WML CONSULTING
Civil, Structural and Geotechnical Engineers

Phase 1 Desk Study and Preliminary Geoenvironmental Assessment

For a site referred to as

Loreto College, Expansion Project 2023

Undertaken for

Loreto College

10939G-WML-XX-ZZ RP-G-0001
February 2023

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Report Title:	**Loreto College, Expansion Project 2023** **Phase 1 Desk Study and Preliminary Geoenvironmental Assessment**
Report Reference:	**10939G-WML-XX-ZZ-RP-G-0001**
Client:	**Loreto College**
Issue Date:	**17th February 2023**
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1.0 INTRODUCTION

Appointment

1.1 WML Consulting has been commissioned by AA Projects, on behalf of Loreto College, to undertake a Phase 1 Desk Study and Preliminary Geoenvironmental Assessment of a site referred to as Loreto College, Expansion Project 2023.

Proposed Development

1.2 The proposed scheme involves the development of a new three-storey educational building located on the south eastern corner of the land adjacent to the Chichester Road South and Moss Lane East road junction.

1.3 The location of the structure is has been determined, to a degree, due to the presence of the Corn Brook Culvert which extends roughly north-east to south-west across the central site area. External areas are to comprise hardstanding for access, with car parks to the north-western and north-eastern corners of the site. These will be interspersed with pedestrian walkways and general soft landscaping.

1.4 The proposed site plan with the preliminary landscape plan by 10architect, referenced LCNP-10A-V0-ZZ-DR-A-0010_P1, is presented in Appendix 01.

Objective

1.5 The purpose of the desk study is to collate available geological and environmental data for the site and its environs in order to undertake a preliminary geotechnical and geoenvironmental appraisal and thus inform a site-specific conceptual model.

1.6 This enables a preliminary assessment of geo-environmental risks to be undertaken and provides information for the design of a geotechnical and geo-environmental ground investigation.

1.7 This follows current recommendations set out in the Environment Agency (EA) Model Procedures for Land Contamination Risk Management, April 2021.

Scope

1.8 The desk study has comprised a site walkover on 16th February 2023 and a review of the following information sources:

- British Geological Survey (BGS) 1:50,000 scale, Sheet 85 'Manchester' (Solid & Drift editions).
- BGS Digital Geological Map of Great Britain (DiGMapGB-50; available as a web map service).
- Coal Authority interactive map viewer (available as a Web Map Service).
- The site and surrounding area's geological and environmental setting from data presented in the site specific GroundSure Environmental Insight Report (Appendix 03).
- Historical Ordnance Survey maps as provided by GroundSure (Appendix 03).
- Review of free public sector information through QGIS viewer licensed under the Open Government Licence v3.0.
- Zetica Unexploded Bomb Risk Map (https://zeticauxo.com/downloads-and-resources/risk-maps/) (Appendix 04).
- UKradon Indicative Atlas of radon in England and Wales as provided by the UK Health Security Agency.
- BRE Publication 211 (2015) "Radon: Guidance on Protective Measures for New Buildings".

2.0 SITE SETTING

Description	Comments
Site Address	87 Moss Lane West, Manchester, M15 5PE
National Grid Reference	383300E, 395989N
Site Area	0.62 hectares
Site Location	The site is bounded by:- North – Existing Loreto College. East – Chichester Road South with commercial properties beyond. South – Moss Lane West with residential properties beyond. West – Tamworth Street with residential properties beyond.
Site Description	At the time of the inspection in February 2023 the majority of the site comprised a disused single storey brick structure (former probation office) and car park to its west surrounded by areas of maintained grass landscaping to the north, south and east. The north-eastern part of the site formed a separate gravel surfaced car park used by Loreto College to the north, and separated from the main part of the site by a metal fence. An overhead service was noted to run roughly east to west across the car park forming the north-eastern part of the site. A strip of concrete extended across the otherwise asphalt car park, in the north-western part of the site, appears to indicate the location of Corn Brook culvert known to cross the site (Photograph 8). Stands of semi-mature and mature deciduous trees were located in the south-western corner of the site and on the north-western site boundary. Further sporadic semi-mature deciduous trees were located on the eastern and north-eastern site boundaries. Vehicular access to the main part of the site is from Tamworth Street to the west, with vehicular access to the car park forming the north-eastern part of the site from Chichester Road South to the east. Photographs of the site are provided in Appendix 02.
Topography	The site is generally level and commensurate with the surrounding area. Low grassed mounds are located in the southern part of the site and the car park in the north-eastern part rises gently northwards before falling to the level of the neighbouring college. A topographic survey was not available at the time of this report.

3.0 ENVIRONMENTAL SETTING

3.1 The following sections on the environmental setting of the site are summarised from the GroundSure Enviro Insight Report and a review of the information sources outlined within Section 1.7.

Description	Comments		
Geology (1:10, 000, 1:50,000 scale Map Sheets and digital mapping)	**Artificial Deposits**	None recorded within the site.	
	Superficial Deposits	The site is underlain by the Devensian Glaciofluvial Sheet Deposits, indicated to mainly comprise sand and gravel.	
	Solid Strata	The drift deposits are in turn underlain by the Triassic Chester Peddle Beds Formation, indicated to comprise sandstone.	
	Geological Faults	None within 500m.	
	BGS Records	None available within 100m of the site.	
Mining and Subsidence	In consideration of the indicated geology, risks to the development from subsidence relating to shallow, unrecorded abandoned coal mine workings can be discounted. The risk from non-coal mining activity at the site is also considered low.		
Radon	The site is not in a Radon Affected Area as defined by the UK Health Security Agency were less than 1% of properties are above the Action Level of exposure. Therefore, no radon protection measures are necessary for new structures as described in publication BR211 by the Building Research Establishment.		
Hydrogeology	**Superficial Aquifer**	**Secondary A** These comprise 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.	
	Bedrock Aquifer	**Principal** These comprise 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.	
	Source Protection Zone (SPZ) within 500m	A Zone 3 Total Catchment SPZ is located 212m east of the site with the associated Zone 2 Outer Catchment location 264m east and the Zone 1 Inner Catchment located 410m east.	

<table>
<tr><th>Description</th><th colspan="2">Comments</th></tr>
<tr><td></td><td>Groundwater Abstractions within 500m</td><td>None active within 500m.
1no historic abstraction located 102m south-east.</td></tr>
<tr><td rowspan="2">Hydrology</td><td>Surface Water Features within 250m</td><td>Corn Brook culvert extends roughly north-east to south-west across the central/northern section of the site.</td></tr>
<tr><td>Surface Water Abstractions within 500m</td><td>None.</td></tr>
<tr><td rowspan="3">Landfill and Waste Management Activity</td><td>Active Landfills within 500m</td><td>None.</td></tr>
<tr><td>Historical (Environment Agency (EA)/Local Authority) Landfill within 250m</td><td>1no located 111m north-east at Moss Side Shopping Centre. This is recorded to comprise inert and industrial waste deposited between 1994 and 1995.</td></tr>
<tr><td>Other Waste Sites within 250m</td><td>None.</td></tr>
<tr><td rowspan="3">Industrial Land Use Information</td><td colspan="2">There are 6no potentially contaminative industrial sites recorded within 250m of the subject site. The nearest and most relevant of these relate to:-
<table>
<tr><th>Distance (m)</th><th>Direction</th><th>Activity</th></tr>
<tr><td>122</td><td>SW</td><td>Electricity Sub Station</td></tr>
<tr><td>137</td><td>NE</td><td>Garden Buildings</td></tr>
<tr><td>188</td><td>E</td><td>Electricity Sub Station</td></tr>
</table></td></tr>
<tr><td>Underground High Pressure Pipelines within 500m</td><td>None.</td></tr>
<tr><td>Petrol Filling Stations within 250m</td><td>None.</td></tr>
<tr><td>Active Environmental Permits, Incidents and Registers</td><td colspan="2">
<table>
<tr><th>Active Permits Incidents/Registers</th><th>Distance (m)</th><th>Comments</th></tr>
<tr><td>IPC Authorisations, Part A(1),</td><td>250</td><td>None</td></tr>
<tr><td>Part A(2) Authorised Activities</td><td>250</td><td>None</td></tr>
<tr><td>Part B IPPC Authorised Activities</td><td>250</td><td>None</td></tr>
<tr><td>List 1 or List 2 Dangerous Substances Inventory Sites</td><td>250</td><td>None</td></tr>
<tr><td>Radioactive Substance Authorisations</td><td>250</td><td>None</td></tr>
<tr><td>Recorded Pollution Incidents</td><td>250</td><td>None</td></tr>
<tr><td>Control of Major Accident Hazards (COMAH)</td><td>250</td><td>None</td></tr>
</table></td></tr>
</table>

Description	Comments
	Contaminated Land - Section 78R of the Environmental Protection Act 1990 | 250 | None
Potential Flood Risk	Detailed assessment of flood risk is outside the scope of this report. However, reference to the EA website and the Groundsure report indicates that the risk of flooding from rivers and the sea (RoFRaS) is currently designated as 'low' and that sections of the site are located within Flood Zone 2. The site is indicated on BGS records to be within an area which is considered to have a moderate-high risk of groundwater flooding.
Environmentally Sensitive Sites	Other than being located within an SSSI Impact Zone there are no designated environmentally sensitive sites within 250m of the subject site. However, an ecological assessment of the site falls outside of the brief of this report and it is recommended that an ecological specialist be consulted where considered necessary.
Archaeological Information	No archaeological information has been obtained for the purpose of this report. Where considered appropriate, reference should be made to an archaeological consultant in this respect.
UXO	Review of the University of Manchester's Online Map Collection, namely 'Record of location of aerial bombs on the City of Manchester' has revealed that a bomb strike was recorded within the north-west part of the site in 1940. The Zetica UXO Unexploded Bomb Risk Map, presented in Appendix 04, indicates the site be located in a moderate risk areas with a high risk area extending from the western site boundary. However, it should be that this does not provide a UXO risk assessment and is for information purposes.

4.0 HISTORICAL SETTING

4.1 The historical development of the site has been determined by reference to archive Ordnance Survey (OS) map extracts obtained from the GroundSure EnviroInsight Report in Appendix 03.

4.2 The earliest map dated 1849 indicates the site to comprise undeveloped land within a rural / agricultural setting with Corn Brook running roughly north-east to south-west across the central part. The north-eastern part of the site was occupied by gardens associated by Brookside Terrace to the north.

4.3 Sometime prior to 1889 the site had been developed with residential terraces, centred on Norfolk Street and Clarence Grove which ran across the eastern part of the site. A hotel was also located in the south-eastern corner of the site. Corn Brook was no longer shown running across the site and is understood to have been culverted.

4.4 By 1978 the site was cleared and appeared be landscaped with pedestrian pathways. By 1995 it had been redeveloped as a Probation Centre with a structure spanning the central and eastern parts and an area of car parking in the western part.

4.5 The site has remained in roughly this configuration to present day, with the northern-eastern part of the site being more recently utilised as an overflow car park for the college to the north.

4.6 The area surrounding the site has historically comprised undeveloped land in rural / agricultural until extensive residential development occurred sometime prior to 1889.

4.7 Localised clearance of residential terrace structures in the surrounding area had occurred between 1932 and 1949, including around 20m south-west, possibly as a result of bomb damaged during World War II.

4.8 A wider phase of terrace clearance occurred in the 1970's and 1990's, followed by further residential redevelopment and the construction of a shopping centre around 150m east of the site.

4.9 Historical industrial development in the immediate surrounding area is limited to a brewery located 75m south-east, which was built sometime prior to 1889 and has more recently undergone residential redevelopment.

4.10 Therefore, on the basis of the previous site use, no significant widespread sources of ground contamination are envisaged. However, the potential for more localised contamination associated with the sites historical use cannot be wholly discounted at this stage.

4.11 This could include Asbestos Containing Materials (ACM) within near surface soils as a result of historical and unspecified works within the site.

5.0 PRELIMINARY CONTAMINATION RISK ASSESSMENT

Introduction

5.1 The following paragraphs outline a Preliminary Risk Assessment (PRA) for the site as defined by DEFRA and the EA Model Procedures for Land Contamination Risk Management, April 2021.

5.2 The table in Paragraph 5.4 provides a Preliminary Conceptual Model (PCM) which defines the site in terms of a potential contamination linkage, that is, whether a pathway exists between a contamination source and a sensitive environmental receptor (Source-Pathway-Receptor relationship).

5.3 The table considers whether a contamination linkage is potentially present or not and provides a preliminary qualitative assessment of risk, based on the information currently available and in accordance with guidance provided in the CIRIA document C552 (2001) Contaminated Land Risk Assessment – A Guide to Good Practice. The risk evaluation process is described further in Appendix 04.

5.4 Where a possible linkage is identified, it does not necessarily mean that a significant risk exists, but indicates that further information is required through appropriate site investigation to substantiate the conceptual model.

Source	Pathway	Receptor	Probability of Linkage	Comment
The likelihood of significant ground contamination sources being present at the site due to its past use is considered low although localised sources cannot be wholly discounted at this stage. The presence of ACM within and shallow soils also cannot be discounted.	Direct contact, ingestion of soil, dermal contact, dust exposure pathways.	Current Site Users	Low	The site comprises a single storey structure surrounding by car parking and localised soft landscaping with site use being transient in nature, as such no significant long-term direct exposure scenario is considered likely. Therefore, the risk to current site users is considered **LOW.**
		Site End Users	Low	The provision of new buildings and hard cover would continue to break any direct contamination linkage. An exposure route may remain within any proposed landscaped areas. However, the overall preliminary risk to site end users from direct contact with contaminated ground is considered **LOW.**
		Construction Workers	Low	Construction workers are unlikely to be exposed to significantly contaminated soils during earthworks and foundation construction. Also, the exposure time will be relatively short with any contamination risks being mitigated by adopting good site working practices including appropriate health and safety measures during the works, thus providing a **LOW** preliminary risk.
		Adjacent land users	Unlikely	Contact via wind-blown dust/debris, particularly during the development phase is possible. The current risk is considered **VERY LOW** although this would increase during construction works. Appropriate health and safety measures adopted during site development will ensure that the risk remains low.

Source	Pathway	Receptor	Probability of Linkage	Comment
The presence of widespread and significant soluble and/or liquid and therefore mobile contaminants occurring at the site due to its past use is considered low.	Direct downward migration through leaching and/or mobile liquids.	Groundwater	Unlikely	The superficial deposits are classified as a Secondary A Aquifer and the bedrock underlying the site a Principal Aquifer. However, in view of the presence of significant mobile contaminants being unlikely the preliminary risk to groundwater is considered **LOW**.
	Off-site migration in groundwater or surface water flow.	Surface water	Low	Corn Brook culvert an underground watercourse crosses the site. However, no significant sources of mobile contaminants are anticipated beneath the site. Therefore the preliminary risk to surface water is considered **LOW**.
		Groundwater and surface water abstractions	Low	The site is not within an EA Source Protection Zone with no active water abstractions within 500m. Therefore, as no significant sources of mobile contaminants are anticipated beneath the site the risk to groundwater/surface water abstractions is considered **LOW**.
		Adjacent Properties	Unlikely	No significant sources of mobile contaminants are anticipated beneath the site. Therefore, the preliminary risk to adjacent properties is considered **LOW**.
		Ecology	No linkage anticipated.	No significant sources of mobile contaminants are anticipated beneath the site with no mechanism for significant lateral movement of contaminants to nearby receptors. The risk to any recorded sensitive ecology from the site is therefore considered **LOW**.
The likelihood of volatile contaminants occurring at the site due to its past use is considered low.	Inhalation of harmful vapours (indoor and outdoor airspaces)	Current Site Users	Unlikely	Significant sources of volatile contaminants at the site are not anticipated. In addition, the transient use of the site will minimise the exposure time to any volatile contamination. Therefore the preliminary perceived risk to current site users is assessed as **LOW**.
		Site End Users	Unlikely	Significant sources of volatile contaminants at the site are not anticipated. The preliminary risk from inhalation of indoor/outdoor air is therefore considered **LOW**.
		Construction Workers	Unlikely	In the unlikely event of construction workers coming into contact with possible volatile compounds, the exposure time will be relatively short. The chronic exposure risk to construction workers, assuming that appropriate health and safety measures will be adopted, is therefore considered **LOW**.

Source	Pathway	Receptor	Probability of Linkage	Comment
		Adjacent Properties	Unlikely	Significant sources of volatile contaminants arising from the site's past use are not anticipated. Therefore the preliminary risk to adjacent properties from volatile contaminants at the site is assessed as **LOW**.
There are no operational landfills recorded within influencing distance of the site. The historic landfill located 111m NE included inert and industrial waste only. Its material type and age means it is not considered a significant source of continuing ground gas. The presence of ground gas within shallow mine workings beneath the site can also be discounted. The original line of Corn Brook may have been in-filled as part of construction of the culvert. However this is considered unlikely to provide a significant source of ground gas.	Emissions from the ground beneath the site collecting in confined spaces and excavations	Construction/ services maintenance workers	Unlikely	The potential to generate significant volumes of ground gas beneath the site is considered low. Assuming that appropriate health and safety measures will be adopted during construction, the preliminary risk is therefore considered **LOW**.
	Migration of gases on/off site and collecting in confined spaces on/off site.	Adjoining site users	Unlikely	The potential to generate significant volumes of ground gas beneath the site is considered low. Therefore, the preliminary risk to adjacent properties from ground gas arising from the site is considered **LOW**.
		Current/future site users	Low	The potential to generate significant volumes of ground gas beneath the site or for such to migrate from offsite sources is considered low. However, a precautionary approach determines that a **LOW/MODERATE** risk is assessed until such time as an appropriate level of ground gas monitoring is undertaken.
The site is within an area where less than 1% of properties are affected by naturally occurring radon gas.	Natural emissions from the ground collecting in confined spaces within buildings	Site end users	No linkage envisaged	The site is not located in an area where radon protection measures are required. Therefore, the potential risk to site end users is considered **VERY LOW**.
Chemicals which could prove aggressive to construction materials are unlikely to be present on site.	Direct contact	Construction concrete, plastic water pipes.	Unlikely	Any risks to construction materials identified after site investigation and assessment will be mitigated as part of the structural design. The perceived risk is therefore considered **LOW**.

Preliminary Risk Assessment

5.5 Under the proposed development scenario, potential pollution linkages are considered low or unlikely with associated preliminary risks generally being assessed as low.

5.6 The approach at the Phase 1 Desk Study stage is, however, precautionary until such time as uncertainties in the conceptual model can be verified by appropriate site investigation.

5.7 Such uncertainties relate in the main to the potential for ACM and asbestos fibres to be present within shallow soils resulting from unrecorded historical demolition. The level of historical contamination as a result of the site's brownfield status should also be established.

5.8 However, the presence of ground gas from nearby landfilling and a potentially infilled watercourse (adjacent to the culvert) cannot be wholly discounted at this stage. Therefore, a low/moderate risk to the proposed development from ground gas is assessed until such time as uncertainties in the conceptual model can be verified by detailed site investigation.

6.0 PRELIMINARY DEVELOPMENT CONSIDERATIONS

Development Considerations	Summary
Asbestos Survey	It is assumed that no demolition will proceed until an appropriate asbestos survey of the existing buildings has been undertaken and any ACM removed by an appropriately licensed contractor.
Ground Obstructions	Foundations, ground floor slabs and other buried concrete obstructions associated with the current and former structures may need to be removed where such are present. However, this needs to be undertaken in consideration of the location of the existing culvert.
Foundations and Floor Slabs	Significant thicknesses of made ground cannot be discounted due to the potential for infilled residential basements and the potentially line of the infilled watercourse crossing the central part of the site. Therefore foundation options will be subject to detailed ground investigation and assessment. At this stage due to the anticipated loading and thickness of made ground the new structure is anticipated to require a piles foundation solution.
Soakaways	Due to the potentially permeable nature of the underlying superficial deposits, the use of soakaway drainage may be feasible.
Existing Services	The locations of all existing services will need to be accurately determine across the full footprint of the development area. It cannot be ruled out that services may need to be diverted to accommodate the proposed development.
Culverted Watercourse	Corn Brook, an underground watercourse, extends roughly north-east to south-west beneath the site. Its location and any associated easements will need to be accurately determine across the full footprint of the development area.
UXO	Review of the University of Manchester's Online Map Collection, namely 'Record of location of aerial bombs on the City of Manchester' has revealed that a bomb strike was recorded within the north-west part of the site in 1940. The Zetica UXO Unexploded Bomb Risk Map, indicates the site be located in a moderate risk areas with a high risk area extending from the western site boundary. Therefore, a detailed UXO Risk Assessment is required prior to undertaking any intrusive investigations or groundworks.

7.0 SUMMARY AND RECOMMENDATIONS

Development Considerations	Comments
Shallow Coal Mining	Low risk.
Flood Risk	Sections of the site in Flood Zone 2.
Ground Obstructions	Foundations, ground floor slabs and other buried concrete obstructions associated with existing and former structures will need to be removed.
Foundations	Piled foundations are anticipated. However, consideration would need to be given to pile type and the location of Corn Brook culvert.
Ground Contamination	Low preliminary risk to be confirmed by ground investigation and chemical analysis.
Hazardous Ground Gas	Low/moderate preliminary risk.
Radon	No radon protection measures are required.
Soakaway Drainage	May to be suitable, subject to confirmation by ground investigation.
Underground Services & Watercourse	The location of Corn Brook, any associated easements and all other existing services will need to be accurately determine across the full footprint of the development area.
UXO	A detailed UXO Risk Assessment is required prior to undertaking any intrusive investigations or groundworks.

Site Investigation

7.1 Site investigations will be necessary to provide information on the physical and chemical ground conditions. This will enable assumptions made in the preliminary site conceptual model to be confirmed or modified so as to assess the actual environmental risks posed by the site.

7.2 Prior to any site investigations it will be necessary to accurately determine the location of Corn Brook culvert and any associated easements.

7.3 The investigation will comprise sampling and chemical analysis of the near surface soil and will include analysis for the identification of ACM and asbestos fibres. Investigations will also need to include monitoring for ground gas.

7.4 Ground investigations will also provide parameters for the design of foundations, floor slabs and external pavements.

7.5 Site investigations will be undertaken in accordance with British Standard Institution (BSI), Code of Practice for Ground Investigations – BS5930:2015 + A2:2010 and Investigation of Potentially Contaminated Sites – Code of Practice. BS 10175:2011 +A2:2017.

APPENDIX 01

Drawings

This drawing is copyright. Do not scale dimensions from this drawing "If in doubt ask". This drawing is to be read in conjunction with all other relevant drawings and specifications. All discrepancies on this drawing are to be reported to the architect. Do not modify any element of this drawing. Use drawing only for purpose(s) issued.

Future THT Development

Future THT Development

Sports Hall

Temporary Accommodation

E&K

Existing Vehicle Access Retained

Covered Bike Storage

St Vincents

Proposed freestanding timber framed canopy.

8000

12500

Timber tables and 6no. person benches. 96no. seating capacity.

Existing Vehicle Access Retained

Future Office Expansion

6000

16no.

Performance Area: Timber bench seating 450(D) 450(H). 600(R) to outer edge.

MAHER GARDENS

Car park and culvert area to be tarmacked.

Quiet Outdoor Space: Playbark soft surface with curved timber benched seating. Area boundary defined by 1500mm(D) planting bed.

10mx10m footprint canvas canopy with a timber structure.

New fence line. 2.4m(H) metal bar and rail to match existing fencing.

Wildflower planting area

5no. benched seating to follow curvature of landscaping 450(D) x 450(H).

Concrete finish that marks culvert's location to be retained in car park. All other surfaces marked on plan to cover this area.

ENTRANCE

PROPOSED NEW BUILD

Existing parking spaces: 33no.

14000

TAMWORTH STREET

Existing Vehicle Access

MOSS LN W

Future Car Park Expansion

Proposed future parking spaces: 37no. additional

1 Proposed Landscaping Option 1

1 : 200

Key

- Site Boundary
- Ownership Boundary
- Grass
- Hard Landscaping (vehicle grade)
- Pathways
- New Build
- Timber Bench Seating
- Future THT Development
- Location of Culvert and 7m easement zone from culvert centre line. Exact location to be confirmed via specialist site survey.
- Existing Trees
- Proposed Trees
- Planting Areas
- Soft Landscaping - Playbark
- Lines of Demolition
- EV — EV Parking (20% Manchester City Council TFGM EVI Strategy 2021)
- DIS — Disabled Parking (3 +3% - DPA UK)
- 2.4m(H) metal and post rail fence to match existing
- Rainwater Harvesting Tank
- Attenuation Tank

Soft Landscaping:

Grass/Planting. Approx. area size: 2675/100sqm

Hard Landscaping:

Tarmac Hardscape: 2260sqm

Pathways: Sudstech Permeable Paving in Lea. Approx. area size: 1130sqm

Scale 1:200

0 5 10 15 20 25

Rev Revision Notes
P1 i109 - Landscaping

Client:	Loreto College
Project:	Loreto College Probation Land
Job No.:	1273
Date :	06/02/23
BIM Model :	LCPL-10A-M3
QA:	AD DD
Scale :	As indicated@A1
Drawing:	**Proposed Landscaping Option 1**
Rev notes:	i109 - Landscaping

LCPL- 10A- V0- XX- DR- A- **9004**- P1

Loarchitect
Social Value through Architecture. Manchester: 0161 605 0904 Liverpool: 0151 958 0069

LCPL- 10A- V0- XX- DR- A- 9004- P1

APPENDIX 02

Site Photographs



Photograph 1
View south-west across an area of car parking in the north-eastern corner of the site.



Photograph 2
View west across an area of car parking in the north-eastern part of the site with semi-mature deciduous trees in the right of the picture.



Photograph 3
View east across an area of car parking in the north-eastern part of the site with overhead services running to telegraph pole in left of picture.



Photograph 4
View east across an area of car parking in the north-eastern part of the site with semi-mature deciduous trees in the left of the picture.



Photograph 5
View east along the northern elevation of the existing structure occupying the southern half of the site.



Photograph 6
View west across area of car parking in the north-western part of the site bounded by a mature hedge and semi-mature to mature deciduous trees.



Photograph 7
View south-east across area of car parking towards the north-western elevations of the existing structure.



Photograph 8
View south-west along concrete strip crossing area of predominantly asphalt surfaced car park in the north-western part of the site.



Photograph 9
View south-east towards the western elevation of the existing structure in the south-western corner of the site.



Photograph 10
View south towards semi-mature to mature deciduous trees located in the south-western corner of the site.



Photograph 11
View west along grassed area towards southern elevation of the existing structure with the pavement of Moss Lane West in the left of the picture.



Photograph 12
View north-east across grassed mound in the southern part of the site with the existing structure visible beyond.



Photograph 13
View north-east across grassed landscaping towards the southern elevation of the existing structure in the south-eastern corner of the site.



Photograph 14
View north along grassed landscaping with the eastern elevation of the existing structure in the left of the picture and a semi-mature deciduous tree in the background.

APPENDIX 03

GroundSure Enviro & Geoinsight Report

Groundsure
LOCATION INTELLIGENCE

Enviro+Geo Insight

87, MOSS LANE WEST, MANCHESTER, M15 5PE

Order Details

Date: 10/02/2023

Your ref: 10939G

Our Ref: HMD-424-9349633

Site Details

Location: 383300 395989

Area: 0.62 ha

Authority: Manchester City Council, Trafford Metropolitan Borough Council



Summary of findings p. 2

OS MasterMap site plan p.12

Aerial image p. 8

groundsure.com/insightuserguide

Contact us with any questions at:
info@groundsure.com
08444 159 000

Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
13	**1.1**	**Historical industrial land uses**	0	0	0	5	-
14	**1.2**	**Historical tanks**	0	0	0	3	-
14	**1.3**	**Historical energy features**	0	0	10	5	-
15	1.4	Historical petrol stations	0	0	0	0	-
15	1.5	Historical garages	0	0	0	0	-
16	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped	On site	0-50m	50-250m	250-500m	500-2000m
17	**2.1**	**Historical industrial land uses**	0	0	0	9	-
18	**2.2**	**Historical tanks**	0	0	0	3	-
18	**2.3**	**Historical energy features**	0	0	11	13	-
19	2.4	Historical petrol stations	0	0	0	0	-
20	2.5	Historical garages	0	0	0	0	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
21	3.1	Active or recent landfill	0	0	0	0	-
21	3.2	Historical landfill (BGS records)	0	0	0	0	-
22	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
22	**3.4**	**Historical landfill (EA/NRW records)**	0	0	1	0	-
22	**3.5**	**Historical waste sites**	0	0	0	3	-
23	3.6	Licensed waste sites	0	0	0	0	-
23	**3.7**	**Waste exemptions**	0	0	0	7	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
25	**4.1**	**Recent industrial land uses**	0	0	6	-	-
26	**4.2**	**Current or recent petrol stations**	0	0	0	2	-
26	4.3	Electricity cables	0	0	0	0	-
26	4.4	Gas pipelines	0	0	0	0	-
27	4.5	Sites determined as Contaminated Land	0	0	0	0	-

27	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
27	4.7	Regulated explosive sites	0	0	0	0	-
27	4.8	Hazardous substance storage/usage	0	0	0	0	-
27	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
28	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
28	**4.11**	**Licensed pollutant release (Part A(2)/B)**	0	0	0	1	-
28	4.12	Radioactive Substance Authorisations	0	0	0	0	-
28	4.13	Licensed Discharges to controlled waters	0	0	0	0	-
29	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
29	4.15	Pollutant release to public sewer	0	0	0	0	-
29	4.16	List 1 Dangerous Substances	0	0	0	0	-
29	4.17	List 2 Dangerous Substances	0	0	0	0	-
29	4.18	Pollution Incidents (EA/NRW)	0	0	0	0	-
30	4.19	Pollution inventory substances	0	0	0	0	-
30	4.20	Pollution inventory waste transfers	0	0	0	0	-
30	4.21	Pollution inventory radioactive waste	0	0	0	0	-

Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
31	**5.1**	**Superficial aquifer**	Identified (within 500m)				
33	**5.2**	**Bedrock aquifer**	Identified (within 500m)				
34	**5.3**	**Groundwater vulnerability**	Identified (within 50m)				
35	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
35	5.5	Groundwater vulnerability- local information	None (within 0m)				
36	**5.6**	**Groundwater abstractions**	0	0	4	0	28
45	**5.7**	**Surface water abstractions**	0	0	0	0	5
46	5.8	Potable abstractions	0	0	0	0	0
46	**5.9**	**Source Protection Zones**	0	0	1	2	-
47	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-

Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
48	**6.1**	**Water Network (OS MasterMap)**	1	0	0	-	-

49	6.2	Surface water features	0	0	0	-	-
49	**6.3**	**WFD Surface water body catchments**	1	-	-	-	-
49	**6.4**	**WFD Surface water bodies**	0	0	0	-	-
50	**6.5**	**WFD Groundwater bodies**	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
51	**7.1**	**Risk of flooding from rivers and the sea**	High (within 50m)				
52	7.2	Historical Flood Events	0	0	0	-	-
52	7.3	Flood Defences	0	0	0	-	-
52	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
52	7.5	Flood Storage Areas	0	0	0	-	-
53	**7.6**	**Flood Zone 2**	Identified (within 50m)				
54	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
55	**8.1**	**Surface water flooding**	1 in 30 year, 0.1m - 0.3m (within 50m)				
Page	Section	Groundwater flooding					
57	**9.1**	**Groundwater flooding**	High (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
58	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
58	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
58	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
58	10.4	Special Protection Areas (SPA)	0	0	0	0	0
59	10.5	National Nature Reserves (NNR)	0	0	0	0	0
59	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
59	10.7	Designated Ancient Woodland	0	0	0	0	0
59	10.8	Biosphere Reserves	0	0	0	0	0
60	10.9	Forest Parks	0	0	0	0	0
60	10.10	Marine Conservation Zones	0	0	0	0	0
60	10.11	Green Belt	0	0	0	0	0
60	10.12	Proposed Ramsar sites	0	0	0	0	0

60	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
61	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
61	10.15	Nitrate Sensitive Areas	0	0	0	0	0
61	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
62	**10.17**	**SSSI Impact Risk Zones**	1	-	-	-	-
63	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
64	11.1	World Heritage Sites	0	0	0	-	-
65	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
65	11.3	National Parks	0	0	0	-	-
65	**11.4**	**Listed Buildings**	0	2	6	-	-
66	11.5	Conservation Areas	0	0	0	-	-
66	11.6	Scheduled Ancient Monuments	0	0	0	-	-
66	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
67	**12.1**	**Agricultural Land Classification**	Urban (within 250m)				
68	12.2	Open Access Land	0	0	0	-	-
68	12.3	Tree Felling Licences	0	0	0	-	-
68	12.4	Environmental Stewardship Schemes	0	0	0	-	-
68	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
69	13.1	Priority Habitat Inventory	0	0	0	-	-
69	13.2	Habitat Networks	0	0	0	-	-
69	13.3	Open Mosaic Habitat	0	0	0	-	-
69	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
70	**14.1**	**10k Availability**	Identified (within 500m)				
71	**14.2**	**Artificial and made ground (10k)**	0	0	1	0	-
72	**14.3**	**Superficial geology (10k)**	1	0	0	2	-

73	14.4	Landslip (10k)	0	0	0	0	-
74	**14.5**	**Bedrock geology (10k)**	1	0	1	0	-
75	14.6	Bedrock faults and other linear features (10k)	0	0	0	0	-
Page	Section	Geology 1:50,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
76	**15.1**	**50k Availability**	Identified (within 500m)				
77	15.2	Artificial and made ground (50k)	0	0	0	0	-
77	15.3	Artificial ground permeability (50k)	0	0	-	-	-
78	**15.4**	**Superficial geology (50k)**	1	0	0	2	-
79	**15.5**	**Superficial permeability (50k)**	Identified (within 50m)				
79	15.6	Landslip (50k)	0	0	0	0	-
79	15.7	Landslip permeability (50k)	None (within 50m)				
80	**15.8**	**Bedrock geology (50k)**	1	0	1	0	-
81	**15.9**	**Bedrock permeability (50k)**	Identified (within 50m)				
81	15.10	Bedrock faults and other linear features (50k)	0	0	0	0	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
82	**16.1**	**BGS Boreholes**	0	0	57	-	-
Page	Section	Natural ground subsidence					
85	**17.1**	**Shrink swell clays**	Negligible (within 50m)				
86	**17.2**	**Running sands**	Very low (within 50m)				
87	**17.3**	**Compressible deposits**	Negligible (within 50m)				
88	**17.4**	**Collapsible deposits**	Very low (within 50m)				
89	**17.5**	**Landslides**	Very low (within 50m)				
90	**17.6**	**Ground dissolution of soluble rocks**	Negligible (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
91	18.1	Natural cavities	0	0	0	0	-
92	18.2	BritPits	0	0	0	0	-
92	**18.3**	**Surface ground workings**	0	0	1	-	-
92	18.4	Underground workings	0	0	0	0	0
92	18.5	Historical Mineral Planning Areas	0	0	0	0	-

93	18.6	Non-coal mining	0	0	0	0	0
93	18.7	Mining cavities	0	0	0	0	0
93	**18.8**	**JPB mining areas**	Identified (within 0m)				
93	**18.9**	**Coal mining**	Identified (within 0m)				
94	18.10	Brine areas	None (within 0m)				
94	18.11	Gypsum areas	None (within 0m)				
94	18.12	Tin mining	None (within 0m)				
94	18.13	Clay mining	None (within 0m)				

Page	Section	Radon	
95	**19.1**	**Radon**	Less than 1% (within 0m)

Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
97	**20.1**	**BGS Estimated Background Soil Chemistry**	3	0	-	-	-
97	**20.2**	**BGS Estimated Urban Soil Chemistry**	4	3	-	-	-
98	20.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-

Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
99	21.1	Underground railways (London)	0	0	0	-	-
99	21.2	Underground railways (Non-London)	0	0	0	-	-
99	21.3	Railway tunnels	0	0	0	-	-
99	21.4	Historical railway and tunnel features	0	0	0	-	-
99	21.5	Royal Mail tunnels	0	0	0	-	-
100	21.6	Historical railways	0	0	0	-	-
100	21.7	Railways	0	0	0	-	-
100	21.8	Crossrail 1	0	0	0	0	-
100	21.9	Crossrail 2	0	0	0	0	-
100	21.10	HS2	0	0	0	0	-

Recent aerial photograph



Capture Date: 22/04/2019

Site Area: 0.62ha

Recent site history - 2015 aerial photograph



Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2023. All Rights Reserved.

Capture Date: 11/06/2015

Site Area: 0.62ha

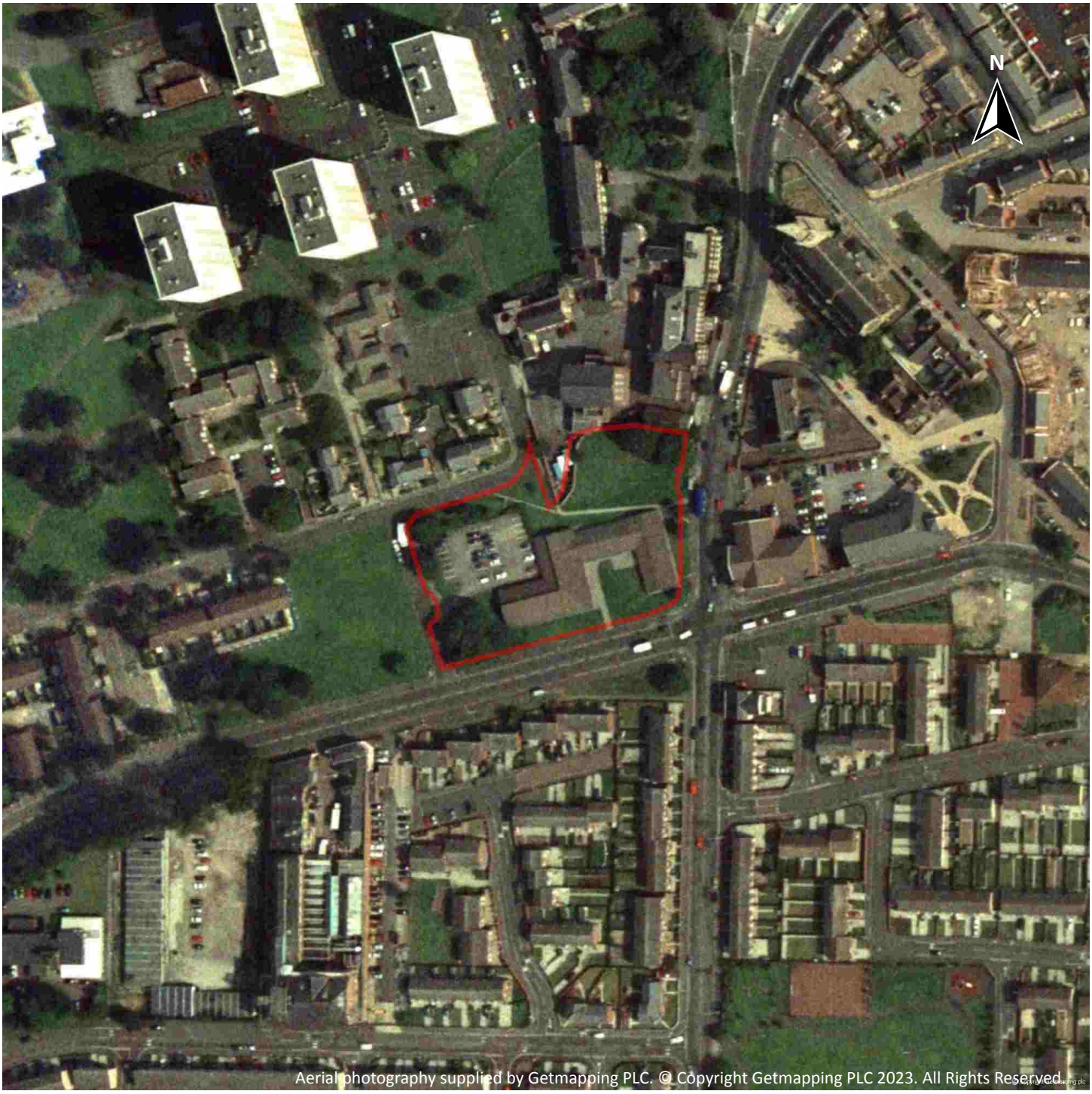
Recent site history - 2009 aerial photograph



Capture Date: 02/06/2009

Site Area: 0.62ha

Recent site history - 2000 aerial photograph

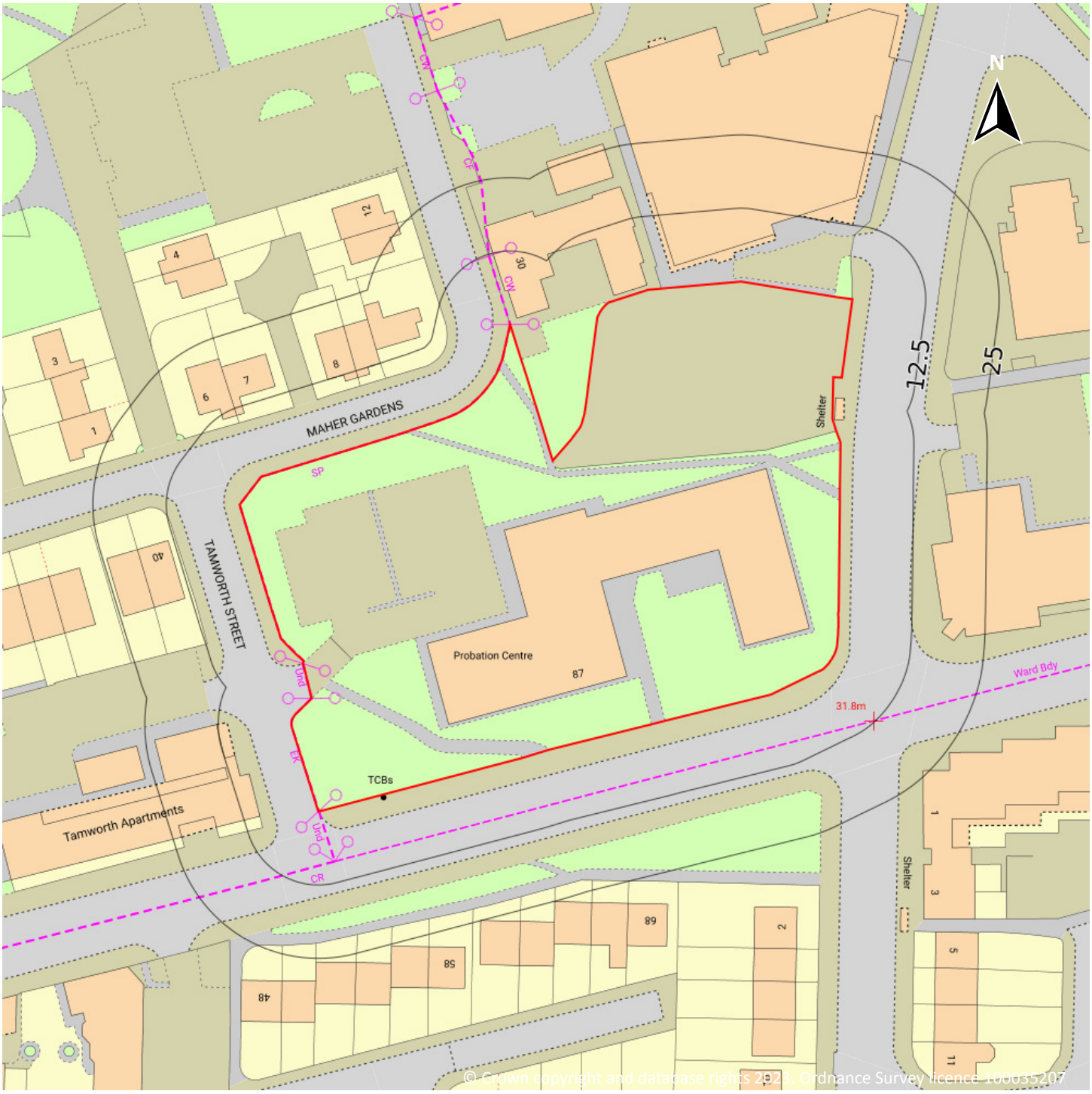


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Capture Date: 27/06/2000

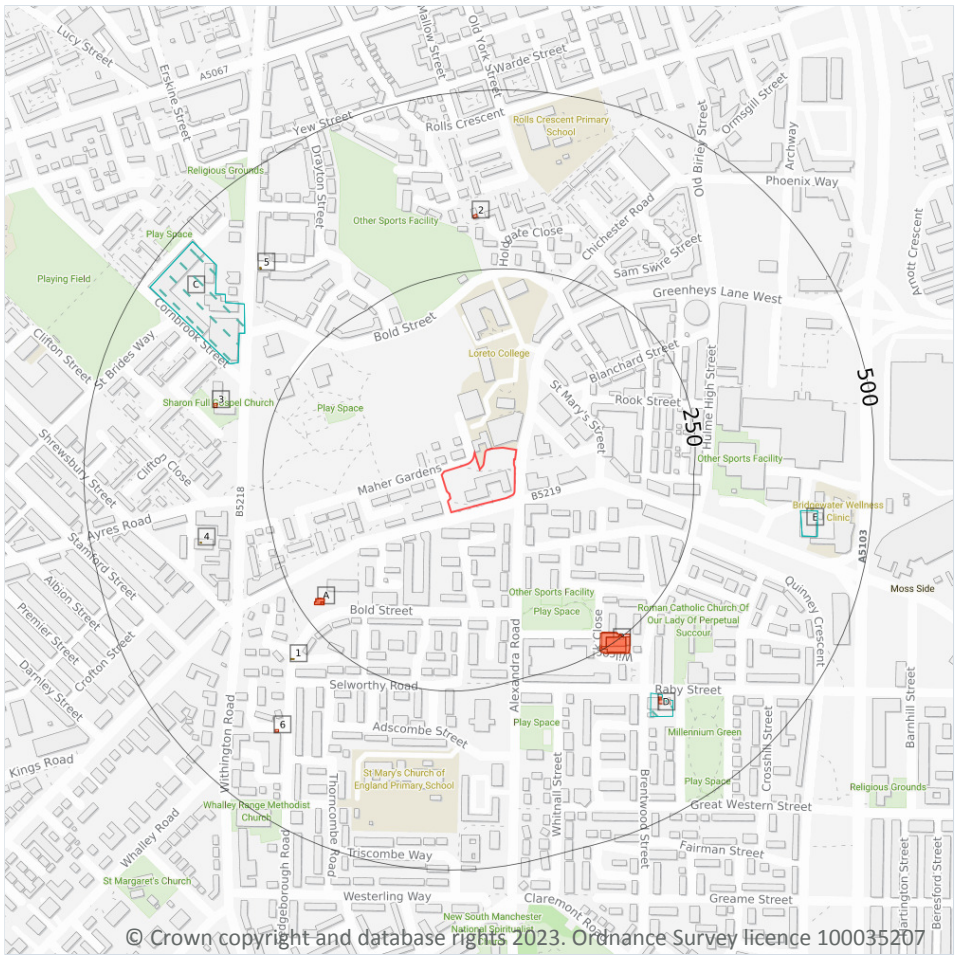
Site Area: 0.62ha

OS MasterMap site plan



Site Area: 0.62ha

1 Past land use



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1.1 Historical industrial land uses

Records within 500m	5

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 1:10,560 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 13**

ID	Location	Land use	Dates present	Group ID
C	325m NW	Unspecified Works	1978	869833

ID	Location	Land use	Dates present	Group ID
C	325m NW	Unspecified Works	1985	856072
D	338m SE	Telephone Exchange	1985 - 1994	943477
E	401m E	Fire Station	1985 - 1994	894333
E	401m E	Fire Station	1978	959915

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m	**3**

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

Features are displayed on the Past land use map on **page 13**

ID	Location	Land use	Dates present	Group ID
1	300m SW	Unspecified Tank	1891	115776
4	349m W	Unspecified Tank	1891	115774
5	381m NW	Unspecified Tank	1891	115757

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	**15**

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

Features are displayed on the Past land use map on **page 13**

ID	Location	Land use	Dates present	Group ID
A	215m SW	Electricity Substation	1978	75412

ID	Location	Land use	Dates present	Group ID
A	215m SW	Electricity Substation	1949	80174
A	215m SW	Electricity Substation	1977	81588
A	218m SW	Electricity Substation	1995	81383
A	218m SW	Electricity Substation	1997	82814
A	218m SW	Electricity Substation	1998	83361
B	229m SE	Electricity Substation	1997 - 1998	80119
B	229m SE	Electricity Substation	1995	80421
B	238m SE	Electricity Substation	1978	69926
B	238m SE	Electricity Substation	1977	68665
2	323m N	Electricity Substation	1980	62179
3	328m W	Electricity Substation	1977 - 1989	65803
D	348m SE	Electricity Substation	1977 - 1985	65558
D	351m SE	Electricity Substation	1989 - 1995	80713
6	388m SW	Electricity Substation	1995 - 1998	69279

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m	0

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

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m	0

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

grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

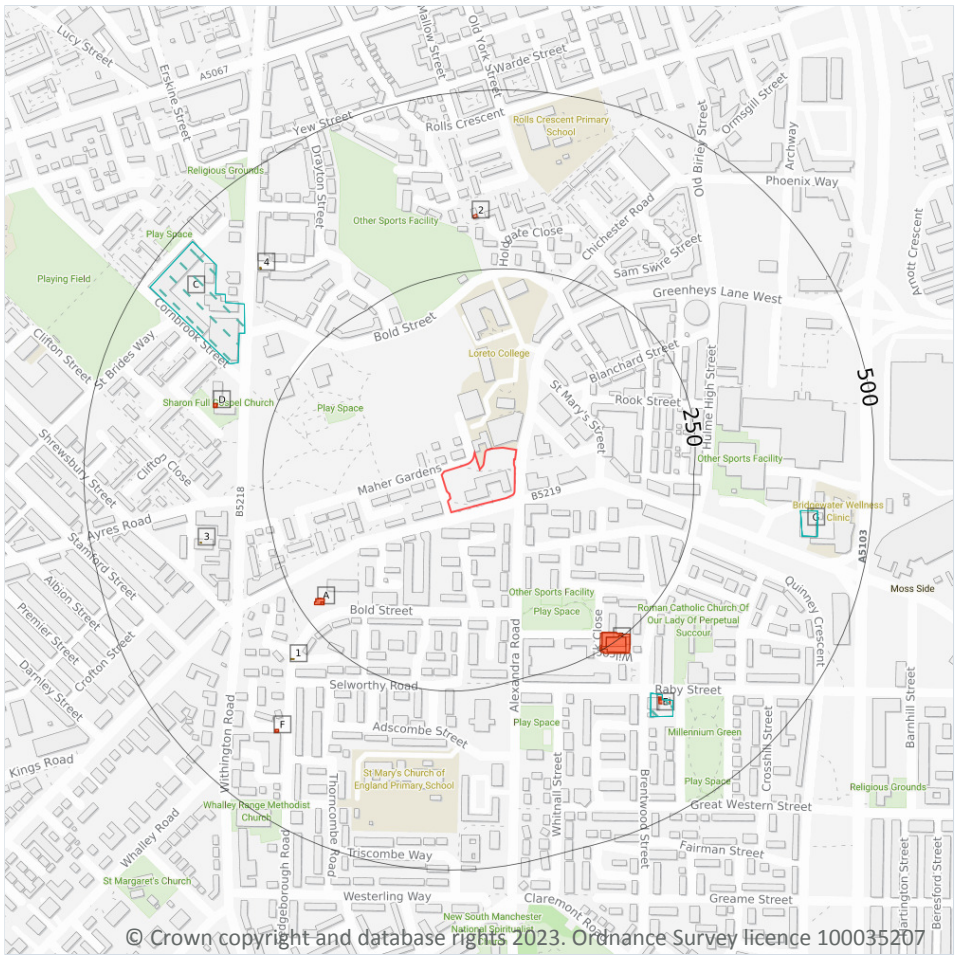
1.6 Historical military land

Records within 500m	0

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

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

2 Past land use - un-grouped



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2.1 Historical industrial land uses

Records within 500m	9

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 10,560 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 17**

ID	Location	Land Use	Date	Group ID
C	325m NW	Unspecified Works	1978	869833
C	325m NW	Unspecified Works	1985	856072
E	338m SE	Telephone Exchange	1988	943477

ID	Location	Land Use	Date	Group ID
E	338m SE	Telephone Exchange	1985	943477
E	338m SE	Telephone Exchange	1994	943477
G	401m E	Fire Station	1988	894333
G	401m E	Fire Station	1978	959915
G	401m E	Fire Station	1985	894333
G	401m E	Fire Station	1994	894333

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	**3**

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

Features are displayed on the Past land use - un-grouped map on **page 17**

ID	Location	Land Use	Date	Group ID
1	300m SW	Unspecified Tank	1891	115776
3	349m W	Unspecified Tank	1891	115774
4	381m NW	Unspecified Tank	1891	115757

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	**24**

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

Features are displayed on the Past land use - un-grouped map on **page 17**

ID	Location	Land Use	Date	Group ID
A	215m SW	Electricity Substation	1978	75412
A	215m SW	Electricity Substation	1949	80174

ID	Location	Land Use	Date	Group ID
A	215m SW	Electricity Substation	1977	81588
A	218m SW	Electricity Substation	1995	81383
A	218m SW	Electricity Substation	1998	83361
A	218m SW	Electricity Substation	1997	82814
B	229m SE	Electricity Substation	1997	80119
B	229m SE	Electricity Substation	1995	80421
B	229m SE	Electricity Substation	1998	80119
B	238m SE	Electricity Substation	1978	69926
B	238m SE	Electricity Substation	1977	68665
2	323m N	Electricity Substation	1980	62179
D	328m W	Electricity Substation	1989	65803
D	328m W	Electricity Substation	1977	65803
D	329m W	Electricity Substation	1982	65803
D	329m W	Electricity Substation	1986	65803
E	348m SE	Electricity Substation	1985	65558
E	349m SE	Electricity Substation	1977	65558
E	351m SE	Electricity Substation	1989	80713
E	351m SE	Electricity Substation	1989	80713
E	352m SE	Electricity Substation	1995	80713
F	388m SW	Electricity Substation	1995	69279
F	388m SW	Electricity Substation	1998	69279
F	388m SW	Electricity Substation	1997	69279

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m	0

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

This data is sourced from Ordnance Survey / Groundsure.

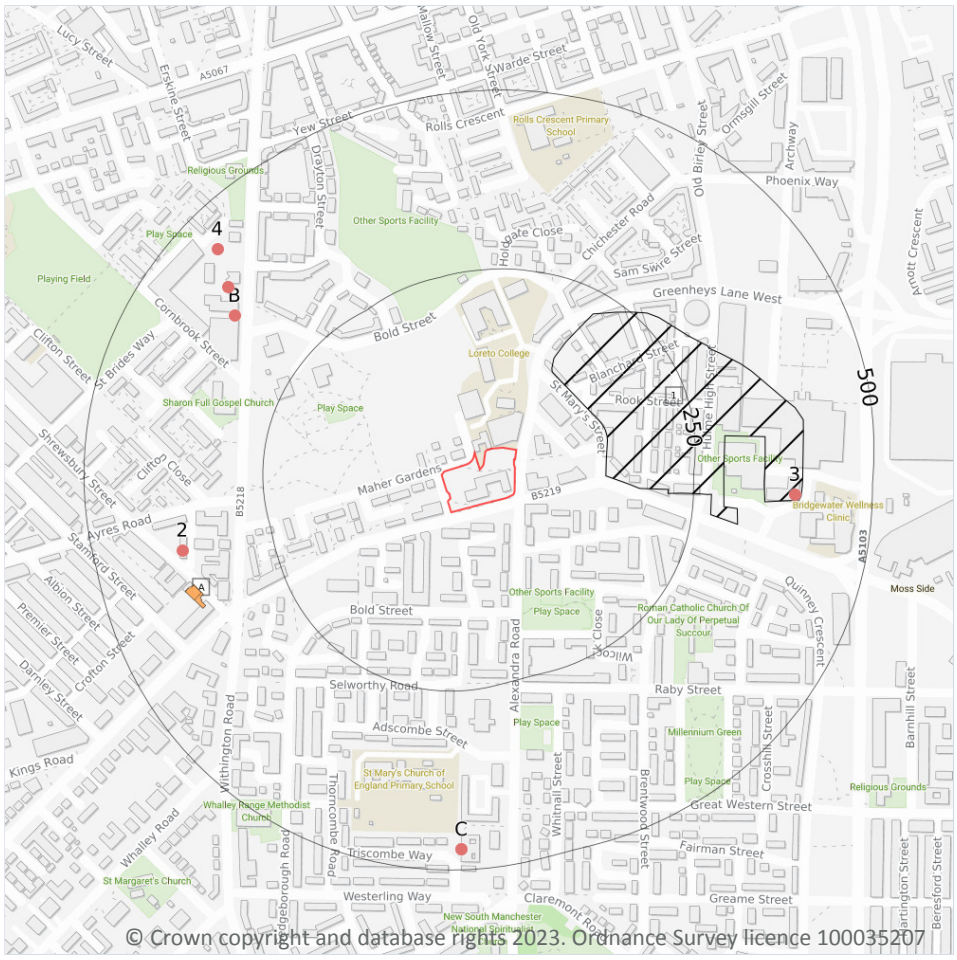
2.5 Historical garages

Records within 500m	0

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

This data is sourced from Ordnance Survey / Groundsure.

3 Waste and landfill



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 21**

ID	Location	Details		
1	111m NE	Site Address: Moss Side Shopping Centre, Hulme, Manchester Licence Holder Address: -	Waste Licence: Yes Site Reference: F061,0103, RD/LIC/1036/93 Waste Type: Inert, Industrial Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 11/04/1994 Licence Surrender: -	Operator: - Licence Holder: Demolition Service Limited First Recorded 31/05/1994 Last Recorded: 05/06/1995

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

3.5 Historical waste sites

Records within 500m	3

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 21**

ID	Location	Address	Further Details	Date
A	364m W	Site Address: N/A	Type of Site: Scrap Metal Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1985

ID	Location	Address	Further Details	Date
A	364m W	Site Address: N/A	Type of Site: Scrap Metal Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1981
A	367m W	Site Address: N/A	Type of Site: Scrap Metal Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1971

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

3.6 Licensed waste sites

Records within 500m	**0**

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

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

3.7 Waste exemptions

Records within 500m	**7**

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.

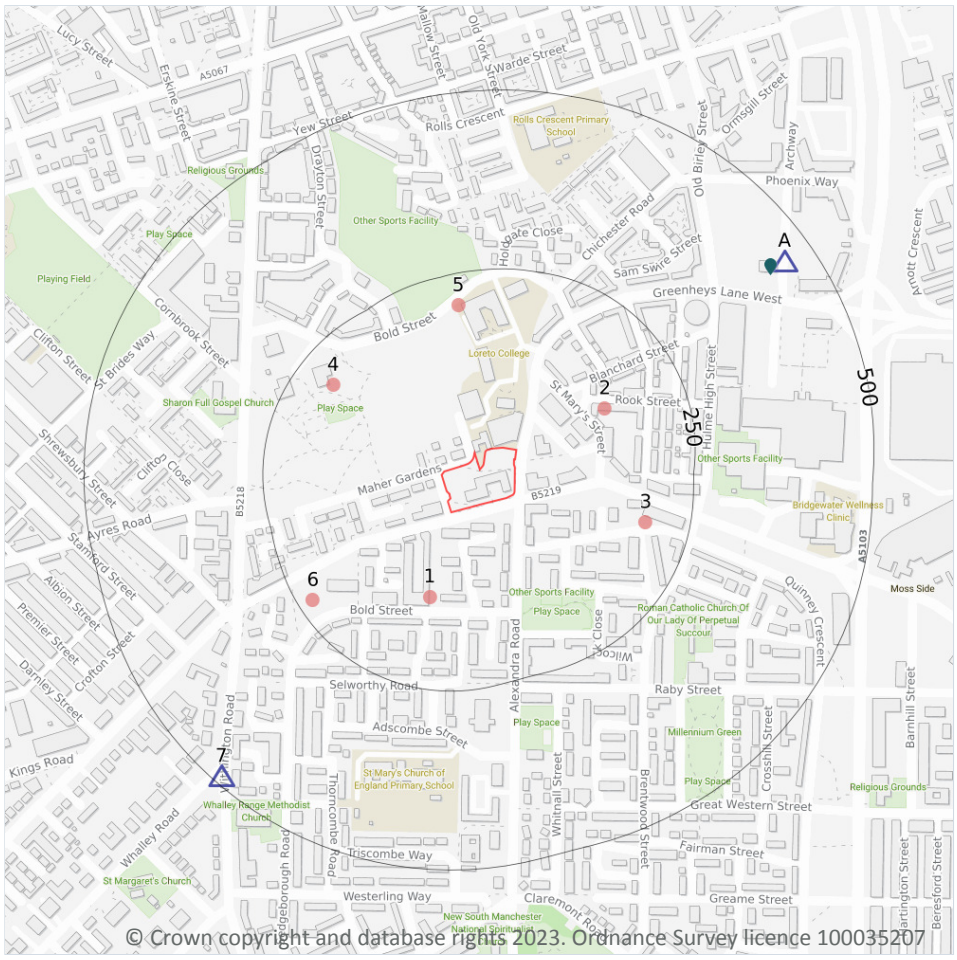
Features are displayed on the Waste and landfill map on **page 21**

ID	Location	Site	Reference	Category	Sub-Category	Description
B	365m NW	Unit 4, 92 Chorlton Road, Manchester, M15 4AL	EA/EPR/VP3981WM/A001	Treating waste exemption	Not on a farm	Repair or refurbishment of WEEE
2	378m W	2 South Croston Street MANCHESTER M16 7WP	EPR/HF0301LK/A001	Using waste exemption	Non-Agricultural Waste Only	Use of waste in construction
3	391m E	DENHILL HOUSE, 2, DENHILL ROAD, MANCHESTER, M15 5NR	WEX232922	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
B	397m NW	-	WEX310484	Storing waste exemption	Not on a Farm	Storage of waste in a secure place
4	444m NW	92 CHORLTON ROAD MANCHESTER M15 4AL	EPR/GE5146GE/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place

ID	Location	Site	Reference	Category	Sub-Category	Description
C	472m S	ALEXANDRA PARK HEALTH CENTRE, 2, WHITSWOOD CLOSE, MANCHESTER, M16 7AP	WEX156636	Treating waste exemption	Not on a Farm	Sorting and de-naturing of controlled drugs for disposal
C	472m S	Whitswood Pharmacy, 2 Whitswood Close, Moss Side, Manchester, M16 7AP	WEX130222	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal

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

4 Current industrial land use



4.1 Recent industrial land uses

Records within 250m	6

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 25**

ID	Location	Company	Address	Activity	Category
1	122m SW	Electricity Sub Station	Greater Manchester, M16	Electrical Features	Infrastructure and Facilities
2	137m NE	Garden Buildings	22, Rook Street, Manchester, Greater Manchester, M15 5PS	Garden Goods	Consumer Products
3	188m E	Electricity Sub Station	Greater Manchester, M16	Electrical Features	Infrastructure and Facilities

ID	Location	Company	Address	Activity	Category
4	197m NW	Electricity Sub Station	Greater Manchester, M15	Electrical Features	Infrastructure and Facilities
5	206m N	Electricity Sub Station	Greater Manchester, M15	Electrical Features	Infrastructure and Facilities
6	229m SW	Electricity Sub Station	Greater Manchester, M16	Electrical Features	Infrastructure and Facilities

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m	**2**

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on **page 25**

ID	Location	Company	Address	LPG	Status
A	458m NE	ASDA	Greenhays Lane West, Archway, Hulme, Manchester, Greater Manchester, M15 5AQ	No	Open
7	489m SW	OBSOLETE	Upper Chorlton Road, Darnley Street, Whalley Range, Manchester, Greater Manchester, M16 7RW	Not Applicable	Obsolete

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m	**0**

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m	**0**

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m	0

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

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m	0

Control of Major Accident Hazards (COMAH) sites. This data includes upper and lower tier sites, and includes a historical archive of COMAH sites and Notification of Installations Handling Hazardous Substances (NIHHS) records.

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m	0

Sites registered and licensed by the Health and Safety Executive under the Manufacture and Storage of Explosives Regulations 2005 (MSER). The last update to this data was in April 2011.

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m	0

Consents granted for a site to hold certain quantities of hazardous substances at or above defined limits in accordance with the Planning (Hazardous Substances) Regulations 2015.

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m	0

Integrated Pollution Control (IPC) records of substance releases to air, land and water. This data represents a historical archive as the IPC regime has been superseded.

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

4.10 Licensed industrial activities (Part A(1))

Records within 500m	0

Records of Part A(1) installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

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

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

Records within 500m	1

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 25**

ID	Location	Address	Details	
A	437m NE	Asda Hulme, 100 Princess Road, Hulme, M15 5AS	Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m	0

Records of the storage, use, accumulation and disposal of radioactive substances regulated under the Radioactive Substances Act 1993.

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

4.13 Licensed Discharges to controlled waters

Records within 500m	0

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

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

4.14 Pollutant release to surface waters (Red List)

Records within 500m	0

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

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

4.15 Pollutant release to public sewer

Records within 500m	0

Discharges of Special Category Effluents to the public sewer.

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

4.16 List 1 Dangerous Substances

Records within 500m	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	0

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

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

4.19 Pollution inventory substances

Records within 500m	0

The pollution inventory (substances) includes reporting on annual emissions of certain regulated substances to air, controlled waters and land. A reporting threshold for each substance is also included. Where emissions fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

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

4.20 Pollution inventory waste transfers

Records within 500m	0

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

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

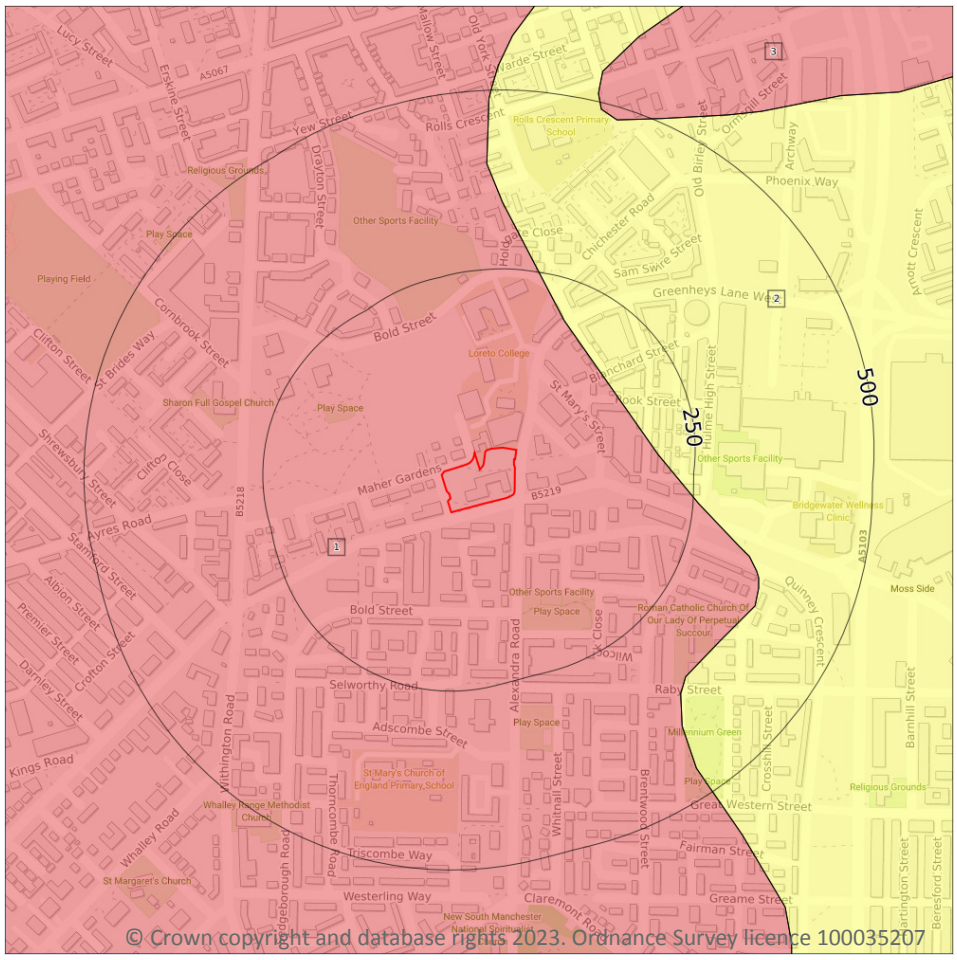
4.21 Pollution inventory radioactive waste

Records within 500m	0

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

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

5 Hydrogeology - Superficial aquifer



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5.1 Superficial aquifer

Records within 500m	3

Aquifer status of groundwater held within superficial geology.

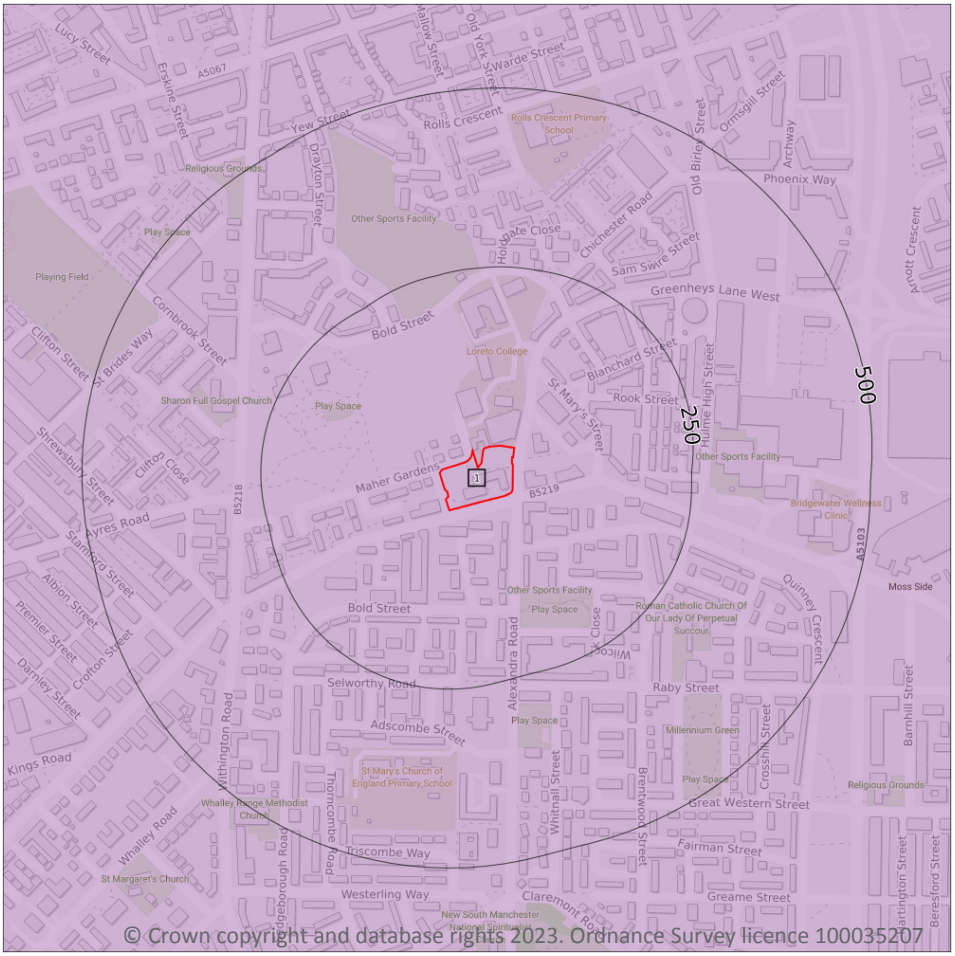
Features are displayed on the Hydrogeology map on **page 31**

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	159m NE	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

ID	Location	Designation	Description
3	482m N	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

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

Bedrock aquifer



5.2 Bedrock aquifer

Records within 500m	1

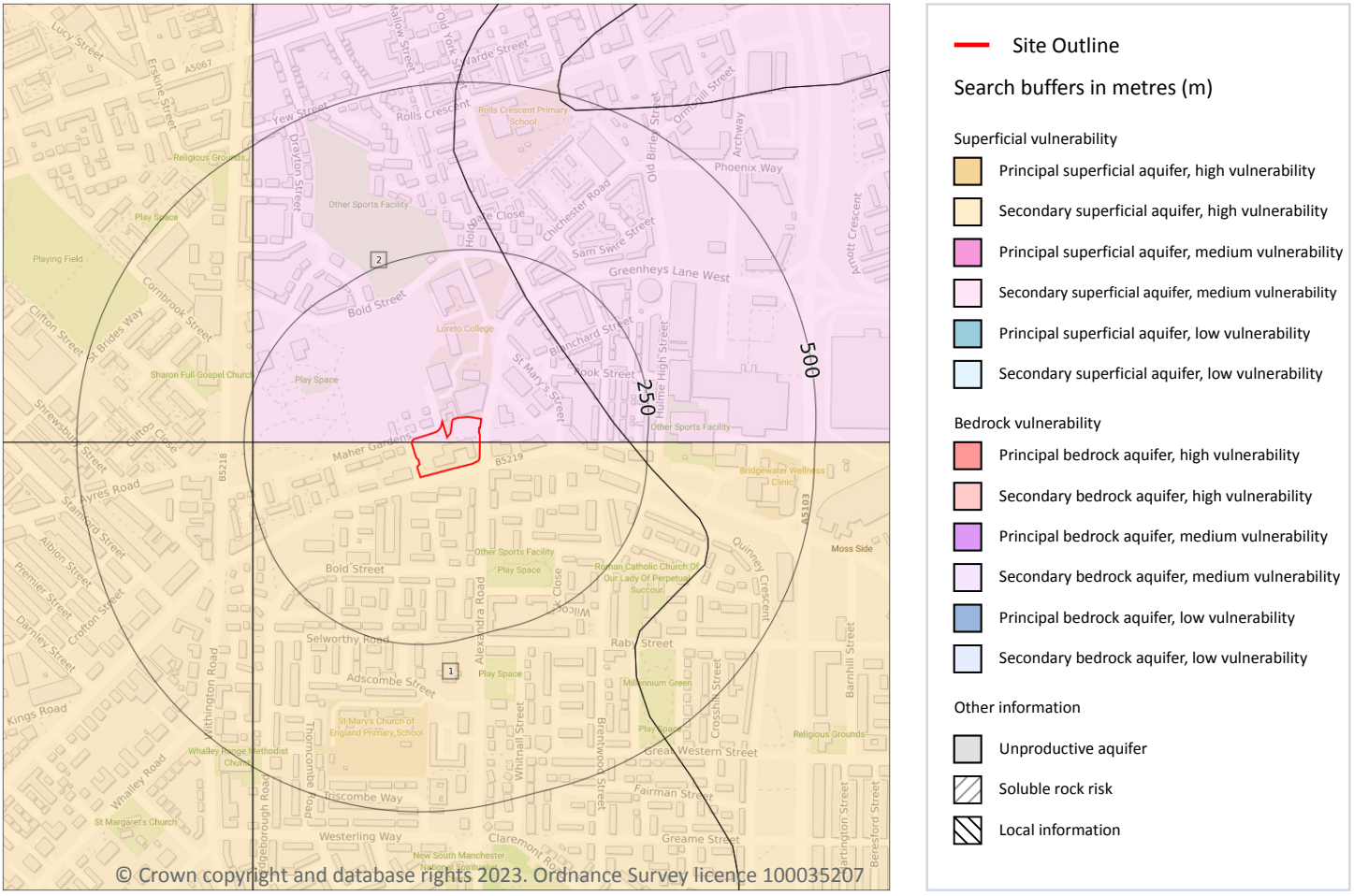
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 33**

ID	Location	Designation	Description
1	On site	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers

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

Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m	2

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

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

Features are displayed on the Groundwater vulnerability map on **page 34**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: 300-550mm/year	Vulnerability: High Aquifer type: Secondary Thickness: 3-10m Patchiness value: >90% Recharge potential: High	Vulnerability: Low Aquifer type: Principal Flow mechanism: Mixed
2	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: >70% Dilution value: 300-550mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: High	Vulnerability: Low Aquifer type: Principal Flow mechanism: Mixed

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.

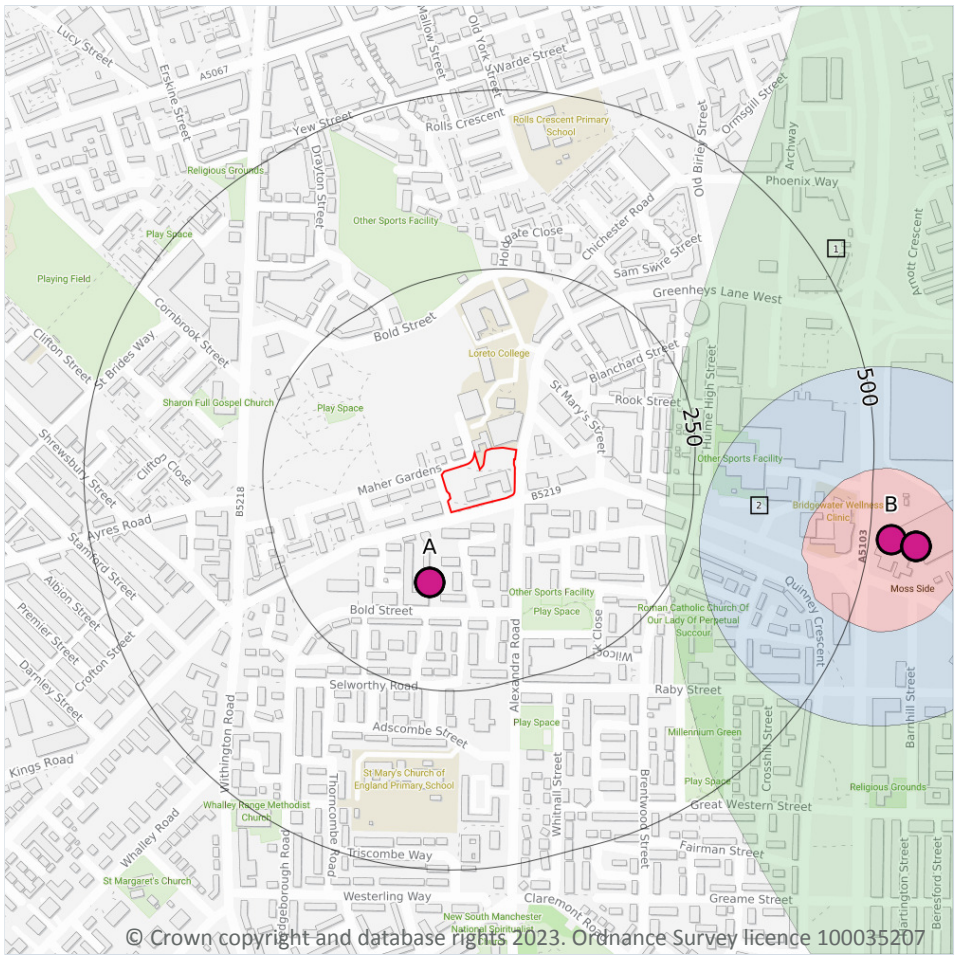
5.5 Groundwater vulnerability- local information

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



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- 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	32

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 36**

ID	Location	Details	
A	102m SW	Status: Historical Licence No: 2569007009 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, MOSS LANE WEST MANCHESTER" Data Type: Point Name: HYDES BREWERY LTD Easting: 383220 Northing: 395850	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 21/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 07/10/2000 Version End Date: -
A	102m SW	Status: Historical Licence No: 2569007009 Details: Process water Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, MOSS LANE WEST MANCHESTER" Data Type: Point Name: HYDES BREWERY LTD Easting: 383220 Northing: 395850	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 21/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 07/10/2000 Version End Date: -
A	102m SW	Status: Historical Licence No: 2569007009 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, MOSS LANE WEST MANCHESTER Data Type: Point Name: HYDES BREWERY LTD Easting: 383220 Northing: 395850	Annual Volume (m^3): 66826.2 Max Daily Volume (m^3): 372.772 Original Application No: - Original Start Date: 21/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 07/10/2000 Version End Date: -
A	102m SW	Status: Historical Licence No: 2569007009 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, MOSS LANE WEST MANCHESTER Data Type: Point Name: HYDES BREWERY LTD Easting: 383220 Northing: 395850	Annual Volume (m^3): 66826.2 Max Daily Volume (m^3): 372.772 Original Application No: - Original Start Date: 21/02/1966 Expiry Date: - Issue No: 103 Version Start Date: 19/07/2018 Version End Date: -

ID	Location	Details	
B	530m E	Status: Active Licence No: 2569007007 Details: General Cooling (Existing Licences Only) (High Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES MOSS SIDE MANCHESTER Data Type: Point Name: Heineken UK Ltd Easting: 383865 Northing: 395909	Annual Volume (m^3): 227,000 Max Daily Volume (m^3): 900 Original Application No: NPS/WR/015793 Original Start Date: 15/02/1966 Expiry Date: - Issue No: 103 Version Start Date: 08/05/2014 Version End Date: -
B	530m E	Status: Active Licence No: 2569007007 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES MOSS SIDE MANCHESTER Data Type: Point Name: Heineken UK Ltd Easting: 383865 Northing: 395909	Annual Volume (m^3): 227,000 Max Daily Volume (m^3): 900 Original Application No: NPS/WR/015793 Original Start Date: 15/02/1966 Expiry Date: - Issue No: 103 Version Start Date: 08/05/2014 Version End Date: -
B	566m E	Status: Historical Licence No: 2569007007 Details: Process water Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, MOSS SIDE, MANCHESTER" Data Type: Point Name: SCOTTISH COURAGE BREWING LTD Easting: 383900 Northing: 395900	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 16/08/1995 Version End Date: -
B	566m E	Status: Historical Licence No: 2569007007 Details: General Cooling (Existing Licences Only) (High Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, MOSS SIDE, MANCHESTER" Data Type: Point Name: SCOTTISH COURAGE BREWING LTD Easting: 383900 Northing: 395900	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 16/08/1995 Version End Date: -

ID	Location	Details	
B	566m E	Status: Historical Licence No: 2569007007 Details: General Cooling (Existing Licences Only) (High Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, MOSS SIDE, MANCHESTER Data Type: Point Name: SCOTTISH COURAGE BREWING LTD Easting: 383900 Northing: 395900	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 31/12/2003 Version End Date: -
B	566m E	Status: Historical Licence No: 2569007007 Details: Process water Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, MOSS SIDE, MANCHESTER Data Type: Point Name: SCOTTISH COURAGE BREWING LTD Easting: 383900 Northing: 395900	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 31/12/2003 Version End Date: -
B	566m E	Status: Historical Licence No: 2569007007 Details: General Cooling (Existing Licences Only) (High Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES MOSS SIDE MANCHESTER Data Type: Point Name: Heineken UK Ltd Easting: 383900 Northing: 395900	Annual Volume (m^3): 227000 Max Daily Volume (m^3): 900 Original Application No: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 23/11/2009 Version End Date: -
B	566m E	Status: Historical Licence No: 2569007007 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES MOSS SIDE MANCHESTER Data Type: Point Name: Heineken UK Ltd Easting: 383900 Northing: 395900	Annual Volume (m^3): 227000 Max Daily Volume (m^3): 900 Original Application No: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 23/11/2009 Version End Date: -

ID	Location	Details	
-	803m NE	Status: Active Licence No: NW/069/0004/003 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT MANCHESTER METROPOLITAN UNIVERSITY Data Type: Point Name: Manchester Metropolitan University Easting: 383715 Northing: 396746	Annual Volume (m^3): 274,115 Max Daily Volume (m^3): 751 Original Application No: NPS/WR/008077 Original Start Date: 20/09/2013 Expiry Date: 31/03/2027 Issue No: 1 Version Start Date: 01/01/2015 Version End Date: -
-	803m NE	Status: Active Licence No: NW/069/0004/003 Details: Heat Pump Direct Source: Ground Water - North West Region Point: BOREHOLE AT MANCHESTER METROPOLITAN UNIVERSITY Data Type: Point Name: Manchester Metropolitan University Easting: 383715 Northing: 396746	Annual Volume (m^3): 274,115 Max Daily Volume (m^3): 751 Original Application No: NPS/WR/008077 Original Start Date: 20/09/2013 Expiry Date: 31/03/2027 Issue No: 1 Version Start Date: 01/01/2015 Version End Date: -
-	1172m N	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW7 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383184 Northing: 397203	Annual Volume (m^3): 260,172 Max Daily Volume (m^3): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -
-	1182m N	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW4 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383159 Northing: 397210	Annual Volume (m^3): 260,172 Max Daily Volume (m^3): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -

ID	Location	Details	
-	1191m N	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW8 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383224 Northing: 397225	Annual Volume (m^3): 260,172 Max Daily Volume (m^3): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -
-	1192m N	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW3 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383140 Northing: 397217	Annual Volume (m^3): 260,172 Max Daily Volume (m^3): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -
-	1198m N	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW5 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383193 Northing: 397230	Annual Volume (m^3): 260,172 Max Daily Volume (m^3): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -
-	1209m N	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW2 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383113 Northing: 397230	Annual Volume (m^3): 260,172 Max Daily Volume (m^3): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -

ID	Location	Details	
-	1219m N	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW9 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383223 Northing: 397253	Annual Volume (m^3): 260,172 Max Daily Volume (m^3): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -
-	1232m N	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW1 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383085 Northing: 397249	Annual Volume (m^3): 260,172 Max Daily Volume (m^3): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -
-	1243m N	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW10 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383211 Northing: 397276	Annual Volume (m^3): 260,172 Max Daily Volume (m^3): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -
-	1245m N	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW6 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383171 Northing: 397275	Annual Volume (m^3): 260,172 Max Daily Volume (m^3): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -

ID	Location	Details	
-	1265m N	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW11 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383204 Northing: 397298	Annual Volume (m^3): 260,172 Max Daily Volume (m^3): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -
-	1348m NE	Status: Active Licence No: NW/069/0006/003 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE 1 AT LOWER CHATHAM STREET Data Type: Point Name: Manchester Metropolitan University Easting: 384180 Northing: 397091	Annual Volume (m^3): 283,240 Max Daily Volume (m^3): 1,532 Original Application No: NPS/WR/015264 Original Start Date: 04/04/2014 Expiry Date: 31/03/2027 Issue No: 2 Version Start Date: 04/04/2014 Version End Date: -
-	1348m NE	Status: Active Licence No: NW/069/0006/003 Details: Heat Pump Direct Source: Ground Water - North West Region Point: BOREHOLE 1 AT LOWER CHATHAM STREET Data Type: Point Name: Manchester Metropolitan University Easting: 384180 Northing: 397091	Annual Volume (m^3): 283,240 Max Daily Volume (m^3): 1,532 Original Application No: NPS/WR/015264 Original Start Date: 04/04/2014 Expiry Date: 31/03/2027 Issue No: 2 Version Start Date: 04/04/2014 Version End Date: -
-	1780m NW	Status: Historical Licence No: 2569007002 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT 371 ORDSALL LANE, MANCHESTER 5" Data Type: Point Name: COLGATE PALMOLIVE LTD Easting: 381600 Northing: 396700	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: 05/12/1985 Version End Date: -

ID	Location	Details	
-	1780m NW	Status: Historical Licence No: 2569007002 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT 371 ORDSALL LANE, MANCHESTER 5 Data Type: Point Name: Cerep III Investment R Sarl Easting: 381600 Northing: 396700	Annual Volume (m^3): 409140 Max Daily Volume (m^3): 1636.56 Original Application No: - Original Start Date: 08/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 29/10/2009 Version End Date: -
-	1964m N	Status: Historical Licence No: NW/069/0004/019 Details: Transfer Between Sources (Post Water Act 2003) Direct Source: Ground Water - North West Region Point: ST JOHNS MANCHESTER Data Type: Poly4 Name: Manchester Quays Development (MGY) Ltd Easting: 383094 Northing: 398099	Annual Volume (m^3): 543,120 Max Daily Volume (m^3): 1,488 Original Application No: - Original Start Date: 13/09/2019 Expiry Date: 31/12/2020 Issue No: 1 Version Start Date: 13/09/2019 Version End Date: -
-	1989m NE	Status: Historical Licence No: NW0690006001 Details: Non-Evaporative Cooling Direct Source: Ground Water - North West Region Point: BOREHOLES AT ORIGIN DEVELOPMENTS, MANCHESTER Data Type: Point Name: West Contracting Easting: 384378 Northing: 397733	Annual Volume (m^3): 139128 Max Daily Volume (m^3): 1010 Original Application No: - Original Start Date: 19/01/2009 Expiry Date: 31/03/2015 Issue No: 1 Version Start Date: 19/01/2009 Version End Date: -
-	1989m NE	Status: Historical Licence No: NW/069/0006/001 Details: Non-Evaporative Cooling Direct Source: Ground Water - North West Region Point: BOREHOLES AT ORIGIN DEVELOPMENTS, MANCHESTER Data Type: Point Name: West Contracting Easting: 384378 Northing: 397733	Annual Volume (m^3): 139128 Max Daily Volume (m^3): 1010 Original Application No: - Original Start Date: 19/01/2009 Expiry Date: 31/03/2015 Issue No: 1 Version Start Date: 19/01/2009 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m	**5**

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 36**

ID	Location	Details	
-	1577m NW	Status: Historical Licence No: 2569007053 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: "Surface, Non-Tidal - North West Region" Point: "R IRWELL AT IRWELL WORKS, ORDSALL LANE, SALFORD" Data Type: Point Name: CDS COMPUTER DESIGN SYSTEMS LTD Easting: 382500 Northing: 397400	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 22/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/11/1987 Version End Date: -
-	1577m NW	Status: Historical Licence No: 2569007053 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Surface, Non-Tidal - North West Region Point: R IRWELL AT IRWELL WORKS, ORDSALL LANE, SALFORD Data Type: Point Name: CDS COMPUTER DESIGN SYSTEMS LTD Easting: 382500 Northing: 397400	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 22/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/11/1987 Version End Date: -
-	1780m NW	Status: Historical Licence No: 2569007001 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: "Surface, Non-Tidal - North West Region" Point: "MANCHESTER SHIP CANAL AT PREMISES, ORDSALL LANE, MANCHESTER" Data Type: Point Name: COLGATE PALMOLIVE LTD Easting: 381600 Northing: 396700	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 27/04/1992 Version End Date: -

ID	Location	Details	
-	1780m NW	Status: Historical Licence No: 2569007001 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Surface, Non-Tidal - North West Region Point: MANCHESTER SHIP CANAL AT PREMISES, ORDSALL LANE, MANCHESTER Data Type: Point Name: COLGATE PALMOLIVE LTD Easting: 381600 Northing: 396700	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 27/04/1992 Version End Date: -
-	1780m NW	Status: Historical Licence No: 2569007001 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Surface, Non-Tidal - North West Region Point: MANCHESTER SHIP CANAL AT PREMISES ORDSALL LANE MANCHESTER Data Type: Point Name: Cerep III Investment R Sarl Easting: 381600 Northing: 396700	Annual Volume (m^3): 1,363,800 Max Daily Volume (m^3): 4909.68 Original Application No: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 29/10/2009 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	**3**

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 36**

ID	Location	Type	Description
1	212m E	3	Total catchment
2	264m E	2	Outer catchment

ID	Location	Type	Description
B	410m E	1	Inner catchment

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

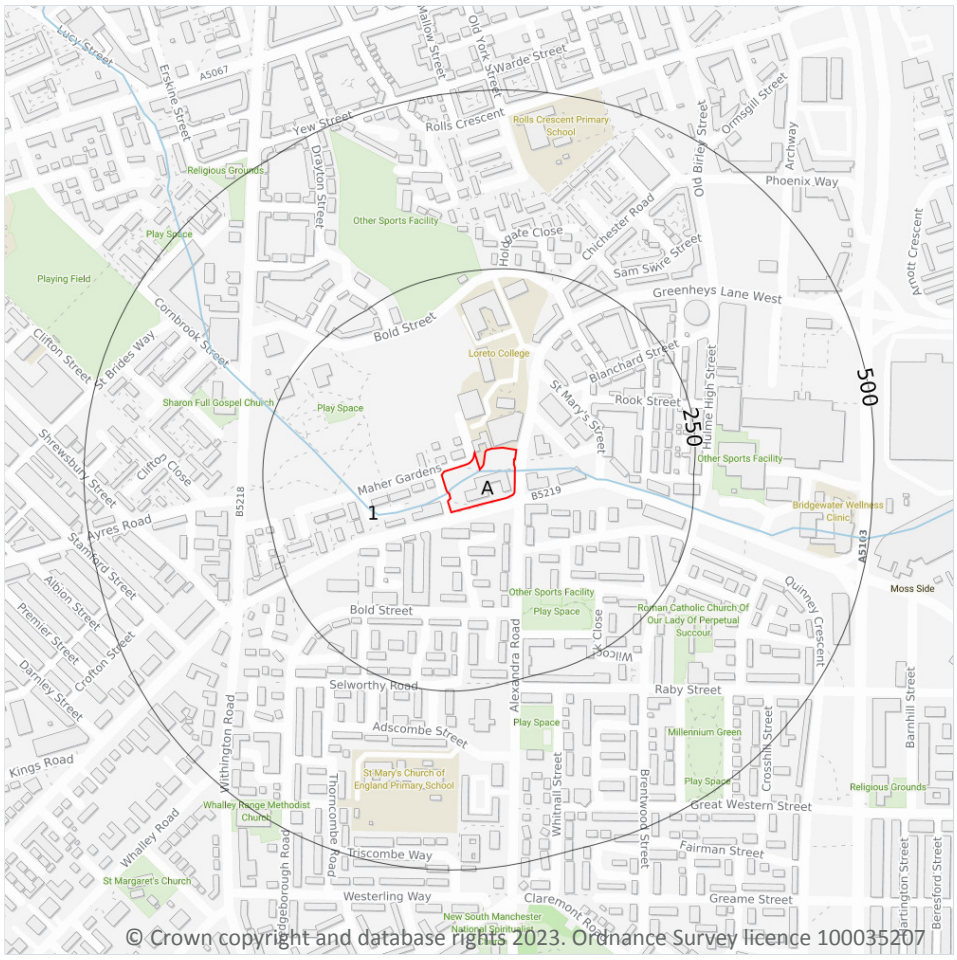
5.10 Source Protection Zones (confined aquifer)

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	**1**

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

Features are displayed on the Hydrology map on **page 48**

ID	Location	Type of water feature	Ground level	Permanence	Name
1	**On site**	**Inland river not influenced by normal tidal action.**	**Underground**	**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	0

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

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site	1

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

Features are displayed on the Hydrology map on **page 48**

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 48**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	1557m 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

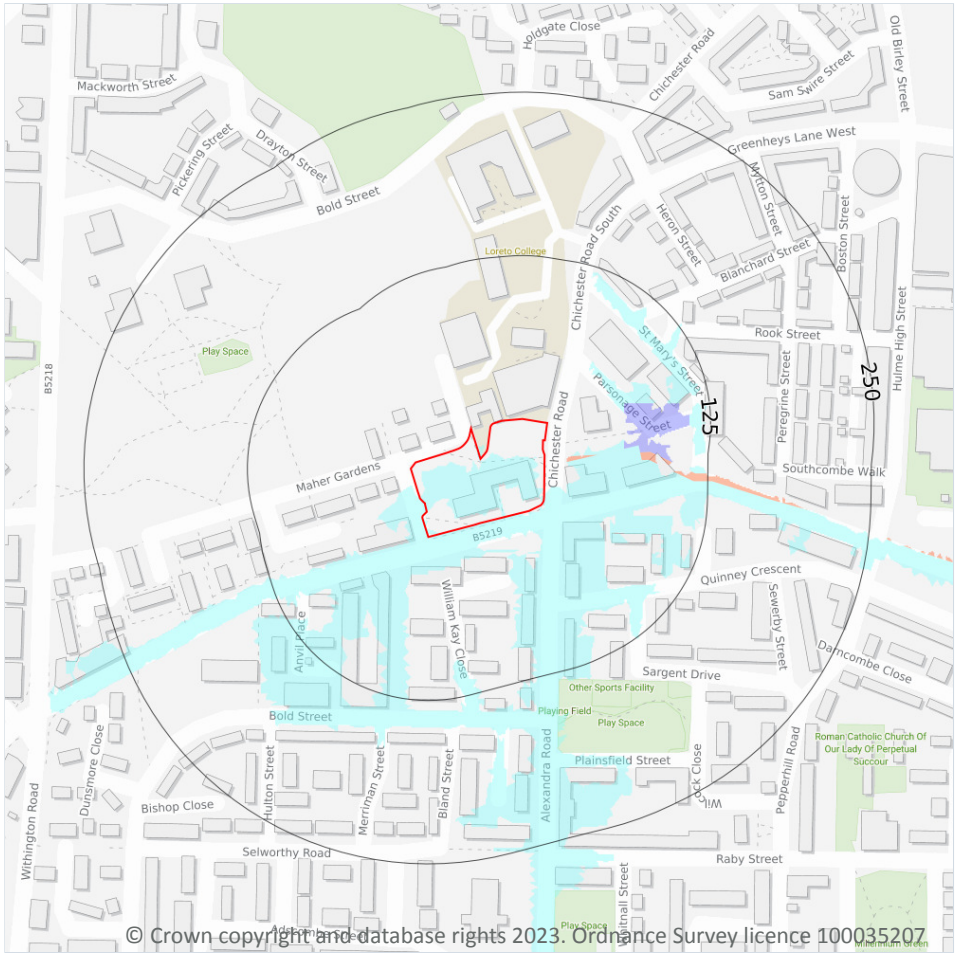
Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

Features are displayed on the Hydrology map on **page 48**

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 51**

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

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.

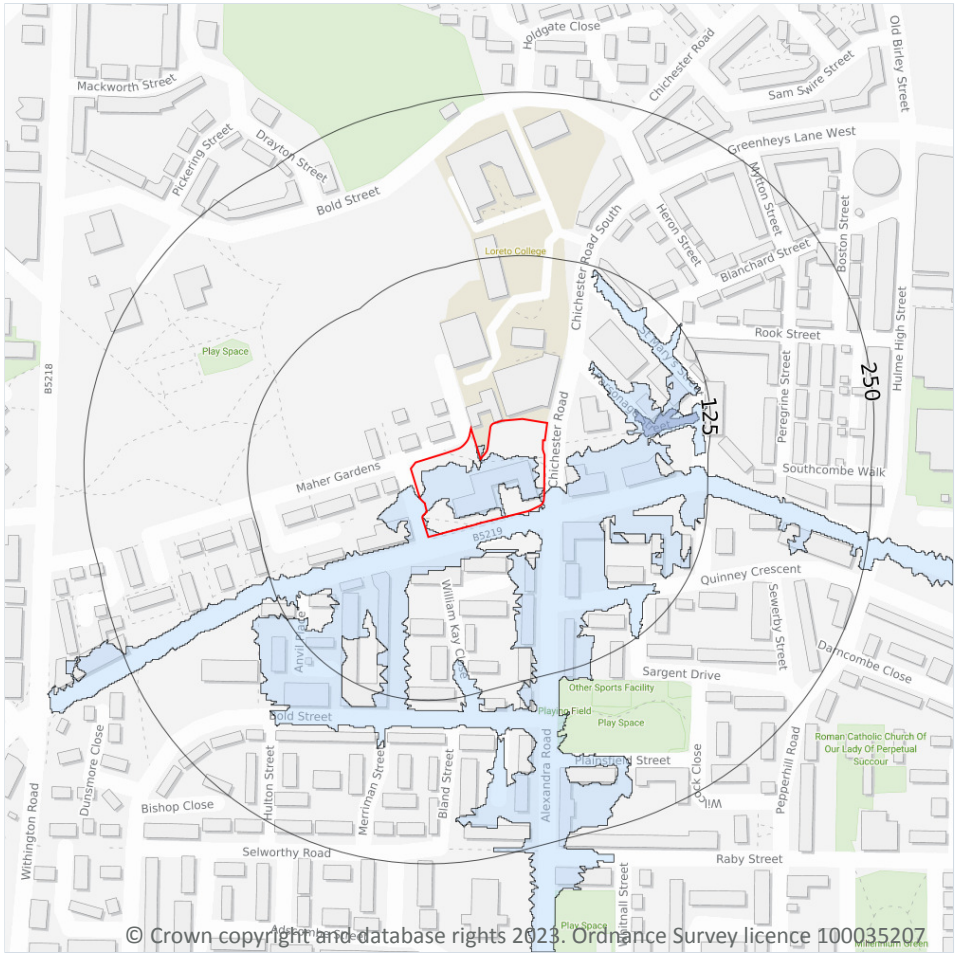
7.5 Flood Storage Areas

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



Site Outline

Search buffers in metres (m)

Flood zone 2

Flood zone 3

7.6 Flood Zone 2

Records within 50m	1

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

Features are displayed on the River and coastal flooding map on **page 51**

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

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

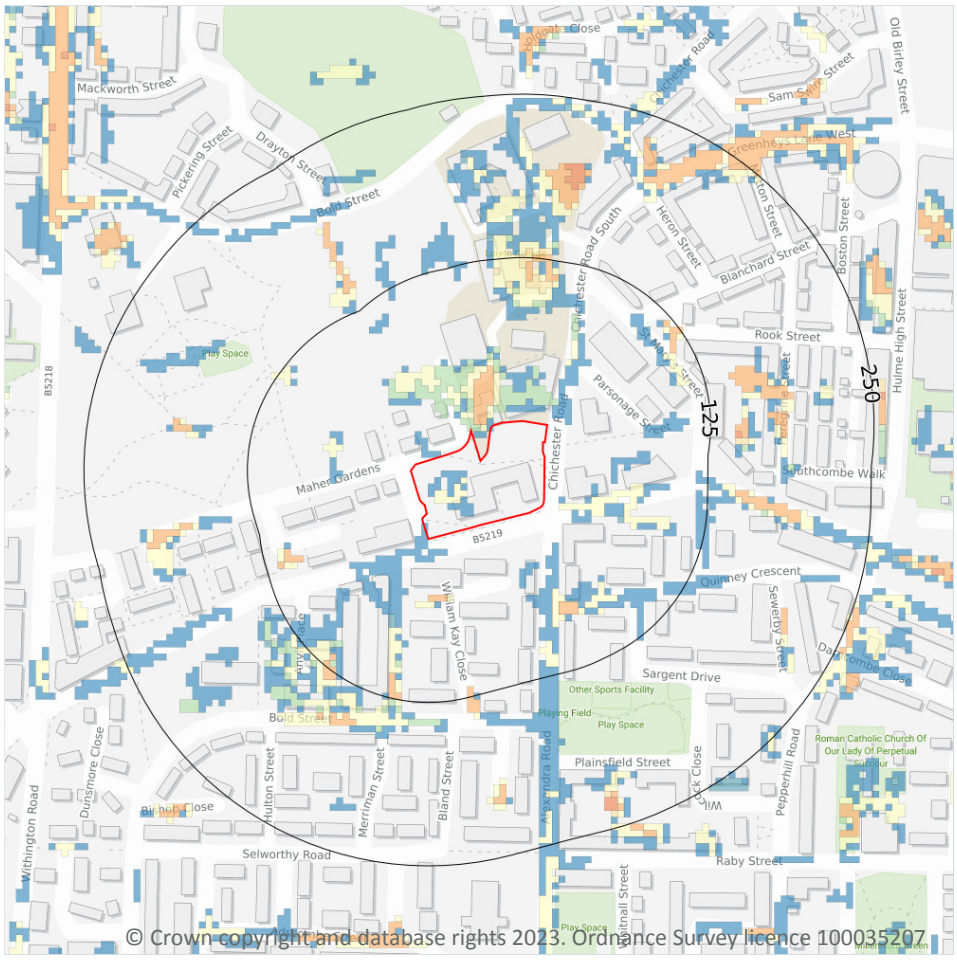
7.7 Flood Zone 3

Records within 50m	0

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

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

8 Surface water flooding



Site Outline

Search buffers in metres (m)

1 in 1000 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 250 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 100 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 30 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

8.1 Surface water flooding

Highest risk on site	**1 in 100 year, 0.1m - 0.3m**
Highest risk within 50m	**1 in 30 year, 0.1m - 0.3m**

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

Features are displayed on the Surface water flooding map on **page 55**

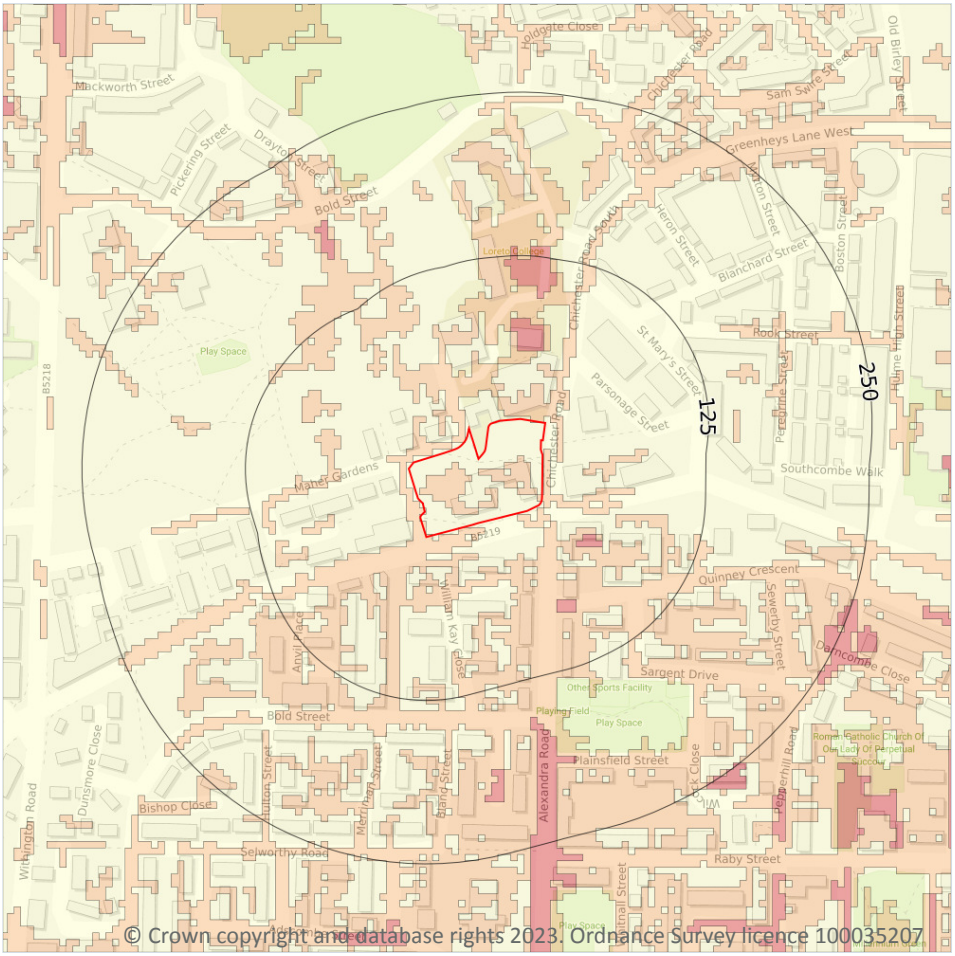
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

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

Return period	Maximum modelled depth
1 in 1000 year	Between 0.1m and 0.3m
1 in 250 year	Between 0.1m and 0.3m
1 in 100 year	Between 0.1m and 0.3m
1 in 30 year	Negligible

This data is sourced from Ambiental Risk Analytics.

9 Groundwater flooding



9.1 Groundwater flooding

Highest risk on site	**Moderate-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 57**

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m	0

Sites providing statutory protection for the best examples of UK flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs were re-notified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and (in Scotland) by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2010.

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m	0

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. They cover all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities. These sites cover a broad definition of wetland; marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, and even some marine areas.

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m	0

Areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive.

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

10.4 Special Protection Areas (SPA)

Records within 2000m	0

Sites classified by the UK Government under the EC Birds Directive, SPAs are areas of the most important habitat for rare (listed on Annex I to the Directive) and migratory birds within the European Union.

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

10.5 National Nature Reserves (NNR)

Records within 2000m	0

Sites containing examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats, provide special opportunities for scientific study or to provide public recreation compatible with natural heritage interests.

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

10.6 Local Nature Reserves (LNR)

Records within 2000m	0

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

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

10.7 Designated Ancient Woodland

Records within 2000m	0

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

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

10.8 Biosphere Reserves

Records within 2000m	0

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

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

10.9 Forest Parks

Records within 2000m	0

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

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m	0

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

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

10.11 Green Belt

Records within 2000m	0

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

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

10.12 Proposed Ramsar sites

Records within 2000m	0

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

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m	0

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

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

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m	0

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

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m	0

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

This data is sourced from Natural England.

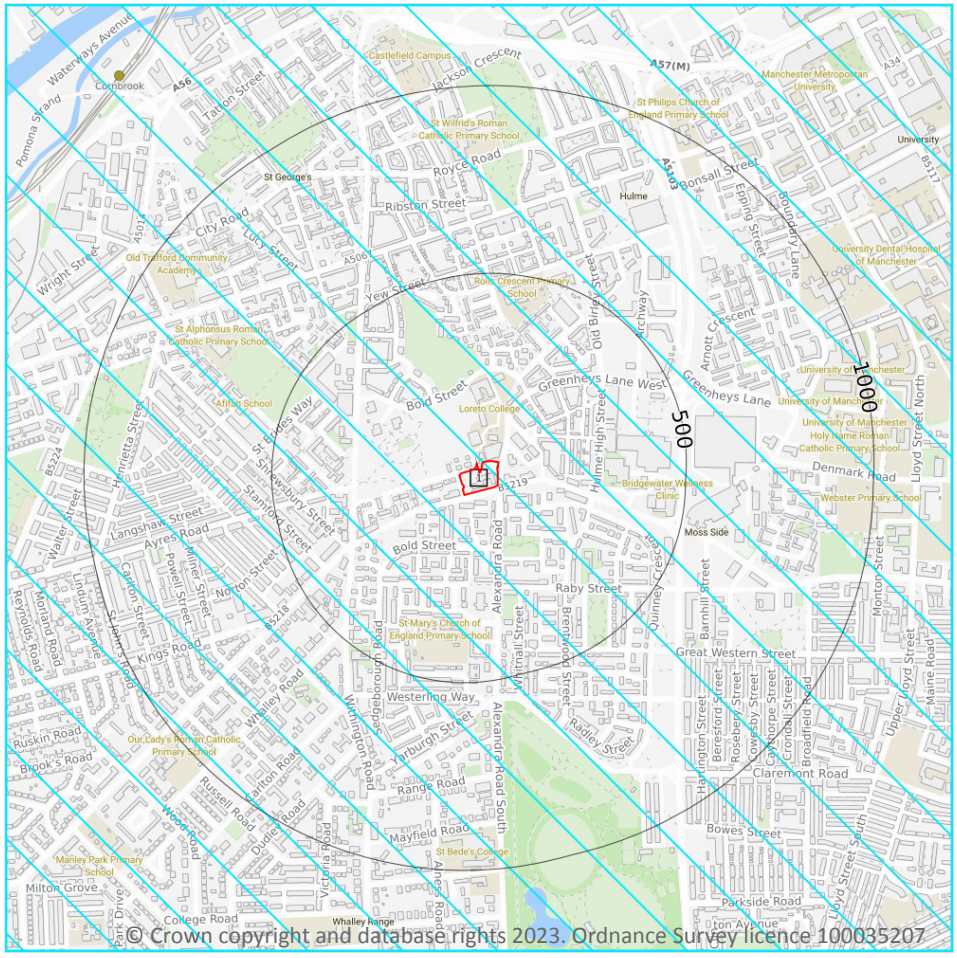
10.16 Nitrate Vulnerable Zones

Records within 2000m	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 62**

ID	Location	Type of developments requiring consultation
1	On site	**Air pollution - Livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 4000m². Combustion - General combustion processes >50mw energy input. incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.**

This data is sourced from Natural England.

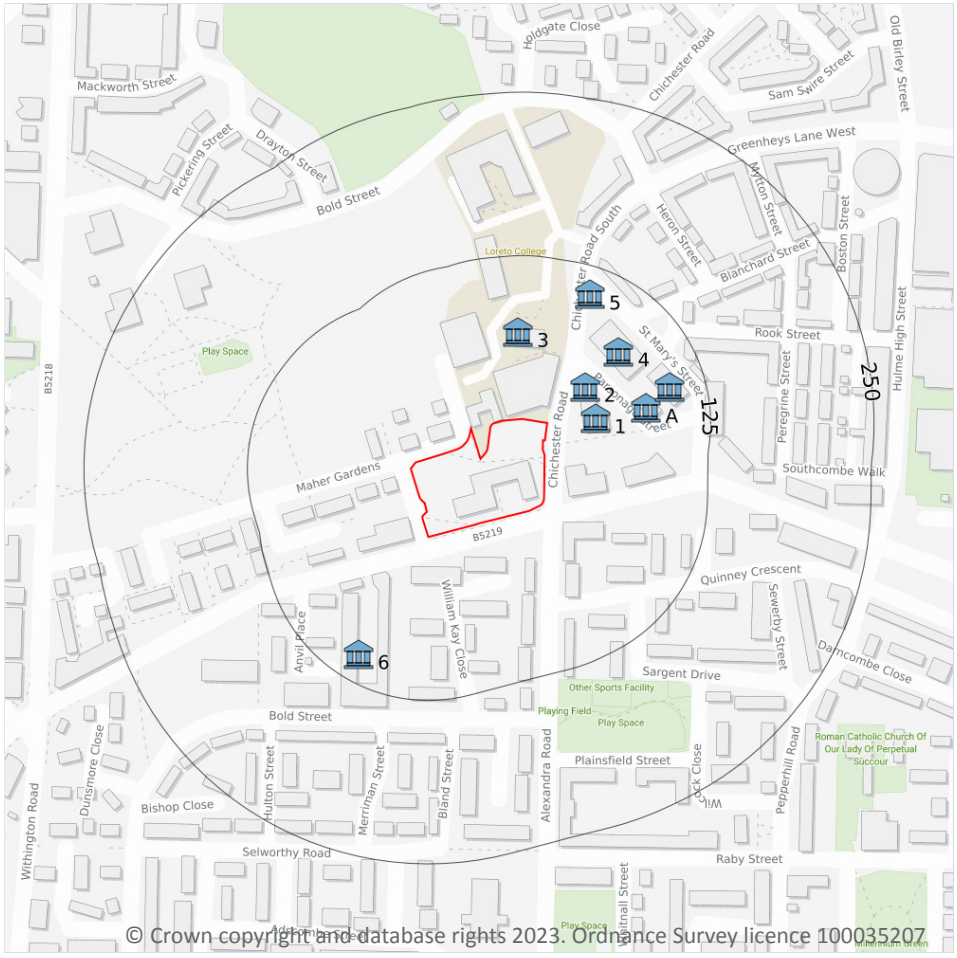
10.18 SSSI Units

Records within 2000m	0

Divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment, however, the size of units varies greatly depending on the types of management and the conservation interest.

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

11 Visual and cultural designations



Site Outline

Search buffers in metres (m)

Listed buildings

Conservation areas

Conservation areas - no data

National Parks

Areas of Outstanding Natural Beauty

Registered parks and gardens

Scheduled Monuments

World Heritage Sites

11.1 World Heritage Sites

Records within 250m	0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m	0

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

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

11.3 National Parks

Records within 250m	0

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

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

11.4 Listed Buildings

Records within 250m	8

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

Features are displayed on the Visual and cultural designations map on **page 64**

ID	Location	Name	Grade	Reference Number	Listed date
1	37m NE	St Marys Junior School, Hulme, Manchester, M15	II	1208702	23/04/1981
2	40m NE	Playground Wall of St Marys Junior School, On West, North and East Sides, Hulme, Manchester, M15	II	1197792	23/04/1981
3	67m N	Chapel Building, Loreto College, Hulme, Manchester, M15	II	1389525	29/11/2001
A	77m NE	St Marys House, Hulme, Manchester, M15	II	1271229	23/04/1981
4	77m NE	Church of St Mary, Hulme, Manchester, M15	II*	1270659	03/10/1974

ID	Location	Name	Grade	Reference Number	Listed date
A	98m NE	Moss Side Peoples Centre, Hulme, Manchester, M15	II	1270695	23/04/1981
5	104m NE	Boundary Wall To Churchyard of Church of St Mary, Hulme, Manchester, M15	II	1270671	06/06/1994
6	104m SW	Hydes Anvil Brewery, Moss Side, Manchester, M15	II	1291088	06/06/1994

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.

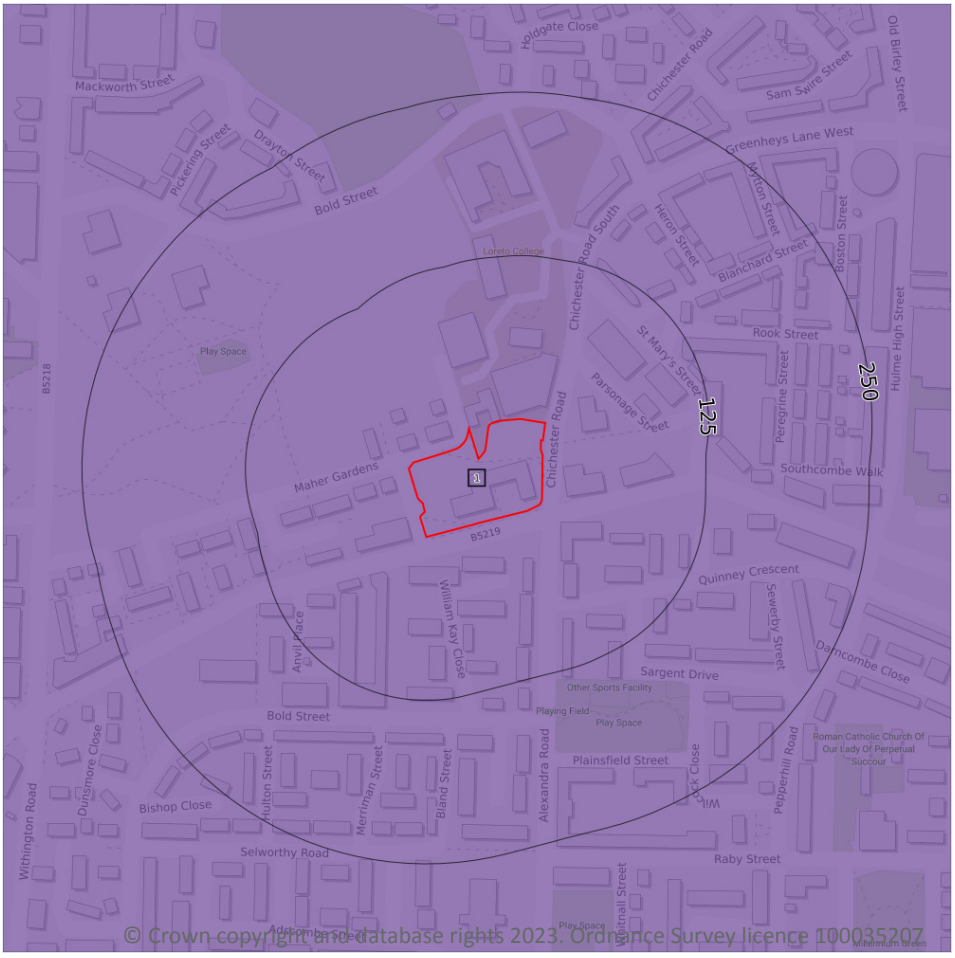
11.7 Registered Parks and Gardens

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 67**

ID	Location	Classification	Description
1	**On site**	**Urban**	-

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m	0

The Countryside and Rights of Way Act 2000 (CROW Act) gives a public right of access to land without having to use paths. Access land includes mountains, moors, heaths and downs that are privately owned. It also includes common land registered with the local council and some land around the England Coast Path. Generally permitted activities on access land are walking, running, watching wildlife and climbing.

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

12.3 Tree Felling Licences

Records within 250m	0

Felling Licence Application (FLA) areas approved by Forestry Commission England. Anyone wishing to fell trees must ensure that a licence or permission under a grant scheme has been issued by the Forestry Commission before any felling is carried out or that one of the exceptions apply.

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m	0

Environmental Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. The schemes identified may be historical schemes that have now expired, or may still be active.

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m	0

Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

This data is sourced from Natural England.

13 Habitat designations

13.1 Priority Habitat Inventory

Records within 250m	0

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

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m	0

Habitat networks for 18 priority habitat networks (based primarily, but not exclusively, on the priority habitat inventory) and areas suitable for the expansion of networks through restoration and habitat creation.

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m	0

Sites verified as Open Mosaic Habitat. Mosaic habitats are brownfield sites that are identified under the UK Biodiversity Action Plan as a priority habitat due to the habitat variation within a single site, supporting an array of invertebrates.

This data is sourced from Natural England.

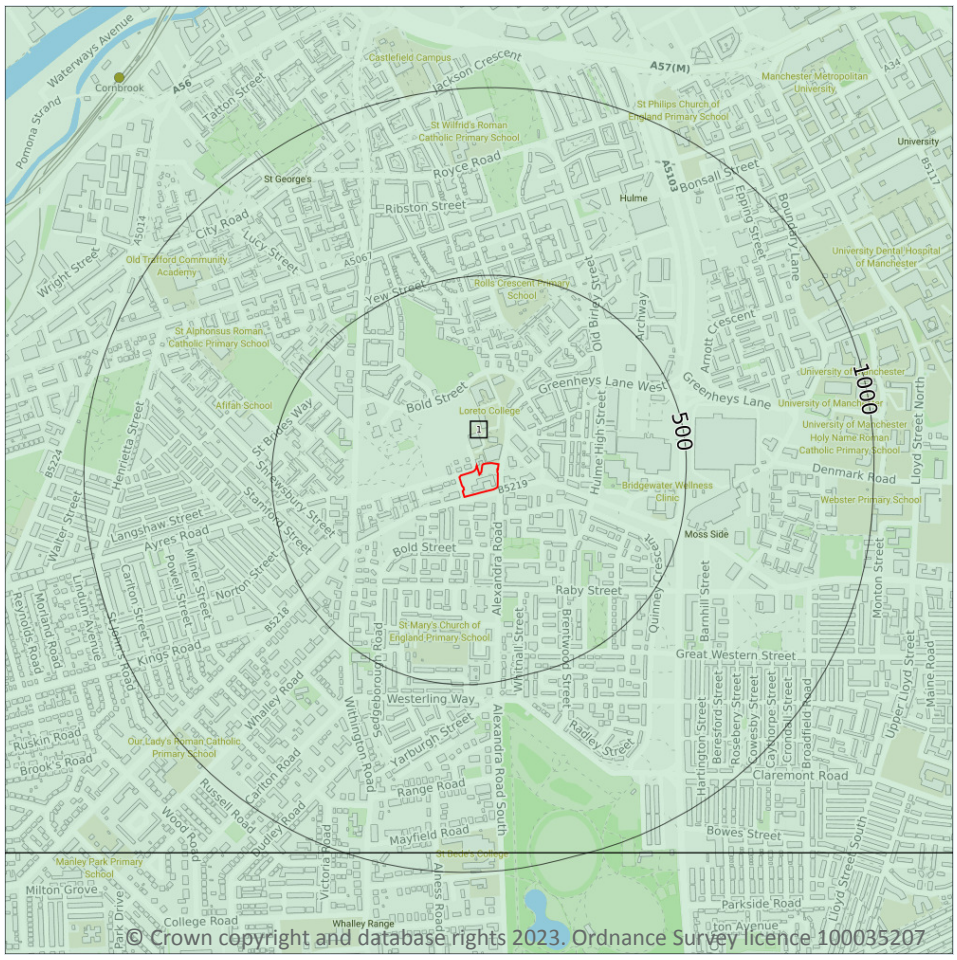
13.4 Limestone Pavement Orders

Records within 250m	0

Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable habitats for wildlife. These habitats are threatened due to their removal for use in gardens and water features. Many limestone pavements have been designated as SSSIs which affords them some protection. In addition, Section 34 of the Wildlife and Countryside Act 1981 gave them additional protection via the creation of Limestone Pavement Orders, which made it a criminal offence to remove any part of the outcrop. The associated Limestone Pavement Priority Habitat is part of the UK Biodiversity Action Plan priority habitat in England.

This data is sourced from Natural England.

14 Geology 1:10,000 scale - Availability



14.1 10k Availability

Records within 500m	1

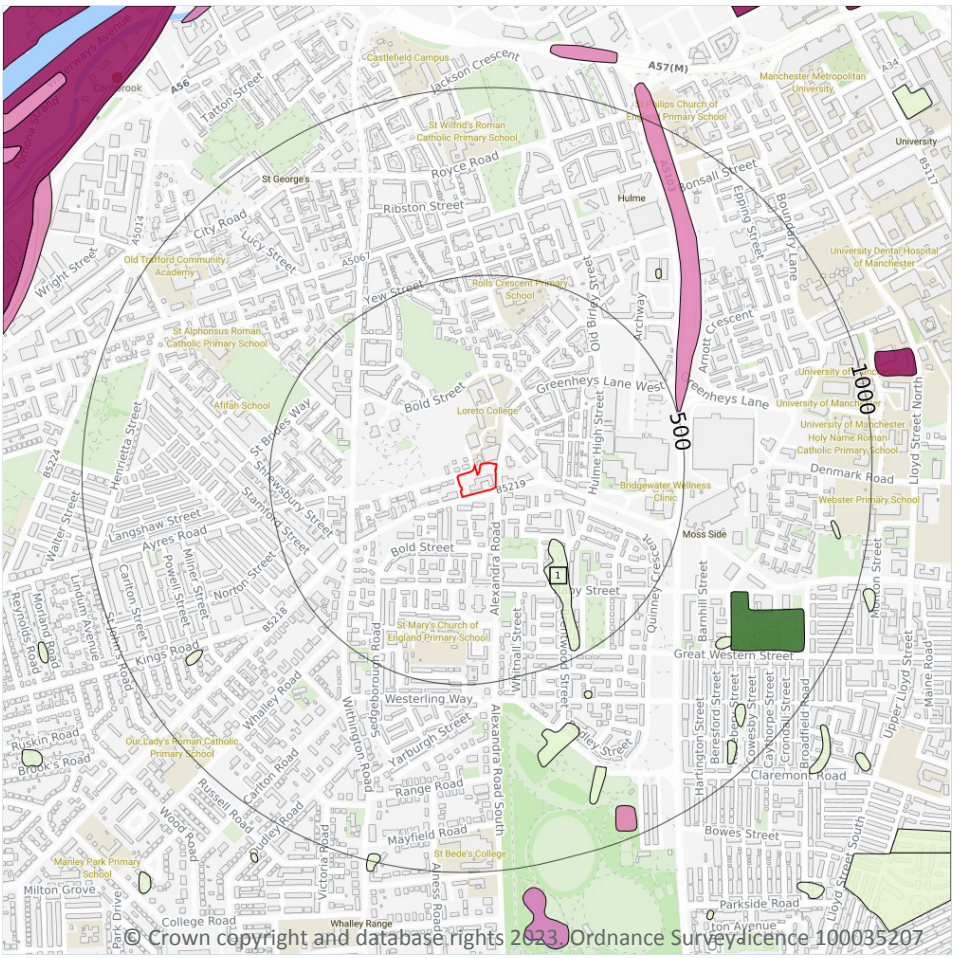
An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 70**

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

This data is sourced from the British Geological Survey.

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



Site Outline

Search buffers in metres (m)

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

14.2 Artificial and made ground (10k)

Records within 500m	1

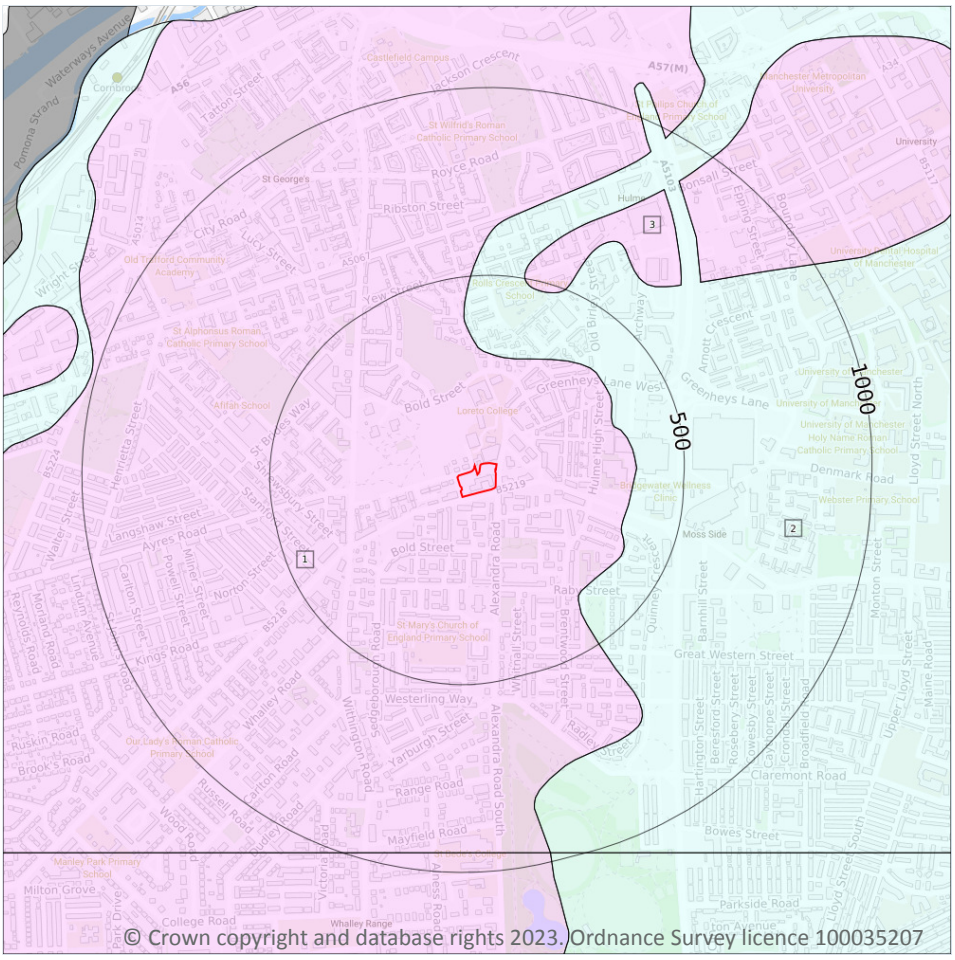
Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on **page 71**

ID	Location	LEX Code	Description	Rock description
1	205m SE	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 **3**

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

Features are displayed on the Geology 1:10,000 scale - Superficial map on **page 72**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**GFSDD-XSV**	**Glaciofluvial Sheet Deposits, Devensian - Sand And Gravel**	**Sand And Gravel**
2	283m N	TILLD-DMTN	Till, Devensian - Diamicton	Diamicton
3	476m N	GFSDD-XSV	Glaciofluvial Sheet Deposits, Devensian - Sand And Gravel	Sand And Gravel

This data is sourced from the British Geological Survey.

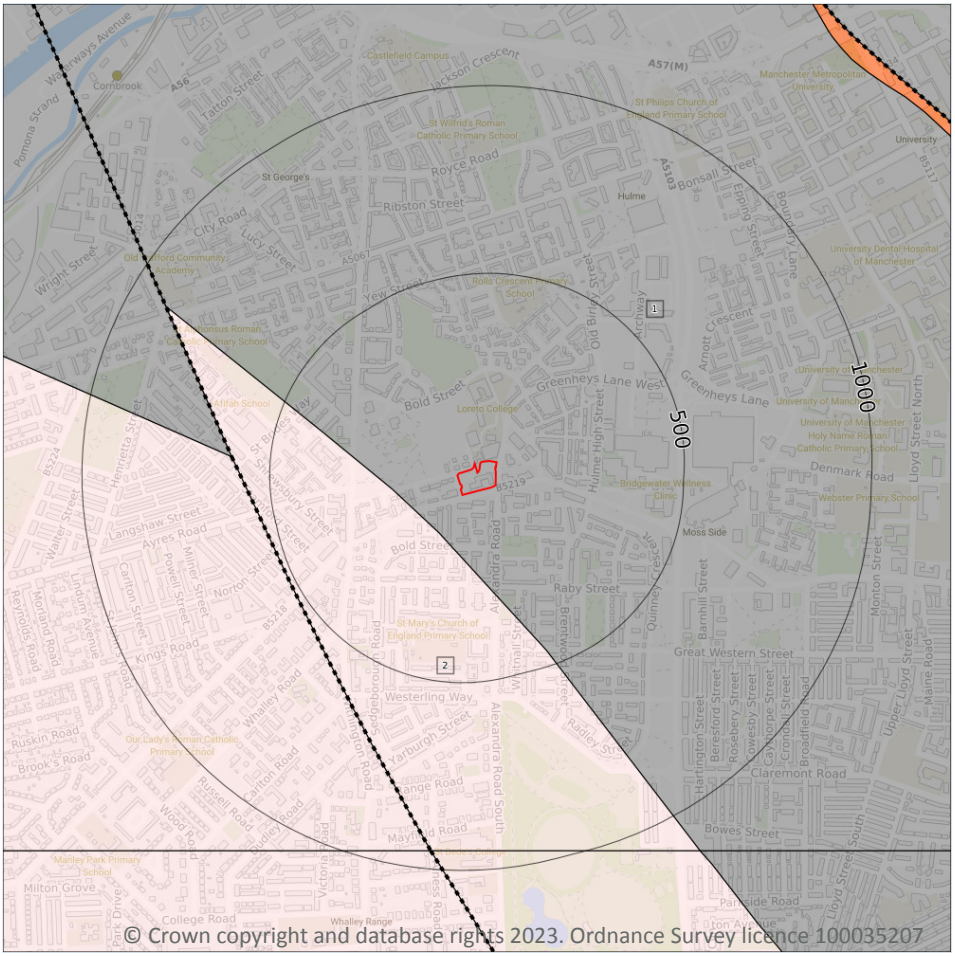
14.4 Landslip (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (10k)

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

14.5 Bedrock geology (10k)

Records within 500m	2

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 74**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**CPB-SDST**	**Chester Pebble Beds Formation - Sandstone**	**Early Triassic Epoch**
2	116m SW	WLSF-SDST	Wilmslow Sandstone Formation - Sandstone	Early Triassic Epoch

This data is sourced from the British Geological Survey.

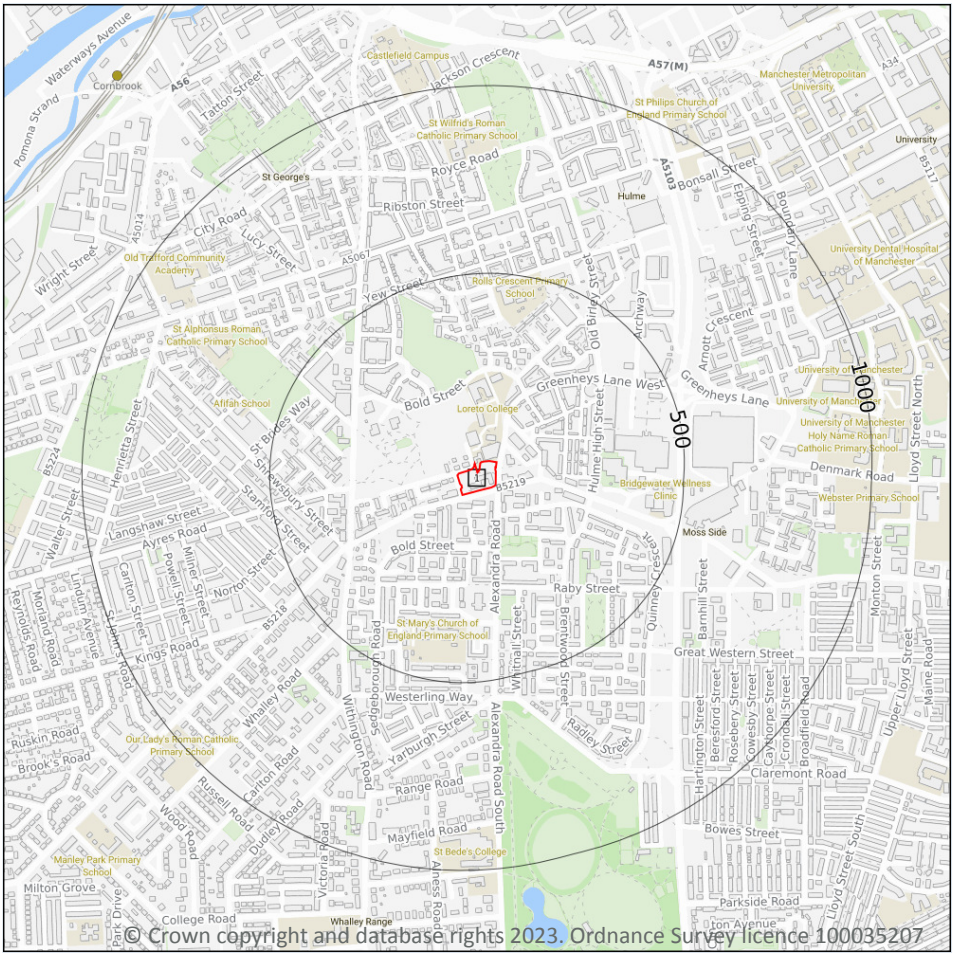
14.6 Bedrock faults and other linear features (10k)

Records within 500m	0

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.

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 76**

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

15.2 Artificial and made ground (50k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

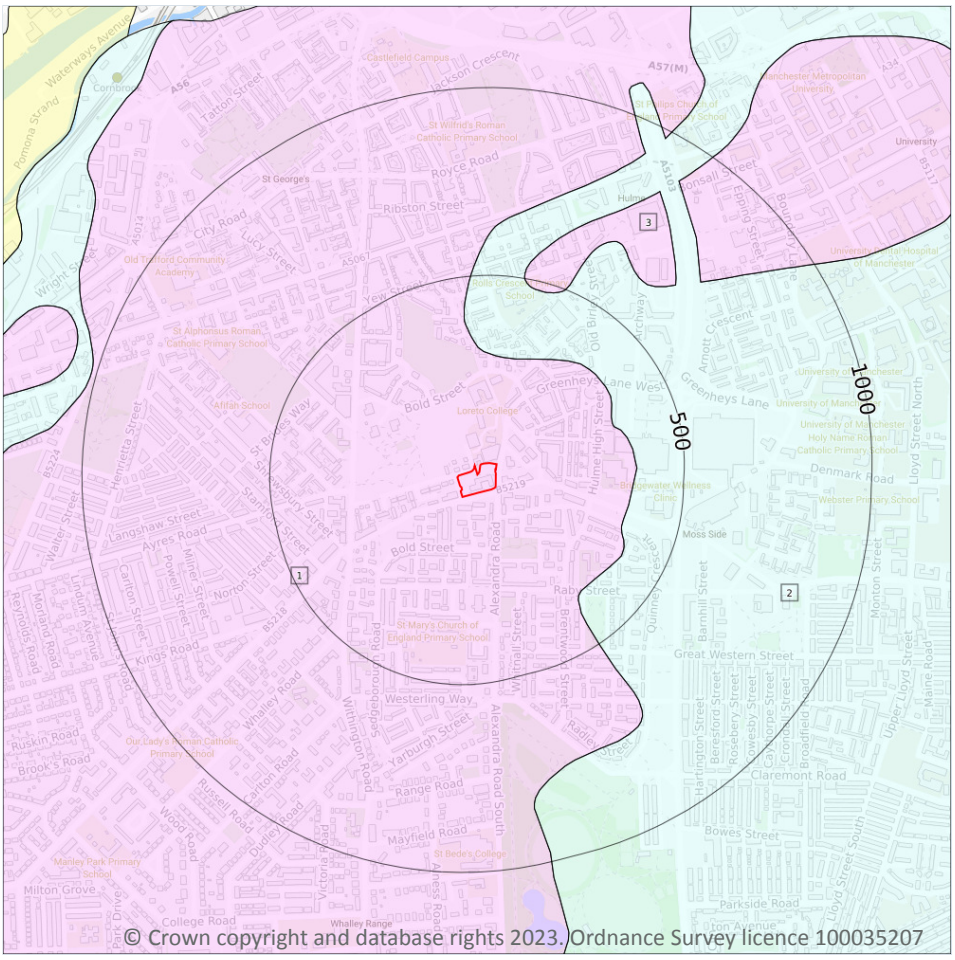
15.3 Artificial ground permeability (50k)

Records within 50m	0

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

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

15.4 Superficial geology (50k)

Records within 500m **3**

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

Features are displayed on the Geology 1:50,000 scale - Superficial map on **page 78**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**GFSDD-XSV**	**GLACIOFLUVIAL SHEET DEPOSITS, DEVENSIAN**	**SAND AND GRAVEL**
2	284m N	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
3	476m N	GFSDD-XSV	GLACIOFLUVIAL SHEET DEPOSITS, DEVENSIAN	SAND AND GRAVEL

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	**Intergranular**	**Very High**	**High**

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

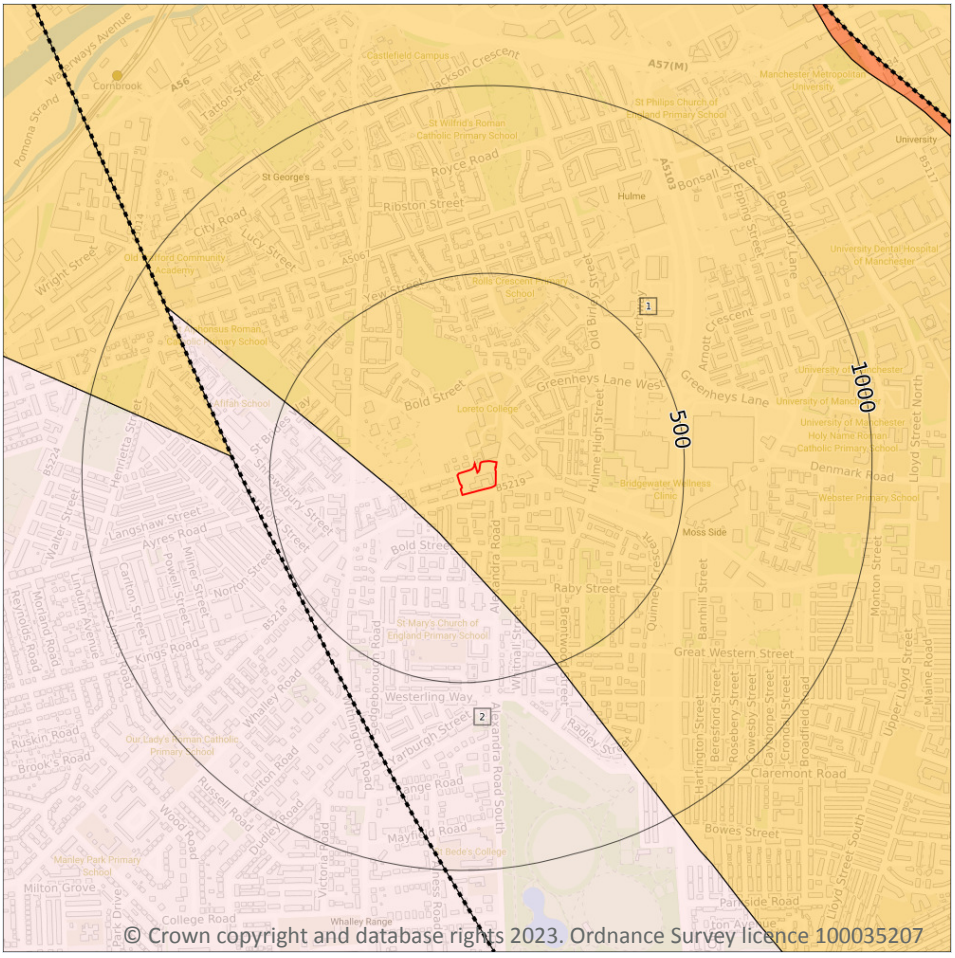
15.7 Landslip permeability (50k)

Records within 50m	0

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (50k)

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

15.8 Bedrock geology (50k)

Records within 500m	2

Bedrock geology at 1:50,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 80**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**CHES-SDST**	**CHESTER FORMATION - SANDSTONE**	**OLENEKIAN**
2	116m SW	WLSF-SDST	WILMSLOW SANDSTONE FORMATION - SANDSTONE	-

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	1

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

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

This data is sourced from the British Geological Survey.

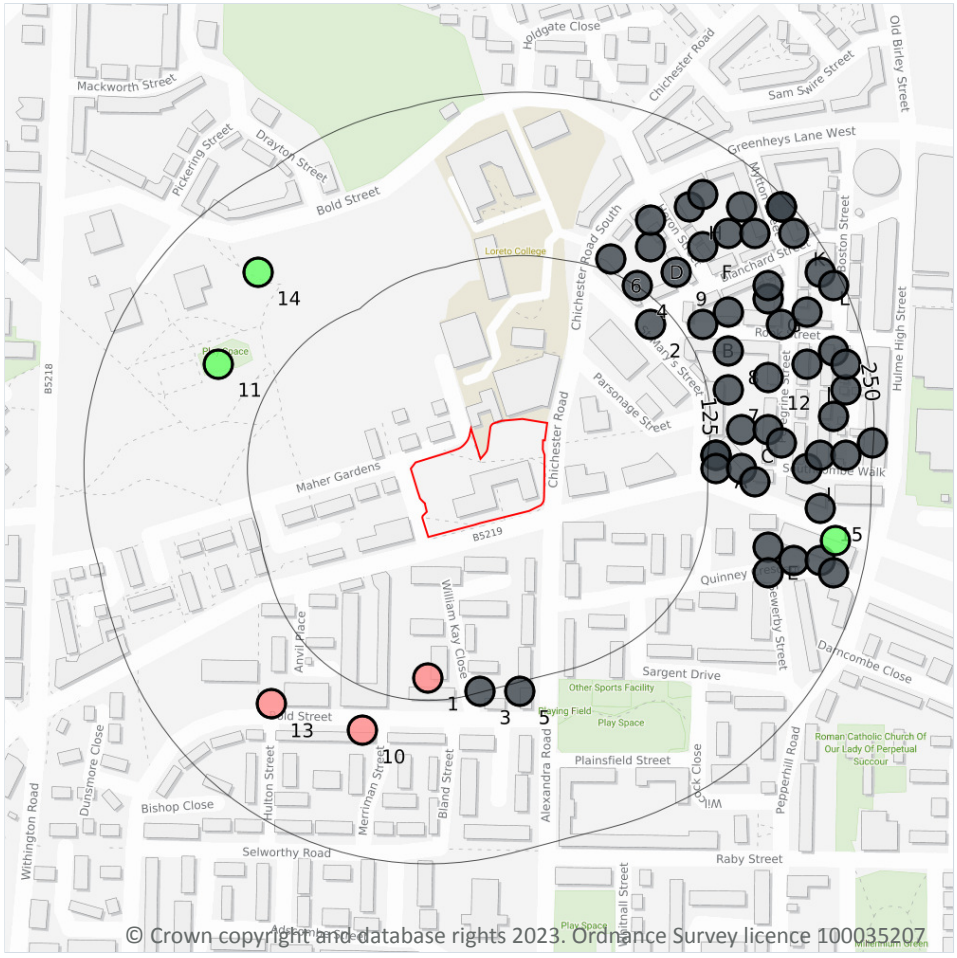
15.10 Bedrock faults and other linear features (50k)

Records within 500m	0

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.

This data is sourced from the British Geological Survey.

16 Boreholes



16.1 BGS Boreholes

Records within 250m	57

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 82**

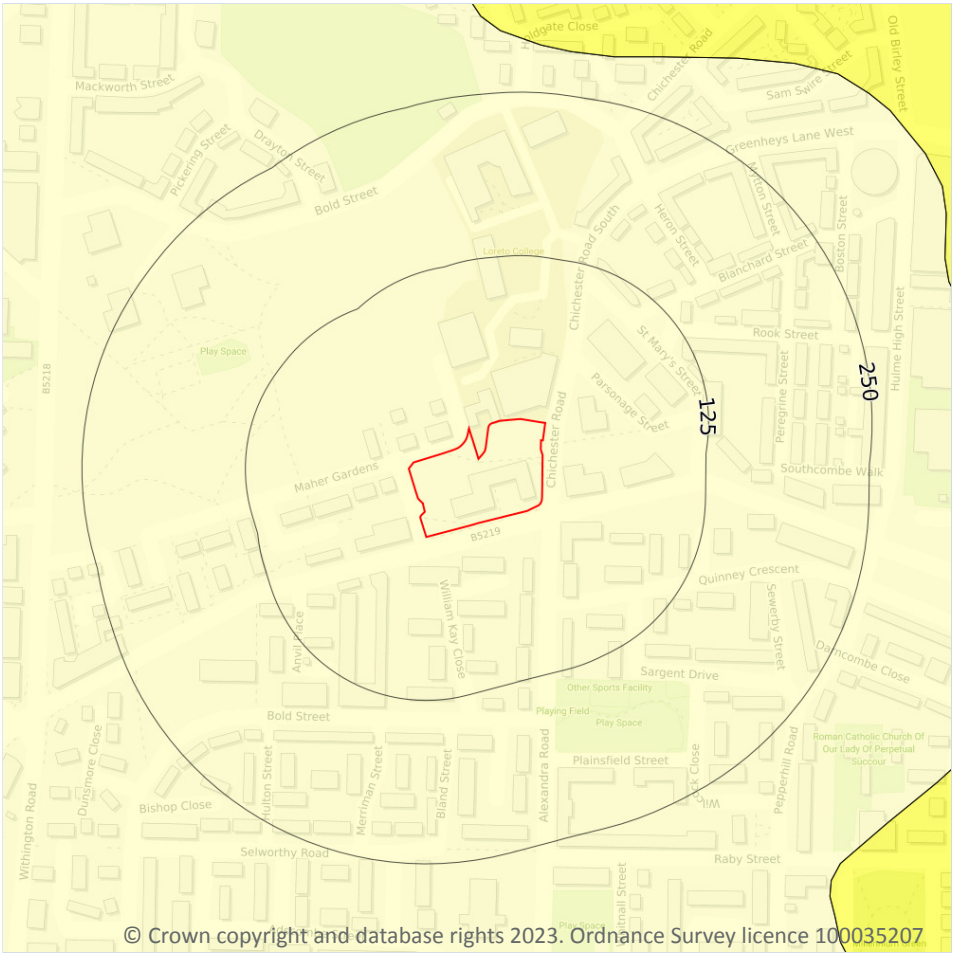
ID	Location	Grid reference	Name	Length	Confidential	Web link
1	108m S	383250 395840	MOSS LANE WEST	72.0	N	1043067
2	109m NE	383420 396110	HIGH STREET HULME3 TP 38	-	Y	N/A
3	124m S	383290 395830	BOLD STREET 1	-	Y	N/A

ID	Location	Grid reference	Name	Length	Confidential	Web link
4	126m NE	383410 396140	HIGH STREET HULME3 TP 19	-	Y	N/A
A	131m E	383470 396010	HIGH STREET HULME3 TP 32	-	Y	N/A
A	131m E	383470 396010	HIGH STREET HULME3 30A	-	Y	N/A
A	131m E	383470 396000	HIGH STREET HULME3 30	-	Y	N/A
5	132m S	383320 395830	BOLD STREET 2	-	Y	N/A
6	134m NE	383390 396160	HIGH STREET HULME3 TP 39	-	Y	N/A
B	141m NE	383460 396110	HIGH STREET HULME3 21	-	Y	N/A
7	141m E	383480 396060	HIGH STREET HULME3 26	-	Y	N/A
C	149m E	383490 396030	HIGH STREET HULME3 TP 29	-	Y	N/A
8	149m NE	383480 396090	HIGH STREET HULME3 TP 25	-	Y	N/A
A	151m E	383490 396000	HIGH STREET HULME3 TP 34	-	Y	N/A
9	152m NE	383440 396150	HIGH STREET HULME3 15	-	Y	N/A
10	156m SW	383200 395800	ANVIL BREWERY MANCHESTER 15	104.85	N	1045460
D	156m NE	383420 396170	HIGH STREET HULME3 TP 16	-	Y	N/A
A	161m E	383500 395990	HIGH STREET HULME3 TP 35	-	Y	N/A
B	163m NE	383480 396120	HIGH STREET HULME3 TP 23	-	Y	N/A
11	167m NW	383090 396080	PROPOSED 15 STOREY FLATS CLIFFORD WAY 3	13.71	N	1044232
C	169m E	383510 396030	HIGH STREET HULME3 27	-	Y	N/A
12	172m E	383510 396070	HIGH STREET HULME3 TP 27	-	Y	N/A
D	174m NE	383420 396190	HIGH STREET HULME3 12	-	Y	N/A
E	175m E	383510 395940	MOSS LANE EAST MANCHESTER 1A	-	Y	N/A
13	176m SW	383130 395820	HYDES BREWERY OBH	77.0	N	15937312
C	179m E	383520 396020	HIGH STREET HULME3 TP 30	-	Y	N/A
F	180m NE	383460 396170	HIGH STREET HULME3 14	-	Y	N/A
E	180m E	383510 395920	MOSS LANE EAST MANCHESTER 2C	-	Y	N/A
14	189m NW	383120 396150	PROPOSED 15 STOREY FLATS CLIFFORD WAY 1	12.8	N	1044231
G	194m NE	383510 396130	HIGH STREET HULME3 TP 22	-	Y	N/A
G	194m NE	383520 396110	HIGH STREET HULME3 17	-	Y	N/A

ID	Location	Grid reference	Name	Length	Confidential	Web link
E	197m E	383530 395930	MOSS LANE EAST MANCHESTER 3	-	Y	N/A
H	198m NE	383450 396200	HIGH STREET HULME3 TP 13	-	Y	N/A
G	199m NE	383510 396140	HIGH STREET HULME3 18	-	Y	N/A
F	201m NE	383480 396180	HIGH STREET HULME3 TP 14	-	Y	N/A
I	201m E	383540 396000	HIGH STREET HULME3 32	-	Y	N/A
J	204m E	383540 396080	HIGH STREET HULME3 23	-	Y	N/A
I	210m E	383550 396010	HIGH STREET HULME3 TP 33	-	Y	N/A
15	211m E	383550 395970	HIGH STREET HULME3 TP 37	-	Y	N/A
H	212m NE	383460 396210	HIGH STREET HULME3 10	-	Y	N/A
F	215m NE	383500 396180	HIGH STREET HULME3 TP 17	-	Y	N/A
G	216m NE	383540 396120	HIGH STREET HULME3 TP 20	-	Y	N/A
E	216m E	383550 395930	MOSS LANE EAST MANCHESTER 4	-	Y	N/A
J	219m E	383560 396040	HIGH STREET HULME3 28	-	Y	N/A
F	222m NE	383490 396200	HIGH STREET HULME3 TP 12	-	Y	N/A
E	226m E	383562 395945	MANCHESTER CORP. MOSS LANE DISTRICT	10.21	N	1042285
J	226m E	383560 396090	HIGH STREET HULME3 TP 26	-	Y	N/A
E	228m E	383560 395920	MOSS LANE EAST MANCHESTER 5	-	Y	N/A
I	230m E	383570 396010	HIGH STREET HULME3 31	-	Y	N/A
J	230m E	383570 396060	HIGH STREET HULME3 TP 28	-	Y	N/A
J	233m E	383570 396080	HIGH STREET HULME3 24	-	Y	N/A
K	238m NE	383530 396180	HIGH STREET HULME3 TP 15	-	Y	N/A
L	238m NE	383550 396150	HIGH STREET HULME3 TP 21	-	Y	N/A
L	243m NE	383560 396140	HIGH STREET HULME3 19	-	Y	N/A
K	243m NE	383520 396200	HIGH STREET HULME3 13	-	Y	N/A
K	243m NE	383520 396200	HIGH STREET HULME3 13A	-	Y	N/A
I	249m E	383590 396020	HIGH STREET HULME3 TP 31	-	Y	N/A

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 85**

Location	Hazard rating	Details
On site	**Negligible**	**Ground conditions predominantly non-plastic.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



17.2 Running sands

Records within 50m	1

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

Features are displayed on the Natural ground subsidence - Running sands map on **page 86**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



Site Outline

Search buffers in metres (m)

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

17.3 Compressible deposits

Records within 50m	1

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

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 87**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Collapsible deposits



Site Outline

Search buffers in metres (m)

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

17.4 Collapsible deposits

Records within 50m	1

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

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 88**

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 89**

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

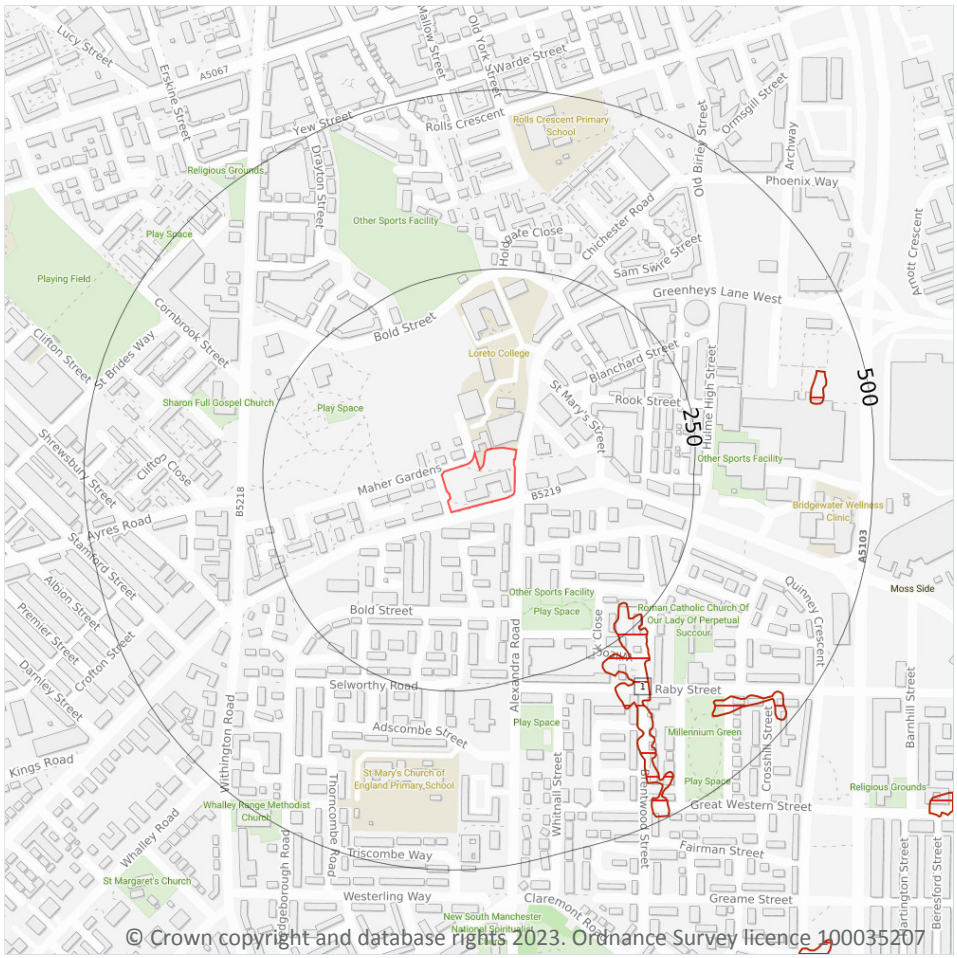
The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 90**

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

This data is sourced from the British Geological Survey.

18 Mining, ground workings and natural cavities



18.1 Natural cavities

Records within 500m	0

Industry recognised national database of natural cavities. Sinkholes and caves are formed by the dissolution of soluble rock, such as chalk and limestone, gulls and fissures by cambering. Ground instability can result from movement of loose material contained within these cavities, often triggered by water.

This data is sourced from Stantec UK Ltd.

18.2 BritPits

Records within 500m	0

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

This data is sourced from the British Geological Survey.

18.3 Surface ground workings

Records within 250m	1

Historical land uses identified from Ordnance Survey mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled.

Features are displayed on the Mining, ground workings and natural cavities map on **page 91**

ID	Location	Land Use	Year of mapping	Mapping scale
1	214m SE	Ponds	1851	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground workings

Records within 1000m	0

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

This is data is sourced from Ordnance Survey/Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m	0

Boundaries of mineral planning permissions for England and Wales. This data was collated between the 1940s (and retrospectively to the 1930s) and the mid 1980s. The data includes permitted, withdrawn and refused permissions.

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m	0

The potential for historical non-coal mining to have affected an area. The assessment is drawn from expert knowledge and literature in addition to the digital geological map of Britain. Mineral commodities may be divided into seven general categories - vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and 'other' commodities (including ball clay, jet, black marble, graphite and chert).

This data is sourced from the British Geological Survey.

18.7 Mining cavities

Records within 1000m	0

Industry recognised national database of mining cavities. Degraded mines may result in hazardous subsidence (crown holes). Climatic conditions and water escape can also trigger subsidence over mine entrances and workings.

This data is sourced from Stantec UK Ltd.

18.8 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.

18.9 Coal mining

Records on site	1

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

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

This data is sourced from the Coal Authority.

18.10 Brine areas

Records on site	**0**

The Cheshire Brine Compensation District indicates areas that may be affected by salt and brine extraction in Cheshire and where compensation would be available where damage from this mining has occurred. Damage from salt and brine mining can still occur outside this district, but no compensation will be available.

This data is sourced from the Cheshire Brine Subsidence Compensation Board.

18.11 Gypsum areas

Records on site	**0**

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.12 Tin mining

Records on site	**0**

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

18.13 Clay mining

Records on site	**0**

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

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

19 Radon



Site Outline

Search buffers in metres (m)

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

19.1 Radon

Records on site	1

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 95**

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.

20 Soil chemistry

20.1 BGS Estimated Background Soil Chemistry

Records within 50m **3**

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

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

This data is sourced from the British Geological Survey.

20.2 BGS Estimated Urban Soil Chemistry

Records within 50m **7**

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	**19**	**3.3**	**201**	**138**	**1.6**	**69**	**38**	**26**	**7**
On site	**19**	**3.3**	**188**	**129**	**1.8**	**68**	**37**	**26**	**7**
On site	**19**	**3.3**	**71**	**49**	**0.4**	**68**	**30**	**26**	**10**
On site	**20**	**3.5**	**72**	**49**	**0.4**	**70**	**24**	**27**	**9**

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)
37m W	20	3.5	71	49	0.4	69	28	26	11
37m W	21	3.7	71	49	0.4	70	24	26	9
48m SW	20	3.5	204	140	1.8	71	42	27	7

This data is sourced from the British Geological Survey.

20.3 BGS Measured Urban Soil Chemistry

Records within 50m	**0**

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

This data is sourced from the British Geological Survey.

21 Railway infrastructure and projects

21.1 Underground railways (London)

Records within 250m	0

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

This data is sourced from publicly available information by Groundsure.

21.2 Underground railways (Non-London)

Records within 250m	0

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

This data is sourced from publicly available information by Groundsure.

21.3 Railway tunnels

Records within 250m	0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

21.4 Historical railway and tunnel features

Records within 250m	0

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.

This data is sourced from Ordnance Survey/Groundsure.

21.5 Royal Mail tunnels

Records within 250m	0

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

This data is sourced from Groundsure/the Postal Museum.

21.6 Historical railways

Records within 250m	0

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

This data is sourced from OpenStreetMap.

21.7 Railways

Records within 250m	0

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

This data is sourced from Ordnance Survey and OpenStreetMap.

21.8 Crossrail 1

Records within 500m	0

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

This data is sourced from publicly available information by Groundsure.

21.9 Crossrail 2

Records within 500m	0

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

This data is sourced from publicly available information by Groundsure.

21.10 HS2

Records within 500m	0

HS2 is a proposed high speed rail network running from London to Manchester and Leeds via Birmingham. Main civils construction on Phase 1 (London to Birmingham) of the project began in 2019, and it is currently anticipated that this phase will be fully operational by 2026. Construction on Phase 2a (Birmingham to Crewe) is anticipated to commence in 2021, with the service fully operational by 2027. Construction on Phase 2b (Crewe to Manchester and Birmingham to Leeds) is scheduled to begin in 2023 and be operational by 2033.

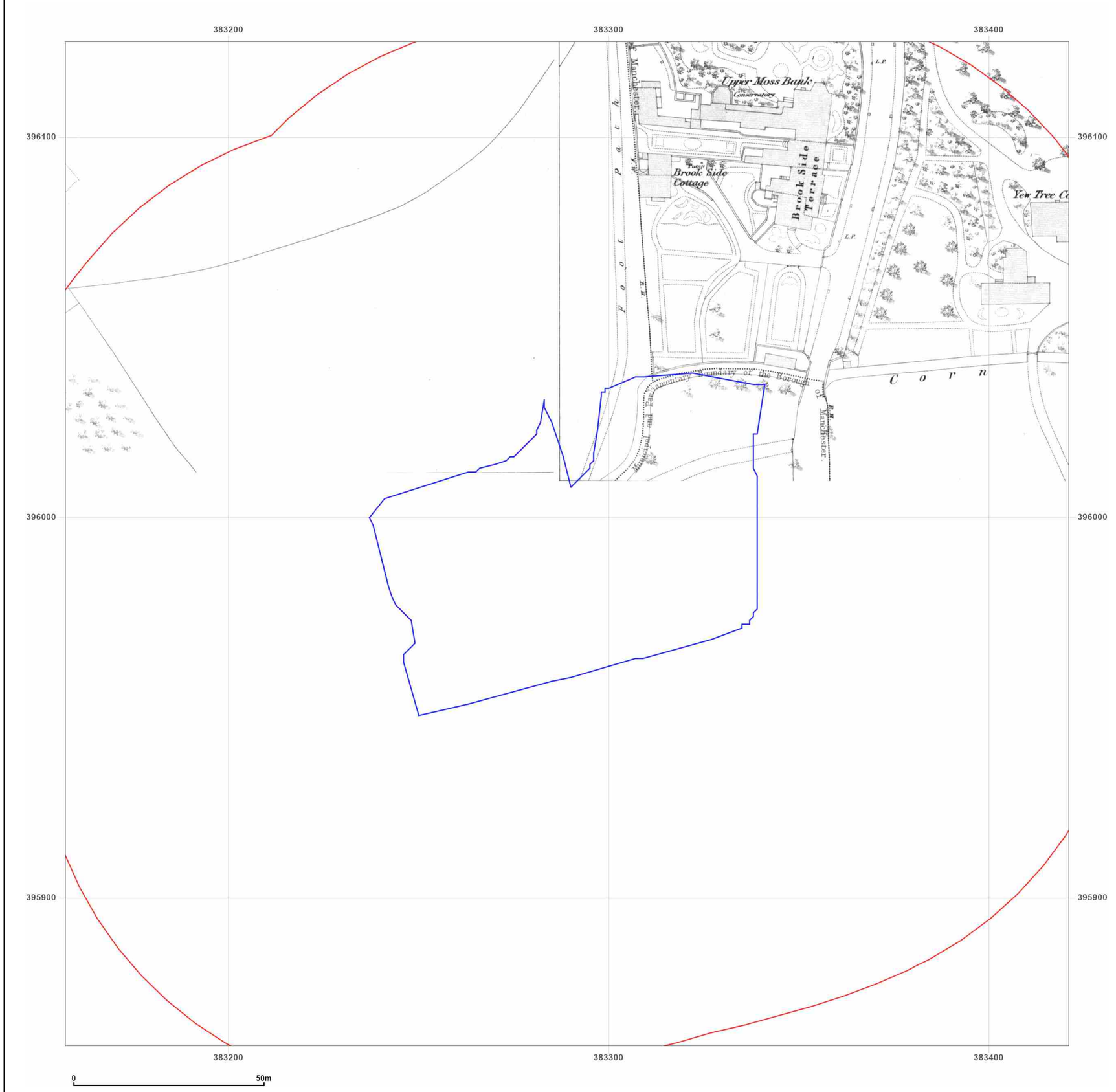
This data is sourced from HS2 ltd.

Data providers

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

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Site Details:

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Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

Map Name: 1056 Scale Town Plan

Map date: **1851**

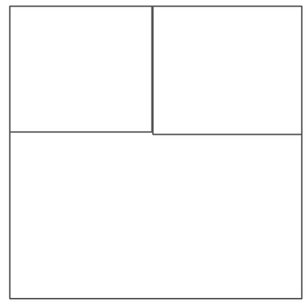
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Surveyed 1849
Revised N/A
Edition 1851
Copyright N/A
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Surveyed 1848
Revised N/A
Edition 1851
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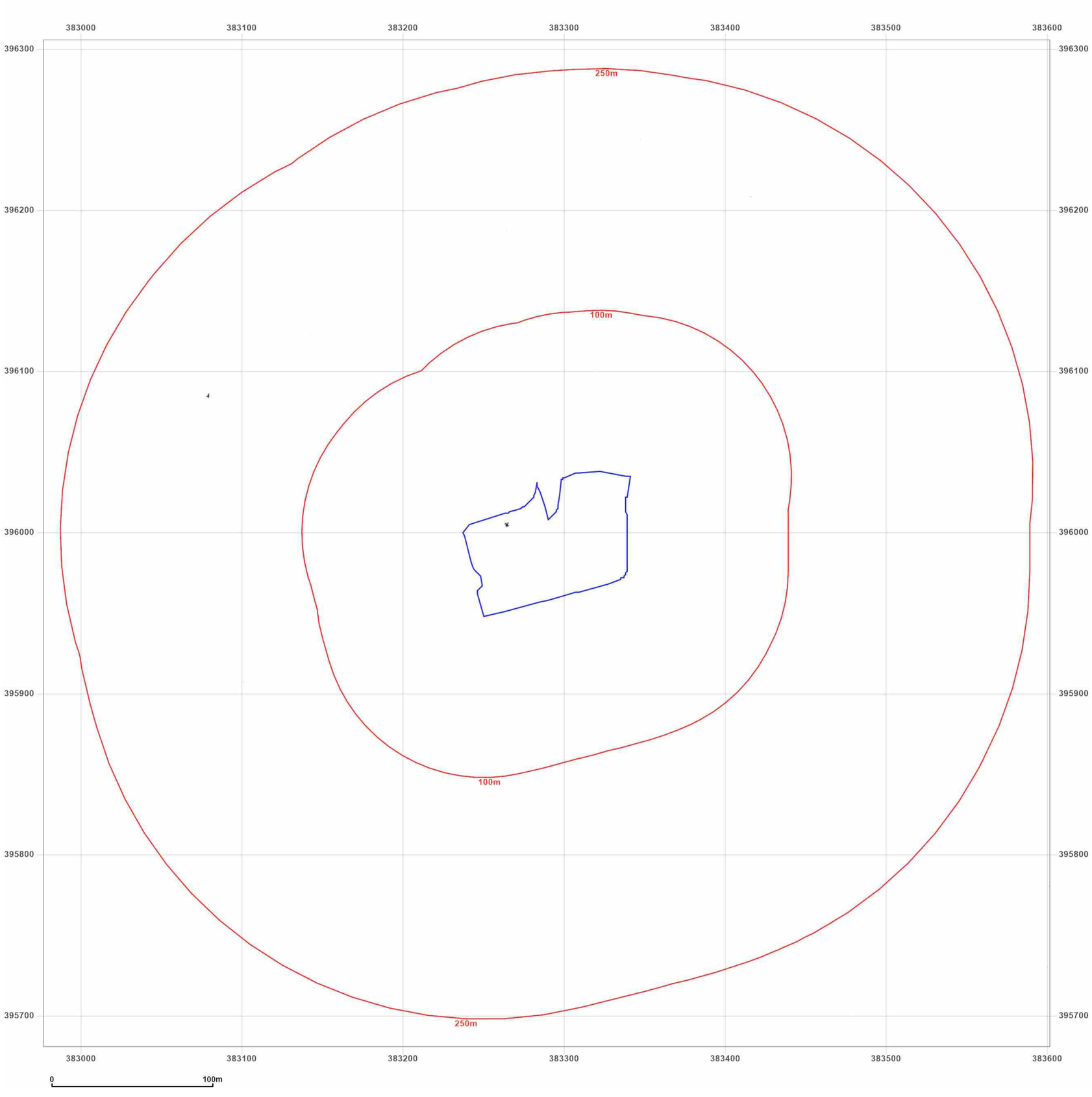
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Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

Map Name: County Series

Map date: **1881**

Scale: 1:2,500

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Edition 1881
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Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

Map Name: County Series

Map date: **1889**

Scale: 1:2,500

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Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

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

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Revised N/A
Edition N/A
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Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

Map Name: County Series

Map date: **1908**

Scale: 1:2,500

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Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

Map Name: County Series

Map date: **1922**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1922
Revised 1916
Edition 1922
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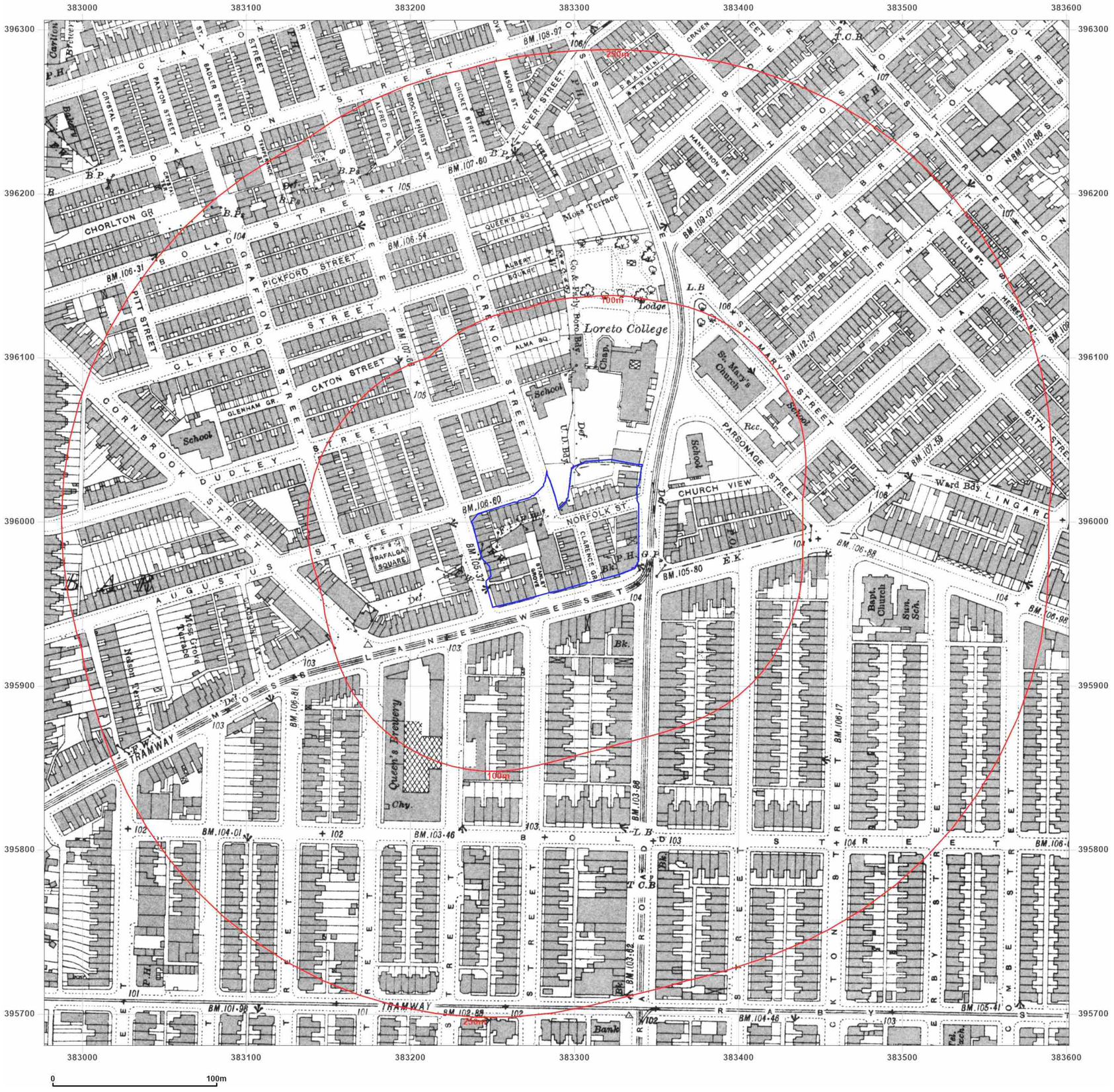
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MANCHESTER, M15 5PE

Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

Map Name: County Series

Map date: **1932**

Scale: 1:2,500

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Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

Map Name: National Grid

Map date: **1949**

Scale: 1:1,250

Printed at: 1:2,000

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Edition N/A
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Revised 1949
Edition N/A
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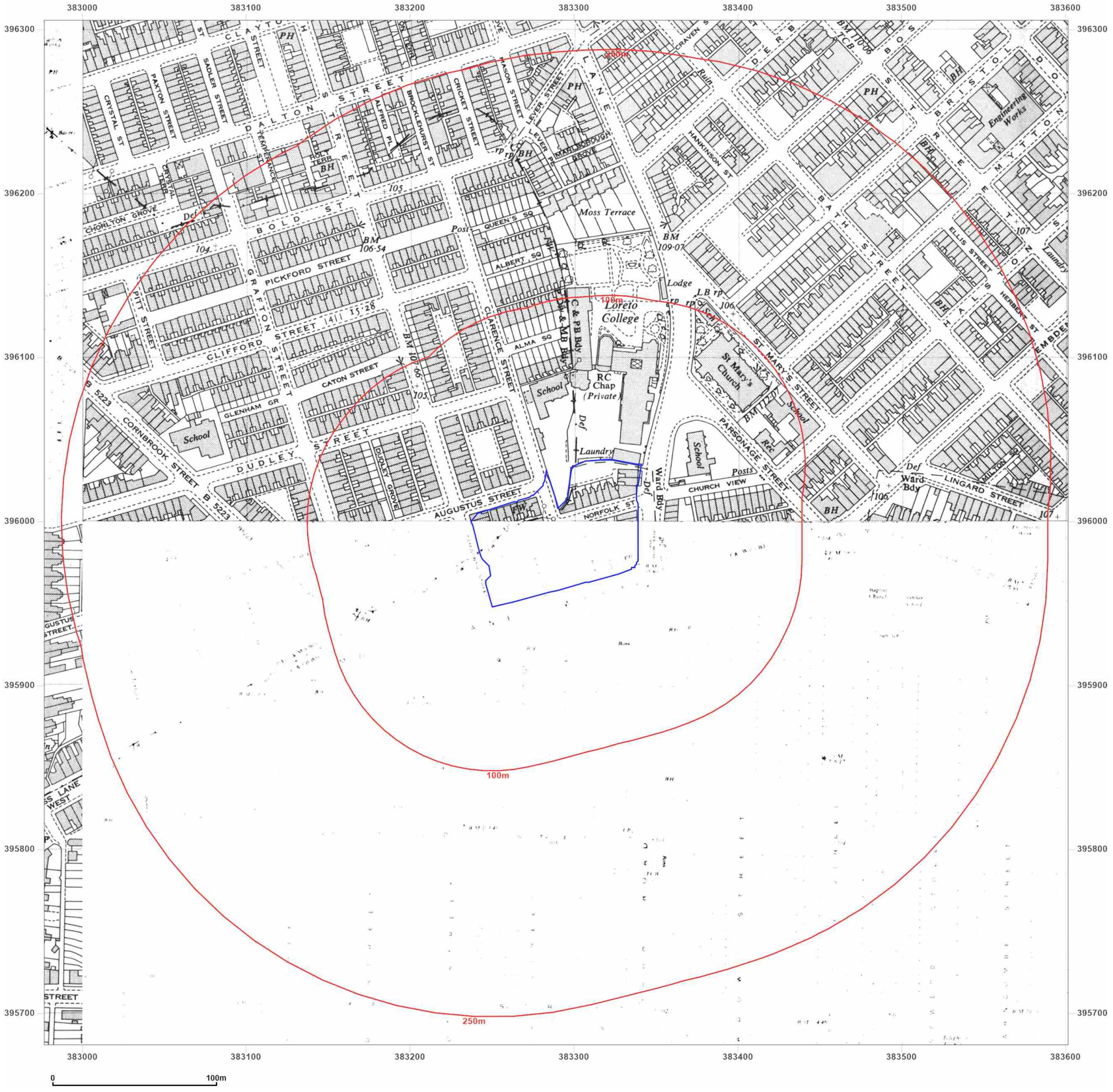
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Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

Map Name: National Grid

Map date: **1949-1951**

Scale: 1:2,500

Printed at: 1:2,500

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

Surveyed 1949
Revised 1949
Edition N/A
Copyright 1950
Levelled 1927

Surveyed 1949
Revised 1949
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Copyright N/A
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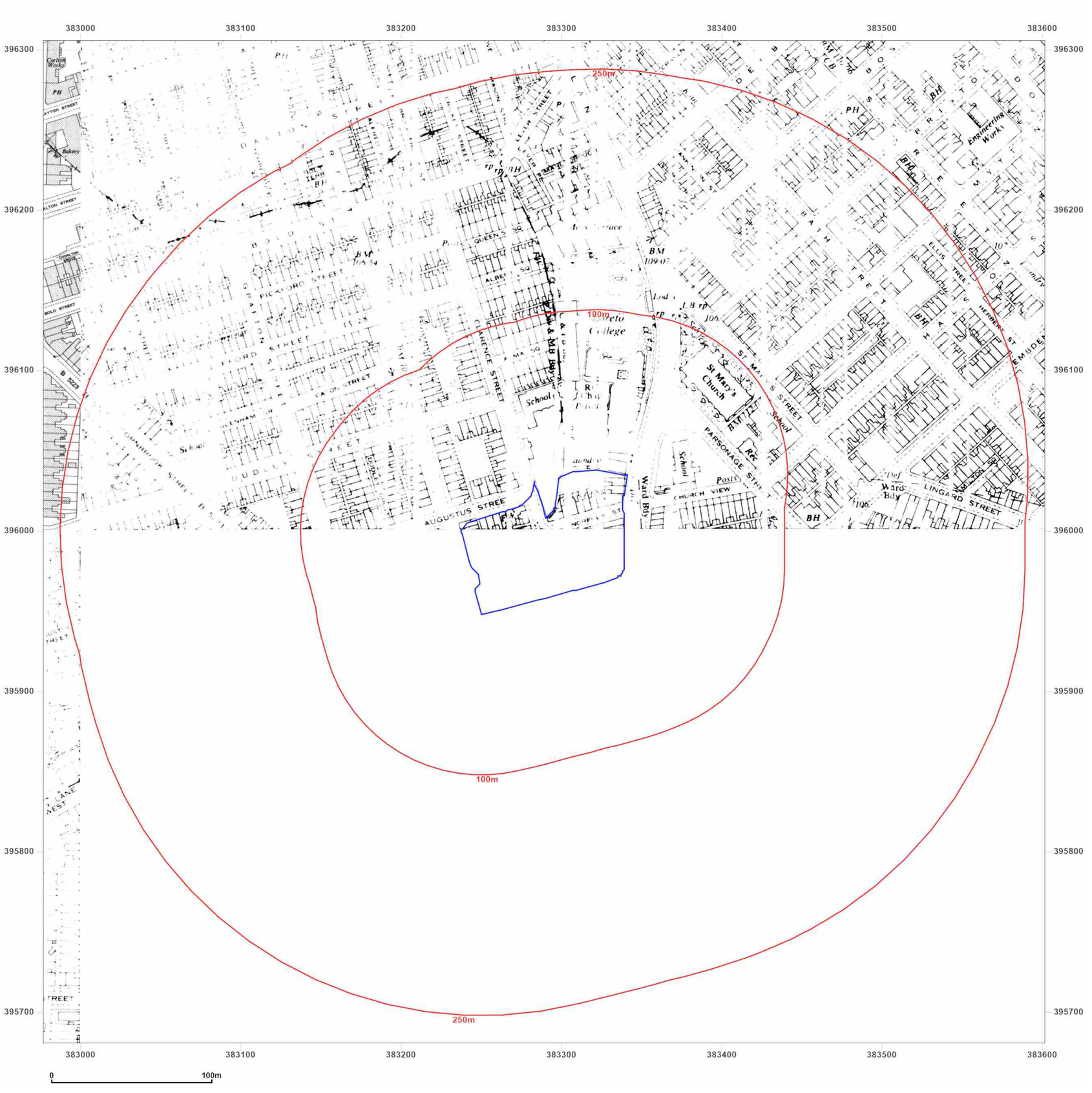
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Groundsure INSIGHTS

Site Details:

87, MOSS LANE WEST,
MANCHESTER, M15 5PE

Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

Map Name: National Grid

Map date: **1949-1951**

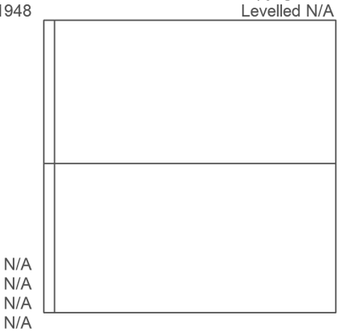
Scale: 1:2,500

Printed at: 1:2,500

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

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



Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
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Groundsure INSIGHTS

Site Details:

87, MOSS LANE WEST,
MANCHESTER, M15 5PE

Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

Map Name: National Grid

Map date: **1978**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed N/A
Revised N/A
Edition N/A
Copyright 1978
Levelled 1958

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Groundsure INSIGHTS

Site Details:

87, MOSS LANE WEST,
MANCHESTER, M15 5PE

Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

Map Name: National Grid

Map date: **1977-1980**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed 1949 Revised 1979 Edition N/A Copyright 1980 Levelled 1958	Surveyed 1949 Revised 1977 Edition N/A Copyright 1978 Levelled 1958
Surveyed 1949 Revised 1976 Edition N/A Copyright 1977 Levelled 1958	Surveyed 1949 Revised 1976 Edition N/A Copyright 1977 Levelled 1958

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Site Details:

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MANCHESTER, M15 5PE

Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

Map Name: National Grid

Map date: **1985-1988**

Scale: 1:1,250

Printed at: 1:2,000

N
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Surveyed 1958
Revised 1988
Edition N/A
Copyright 1988
Levelled 1958

Surveyed 1958
Revised 1988
Edition N/A
Copyright 1988
Levelled 1958

Surveyed 1958
Revised 1985
Edition N/A
Copyright 1985
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Groundsure INSIGHTS

Site Details:

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MANCHESTER, M15 5PE

Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

Map Name: National Grid

Map date: **1989-1990**

Scale: 1:1,250

Printed at: 1:2,000

N
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Surveyed 1989
Revised 1989
Edition N/A
Copyright 1989
Levelled N/A

Surveyed 1958
Revised 1989
Edition N/A
Copyright 1989
Levelled 1958

Surveyed 1958
Revised 1990
Edition N/A
Copyright 1990
Levelled 1958

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Site Details:

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MANCHESTER, M15 5PE

Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

Map Name: National Grid

Map date: **1989-1992**

Scale: 1:1,250

Printed at: 1:2,000

N
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Surveyed 1989
Revised 1989
Edition N/A
Copyright 1989
Levelled N/A

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

Surveyed 1958
Revised 1989
Edition N/A
Copyright 1989
Levelled 1958

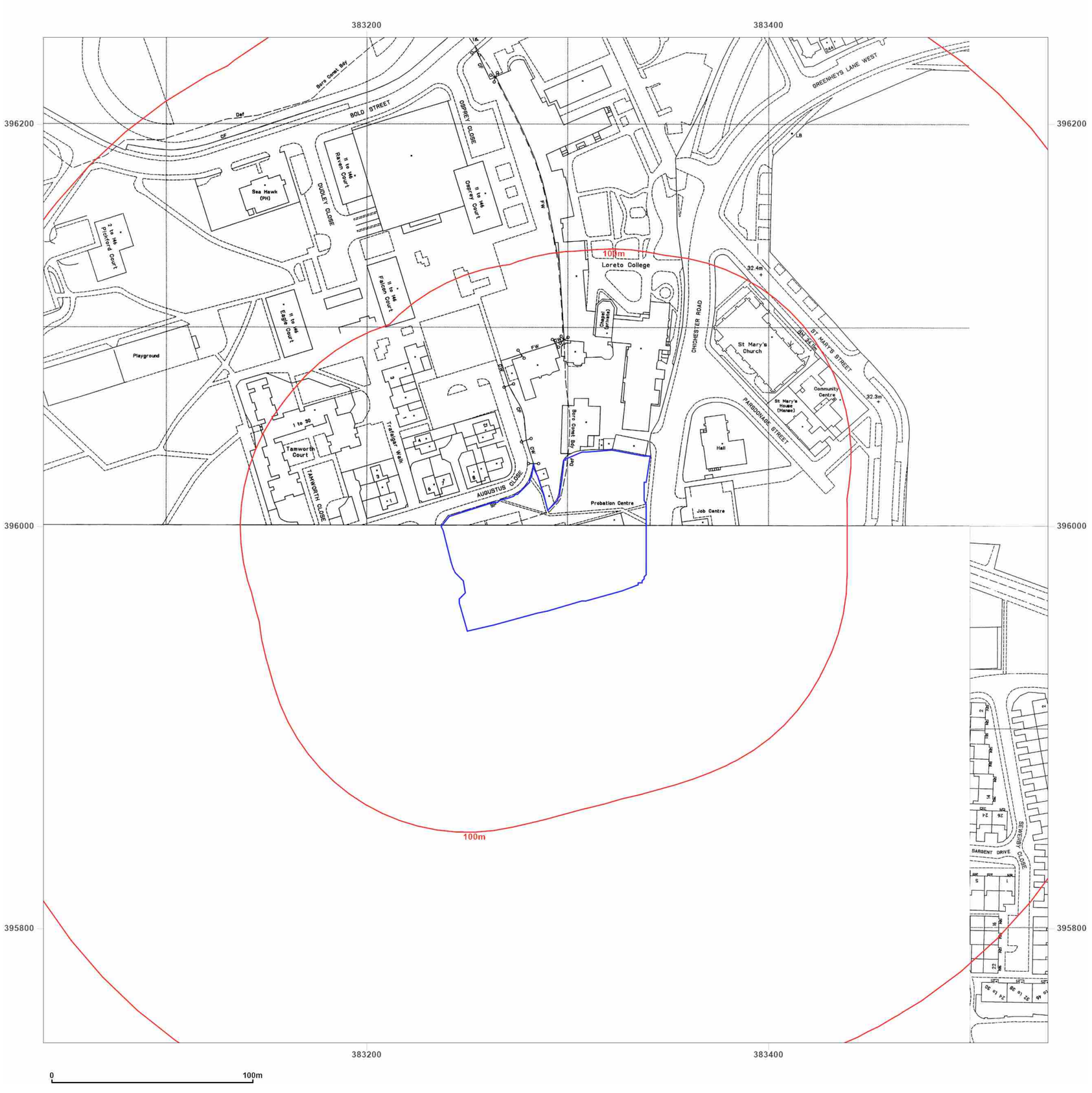
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Groundsure INSIGHTS

Site Details:

87, MOSS LANE WEST,
MANCHESTER, M15 5PE

Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

Map Name: National Grid

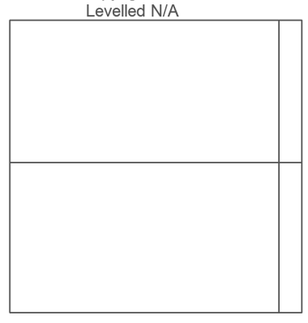
Map date: **1995**

Scale: 1:1,250

Printed at: 1:2,000

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



Surveyed 1995
Revised 1995
Edition N/A
Copyright 1995
Levelled N/A

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Groundsure INSIGHTS

Site Details:

87, MOSS LANE WEST,
MANCHESTER, M15 5PE

Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

Map Name: National Grid

Map date: **1992-1995**

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 N/A Revised N/A Edition N/A Copyright 1995 Levelled N/A
Surveyed N/A Revised N/A Edition N/A Copyright 1995 Levelled N/A	Surveyed N/A Revised N/A Edition N/A Copyright 1992 Levelled N/A

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Groundsure INSIGHTS

Site Details:

87, MOSS LANE WEST,
MANCHESTER, M15 5PE

Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

Map Name: National Grid

Map date: **1995**

Scale: 1:1,250

Printed at: 1:2,000

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W E
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Surveyed N/A Revised N/A Edition N/A Copyright 1995 Levelled N/A	Surveyed 1995 Revised 1995 Edition N/A Copyright 1995 Levelled N/A
Surveyed 1995 Revised 1995 Edition N/A Copyright 1995 Levelled N/A	Surveyed N/A Revised N/A Edition N/A Copyright 1995 Levelled N/A

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Site Details:

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MANCHESTER, M15 5PE

Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

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

N
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2003

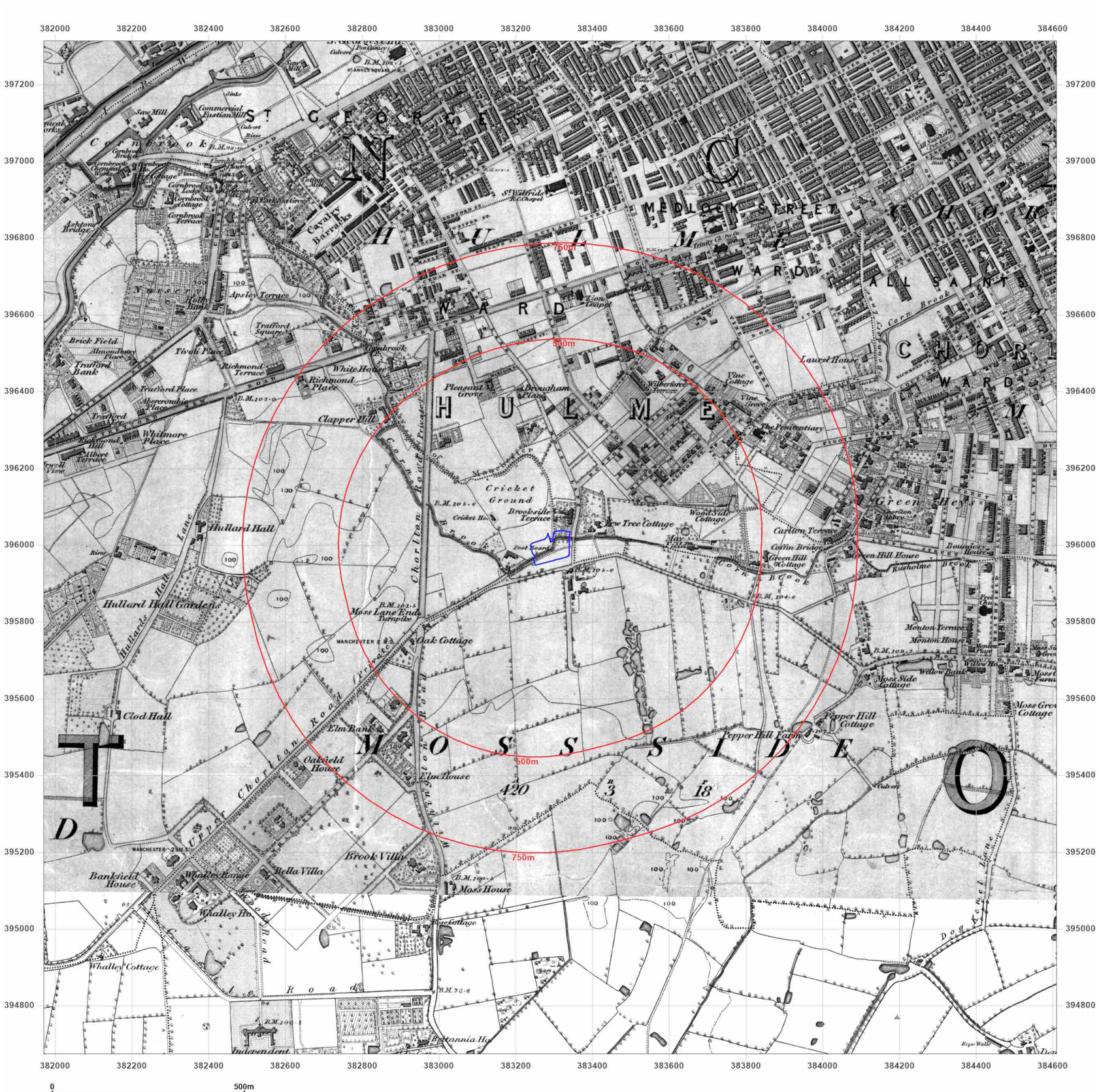
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Site Details:

87, MOSS LANE WEST,
MANCHESTER, M15 5PE

Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

Map Name: County Series

Map date: **1848-1849**

Scale: 1:10,560

Printed at: 1:10,560

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

Surveyed 1845
Revised 1849
Edition 1849
Copyright N/A
Levelled N/A

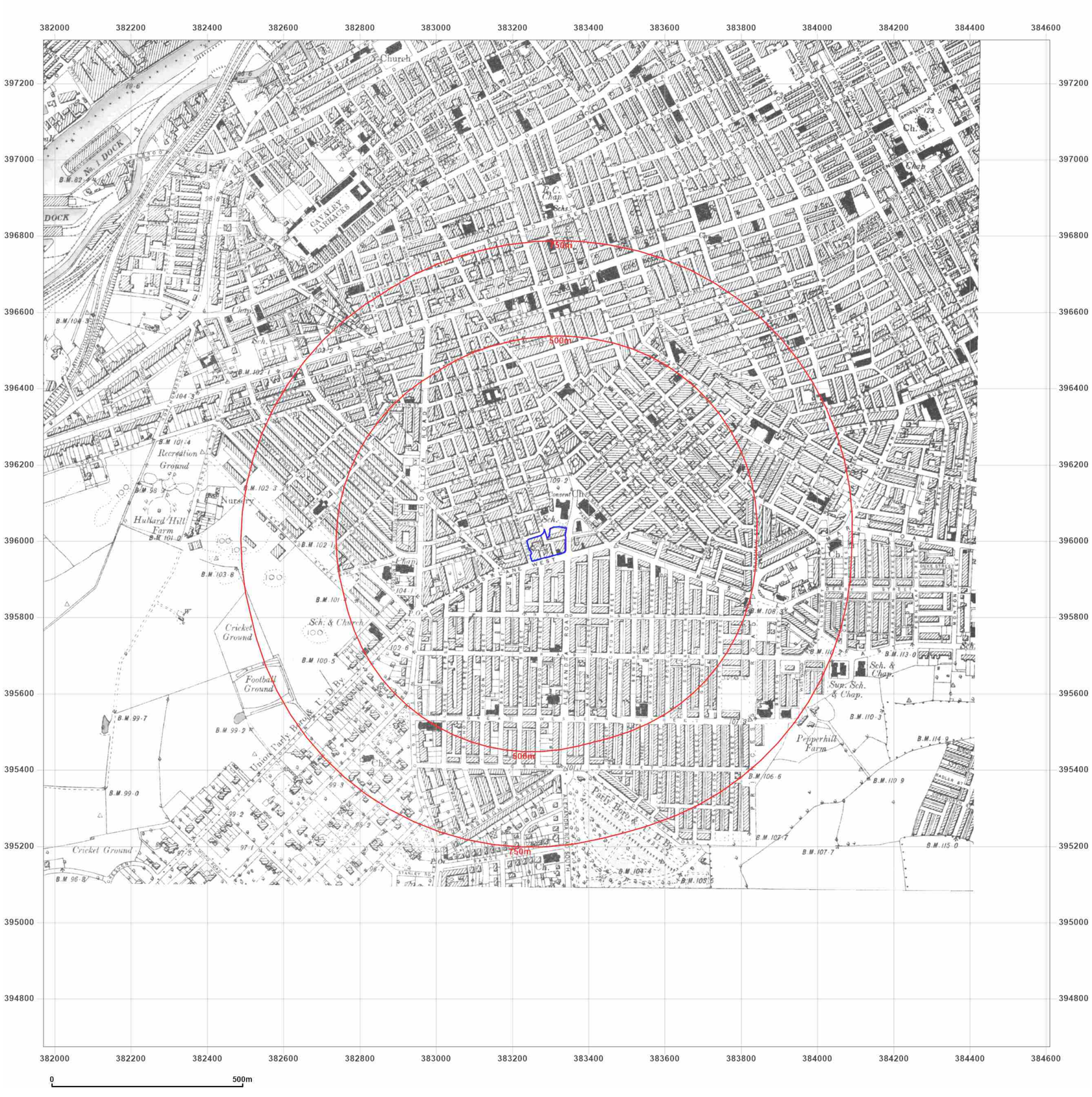
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Site Details:

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MANCHESTER, M15 5PE

Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

Map Name: County Series

Map date: **1896**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1894
Revised 1896
Edition 1896
Copyright N/A
Levelled N/A

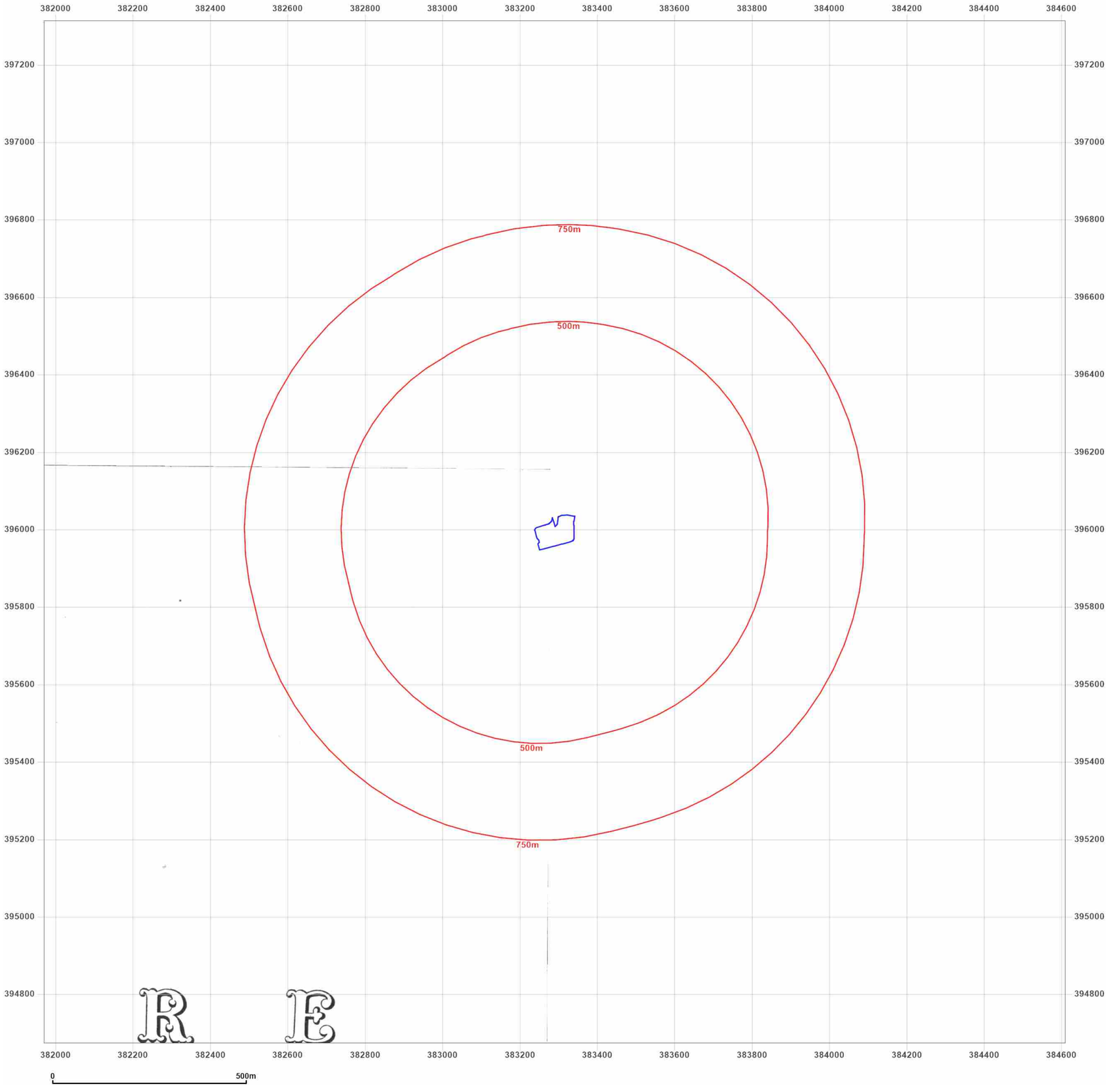
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Site Details:

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MANCHESTER, M15 5PE

Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

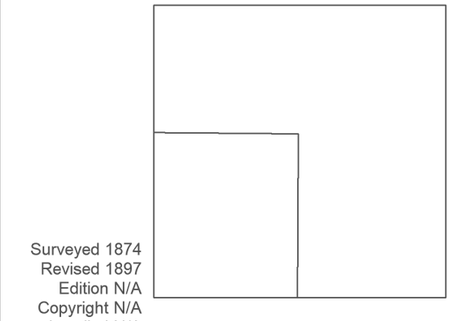
Map Name: County Series

Map date: **1897**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1874
Revised 1897
Edition N/A
Copyright N/A
Levelled N/A

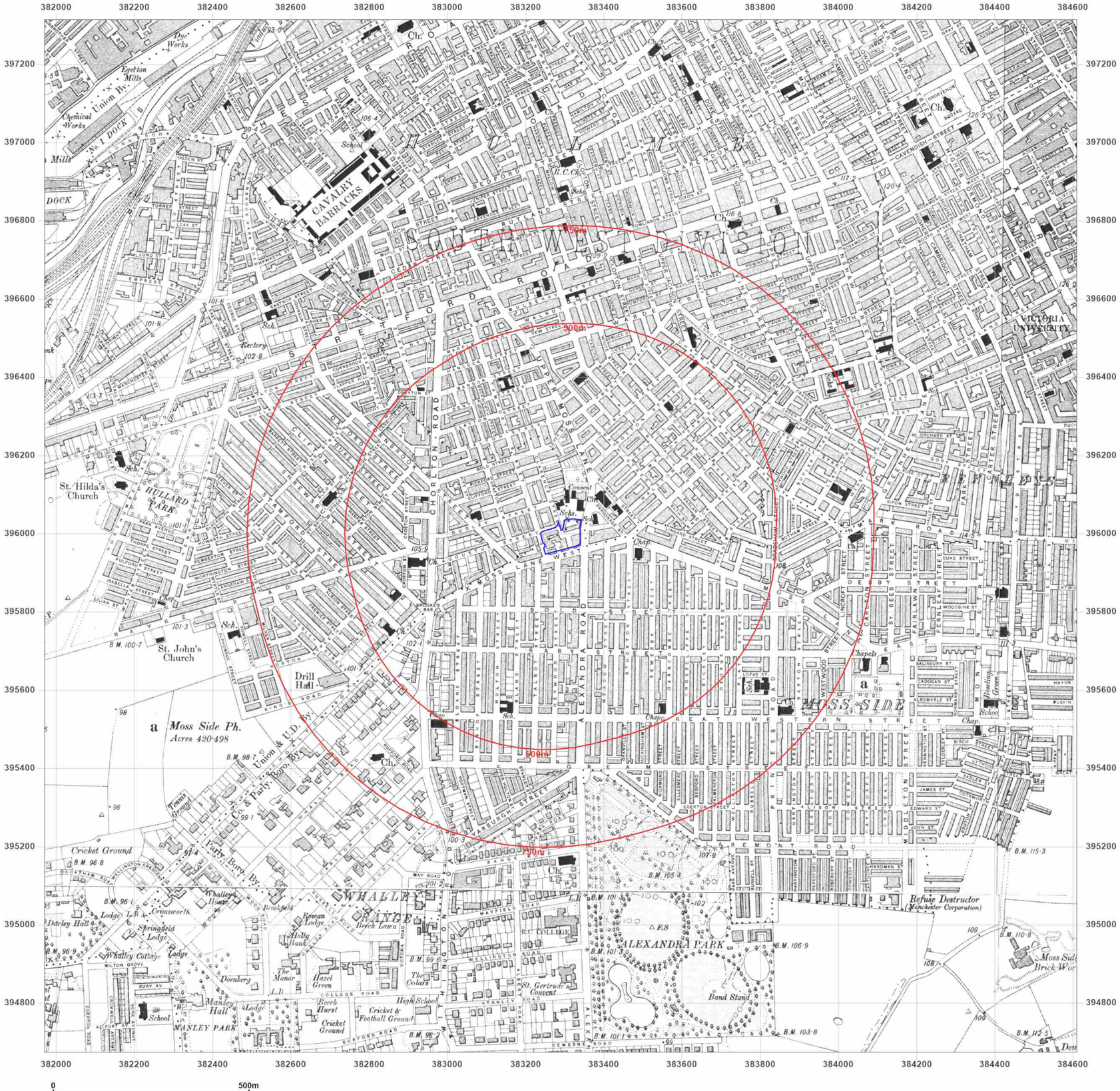
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Site Details:

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MANCHESTER, M15 5PE

Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

Map Name: County Series

Map date: **1905**

Scale: 1:10,560

Printed at: 1:10,560

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

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

Surveyed 1892
Revised 1905
Edition 1905
Copyright N/A
Levelled N/A

Surveyed 1892
Revised 1905
Edition 1905
Copyright N/A
Levelled N/A

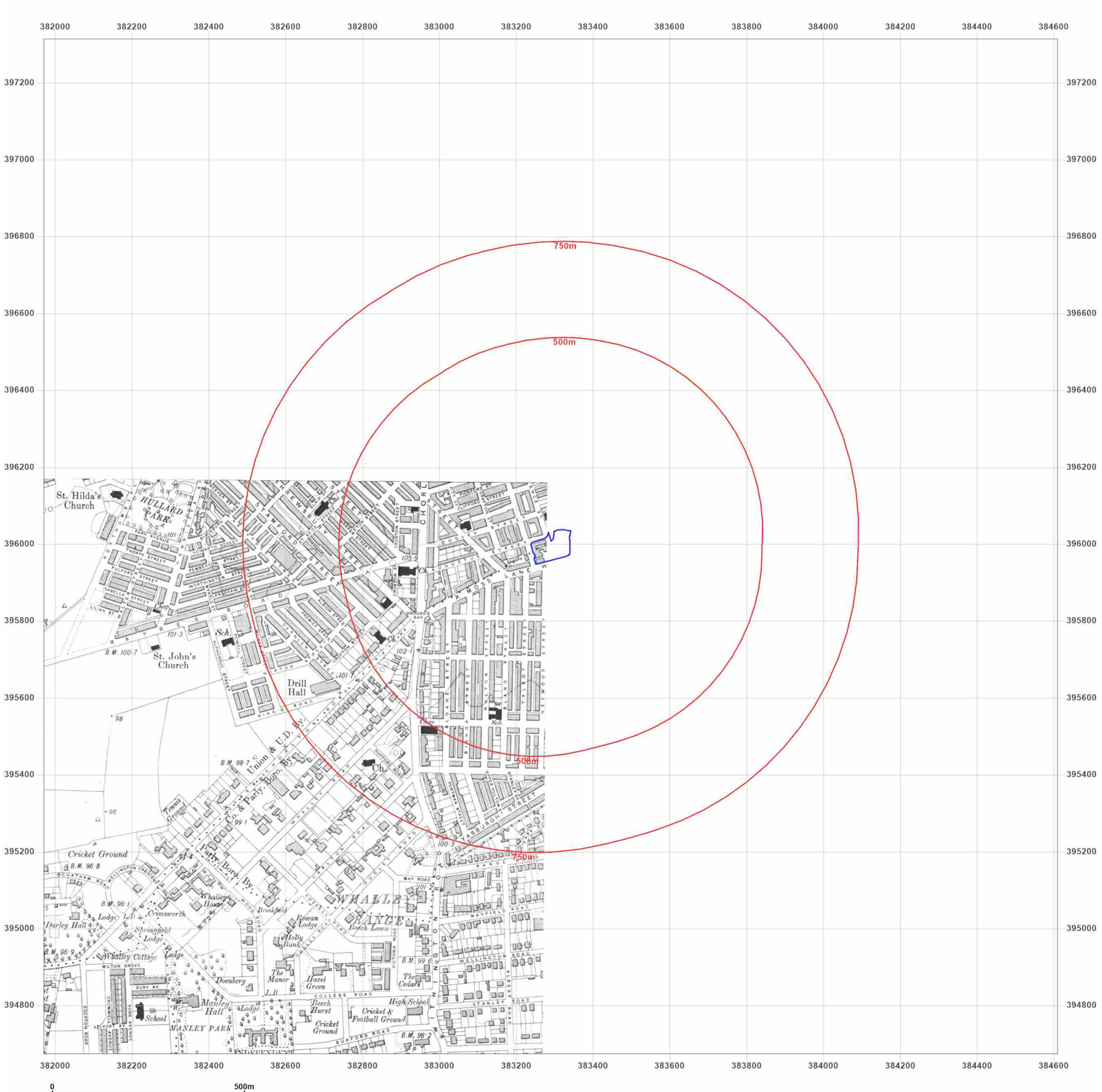
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Site Details:

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MANCHESTER, M15 5PE

Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

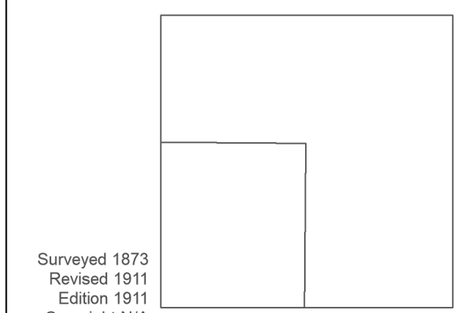
Map Name: County Series

Map date: **1911**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1873
Revised 1911
Edition 1911
Copyright N/A
Levelled N/A

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Site Details:

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MANCHESTER, M15 5PE

Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

Map Name: County Series

Map date: **1923**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1844
Revised 1916
Edition 1923
Copyright N/A
Levelled 1915

Surveyed 1844
Revised 1915
Edition 1923
Copyright N/A
Levelled 1915

Surveyed 1844
Revised 1916
Edition 1923
Copyright N/A
Levelled 1915

Surveyed 1844
Revised 1916
Edition 1923
Copyright N/A
Levelled 1915

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Site Details:

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MANCHESTER, M15 5PE

Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

Map Name: County Series

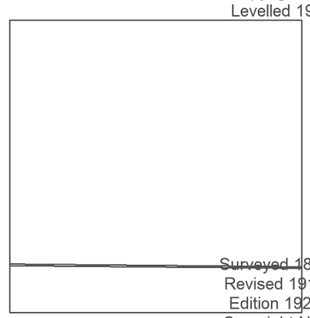
Map date: **1923**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1844
Revised 1916
Edition 1923
Copyright N/A
Levelled 1915



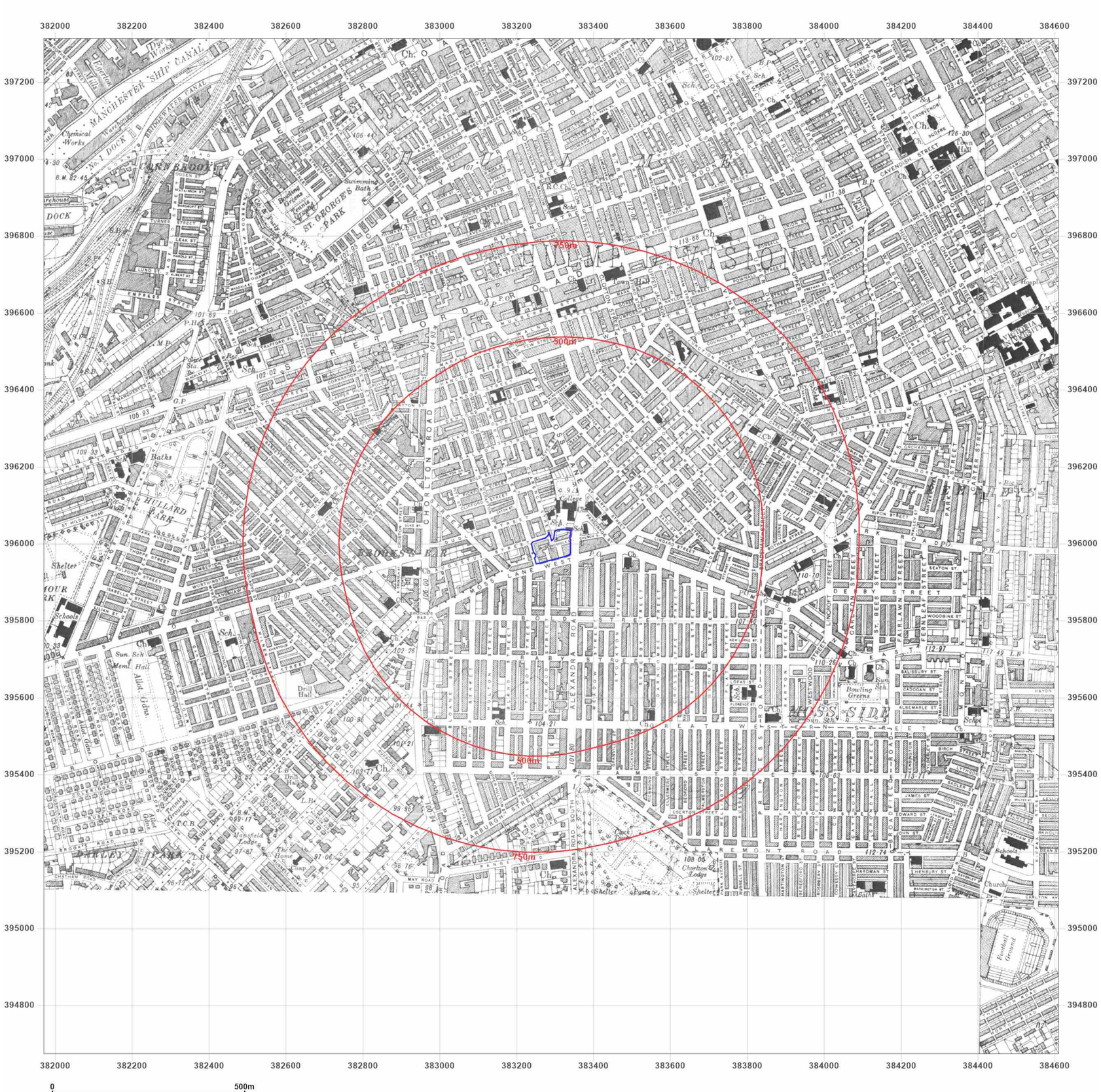
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Site Details:

87, MOSS LANE WEST,
MANCHESTER, M15 5PE

Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

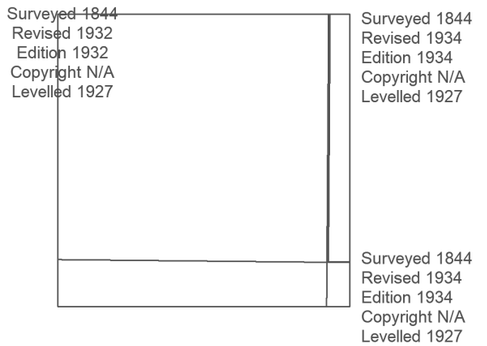
Map Name: County Series

Map date: **1932-1934**

Scale: 1:10,560

Printed at: 1:10,560

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Site Details:

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MANCHESTER, M15 5PE

Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

Map Name: County Series

Map date: **1934-1938**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1844
Revised 1938
Edition 1938
Copyright N/A
Levelled 1927

Surveyed 1844
Revised 1938
Edition 1938
Copyright N/A
Levelled 1927

Surveyed 1844
Revised 1934
Edition 1934
Copyright N/A
Levelled 1927

Surveyed 1844
Revised 1938
Edition 1938
Copyright N/A
Levelled 1927

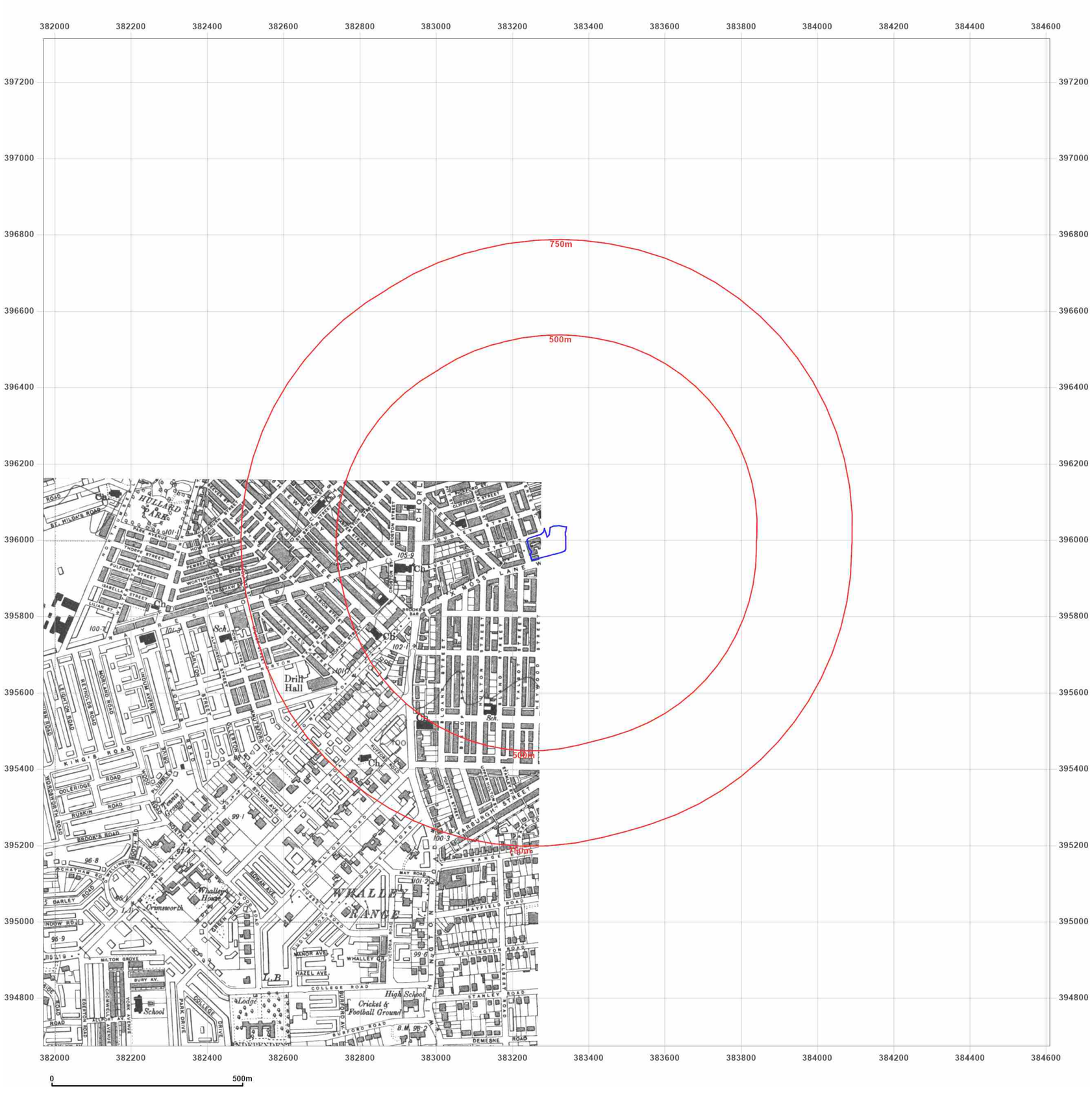
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Groundsure INSIGHTS

Site Details:

87, MOSS LANE WEST,
MANCHESTER, M15 5PE

Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

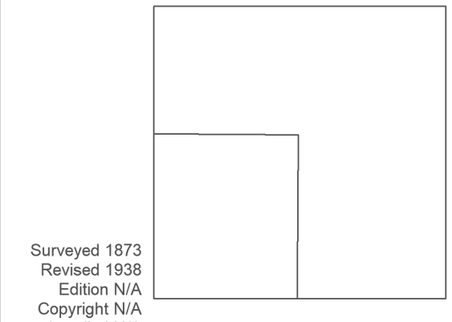
Map Name: County Series

Map date: **1938**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1873
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

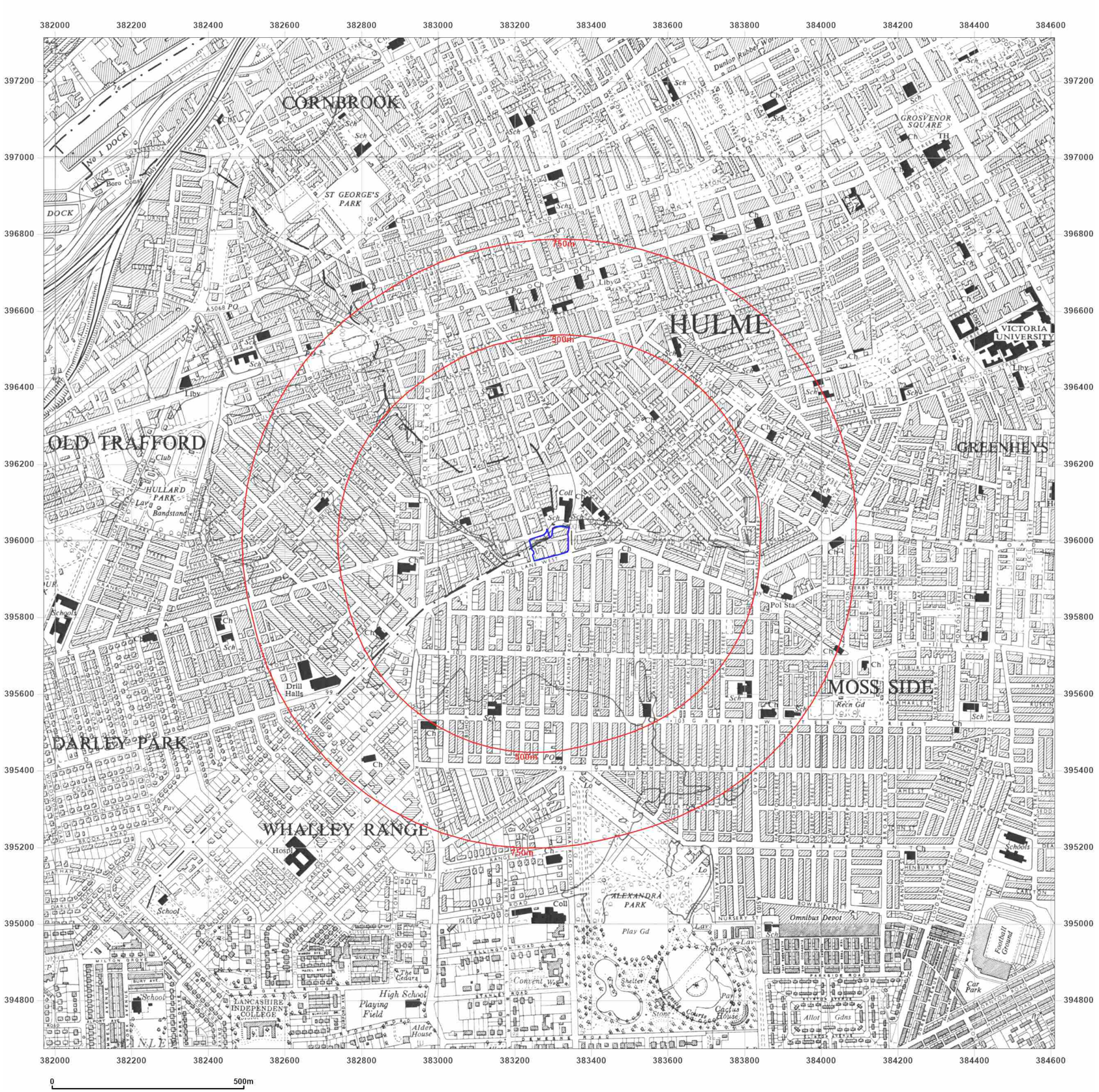
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Production date: 10 February 2023

Map legend available at:
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Groundsure INSIGHTS

Site Details:

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MANCHESTER, M15 5PE

Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

Map Name: Provisional

Map date: **1955-1956**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
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Surveyed 1956
Revised 1956
Edition N/A
Copyright 1956
Levelled N/A

Surveyed N/A
Revised 1955
Edition N/A
Copyright 1955
Levelled N/A

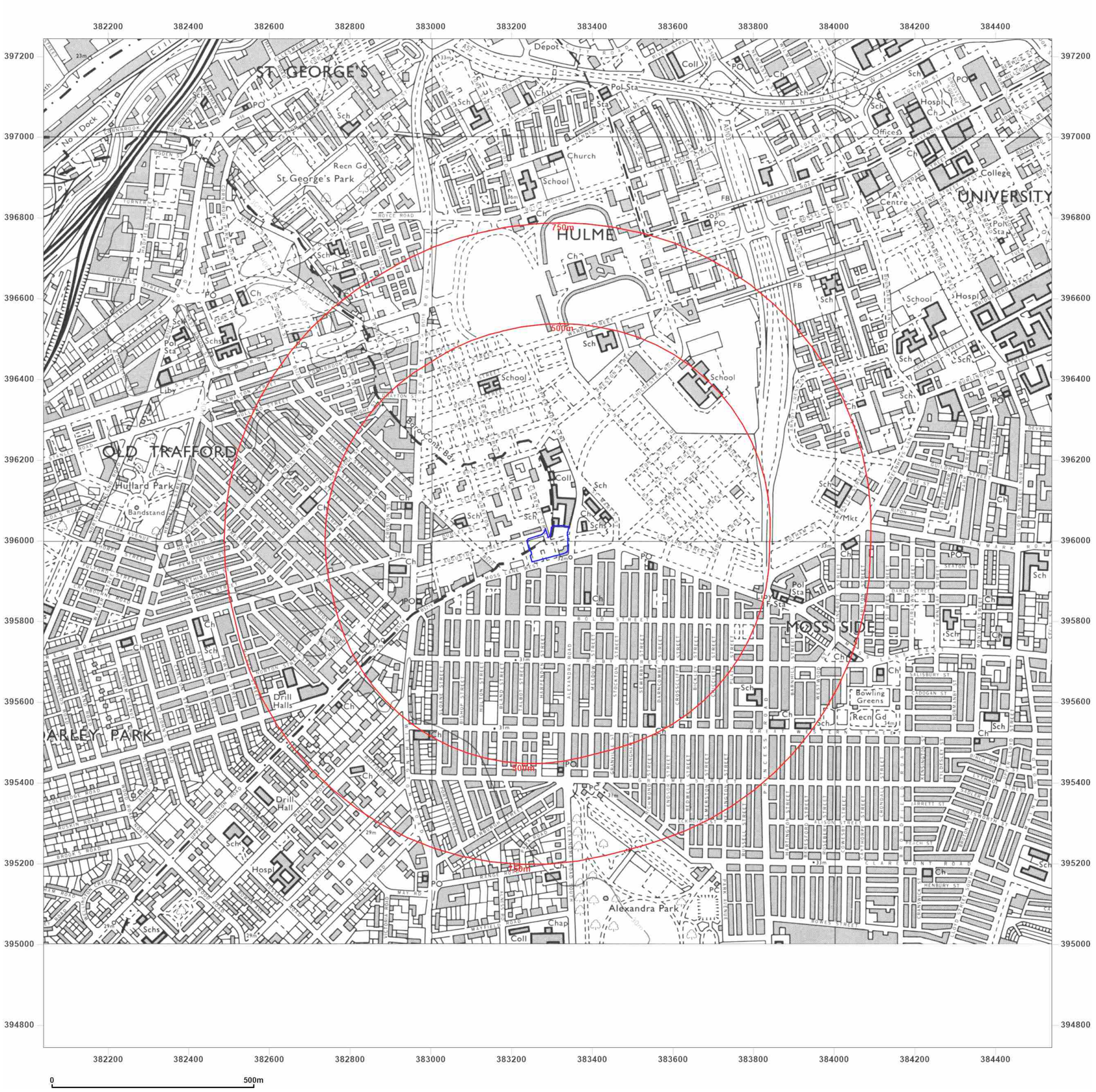
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Production date: 10 February 2023

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Groundsure INSIGHTS

Site Details:

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MANCHESTER, M15 5PE

Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

Map Name: National Grid

Map date: **1972**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
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Surveyed 1971
Revised 1972
Edition N/A
Copyright 1972
Levelled 1972

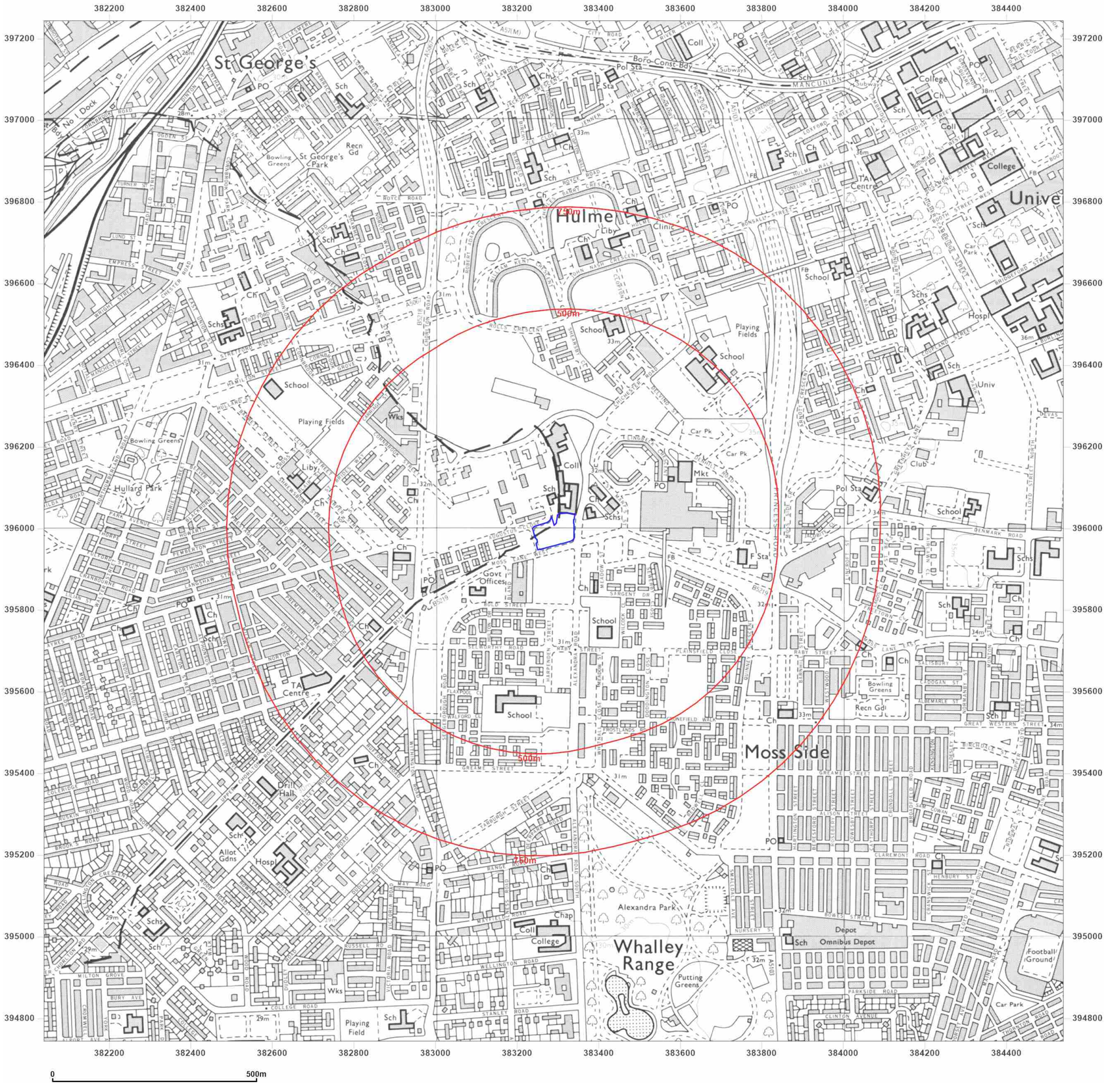
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Site Details:

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Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

Map Name: National Grid

Map date: **1980-1981**

Scale: 1:10,000

Printed at: 1:10,000

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Surveyed 1976
Revised 1980
Edition N/A
Copyright 1980
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Surveyed 1977
~~Revised 1981~~
Edition N/A
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Site Details:

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Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

Map Name: National Grid

Map date: **1985-1988**

Scale: 1:10,000

Printed at: 1:10,000

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Surveyed 1983
Revised 1985
Edition N/A
Copyright 1985
Levelled 1981

Surveyed 1985
~~Revised 1988~~
Edition N/A
Copyright 1988
Levelled 1981

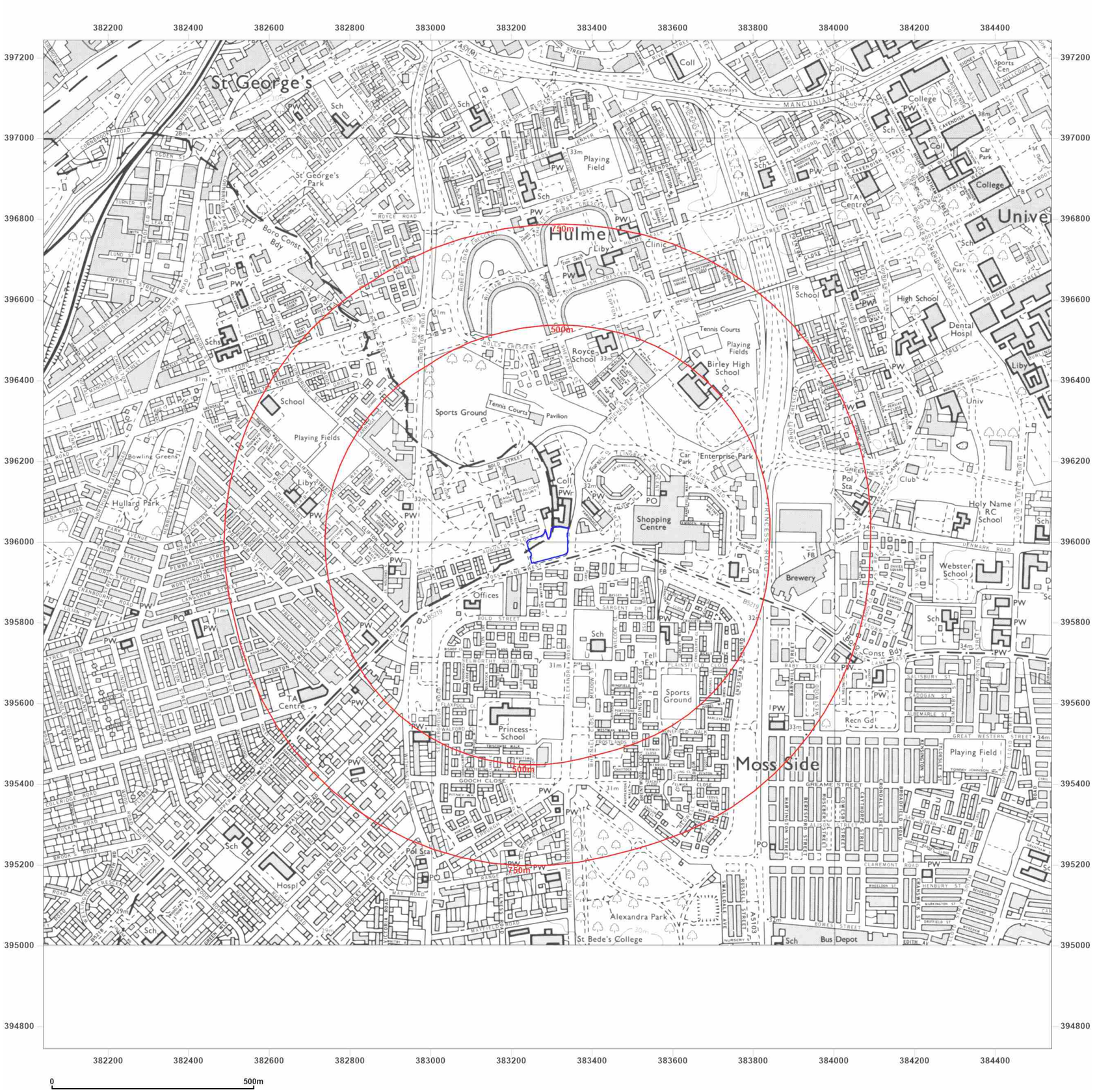
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Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

Map Name: National Grid

Map date: **1988**

Scale: 1:10,000

Printed at: 1:10,000

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Surveyed 1986
Revised 1988
Edition N/A
Copyright 1988
Levelled 1981

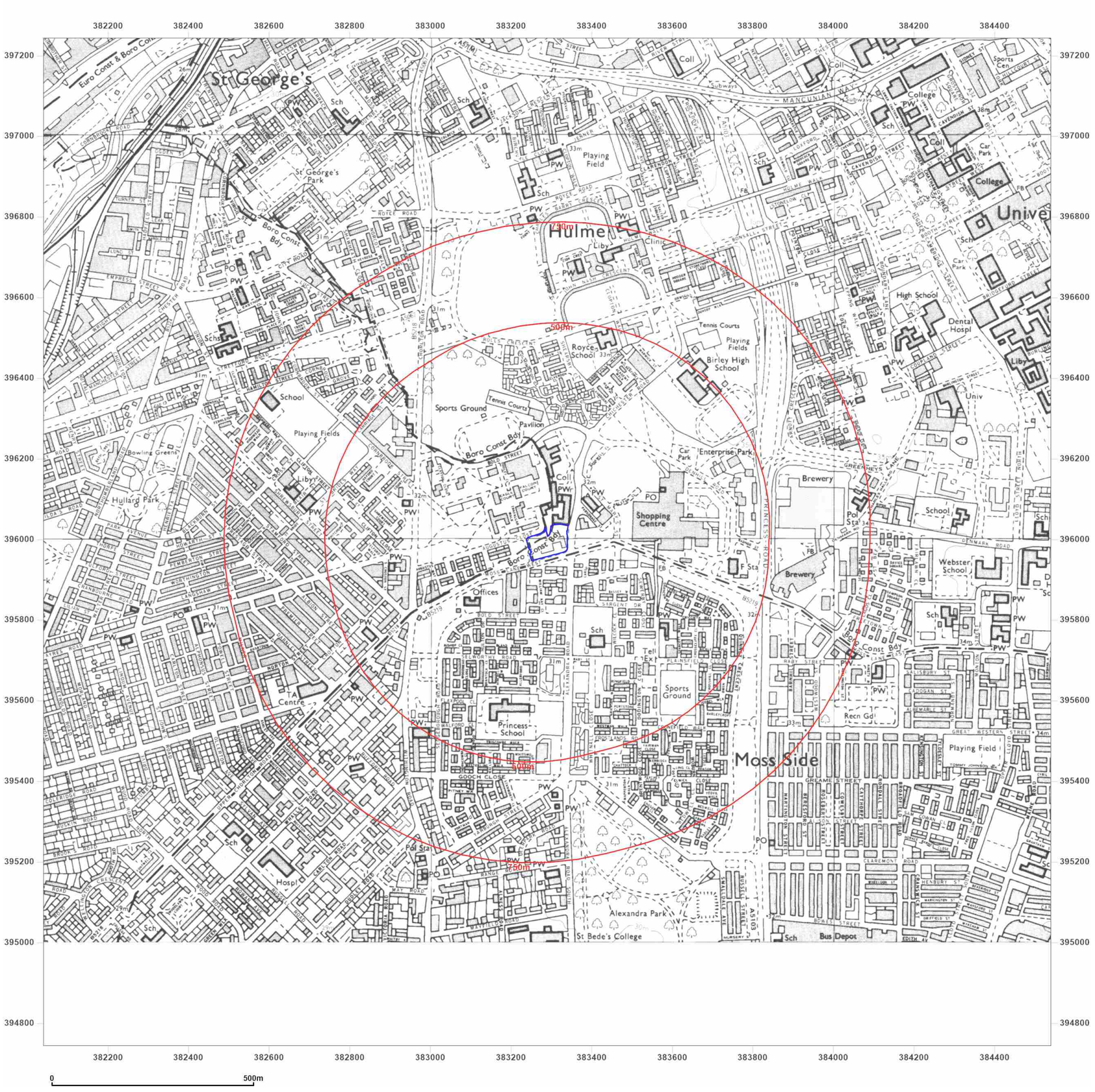
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Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

Map Name: National Grid

Map date: **1994**

Scale: 1:10,000

Printed at: 1:10,000

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Surveyed 1986
Revised 1994
Edition N/A
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MANCHESTER, M15 5PE

Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

Map Name: National Grid

Map date: **2001**

Scale: 1:10,000

Printed at: 1:10,000

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2001

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MANCHESTER, M15 5PE

Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

Map Name: National Grid

Map date: **2010**

Scale: 1:10,000

Printed at: 1:10,000

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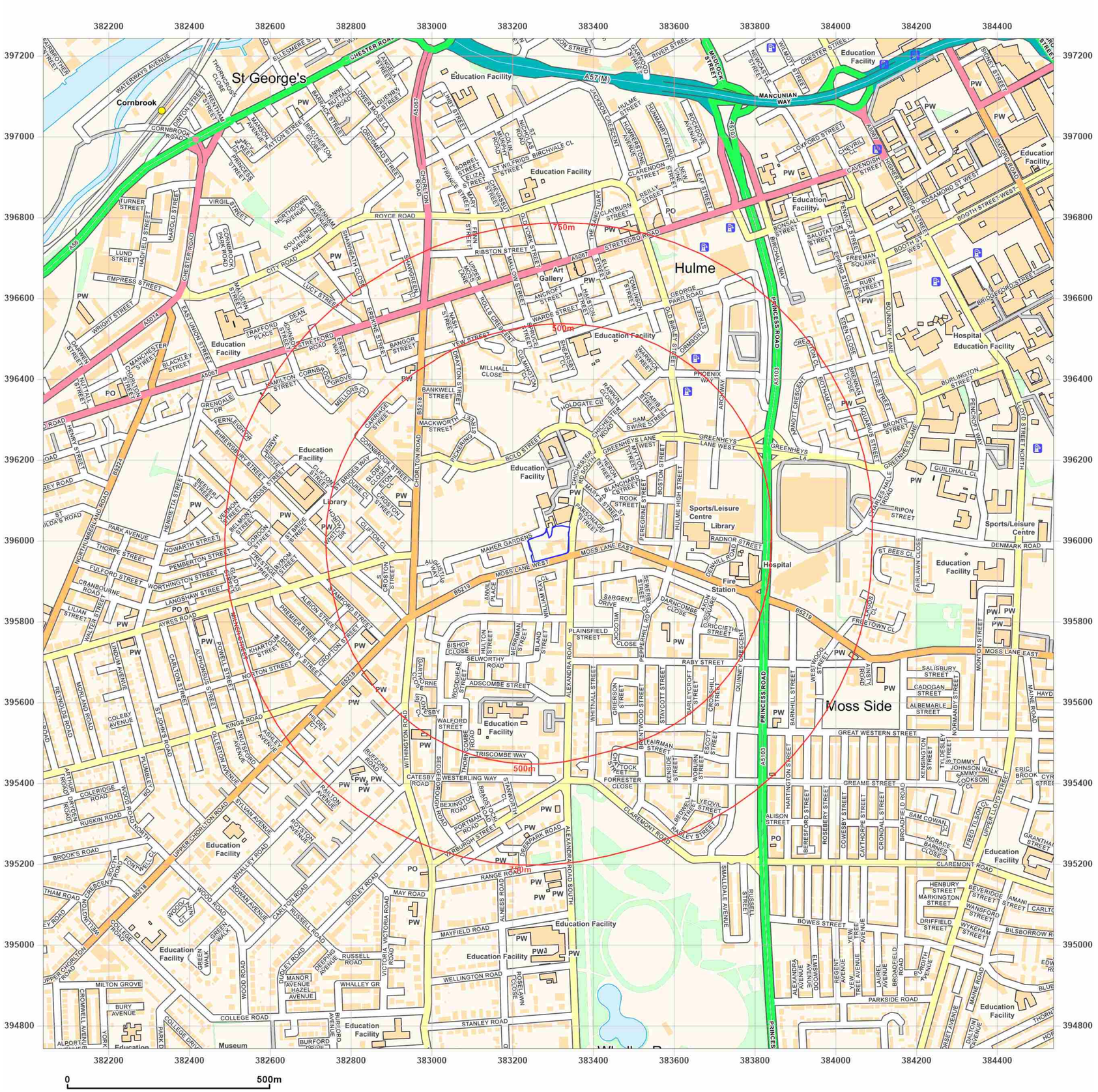
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Site Details:

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Client Ref: 10939G
Report Ref: HMD-424-9349632
Grid Ref: 383289, 395993

Map Name: National Grid

Map date: **2023**

Scale: 1:10,000

Printed at: 1:10,000

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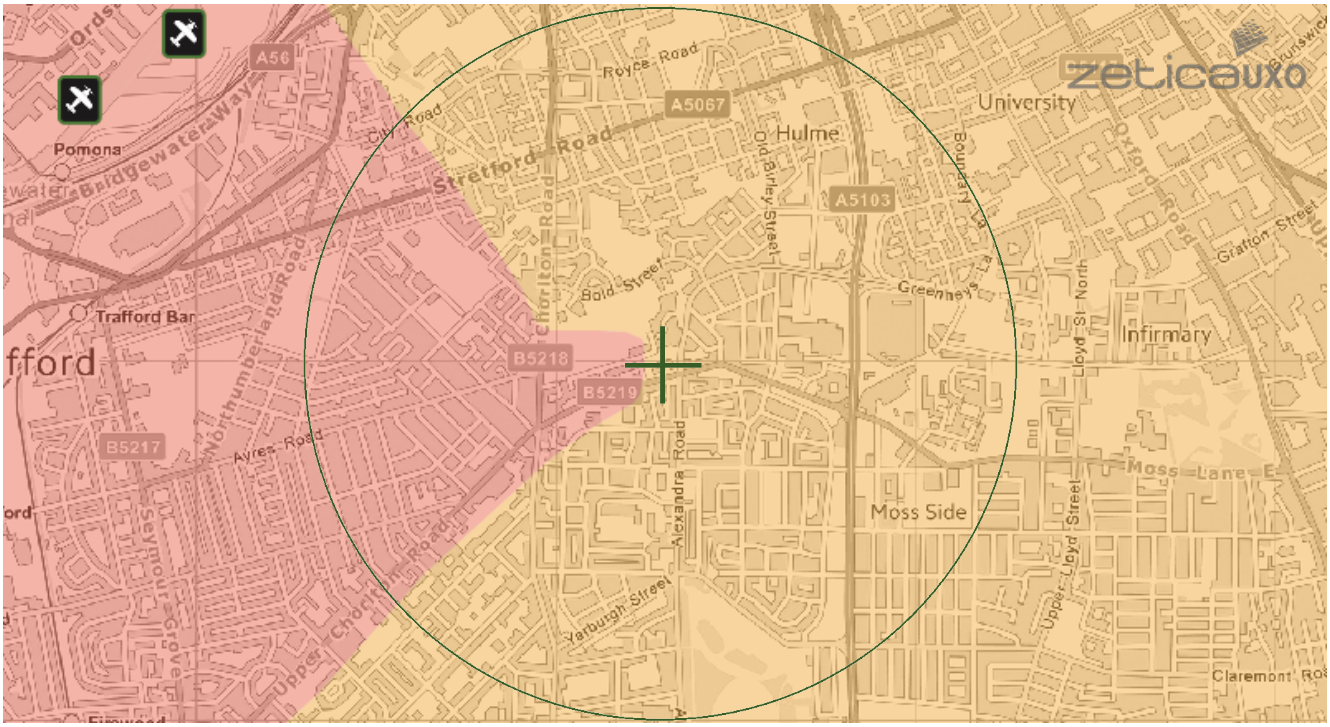
APPENDIX 04

ZeticaUXO Unexploded Bomb Risk Map

UNEXPLODED BOMB RISK MAP

SITE LOCATION

Map Centre: 383303,395993



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**
transport	**dock**	**Luftwaffe targets**
utilities	**Bombing decoy**	**other**

How to use your Unexploded Bomb (UXB) risk map?

The map indicates the potential for Unexploded Bombs (UXB) to be present as a result of World War Two (WWII) bombing.

You can incorporate the map into your preliminary risk assessment* for potential Unexploded Ordnance (UXO) for a site. Using this map, you can make an informed decision as to whether more in-depth detailed risk assessment* is necessary.

What do I do if my site is in a moderate or high risk area?

Generally, we recommend that a detailed UXO desk study and risk assessment is undertaken for sites in a moderate or high UXB risk area.

Similarly, if your site is near to a designated Luftwaffe target or bombing decoy then additional detailed research is recommended.

More often than not, this further detailed research will conclude that the potential for a significant UXO hazard to be present on your site is actually low.

Never plan site work or undertake a risk assessment using these maps alone. More detail is required, particularly where there may be a source of UXO from other military operations which are not reflected on these maps.

If my site is in a low risk area, do I need to do anything?

If both the map and other research confirms that there is a low potential for UXO to be present on your site then, subject to your own comfort and risk tolerance, works can proceed with no special precautions.

A low risk really means that there is no greater probability of encountering UXO than anywhere else in the UK.

If you are unsure whether other sources of UXO may be present, you can ask for one of our **pre-desk study assessments (PDSA)**

If I have any questions, who do I contact?

tel: **+44 (0) 1993 886682**

email: **uxo@zetica.com**

web: **www.zeticauxo.com**

The information in this UXB risk map is derived from a number of sources and should be used in conjunction with the accompanying notes on our website: **(https://zeticauxo.com/downloads-and-resources/risk-maps/)**

Zetica cannot guarantee the accuracy or completeness of the information or data used and cannot accept any liability for any use of the maps. These maps can be used as part of a technical report or similar publication, subject to acknowledgment. The copyright remains with Zetica Ltd.

It is important to note that this map is not a UXO risk assessment and should not be reported as such when reproduced.

*Preliminary and detailed UXO risk assessments are advocated as good practice by industry guidance such as CIRIA C681 'Unexploded Ordnance (UXO), a guide for the construction industry'.

APPENDIX 05

Qualitative Risk Assessment Guidance

Qualitative Risk Assessment Guidance

The Preliminary Contamination Risk Assessment methodology within the Phase 1 Desk Study Report is undertaken with reference to the following CIRIA guidance.

- Contaminated Land Risk Assessment - A Guide to Good Practice CIRIA C552:2001.

In practical terms, risk evaluation is undertaken in order to ascertain if potential risks are considered to be acceptable via classification following factors.

- The magnitude of the potential **consequences** (severity) of the risk occurring.
- The magnitude of the **probability** (likelihood) of the risks occurring.
- The potential consequences of contamination risks occurring at the Site should be classified in accordance with the following table which is adapted from Table 6.3 in the CIRIA guidance.

Table 1 Classification of Consequence

Classification	Definition
Severe	Short term (acute) risk to human health likely to result in 'significant harm' as defined by the *Environment Protection Act 1990*, Part IIA. Short term risk of (significant) pollution of sensitive water resource or ecosystem. Catastrophic damage to building/property. Short term risk to a particular ecosystem, or organism forming part of such an ecosystem.
Medium	Chronic damage to human health (significant harm). Pollution of sensitive water resources. A significant change in a particular ecosystem, or an organism forming part of such an ecosystem.
Mild	Pollution of non-sensitive water resources. Significant damage to crops, buildings, structures and services. Damage to sensitive buildings/structures/services or the environment.
Minor	Harm, although not necessarily significant harm, which may results in a financial loss, or expenditure to resolve. Non-permanent, easily preventable effects to human health. Easily repairable damage to buildings, structures and services.

The probability or likelihood of a risk occurring is then classified in accordance with Table 6.4 in the CIRIA Guidance which is also reproduced in Table 2 below.

Table 2 Classification of Probability

Classification / Likelihood	Definition
High	There is a pollution linkage and an event that either appears very likely in the short term and almost inevitable over the long term or there is evidence at the receptor of harm or pollution.
Likely	There is a pollutant linkage and all the elements are present and 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	There is a pollution linkage and circumstances are possible under which an event could occur. However, it is by no means certain that even over a longer period that such an event would take place and is even less likely in the shorter term.
Unlikely	There is a pollution linkage but circumstances are such that it is improbable that an event would occur even in the very long term.

These classifications are then compared to indicate the risk to each pollution linkage. For each likelihood scenario, it will be assumed that a pollution linkage exists between the source and any potential receptors. The classification is not applied if no active pollution linkage is perceived to exist.

Upon classification of both the consequences and probability, the two can be compared in Table 6.5 within the guidance, in order to produce a risk category rating. The risk categories range from 'Very High Risk' to 'Very Low Risk' and should be determined for each potential pollutant linkage as oppose to each receptor or hazard as indicated above.

The matrix table is reproduced in Table 3 below.

Table 3 Consequence Vs Probability Matrix

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

The outcome of the Consequence vs Probability matrix should be compared to the risk definitions and likely actions required in Table 4 (Table 6.6 in CIRIA C552).

The outcome will then determine the overall risk category for the site and should form the basis for any proposed investigation work and remedial actions to be determined. The assessment is based on a qualitative approach at the initial Phase 1 Desk Study, and should be updated following the results of any subsequent ground investigation results.

Table 4 Definitions of Classified Risks and Likely Required Actions

Risk Category	Definition
Very High	There is a high probability that severe harm could arise to a designated receptor from an identified hazard OR, there is evidence that severe harm to a designated receptor is currently happening. This risk (if realised) is likely to result in a substantial liability. *Required Actions* *Urgent investigation (if not undertaken already) and remediation are likely to be required.*
High	Harm is likely to arise to a designated receptor from an identified hazard. Realisation of the risk is likely to present a substantial liability. *Required Actions* *Urgent investigation (if not undertaken already) is required and remedial works may be necessary in the short term and are likely over the longer term.*
Moderate	It is possible that harm could arise to a designated receptor from an identified hazard. However, if it is either relatively unlikely that any such harm would be severe, or if any harm were to occur it is likely that the harm would be relatively mild. *Investigation (if not already undertaken) is normally required to clarify the 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 an identified hazard, but it is likely that this harm, if realised, would at worst normally be mild.
Very Low	There is a low possibility that harm could arise to a receptor. In the event of such harm being realised it is not likely to be severe.