW	Unspecified Commercial/Industrial	1981	822177
F	161m W	Railway Building	1991	929795
F	161m W	Goods Depot	1985	969312
S	166m S	Starch Works	1915	817026
R	166m SW	Chemical Works	1890 - 1905	974700
R	167m SW	Chemical Works	1923	963307
R	169m S	Chemical Works	1848	924469
S	169m S	Unspecified Works	1923	908031
F	171m W	Railway Building	1968	1005312
R	178m SW	Unspecified Works	1985	993915
R	182m SW	Unspecified Works	1981	888870
T	186m W	Railway Sidings	1934	902002
T	186m W	Railway Sidings	1915	982497
T	186m W	Railway Sidings	1938	988573
F	188m NW	Dye Works	1848	852869
V	190m SW	Unspecified Commercial/Industrial	1981	822176
V	190m SW	Unspecified Works	1968	869523
7	210m S	Iron Works	1915 - 1923	993131
W	232m SW	Unspecified Works	1991	951979
X	249m W	Goods Depot	1981	928776
X	249m W	Goods Shed	1956 - 1968	929871
T	256m W	Goods Depot and Mineral Yard	1938	931833
Z	257m SE	Corporation Yard	1905	961939
AA	258m SE	Unspecified Commercial/Industrial	1934	879527
AB	263m SW	Unspecified Works	1968 - 1981	873682

ID	Location	Land use	Dates present	Group ID
9	263m NW	Police Station	1985 - 1991	993735
AB	264m SW	Iron Works	1956	904283
R	269m SW	Chemical Works	1915	882405
W	273m SW	Unspecified Commercial/Industrial	1905	822178
W	273m SW	Engineering Works	1923	866002
W	274m SW	Engineering Works	1915	919316
W	274m SW	Engineering Works	1934 - 1938	989906
Z	279m SE	Corporation Yard	1915	874251
Z	279m SE	Corporation Yard	1934	949243
Z	280m SE	Corporation Yard	1923	919778
AC	293m SE	Railway Building	1923	896740
AD	295m W	Unspecified Works	1956 - 1968	967578
AD	297m W	Unspecified Works	1981	983854
AC	300m SE	Railway Building	1915	916901
AC	300m SE	Railway Building	1934 - 1938	979898
AD	303m W	Pulley Works	1915 - 1923	964311
T	306m W	Goods Yard	1915	879416
T	306m W	Goods Depot and Mineral Yard	1934	948793
AD	306m W	Crane and Pulley Works	1934 - 1938	929587
10	306m W	Brick Field	1890 - 1905	974656
11	314m N	Bleach Works	1848	838120
T	316m W	Railway Sidings	1985	953499
T	320m W	Railway Sidings	1956 - 1968	865775
T	320m W	Goods and Mineral Depot	1985	884156
T	320m W	Goods Depot and Mineral Yard	1956	900252
T	320m W	Goods and Mineral Depot	1981	961915
T	320m W	Goods, Mineral and Cattle Depot	1956	997682
AE	331m SW	Dye Works	1848	852870

ID	Location	Land use	Dates present	Group ID
AB	333m SW	Iron Works	1923	900261
AB	333m SW	Iron Works	1905	977564
AB	334m SW	Iron Works	1934 - 1938	929602
AB	334m SW	Iron Works	1915	956960
T	337m W	Railway Sidings	1890	972309
T	339m W	Goods Yard	1923	902340
T	339m W	Goods Yard	1905	950359
AF	340m NE	Brick Works	1890	818437
AG	356m NE	Engineering Works	1923	1008252
AH	360m SW	Unspecified Works	1985 - 1991	955312
16	362m E	Railway Sidings	1934 - 1938	991515
AI	363m NE	Unspecified Commercial/Industrial	1956	946125
AJ	367m E	Unspecified Warehouse	1981	919922
AG	367m NE	Railway Sidings	1956	951734
AH	368m SW	Chemical Works	1848 - 1890	950196
AD	373m W	Unspecified Pit	1890	828497
18	376m NW	Brick Field	1848	806762
AJ	378m E	Unspecified Works	1968	906027
AJ	379m E	Unspecified Commercial/Industrial	1991	822340
AJ	379m E	Unspecified Works	1985	966403
AJ	381m E	Unspecified Warehouse	1985	997816
AL	387m NE	Unspecified Works	1968	835417
T	390m W	Goods, Mineral and Cattle Depot	1938	875092
AG	390m NE	Engineering Works	1934	861063
AM	394m N	Unspecified Works	1968	927647
AM	394m N	Unspecified Works	1985 - 1991	936013
19	395m E	Unspecified Works	1985 - 1991	978635
AF	396m NE	Unspecified Pit	1890	829259

ID	Location	Land use	Dates present	Group ID
AN	405m N	Police Station	1905	889167
AN	405m N	Police Station	1923	902769
AG	407m NE	Unspecified Works	1985	926526
AK	408m NE	Unspecified Heap	1890	842828
AO	410m NE	Unspecified Works	1985	975536
AN	414m N	Fire Station	1956 - 1968	867968
AN	415m N	Fire Engine Station	1934	957979
AN	415m N	Fire Engine Station	1915	960832
AN	415m N	Police Station	1938	962105
AQ	416m E	Railway Building	1981	935849
AQ	420m E	Railway Building	1956	970891
AR	421m SE	Motor Works	1923	928464
AQ	422m E	Unspecified Tanks	1923	819365
AS	425m W	Railway Building	1985 - 1991	970791
AH	427m SW	Forge	1968	945165
AN	427m N	Police Station	1956	915450
AN	432m N	Police Station	1968	987125
AO	434m NE	Dye Works	1923	931182
20	435m SW	Unspecified Works	1985 - 1991	997023
T	435m W	Goods and Mineral Depot	1923	907471
T	435m W	Coal and Mineral Depot	1890 - 1905	946072
AN	437m N	Police Station	1981	908125
AO	438m NE	Dye Works	1890 - 1905	887686
AH	439m SW	Forge	1934 - 1938	878526
AO	440m NE	Dye Works	1915	875745
AO	440m NE	Dye Works	1934 - 1938	952259
T	441m W	Goods and Mineral Depot	1915	947015
T	441m W	Goods, Mineral and Cattle Depot	1934	960616

ID	Location	Land use	Dates present	Group ID
AS	441m W	Railway Building	1981	873017
AQ	442m E	Railway Building	1981	993444
AR	446m SE	Motor Works	1915	898990
AR	446m SE	Motor Works	1934 - 1938	941313
AR	447m SE	Unspecified Warehouse	1956 - 1968	988604
AR	449m SE	Chemical Works	1905	834339
AR	450m SE	Unspecified Works	1981	835407
AO	450m NE	Unspecified Works	1968	1001978
E	451m E	Railway Building	1968 - 1981	879188
AI	453m N	Unspecified Works	1915 - 1923	970476
AG	453m NE	Railway Sidings	1923	918572
22	457m E	Unspecified Pit	1890	829258
AN	457m N	Police Station	1915	894072
AN	457m N	Police Station	1934	935165
E	461m E	Railway Building	1985	986298
AG	464m NE	Railway Sidings	1915	875955
AI	469m N	Unspecified Works	1985 - 1991	942455
AA	470m SE	Railway Building	1923	882745
AI	470m N	Unspecified Commercial/Industrial	1968	876862
24	472m SE	Gas Plant Works	1915 - 1923	984127
AI	474m N	Unspecified Works	1981	885376
AA	475m SE	Railway Building	1915	959575
AA	475m SE	Railway Building	1934 - 1938	1002923
AA	476m SE	Railway Building	1968 - 1981	1005992
AA	478m SE	Engine Shed	1956	824033
AU	478m E	Unspecified Depot	1968 - 1981	953972
AQ	480m E	Unspecified Tanks	1923	819361
AV	483m N	Chemical Works	1915 - 1923	890664

ID	Location	Land use	Dates present	Group ID
AV	484m N	Chemical Works	1905	936417
AV	486m N	Disused Chemical Works	1934 - 1938	867767
25	488m NE	Unspecified Works	1981	960057
AG	488m NE	Dye Works	1848	882552
26	489m NE	Unspecified Commercial/Industrial	1968	822335
27	492m NW	Brick Works	1848	818469
AU	492m E	Unspecified Depot	1985	941821
AL	493m N	Unspecified Tank	1985	850024
28	498m SE	Unspecified Pit	1956	910627

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m	**78**

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 15 >**

ID	Location	Land use	Dates present	Group ID
D	**On site**	**Tanks**	**1891**	**108671**
D	**On site**	**Tanks**	**1891**	**108672**
D	**On site**	**Tanks**	**1948**	**108846**
D	**On site**	**Tanks**	**1891**	**108853**
D	**On site**	**Tanks**	**1933**	**108854**
D	**On site**	**Unspecified Tank**	**1948**	**115616**
D	**On site**	**Unspecified Tank**	**1948**	**115619**
D	**On site**	**Unspecified Tank**	**1891**	**115639**
D	**On site**	**Unspecified Tank**	**1893**	**115650**

ID	Location	Land use	Dates present	Group ID
D	**On site**	**Tanks**	**1908 - 1922**	**126960**
D	**On site**	**Tanks**	**1922**	**129609**
D	**On site**	**Tanks**	**1908 - 1922**	**134588**
D	**On site**	**Unspecified Tank**	**1891 - 1933**	**140814**
D	**On site**	**Tanks**	**1908**	**143773**
H	**On site**	**Unspecified Tank**	**1933**	**115666**
H	**On site**	**Tanks**	**1893**	**129200**
H	**On site**	**Tanks**	**1891**	**147870**
C	1m NE	Unspecified Tank	1933	141730
C	2m NE	Unspecified Tank	1948	148272
H	4m SW	Unspecified Tank	1891	115186
D	23m E	Unspecified Tank	1891	114763
I	51m W	Unspecified Tank	1893	115647
G	56m SE	Unspecified Tank	1908	115656
D	58m E	Unspecified Tank	1933	115664
I	83m W	Tanks	1893	108859
I	97m W	Unspecified Tank	1893	115646
I	116m W	Tanks	1893	108844
D	120m E	Unspecified Tank	1933	115665
K	133m SW	Unspecified Tank	1908	115657
I	142m W	Unspecified Tank	1893	115655
F	170m W	Unspecified Tank	1893	115649
R	204m SW	Tanks	1948	108847
U	219m NW	Unspecified Tank	1893	115644
8	220m NW	Unspecified Tank	1893	115643
R	234m SW	Unspecified Tank	1948	115617
R	234m SW	Unspecified Tank	1948	115618
R	237m SW	Unspecified Tank	1893	115651

ID	Location	Land use	Dates present	Group ID
U	237m N	Unspecified Tank	1893	115645
F	246m W	Unspecified Tank	1893	115654
Y	254m NW	Unspecified Tank	1893	115642
Y	278m NW	Unspecified Tank	1893	115641
R	298m SW	Tanks	1933	108845
12	315m W	Unspecified Tank	1922	115659
R	324m SW	Unspecified Tank	1948	146431
L	331m W	Tanks	1908 - 1922	129704
L	335m W	Unspecified Tank	1893	115648
AE	344m SW	Unspecified Tank	1891 - 1893	132627
14	347m SE	Unspecified Tank	1891	115634
R	351m SW	Unspecified Tank	1983 - 1995	141534
AE	355m SW	Tanks	1891	110796
R	375m SW	Unspecified Tank	1953 - 1967	136232
AJ	405m E	Unspecified Tank	1933	115193
AQ	417m E	Tanks	1908 - 1922	126738
AH	426m SW	Unspecified Tank	1891	115636
AJ	434m E	Unspecified Tank	1908	115192
AH	441m SW	Unspecified Tank	1891	115635
AK	441m NE	Tanks	1922	108861
AK	450m NE	Tanks	1981	108838
AQ	451m E	Unspecified Tank	1908 - 1922	132269
AK	451m NE	Tanks	1908	143808
AK	455m NE	Tanks	1956 - 1967	138015
AK	455m NE	Tanks	1922 - 1933	153019
AQ	457m E	Unspecified Tank	1908 - 1922	135994
AK	458m NE	Unspecified Tank	1948	115589
AB	460m SW	Unspecified Tank	1891	115637

ID	Location	Land use	Dates present	Group ID
AL	461m NE	Unspecified Tank	1948 - 1967	145271
AQ	461m E	Unspecified Tank	1908 - 1922	144988
AB	464m SW	Unspecified Tank	1891	115638
AR	470m SE	Unspecified Tank	1891	115188
AB	476m SW	Unspecified Tank	1893	115652
AH	481m SW	Unspecified Tank	1948 - 1967	135363
AR	483m SE	Unspecified Tank	1891	115189
AH	487m SW	Tanks	1975	110797
AL	489m N	Unspecified Tank	1993 - 1995	126621
AL	489m N	Unspecified Tank	1989 - 1990	135817
AH	490m SW	Unspecified Tank	1889	127425
AL	490m N	Unspecified Tank	1981	139876
AO	499m NE	Tanks	1933	109689

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	**31**

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 15 >**

ID	Location	Land use	Dates present	Group ID
A	**On site**	**Gas and Oil Engine Works**	**1948**	**78880**
A	**On site**	**Gas and Oil Engine Works**	**1922 - 1933**	**90510**
D	**On site**	**Otto Gas Engine Works**	**1891**	**83477**
B	14m N	Electricity Substation	1994 - 1996	81796
N	54m NW	Electricity Substation	1948	72510

ID	Location	Land use	Dates present	Group ID
N	54m NW	Electricity Substation	1980 - 1994	88748
K	121m SW	Electricity Substation	1990 - 1996	77587
M	133m NW	Electricity Substation	1996	65489
5	151m E	Electricity Substation	1991 - 1996	78569
R	161m SW	Electricity Substation	1990 - 1996	84893
R	162m SW	Electricity Substation	1948	81478
R	163m SW	Electricity Substation	1980	92811
13	333m NE	Electricity Substation	1981 - 1995	78084
W	353m SW	Electricity Substation	1985	84511
W	353m SW	Electricity Substation	1993	84156
W	355m SW	Electricity Substation	1949	84788
W	358m SW	Electricity Substation	1996	73318
W	359m SW	Electricity Substation	1979	91667
17	373m NW	Electricity Substation	1977 - 1996	73624
AK	378m NE	Electricity Substation	1993 - 1995	81532
AK	378m NE	Electricity Substation	1989 - 1990	75153
AK	378m NE	Electricity Substation	1981	70885
AT	429m S	Electricity Substation	1979	80824
AT	430m S	Electricity Substation	1985 - 1996	75144
AB	455m SW	Electricity Substation	1949	74820
AF	461m NE	Electricity Substation	1995	65491
23	462m NW	Electricity Substation	1977 - 1988	85349
AL	470m N	Electricity Substation	1981 - 1995	70407
AL	475m NE	Electricity Substation	1948 - 1990	71268
AL	476m NE	Electricity Substation	1993 - 1995	85048
AD	485m W	Electricity Substation	1953	65492

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m	0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m	14

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original 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
G	47m SE	Garage	1948	22293
O	147m S	Garage	1948	22292
U	186m N	Garage	1967	24737
6	187m E	Garage	1991 - 1996	28329
U	188m N	Garage	1977	26790
U	189m N	Garage	1988	27179
U	194m N	Garage	1963	25564
AC	300m SE	Engine Repairing Shed	1933	22810
15	352m NW	Garages	1948	22798
AP	416m E	Garage	1963 - 1967	22991
AP	417m E	Garage	1980	26408
AR	447m SE	Garage	1986 - 1991	23157
AR	447m SE	Garage	1982	26438
21	449m W	Garage	1963 - 1967	23363

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m	**1**

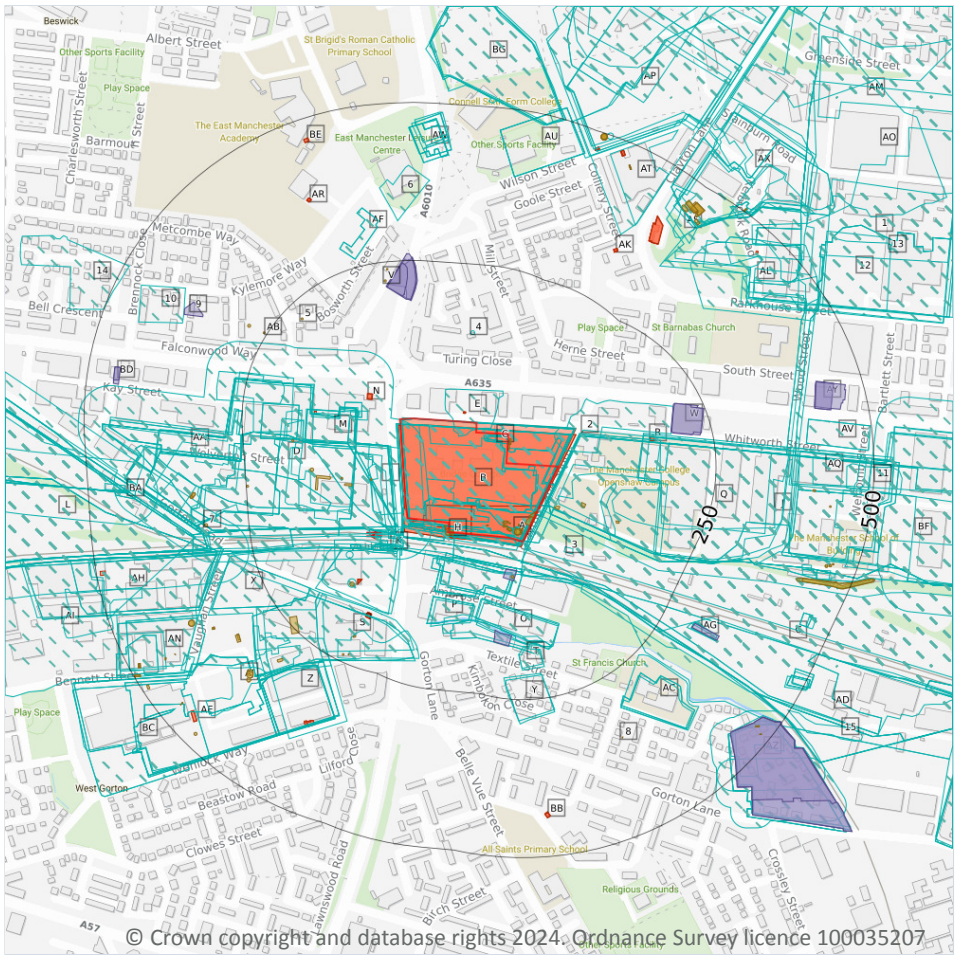
Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

Features are displayed on the Past land use map on **page 15 >**

ID	Location	Site Name	Date of Operation	Activities
R	159m SW	West Gorton	circa WWI	HM Explosives Factory; Synthetic Phenol and TNT

This data is sourced from Ordnance Survey / Groundsure / other sources.

2 Past land use - un-grouped



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2.1 Historical industrial land uses

Records within 500m	285

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 31 >**

ID	Location	Land Use	Date	Group ID
A	**On site**	**Gasometer**	**1905**	**936290**
A	**On site**	**Unspecified Tank**	**1934**	**868031**
A	**On site**	**Unspecified Tank**	**1915**	**919753**

ID	Location	Land Use	Date	Group ID
A	**On site**	**Railway Sidings**	**1956**	**1008289**
A	**On site**	**Gasometer**	**1923**	**958713**
B	**On site**	**Gas and Oil Engine Works**	**1938**	**886582**
B	**On site**	**Gas and Oil Engine Works**	**1934**	**886582**
B	**On site**	**Gas and Oil Engine Works**	**1915**	**864360**
B	**On site**	**Gas Engine Works**	**1905**	**821738**
B	**On site**	**Unspecified Commercial/Industrial**	**1890**	**822333**
B	**On site**	**Gas and Oil Engine Works**	**1956**	**943764**
B	**On site**	**Unspecified Works**	**1985**	**896896**
B	**On site**	**Unspecified Works**	**1981**	**917014**
B	**On site**	**Unspecified Works**	**1991**	**896896**
B	**On site**	**Unspecified Works**	**1968**	**917014**
B	**On site**	**Gas and Oil Engine Works**	**1923**	**907311**
C	**On site**	**Railway Sidings**	**1938**	**1005550**
C	**On site**	**Railway Sidings**	**1934**	**964798**
C	**On site**	**Railway Sidings**	**1915**	**936419**
C	**On site**	**Railway Sidings**	**1915**	**916798**
C	**On site**	**Railway Sidings**	**1905**	**891028**
C	**On site**	**Railway Sidings**	**1890**	**905056**
C	**On site**	**Railway Sidings**	**1985**	**957888**
C	**On site**	**Railway Sidings**	**1991**	**977841**
C	**On site**	**Railway Sidings**	**1923**	**1007451**
D	**On site**	**Goods Depot**	**1956**	**951165**
E	**On site**	**Fire Brick Works**	**1848**	**855627**
F	**On site**	**Railway Sidings**	**1981**	**979208**
G	**On site**	**Railway Sidings**	**1923**	**866331**
I	3m NW	Goods Shed	1991	818300
C	6m SE	Engineering Works	1890	980445

ID	Location	Land Use	Date	Group ID
J	8m E	Engineering Works	1934	926109
J	8m E	Engineering Works	1915	994809
C	9m SE	Engineering Works	1905	980445
J	9m SE	Engineering Works	1923	945457
J	11m SE	Unspecified Foundry	1956	826693
1	12m SE	Steel Works	1956	852897
C	12m SE	Railway Sidings	1968	933265
D	14m SW	Railway Sidings	1890	874398
I	16m W	Unspecified Commercial/Industrial	1923	862627
D	18m NW	Unspecified Commercial/Industrial	1890	863976
D	19m W	Unspecified Works	1905	958699
D	20m W	Goods Depot	1938	1001909
D	20m W	Goods Depot	1934	1001909
D	20m W	Unspecified Works	1934	955617
D	20m W	Unspecified Works	1915	937864
D	20m SW	Railway Sidings	1985	908301
D	20m SW	Railway Sidings	1991	908301
D	20m SW	Railway Sidings	1968	980648
D	21m SW	Railway Sidings	1956	980648
K	21m SW	Railway Station	1956	905341
2	27m E	Bleach Works	1848	838118
D	28m SW	Railway Sidings	1915	1000418
K	28m SW	Railway Station	1985	956545
K	28m SW	Railway Station	1991	908236
D	28m SW	Railway Sidings	1938	950587
D	28m SW	Railway Sidings	1934	950587
L	30m SW	Railway Sidings	1905	931277
L	32m W	Railway Sidings	1923	928296

ID	Location	Land Use	Date	Group ID
F	33m S	Unspecified Works	1981	881393
F	33m S	Unspecified Works	1968	881393
K	36m SW	Railway Station	1981	899884
K	36m SW	Railway Station	1968	899884
F	39m S	Unspecified Works	1985	993078
F	39m S	Unspecified Works	1991	993078
F	40m S	Iron Works	1938	876053
F	40m S	Iron Works	1934	876053
F	40m S	Iron Works	1915	1005469
F	44m S	Iron Works	1923	971991
K	45m SW	Potteries	1848	848505
K	50m SW	Railway Station	1938	939105
K	50m SW	Railway Station	1934	1008489
K	50m SW	Railway Station	1915	1008729
K	50m SW	Railway Station	1890	940408
M	52m NW	Goods Shed	1985	952906
K	52m SW	Railway Station	1923	914676
K	53m SW	Railway Building	1905	853766
K	56m SW	Pottery	1890	812048
M	61m NW	Goods Shed	1981	892052
M	61m NW	Goods Shed	1968	892052
3	65m SE	Railway Building	1981	854268
M	65m NW	Goods Shed	1956	920845
D	67m NW	Unspecified Works	1923	1004036
A	84m E	Refuse Heap	1956	809435
K	85m SW	Railway Building	1905	960519
K	85m SW	Railway Building	1934	871035
K	85m SW	Railway Building	1915	964181

ID	Location	Land Use	Date	Group ID
O	99m S	Corn Mill	1890	811827
O	101m S	Unspecified Mill	1915	895402
K	103m SW	Railway Station	1905	818691
P	104m S	Brewery	1938	1006892
P	104m S	Brewery	1934	1006892
P	104m S	Brewery	1915	1000809
O	105m S	Unspecified Mill	1923	895402
P	108m S	Brewery	1923	1000374
K	115m SW	Unspecified Pit	1905	828496
J	126m E	Unspecified Works	1981	963626
O	128m S	Unspecified Works	1981	953944
K	129m SW	Unspecified Tank	1905	849352
Q	129m E	Unspecified Works	1968	977705
O	136m S	Unspecified Works	1985	903646
O	136m S	Unspecified Works	1991	903646
Q	138m E	Unspecified Commercial/Industrial	1985	822334
4	139m N	Clay Pit	1848	832039
S	155m SW	Unspecified Commercial/Industrial	1981	822177
D	161m W	Goods Depot	1985	969312
D	161m W	Railway Building	1991	929795
T	166m S	Starch Works	1915	817026
S	166m SW	Chemical Works	1905	974700
S	166m SW	Chemical Works	1890	974700
S	167m SW	Chemical Works	1923	963307
S	169m S	Chemical Works	1848	924469
T	169m S	Unspecified Works	1923	908031
D	171m W	Railway Building	1968	1005312
S	178m SW	Unspecified Works	1985	993915

ID	Location	Land Use	Date	Group ID
S	182m SW	Unspecified Works	1981	888870
U	186m W	Railway Sidings	1938	988573
U	186m W	Railway Sidings	1934	902002
U	186m W	Railway Sidings	1915	982497
D	188m NW	Dye Works	1848	852869
X	190m SW	Unspecified Commercial/Industrial	1981	822176
X	190m SW	Unspecified Works	1968	869523
Y	210m S	Iron Works	1915	993131
Y	213m S	Iron Works	1923	993131
Z	232m SW	Unspecified Works	1991	951979
AA	249m W	Goods Depot	1981	928776
AA	249m W	Goods Shed	1968	929871
AA	252m W	Goods Shed	1956	929871
U	256m W	Goods Depot and Mineral Yard	1938	931833
AC	257m SE	Corporation Yard	1905	961939
AD	258m SE	Unspecified Commercial/Industrial	1934	879527
AE	263m SW	Unspecified Works	1981	873682
AE	263m SW	Unspecified Works	1968	873682
AF	263m NW	Police Station	1985	993735
AF	263m NW	Police Station	1991	993735
AE	264m SW	Iron Works	1956	904283
S	269m SW	Chemical Works	1915	882405
Z	273m SW	Unspecified Commercial/Industrial	1905	822178
Z	273m SW	Engineering Works	1923	866002
Z	274m SW	Engineering Works	1938	989906
Z	274m SW	Engineering Works	1934	989906
Z	274m SW	Engineering Works	1915	919316
AC	279m SE	Corporation Yard	1934	949243

ID	Location	Land Use	Date	Group ID
AC	279m SE	Corporation Yard	1915	874251
AC	280m SE	Corporation Yard	1923	919778
AG	293m SE	Railway Building	1923	896740
AH	295m W	Unspecified Works	1956	967578
AH	295m W	Unspecified Works	1968	967578
AH	297m W	Unspecified Works	1981	983854
AG	300m SE	Railway Building	1938	979898
AG	300m SE	Railway Building	1934	979898
AG	300m SE	Railway Building	1915	916901
AH	303m W	Pulley Works	1923	964311
U	306m W	Goods Depot and Mineral Yard	1934	948793
U	306m W	Goods Yard	1915	879416
AH	306m W	Crane and Pulley Works	1938	929587
AH	306m W	Crane and Pulley Works	1934	929587
AH	306m W	Pulley Works	1915	964311
AI	306m W	Brick Field	1890	974656
6	314m N	Bleach Works	1848	838120
U	316m W	Railway Sidings	1985	953499
U	320m W	Railway Sidings	1956	865775
U	320m W	Goods, Mineral and Cattle Depot	1956	997682
U	320m W	Goods Depot and Mineral Yard	1956	900252
U	320m W	Goods and Mineral Depot	1985	884156
U	320m W	Goods and Mineral Depot	1981	961915
U	320m W	Railway Sidings	1968	865775
AJ	331m SW	Dye Works	1848	852870
AE	333m SW	Iron Works	1905	977564
AE	333m SW	Iron Works	1923	900261
AE	334m SW	Iron Works	1938	929602

ID	Location	Land Use	Date	Group ID
AE	334m SW	Iron Works	1934	929602
AE	334m SW	Iron Works	1915	956960
U	337m W	Railway Sidings	1890	972309
U	339m W	Goods Yard	1905	950359
U	339m W	Goods Yard	1923	902340
AL	340m NE	Brick Works	1890	818437
AM	356m NE	Engineering Works	1923	1008252
AN	360m SW	Unspecified Works	1985	955312
AN	360m SW	Unspecified Works	1991	955312
AO	362m E	Railway Sidings	1938	991515
AO	362m E	Railway Sidings	1938	991515
AP	363m NE	Unspecified Commercial/Industrial	1956	946125
AQ	367m E	Unspecified Warehouse	1981	919922
AM	367m NE	Railway Sidings	1956	951734
AN	368m SW	Chemical Works	1890	950196
AH	373m W	Unspecified Pit	1890	828497
10	376m NW	Brick Field	1848	806762
AQ	378m E	Unspecified Works	1968	906027
AQ	379m E	Unspecified Works	1985	966403
AQ	379m E	Unspecified Commercial/Industrial	1991	822340
AQ	381m E	Unspecified Warehouse	1985	997816
AT	387m NE	Unspecified Works	1968	835417
U	390m W	Goods, Mineral and Cattle Depot	1938	875092
AM	390m NE	Engineering Works	1934	861063
AU	394m N	Unspecified Works	1985	936013
AU	394m N	Unspecified Works	1991	936013
AU	394m N	Unspecified Works	1968	927647
AV	395m E	Unspecified Works	1985	978635

ID	Location	Land Use	Date	Group ID
AV	395m E	Unspecified Works	1991	978635
AL	396m NE	Unspecified Pit	1890	829259
AN	403m SW	Chemical Works	1848	950196
AW	405m N	Police Station	1905	889167
AW	405m N	Police Station	1923	902769
AM	407m NE	Unspecified Works	1985	926526
AS	408m NE	Unspecified Heap	1890	842828
AX	410m NE	Unspecified Works	1985	975536
AW	414m N	Fire Station	1956	867968
AW	414m N	Fire Station	1968	867968
AW	415m N	Police Station	1938	962105
AW	415m N	Fire Engine Station	1934	957979
AW	415m N	Fire Engine Station	1915	960832
AM	416m NE	Railway Sidings	1934	991515
C	416m E	Railway Building	1981	935849
C	420m E	Railway Building	1956	970891
AZ	421m SE	Motor Works	1923	928464
C	422m E	Unspecified Tanks	1923	819365
BA	425m W	Railway Building	1985	970791
BA	425m W	Railway Building	1991	970791
AN	427m SW	Forge	1968	945165
AW	427m N	Police Station	1956	915450
AW	432m N	Police Station	1968	987125
AX	434m NE	Dye Works	1923	931182
BC	435m SW	Unspecified Works	1985	997023
BC	435m SW	Unspecified Works	1991	997023
AI	435m W	Brick Field	1905	974656
U	435m W	Coal and Mineral Depot	1905	946072

ID	Location	Land Use	Date	Group ID
U	435m W	Coal and Mineral Depot	1890	946072
U	435m W	Goods and Mineral Depot	1923	907471
AW	437m N	Police Station	1981	908125
AX	438m NE	Dye Works	1890	887686
AN	439m SW	Forge	1938	878526
AN	439m SW	Forge	1934	878526
AX	440m NE	Dye Works	1938	952259
AX	440m NE	Dye Works	1934	952259
AX	440m NE	Dye Works	1915	875745
U	441m W	Goods, Mineral and Cattle Depot	1934	960616
U	441m W	Goods and Mineral Depot	1915	947015
BA	441m W	Railway Building	1981	873017
AX	441m NE	Dye Works	1905	887686
C	442m E	Railway Building	1981	993444
AZ	446m SE	Motor Works	1938	941313
AZ	446m SE	Motor Works	1934	941313
AZ	446m SE	Motor Works	1915	898990
AZ	447m SE	Unspecified Warehouse	1956	988604
AZ	449m SE	Chemical Works	1905	834339
AZ	450m SE	Unspecified Works	1981	835407
AZ	450m SE	Unspecified Warehouse	1968	988604
AX	450m NE	Unspecified Works	1968	1001978
C	451m E	Railway Building	1981	879188
C	451m E	Railway Building	1968	879188
AP	453m N	Unspecified Works	1923	970476
AM	453m NE	Railway Sidings	1923	918572
11	457m E	Unspecified Pit	1890	829258
AW	457m N	Police Station	1934	935165

ID	Location	Land Use	Date	Group ID
AW	457m N	Police Station	1915	894072
AP	458m N	Unspecified Works	1915	970476
C	461m E	Railway Building	1985	986298
AM	464m NE	Railway Sidings	1915	875955
AP	469m N	Unspecified Works	1985	942455
AP	469m N	Unspecified Works	1991	942455
AD	470m SE	Railway Building	1923	882745
AP	470m N	Unspecified Commercial/Industrial	1968	876862
AZ	472m SE	Gas Plant Works	1923	984127
AP	474m N	Unspecified Works	1981	885376
AD	475m SE	Railway Building	1938	1002923
AD	475m SE	Railway Building	1934	1002923
AD	475m SE	Railway Building	1915	959575
AD	476m SE	Railway Building	1981	1005992
AD	476m SE	Railway Building	1968	1005992
AD	478m SE	Engine Shed	1956	824033
BF	478m E	Unspecified Depot	1968	953972
C	480m E	Unspecified Tanks	1923	819361
BG	483m N	Chemical Works	1923	890664
BG	484m N	Chemical Works	1905	936417
BG	486m N	Disused Chemical Works	1938	867767
BG	486m N	Disused Chemical Works	1934	867767
BG	486m N	Chemical Works	1915	890664
12	488m NE	Unspecified Works	1981	960057
AM	488m NE	Dye Works	1848	882552
13	489m NE	Unspecified Commercial/Industrial	1968	822335
14	492m NW	Brick Works	1848	818469
BF	492m E	Unspecified Depot	1985	941821

ID	Location	Land Use	Date	Group ID
AT	493m N	Unspecified Tank	1985	850024
15	498m SE	Unspecified Pit	1956	910627

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	**104**

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 31 >**

ID	Location	Land Use	Date	Group ID
A	**On site**	**Unspecified Tank**	**1893**	**140814**
A	**On site**	**Unspecified Tank**	**1893**	**115650**
A	**On site**	**Unspecified Tank**	**1908**	**140814**
A	**On site**	**Tanks**	**1908**	**126960**
A	**On site**	**Tanks**	**1908**	**134588**
A	**On site**	**Tanks**	**1908**	**143773**
A	**On site**	**Unspecified Tank**	**1922**	**140814**
A	**On site**	**Tanks**	**1922**	**134588**
A	**On site**	**Tanks**	**1922**	**126960**
A	**On site**	**Tanks**	**1922**	**129609**
A	**On site**	**Tanks**	**1933**	**108854**
A	**On site**	**Unspecified Tank**	**1933**	**140814**
A	**On site**	**Unspecified Tank**	**1948**	**115619**
A	**On site**	**Unspecified Tank**	**1948**	**115616**
A	**On site**	**Tanks**	**1948**	**108846**
A	**On site**	**Unspecified Tank**	**1891**	**140814**
A	**On site**	**Tanks**	**1891**	**108671**
A	**On site**	**Tanks**	**1891**	**108672**

ID	Location	Land Use	Date	Group ID
A	**On site**	**Unspecified Tank**	**1891**	**115639**
A	**On site**	**Tanks**	**1891**	**108853**
H	**On site**	**Tanks**	**1893**	**129200**
H	**On site**	**Unspecified Tank**	**1933**	**115666**
H	**On site**	**Tanks**	**1891**	**147870**
G	1m NE	Unspecified Tank	1933	141730
G	2m NE	Unspecified Tank	1948	148272
H	4m SW	Unspecified Tank	1891	115186
A	23m E	Unspecified Tank	1891	114763
I	51m W	Unspecified Tank	1893	115647
F	56m SE	Unspecified Tank	1908	115656
A	58m E	Unspecified Tank	1933	115664
I	83m W	Tanks	1893	108859
I	97m W	Unspecified Tank	1893	115646
I	116m W	Tanks	1893	108844
A	120m E	Unspecified Tank	1933	115665
K	133m SW	Unspecified Tank	1908	115657
I	142m W	Unspecified Tank	1893	115655
D	170m W	Unspecified Tank	1893	115649
S	204m SW	Tanks	1948	108847
V	219m NW	Unspecified Tank	1893	115644
5	220m NW	Unspecified Tank	1893	115643
S	234m SW	Unspecified Tank	1948	115617
S	234m SW	Unspecified Tank	1948	115618
S	237m SW	Unspecified Tank	1893	115651
V	237m N	Unspecified Tank	1893	115645
D	246m W	Unspecified Tank	1893	115654
AB	254m NW	Unspecified Tank	1893	115642

ID	Location	Land Use	Date	Group ID
AB	278m NW	Unspecified Tank	1893	115641
S	298m SW	Tanks	1933	108845
7	315m W	Unspecified Tank	1922	115659
S	324m SW	Unspecified Tank	1948	146431
S	324m SW	Unspecified Tank	1948	146431
L	331m W	Tanks	1908	129704
L	331m W	Tanks	1922	129704
L	335m W	Unspecified Tank	1893	115648
AJ	344m SW	Unspecified Tank	1891	132627
AJ	346m SW	Unspecified Tank	1893	132627
8	347m SE	Unspecified Tank	1891	115634
S	351m SW	Unspecified Tank	1995	141534
S	351m SW	Unspecified Tank	1983	141534
AJ	355m SW	Tanks	1891	110796
S	375m SW	Unspecified Tank	1967	136232
S	375m SW	Unspecified Tank	1953	136232
AQ	405m E	Unspecified Tank	1933	115193
C	417m E	Tanks	1922	126738
C	426m E	Tanks	1908	126738
AN	426m SW	Unspecified Tank	1891	115636
AQ	434m E	Unspecified Tank	1908	115192
AN	441m SW	Unspecified Tank	1891	115635
AS	441m NE	Tanks	1922	108861
AS	450m NE	Tanks	1981	108838
C	451m E	Unspecified Tank	1908	132269
C	451m E	Unspecified Tank	1922	132269
AS	451m NE	Tanks	1908	143808
AS	455m NE	Tanks	1967	138015

ID	Location	Land Use	Date	Group ID
AS	455m NE	Tanks	1922	153019
AS	455m NE	Tanks	1933	153019
AS	455m NE	Tanks	1956	138015
C	457m E	Unspecified Tank	1908	135994
C	457m E	Unspecified Tank	1922	135994
AS	458m NE	Unspecified Tank	1948	115589
AE	460m SW	Unspecified Tank	1891	115637
C	461m E	Unspecified Tank	1908	144988
C	461m E	Unspecified Tank	1922	144988
AT	461m NE	Unspecified Tank	1967	145271
AT	461m NE	Unspecified Tank	1948	145271
AT	461m NE	Unspecified Tank	1956	145271
AE	464m SW	Unspecified Tank	1891	115638
AZ	470m SE	Unspecified Tank	1891	115188
AE	476m SW	Unspecified Tank	1893	115652
AN	481m SW	Unspecified Tank	1967	135363
AN	481m SW	Unspecified Tank	1948	135363
AN	482m SW	Unspecified Tank	1948	135363
AN	482m SW	Unspecified Tank	1953	135363
AZ	483m SE	Unspecified Tank	1891	115189
AN	487m SW	Tanks	1975	110797
AT	489m N	Unspecified Tank	1995	126621
AT	489m N	Unspecified Tank	1994	126621
AT	489m N	Unspecified Tank	1993	126621
AT	489m N	Unspecified Tank	1989	135817
AT	489m N	Unspecified Tank	1990	135817
AN	490m SW	Unspecified Tank	1889	127425
AN	490m SW	Unspecified Tank	1889	127425

ID	Location	Land Use	Date	Group ID
AT	490m N	Unspecified Tank	1981	139876
AX	499m NE	Tanks	1933	109689

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	**72**

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 31 >**

ID	Location	Land Use	Date	Group ID
A	**On site**	**Otto Gas Engine Works**	**1891**	**83477**
B	**On site**	**Gas and Oil Engine Works**	**1922**	**90510**
B	**On site**	**Gas and Oil Engine Works**	**1933**	**90510**
B	**On site**	**Gas and Oil Engine Works**	**1948**	**78880**
H	**On site**	**Otto Gas Engine Works**	**1891**	**83477**
E	14m N	Electricity Substation	1994	81796
E	14m N	Electricity Substation	1996	81796
E	14m N	Electricity Substation	1995	81796
N	54m NW	Electricity Substation	1948	72510
N	54m NW	Electricity Substation	1990	88748
N	55m NW	Electricity Substation	1994	88748
N	55m NW	Electricity Substation	1980	88748
K	121m SW	Electricity Substation	1994	77587
K	121m SW	Electricity Substation	1996	77587
K	121m SW	Electricity Substation	1995	77587
K	122m SW	Electricity Substation	1990	77587
M	133m NW	Electricity Substation	1996	65489
R	151m E	Electricity Substation	1991	78569

ID	Location	Land Use	Date	Group ID
R	152m E	Electricity Substation	1996	78569
S	161m SW	Electricity Substation	1994	84893
S	161m SW	Electricity Substation	1996	84893
S	161m SW	Electricity Substation	1995	84893
S	162m SW	Electricity Substation	1948	81478
S	163m SW	Electricity Substation	1990	84893
S	163m SW	Electricity Substation	1980	92811
AK	333m NE	Electricity Substation	1995	78084
AK	333m NE	Electricity Substation	1994	78084
AK	333m NE	Electricity Substation	1993	78084
AK	334m NE	Electricity Substation	1989	78084
AK	334m NE	Electricity Substation	1990	78084
AK	334m NE	Electricity Substation	1981	78084
Z	353m SW	Electricity Substation	1985	84511
Z	353m SW	Electricity Substation	1993	84156
Z	355m SW	Electricity Substation	1949	84788
Z	358m SW	Electricity Substation	1996	73318
Z	359m SW	Electricity Substation	1979	91667
AR	373m NW	Electricity Substation	1988	73624
AR	373m NW	Electricity Substation	1977	73624
AR	373m NW	Electricity Substation	1994	73624
AR	373m NW	Electricity Substation	1996	73624
AR	373m NW	Electricity Substation	1995	73624
AS	378m NE	Electricity Substation	1995	81532
AS	378m NE	Electricity Substation	1994	81532
AS	378m NE	Electricity Substation	1993	81532
AS	378m NE	Electricity Substation	1989	75153
AS	378m NE	Electricity Substation	1990	75153

ID	Location	Land Use	Date	Group ID
AS	378m NE	Electricity Substation	1981	70885
BB	429m S	Electricity Substation	1979	80824
BB	430m S	Electricity Substation	1985	75144
BB	431m S	Electricity Substation	1993	75144
BB	431m S	Electricity Substation	1996	75144
AE	455m SW	Electricity Substation	1949	74820
AE	455m SW	Electricity Substation	1949	74820
AL	461m NE	Electricity Substation	1995	65491
BE	462m NW	Electricity Substation	1988	85349
BE	463m NW	Electricity Substation	1977	85349
AT	470m N	Electricity Substation	1995	70407
AT	470m N	Electricity Substation	1994	70407
AT	470m N	Electricity Substation	1993	70407
AT	470m N	Electricity Substation	1989	70407
AT	470m N	Electricity Substation	1990	70407
AT	470m N	Electricity Substation	1981	70407
AT	475m NE	Electricity Substation	1989	71268
AT	475m NE	Electricity Substation	1990	71268
AT	476m NE	Electricity Substation	1948	71268
AT	476m NE	Electricity Substation	1981	71268
AT	476m NE	Electricity Substation	1956	71268
AT	476m NE	Electricity Substation	1995	85048
AT	476m NE	Electricity Substation	1994	85048
AT	476m NE	Electricity Substation	1993	85048
AT	476m NE	Electricity Substation	1967	71268
AH	485m W	Electricity Substation	1953	65492

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m	0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m	18

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'.

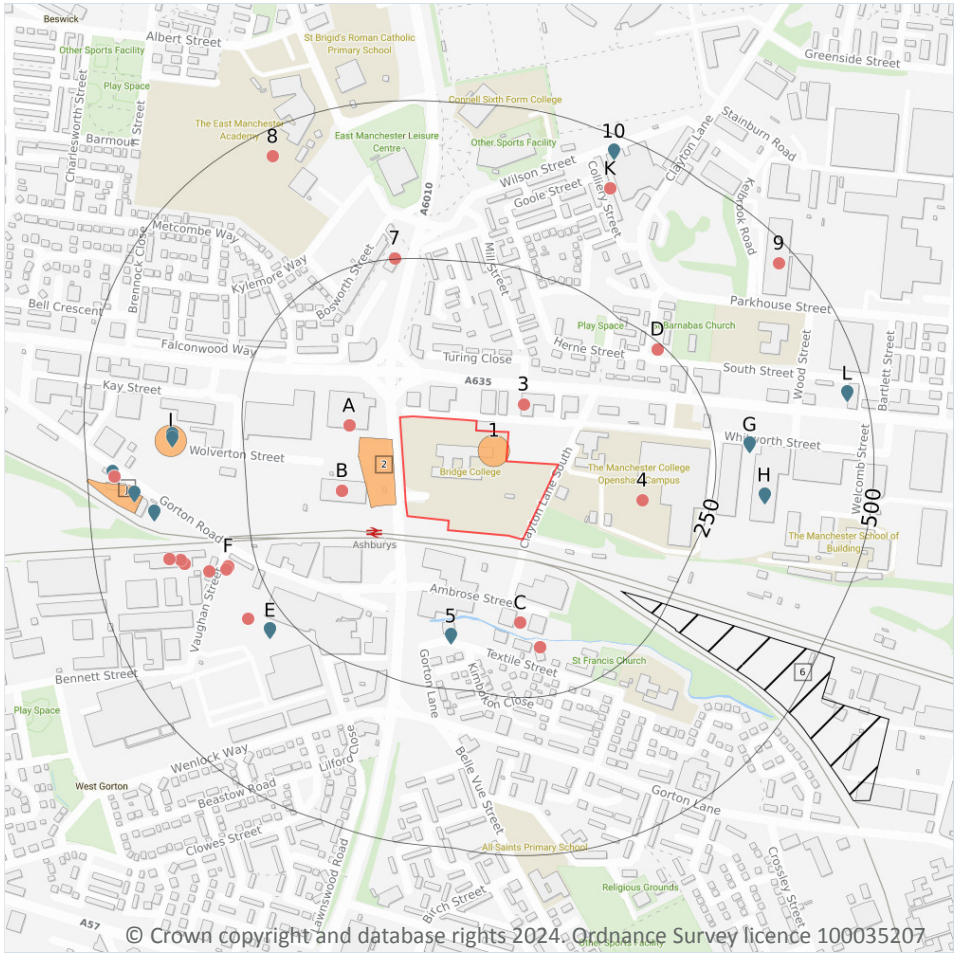
Features are displayed on the Past land use - un-grouped map on **page 31 >**

ID	Location	Land Use	Date	Group ID
F	47m SE	Garage	1948	22293
O	147m S	Garage	1948	22292
V	186m N	Garage	1967	24737
W	187m E	Garage	1991	28329
V	188m N	Garage	1977	26790
W	188m E	Garage	1996	28329
V	189m N	Garage	1988	27179
V	194m N	Garage	1963	25564
AG	300m SE	Engine Repairing Shed	1933	22810
9	352m NW	Garages	1948	22798
AY	416m E	Garage	1963	22991
AY	417m E	Garage	1967	22991
AY	417m E	Garage	1980	26408
AZ	447m SE	Garage	1986	23157
AZ	447m SE	Garage	1991	23157
AZ	447m SE	Garage	1982	26438

ID	Location	Land Use	Date	Group ID
BD	449m W	Garage	1967	23363
BD	449m W	Garage	1963	23363

This data is sourced from Ordnance Survey / Groundsure.

3 Waste and landfill



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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	1

Known historical (closed) landfill sites (e.g. sites where there is no PPC permit or waste management licence currently in force). This includes sites that existed before the waste licensing regime and sites that have been licensed in the past but where a licence has been revoked, ceased to exist or surrendered and a certificate of completion has been issued.

Features are displayed on the Waste and landfill map on **page 51 >**

ID	Location	Details		
6	177m SE	Site Address: Preston Street, Gorton, Greater Manchester Licence Holder Address: -	Waste Licence: - Site Reference: F057 Waste Type: - Environmental Permitting Regulations (Waste) Reference: - Licence Issue: - Licence Surrender: -	Operator: - Licence Holder: - First Recorded 31/12/1985 Last Recorded: 31/12/1994

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

3.5 Historical waste sites

Records within 500m	4

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 51 >**

ID	Location	Address	Further Details	Date
1	**On site**	**Site Address: Whitworth Street, & Clayton Lane, South, MANCHESTER, Greater Manchester, M1**	**Type of Site: Recycling Centre Planning application reference: 088718/FO/2008/N2 Description: Scheme comprises change of use of land from scrap yard to temporary builders compound and recycling centre for material and waste away from construction works and associated storage of bins and skips involving boundary treatments. Construction - fencin l ighting columns site works. An application (ref: 088718/FO/2008/N2) for detailed planning permission was refused by Manchester C.C. A detailed planning application has been refused. Data source: Historic Planning Application Data Type: Point**	**01/11/2010**
2	15m NW	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1990
I	339m W	Site Address: Wolverton & Turley Street, Beswick Street, MANCHESTER, Greater Manchester, M11	Type of Site: Waste Management Facility Planning application reference: 096226/FO/2011/N2 Description: Scheme comprises provision of new waste management facility. An application (ref: 096226/FO/2011/N2) for detailed planning permission was granted by Manchester C.C. A detailed planning application has been granted. Data source: Historic Planning Application Data Type: Point	02/11/2011
J	415m W	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1995

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

3.6 Licensed waste sites

Records within 500m	**21**

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

Features are displayed on the Waste and landfill map on **page 51 >**

ID	Location	Details		
5	167m S	Site Name: Birch Lane Garage Ltd Site Address: 21, Textile Street, West Gorton, Manchester, Manchester, M12 5DJ Correspondence Address: -	Type of Site: Metal Recycling Site (Vehicle Dismantler) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 657998 EPR reference: EA/EPR/SP3194CD Operator: Birch Lane Garage Limited Waste Management licence No: 50242 Annual Tonnage: 2500	Issue Date: 16/07/2004 Effective Date: 16/07/2004 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
E	284m SW	Site Name: Ashbury Yard Site Address: Ashbury Yard, Bessemer Street, Gorton, Manchester, M11 2NW Correspondence Address: -	Type of Site: 75kte HCI Waste TS + treatment Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LAF073 EPR reference: EA/EPR/LP3498NN/T001 Operator: Lafarge S P V Limited Waste Management licence No: 104076 Annual Tonnage: 74999	Issue Date: 30/04/2012 Effective Date: 09/11/2012 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred
E	284m SW	Site Name: Ashbury Yard Site Address: Ashbury Yard, Bessemer Street, Gorton, Manchester, M11 2NW Correspondence Address: -	Type of Site: 75kte HCI Waste TS + treatment Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LAR021 EPR reference: EA/EPR/GB3230AN/A001 Operator: Lafarge Aggregates Limited Waste Management licence No: 104076 Annual Tonnage: 74999	Issue Date: 30/04/2012 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
E	284m SW	Site Name: Ashbury Yard Site Address: Ashbury Yard, Bessemer Street, Gorton, Manchester, M11 2NW Correspondence Address: -	Type of Site: 75kte HCI Waste TS + treatment Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LAF073 EPR reference: EA/EPR/LP3498NN/V002 Operator: Hope Cement Limited Waste Management licence No: 104076 Annual Tonnage: 74999	Issue Date: 30/04/2012 Effective Date: 09/11/2012 Modified: 21/12/2012 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified

ID	Location	Details		
E	284m SW	Site Name: Ashbury Aggs Depot Site Address: Ashbury Yard, Bessemer Street, Gorton, Manchester, M11 2NW Correspondence Address: -	Type of Site: 75kte HCI Waste TS + treatment Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HCL004 EPR reference: EA/EPR/FB3407CX/T001 Operator: Breedon Southern Limited Waste Management licence No: 104076 Annual Tonnage: 74999	Issue Date: 30/04/2012 Effective Date: 14/10/2017 Modified: 21/12/2012 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred
E	284m SW	Site Name: Ashbury Aggs Depot Site Address: Ashbury Yard, Bessemer Street, Gorton, Manchester, M11 2NW Correspondence Address: -	Type of Site: 75kte HCI Waste TS + treatment Size: >= 25000 tonnes 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HCL004 EPR reference: EA/EPR/FB3407CX/T001 Operator: Breedon Southern Limited Waste Management licence No: 104076 Annual Tonnage: 74999	Issue Date: 30/04/2012 Effective Date: 14/10/2017 Modified: 21/12/2012 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred
E	284m SW	Site Name: Ashbury Aggs Depot Site Address: Ashbury Yard, Bessemer Street, Gorton, Manchester, Manchester, M11 2NW Correspondence Address: -	Type of Site: 75kte HCI Waste TS + treatment Size: >= 25000 tonnes 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 632688 EPR reference: EA/EPR/FB3407CX Operator: Breedon Trading Limited Waste Management licence No: 104076 Annual Tonnage: 74999	Issue Date: 30/04/2012 Effective Date: 30/04/2012 Modified: 30/04/2012 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued

ID	Location	Details		
G	304m E	Site Name: A7 The Dresser Centre Site Address: A7 The Dresser Centre, Whitworth Street, Openshaw, Manchester, M11 2NE Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste T Stn Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ABE017 EPR reference: EA/EPR/PB3937RD/T001 Operator: Asbestos Clearance And Disposal Services Limited Waste Management licence No: 53947 Annual Tonnage: 30.416	Issue Date: 05/07/1989 Effective Date: 22/05/2013 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred
G	304m E	Site Name: A7 The Dresser Centre Site Address: A7 The Dresser Centre, Whitworth Street, Openshaw, Manchester, M11 2NE Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste T Stn Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WIN006 EPR reference: EA/EPR/HB3703CX/T001 Operator: Winsulate Limited Waste Management licence No: 53947 Annual Tonnage: 30.416	Issue Date: 05/07/1989 Effective Date: 18/12/2019 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred
G	304m E	Site Name: Unit A7, The Dresser Centre Site Address: A7 The Dresser Centre, Whitworth Street, Openshaw, Manchester, Manchester, M11 2NE Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste T Stn Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 628245 EPR reference: EA/EPR/JB3505FF Operator: Intelligent Environmental Services Limited Waste Management licence No: 53947 Annual Tonnage: 30	Issue Date: 05/07/1989 Effective Date: 05/07/1989 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued

ID	Location	Details		
H	330m E	Site Name: L Wynne & Co Ltd Site Address: A7 The Dresser Centre, Whitworth Street, Openshaw, Manchester, M11 2NE Correspondence Address: A7 The Dresser Centre, Whitworth Street, Openshaw, Manchester, M11 2NE	Type of Site: Special Waste Transfer Station Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LWC001 EPR reference: - Operator: L Wynne & Co Ltd Waste Management licence No: 53947 Annual Tonnage: 30.416	Issue Date: 05/07/1989 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
H	330m E	Site Name: A7 The Dresser Centre Site Address: A7 The Dresser Centre, Whitworth Street, Openshaw, Manchester, M11 2NE Correspondence Address: -	Type of Site: Special Waste Transfer Station Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LWY001 EPR reference: EA/EPR/LP3491CZ/T001 Operator: Winsulate (U K) Ltd Waste Management licence No: 53947 Annual Tonnage: 30.416	Issue Date: 05/07/1989 Effective Date: 14/12/2007 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred
I	362m W	Site Name: Singleton's Scrap Metal Ltd Site Address: Singleton's Scrap Metal Ltd, Land Off Wolveton Street, Openshaw, Manchester, Manchester, M11 2DU Correspondence Address: -	Type of Site: Vehicle Depollution Facility 5000 tps Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 644181 EPR reference: EA/EPR/KB3534RB Operator: F W Singleton Limited Waste Management licence No: 104629 Annual Tonnage: 0	Issue Date: 20/08/2012 Effective Date: 20/08/2012 Modified: - Surrendered Date: 20/08/2012 Expiry Date: - Cancelled Date: - Status: Surrendered
I	363m W	Site Name: Singleton's Scrap Metal Site Address: Land Of Wolveton Street, Land Of Wolveton Street, Manchester, Manchester, M11 2DU Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste T Stn Size: >= 25000 tonnes 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 635461 EPR reference: EA/EPR/JB3731RJ Operator: F W Singleton Limited Waste Management licence No: 104515 Annual Tonnage: 74999	Issue Date: 17/09/2012 Effective Date: 17/09/2012 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued

ID	Location	Details		
J	399m W	Site Name: Universal Car Spares Site Address: Southside Railway Sidings, Gorton Road, Gorton, Manchester, M11 2DZ Correspondence Address: -	Type of Site: Metal Recycling Site (Vehicle Dismantler) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: AHM002 EPR reference: EA/EPR/YP3494CK/A001 Operator: Tufail Ahmed And Mohammad Ahmed Waste Management licence No: 50464 Annual Tonnage: 2500	Issue Date: 19/12/2006 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
J	399m W	Site Name: Universal Car Spares Limited Site Address: Southside Railway Sidings, Gorton Road, Gorton, Manchester, Manchester, M11 2DZ Correspondence Address: -	Type of Site: Metal Recycling Site (Vehicle Dismantler) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 656302 EPR reference: EA/EPR/HB3534AU Operator: U C S (Manchester) Limited Waste Management licence No: 50464 Annual Tonnage: 2500	Issue Date: 19/12/2006 Effective Date: 19/12/2006 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
J	428m W	Site Name: Southside Railway Sidings Site Address: Land/premises At, Gorton Road, Ardwick, Manchester, Manchester, M11 2DZ Correspondence Address: -	Type of Site: Metal Recycling Site (Vehicle Dismantler) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 646163 EPR reference: EA/EPR/MP3594CJ Operator: T D X Limited Waste Management licence No: 50264 Annual Tonnage: 2500	Issue Date: 28/02/2005 Effective Date: 28/02/2005 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
J	461m W	Site Name: Auto Salvage Holtown Ltd Site Address: Land/premises At, Gorton Road, Ardwick, Manchester, Manchester, M11 2DZ Correspondence Address: -	Type of Site: Metal Recycling Site (Vehicle Dismantler) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 646315 EPR reference: EA/EPR/UP3594CX Operator: Auto Salvage Holtown Limited Waste Management licence No: 50275 Annual Tonnage: 2500	Issue Date: 14/05/2004 Effective Date: 14/05/2004 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Expired

ID	Location	Details		
L	470m E	Site Name: Jax Spares Of Openshaw Site Address: 134, South Street, Openshaw, Manchester, Lancs, M11 2FY Correspondence Address: 134, South Street, Openshaw, Manchester, M11 2FY	Type of Site: ELV Facility Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: JAX002 EPR reference: - Operator: Steven Smith And Bernard Smith Waste Management licence No: 50244 Annual Tonnage: 0	Issue Date: 20/10/2004 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
L	470m E	Site Name: Jax Spares Of Openshaw Site Address: 134, South Street, Openshaw, Manchester, Manchester, M11 2FY Correspondence Address: -	Type of Site: Metal Recycling Site (Vehicle Dismantler) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 629538 EPR reference: EA/EPR/LP3394CW Operator: Steven Smith And Bernard Smith Waste Management licence No: 50244 Annual Tonnage: 2499	Issue Date: 20/10/2004 Effective Date: 20/10/2004 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Surrendered
10	474m NE	Site Name: Van Parts Ltd Site Address: Unit 4, Wilson Street, Openshaw, Manchester, Manchester, M11 2AZ Correspondence Address: -	Type of Site: Metal Recycling Site (Vehicle Dismantler) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 640785 EPR reference: EA/EPR/EP3194CX Operator: Vanparts Limited Waste Management licence No: 50399 Annual Tonnage: 1040	Issue Date: 16/01/2006 Effective Date: 16/01/2006 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued

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

3.7 Waste exemptions

Records within 500m	**55**

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 51 >**

ID	Location	Site	Reference	Category	Sub-Category	Description
3	49m NE	Chartrange, Whitworth St, Openshaw, Manchester, M11 2dw	WEX063702	Treating waste exemption	Not on a farm	Recovery of scrap metal
A	82m NW	-	WEX090673	Using waste exemption	Not on a farm	Use of waste in construction
A	82m NW	-	WEX090673	Treating waste exemption	Not on a farm	Screening and blending of waste
B	100m W	8, Wolverton Street, Manchester, M11 2et	WEX244648	Storing waste exemption	Not on a farm	Storage of waste in a secure place
B	100m W	8, Wolverton Street, Manchester, M11 2et	WEX244648	Using waste exemption	Not on a farm	Use of waste in construction
B	100m W	8, Wolverton Street, Manchester, M11 2et	WEX244648	Storing waste exemption	Not on a farm	Storage of waste in secure containers
B	100m W	8, Wolverton Street, Manchester, M11 2et	WEX244648	Treating waste exemption	Not on a farm	Treatment of waste aerosol cans
C	132m S	Wellington Rubber Company Ltd Textile Street Manchester M12 5dl	EPR/AF0002FE/A001	Using waste exemption	Non-agricultural waste only	Use of waste to manufacture finished goods
C	132m S	J Allcock & Sons Ltd Textile Street Manchester M12 5dl	EPR/AF0302FY/A001	Using waste exemption	Non-agricultural waste only	Use of waste to manufacture finished goods
4	145m E	-	WEX259086	Using waste exemption	Not on a farm	Use of waste in construction
C	173m SE	Oak Chemical Works, Textile Street, West Gorton, Manchester, M12 5dl	WEX139962	Using waste exemption	Not on a farm	Use of waste to manufacture finished goods
C	173m SE	Oak Chemical Works, Textile Street, West Gorton, Manchester, M12 5dl	WEX279009	Using waste exemption	Not on a farm	Use of waste to manufacture finished goods
D	240m NE	St. Barnabas Rectory, South Street, Openshaw, Manchester, M11 2ey	WEX000405	Using waste exemption	Not on a farm	Use of waste in construction
D	240m NE	St. Barnabas Rectory, South Street, Openshaw, Manchester, M11 2ey	WEX000405	Using waste exemption	Not on a farm	Spreading waste on non-agricultural land to confer benefit

ID	Location	Site	Reference	Category	Sub-Category	Description
D	240m NE	St. Barnabas Rectory, South Street, Openshaw, Manchester, M11 2ey	WEX000405	Using waste exemption	Not on a farm	Spreading of plant matter to confer benefit
D	240m NE	St. Barnabas Rectory, South Street, Openshaw, Manchester, M11 2ey	WEX000405	Using waste exemption	Not on a farm	Use of waste in the construction of entertainment or educational installations etc
D	240m NE	St. Barnabas Rectory, South Street, Openshaw, Manchester, M11 2ey	WEX000405	Using waste exemption	Not on a farm	Use of waste for a specified purpose
D	240m NE	St. Barnabas Rectory, South Street, Openshaw, Manchester, M11 2ey	WEX000405	Treating waste exemption	Not on a farm	Treatment of kitchen waste in a wormery
D	240m NE	St. Barnabas Rectory, South Street, Openshaw, Manchester, M11 2ey	WEX000405	Using waste exemption	Not on a farm	Use of mulch
7	251m N	Oak House, 400, Alan Turing Way, Manchester, M11 3be	WEX383141	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
F	295m W	The Yard Vaughan Street Manchester M12 5fq	EPR/FE5181CM/A001	Treating waste exemption	Non-agricultural waste only	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
F	295m W	The Yard, Vaughan Street, Manchester, M12 5fq	WEX340259	Treating waste exemption	Not on a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
F	295m W	The Yard, Vaughan Street, Manchester, M12 5fq	WEX214165	Treating waste exemption	Not on a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
F	295m W	The Yard, Vaughan Street, Manchester, M12 5fq	WEX069424	Treating waste exemption	Not on a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
F	299m W	-	WEX346197	Storing waste exemption	Not on a farm	Storage of waste in a secure place
E	301m SW	Drama Project Vaughan Street M12 5bt	EPR/SH0671JH/A001	Using waste exemption	Non-agricultural waste only	Use of waste in construction

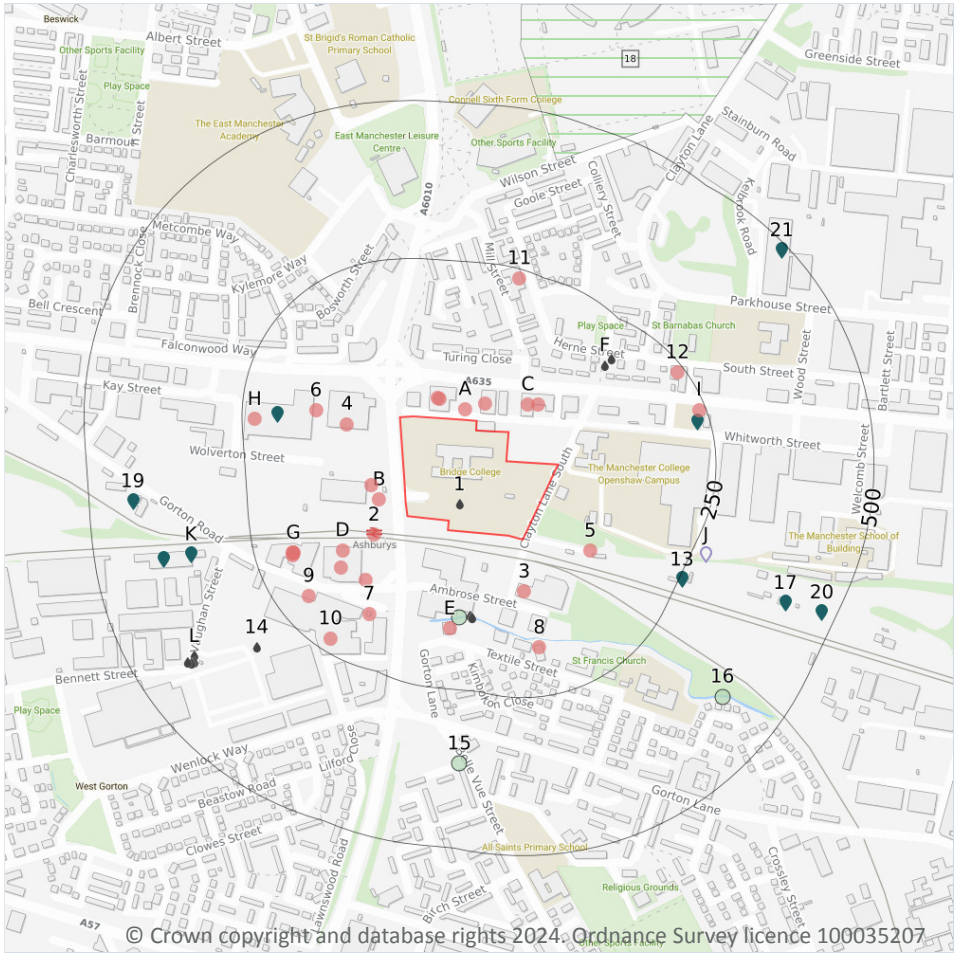
ID	Location	Site	Reference	Category	Sub-Category	Description
F	326m W	Unit 2 Vaughan Street Industrial Estate Gorton Manchester M12 5bt	EA/EPR/VP3780LF/A001	Treating waste exemption	Non-agricultural waste only	Repair or refurbishment of WEEE
F	362m W	Unit 2, Vaughan Street Industrial Estate, Gorton, Manchester, M12 5bt	EA/EPR/VP3983QS/A001	Treating waste exemption	Not on a farm	Repair or refurbishment of WEEE
F	362m W	M G Waste Management Ltd, Unit 2, Vaughan Street Industrial Estate, Gorton, Manchester, M12 5bt	EXP/VP3983QS	Treating waste exemption	Not on a farm	Repair or refurbishment of WEEE
F	362m W	Unit 2, Vaughan Street Industrial Estate, Manchester, M12 5bt	WEX381765	Storing waste exemption	Not on a farm	Storage of waste in a secure place
F	362m W	Unit 2, Vaughan Street Industrial Estate, Manchester, M12 5bt	WEX381765	Treating waste exemption	Not on a farm	Sorting mixed waste
F	362m W	Unit 2, Vaughan Street Industrial Estate, Manchester, M12 5bt	WEX381765	Treating waste exemption	Not on a farm	Recovery of scrap metal
F	362m W	Unit 2, Vaughan Street Industrial Estate, Manchester, M12 5bt	WEX381765	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
F	362m W	Unit 2, Vaughan Street Industrial Estate, Manchester, M12 5bt	WEX108960	Treating waste exemption	Not on a farm	Sorting mixed waste
F	362m W	Unit 2, Vaughan Street Industrial Estate, Manchester, M12 5bt	WEX108960	Treating waste exemption	Not on a farm	Recovery of scrap metal
F	362m W	Unit 2, Vaughan Street Industrial Estate, Manchester, M12 5bt	WEX108960	Storing waste exemption	Not on a farm	Storage of waste in a secure place
F	362m W	Unit 2, Vaughan Street Industrial Estate, Manchester, M12 5bt	WEX108960	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
F	362m W	Unit 2, Vaughan Street Industrial Estate, Manchester, M12 5bt	WEX252961	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)

ID	Location	Site	Reference	Category	Sub-Category	Description
F	362m W	Unit 2, Vaughan Street Industrial Estate, Manchester, M12 5bt	WEX252961	Storing waste exemption	Not on a farm	Storage of waste in a secure place
F	362m W	Unit 2, Vaughan Street Industrial Estate, Manchester, M12 5bt	WEX252961	Treating waste exemption	Not on a farm	Recovery of scrap metal
F	362m W	Unit 2, Vaughan Street Industrial Estate, Manchester, M12 5bt	WEX252961	Treating waste exemption	Not on a farm	Sorting mixed waste
F	362m W	Vaughan Street Industrial Estate, Manchester, M12 5bt	EXP/XP3541YD	Treating waste exemption	Not on a farm	Repair or refurbishment of WEEE
F	366m W	Unit 2, Vaughhan Industrial Estate, Gorton, Manchester, M12 5bt	EA/EPR/VP3883FZ/A001	Treating waste exemption	Not on a farm	Repair or refurbishment of WEEE
F	383m W	Unit 2 Vaughan Street Industrial Estate Manchester M12 5bt	EPR/MF0903SC/A001	Storing waste exemption	Non-agricultural waste only	Storage of waste in a secure place
F	383m W	Unit 2 Vaughan Street Industrial Estate Manchester M12 5bt	EPR/MF0903SC/A001	Treating waste exemption	Non-agricultural waste only	Preparatory treatments (baling, sorting, shredding etc)
K	416m NE	-	WEX395687	Using waste exemption	Not on a farm	Use of mulch
K	416m NE	-	WEX395687	Treating waste exemption	Not on a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
K	416m NE	-	WEX395687	Treating waste exemption	Not on a farm	Aerobic composting and associated prior treatment
J	458m W	Nwep Gorton Road Compound, Gorton Road, Manchester, M11 2dz	WEX149727	Storing waste exemption	Not on a farm	Storage of waste in secure containers
J	458m W	Nwep Gorton Road Compound, Gorton Road, Manchester, M11 2dz	WEX149727	Using waste exemption	Not on a farm	Use of waste in construction
J	458m W	Nwep Gorton Road Compound, Gorton Road, Manchester, M11 2dz	WEX149727	Storing waste exemption	Not on a farm	Storage of waste in a secure place

ID	Location	Site	Reference	Category	Sub-Category	Description
J	458m W	Nwep Gorton Road Compound, Gorton Road, Manchester, M11 2dz	WEX113199	Storing waste exemption	Not on a farm	Storage of waste in a secure place
J	458m W	Nwep Gorton Road Compound, Gorton Road, Manchester, M11 2dz	WEX113199	Using waste exemption	Not on a farm	Use of waste in construction
8	459m NW	East Manchester Academy Grey Mare Lane Manchester Manchester M11 3ds	EPR/SE5848NM/A001	Using waste exemption	Non-agricultural waste only	Use of waste in construction
9	472m NE	3, Kelbrook Road, Manchester, M11 2dd	WEX067284	Storing waste exemption	Not on a farm	Storage of waste in a secure place

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

Control of Major Accident Hazards

Part A(1) industrial activities

Licensed pollutant release (Part A(2)/B)

Licensed Discharges to controlled waters

Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m	29

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 65 >**

ID	Location	Company	Address	Activity	Category
A	17m N	Electricity Sub Station	Greater Manchester, M11	Electrical Features	Infrastructure and Facilities
A	30m N	One Stop Hire Ltd	1, Whitworth Street, Bradford, Manchester, Greater Manchester, M11 2DW	Construction and Tool Hire	Hire Services
A	31m N	Works	Greater Manchester, M11	Unspecified Works Or Factories	Industrial Features

ID	Location	Company	Address	Activity	Category
A	31m N	Works	Greater Manchester, M11	Unspecified Works Or Factories	Industrial Features
B	42m W	Electricity Sub Stations	Greater Manchester, M11	Electrical Features	Infrastructure and Facilities
B	53m W	Electricity Sub Stations	Greater Manchester, M11	Electrical Features	Infrastructure and Facilities
C	53m NE	Incognito Ltd	Unit 4 City Course Trading Estate, Whitworth Street, Bradford, Manchester, Greater Manchester, M11 2DW	Published Goods	Industrial Products
2	61m SW	Ashburys Rail Station	Greater Manchester, M11	Railway Stations, Junctions and Halts	Public Transport, Stations and Infrastructure
C	64m NE	El-ammar Bakery	Unit 6 City Course Trading Estate, Whitworth Street, Bradford, Manchester, Greater Manchester, M11 2DW	Baking and Confectionery	Foodstuffs
3	82m SE	S F G Aluminium	39, Clayton Lane South, Manchester, Greater Manchester, M12 5PG	General Construction Supplies	Industrial Products
4	84m NW	Little Greene	420, Ashton Old Road, Manchester, Greater Manchester, M11 2DT	Paints, Varnishes and Lacquers	Industrial Products
5	104m SE	Mast (Telecommunication)	Greater Manchester, M11	Telecommunications Features	Infrastructure and Facilities
D	116m SW	Hayes of Manchester	Ashbury Works, Gorton Road, Manchester, Greater Manchester, M12 5AD	Vehicle Repair, Testing and Servicing	Repair and Servicing
D	122m SW	Electricity Sub Station	Greater Manchester, M12	Electrical Features	Infrastructure and Facilities
D	133m SW	Stylewise UK Ltd	Ashbury Works, Gorton Road, Manchester, Greater Manchester, M12 5AD	Clothing, Components and Accessories	Consumer Products
6	134m NW	Electricity Sub Station	Greater Manchester, M11	Electrical Features	Infrastructure and Facilities
E	155m S	Birch Lane Garage	21, Textile Street, Manchester, Greater Manchester, M12 5DJ	Vehicle Breakdown and Recovery Services	Personal, Consumer and Other Services
7	166m SW	Electricity Sub Station	Greater Manchester, M12	Electrical Features	Infrastructure and Facilities
8	173m S	J Allcock & Sons Ltd	Textile Street, Manchester, Greater Manchester, M12 5DL	Rubber, Silicones and Plastics	Industrial Products

ID	Location	Company	Address	Activity	Category
G	190m SW	Marco Reas Mr Really Good	Unit 1, Ashburys Business Park, Gorton Road, Manchester, Greater Manchester, M12	Dairy Products	Foodstuffs
G	190m SW	Elite Car Refinishing	Unit 3 Regal Industrial Estate, Gorton Road, Manchester, Greater Manchester, M12 5BX	Vehicle Repair, Testing and Servicing	Repair and Servicing
G	190m SW	Autocenter	Unit 5 Regal Industrial Estate, Gorton Road, Manchester, Greater Manchester, M12 5BX	Vehicle Repair, Testing and Servicing	Repair and Servicing
G	192m SW	Works	Greater Manchester, M12	Unspecified Works Or Factories	Industrial Features
9	201m SW	Electricity Sub Station	Greater Manchester, M12	Electrical Features	Infrastructure and Facilities
10	229m SW	G D Yarns Ltd	Ashbury Works 200, Gorton Road, Manchester, Greater Manchester, M12 5DX	Textiles, Fabrics, Silk and Machinery	Industrial Products
H	230m W	Armstrong Intergrated Ltd	1, Wolverton Street, Manchester, Greater Manchester, M11 2ET	Pumps and Compressors	Industrial Products
11	236m N	Telephone Exchange	Greater Manchester, M11	Telecommunications Features	Infrastructure and Facilities
12	239m NE	Works	Greater Manchester, M11	Unspecified Works Or Factories	Industrial Features
I	239m E	Enterprise Rent-A-Car	738, Ashton Old Road, Manchester, Greater Manchester, M11 2PL	Vehicle Hire and Rental	Hire Services

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m	0

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m	0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m	0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m	0

Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m	1

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.

Features are displayed on the Current industrial land use map on **page 65 >**

ID	Location	Company	Address	Operational status	Tier
18	431m N	Ciba Speciality Chemicals	Ciba Speciality Chemicals, Ashton New Road, Clayton, M11 4AP	Historical COMAH Site	-

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	2

Records of Part A(1) 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 65 >**

ID	Location	Details	
J	273m E	Operator: URBAN RESERVE (ASSETCO) LIMITED Installation Name: Whitworth Power EPR/ZP3807PL Process: NEW MEDIUM COMBUSTION PLANT Permit Number: ZP3807PL Original Permit Number: ZP3807PL	EPR Reference: EPR/ZP3807PL Issue Date: 24/01/2020 Effective Date: 24/01/2020 Last date noted as effective: 06/08/2024 Status: Effective
J	273m E	Operator: URBAN RESERVE (ASSETCO) LIMITED Installation Name: Whitworth Power EPR/ZP3807PL Process: TRANCHE B SG PERMITTING DATE 1ST JANUARY 2019 Permit Number: ZP3807PL Original Permit Number: ZP3807PL	EPR Reference: EPR/ZP3807PL Issue Date: 24/01/2020 Effective Date: 24/01/2020 Last date noted as effective: 06/08/2024 Status: Effective

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

4.11 Licensed pollutant release (Part A(2)/B)

Records within 500m	9

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 65 >**

ID	Location	Address	Details	
H	194m W	K2 Direct Mail Ltd, 21 Kay Street, Openshaw, M11 2DX	Process: Coating Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
I	230m E	Mancat-Openshaw Campus, Whitworth Street, Openshaw, M11 2WH	Process: Respraying of Road Vehicles Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
13	255m SE	Lafarge Aggregates Ltd, Ashburys Railway Sidings, Off Bessemer Street, Gorton, M11 2NW	Process: Use of Bulk Cement; Other Mineral Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
K	348m W	Spraylite Commercials Manchester, Unit 1, Vaughan Street, West Gorton, M12 5DU	Process: Respraying of Road Vehicles Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
K	393m W	CVR Commercials Ltd, Unit 2, Vaughan Industrial Estate, Vaughan Street, West Gorton, M12 5DU	Process: Respraying of Road Vehicles Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
17	419m E	Tarmac Aggregates Limited, Ashburys Railway Sidings, Off Bessemer Street, Gorton, Manchester, M11 2NW	Process: Roadstone Coating Processes Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
19	431m W	Long And Crawford Ltd, Gorton Road, West Gorton, M12 5DA	Process: Coating Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified

ID	Location	Address	Details	
20	477m E	Breedon Southern LTD, Bessemer Street, Gorton, M11 2NW	Process: Use of Bulk Cement Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
21	490m NE	Cascade Ltd, 3 Kelbrook Road, Parkhouse Industrial Estate, Openshaw, M11 2DD	Process: Coating Processes Status: Current 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**

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	**12**

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

Features are displayed on the Current industrial land use map on **page 65 >**

ID	Location	Address	Details	
1	**On site**	**POTTERY LANE, MANCHESTER, GREATER MANCHESTER**	**Effluent Type: TRADE DISCHARGES - COOLING WATER** **Permit Number: 016992566** **Permit Version: 2** **Receiving Water: CORN BROOK**	**Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995** **Issue date: -** **Effective Date: 04/10/1994** **Revocation Date: 31/03/1996**
E	132m S	PARROTT STREET/BROMLOW STREET CSO, PARROTT ST/BROMLOW ST JUNCTION, OPENSHAW, MANCHESTER, GREATER MANCHESTER, M11 4QW	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0107 Permit Version: 4 Receiving Water: CORN BROOK VIA SWS	Status: VARIED UNDER EPR 2010 Issue date: 06/11/2019 Effective Date: 06/11/2019 Revocation Date: -

ID	Location	Address	Details	
E	135m S	JUNCTION OF ASHTON NEW ROAD CSO, ECCLESHALL STREET / ESWICK ST, OPENSHAW, MANCHESTER, GREATER MANCHESTER, M11 4GL	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982734 Permit Version: 2 Receiving Water: CORN BROOK	Status: VARIED BY APPLICATION - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 02/08/2005 Effective Date: 02/08/2005 Revocation Date: 19/12/2019
E	135m S	JUNCTION OF ASHTON NEW ROAD CSO, ECCLESHALL STREET / ESWICK ST, OPENSHAW, MANCHESTER, GREATER MANCHESTER, M11 4GL	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982734 Permit Version: 3 Receiving Water: CORN BROOK VIA SWS	Status: VARIED UNDER EPR 2010 Issue date: 20/12/2019 Effective Date: 20/12/2019 Revocation Date: 10/11/2021
F	173m NE	GEORGE STREET/CLAYTON LANE, MANCHESTER, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0374 Permit Version: 1 Receiving Water: -	Status: SURRENDERED UNDER EPR 2010 Issue date: - Effective Date: 01/01/1995 Revocation Date: 12/12/2014
F	187m NE	SOUTH ST/NR CLAYTON LANE, MANCHESTER, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0375 Permit Version: 1 Receiving Water: UNKNOWN	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 01/01/1995 Revocation Date: 08/08/2017
14	317m SW	VAUGHAN STREET CSO, 15M N OF VAUGHAN ST/BENNETT ST, WEST GORTON, MANCHESTER, GREATER MANCHESTER, M12 5FQ	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016993693 Permit Version: 2 Receiving Water: CORN BROOK IN CULVERT	Status: VARIED UNDER EPR 2010 Issue date: 06/11/2019 Effective Date: 06/11/2019 Revocation Date: -
L	404m SW	VAUGHAN STREET CSO, 15M N OF VAUGHAN ST/BENNETT ST, WEST GORTON, MANCHESTER, GREATER MANCHESTER, M12 5FQ	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0218 Permit Version: 1 Receiving Water: CORN BROOK	Status: CONSENT REVOKED OR REVISED - NEW CONSENT ISSUED (37(1)) Issue date: 01/01/1995 Effective Date: 01/01/1995 Revocation Date: 12/09/2005
L	410m SW	VAUGHAN STREET CSO, 15M N OF VAUGHAN ST/BENNETT ST, WEST GORTON, MANCHESTER, GREATER MANCHESTER, M12 5FQ	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016993693 Permit Version: 1 Receiving Water: CORN BROOK	Status: CONSENT CURRENTLY UNDER APPEAL Issue date: 13/09/2005 Effective Date: 13/09/2005 Revocation Date: 05/11/2019

ID	Location	Address	Details	
L	414m SW	VAUGHAN STREET CSO, 15M N OF VAUGHAN ST/BENNETT ST, WEST GORTON, MANCHESTER, GREATER MANCHESTER, M12 5FQ	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982957 Permit Version: 2 Receiving Water: CORN BROOK	Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 29/03/2010 Effective Date: 21/01/2014 Revocation Date: 16/09/2018
L	414m SW	VAUGHAN STREET CSO, 15M N OF VAUGHAN ST/BENNETT ST, WEST GORTON, MANCHESTER, GREATER MANCHESTER, M12 5FQ	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982957 Permit Version: 3 Receiving Water: CLVRT SECTION OF CORN BROOK	Status: VARIED UNDER EPR 2010 Issue date: 17/09/2018 Effective Date: 17/09/2018 Revocation Date: -
L	418m SW	VAUGHAN STREET CSO, 15M N OF VAUGHAN ST/BENNETT ST, WEST GORTON, MANCHESTER, GREATER MANCHESTER, M12 5FQ	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982957 Permit Version: 1 Receiving Water: CORN BROOK	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 23/06/1995 Revocation Date: 20/01/2014

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	3

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 65 >**

ID	Location	Details	
E	135m S	Incident Date: 15/05/2003 Incident Identification: 158481 Pollutant: Oils and Fuel Pollutant Description: Diesel	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
15	366m S	Incident Date: 14/12/2002 Incident Identification: 126068 Pollutant: Oils and Fuel Pollutant Description: Diesel	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
16	402m SE	Incident Date: 29/08/2001 Incident Identification: 27562 Pollutant: Sewage Materials Pollutant Description: Crude Sewage	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

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.

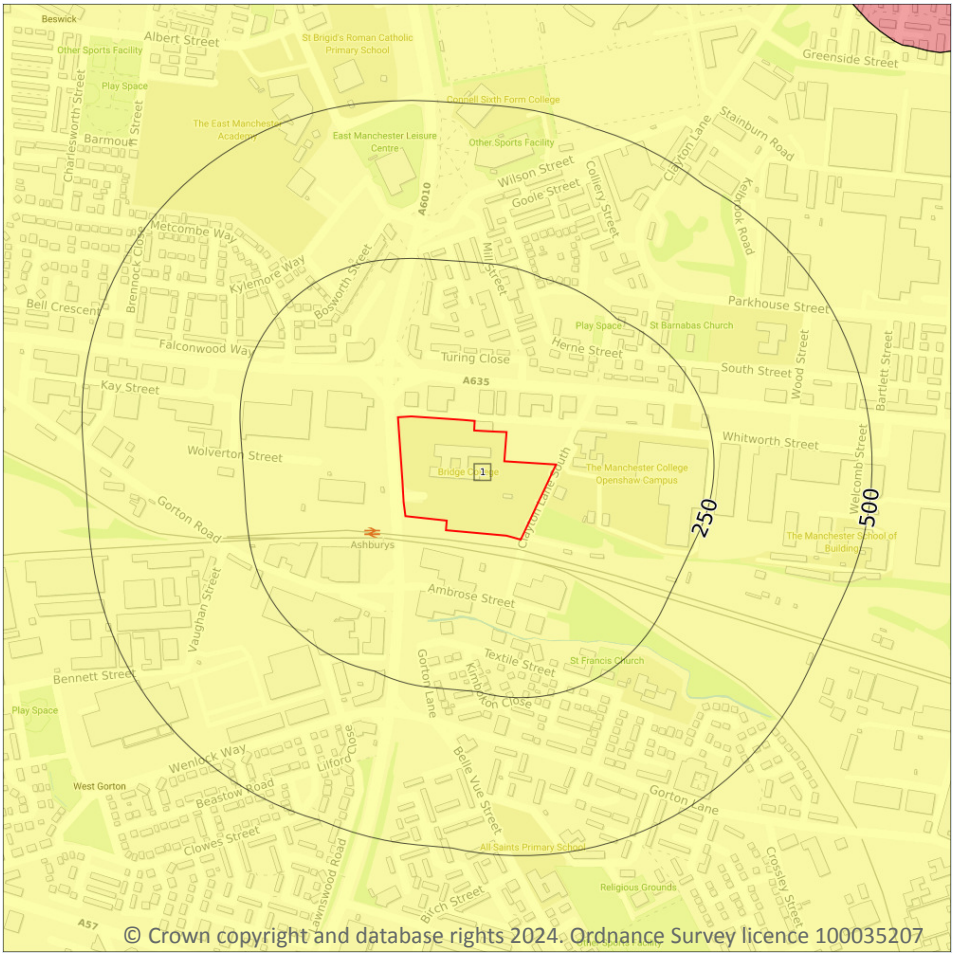
4.21 Pollution inventory radioactive waste

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



5.1 Superficial aquifer

Records within 500m	1

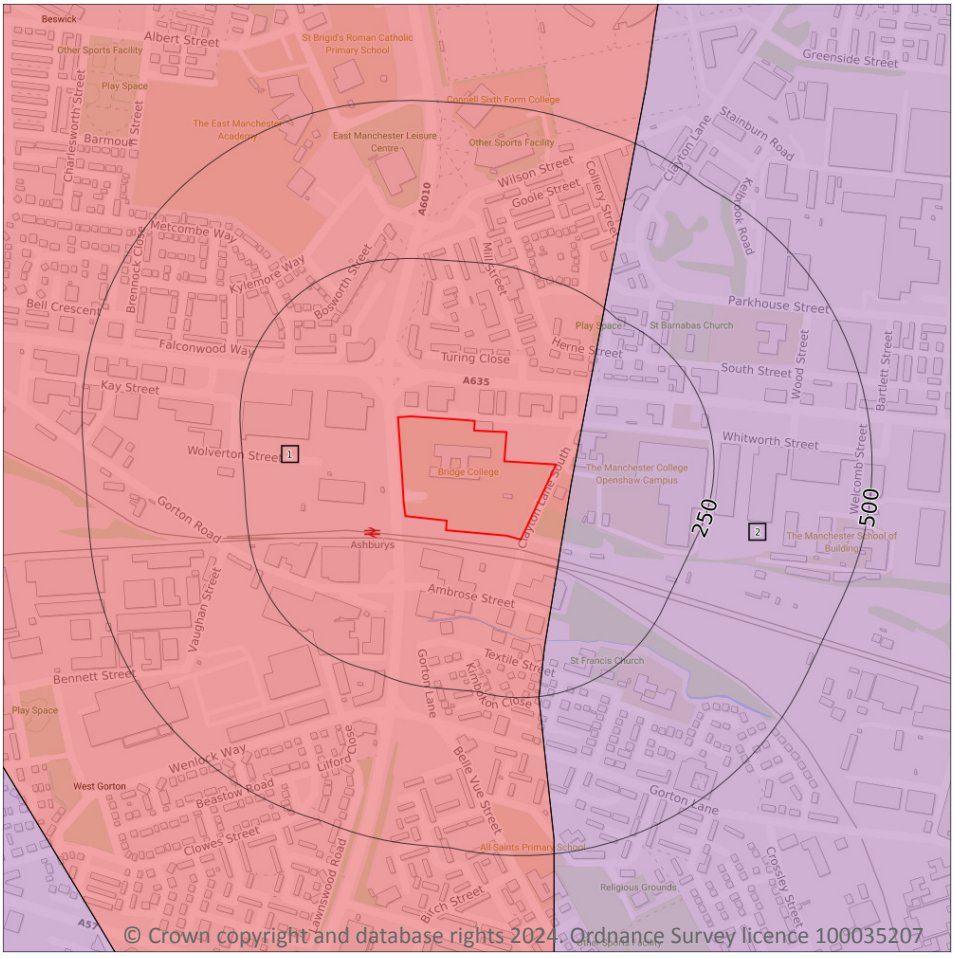
Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 76 >**

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

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

Bedrock aquifer



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5.2 Bedrock aquifer

Records within 500m	2

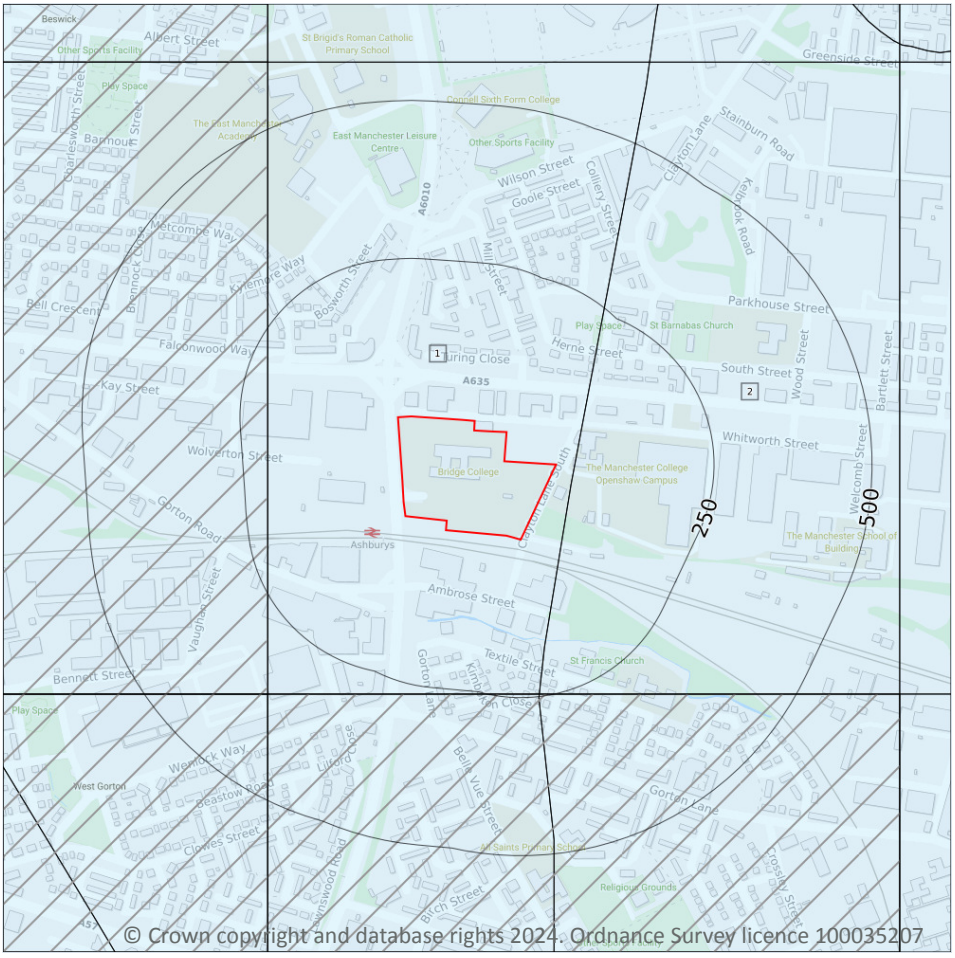
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 77 >**

ID	Location	Designation	Description
1	**On site**	**Secondary A**	**Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers**
2	29m E	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

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

Groundwater vulnerability



Site Outline

Search buffers in metres (m)

Superficial vulnerability

- Principal superficial aquifer, high vulnerability
- Secondary superficial aquifer, high vulnerability
- Principal superficial aquifer, medium vulnerability
- Secondary superficial aquifer, medium vulnerability
- Principal superficial aquifer, low vulnerability
- Secondary superficial aquifer, low vulnerability

Bedrock vulnerability

- Principal bedrock aquifer, high vulnerability
- Secondary bedrock aquifer, high vulnerability
- Principal bedrock aquifer, medium vulnerability
- Secondary bedrock aquifer, medium vulnerability
- Principal bedrock aquifer, low vulnerability
- Secondary bedrock aquifer, low vulnerability

Other information

- Unproductive aquifer
- Soluble rock risk
- Local information

5.3 Groundwater vulnerability

Records within 50m	2

An assessment of the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a one kilometre square grid. Groundwater vulnerability is described as High, Medium or Low as follows:

- High - Areas able to easily transmit pollution to groundwater. They are likely to be characterised by high leaching soils and the absence of low permeability superficial deposits.
- Medium - Intermediate between high and low vulnerability.
- Low - Areas that provide the greatest protection from pollution. They are likely to be characterised by low leaching soils and/or the presence of superficial deposits characterised by a low permeability.

Features are displayed on the Groundwater vulnerability map on **page 79 >**

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: Secondary Flow mechanism: Well connected fractures**
2	29m 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: Principal Flow mechanism: Well connected fractures

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

5.4 Groundwater vulnerability- soluble rock risk

Records on site	**0**

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

This data is sourced from the British Geological Survey and the Environment Agency.

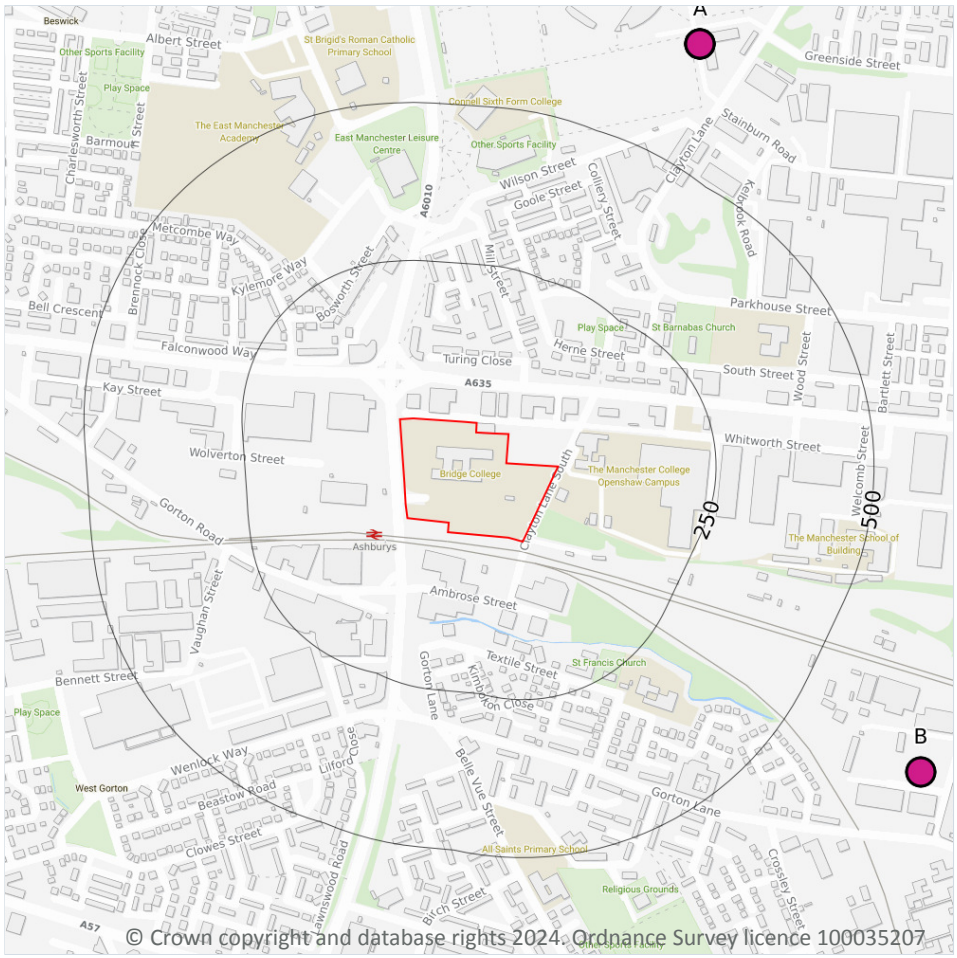
5.5 Groundwater vulnerability- local information

Records on site	**0**

This dataset identifies areas where additional local information affecting vulnerability is held by the Environment Agency. Further information can be obtained by contacting the Environment Agency local Area groundwater team through the Environment Agency National Customer Call Centre on 03798 506 506 or by email on enquiries@environment-agency.gov.uk ↗.

This data is sourced from the British Geological Survey and the Environment Agency.

Abstractions and Source Protection Zones



Site Outline

Search buffers in metres (m)

- Source Protection Zone 1 — Inner catchment
- Source Protection Zone 2 — Outer catchment
- Source Protection Zone 3 — Total catchment
- Source Protection Zone 4 — Zone of Special Interest
- Source Protection Zone 1c — Inner catchment - confined aquifer
- Source Protection Zone 2c — Outer catchment - confined aquifer
- Source Protection Zone 3c — Total catchment - confined aquifer
- Drinking water abstraction licences
- 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	30

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 81 >**

ID	Location	Details	
A	688m NE	Status: Historical Licence No: NW/069/0006/005/R01 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT OPENSHAW, WEST ASHTON Data Type: Point Name: MANCHESTER CITY FOOTBALL CLUB LIMITED Easting: 387681 Northing: 398032	Annual Volume (m^3): 221650 Max Daily Volume (m^3): 1000 Original Application No: NPS/WR/024168 Original Start Date: 01/04/2018 Expiry Date: 31/03/2024 Issue No: 1 Version Start Date: 01/04/2018 Version End Date: -
A	688m NE	Status: Historical Licence No: NW/069/0006/005/R01 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: BOREHOLE AT OPENSHAW, WEST ASHTON Data Type: Point Name: MANCHESTER CITY FOOTBALL CLUB LIMITED Easting: 387681 Northing: 398032	Annual Volume (m^3): 221650 Max Daily Volume (m^3): 1000 Original Application No: NPS/WR/024168 Original Start Date: 01/04/2018 Expiry Date: 31/03/2024 Issue No: 1 Version Start Date: 01/04/2018 Version End Date: -
A	688m NE	Status: Historical Licence No: NW/069/0006/005 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT OPENSHAW, WEST ASHTON Data Type: Point Name: MANCHESTER CITY FOOTBALL CLUB LIMITED Easting: 387681 Northing: 398032	Annual Volume (m^3): 266113 Max Daily Volume (m^3): 1000 Original Application No: - Original Start Date: 14/11/2012 Expiry Date: 31/03/2018 Issue No: 1 Version Start Date: 14/11/2012 Version End Date: -
A	688m NE	Status: Historical Licence No: NW/069/0006/005 Details: Horticultural Watering Direct Source: Ground Water - North West Region Point: BOREHOLE AT OPENSHAW, WEST ASHTON Data Type: Point Name: MANCHESTER CITY FOOTBALL CLUB LIMITED Easting: 387681 Northing: 398032	Annual Volume (m^3): 266113 Max Daily Volume (m^3): 1000 Original Application No: - Original Start Date: 14/11/2012 Expiry Date: 31/03/2018 Issue No: 1 Version Start Date: 14/11/2012 Version End Date: -
A	688m NE	Status: Historical Licence No: NW/069/0006/005 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: BOREHOLE AT OPENSHAW, WEST ASHTON Data Type: Point Name: MANCHESTER CITY FOOTBALL CLUB LIMITED Easting: 387681 Northing: 398032	Annual Volume (m^3): 266113 Max Daily Volume (m^3): 1000 Original Application No: - Original Start Date: 14/11/2012 Expiry Date: 31/03/2018 Issue No: 1 Version Start Date: 14/11/2012 Version End Date: -

ID	Location	Details	
B	728m SE	Status: Active Licence No: NW/069/0004/012 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE AT PRESTON STREET, MANCHESTER Data Type: Point Name: Cemex UK Materials Limited Easting: 388030 Northing: 396880	Annual Volume (m^3): 7500 Max Daily Volume (m^3): 72 Original Application No: NPS/WR/030760A Original Start Date: 19/06/2014 Expiry Date: 31/03/2027 Issue No: 2 Version Start Date: 21/12/2018 Version End Date: -
B	728m SE	Status: Historical Licence No: 2569006044 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE AT PRESTON STREET, GORTON, MANCHESTER Data Type: Point Name: CEMEX UK MATERIALS LTD Easting: 388030 Northing: 396880	Annual Volume (m^3): 15000 Max Daily Volume (m^3): 115 Original Application No: - Original Start Date: 23/10/2003 Expiry Date: 31/03/2014 Issue No: 3 Version Start Date: 15/10/2007 Version End Date: -
-	757m NE	Status: Historical Licence No: 2569006026 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, CLAYTON, MANCHESTER" Data Type: Point Name: CIBA SPECIALTY CHEMICALS PLC Easting: 387700 Northing: 398100	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 24/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 25/07/2000 Version End Date: -
-	757m NE	Status: Historical Licence No: 2569006026 Details: Process water Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, CLAYTON, MANCHESTER" Data Type: Point Name: CIBA SPECIALTY CHEMICALS PLC Easting: 387700 Northing: 398100	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 24/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 25/07/2000 Version End Date: -

ID	Location	Details	
-	757m NE	Status: Historical Licence No: 2569006026 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, CLAYTON, MANCHESTER Data Type: Point Name: CIBA SPECIALTY CHEMICALS PLC Easting: 387700 Northing: 398100	Annual Volume (m^3): 633962 Max Daily Volume (m^3): 2837 Original Application No: - Original Start Date: 24/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 25/07/2000 Version End Date: -
-	757m NE	Status: Historical Licence No: 2569006026 Details: Process water Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, CLAYTON, MANCHESTER Data Type: Point Name: CIBA SPECIALTY CHEMICALS PLC Easting: 387700 Northing: 398100	Annual Volume (m^3): 633962 Max Daily Volume (m^3): 2837 Original Application No: - Original Start Date: 24/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 25/07/2000 Version End Date: -
-	998m NE	Status: Historical Licence No: 2569006036 Details: Process water Direct Source: Ground Water - North West Region Point: "BOREHOLE ON PREMISES AT CLAYTON, MANCHESTER" Data Type: Point Name: AIR PRODUCTS CHEMICALS LTD Easting: 388000 Northing: 398200	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 21/05/1985 Expiry Date: - Issue No: 100 Version Start Date: 01/07/1996 Version End Date: -
-	998m NE	Status: Historical Licence No: 2569006036 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE ON PREMISES AT CLAYTON, MANCHESTER" Data Type: Point Name: AIR PRODUCTS CHEMICALS LTD Easting: 388000 Northing: 398200	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 21/05/1985 Expiry Date: - Issue No: 100 Version Start Date: 01/07/1996 Version End Date: -

ID	Location	Details	
-	998m NE	Status: Historical Licence No: 2569006036 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE ON PREMISES AT CLAYTON, MANCHESTER Data Type: Point Name: AIR PRODUCTS CHEMICALS LTD Easting: 388000 Northing: 398200	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 21/05/1985 Expiry Date: - Issue No: 100 Version Start Date: 01/07/1996 Version End Date: -
-	998m NE	Status: Historical Licence No: 2569006036 Details: Process water Direct Source: Ground Water - North West Region Point: BOREHOLE ON PREMISES AT CLAYTON, MANCHESTER Data Type: Point Name: AIR PRODUCTS CHEMICALS LTD Easting: 388000 Northing: 398200	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 21/05/1985 Expiry Date: - Issue No: 100 Version Start Date: 01/07/1996 Version End Date: -
-	998m NE	Status: Historical Licence No: 2569006036 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE ON PREMISES AT CLAYTON MANCHESTER Data Type: Point Name: AIR PRODUCTS CHEMICALS LTD Easting: 388000 Northing: 398200	Annual Volume (m^3): 372772 Max Daily Volume (m^3): 3600.5 Original Application No: - Original Start Date: 21/05/1985 Expiry Date: - Issue No: 100 Version Start Date: 01/07/1996 Version End Date: -
-	998m NE	Status: Historical Licence No: 2569006036 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE ON PREMISES AT CLAYTON MANCHESTER Data Type: Point Name: AIR PRODUCTS CHEMICALS LTD Easting: 388000 Northing: 398200	Annual Volume (m^3): 372772 Max Daily Volume (m^3): 3600.5 Original Application No: - Original Start Date: 21/05/1985 Expiry Date: - Issue No: 100 Version Start Date: 01/07/1996 Version End Date: -

ID	Location	Details	
-	1074m NE	Status: Active Licence No: 2569006037 Details: Non-Evaporative Cooling Direct Source: Ground Water - North West Region Point: BOREHOLE 2 ON PREMISES AT CROFT STREET, CLAYTON, MANCHESTER Data Type: Point Name: Evonik Chemicals Ltd Easting: 387859 Northing: 398375	Annual Volume (m^3): 111831.6 Max Daily Volume (m^3): 654.62 Original Application No: NPS/WR/035267 Original Start Date: 21/05/1985 Expiry Date: - Issue No: 104 Version Start Date: 19/04/2021 Version End Date: -
-	1077m NE	Status: Active Licence No: 2569006036 Details: Non-Evaporative Cooling Direct Source: Ground Water - North West Region Point: BOREHOLE ON PREMISES AT CLAYTON, MANCHESTER Data Type: Point Name: Evonik Chemicals Ltd Easting: 388027 Northing: 398277	Annual Volume (m^3): 372772 Max Daily Volume (m^3): 3600.5 Original Application No: NPS/WR/035265 Original Start Date: 21/05/1985 Expiry Date: - Issue No: 104 Version Start Date: 19/04/2021 Version End Date: -
-	1078m NE	Status: Active Licence No: 2569006037 Details: Non-Evaporative Cooling Direct Source: Ground Water - North West Region Point: BOREHOLE 1 ON PREMISES AT CROFT STREET, CLAYTON, MANCHESTER Data Type: Point Name: Evonik Chemicals Ltd Easting: 387860 Northing: 398379	Annual Volume (m^3): 111831.6 Max Daily Volume (m^3): 654.62 Original Application No: NPS/WR/035267 Original Start Date: 21/05/1985 Expiry Date: - Issue No: 104 Version Start Date: 19/04/2021 Version End Date: -
-	1115m NE	Status: Historical Licence No: 2569006037 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLES (2) ON PREMISES AT CROFT ST, CLAYTON, MANCHESTER" Data Type: Point Name: AIR PRODUCTS CHEMICALS LTD Easting: 387900 Northing: 398400	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 21/05/1985 Expiry Date: - Issue No: 100 Version Start Date: 01/07/1996 Version End Date: -

ID	Location	Details	
-	1115m NE	Status: Historical Licence No: 2569006037 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLES (2) ON PREMISES AT CROFT ST, CLAYTON, MANCHESTER Data Type: Point Name: AIR PRODUCTS CHEMICALS LTD Easting: 387900 Northing: 398400	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 21/05/1985 Expiry Date: - Issue No: 100 Version Start Date: 01/07/1996 Version End Date: -
-	1115m NE	Status: Historical Licence No: 2569006037 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLES X 2 ON PREMISES AT CROFT STREET CLAYTON MANCHESTER Data Type: Point Name: AIR PRODUCTS CHEMICALS LTD Easting: 387900 Northing: 398400	Annual Volume (m^3): 111832 Max Daily Volume (m^3): 654.624 Original Application No: - Original Start Date: 21/05/1985 Expiry Date: - Issue No: 100 Version Start Date: 01/07/1996 Version End Date: -
-	1270m SE	Status: Historical Licence No: 2569006043 Details: Dust Suppression Direct Source: Ground Water - North West Region Point: PERMO-TRIASSIC SANDSTONE AT BELLE VUE, MANCHESTER Data Type: Point Name: G R A LIMITED Easting: 387950 Northing: 396100	Annual Volume (m^3): 4000 Max Daily Volume (m^3): 22 Original Application No: - Original Start Date: 20/06/2003 Expiry Date: 31/03/2014 Issue No: 2 Version Start Date: 01/04/2008 Version End Date: -
-	1367m S	Status: Historical Licence No: 2569006042 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: PERMO-TRIASSIC SANDSTONE AT BELLE VUE LEISURE CENTRE Data Type: Point Name: CLIVE BACK Easting: 387591 Northing: 395891	Annual Volume (m^3): 10000 Max Daily Volume (m^3): 276 Original Application No: - Original Start Date: 11/07/2002 Expiry Date: 31/03/2014 Issue No: 4 Version Start Date: 29/02/2012 Version End Date: -

ID	Location	Details	
-	1367m S	Status: Historical Licence No: NW/069/0006/006 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: PERMO-TRIASSIC SANDSTONE AT BELLE VUE LEISURE CENTRE Data Type: Point Name: The Chief Operating Officer of the Eastlands Trust Easting: 387591 Northing: 395891	Annual Volume (m^3): 8000 Max Daily Volume (m^3): 276 Original Application No: - Original Start Date: 16/05/2014 Expiry Date: 31/03/2016 Issue No: 1 Version Start Date: 16/05/2014 Version End Date: -
-	1368m S	Status: Historical Licence No: 2569006042 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: PERMO-TRIASSIC SANDSTONE AT BELLE VUE LEISURE CENTRE Data Type: Point Name: CLIVE BACK Easting: 387590 Northing: 395890	Annual Volume (m^3): 15000 Max Daily Volume (m^3): 276 Original Application No: - Original Start Date: 11/07/2002 Expiry Date: 31/03/2014 Issue No: 3 Version Start Date: 04/02/2009 Version End Date: -
-	1527m W	Status: Historical Licence No: NW/069/0004/005 Details: Heat Pump Direct Source: Ground Water - North West Region Point: AREA OF ABSTRACTION - LOWER CARBONIFEROUS LIMESTONE Data Type: Poly4 Name: G T Energy UK Limited Easting: 385729 Northing: 396778	Annual Volume (m^3): 2049840 Max Daily Volume (m^3): 8640 Original Application No: - Original Start Date: 17/01/2013 Expiry Date: 16/01/2037 Issue No: 2 Version Start Date: 11/06/2013 Version End Date: -
-	1969m W	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: -

ID	Location	Details	
-	1969m W	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: -

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

5.7 Surface water abstractions

Records within 2000m	**6**

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.

Features are displayed on the Abstractions and Source Protection Zones map on **page 81 >**

ID	Location	Details	
-	1005m N	Status: Historical Licence No: 2569006996 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Surface, Non-Tidal - North West Region Point: ASHTON CANAL, MANCHESTER [VITACOM] Data Type: Point Name: BRITISH WATERWAYS Easting: 387600 Northing: 398400	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 01/04/1969 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1969 Version End Date: -
-	1072m NE	Status: Historical Licence No: 2569006997 Details: Process water Direct Source: "Surface, Non-Tidal - North West Region" Point: "ASHTON CANAL, MANCHESTER [CLAYTON ANALINE]" Data Type: Point Name: BRITISH WATERWAYS Easting: 387800 Northing: 398400	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 01/04/1969 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1969 Version End Date: -

ID	Location	Details	
-	1072m NE	Status: Historical Licence No: 2569006997 Details: Process water Direct Source: Surface, Non-Tidal - North West Region Point: ASHTON CANAL, MANCHESTER [CLAYTON ANALINE] Data Type: Point Name: BRITISH WATERWAYS BOARD Easting: 387800 Northing: 398400	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 01/04/1969 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1969 Version End Date: -
-	1072m NE	Status: Historical Licence No: 2569006997 Details: Process Water Direct Source: Surface, Non-Tidal - North West Region Point: ASHTON CANAL MANCHESTER CLAYTON ANALINE Data Type: Point Name: Canal and River Trust Easting: 387800 Northing: 398400	Annual Volume (m^3): 3500420 Max Daily Volume (m^3): 3500420 Original Application No: 1470 Original Start Date: 01/04/1969 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1969 Version End Date: -
-	1137m NE	Status: Historical Licence No: 2569006995 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: "Surface, Non-Tidal - North West Region" Point: "ASHTON CANAL, MANCHESTER" Data Type: Point Name: BRITISH WATERWAYS Easting: 388100 Northing: 398300	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 01/04/1969 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1969 Version End Date: -
-	1137m NE	Status: Historical Licence No: 2569006995 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Surface, Non-Tidal - North West Region Point: ASHTON CANAL, MANCHESTER Data Type: Point Name: Canal and River Trust Easting: 388100 Northing: 398300	Annual Volume (m^3): 68190 Max Daily Volume (m^3): 68190 Original Application No: - Original Start Date: 01/04/1969 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1969 Version End Date: -

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

5.8 Potable abstractions

Records within 2000m	0

Licensed potable water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

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

5.9 Source Protection Zones

Records within 500m	0

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination.

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

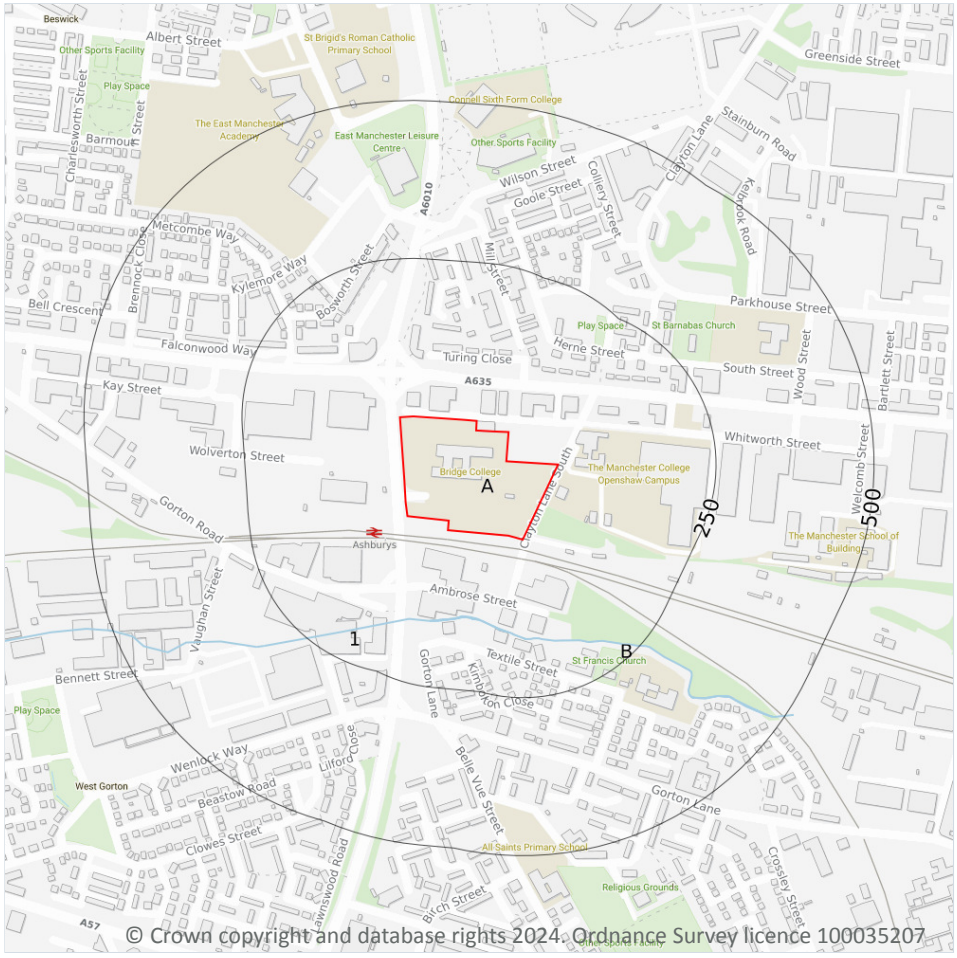
5.10 Source Protection Zones (confined aquifer)

Records within 500m	0

Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only considered a sensitive resource if deep excavation/drilling is taking place.

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

6 Hydrology



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- 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	2

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 92 >**

ID	Location	Type of water feature	Ground level	Permanence	Name
B	134m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Corn Brook

ID	Location	Type of water feature	Ground level	Permanence	Name
1	147m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Corn Brook

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	1

Covering rivers, streams and lakes (some overlap with OS MasterMap Water Network data in previous section) but additionally covers smaller features such as ponds. Rivers and streams narrower than 5m are represented as a single line. Lakes, ponds and rivers or streams wider than 5m are represented as polygons.

Features are displayed on the Hydrology map on **page 92 >**

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site	1

The Water Framework Directive is an EU-led framework for the protection of inland surface waters, estuaries, coastal waters and groundwater through river basin-level management planning. In terms of surface water, these basins are broken down into smaller units known as management, operational and water body catchments.

Features are displayed on the Hydrology map on **page 92 >**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	**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	1

Surface water bodies under the Directive may be rivers, lakes, estuary or coastal. To achieve the purpose of the Directive, environmental objectives have been set and are reported on for each water body. The progress towards delivery of the objectives is then reported on by the relevant competent authorities at the end of each six-year cycle. The river water body directly associated with the catchment listed in the previous section is detailed below, along with any lake, canal, coastal or artificial water body within 250m of the site. Click on the

water body ID in the table to visit the EA Catchment Explorer to find out more about each water body listed.

Features are displayed on the Hydrology map on **page 92 >**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	3652m NW	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**

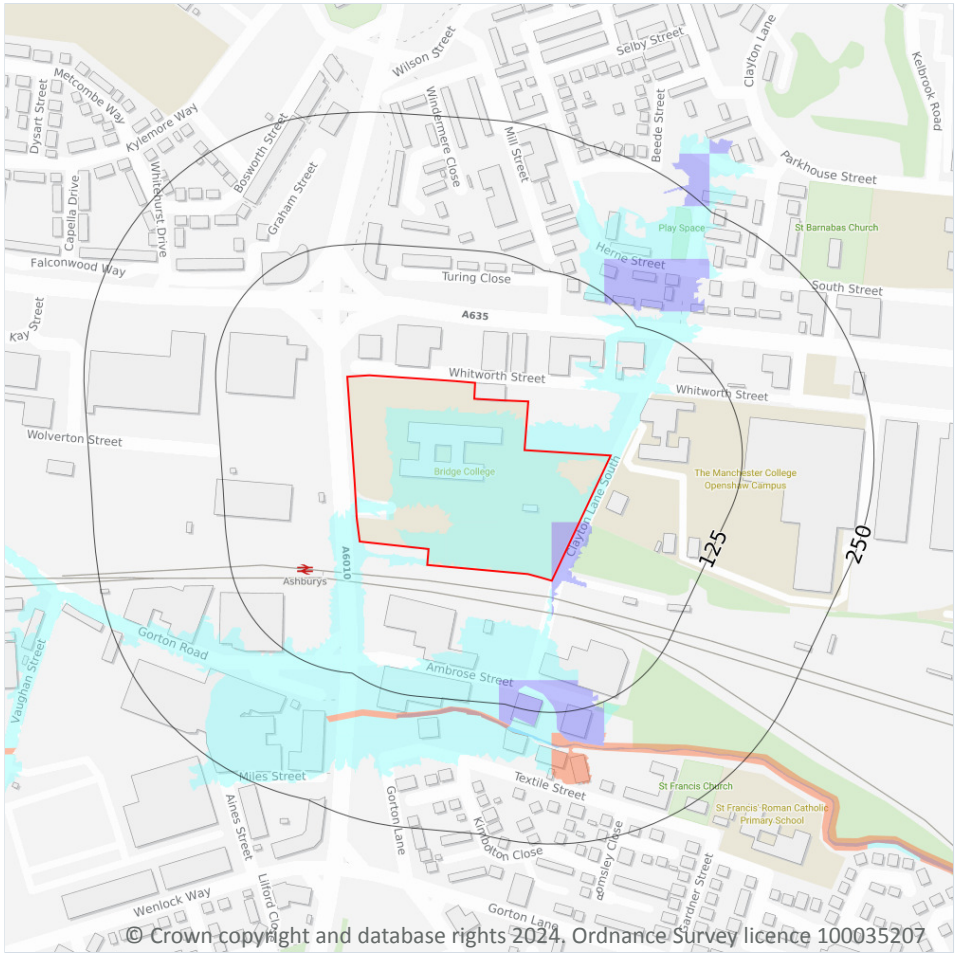
Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

Features are displayed on the Hydrology map on **page 92 >**

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

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

7 River and coastal flooding



Site Outline

Search buffers in metres (m)

River and coastal flooding:

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

7.1 Risk of flooding from rivers and the sea

Records within 50m	10

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m within the Risk of Flooding from Rivers and Sea (RoFRaS)/Flood Risk Assessment Wales (FRAW) models. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition. The risk categories for RoFRaS for rivers and the sea and FRAW for rivers are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 100 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 100 chance) or High (greater than or equal to 1 in 30 chance). The risk categories for FRAW for the sea are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 200 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 200 chance) or High (greater than or equal to 1 in 30 chance).

Features are displayed on the River and coastal flooding map on **page 95 >**

Distance	Flood risk category
On site	**Medium**
0 - 50m	Medium

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	1

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

Features are displayed on the River and coastal flooding map on **page 95 >**

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

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

7.7 Flood Zone 3

Records within 50m	1

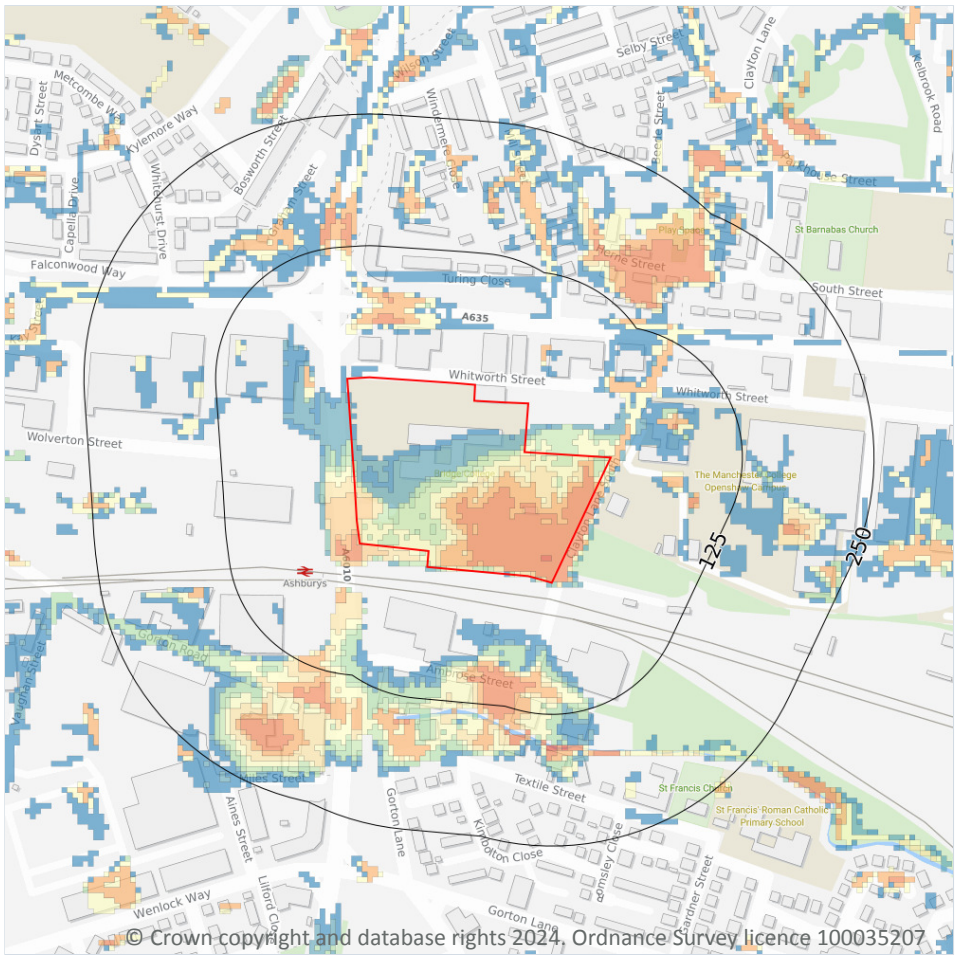
Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

Features are displayed on the River and coastal flooding map on **page 95 >**

Location	Type
On site	**Zone 3 - (Fluvial Models)**

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

8 Surface water flooding



8.1 Surface water flooding

Highest risk on site	**1 in 30 year, Greater than 1.0m**
Highest risk within 50m	**1 in 30 year, Greater than 1.0m**

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

Features are displayed on the Surface water flooding map on **page 99 >**

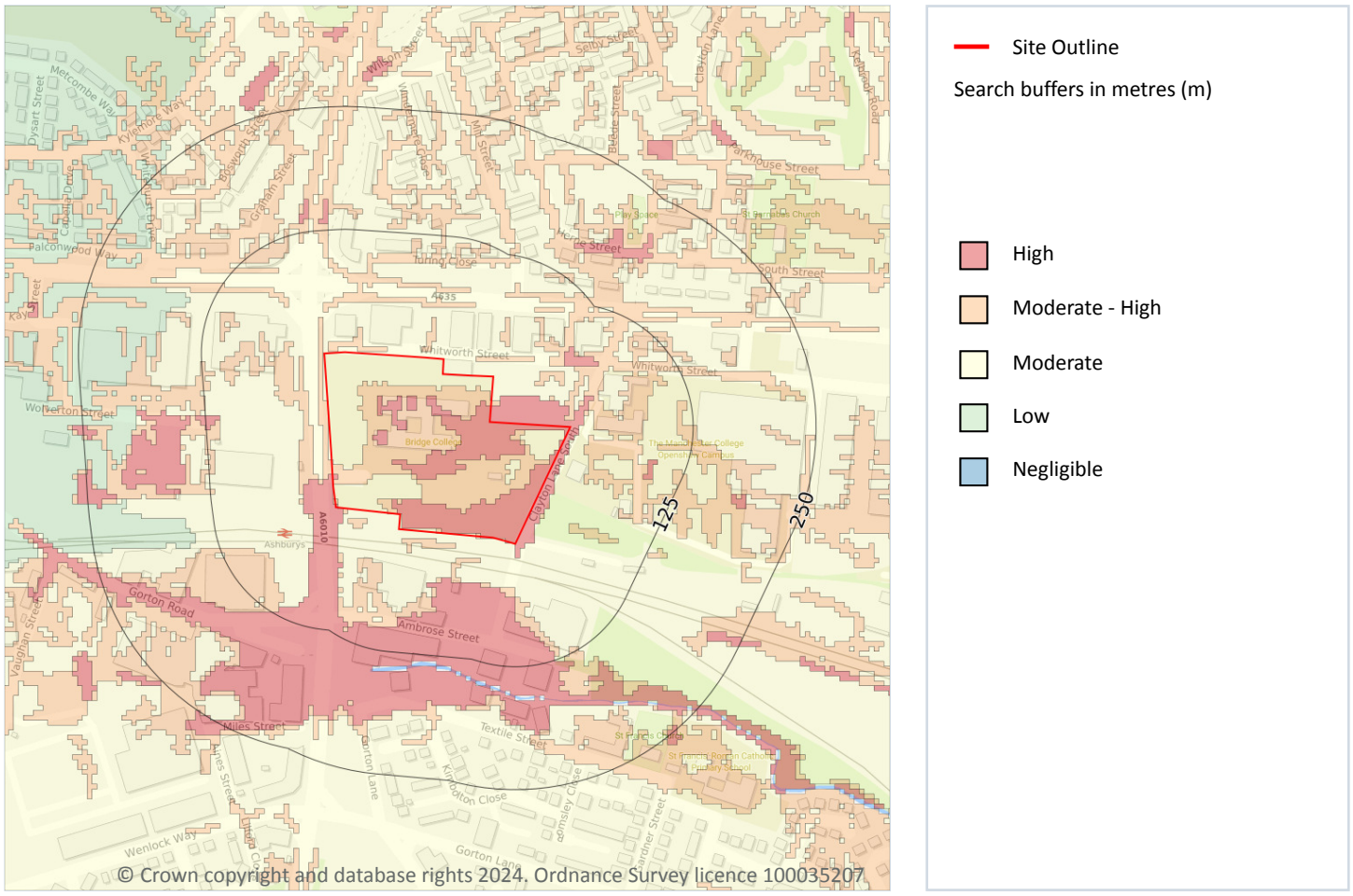
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

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	Greater than 1.0m
1 in 250 year	Greater than 1.0m
1 in 100 year	Greater than 1.0m
1 in 30 year	Greater than 1.0m

This data is sourced from Ambiental Risk Analytics.

9 Groundwater flooding



9.1 Groundwater flooding

Highest risk on site	**High**
Highest risk within 50m	**High**

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 101 >**

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations



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Site Outline

Search buffers in metres (m)

Local Nature Reserves (LNR)

Green Belt

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	1

Sites managed for nature conservation, and to provide opportunities for research and education, or simply enjoying and having contact with nature. They are declared by local authorities under the National Parks and Access to the Countryside Act 1949 after consultation with the relevant statutory nature conservation agency.

Features are displayed on the Environmental designations map on **page 102 >**

ID	Location	Name	Data source
-	1577m N	Clayton Vale	Natural England

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

10.7 Designated Ancient Woodland

Records within 2000m	0

Ancient woodlands are classified as areas which have been wooded continuously since at least 1600 AD. This includes semi-natural woodland and plantations on ancient woodland sites. 'Wooded continuously' does not mean there is or has previously been continuous tree cover across the whole site, and not all trees within the woodland have to be old.

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

10.8 Biosphere Reserves

Records within 2000m	0

Biosphere Reserves are internationally recognised by UNESCO as sites of excellence to balance conservation and socioeconomic development between nature and people. They are recognised under the Man and the Biosphere (MAB) Programme with the aim of promoting sustainable development founded on the work of the local community.

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

10.9 Forest Parks

Records within 2000m	0

These are areas managed by the Forestry Commission designated on the basis of recreational, conservation or scenic interest.

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m	0

A type of marine nature reserve in UK waters established under the Marine and Coastal Access Act (2009). They are designated with the aim to protect nationally important, rare or threatened habitats and species.

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

10.11 Green Belt

Records within 2000m	1

Areas designated to prevent urban sprawl by keeping land permanently open.

Features are displayed on the Environmental designations map on **page 102 >**

ID	Location	Name	Local Authority name
-	1801m N	Merseyside and Greater Manchester	Manchester

This data is sourced from the Ministry of Housing, Communities and Local Government.

10.12 Proposed Ramsar sites

Records within 2000m	0

Ramsar sites are areas listed as a Wetland of International Importance under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention) 1971. The sites here supplied have a status of 'Proposed' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m	0

Special Areas of Conservation are areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive. Those sites supplied here are those with a status of 'Possible' having been identified for potential adoption under the framework.

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

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m	0

Special Protection Areas (SPAs) are areas designated (or 'classified') under the European Union Wild Birds Directive for the protection of nationally and internationally important populations of wild birds. Those sites supplied here are those with a status of 'Potential' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m	0

Areas where nitrate concentrations in drinking water sources exceeded or was at risk of exceeding the limit of 50 mg/l set by the 1980 EC Drinking Water Directive. Voluntary agricultural measures as a means of reducing the levels of nitrate were introduced by DEFRA as MAFF, with payments being made to farmers who complied. The scheme was started as a pilot in 1990 in ten areas, later implemented within 32 areas. The scheme was closed to further new entrants in 1998, although existing agreements continued for their full term. All Nitrate Sensitive Areas fell within the areas designated as Nitrate Vulnerable Zones (NVZs) in 1996 under the EC Nitrate Directive (91/676/EEC).

This data is sourced from Natural England.

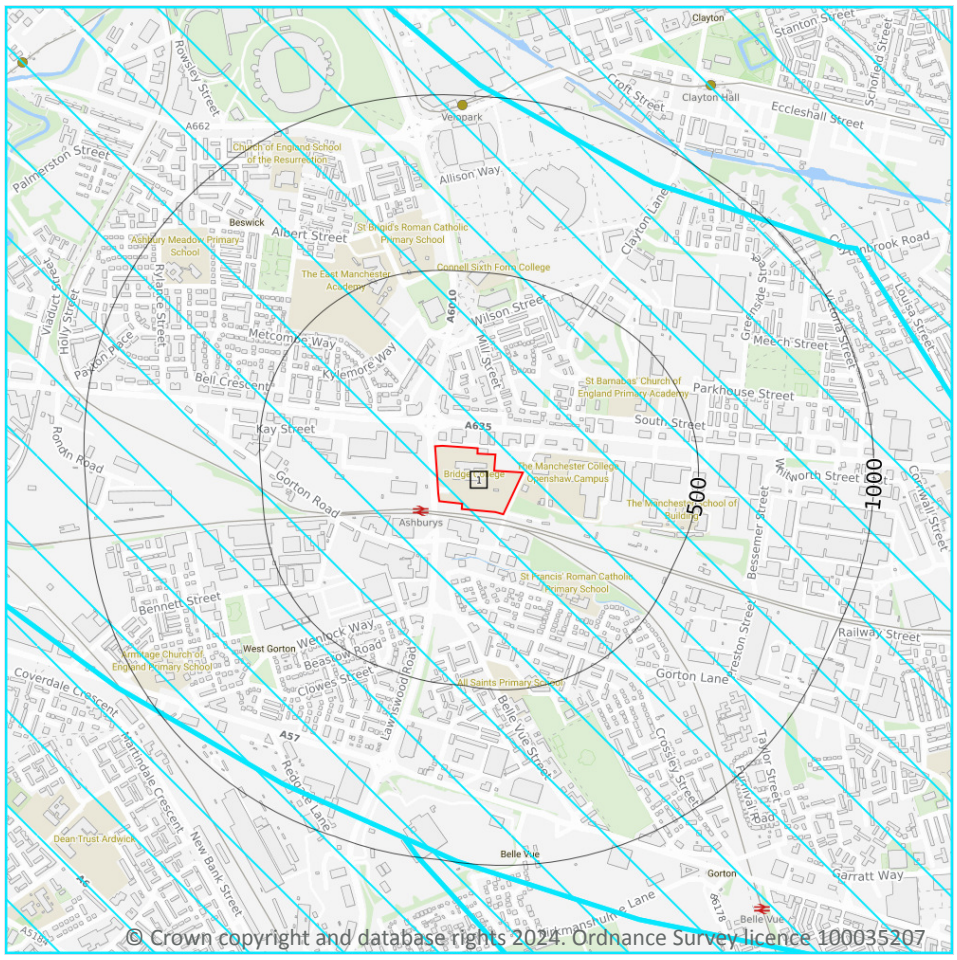
10.16 Nitrate Vulnerable Zones

Records within 2000m	0

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

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

SSSI Impact Zones and Units



Site Outline

Search buffers in metres (m)

SSSI Impact Risk Zones

SSSI Units

- Not recorded
- Favourable
- Unfavourable - Recovering
- Unfavourable - No change
- Unfavourable - Declining
- Partially destroyed
- Destroyed

10.17 SSSI Impact Risk Zones

Records on site	1

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

Features are displayed on the SSSI Impact Zones and Units map on **page 107 >**

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

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

11.1 World Heritage Sites

Records within 250m	0

Sites designated for their globally important cultural or natural interest requiring appropriate management and protection measures. World Heritage Sites are designated to meet the UK's commitments under the World Heritage Convention.

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

11.2 Area of Outstanding Natural Beauty

Records within 250m	0

Areas of Outstanding Natural Beauty (AONB) are conservation areas, chosen because they represent 18% of the finest countryside. Each AONB has been designated for special attention because of the quality of their flora, fauna, historical and cultural associations, and/or scenic views. The National Parks and Access to the Countryside Act of 1949 created AONBs and the Countryside and Rights of Way Act, 2000 added further regulation and protection. There are likely to be restrictions to some developments within these areas.

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

11.3 National Parks

Records within 250m	0

In England and Wales, the purpose of National Parks is to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic well-being of those living within them. In Scotland National Parks have the additional purpose of promoting the sustainable use of the natural resources of the area and the sustainable social and economic development of its communities. The National Parks and Access to the Countryside Act 1949 established the National Park designation in England and Wales, and The National Parks (Scotland) Act 2000 in Scotland.

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

11.4 Listed Buildings

Records within 250m	0

Buildings listed for their special architectural or historical interest. Building control in the form of 'listed building consent' is required in order to make any changes to that building which might affect its special interest. Listed buildings are graded to indicate their relative importance, however building controls apply to all buildings equally, irrespective of their grade, and apply to the interior and exterior of the building in its entirety, together with any curtilage structures.

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

11.5 Conservation Areas

Records within 250m	0

Local planning authorities are obliged to designate as conservation areas any parts of their own area that are of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance. Designation of a conservation area gives broader protection than the listing of individual buildings. All the features within the area, listed or otherwise, are recognised as part of its character. Conservation area designation is the means of recognising the importance of all factors and of ensuring that planning decisions address the quality of the landscape in its broadest sense.

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

11.6 Scheduled Ancient Monuments

Records within 250m	0

A scheduled monument is an historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Digital, Culture, Media and Sport. The regime is set out in the Ancient Monuments and Archaeological Areas Act 1979. The Schedule of Monuments has c.20,000 entries and includes sites such as Roman remains, burial mounds, castles, bridges, earthworks, the remains of deserted villages and industrial sites. Monuments are not graded, but all are, by definition, considered to be of national importance.

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

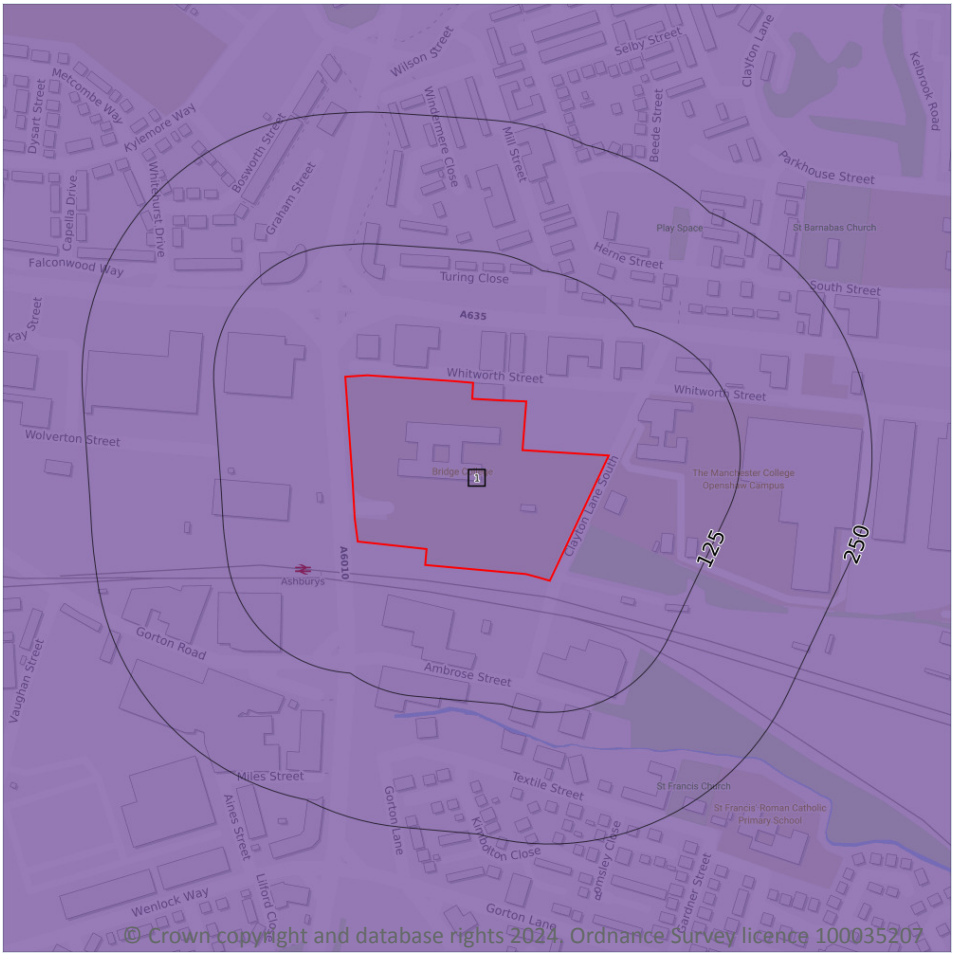
11.7 Registered Parks and Gardens

Records within 250m	0

Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the impact of any proposed development on the special character of the landscape.

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

12 Agricultural designations



- Site Outline

Search buffers in metres (m)

- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3 - good to moderate quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Non-agricultural land
- Urban land
- Exclusion land
- Tree felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m	1

Classification of the quality of agricultural land taking into consideration multiple factors including climate, physical geography and soil properties. It should be noted that the categories for the grading of agricultural land are not consistent across England, Wales and Scotland.

Features are displayed on the Agricultural designations map on **page 111 >**

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.

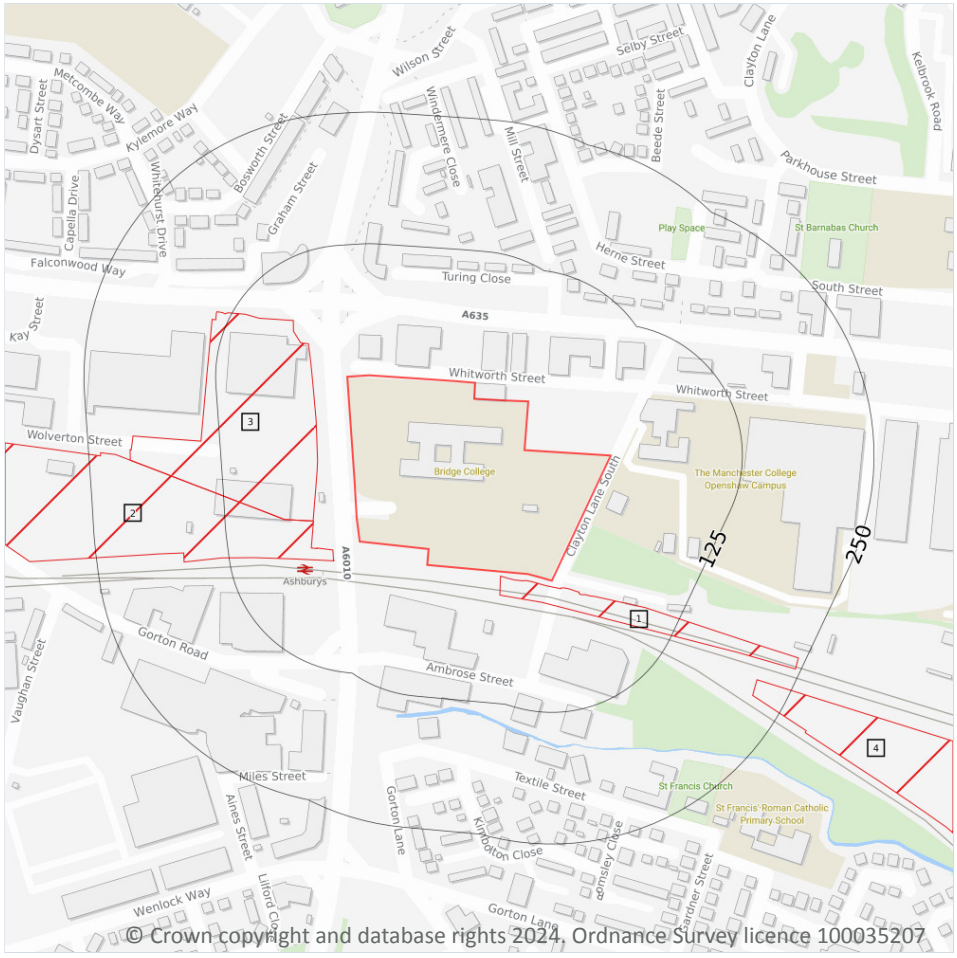
12.5 Countryside Stewardship Schemes

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



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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	4

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 113 >**

ID	Location	Site reference	Identification confidence	Primary source	Secondary source	Tertiary source
1	4m S	NLUD Ref: 421500611	Low	National Land Use Database - Previously Developed Land	UK Perspectives Aerial Photography	-
2	27m SW	NLUD Ref: 421500132	Low	National Land Use Database - Previously Developed Land	UK Perspectives Aerial Photography	-
3	32m W	NLUD Ref: 421500131	Low	National Land Use Database - Previously Developed Land	UK Perspectives Aerial Photography	-
4	216m SE	HLD_refs: EAHLD16552	Low	Environment Agency Historic Landfill Sites	UK Perspectives Aerial Photography	-

This data is sourced from Natural England.

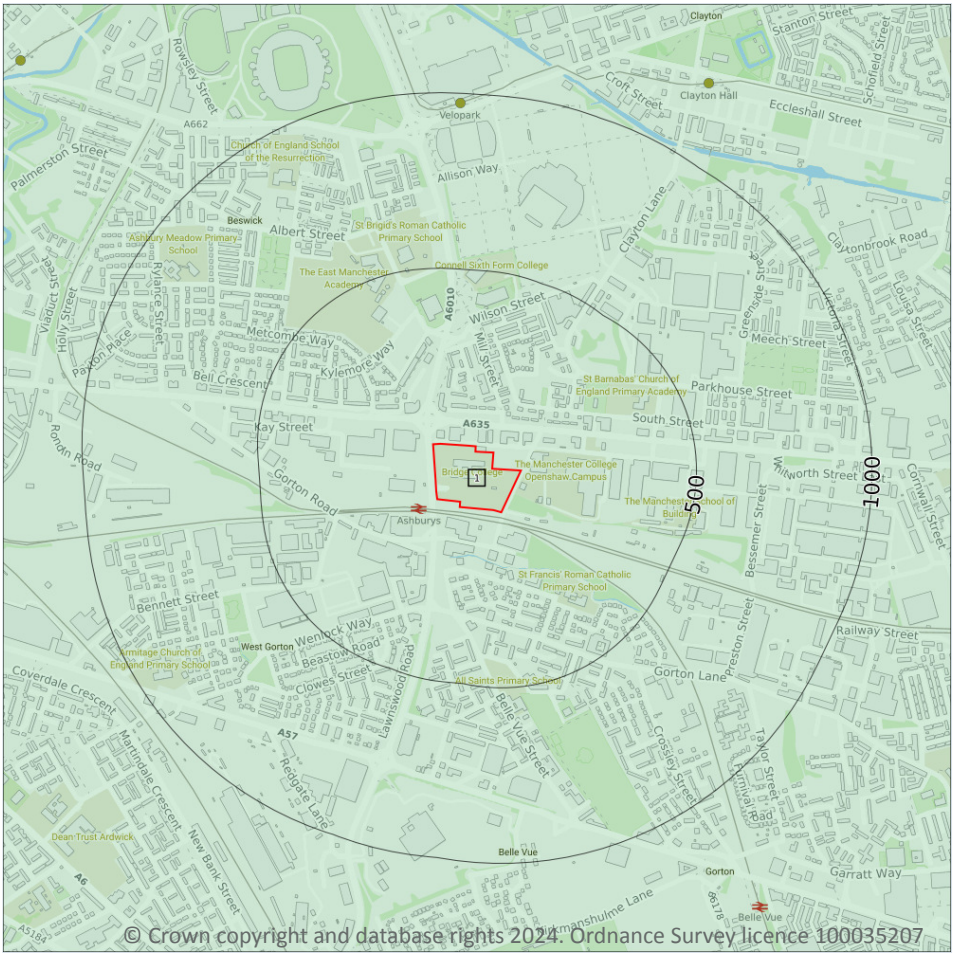
13.4 Limestone Pavement Orders

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	1

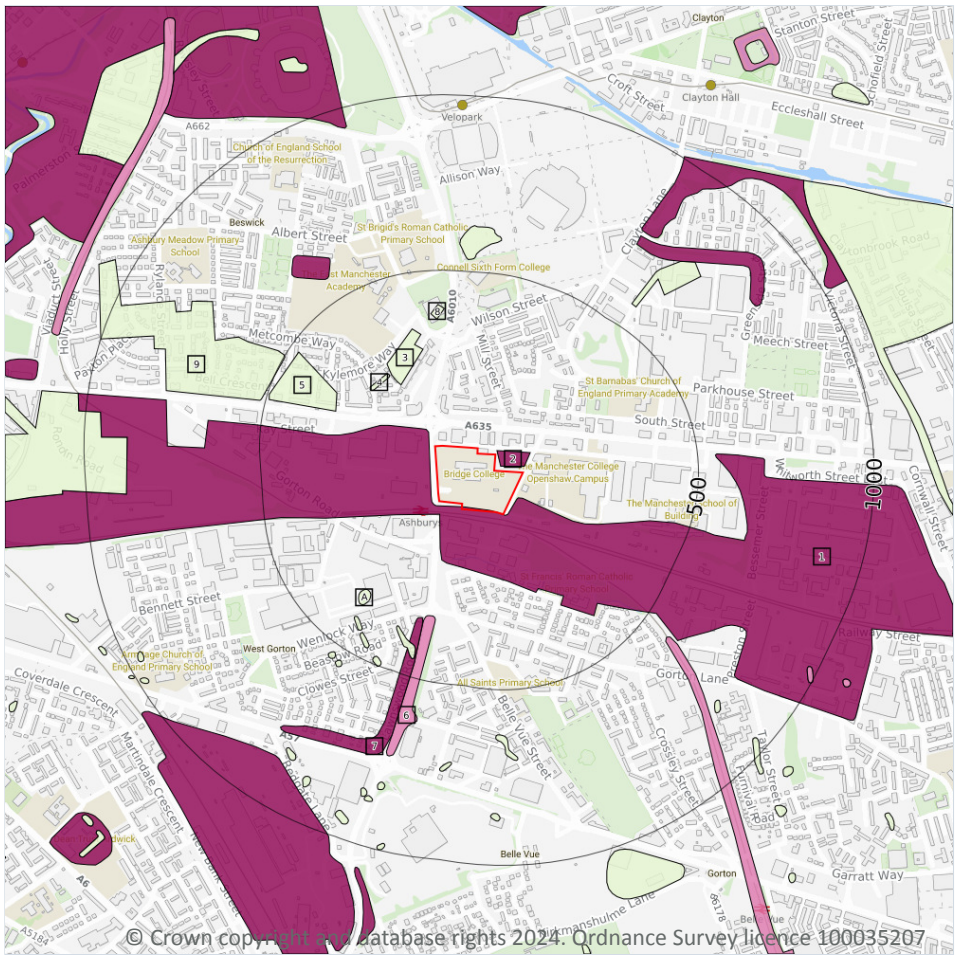
An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 115 >**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**Full**	**SJ89NE**

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 **14**

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.

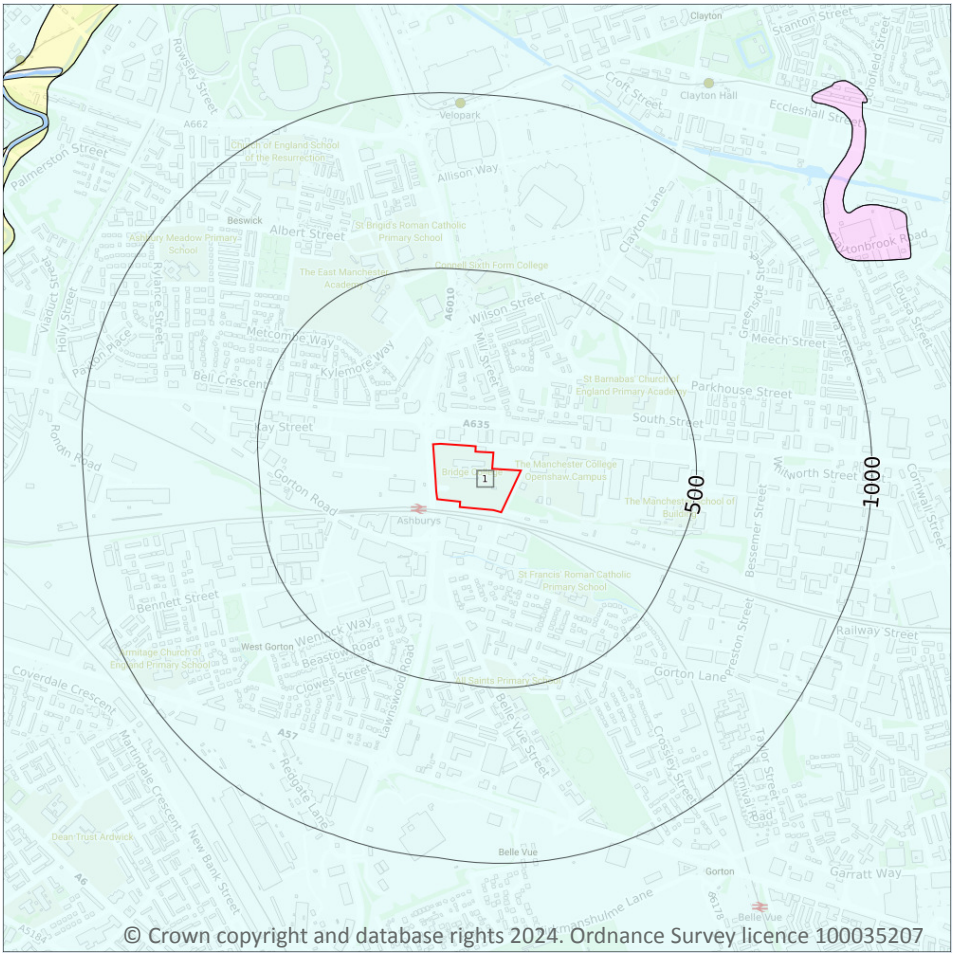
Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on **page 116 >**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**MGR-ARTDP**	**Made Ground (Undivided)**	**Artificial Deposit**
2	7m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
3	200m NW	WMGR-ARTDP	Infilled Ground	Artificial Deposit
4	235m NW	WMGR-ARTDP	Infilled Ground	Artificial Deposit

ID	Location	LEX Code	Description	Rock description
5	300m NW	WMGR-ARTDP	Infilled Ground	Artificial Deposit
6	316m S	WGR-VOID	Worked Ground (Undivided)	Void
A	324m SW	WMGR-ARTDP	Infilled Ground	Artificial Deposit
7	330m S	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
8	361m N	WMGR-ARTDP	Infilled Ground	Artificial Deposit
A	374m SW	WMGR-ARTDP	Infilled Ground	Artificial Deposit
A	403m SW	WMGR-ARTDP	Infilled Ground	Artificial Deposit
A	433m SW	WMGR-ARTDP	Infilled Ground	Artificial Deposit
A	476m SW	WMGR-ARTDP	Infilled Ground	Artificial Deposit
9	497m NW	WMGR-ARTDP	Infilled Ground	Artificial Deposit

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (10k)

Superficial geology (10k)
Please see table for more details.

14.3 Superficial geology (10k)

Records within 500m	1

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:10,000 scale - Superficial map on **page 118 >**

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

This data is sourced from the British Geological Survey.

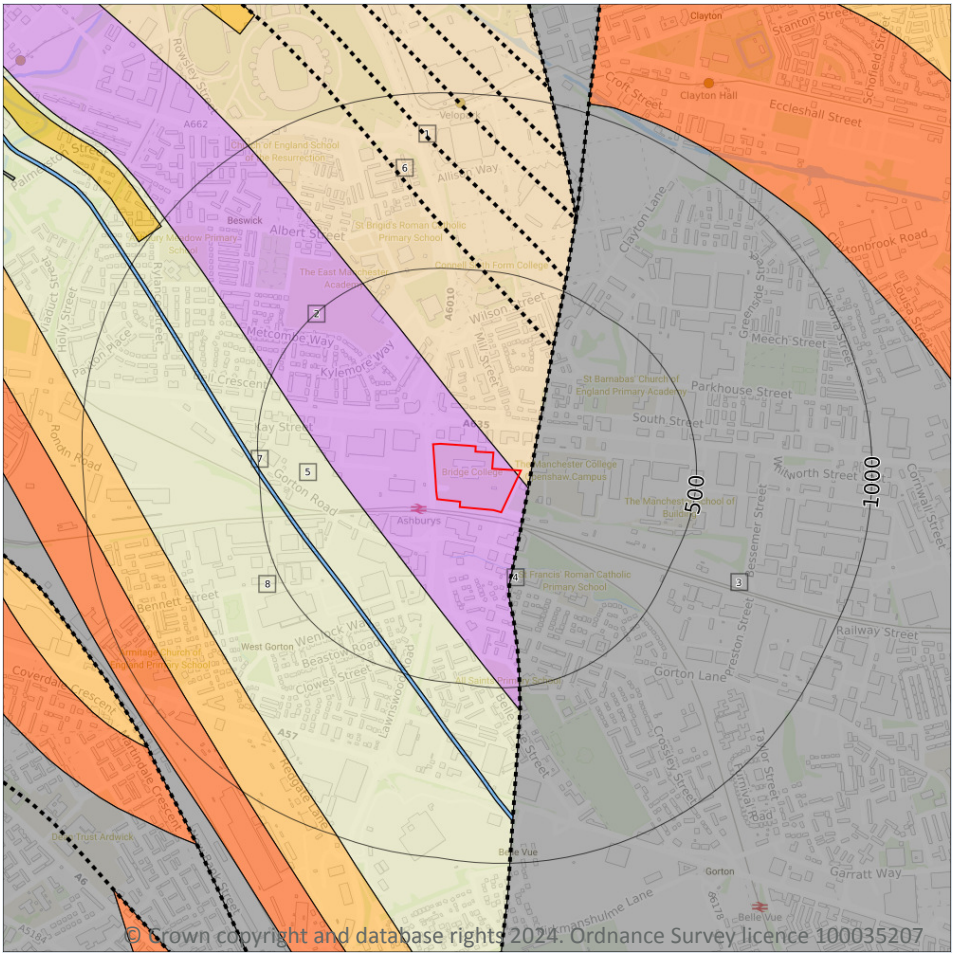
14.4 Landslip (10k)

Records within 500m	0

Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Bedrock



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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 120 >**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**PUCM-MDSS**	**Pennine Upper Coal Measures Formation - Mudstone, Siltstone And Sandstone**	**Westphalian D Sub-age - Bolsovian Sub-age**
2	**On site**	**ETM-STMD**	**Etruria Formation - Sandstone And Mudstone**	**Westphalian Age**
3	29m E	CPB-SDST	Chester Pebble Beds Formation - Sandstone	Early Triassic Epoch

ID	Location	LEX Code	Description	Rock age
5	185m SW	HA-MDSS	Halesowen Formation - Mudstone, Siltstone And Sandstone	Westphalian D Sub-age
7	361m SW	GML-LMST	Great Mine Limestone - Limestone	Westphalian D Sub-age
8	372m SW	HA-MDSS	Halesowen Formation - Mudstone, Siltstone And Sandstone	Westphalian D Sub-age

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m **2**

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 120 >**

ID	Location	Category	Description
4	29m E	FAULT	Normal fault, inferred; crossmarks on downthrow side
6	344m NE	ROCK	Coal seam, inferred

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

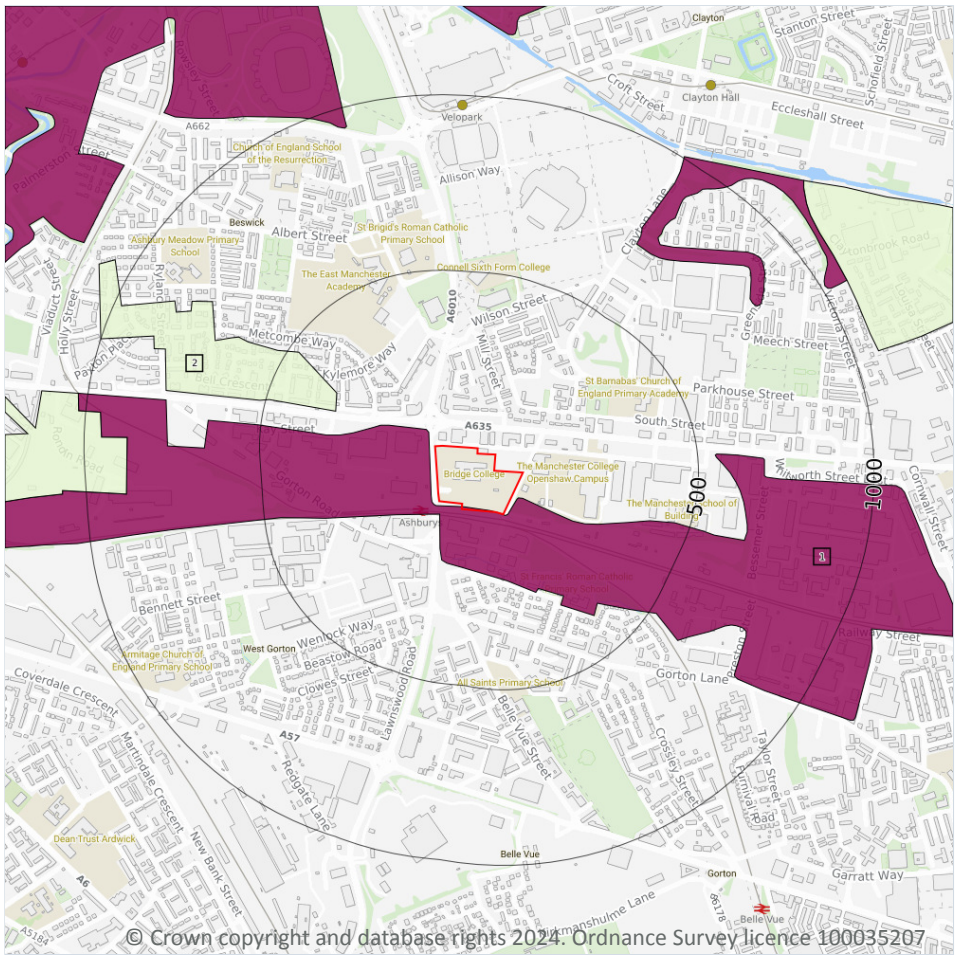
An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 122 >**

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



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Site Outline

Search buffers in metres (m)

- Made ground
- Worked ground
- Infilled ground
- Disturbed ground
- Landscaped ground

15.2 Artificial and made ground (50k)

Records within 500m	2

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

Features are displayed on the Geology 1:50,000 scale - Artificial and made ground map on **page 123 >**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**MGR-ARTDP**	**MADE GROUND (UNDIVIDED)**	**ARTIFICIAL DEPOSIT**
2	300m NW	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

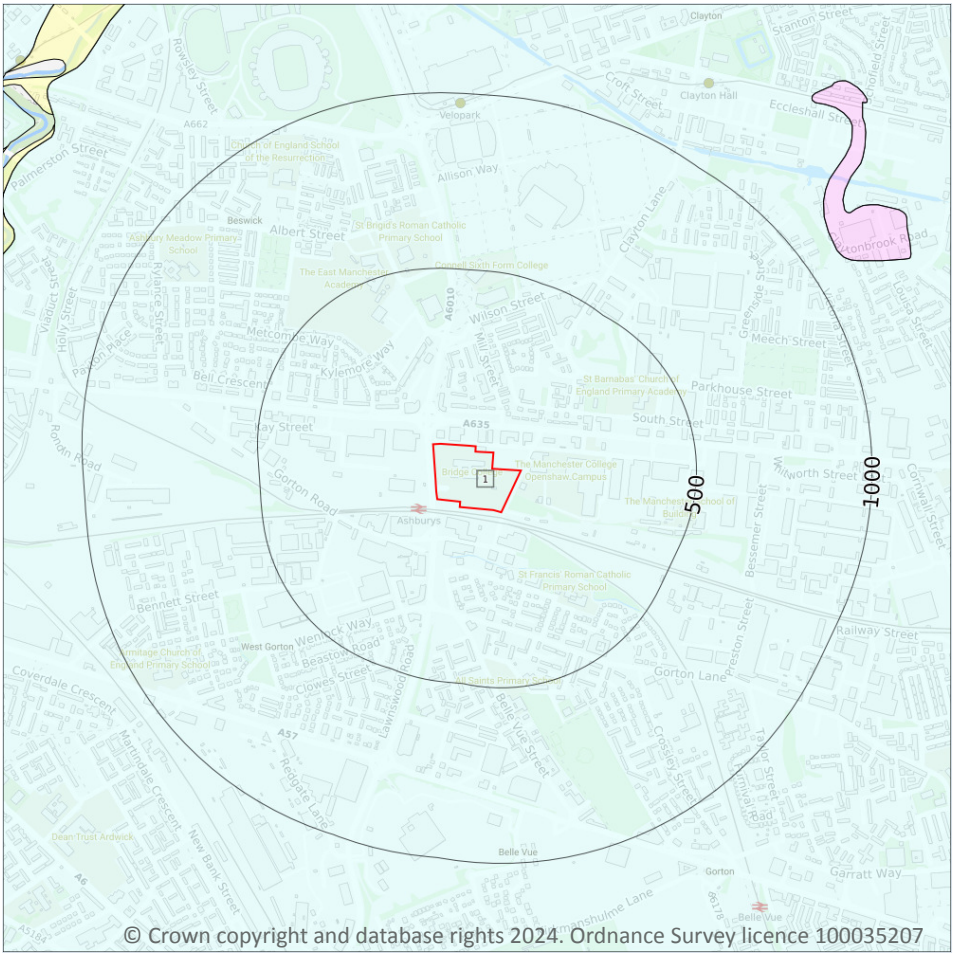
Records within 50m	1

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

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

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

15.4 Superficial geology (50k)

Records within 500m	1

Superficial geological deposits at 1:50,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:50,000 scale - Superficial map on **page 125 >**

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

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	1

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

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

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

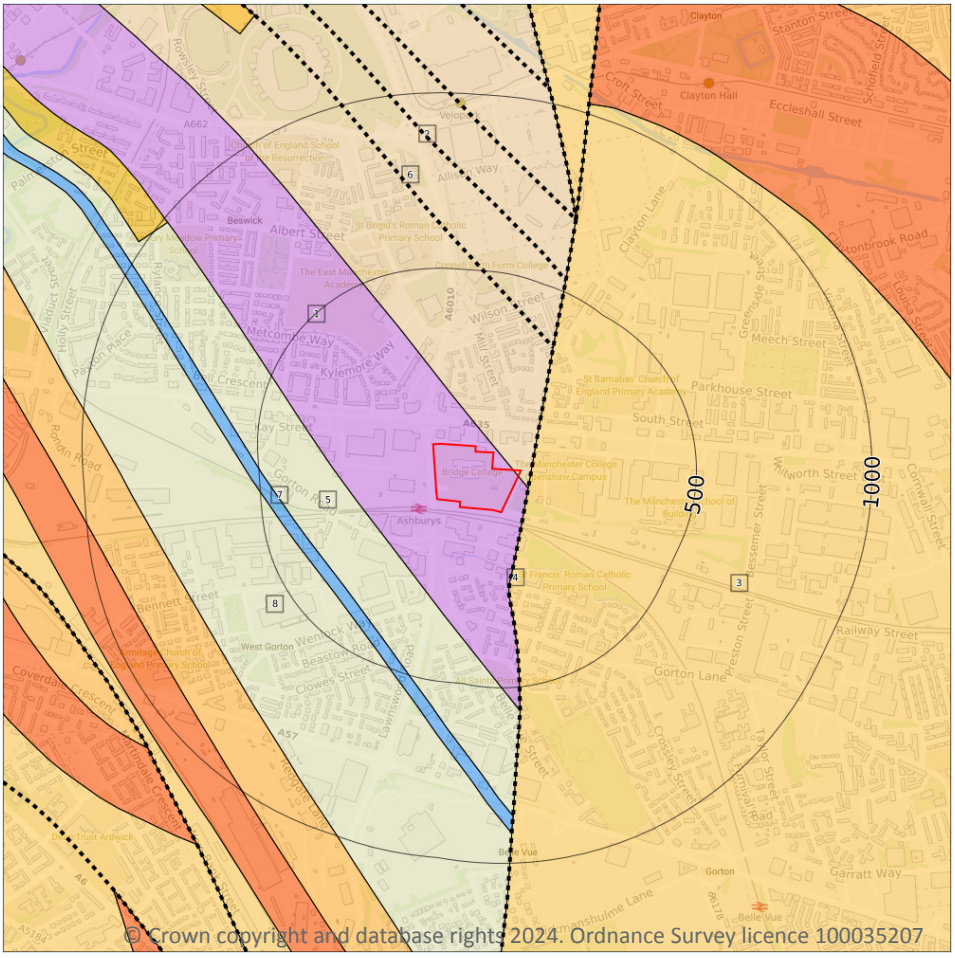
15.7 Landslip permeability (50k)

Records within 50m	0

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (50k)

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

15.8 Bedrock geology (50k)

Records within 500m **6**

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 127 >**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**ETM-STMD**	**ETRURIA FORMATION - SANDSTONE AND MUDSTONE**	**WESTPHALIAN**
2	**On site**	**PUCM-MDSS**	**PENNINE UPPER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE**	**WESTPHALIAN**
3	29m E	CHES-SDST	CHESTER FORMATION - SANDSTONE	OLENEKIAN

ID	Location	LEX Code	Description	Rock age
5	185m SW	HA-MDSS	HALESOWEN FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
7	361m SW	GML-LMST	GREAT MINE LIMESTONE - LIMESTONE	WESTPHALIAN
8	395m SW	HA-MDSS	HALESOWEN FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m **3**

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Fracture**	**Moderate**	**Low**
On site	**Fracture**	**Moderate**	**Low**
29m E	Mixed	High	Moderate

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m **2**

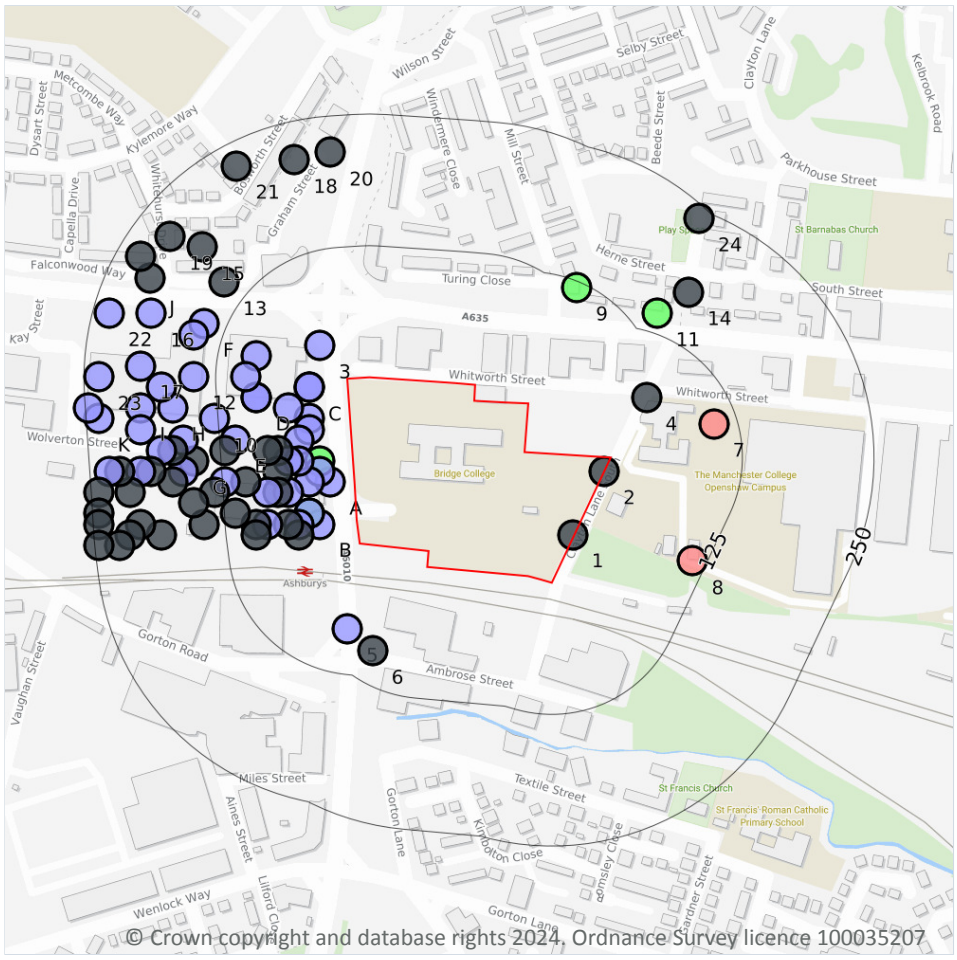
Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 127 >**

ID	Location	Category	Description
4	29m E	FAULT	Fault, inferred
6	344m NE	ROCK	Coal seam, inferred

This data is sourced from the British Geological Survey.

16 Boreholes



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16.1 BGS Boreholes

Records within 250m	92

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 129 >**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	**On site**	**387420 397290**	**THE U INTERCEPTOR SEWER OPENSHAW 6**	**-**	**Y**	**N/A**
2	**On site**	**387450 397350**	**THE U INTERCEPTOR SEWER OPENSHAW 5**	**-**	**Y**	**N/A**
A	23m W	387190 397340	MANCHESTER ALUMINIUM PLANT TP4	2.7	N	936946 ↗

ID	Location	Grid reference	Name	Length	Confidential	Web link
A	31m W	387180 397360	MANCHESTER ALUMINIUM PLANT 3	10.1	N	936941 ↗
A	32m W	387180 397350	ARDWICK EAST POTTERY LANE TP6	2.5	N	936967 ↗
B	35m W	387180 397300	ARDWICK EAST POTTERY LANE TP9	2.8	N	936970 ↗
C	37m NW	387170 397430	ARDWICK EAST POTTERY LANE TP29	2.8	N	936990 ↗
C	37m NW	387170 397430	ARDWICK EAST POTTERY LANE 7	6.0	N	936957 ↗
A	39m W	387170 397400	ARDWICK EAST POTTERY LANE TP14	2.9	N	936975 ↗
A	39m W	387170 397390	MANCHESTER ALUMINIUM PLANT 4	9.6	N	936942 ↗
3	41m NW	387180 397470	ARDWICK EAST POTTERY LANE TP15	2.2	N	936976 ↗
A	43m W	387170 397340	MANCHESTER ALUMINIUM PLANT TP3	3.0	N	936945 ↗
B	45m W	387170 397310	MANCHESTER ALUMINIUM PLANT 1	11.8	N	936939 ↗
B	45m W	387170 397310	MANCHESTER ALUMINIUM PLANT TP1	3.5	N	936943 ↗
A	50m W	387160 397380	MANCHESTER ALUMINIUM PLANT TP6	0.9	N	936948 ↗
A	51m W	387160 397360	MANCHESTER ALUMINIUM PLANT TP5	2.8	N	936947 ↗
B	55m W	387160 397300	ARDWICK EAST POTTERY LANE 8	6.2	N	936958 ↗
B	56m W	387160 397290	NPC ARDWICK TP 133	-	Y	N/A
A	58m W	387150 397410	ARDWICK EAST POTTERY LANE TP13	2.8	N	936974 ↗
A	61m W	387150 397360	MANCHESTER ALUMINIUM PLANT 2	10.0	N	936940 ↗
A	63m W	387150 397330	MANCHESTER ALUMINIUM PLANT TP2	3.1	N	936944 ↗
B	65m W	387150 397300	NPC ARDWICK 10	-	Y	N/A
4	66m NE	387490 397420	THE U INTERCEPTOR SEWER OPENSHAW 4	-	Y	N/A
A	71m W	387140 397370	NPC ARDWICK 4	-	Y	N/A
A	72m W	387140 397350	FORMER ARDWICK EAST GOODS DEPOT 25	-	Y	N/A
A	73m W	387140 397330	NPC ARDWICK TP 130	-	Y	N/A
A	81m W	387130 397370	NPC ARDWICK TP 129	-	Y	N/A
5	81m SW	387206 397201	MANCHESTER CORP. POTTERY LANE	7.16	N	936447 ↗
A	83m W	387130 397330	ARDWICK EAST POTTERY LANE TP5	3.0	N	936968 ↗
B	85m W	387130 397300	ARDWICK EAST POTTERY LANE TP7	2.5	N	936969 ↗
D	87m W	387120 397420	ARDWICK EAST POTTERY LANE TP10	2.8	N	936971 ↗

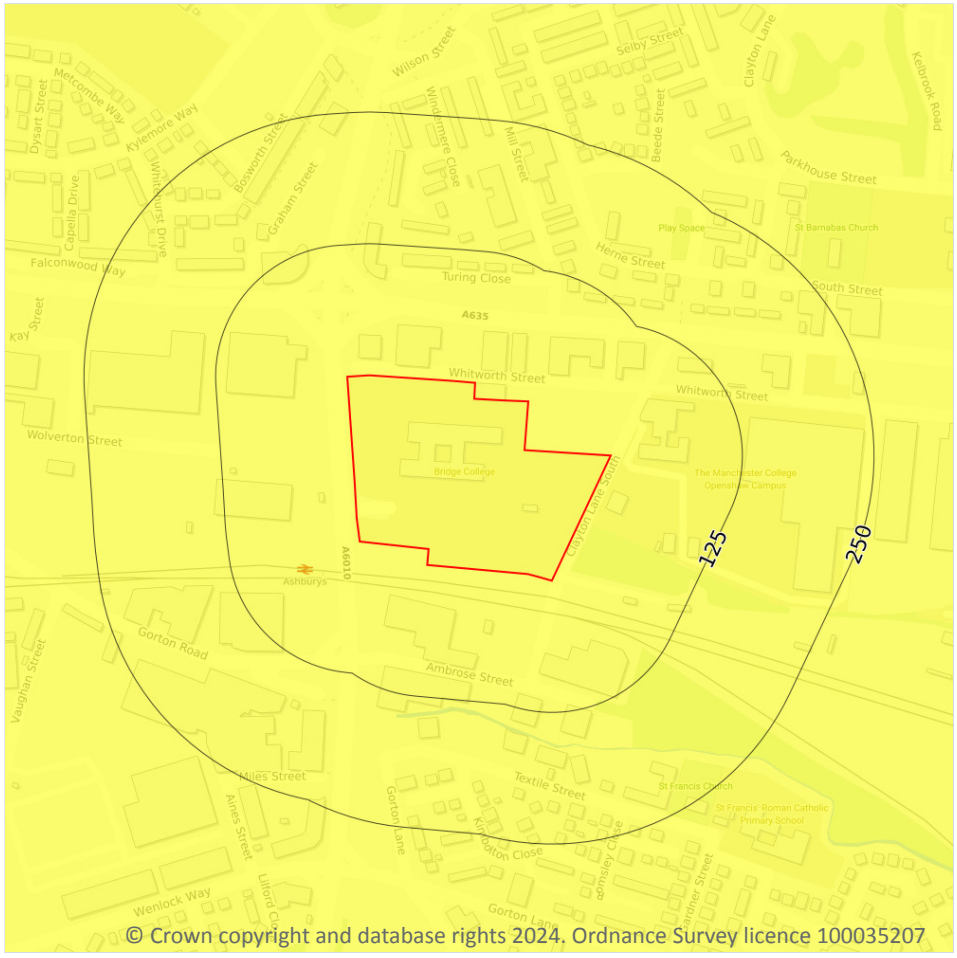
ID	Location	Grid reference	Name	Length	Confidential	Web link
D	87m W	387120 397420	ARDWICK EAST POTTERY LANE 10	6.1	N	936960 ↗
D	89m NW	387120 397460	ARDWICK EAST POTTERY LANE TP16	2.5	N	936977 ↗
6	95m SW	387230 397180	ASHURY'S STATION RETAINING WALL BH785 1	-	Y	N/A
B	95m W	387120 397300	NPC ARDWICK TP 131	-	Y	N/A
B	96m W	387120 397290	NPC ARDWICK TP 132	-	Y	N/A
D	96m NW	387110 397440	ARDWICK EAST POTTERY LANE TP12	2.9	N	936973 ↗
A	103m W	387110 397340	NPC ARDWICK TP 127	-	Y	N/A
7	103m E	387554 397395	SMITH'S BLEACH WORKS, OPENSHAW	135.33	N	936526 ↗
E	110m W	387100 397380	ARDWICK EAST POTTERY LANE TP28	2.8	N	936989 ↗
8	112m E	387534 397265	ARMSTRONG WHITWORTH & CO.	33.53	N	936444 ↗
B	114m W	387100 397310	NPC ARDWICK TP 128	-	Y	N/A
9	120m NE	387424 397525	MANCHESTER CORP. MILL STREET	14.94	N	936448 ↗
E	121m W	387090 397370	NPC ARDWICK TP 126	-	Y	N/A
A	123m W	387090 397340	ARDWICK EAST POTTERY LANE TP4	2.7	N	936966 ↗
10	128m W	387080 397400	ARDWICK EAST POTTERY LANE TP24	2.9	N	936985 ↗
A	133m W	387080 397330	NPC ARDWICK 6	-	Y	N/A
11	144m NE	387500 397500	MANCHESTER 5	10.05	N	937536 ↗
A	145m W	387070 397300	NPC ARDWICK TP 125	-	Y	N/A
F	146m NW	387070 397490	ARDWICK EAST POTTERY LANE TP17	2.9	N	936978 ↗
12	146m W	387060 397440	ARDWICK EAST POTTERY LANE TP20	2.8	N	936981 ↗
13	149m NW	387089 397530	BESWICK HOUSING REGENERATION WSPJ0/2	-	Y	N/A
G	151m W	387060 397360	NPC ARDWICK TP 124	-	Y	N/A
F	152m NW	387060 397480	ARDWICK EAST POTTERY LANE 12	6.0	N	936962 ↗
A	154m W	387060 397320	NPC ARDWICK TP 123	-	Y	N/A
G	160m W	387050 397380	ARDWICK EAST POTTERY LANE TP26	2.8	N	936987 ↗
G	162m W	387050 397350	ARDWICK EAST POTTERY LANE TP3	2.8	N	936965 ↗
H	168m W	387040 397410	ARDWICK EAST POTTERY LANE TP23	2.9	N	936984 ↗
G	170m W	387040 397370	FORMER ARDWICK EAST GOODS DEPOT 24	-	Y	N/A

ID	Location	Grid reference	Name	Length	Confidential	Web link
G	173m W	387040 397340	NPC ARDWICK TP 122	-	Y	N/A
14	173m NE	387530 397520	THE U INTERCEPTOR SEWER OPENSHAW 3A	-	Y	N/A
H	176m W	387030 397430	ARDWICK EAST POTTERY LANE 5	6.0	N	936955 ↗
G	180m W	387030 397370	ARDWICK EAST POTTERY LANE 9	6.0	N	936959 ↗
G	186m W	387030 397290	NPC ARDWICK 9	-	Y	N/A
15	186m NW	387068 397563	BESWICK HOUSING REGENERATION TP J1/3	-	Y	N/A
G	192m W	387020 397350	NPC ARDWICK 3	-	Y	N/A
16	196m NW	387020 397500	ARDWICK EAST POTTERY LANE TP18	2.8	N	936979 ↗
17	196m W	387010 397450	ARDWICK EAST POTTERY LANE TP21	2.8	N	936982 ↗
I	198m W	387010 397410	ARDWICK EAST POTTERY LANE TP11	2.9	N	936972 ↗
I	199m W	387010 397390	ARDWICK EAST POTTERY LANE TP25	2.8	N	936986 ↗
G	202m W	387010 397350	ARDWICK EAST POTTERY LANE TP2	2.5	N	936964 ↗
G	205m W	387010 397300	FORMER ARDWICK EAST GOODS DEPOT 23B	-	Y	N/A
J	210m NW	387019 397534	BESWICK HOUSING REGENERATION TP J0/1	-	Y	N/A
G	213m W	387000 397330	NPC ARDWICK TP 120	-	Y	N/A
18	214m NW	387156 397646	BESWICK HOUSING REGENERATION WSPK1/2	-	Y	N/A
G	215m W	387000 397290	NPC ARDWICK TP 121	-	Y	N/A
19	216m NW	387038 397573	BESWICK HOUSING REGENERATION TP J1/2	-	Y	N/A
20	216m N	387190 397653	BESWICK HOUSING REGENERATION K1/3	-	Y	N/A
G	222m W	386990 397350	NPC ARDWICK TP 119	-	Y	N/A
G	226m W	386990 397280	FORMER ARDWICK EAST GOODS DEPOT 23	-	Y	N/A
21	228m NW	387101 397640	BESWICK HOUSING REGENERATION TP J1/4	-	Y	N/A
J	228m NW	387010 397554	BESWICK HOUSING REGENERATION TP J1/1	-	Y	N/A
G	232m W	386980 397350	ARDWICK EAST POTTERY LANE TP1	2.8	N	936963 ↗
22	234m NW	386980 397500	ARDWICK EAST POTTERY LANE TP19	3.2	N	936980 ↗
23	236m W	386970 397440	ARDWICK EAST POTTERY LANE TP22	2.3	N	936983 ↗
K	238m W	386970 397400	ARDWICK EAST POTTERY LANE 4	6.0	N	936954 ↗
24	239m NE	387540 397590	THE U INTERCEPTOR SEWER OPENSHAW 2	-	Y	N/A

ID	Location	Grid reference	Name	Length	Confidential	Web link
G	243m W	386970 397330	NPC ARDWICK TP 116	-	Y	N/A
G	244m W	386970 397310	FORMER ARDWICK EAST GOODS DEPOT 23A	-	Y	N/A
G	245m W	386970 397300	NPC ARDWICK TP 117	-	Y	N/A
G	246m W	386970 397280	NPC ARDWICK TP 118	-	Y	N/A
K	247m W	386960 397410	ARDWICK EAST POTTERY LANE TP27	3.0	N	936988 ↗

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

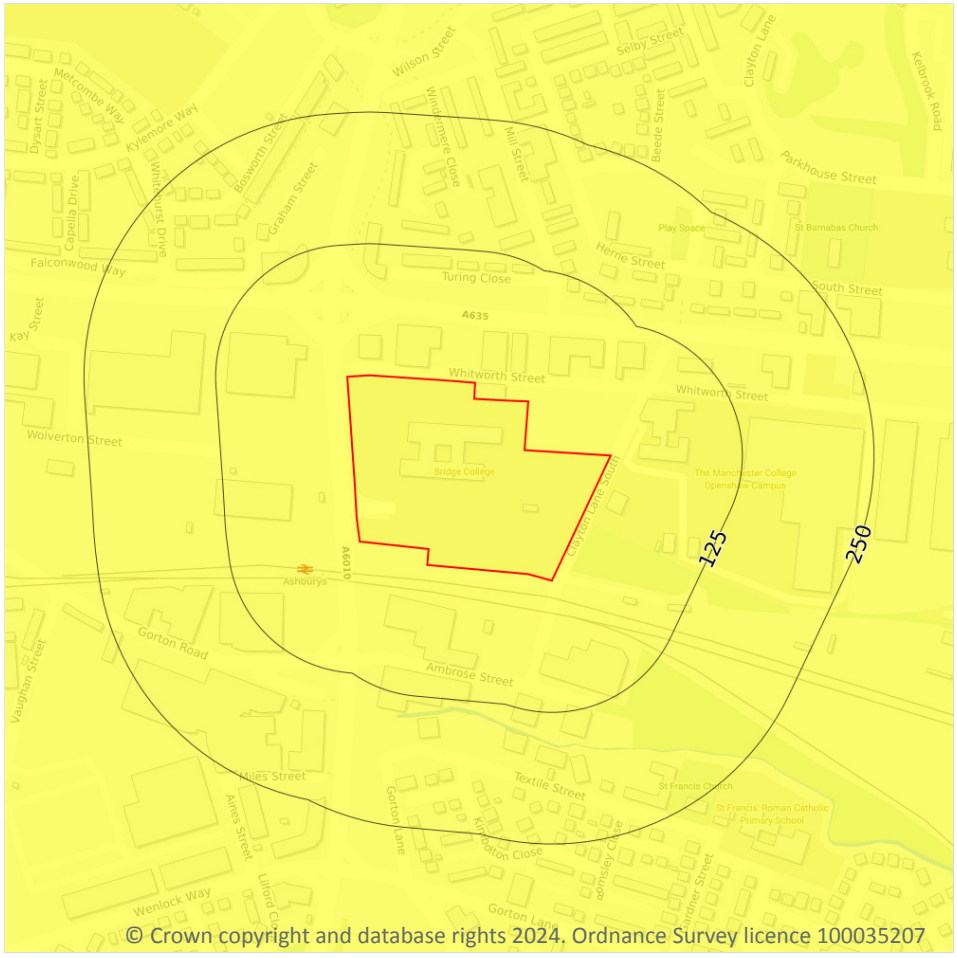
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and local drainage).

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 134 >**

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



Site Outline

Search buffers in metres (m)

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

17.2 Running sands

Records within 50m	1

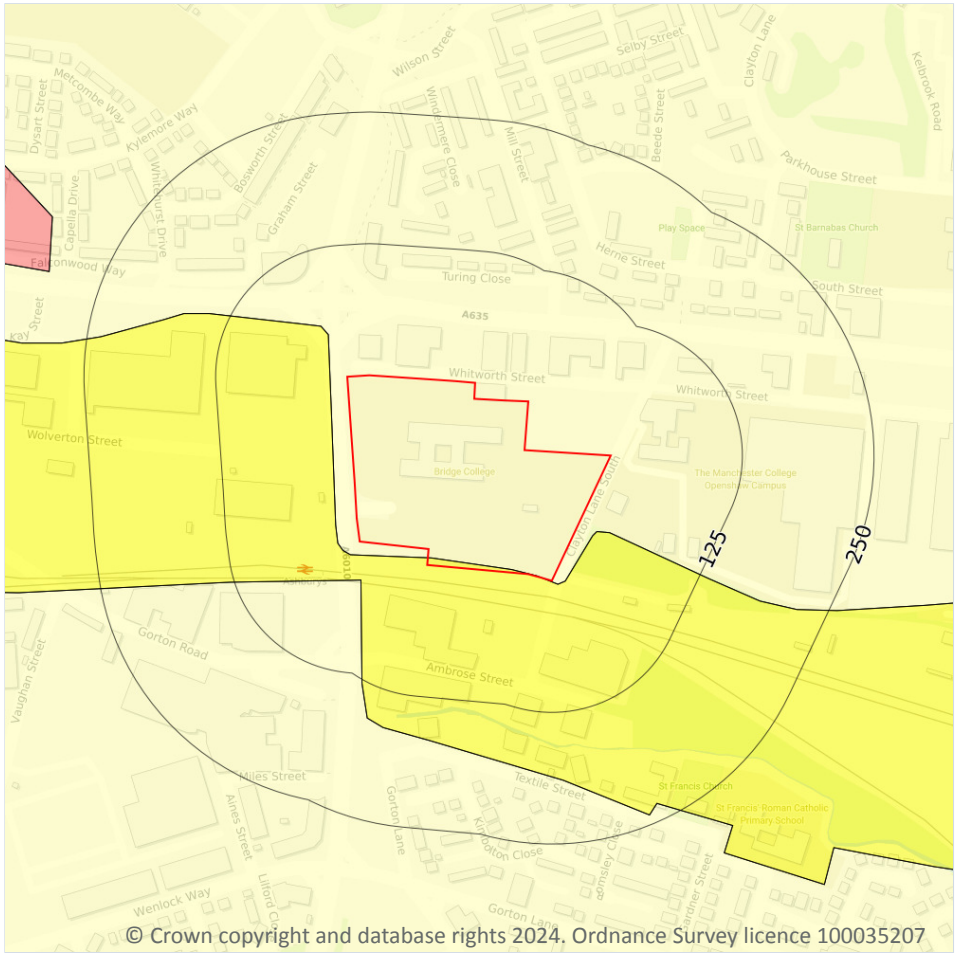
The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

Features are displayed on the Natural ground subsidence - Running sands map on **page 135 >**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



Site Outline

Search buffers in metres (m)

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

17.3 Compressible deposits

Records within 50m	2

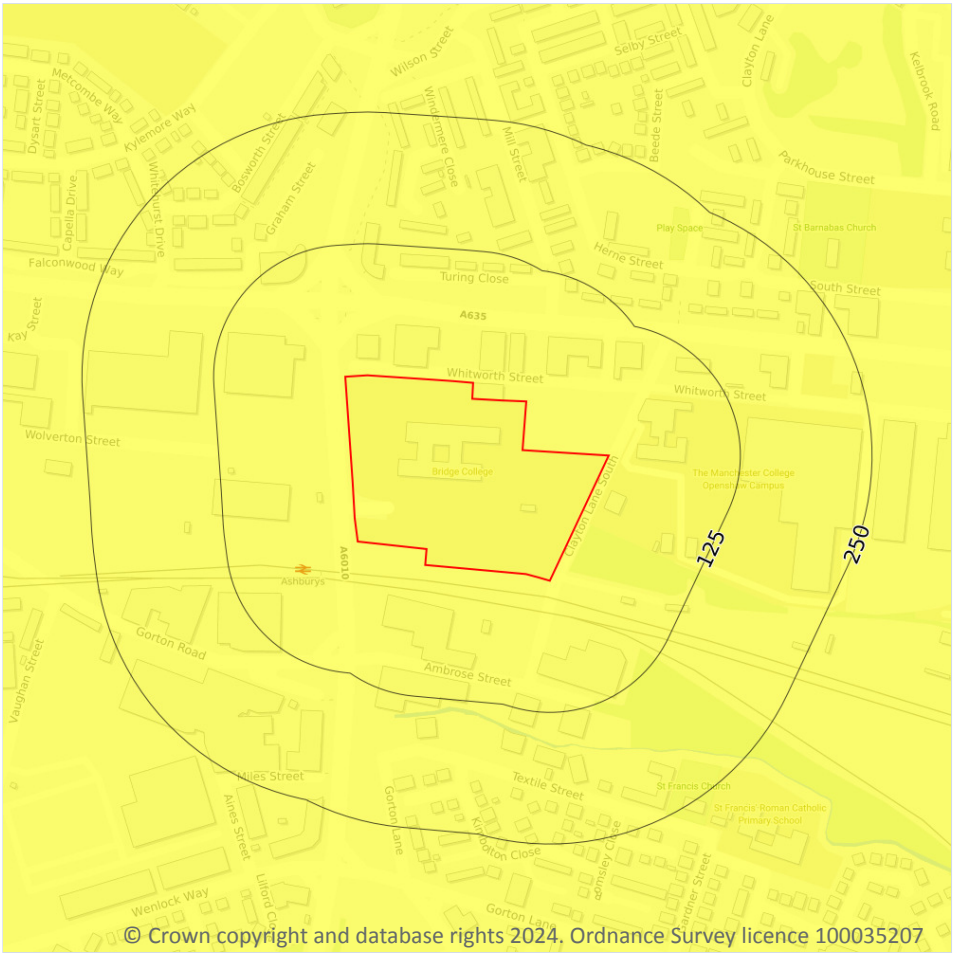
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 136 >**

Location	Hazard rating	Details
On site	**Negligible**	**Compressible strata are not thought to occur.**
On site	**Very low**	**Compressibility and uneven settlement problems are not likely to be significant on the site for most land uses.**

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

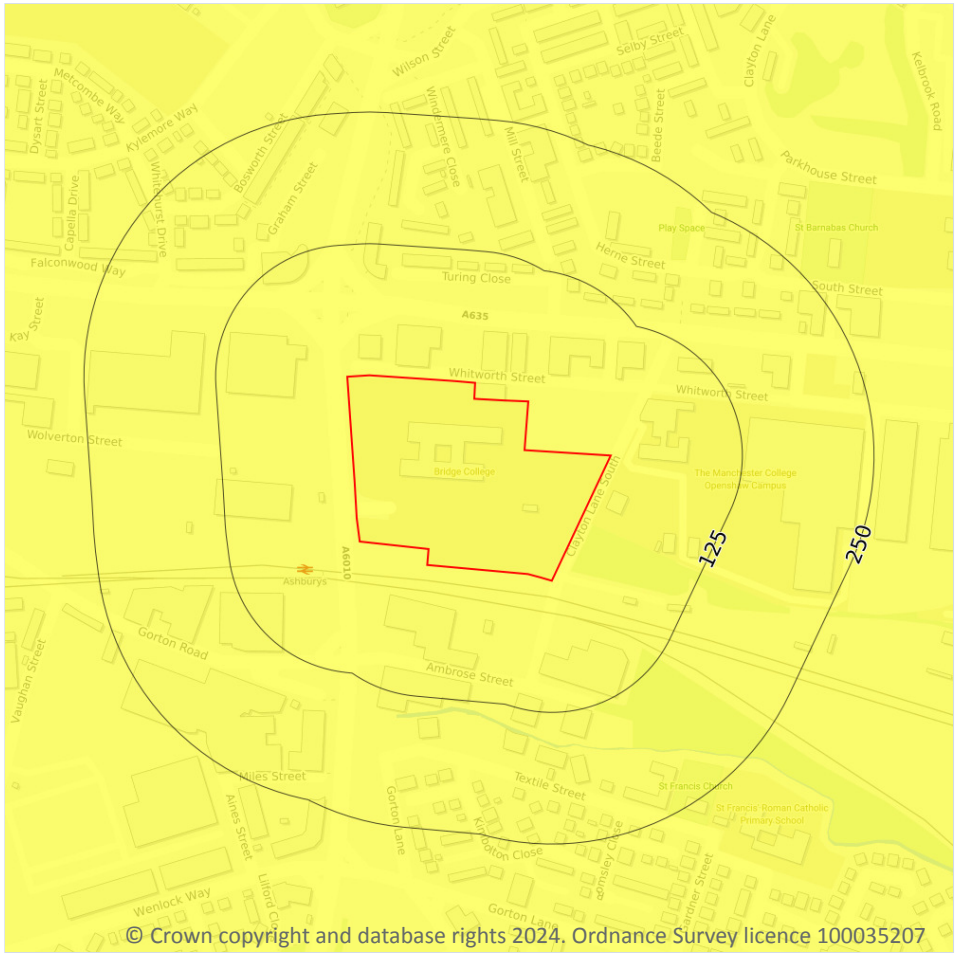
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 138 >**

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

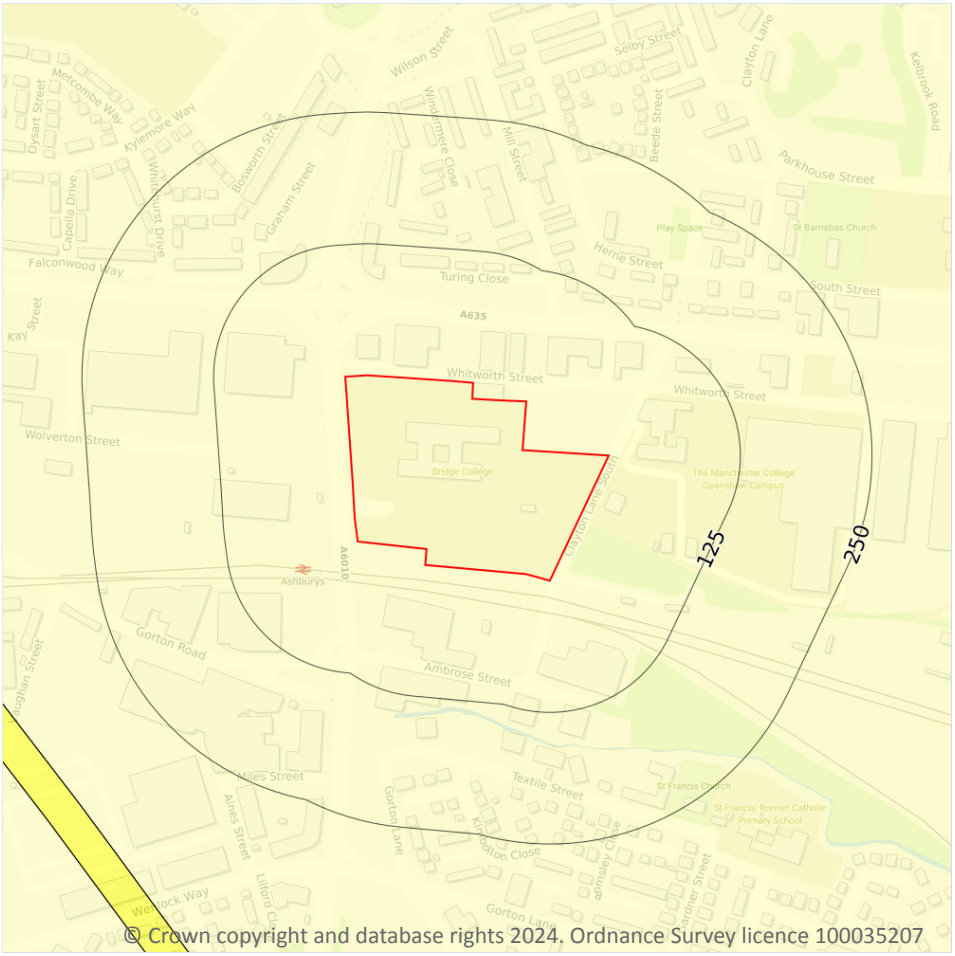
The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on **page 139 >**

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

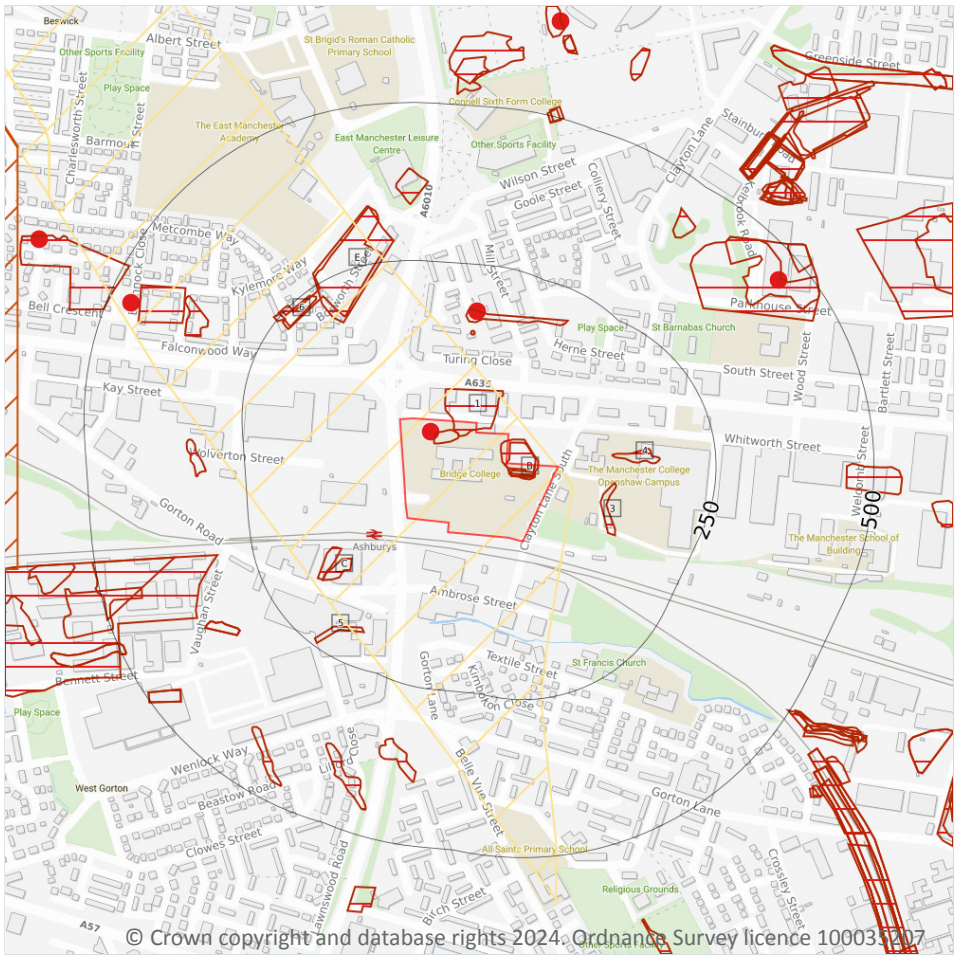
The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 140 >**

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	4

BritPits (an abbreviation of British Pits) is a database maintained by the British Geological Survey of currently active and closed surface and underground mineral workings. Details of major mineral handling sites, such as wharfs and rail depots are also held in the database.

Features are displayed on the Mining and ground workings map on **page 142 >**

ID	Location	Details	Description
A	**On site**	**Name: Gorton Fire Brick Works** **Address: Gorton, MANCHESTER, Lancashire** **Commodity: Fireclay** **Status: Ceased**	**Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site** **Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority**
D	175m N	Name: Steels Buildings Clay Pit Address: Ardwick, MANCHESTER, Lancashire Commodity: Clay & Shale Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
H	457m NE	Name: North Street Brick Works Address: Openshaw, MANCHESTER, Lancashire Commodity: Clay & Shale Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
I	465m NW	Name: Beswick Brick Field Address: Beswick, MANCHESTER, Lancashire Commodity: Clay & Shale Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m **16**

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 142 >**

ID	Location	Land Use	Year of mapping	Mapping scale
1	**On site**	**Fire Brick Works**	**1848**	**1:10560**
A	**On site**	**Pond**	**1848**	**1:10560**
B	**On site**	**Reservoir**	**1915**	**1:10560**

ID	Location	Land Use	Year of mapping	Mapping scale
B	**On site**	**Pond**	**1905**	**1:10560**
B	**On site**	**Pond**	**1890**	**1:10560**
B	**On site**	**Reservoir**	**1923**	**1:10560**
3	84m E	Refuse Heap	1956	1:10560
4	88m E	Pond	1848	1:10560
C	109m SW	Ponds	1890	1:10560
C	115m SW	Unspecified Pit	1905	1:10560
D	139m N	Clay Pit	1848	1:10560
D	159m N	Pond	1848	1:10560
E	177m NW	Reservoirs	1890	1:10560
E	185m NW	Ponds	1848	1:10560
5	188m SW	Pond	1956	1:10560
6	227m NW	Ponds	1890	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.3 Underground workings

Records within 1000m	**5**

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 142 >**

ID	Location	Land Use	Year of mapping	Mapping scale
-	963m N	Colliery	1921	1:10560
-	963m N	Colliery	1906	1:10560
-	963m N	Colliery	1923	1:10560
-	991m N	Unspecified Disused Shafts	1985	1:10000
-	998m N	Unspecified Shafts	1981	1:10000

This is 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	5

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 142 >**

ID	Location	Name	Commodity	Class	Likelihood
2	**On site**	**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.**
19	555m W	Not available	Building stone (zone of influence)	NA	Zone of influence only
23	605m W	Ardwick	Limestone - Ardwick	D	Underground mining is considered likely to have occurred within or close to the area. The location, extent and nature of mining should be considered in any site investigation. Potential for difficult ground conditions should be considered.
U	657m NW	Not available	Building stone (zone of influence)	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.

ID	Location	Name	Commodity	Class	Likelihood
U	742m NW	Ardwick	Limestone - Ardwick/Vein Mineral	D	Underground mining is considered likely to have occurred within or close to the area. The location, extent and nature of mining should be considered in any site investigation. Potential for difficult ground conditions should be considered.

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	**3**

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.

Location	Mineral type
300m NW	Stone
472m NW	Stone
476m SW	Stone

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.

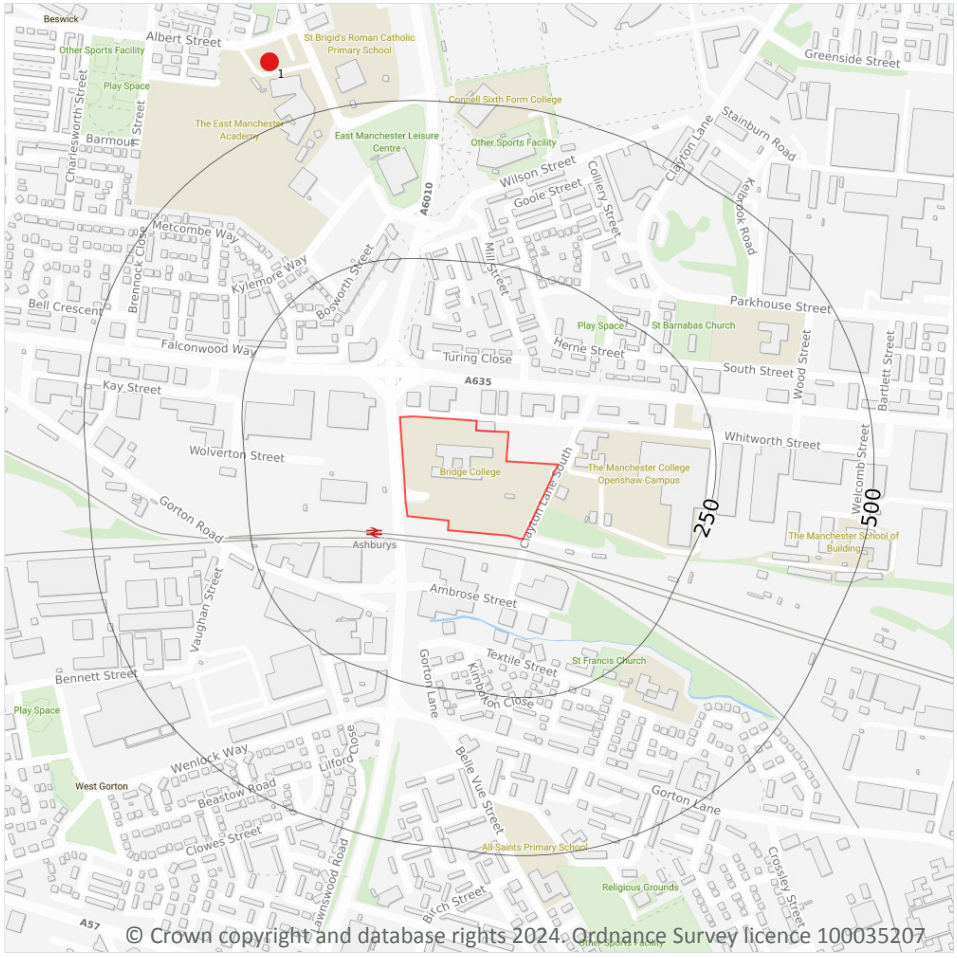
18.16 Clay mining

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



Site Outline

Search buffers in metres (m)

- Natural cavities (Area)
- Natural cavities (Point)
- Mining cavities
- Reported recent incidents
- Historical incidents
- BGS karst database (Point)
- BGS karst database (Line)
- BGS karst database (Area)

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	1

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.

Features are displayed on the Ground cavities and sinkholes map on **page 149 >**

ID	Location	Mine Address	Mineral	Data source	Publisher
1	599m NW	Ardwick, Greater Manchester	Bath Stone, Cornstone, Limestone	CATALOGUE OF PLANS OF ABANDONED MINES (NON COAL)	-

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

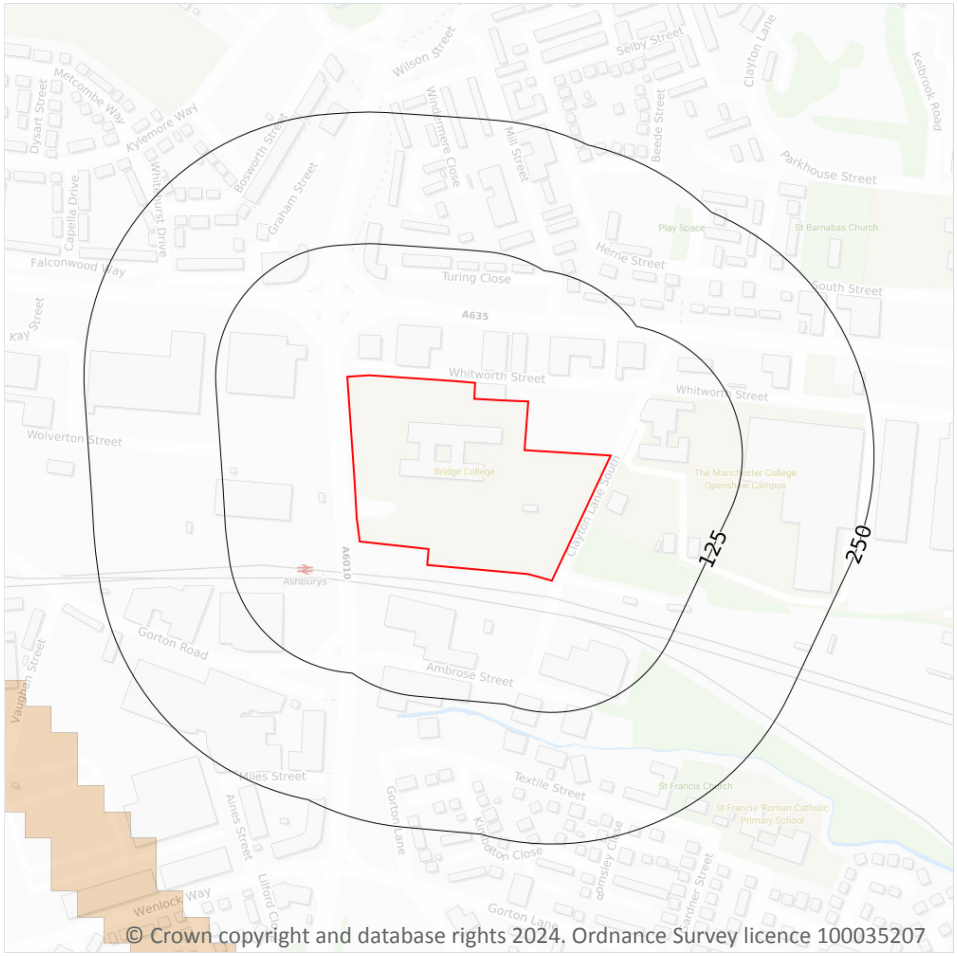
This is a comprehensive database of national karst information gathered from a wide range of sources. BGS have collected data on five main types of karst feature: Sinkholes, stream links, caves, springs, and incidences of associated damage to buildings, roads, bridges and other engineered works.

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



Site Outline

Search buffers in metres (m)

- Greater than 30%
- Between 10% and 30%
- Between 5% and 10%
- Between 3% and 5%
- Between 1% and 3%
- Less than 1%

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 152 >**

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 **4**

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

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	**15 - 25 mg/kg**	**No data**	**100 - 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**
29m E	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
44m E	15 - 25 mg/kg	No data	200 - 300 mg/kg	120 - 240 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m **15**

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km^2).

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	**15**	**2.6**	**39**	**27**	**0.3**	**64**	**19**	**30**	**42**
On site	**15**	**2.6**	**37**	**25**	**0.3**	**62**	**18**	**30**	**52**

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	**15**	**2.6**	**38**	**26**	**0.3**	**67**	**18**	**30**	**45**
On site	**15**	**2.6**	**48**	**33**	**0.3**	**67**	**19**	**30**	**9**
On site	**15**	**2.6**	**47**	**32**	**0.3**	**65**	**19**	**31**	**10**
On site	**15**	**2.6**	**46**	**32**	**0.3**	**70**	**19**	**32**	**12**
On site	**15**	**2.6**	**46**	**32**	**0.3**	**76**	**25**	**31**	**4**
On site	**15**	**2.6**	**46**	**32**	**0.3**	**76**	**23**	**32**	**4**
6m NW	16	2.8	41	28	0.3	66	19	30	28
9m NW	15	2.6	40	27	0.3	64	19	30	33
15m W	15	2.6	41	28	0.3	65	20	30	30
22m NE	15	2.6	49	34	0.3	79	22	33	4
44m E	14	2.5	50	34	0.3	91	27	33	4
44m SE	16	2.8	42	29	0.3	78	25	31	3
44m SE	15	2.6	45	31	0.3	71	19	30	7

This data is sourced from the British Geological Survey.

21.3 BGS Measured Urban Soil Chemistry

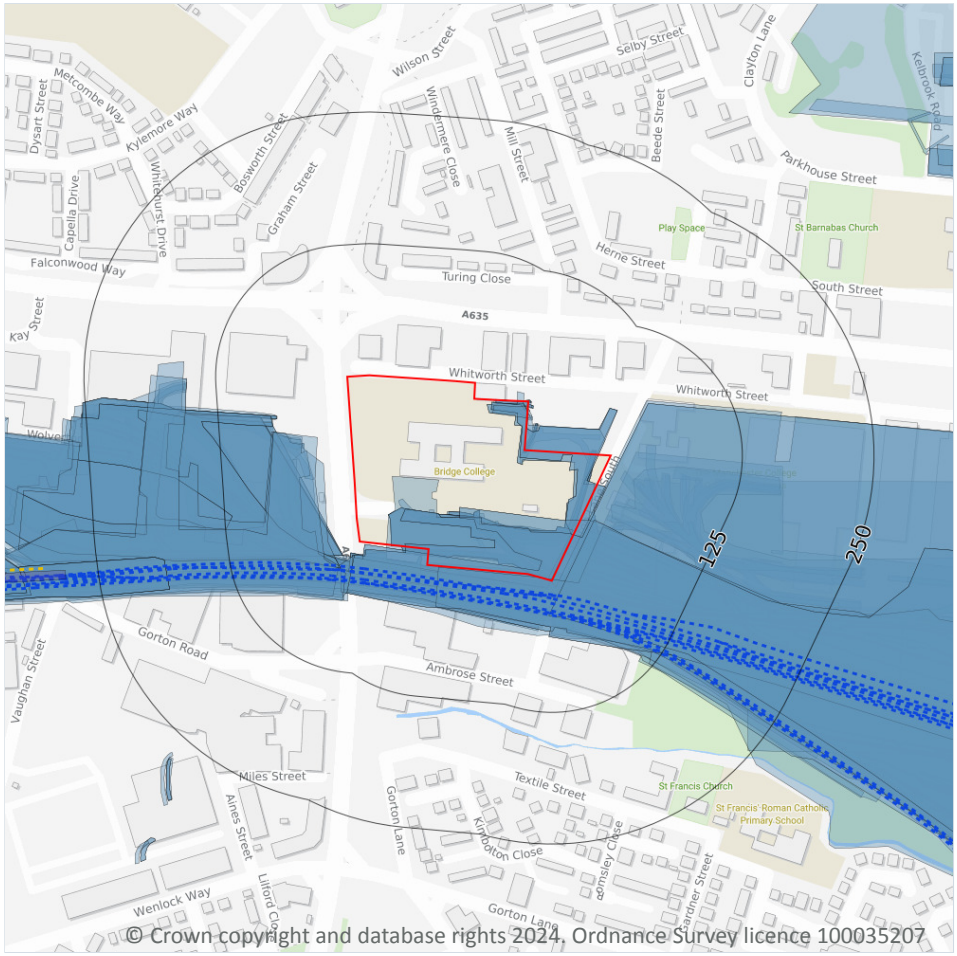
Records within 50m	**1**

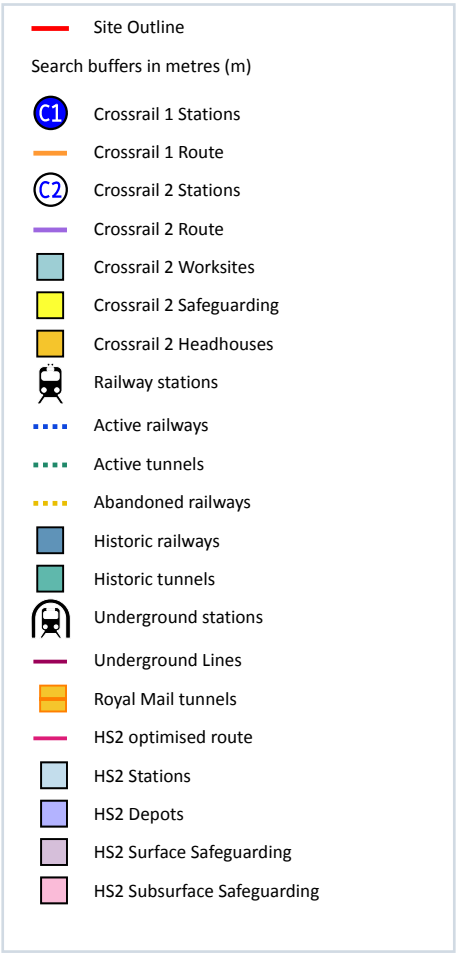
The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km^2.

Location	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Lead (mg/kg)	Tin (mg/kg)	Sample Type
On site	**14.6**	**0.7**	**62.0**	**69.7**	**29.8**	**214.5**	**12.8**	**Topsoil**

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	93

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 156 >**

Location	Land Use	Year of mapping	Mapping scale
On site	**Railway Sidings**	**1893**	**2500**
On site	**Railway Sidings**	**1908**	**2500**
On site	**Railway Sidings**	**1922**	**2500**
On site	**Railway Sidings**	**1933**	**2500**
On site	**Railway Sidings**	**1948**	**1250**
On site	**Railway Sidings**	**1957**	**1250**
On site	**Railway Sidings**	**1967**	**2500**
On site	**Railway Sidings**	**1980**	**1250**
On site	**Railway Sidings**	**1891**	**500**
On site	**Tramway Sidings**	**1948**	**1250**
On site	**Tramway Sidings**	**1891**	**500**
On site	**Railway**	**1893**	**-**
On site	**Railway Sidings**	**1938**	**10560**
On site	**Railway Sidings**	**1934**	**10560**
On site	**Railway Sidings**	**1915**	**10560**
On site	**Railway Sidings**	**1905**	**10560**
On site	**Railway Sidings**	**1890**	**10560**

Location	Land Use	Year of mapping	Mapping scale
On site	**Railway Sidings**	**1956**	**10560**
On site	**Railway Sidings**	**1985**	**10000**
On site	**Railway Sidings**	**1981**	**10000**
On site	**Railway Sidings**	**1991**	**10000**
On site	**Railway Sidings**	**1923**	**10560**
2m S	Railway Sidings	1994	1250
2m S	Railway Sidings	1996	1250
2m S	Railway Sidings	1995	1250
2m S	Railway Sidings	1980	1250
2m S	Railway Sidings	1948	1250
2m S	Railway Sidings	1957	1250
4m S	Railway	1908	-
5m S	Railway Sidings	1990	1250
10m S	Railway Sidings	1891	500
10m S	Railway Sidings	1893	2500
12m SE	Railway Sidings	1968	10560
14m SW	Railway Sidings	1890	10560
17m S	Railway Sidings	1891	500
18m E	Railway Sidings	1893	2500
20m SW	Railway Sidings	1985	10000
20m SW	Railway Sidings	1991	10000
20m SW	Railway Sidings	1968	10560
21m SW	Railway Sidings	1956	10560
23m E	Railway Sidings	1980	1250
23m E	Railway Sidings	1948	1250
23m E	Railway Sidings	1957	1250
28m SW	Railway Sidings	1915	10560
28m SW	Railway Sidings	1938	10560

Location	Land Use	Year of mapping	Mapping scale
28m SW	Railway Sidings	1934	10560
29m SW	Railway Sidings	1891	500
30m SW	Railway Sidings	1905	10560
31m E	Railway Sidings	1891	500
32m W	Railway Sidings	1923	10560
38m W	Railway Sidings	1922	2500
80m E	Railway Sidings	1980	1250
102m SE	Railway Sidings	1996	1250
102m SE	Railway Sidings	1991	1250
136m SE	Railway Sidings	1949	1250
136m SE	Railway Sidings	1963	1250
137m SE	Railway Sidings	1891	500
141m SE	Railway Sidings	1933	2500
142m SE	Railway Sidings	1893	2500
157m SE	Railway Sidings	1891	500
170m E	Tramway Sidings	1891	500
173m E	Railway	1908	-
174m W	Tramway Sidings	1891	500
177m E	Tramway Sidings	1891	500
186m W	Railway Sidings	1938	10560
186m W	Railway Sidings	1934	10560
186m W	Railway Sidings	1915	10560
206m W	Railway Sidings	1948	2500
207m W	Railway Sidings	1983	1250
208m W	Railway Sidings	1975	1250
208m W	Railway Sidings	1948	1250
208m W	Railway Sidings	1953	1250
208m W	Railway Sidings	1975	1250

Location	Land Use	Year of mapping	Mapping scale
208m W	Railway Sidings	1948	1250
208m W	Railway Sidings	1953	1250
208m W	Railway Sidings	1948	2500
209m W	Railway Sidings	1983	1250
209m W	Railway Sidings	1975	1250
209m W	Railway Sidings	1983	1250
210m W	Railway Sidings	1948	2500
211m W	Railway Sidings	1948	1250
211m W	Railway Sidings	1953	1250
214m W	Railway Sidings	1948	2500
215m W	Railway Sidings	1975	1250
215m W	Railway Sidings	1948	1250
215m W	Railway Sidings	1953	1250
215m W	Railway Sidings	1983	1250
218m W	Railway Sidings	1975	1250
218m W	Railway Sidings	1948	2500
218m W	Railway Sidings	1948	1250
218m W	Railway Sidings	1953	1250
230m SE	Railway Sidings	1949	1250
230m SE	Railway Sidings	1963	1250

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	0

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

This data is sourced from OpenStreetMap.

22.7 Railways

Records within 250m	49

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

Features are displayed on the Railway infrastructure and projects map on **page 156 >**

Location	Name	Type
12m S	Hadfield and Ardwick Junction Line	rail
13m SE	Hadfield and Ardwick Junction Line	rail
14m SE		rail
15m S	Not given	Multi Track
16m S	Hadfield and Ardwick Junction Line	rail
17m SE	Not given	Multi Track
21m S	Hadfield and Ardwick Junction Line	rail
23m S	Hadfield and Ardwick Junction Line	rail
25m S	Not given	Multi Track
25m S	Not given	Multi Track
25m SW	Hadfield and Ardwick Junction Line	rail
26m S	Hadfield and Ardwick Junction Line	rail
30m SW	Hadfield and Ardwick Junction Line	rail
31m SE	Not given	Multi Track
33m SW	Not given	Multi Track
35m SW	Hadfield and Ardwick Junction Line	rail
35m SW	Hadfield and Ardwick Junction Line	rail
38m SW	Hadfield and Ardwick Junction Line	rail

Location	Name	Type
39m SW	Hadfield and Ardwick Junction Line	rail
40m SE	Not given	Multi Track
40m SE	Not given	Multi Track
40m SW	Not given	Multi Track
42m SW	Hadfield and Ardwick Junction Line	rail
43m SE	Hope Valley Line	rail
43m SE	Hadfield and Ardwick Junction Line	rail
45m SW	Hadfield and Ardwick Junction Line	rail
49m SE	Not given	Multi Track
50m SW	Not given	Multi Track
58m SE	Hope Valley Line	rail
58m SE	Hadfield and Ardwick Junction Line	rail
67m SE	Not given	Multi Track
84m SE	Hadfield and Ardwick Junction Line	rail
84m SE	Ashbury's Siding	rail
90m SE	Not given	Multi Track
96m SE	Hadfield and Ardwick Junction Line	rail
97m SE	Hadfield and Ardwick Junction Line	rail
98m SE	Hadfield and Ardwick Junction Line	rail
99m SE	Hope Valley Line	rail
100m SE	Hope Valley Line	rail
169m SE		rail
177m W	Not given	Multi Track
179m W	Not given	Multi Track
179m W	Philips Park and Ashburys Branch	rail
179m W	Philips Park and Ashburys Branch	rail
199m W	Not given	Multi Track
199m W	Not given	Multi Track

Location	Name	Type
213m W	Philips Park and Ashburys Branch	rail
214m W	Philips Park and Ashburys Branch	rail
219m W	Not given	Multi Track

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 ↗.

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: www.groundsure.com/terms-and-conditions-april-2023/ ↗.

Appendix E

Unpublished BGS Records

British Geological Survey

BGS ID: 936967 : BGS Reference: SJ89NE550
British National Grid (27700) : 387180,397350

SJ89NW6 8718 9735 550

STRATA SURVEYS LTD.,
HOLMES CHAPEL [redacted]
MIDDLEWICH, CHESHIRE. CW10 0JB
[redacted]

Trial Pit No. : 6
Sheet No. 1 of 1.
Depth 0 to 4 metres.
Dates : 15 [redacted] 91

Job Number : 5435/23 Location : ARDWICK EAST: Pottery Lane.
Client : Manchester City Council.

Equipment and Methods
JCB 3cx Excavator.
Engineer : JCS

Description of Strata	Red. Level	Legend	Thick-ness	Depth m	Sample Depths	Sample Types	NMC	Cu	Remarks
MADE GROUND Loose brick rubble with wire and stone sets with occasional wood and rags.	55.20			0.00					
MADE GROUND Brick rubble with soily clay with oily odour and occasional wood.	54.70			0.50	0.50	D 1			
			(1.50)		1.50	D 2			
Stiff yellowish brown silty CLAY (Boulder clay).	53.20		(0.50)	2.00	2.30	P			Brick Foundation
End of Trial Pit	52.70			2.50					

Sample Types
U Undisturbed
D Disturbed
B Bulk Disturbed
W Water

In-Situ Tests
V Vane Test
Pb Plate Bearing Test
CBR In-Situ CBR Test

Pp Pocket Penetrometer

Progress / Water Levels
Borehole Depth
Water Level
Water Strike

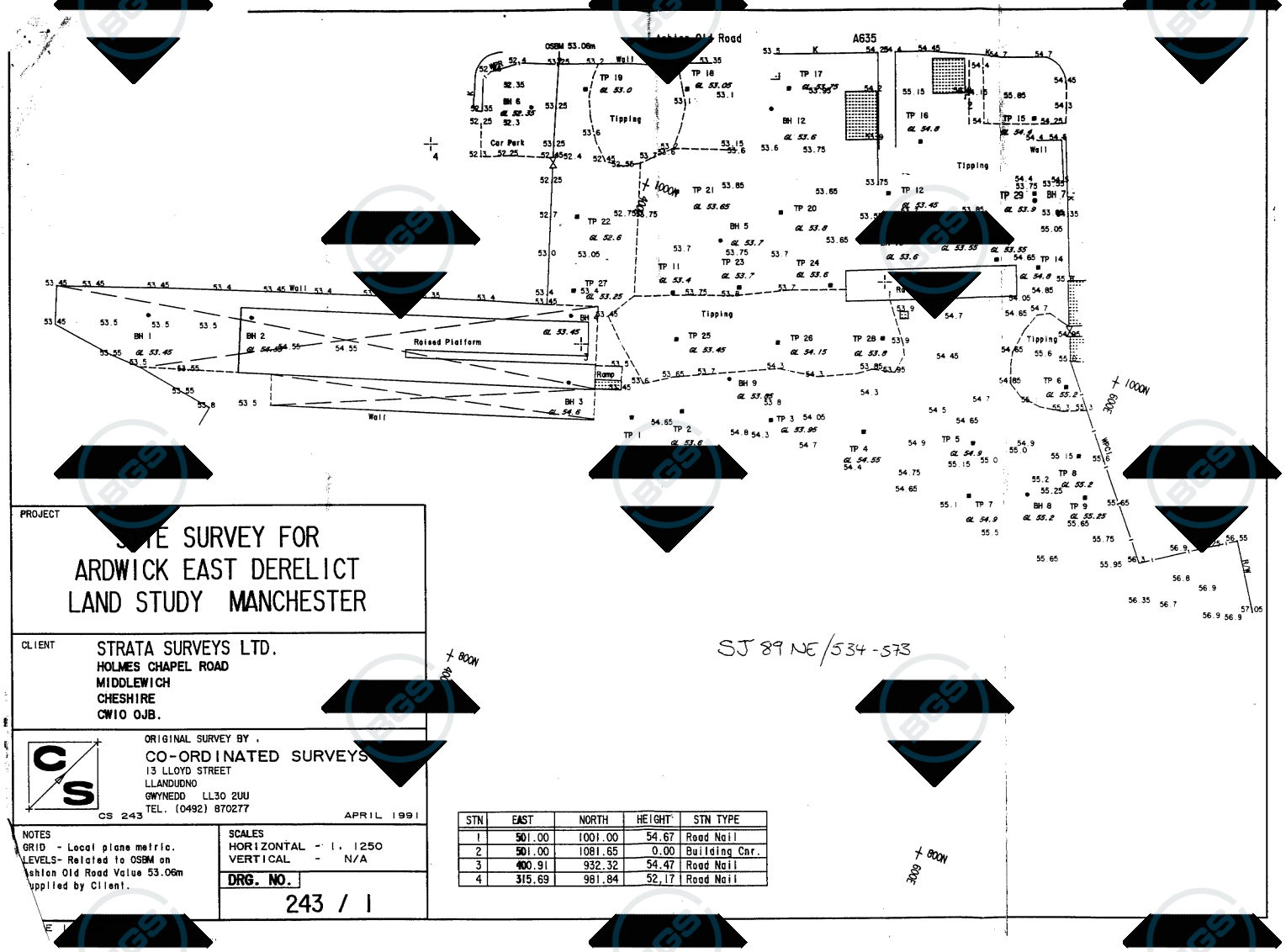
General Remarks
Trial pit terminated at 2.50m due to difficult digging through old brick foundations.
Slight seepage encountered in fill at 1.50m.
Sides of pit collapsing in the loose fill.
Brick foundation at 2.00m.

Sketch/Plan

Contact BGS: ngdc@bgs.ac.uk

British Geological Survey

BGS ID: 936967 : BGS Reference: SJ89NE550
British National Grid (27700) : 387180,397350



PROJECT

SITE SURVEY FOR ARDWICK EAST DERELICT LAND STUDY MANCHESTER

CLIENT

STRATA SURVEYS LTD.
HOLMES CHAPEL ROAD
MIDDLEWICH
CHESHIRE
CW10 0JB.

SJ 89 NE/534-573

ORIGINAL SURVEY BY .
CO-ORDINATED SURVEYS
13 LLOYD STREET
LLANDUDNO
GWYNEDD LL30 2UU
TEL. (0492) 870277
CS 243
APRIL 1991

NOTES
GRID - Local plane metric.
LEVELS- Related to OSBM on Ashton Old Road Value 53.06m supplied by Client.

SCALES
HORIZONTAL - 1. 1250
VERTICAL - N/A

DRG. NO.
243 / 1

STN	EAST	NORTH	HEIGHT	STN TYPE
1	501.00	1001.00	54.67	Road Nail
2	501.00	1081.65	0.00	Building Cnr.
3	400.91	932.32	54.47	Road Nail
4	315.69	981.84	52.17	Road Nail

Contact BGS: ngdc@bgs.ac.uk

British Geological Survey

BGS ID: 936941 : BGS Reference: SJ89NE524
British National Grid (27700) : 387180,397360

SJ89NE 8718 9736 524

STRATA SURVEYS LTD.,
Telephone: 0606 8[illegible] 836657

Borehole Number : 3
Sheet [illegible]

Job Number : 6555/3 Location : Manchester Alluminium Plant
Client : Manchester C[illegible]uncil

Dia. & Drilling Methods
150mm Diameter
light cable p[illegible]

Description of Strata	Red. Level	Legend	Thick -ness	Depth m	Sample Depths	Sample Types	N Value	Cu	ø	Water Level	Piezo -meter	Daily Prog.
MADE GROUND (200mm concrete over very loose black wet ashes cinder gravel and brick pieces)			(1.90)	0.00	1.00 - 1.45	D 1 S 1	N 4					
MADE GROUND (firm to stiff brown orange black silty sandy clay with grey fissures, patches of black ash, pockets of sand and silt, and occasional coal inclusions, brick pieces and root penetration)			(0.70)	1.90	2.00 - 2.45	U 1						
Very stiff brown silty sandy CLAY with grey fissures, gravel and coal inclusions pockets of sand and silt. Band of silt at 6.90m to 6.95m			(6.30)	2.60	2.60	D 2		92	0			
					3.00 - 3.45	U 2						
					3.60	D 3		307	0			
					4.00 - 4.45	U 3						
					4.60	D 4		206	0			
					5.00 - 5.45	U 4						
					5.60	D 5		166	0			
					6.50 - 6.95	U 5						
					7.10	D 6		177	0			
					8.30 - 8.75	U 6						
Medium dense very clayey slightly gravelly fine grained SAND. A band of Firm brown sandy silty Clay at 9.30 to			(1.20)	8.90	8.90 9.10 9.10 - 9.55	D 7 D 8 U 7		211	0			
					[illegible] 10.15	S 2	N 17	85	0			
Borehole Completed				10.10								22/7

General Remarks :
No water encountered during drilling.

Dates : 22 JUL 92
Driller : DH
Engineer:
Coordinates :

Contact BGS: ngdc@bgs.ac.uk

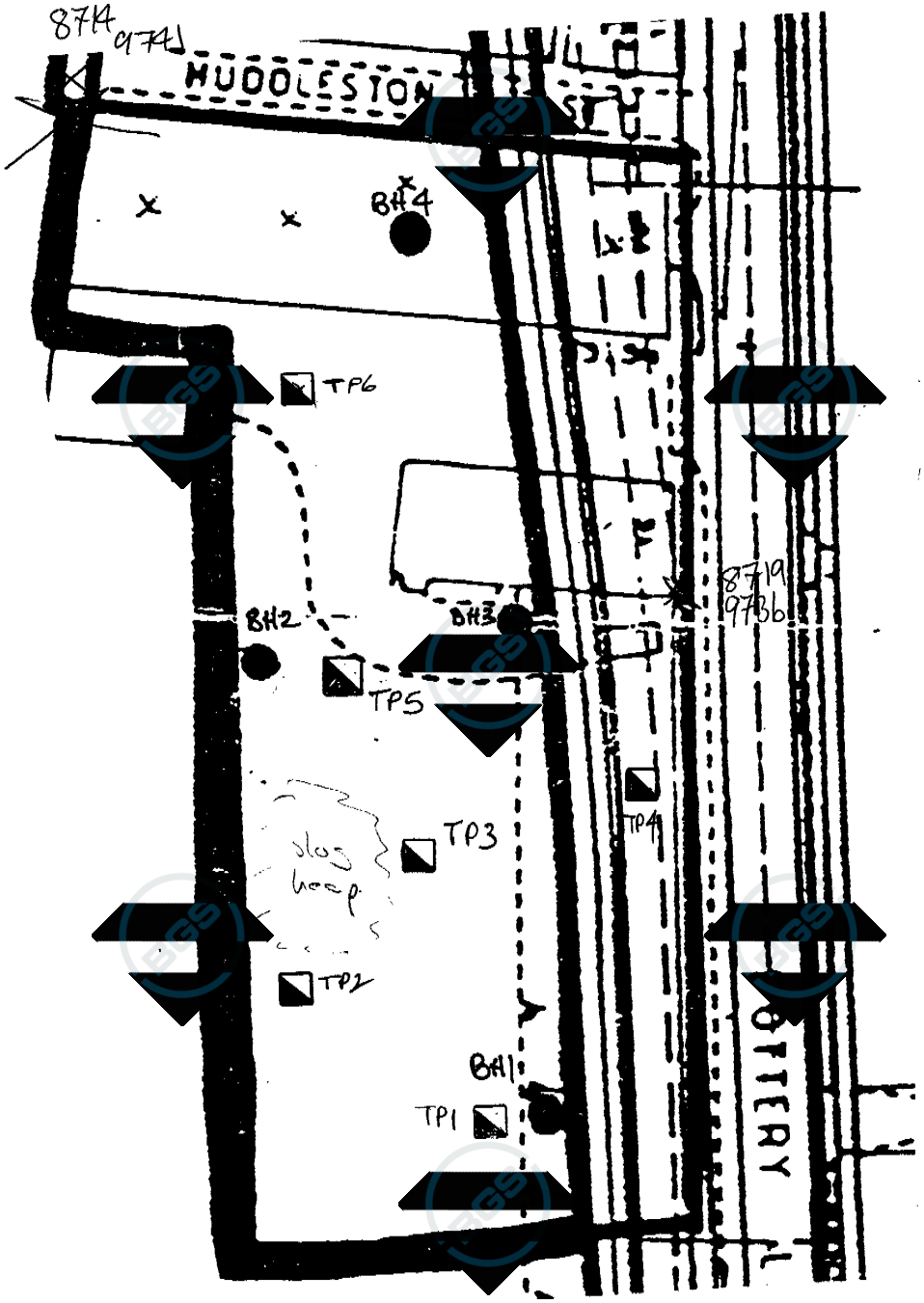
British Geological Survey

BGS ID: 936941 : BGS Reference: SJ89NE524
British National Grid (27700) : 387180,397360

MANCHESTER CITY ENGINEER

FORMER ALUMINIUM REPROCESSING [illegible] 922_531.

BOREHOLE AND TRIAL PIT LOCATIONS



STRATA SURV[illegible]D

Contact BGS: ngdc@bgs.ac.uk

British Geological Survey

BGS ID: 936976 : BGS Reference: SJ89NE559
British National Grid (27700) : 387180,397470

SJ89NE 8718 9747 559

STRATA SURVEYS LTD
HOLMES CHAPEL
MIDDLEWICH, CHESHIRE. CW10 0JB
[redacted]

Trial Pit No : 15
Sheet No. 1 Of 1.
Depth 0 to 4 metres.
Dates : 15 /91

Job Number : 5435/23 Location : ARDWICK EAST: Pottery Lane.
Client : Manchester City Council.

Equipment and Methods
JCB 3cx Excavator.
Engineer : JCS

Description of Strata	Aod. Level	Legend	Thick-ness	Depth m	Sample Depths	Sample Types	NMC	Cu	Remarks
[illegible] GROUND Loose brick, stone sets [illegible]ily clay with some organic odour in clay.	54.40			0.00					
			(0.80)						
MADE GROUND Firm grey mottled black clay with oily odour.	53.60			0.80					
	53.40		(0.20)	1.00					Brick Foundations
Firm brown greenish grey silty CLAY (Boulder clay). ...becoming stiff with depth.			(1.20)						
End of Tri[illegible]	52.20			2.20					

Sample Types
U Undisturbed
D Disturbed
B Bulk Disturbed
W Water

In-Situ Tests
V Vane Test
Pb Plate Bearing Test
CBR In-Situ CBR Test

Pp Pocket Penetrometer

Progress / Water Levels
Borehole Depth
Water Level
Water Strike

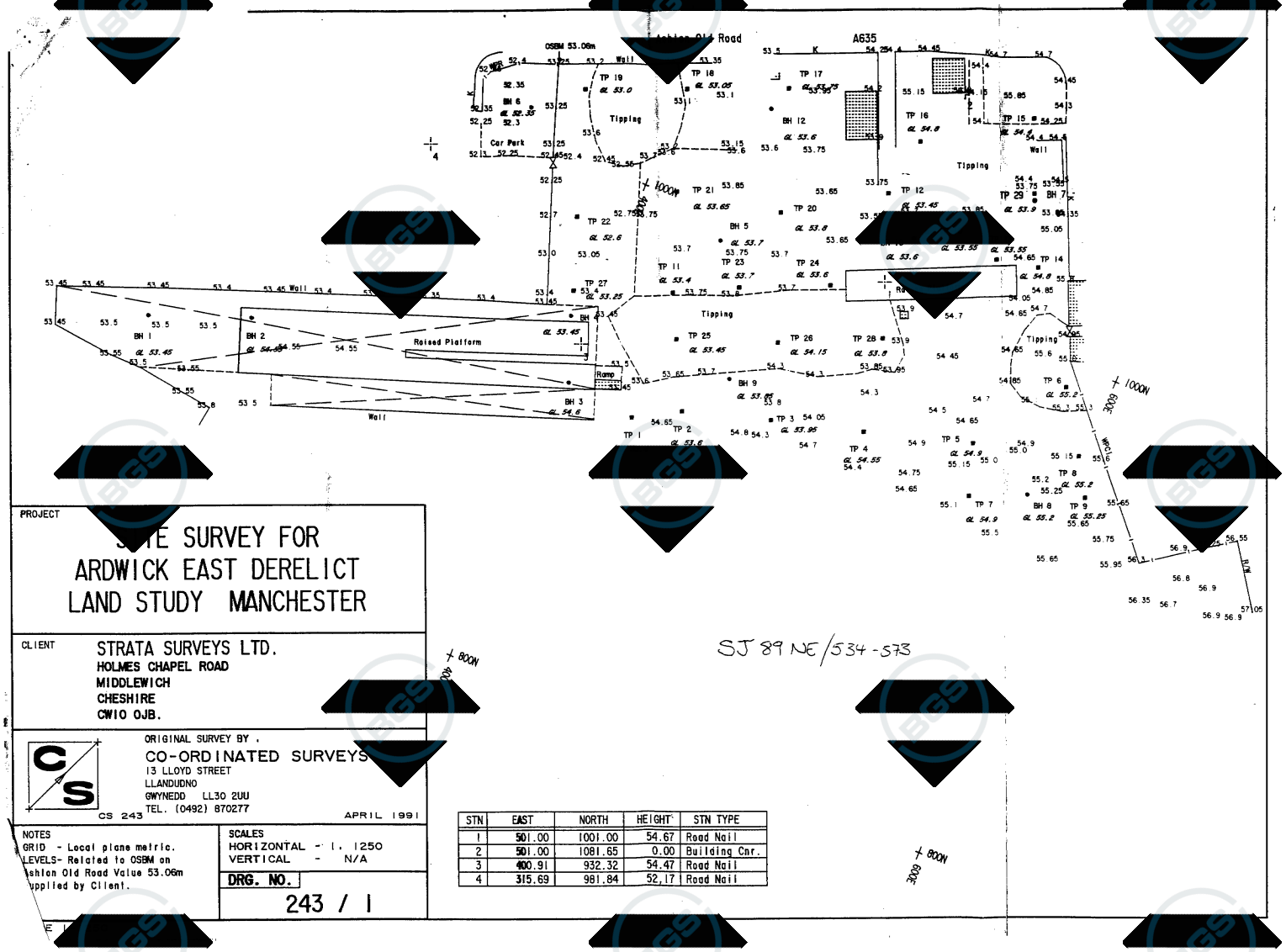
General Remarks
No water encountered.
Sides of pit collapsing in the fill.
Brick foundations at 1.10m.
Reduced levels measured from road level.

Sketch/Plan

Contact BGS: ngdc@bgs.ac.uk

British Geological Survey

BGS ID: 936976 : BGS Reference: SJ89NE559
British National Grid (27700) : 387180,397470



PROJECT

SITE SURVEY FOR ARDWICK EAST DERELICT LAND STUDY MANCHESTER

CLIENT

STRATA SURVEYS LTD.
HOLMES CHAPEL ROAD
MIDDLEWICH
CHESHIRE
CW10 0JB.

ORIGINAL SURVEY BY .

CO-ORDINATED SURVEYS
13 LLOYD STREET
LLANDUDNO
GWYNEDD LL30 2UU
TEL. (0492) 870277

CS 243

APRIL 1991

SJ 89 NE/534-573

STN	EAST	NORTH	HEIGHT	STN TYPE
1	501.00	1001.00	54.67	Road Nail
2	501.00	1081.65	0.00	Building Cnr.
3	400.91	932.32	54.47	Road Nail
4	315.69	981.84	52.17	Road Nail

NOTES
GRID - Local plane metric.
LEVELS- Related to OSBM on Ashton Old Road Value 53.06m supplied by Client.

SCALES
HORIZONTAL - 1. 1250
VERTICAL - N/A

DRG. NO.
243 / 1

Contact BGS: ngdc@bgs.ac.uk

British Geological Survey

BGS ID: 936970 : BGS Reference: SJ89NE553
British National Grid (27700) : 387180,397300

SJ89NE 8718 9730 553

STRATA SURVEYS LTD.,
HOLMES CHAPEL [redacted]
MIDDLEWICH, CHESHIRE. CW10 0JB
[redacted]

Trial Pit No. : 9
Sheet No. 1 of 1.
Depth 0 to 4 metres.
Dates : 19[redacted]81

Job Number : 5435/23 Location : ARDWICK EAST: Pottery Lane.
Client : Manchester City Council.

Equipment and Methods
JCB 3cx Excavator.
Engineer : JCS

Description of Strata	Red. Level	Legend	Thick-ness	Depth m	Sample Depths	Sample Types	NMC	Cu	Remarks
MADE GROUND Clinkers and ash.	55.25			0.00					
MADE GROUND Firm brown clay with occasional brick.	54.95		(0.50)	0.40	0.40	D 1			
MADE GROUND Black ash with occasional brick.	54.45		(0.30)	0.80	0.90	D 2			
MADE GROUND Red ash gravel.	54.15		(0.60)	1.10					
Stiff brown grey silty CLAY (Fissured Boulder clay).	53.55		(1.10)	1.70	1.80	D 3			Brick Foundation
End of Trial Pit	52.45			2.80	2.80	D 4			

Sample Types
U Undisturbed
D Disturbed
B Bulk Disturbed
W Water

In-Situ Tests
V Vane Test
Pb Plate Bearing Test
CBR In-Situ CBR Test

Pp Pocket Penetrometer

Progress / Water Levels
Borehole Depth
Water Level
Water Strike

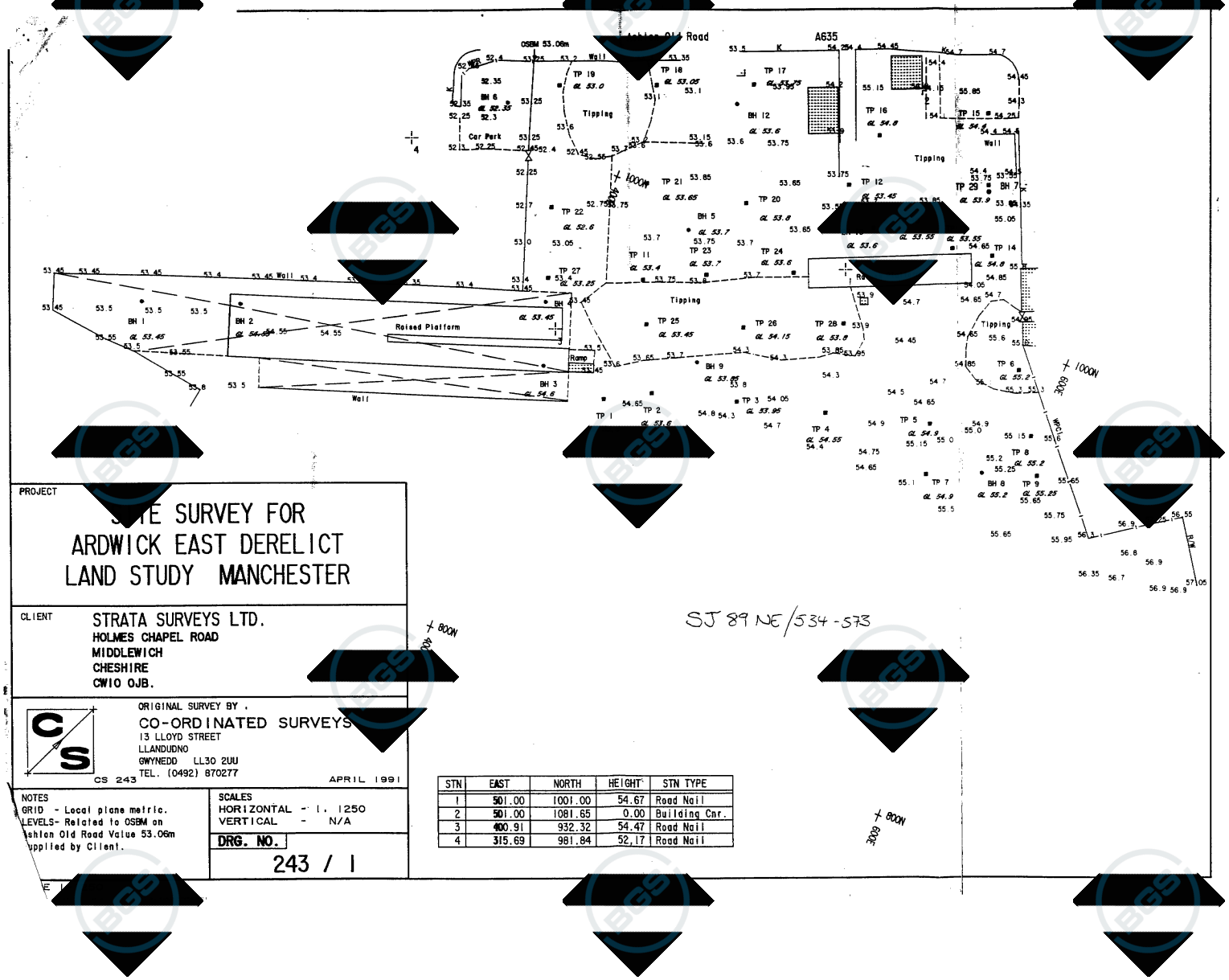
General Remarks
No water encountered.
Sides of pit stable.
Brick foundations founded at 1.70m.

Sketch/Plan

Contact BGS: ngdc@bgs.ac.uk

British Geological Survey

BGS ID: 936970 : BGS Reference: SJ89NE553
British National Grid (27700) : 387180,397300



PROJECT

SITE SURVEY FOR ARDWICK EAST DERELICT LAND STUDY MANCHESTER

CLIENT

STRATA SURVEYS LTD.
HOLMES CHAPEL ROAD
MIDDLEWICH
CHESHIRE
CW10 0JB.

ORIGINAL SURVEY BY .

CO-ORDINATED SURVEYS
13 LLOYD STREET
LLANDUDNO
GWYNEDD LL30 2UU
TEL. (0492) 870277

CS 243

APRIL 1991

SJ 89 NE/534-573

STN	EAST	NORTH	HEIGHT	STN TYPE
1	501.00	1001.00	54.67	Road Nail
2	501.00	1081.65	0.00	Building Cnr.
3	400.91	932.32	54.47	Road Nail
4	315.69	981.84	52.17	Road Nail

NOTES
GRID - Local plane metric.
LEVELS- Related to OSBM on Ashton Old Road Value 53.06m supplied by Client.

SCALES
HORIZONTAL - 1. 1250
VERTICAL - N/A

DRG. NO.
243 / 1

Contact BGS: ngdc@bgs.ac.uk

British Geological Survey

BGS ID: 936946 : BGS Reference: SJ89NE529
British National Grid (27700) : 387190,397340

SJ89NE 8719 9734 529

STRATA SURVEYS LTD.,
HOLMES CHAPEL [redacted]
MIDDLEWICH, CHESHIRE. CW10 0JB
[redacted]

Trial Pit No. : 4
Sheet
Depth 0 to 4 metres.
Dates : 30 [redacted]2

Job Number : 6555/3 Location : Manchester Alluminium Plant.
Client : Manchester City Council

Equipment and Methods
JCB 3CX Hydraulic Excavator
Engineer : GH

Description of Strata	Red. Level	Legend	Thick -ness	Depth m	Sample Depths	Sample Types	NMC	Cu	Remarks
MADE GROUND (clay ash and brick with alluminium sheeting strips)				0.00					
				0.50	[illegible]40	D 1			
MADE GROUND (ash and brick)			(0.80)						
				1.30	1.20	D 2			
MADE GROUND (compact black ash with large clinker fragments)			(1.40)						
				2.50		D 3			
MADE GROUND (large blocks of clinker)			(0.00)	2.70					Unable to penetrate through the clinker blocks with JCB 3CX bucket
End of Trial Pit									

Pp Pocket Penetrometer

Sample Types
U Undisturbed
D Disturbed
B Bulk Disturbed
W Water

Progress / Water Levels
Borehole Depth
Water Level
Water Strike

In-Situ Tests
V Vane Test
Pb Plate Bearing Test
CBR In-Situ CBR Test

General Remarks
No water encountered during excavation.
Sides unstable to 1.30m.

Sketch/Plan

Contact BGS: ngdc@bgs.ac.uk

British Geological Survey

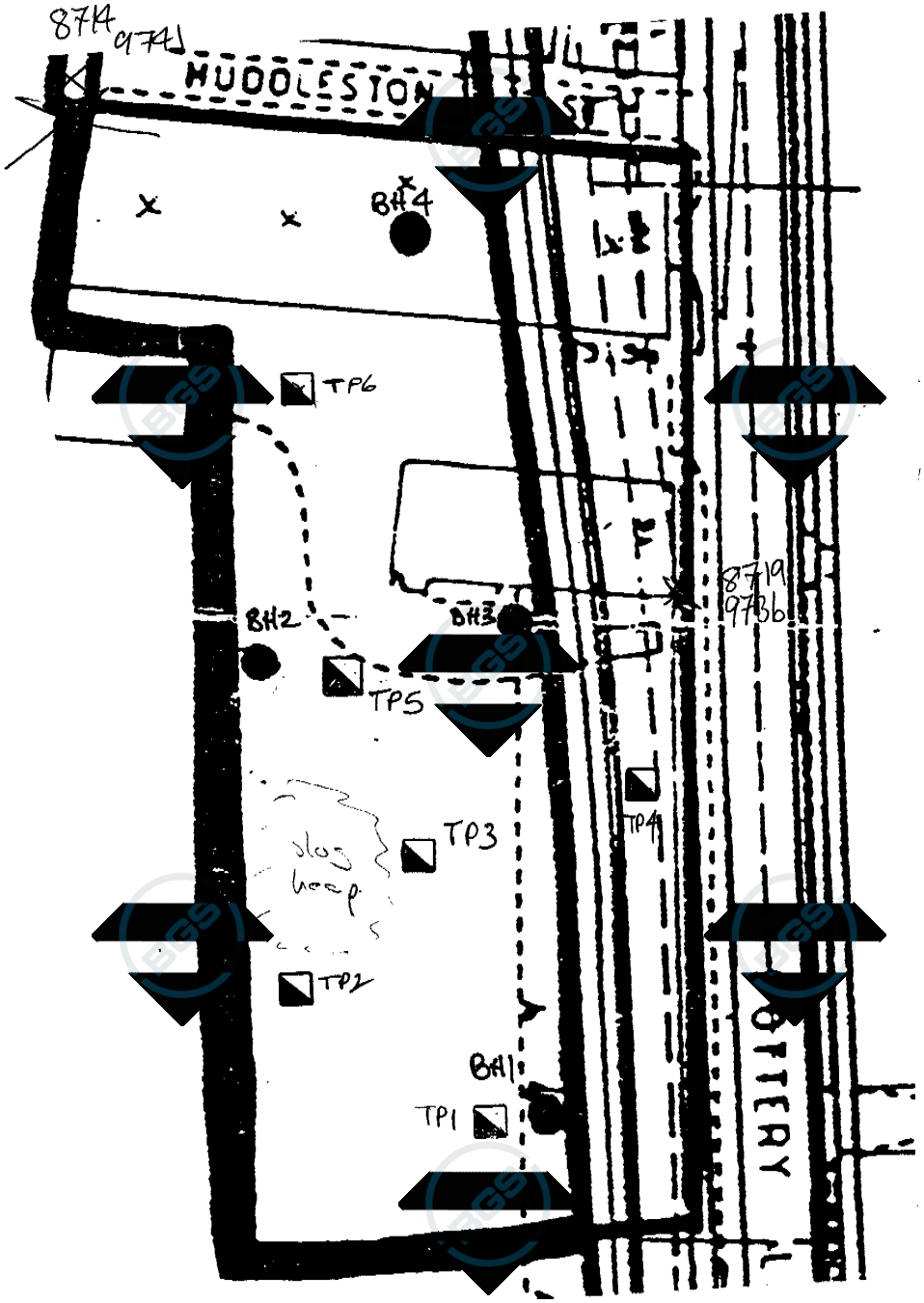
BGS ID: 936946 : BGS Reference: SJ89NE529
British National Grid (27700) : 387190,397340

MANCHESTER CITY ENGINEER

FORMER ALUMINIUM REPROCESSING

922_531.

BOREHOLE AND TRIAL PIT LOCATIONS



STRATA SURV[illegible]D

Contact BGS: ngdc@bgs.ac.uk

British Geological Survey

BGS ID: 936939 : BGS Reference: SJ89NE522
British National Grid (27700) : 387170,397310

SJ89NE 8717 9731 522

STRATA SURVEYS LTD.,
[redacted]

Borehole Number : 1
Sheet [redacted]

Job Number : 6555/3 Location : Manchester Alluminium Plant
Client : Manchester C[redacted]uncil

Dia. & Drilling Methods
150mm Diameter [redacted]
light cable p[redacted]on

Description of Strata	Red. Level	Legend	Thick -ness	Depth m	Sample Depths	Sample Types	N Value	Cu	ø	Water Level	Piezo -meter	Daily Prog.
MADE GROUND (Loose to medium dense black ashs cinders small brick pieces occasional furnace slag lumps, stones)			(4.60)	0.00	0.50 - 0.95	S 1	N 4					
					- 1.95	S 2	N 4					
					2.50 - 2.95	S 3	N 22					
					2.80	D 1						
					3.50 - 3.95	S 4	N 14					
Very stiff brown silty and sandy CLAY with grey [redacted]res gravel and coal [redacted]ons and occasional lenses of sand and silt.			(4.30)	4.60	4.60 - 5.05	U 1		260	0			
						D 2						
					6.05	U 2		220	0			
					6.20	D 3						
					7.20 - 7.65	U 3						
					7.80	D 4						
					8.70 - 9.15	U 4		136	0			
Stiff to very stiff brown silty and sandy slightly [redacted]ted CLAY with fine [redacted]nclusions and occasional lenses of sand.			(1.40)	8.90		D 5						
Borehole Continued				10.00								

General Remarks :
No water encountered during drilling.

Dates : 20 JUL 92
Driller : DH
Engineer:
Coordinates :

Contact BGS: ngdc@bgs.ac.uk

British Geological Survey

BGS ID: 936939 : BGS Reference: SJ89NE522
British National Grid (27700) : 387170,397310

SJ89NE 522

STRATA SURVEYS LTD.,
[redacted]

Borehole Number : 1
Sheet

Job Number : 6555/3 Location : Manchester Alluminium Plant
Client : Manchester [illegible]uncil

Dia. & Drilling Methods
150mm Diameter
light cable p[illegible]on

Description of Strata	Red. Level	Legend	Thick -ness	Depth m	Sample Depths	Sample Types	N Value	Cu	ø	Water Level	Piezo -meter	Daily Prog.
				10.00								
Stiff to very stiff brown silty and sandy slightly laminated CLAY with fine gravel inclusions and occasional lenses of sand.			(1.40)	10.30	10.30 10.40 - 10.63	D 6 S 5	N 52 /225					
[illegible]dense clayey slightly gravelly SAND			(1.50)									
				11.80	11.80 - 11.85	S 6	N 50 /50					20/7
Borehole Completed												

General Remarks :
No water encountered during drilling.

Dates : 20 JUL 92
Driller : DH
Engineer:
Coordinates :

Contact BGS: ngdc@bgs.ac.uk

British Geological Survey

BGS ID: 936945 : BGS Reference: SJ89NE528
British National Grid (27700) : 387170,397340

SJ89NE 8717 9734 528

STRATA SURVEYS LTD.,
HOLMES CHAPEL [redacted]
MIDDLEWICH, CHESHIRE. CW10 0JB
[redacted]

Trial Pit No. : 3
Sheet [redacted]
Depth 0 to 4 metres.
Dates : 30 [redacted]2

Job Number : 6555/3 Location : Manchester Alluminium Plant.
Client : Manchester City Council

Equipment and Methods
JCB 3CX Hydraulic Excavator
Engineer : GH

Description of Strata	Red. Level	Legend	Thick -ness	Depth m	Sample Depths	Sample Types	NMC	Cu	Remarks
[redacted] GROUND (loose ash with bricks, concrete fragments, plastic and lumps of clay)				0.00	0.50	D 1			
[redacted]ADE GROUND (compact ash and brick with cobble sized fragments of clinker and occasional white bricks)			(2.30)		1.60	D 2			Old brick wall at one side of the pit from 1.30m to end of the pit, base of the wall not attained
End of Trial Pit				3.00	3.00	D 3			No further progress due to compactness of clinker ash fill

Pp Pocket Penetrometer

Sample Types
U Undisturbed
D Disturbed
B Bulk Disturbed
W Water

Progress / Water Levels
Borehole Depth
Water Level
Water Strike

In-Situ Tests
V Vane Test
Pb Plate Bearing Test
CBR In-Situ CBR Test

General Remarks
No water encountered during excavation.
Sides of the pit unstable in the top 0.70m

Sketch/Plan

Contact BGS: ngdc@bgs.ac.uk

British Geological Survey

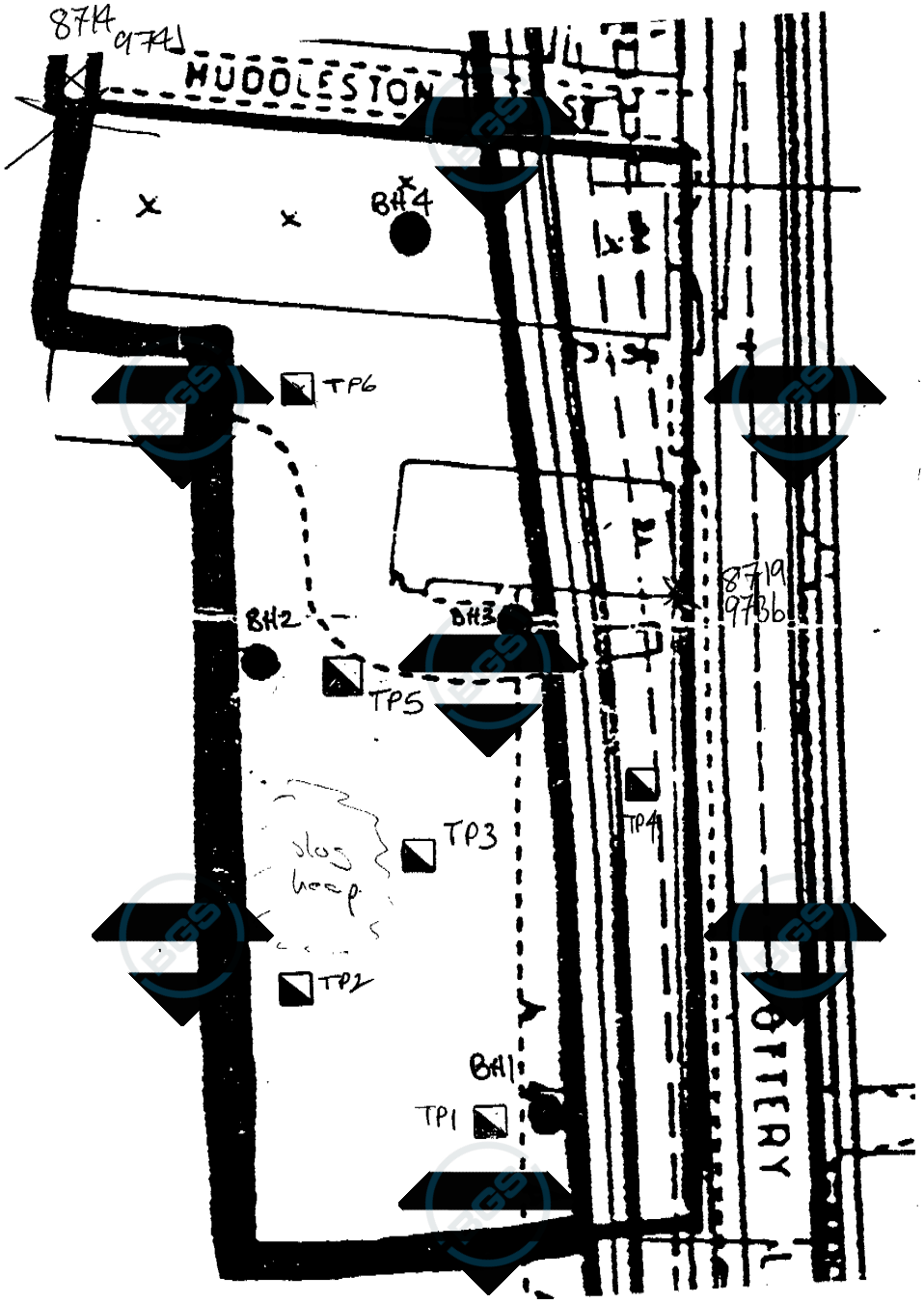
BGS ID: 936945 : BGS Reference: SJ89NE528
British National Grid (27700) : 387170,397340

MANCHESTER CITY ENGINEER

FORMER ALUMINIUM REPROCESSING

922_531.

BOREHOLE AND TRIAL PIT LOCATIONS



STRATA SURV[illegible]D

Contact BGS: ngdc@bgs.ac.uk

British Geological Survey

BGS ID: 936942 : BGS Reference: SJ89NE525
British National Grid (27700) : 387170,397390

SJ89NE 8717 9739 525

STRATA SURVEYS LTD.,

Borehole Number : 4
Sheet

Job Number : 6555/3 Location : Manchester Alluminium Plant
Client : Manchester C[illegible]uncil

Dia. & Drilling Methods
150mm Diameter
light cable p[illegible]n

Description of Strata	Red. Level	Legend	Thick -ness	Depth m	Sample Depths	Sample Types	N Value	Cu	ø	Water Level	Piezo -meter	Daily Prog.
MADE GROUND (soft brown black clay with pieces of brick, silt and sand, organics and a sandstone block)			(1.30)	0.00	0.20 - 0.60	B 1						
					0.60 - 1.05	U 1						
				1.30	1.20	D 1						
[illegible]iff to very stiff brown silty sandy CLAY with grey fissures, gravel, coal inclusions and bands of sand and silt.					[illegible] - 2.05	U 2						
					2.20	D 2		232	0			
					2.60 - 3.05	U 3						
					3.20	D 3						
					3.60 - 4.05	U 4						
					4.20	D 4		215	0			
					4.60 - 5.05	U 5						
			(8.30)			D 5		170	0			
					6.00 - 6.45	U 6						
					6.60	D 6		148	0			
					7.50 - 7.95	U 7						
					8.00	D 7		46[illegible]				
					9.00 - 9.45	U 8						
Borehole Completed				9.60				260	0			28/7

General Remarks :
No water encountered during drilling

Dates : 28 JUL 92
Driller : DH
Engineer:
Coordinates :

Contact BGS: ngdc@bgs.ac.uk

British Geological Survey

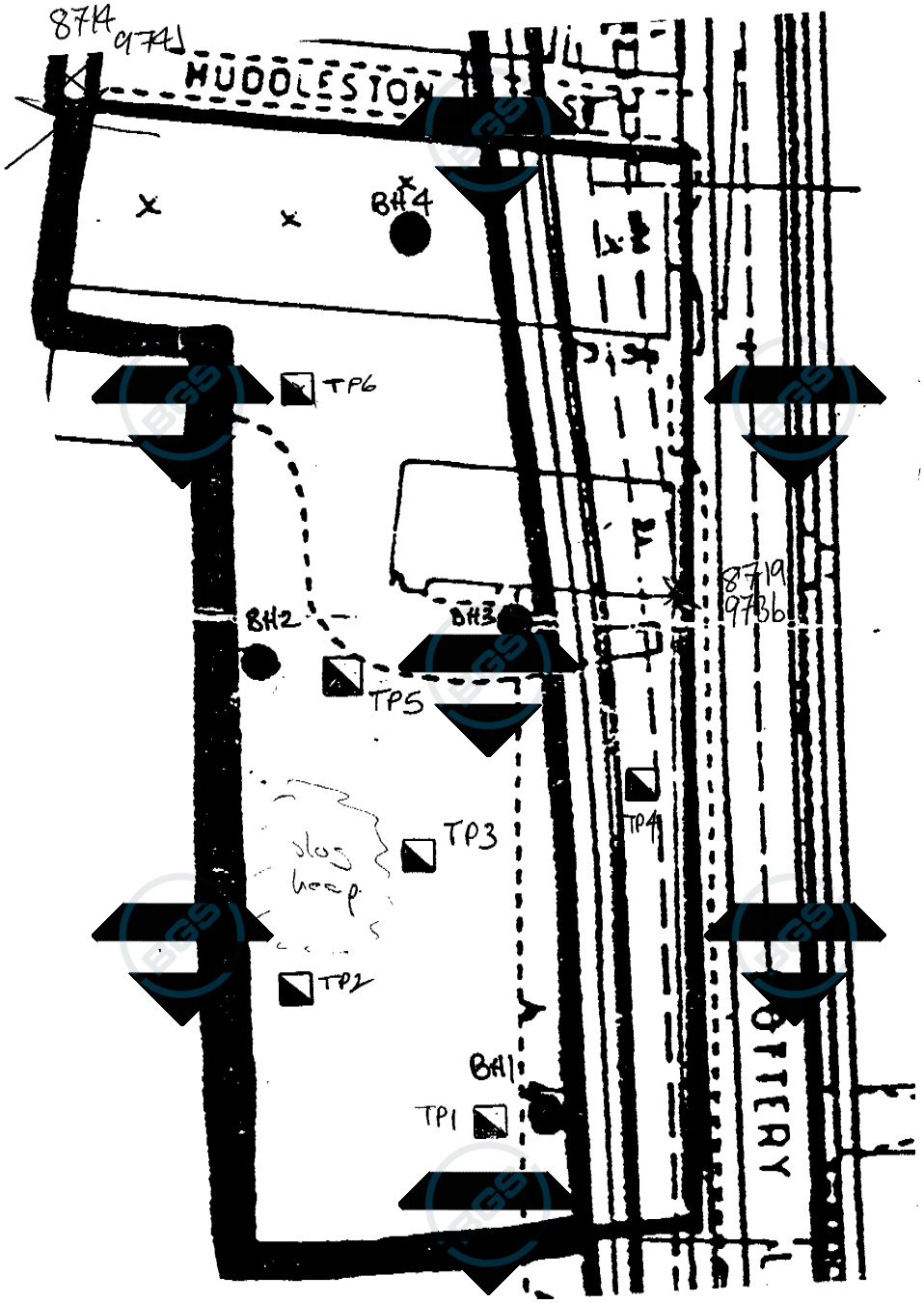
BGS ID: 936942 : BGS Reference: SJ89NE525
British National Grid (27700) : 387170,397390

MANCHESTER CITY ENGINEER

FORMER ALUMINIUM REPROCESSING

922_531.

BOREHOLE AND TRIAL PIT LOCATIONS



STRATA SURV[illegible]D

Contact BGS: ngdc@bgs.ac.uk

British Geological Survey

BGS ID: 936975 : BGS Reference: SJ89NE558
British National Grid (27700) : 387170,397400

SJ89NE 8717 9740 558

STRATA SURVEYS LTD.,
HOLMES CHAPEL
MIDDLEWICH, CHESHIRE. CW10 0JB
[redacted]

Trial Pit No : 14
Sheet No. 1 of 1.
Depth 0 to 4 metres.
Dates : 1[redacted]/91

Job Number : 5435/23 Location : ARDWICK EAST: Pottery Lane.
Client : Manchester City Council.

Equipment and Methods
JCB 3cx Excavator.
Engineer : JCS

Description of Strata	Red. Level	Legend	Thick -ness	Depth m	Sample Depths	Sample Types	NMC	Cu	Remarks
MADE GROUND Loose brick with occasional rags, metal, wire, paper, wood, demolition material.	54.80			0.00					
			(1.80)		0.50	D 1			
Stiff yellowish brown silty CLAY (Fissured Boulder clay)	53.00			1.80					
			(1.10)		2.50	D 2			
End of Trial Pit	51.90			2.90					

Sample Types
U Undisturbed
D Disturbed
B Bulk Disturbed
W Water

In-Situ Tests
V Vane Test
Pb Plate Bearing Test
CBR In-Situ CBR Test

Pp Pocket Penetrometer

Progress / Water Levels
Borehole Depth
Water Level
Water Strike

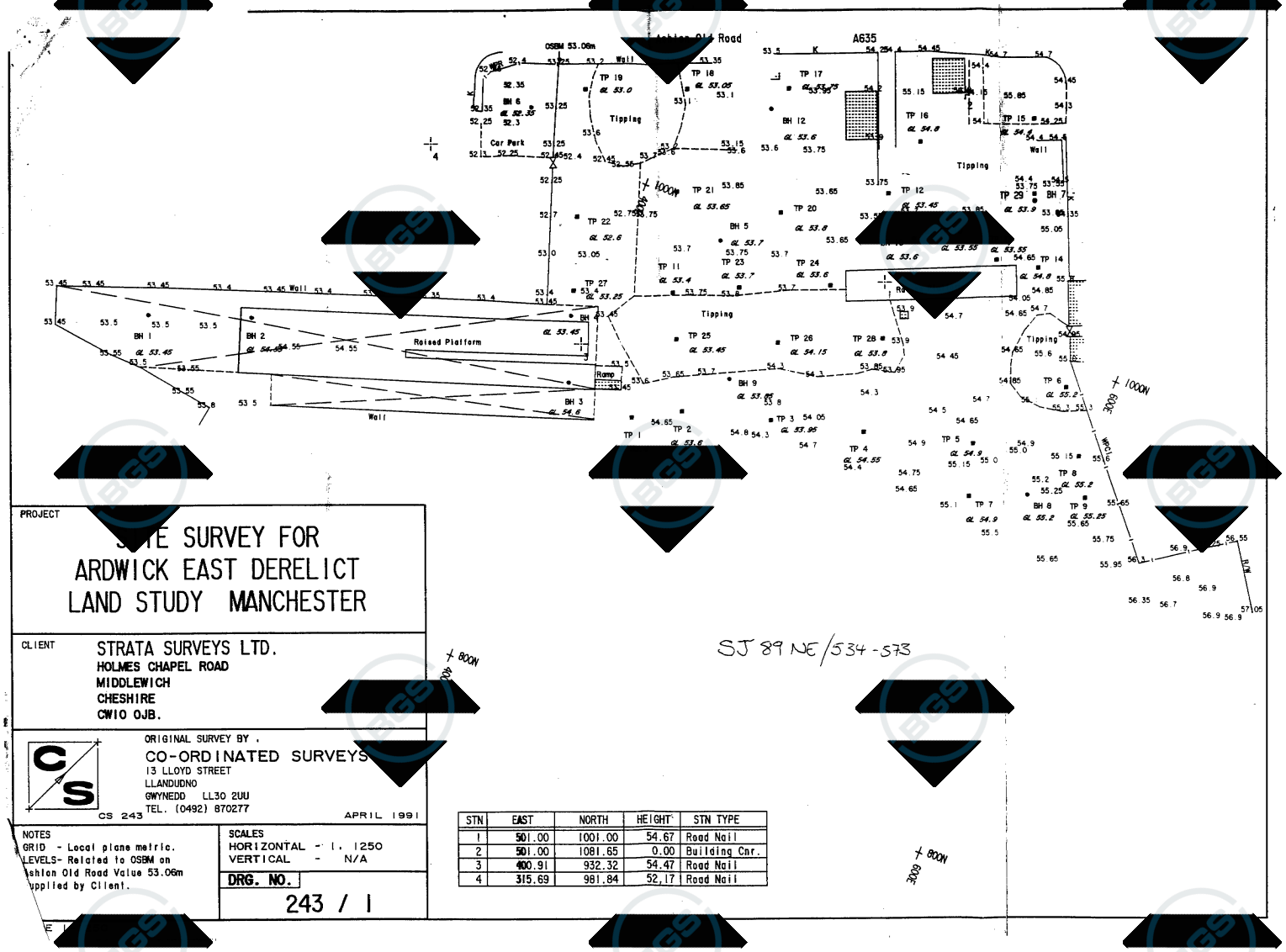
General Remarks
No water encountered.
Sides of pit collapsing in the fill.

Sketch/Plan

Contact BGS: ngdc@bgs.ac.uk

British Geological Survey

BGS ID: 936975 : BGS Reference: SJ89NE558
British National Grid (27700) : 387170,397400



PROJECT

SITE SURVEY FOR ARDWICK EAST DERELICT LAND STUDY MANCHESTER

CLIENT

STRATA SURVEYS LTD.
HOLMES CHAPEL ROAD
MIDDLEWICH
CHESHIRE
CW10 0JB.

SJ 89 NE/534-573

ORIGINAL SURVEY BY .
CO-ORDINATED SURVEYS
13 LLOYD STREET
LLANDUDNO
GWYNEDD LL30 2UU
TEL. (0492) 870277
CS 243
APRIL 1991

NOTES
GRID - Local plane metric.
LEVELS- Related to OSBM on Ashton Old Road Value 53.06m supplied by Client.

SCALES
HORIZONTAL - 1. 1250
VERTICAL - N/A

DRG. NO.
243 / 1

STN	EAST	NORTH	HEIGHT	STN TYPE
1	501.00	1001.00	54.67	Road Nail
2	501.00	1081.65	0.00	Building Cnr.
3	400.91	932.32	54.47	Road Nail
4	315.69	981.84	52.17	Road Nail

Contact BGS: ngdc@bgs.ac.uk

Appendix F

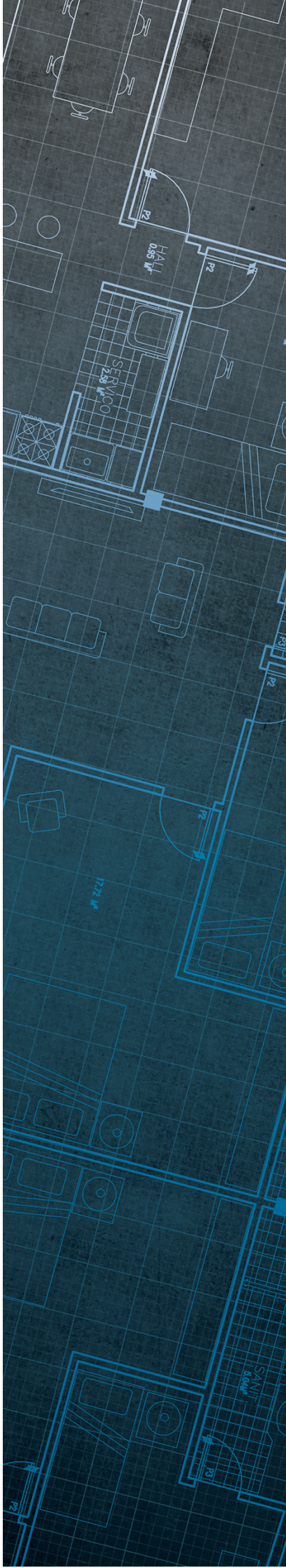
Coal Mining Report

The Coal Authority

Consultants

Coal Mining Report

Bridge College
Greater Manchester



Date of enquiry:	**13 September 2024**
Date enquiry received:	**13 September 2024**
Issue date:	**13 September 2024**
Our reference:	**51003450144001**
Your reference:	**GS-P2I-S2G-E3C-VRB**

Consultants

Coal Mining Report

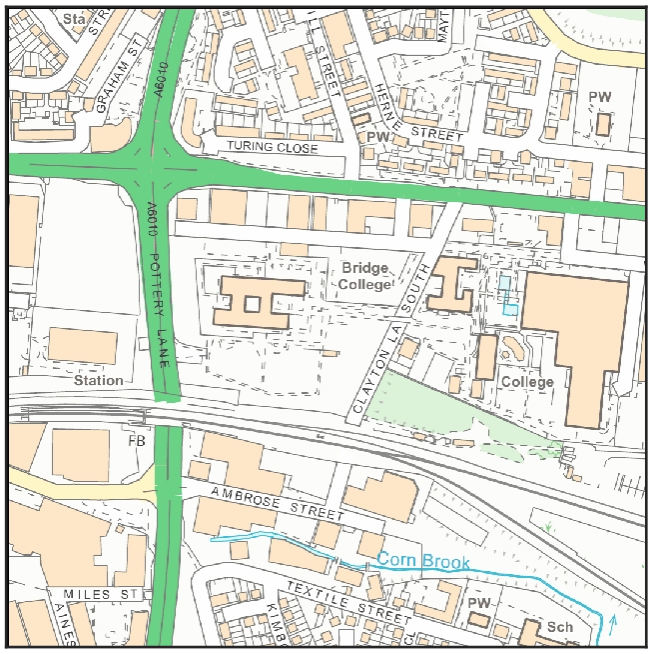
This report is based on and limited to the records held by the Coal Authority at the time the report was produced.

Client name

GROUNDSURE LIMITED

Enquiry address

Bridge College
Greater Manchester



Approximate position of property

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Mansfield
Nottinghamshire
NG18 4RG

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/company/the-coal-authority
/thecoalauthority
/thecoalauthority

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Section 1 – Mining activity and geology

Past underground mining

Colliery	Seam	Mineral	Coal Authority reference	Depth (m)	Direction to working	Dipping rate of seam worked (degrees)	Dipped direction of seam worked	Extraction thickness (cm)	Year last mined
unnamed	BRADFORD FOUR FEET	Coal	35D6	186	Beneath Property	14.0	South-West	130	1880
unnamed	YARD	Coal	35CR	237	North	18.0	South-West	90	1880
unnamed	PARKER	Coal	35BX	669	Beneath Property	18.0	South-West	80	1935
unnamed	PARKER	Coal	35BV	743	West	18.4	South-West	80	1935
unnamed	ROGER	Coal	35B7	834	North	17.2	South-West	180	1948
unnamed	CROMBOUKE	Coal	359H	846	North	17.4	South-West	120	1913
unnamed	ROGER	Coal	35AX	852	North	19.5	South-West	170	1945
unnamed	CROMBOUKE	Coal	359O	886	North-East	14.3	South	120	1915
unnamed	CROMBOUKE	Coal	359N	923	North-East	17.9	South-West	120	1915
unnamed	CROMBOUKE	Coal	359M	949	East	25.3	South-West	120	1940
unnamed	ROGER	Coal	35B4	972	North-West	17.4	South-West	180	1943
unnamed	CROMBOUKE	Coal	359P	982	North	16.5	South-West	120	1929
unnamed	CROMBOUKE	Coal	359Q	986	North-East	16.6	South-West	120	1929
unnamed	CROMBOUKE	Coal	359S	993	North-West	10.7	South	120	1951
unnamed	CROMBOUKE	Coal	359R	996	Beneath Property	11.3	South-West	120	1957
unnamed	ROGER	Coal	35B5	1020	East	17.3	South-West	180	1957
unnamed	ROGER	Coal	35B6	1041	Beneath Property	12.8	South-West	180	1940
unnamed	CROMBOUKE	Coal	359K	1056	West	13.3	South-West	120	1948
unnamed	ROGER	Coal	35B3	1061	North-West	15.9	South-West	180	1953

Probable unrecorded shallow workings

None.

Spine roadways at shallow depth

No spine roadway recorded at shallow depth.

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Mine entries

Entry type	Reference	Grid reference	Treatment description	Mineral	Conveyancing details
Shaft	387397-007	387319 397453		Coal	
Shaft	387397-008	387172 397194		Coal	
Shaft	387397-012	387173 397241		Coal	

Abandoned mine plan catalogue numbers

The following abandoned mine plan catalogue numbers intersect with some, or all, of the enquiry boundary:

2655	NW645	NW1167
NW1169	989	11471
NW644		

Please contact us on 0345 762 6848 to determine the exact abandoned mine plans you require based on your needs.

Outcrops

No outcrops recorded.

Geological faults, fissures and breaklines

Please refer to the 'Summary of findings' map (on separate sheet) for details of any geological faults, fissures or breaklines either within or intersecting the enquiry boundary.

Fault under or close to the property recorded.

Opencast mines

None recorded within 500 metres of the enquiry boundary.

Coal Authority managed tips

None recorded within 500 metres of the enquiry boundary.

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Section 2 – Investigative or remedial activity

Please refer to the 'Summary of findings' map (on separate sheet) for details of any activity within the area of the site boundary.

Site investigations
None recorded within 50 metres of the enquiry boundary.

Remediated sites
None recorded within 50 metres of the enquiry boundary.

Coal mining subsidence
The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres of the enquiry boundary, since 31 October 1994.

There is no current Stop Notice delaying the start of remedial works or repairs to the property.

The Coal Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

Mine gas
None recorded within 500 metres of the enquiry boundary.

Mine water treatment schemes
None recorded within 500 metres of the enquiry boundary.

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Section 3 – Licensing and future mining activity

Future underground mining
None recorded.

Coal mining licensing
None recorded within 200 metres of the enquiry boundary.

Court orders
None recorded.

Section 46 notices
No notices have been given, under section 46 of the Coal Mining Subsidence Act 1991, stating that the land is at risk of subsidence.

Withdrawal of support notices
The property is in an area where a notice to withdraw support was given in 1955.

The property is not in an area where a notice has been given under section 41 of the Coal Industry Act 1994, cancelling the entitlement to withdraw support.

Payments to owners of former copyhold land
The property is not in an area where a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994.

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Section 4 – Further information

The following potential risks have been identified and as part of your risk assessment should be investigated further.

Future development

If development proposals are being considered, technical advice relating to both the investigation of coal and former coal mines and their treatment should be obtained before beginning work on site. All proposals should apply specialist engineering practice required for former mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or coal mines without first obtaining the permission of the Coal Authority.

MINE GAS: Please note, if there are no recorded instances of mine gas within 500m of the enquiry boundary, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded. Developers should be aware that the investigation of coal seams, mine workings or mine entries may have the potential to generate and/or displace underground gases. Associated risks both to the development site and any neighbouring land or properties should be fully considered when undertaking any ground works. The need for effective measures to prevent gases migrating onto any land or into any properties, either during investigation or remediation work, or after development must also be assessed and properly addressed. In these instances, the Coal Authority recommends that a more detailed Gas Risk Assessment is undertaken by a competent assessor.

Development advice

The site is within an area of historical coal mining activity. Should you require advice and/or support on understanding the mining legacy, its risks to your development or what next steps you need to take, please contact us.

For further information on specific site or ground investigations in relation to any issues raised in Section 4, please call us on 0345 762 6848 or email us at groundstability@coal.gov.uk.

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Section 5 – Data definitions

The datasets used in this report have limitations and assumptions within their results. For more guidance on the data and the results specific to the enquiry boundary, please **call us on 0345 762 6848** or **email us at groundstability@coal.gov.uk.**

Past underground coal mining

Details of all recorded underground mining relative to the enquiry boundary. Only past underground workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination, will be included.

Probable unrecorded shallow workings

Areas where the Coal Authority believes there to be unrecorded coal workings that exist at or close to the surface (less than 30 metres deep).

Spine roadways at shallow depth

Connecting roadways either, working to working, or, surface to working, both in-seam and cross measures that exist at or close to the surface (less than 30 metres deep), either within or within 10 metres of the enquiry boundary.

Mine entries

Details of any shaft or adit either within, or within 100 metres of the enquiry boundary including approximate location, brief treatment details where known, the mineral worked from the mine entry and conveyance details where the mine entry has previously been sold by the Authority or its predecessors British Coal or the National Coal Board.

Abandoned mine plan catalogue numbers

Plan numbers extracted from the abandoned mines catalogue containing details of coal and other mineral abandonment plans deposited via the Mines Inspectorate in accordance with the Coal Mines Regulation Act and Metalliferous Mines Regulation Act 1872. A maximum of 9 plan extents that intersect with the enquiry boundary will be included. This does not infer that the workings and/or mine entries shown on the abandonment plan will be relevant to the site/property boundary.

Outcrops

Details of seam outcrops will be included where the enquiry boundary intersects with a conjectured or actual seam outcrop location (derived by either the British Geological Survey or the Coal Authority) or intersects with a defined 50 metres buffer on the coal (dip) side of the outcrop. An indication of whether the Coal Authority believes the seam to be of sufficient thickness and/or quality to have been worked will also be included.

Geological faults, fissures and breaklines

Geological disturbances or fractures in the bedrock. Surface fault lines (British Geological Survey derived data) and fissures and breaklines (Coal Authority derived data) intersecting with the enquiry boundary will be included. In some circumstances faults, fissures or breaklines have been known to contribute to surface subsidence damage as a consequence of underground coal mining.

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Opencast mines
Opencast coal sites from which coal has been removed in the past by opencast (surface) methods and where the enquiry boundary is within 500 metres of either the licence area, site boundary, excavation area (high wall) or coaling area.

Coal Authority managed tips
Locations of disused colliery tip sites owned and managed by the Coal Authority, located within 500 metres of the enquiry boundary.

Site investigations
Details of site investigations within 50 metres of the enquiry boundary where the Coal Authority has received information relating to coal mining risk investigation and/or remediation by third parties.

Remediated sites
Sites where the Coal Authority has undertaken remedial works either within or within 50 metres of the enquiry boundary following report of a hazard relating to coal mining under the Coal Authority's Emergency Surface Hazard Call Out procedures.

Coal mining subsidence
Details of alleged coal mining subsidence claims made since 31 October 1994 either within or within 50 metres of the enquiry boundary. Where the claim relates to the enquiry boundary confirmation of whether the claim was accepted, rejected or whether liability is still being determined will be given. Where the claim has been discharged, whether this was by repair, payment of compensation or a combination of both, the value of the claim, where known, will also be given.

Details of any current 'Stop Notice' deferring remedial works or repairs affecting the property/site, and if so the date of the notice.

Details of any request made to execute preventative works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991. If yes, whether any person withheld consent or failed to comply with any request to execute preventative works.

Mine gas
Reports of alleged mine gas emissions received by the Coal Authority, either within or within 500 metres of the enquiry boundary that subsequently required investigation and action by the Coal Authority to mitigate the effects of the mine gas emission. Please note, if there are no recorded instances of mine gas reported, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded.

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Mine water treatment schemes
Locations where the Coal Authority has constructed or operates assets that remove pollutants from mine water prior to the treated mine water being discharged into the receiving water body.

These schemes are part of the UK's strategy to meet the requirements of the Water Framework Directive. Schemes fall into 2 basic categories: Remedial – mitigating the impact of existing pollution or Preventative – preventing a future pollution incident.

Mine water treatment schemes generally consist of one or more primary settlement lagoons and one or more reed beds for secondary treatment. A small number are more specialised process treatment plants.

Future underground mining
Details of all planned underground mining relative to the enquiry boundary. Only those future workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination will be included.

Coal mining licensing
Details of all licenses issued by the Coal Authority either within or within 200 metres of the enquiry boundary in relation to the under taking of surface coal mining, underground coal mining or underground coal gasification.

Court orders
Orders in respect of the working of coal under the Mines (Working Facilities and Support) Acts of 1923 and 1966 or any statutory modification or amendment thereof.

Section 46 notices
Notice of proposals relating to underground coal mining operations that have been given under section 46 of the Coal Mining Subsidence Act 1991.

Withdrawal of support notices
Published notices of entitlement to withdraw support and the date of the notice. Details of any revocation notice withdrawing the entitlement to withdraw support given under Section 41 of the Coal Industry Act 1994.

Payment to owners of former copyhold land
Relevant notices which may affect the property and any subsequent notice of retained interests in coal and coal mines, acceptance or rejection notices and whether any compensation has been paid to a claimant.

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The Coal Authority

Summary of findings

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Map data

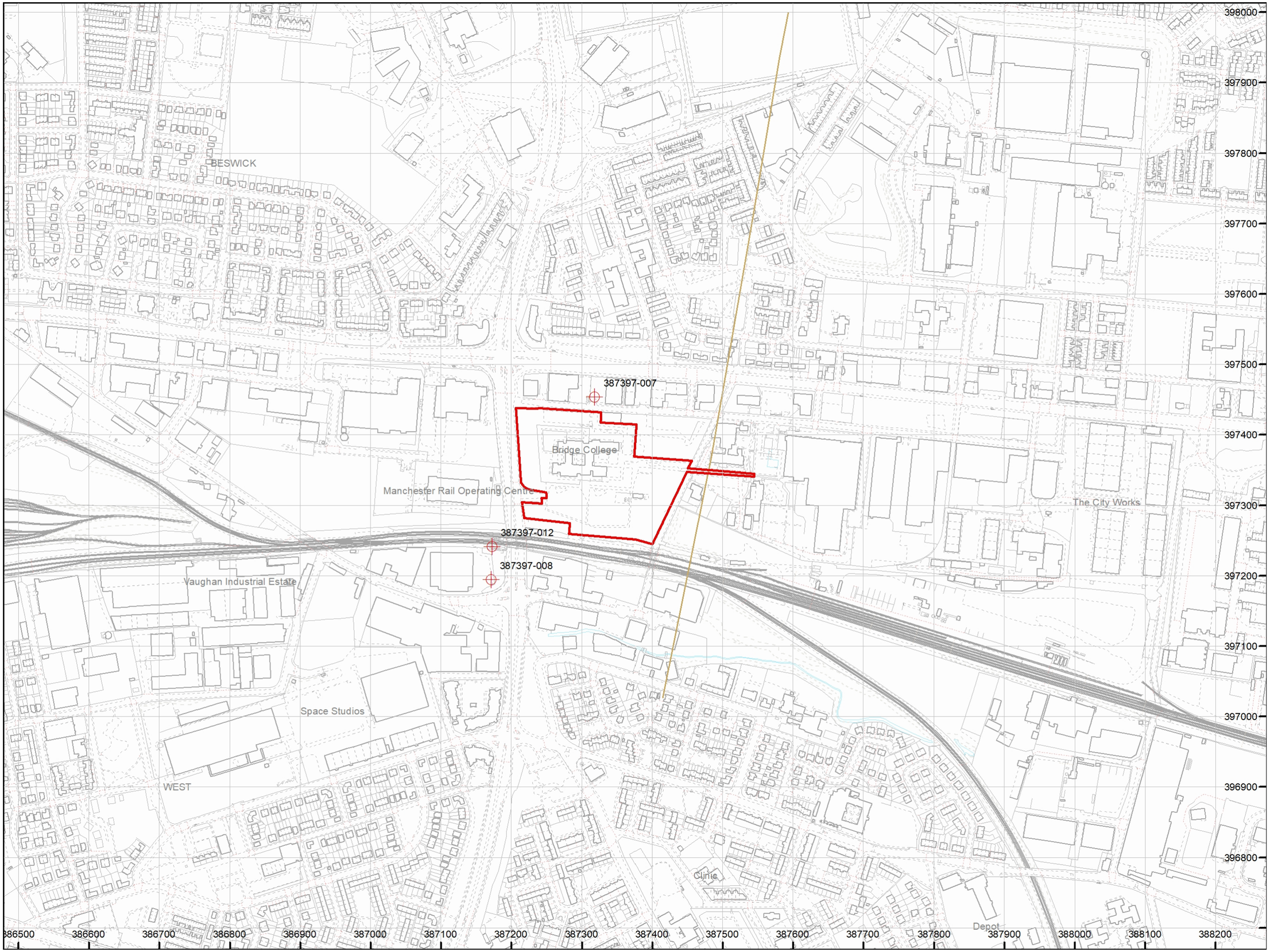
The map highlights any specific surface or subsurface features within or near to the boundary of the site.

Key

Approximate position of the enquiry boundary shown

Disused mine shaft

Geological faults



How to contact us
0345 762 6848 (UK)
+44 (0)1623 637 000 (International)
www.groundstability.com

Appendix G

Risk Assessment Methodology

Civic Earth Risk Assessment Methodology

Civic Earth's risk assessment methodology is based on the CIRIA C552 (2001) Contaminated Land Risk Assessment – A Guide to Good Practice[1].

The assessment approach is to quantify the potential risk at Phase 1 Stage via risk estimation and risk evaluation. This defines the overall risk category that can be used to identify likely actions to address the potential risk or undertake further risk evaluation.

The methodology is a qualitative approach and is undertaken for each identified potential contaminant linkage (source-pathway-receptor) identified for the site in accordance with the October 2020 Land Contamination Risk Management Guidance (LCRM)[2].

The methodology requires the classification of the following:

- The magnitude of the consequence (severity) of a risk occurring; and
- The magnitude of the probability (likelihood) of a risk occurring.

The potential consequences of contamination risks occurring at a site are classified in accordance with Table 1 below, which is based on CIRIA guidance[1].

Table 1: Classification of Consequence Ratings

Classification	Definition of Consequence	Examples
Severe	Short-term (acute) risks to human health. Short-term (acute) risk of pollution of sensitive water resource or ecosystem Catastrophic damage to crops/ building/ property/ infrastructure, including off-site soils	High concentration of cyanide on the surface of an informal recreation area Major spillage of contaminants from site into controlled waters Explosion causing building collapse
Medium	Long-term (chronic) risks to human health Long-term (chronic) pollution of sensitive water resource Significant change in an ecosystem/contamination of off-site soils	Concentrations of a contaminant on site exceeding the generic or site specific assessment criteria Leaching of contaminants from a site into a major or minor aquifer Death of species within a designated nature reserve
Mild	Pollution of non-sensitive water resource Significant damage to crops/ buildings/ property /infrastructure Damage to an ecosystem or sensitive buildings/structures/services	Pollution of a non-classified groundwater Damage to a building rendering it unsafe to occupy (e.g. foundation damage resulting in instability)
Minor	Easily preventable non-permanent effects Harm, although not necessarily significant harm, which may result in financial loss or expenditure resolve Easily repairable effects of damage to building/ structures/ services	Presence of contamination at concentrations which require the use of personal protective equipment during site work Loss of plants in a landscaping scheme/discolouration of concrete

The potential probability of the risks being realised are classified in accordance with the ratings set out in Table 2, which are based on CIRIA guidance[1]. It should be noted that where a potential contaminant linkage has not been identified the likelihood is considered to be negligible.

[1] CIRIA, (2001). Contaminated Land Risk Assessment. A Guide to Good Practice. CIRIA C552.

[2] Environment Agency (2020). *Land Contamination Risk Management (LCRM)*.

Table 2: Classification of Probability Ratings

Classification	Definition of Consequence
High likelihood	There is a contaminant linkage and an event that either appears very likely in the short term and almost inevitable in the long term, or there is evidence at the receptor that an event has occurred
Likely	There is a contaminant linkage and all the elements are present in the right place which means that it is probable that an event will occur. Circumstances are such that an event is not inevitable, but possible in the short term and likely over the long term
Low likelihood	There is a contaminant linkage and circumstances are possible under which an event could occur. However, it is by no means certain that even over a longer period such an event would take place and is less likely in the short term
Unlikely	There is a contaminant linkage but circumstances are such that it is improbable that an event would occur even in the very long term

In accordance with C552, the risk classifications for each potential contaminant linkage are classified in accordance with the matrix of consequence and probability set out in Table 3. The definitions for the risk classifications are presented in Table 4.

Table 3: Risk Classification Matrix

		Consequence			
		Severe	Medium	Mild	Minor
Probability	High Likelihood	Very High	High	Moderate	Moderate/Low
	Likely	High	Moderate	Moderate/Low	Low
	Low Likelihood	Moderate	Moderate/Low	Low	Very Low
	Unlikely	Moderate/Low	Low	Very Low	Very Low

Table 4: Risk Classification Definitions

Classification	Definition
Very High	There is a high probability that severe harm could arise to a designated receptor from the identified hazard or there is evidence that severe harm is currently happening. This risk, if realised, is likely to result in substantial liability. Urgent investigation (if not already undertaken) and remediation are likely to be required.
High	Harm is likely to arise to a designated receptor from the identified hazard. Realisation of the risk is likely to result in substantial liability. Urgent investigation (if not already undertaken) and remediation are likely to be required.
Moderate	It is possible that harm could arise to a designated receptor from the identified hazard. However, it is either relatively unlikely that such harm would be severe or if any harm were to occur it is more than likely that the harm would be relatively mild. Urgent investigation (if not already undertaken) is normally required to clarify the potential risk and to determine the potential liability. Some remedial works may be required in the longer term.
Low	It is possible that harm could arise to a designated receptor from the identified hazard, but it is considered likely that this harm, if realised, would at worse normally be mild.
Very Low	There is a low possibility that harm could arise to a designated receptor from the identified hazard. In the event of such harm being realised it is not likely to be severe.

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